

Mackenzie Valley  
**Review Board**



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# Summary Report

*Measure Implementation and  
Effectiveness Practitioners' Workshop*

**June 2023**

A large, stylized graphic in shades of blue occupies the right side of the page. It features a large, semi-circular shape on the right, with a wavy, horizontal line inside it, suggesting a landscape feature like a valley or a river. To the left of this shape is a vertical line of several smaller circles, and above and below the main shape are more scattered circles, creating a decorative, abstract background.

Mackenzie Valley  
Environmental Impact Review Board  
Phone (867) 766-7050  
Fax: (867) 766-7074

[www.reviewboard.ca](http://www.reviewboard.ca)

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## Acronyms

CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
DFO	Fisheries and Oceans Canada
EA	Environmental Assessment
EIRB	Environmental Impact Review Board (the Inuvialuit Final Agreement)
GNWT	Government of the Northwest Territories
GNWT ECC	GNWT Environment and Climate Change
GNWT INF	GNWT Department of Infrastructure
IAAC	Impact Assessment Agency of Canada
NIRB	Nunavut Impact Review Board (the Nunavut Agreement)
OROGO	Office of the Regulator of Oil and Gas Operations



Figure 1. Participants listening to an online presentation.





## Key Terms

### Measures

mitigative or remedial actions set out in a *Report of EA* that avoid, lessen, or reduce adverse impacts of a project so that those impacts are no longer significant<sup>1</sup>. Measures become legally binding once the responsible minister approves the *Report of EA*. Measures must be included in regulatory instruments and implemented by the developer, a government department, or another designated agency.<sup>2</sup>

### Suggestions

mitigative or remedial actions set out in a *Report of EA*, which the Review Board suggests will mitigate impacts that matter but are not significant. Suggestions are not legally binding but are often included in regulatory instruments at the regulator's discretion.

### Commitments

mitigative or remedial actions a developer promises to do to improve the project. Developer commitments are included in the *Report of EA* and form part of the Review Board's recommendation on whether and how a project should proceed.

### Conditions

requirements set out in a regulatory instrument like a Water Licence, Land Use Permit or Mitigation and Monitoring Plan attached to a regulatory instrument. Approved measures from a *Report of EA* often become conditions in licences, permits, and other regulatory instruments.

<sup>1</sup> Source: [Decision making phase](#)

<sup>2</sup> In past Reports of EA, the term recommendation and measure were incorrectly used interchangeably. For clarity, the recommendation to the Minister is whether or not the development should proceed, while measures are imposed on developments recommended for approval to prevent significant adverse impacts.



## Introduction

The Mackenzie Valley Environmental Impact Review Board (the Review Board) is the main instrument responsible for the environmental impact assessment process in the Mackenzie Valley of the Northwest Territories. In its processes, the Review Board must consider the protection of the environment from significant adverse impacts of development, and the social, cultural, and economic well-being of residents and communities in the Mackenzie Valley.

In 2007 and 2008, a series of workshops were held to start a conversation between EA practitioners about how well EA measures have been implemented and how effective they are at mitigating significant adverse impacts. To keep this conversation going, the Review Board:

- hosted a focused practitioners' workshop in Yellowknife on June 28-29, 2023, and
- is planning a larger public workshop on EA Measure Implementation and Effectiveness later in 2023.

The June practitioners' workshop brought together individuals from organizations and groups with *a legal responsibility for EA decision-making or implementation of EA measures, and direct past or current experience implementing or monitoring the effectiveness of EA measures*. This workshop served as a foundation for the larger public workshop for EA practitioners, Indigenous Governments and Organizations, communities, members of the public and developers later in 2023 that more broadly discusses EA measure implementation and effectiveness, with an eye towards future improvements.

This summary report:

- describes the key messages and conversations from the June practitioner's workshop,
- identifies action items and planning priorities for the upcoming public workshop, and
- contains the workshop agenda (Appendix A), participants list (Appendix B) and slides from all presentations (Appendix C).

## Workshop goals

- Reconnect and strengthen relationships between those responsible for deciding on, implementing, and enforcing measures.
- Make space for open discussion about EA measure implementation and effectiveness.
- Build on past work and plan ahead.

## Workshop objectives

- Provide an overview of what measures are and how they are developed.
- Gain a better understanding of how measures are implemented, focusing on the interrelationship between regulatory terms and conditions and measures.
- Identify issues, challenges and opportunities for innovations and future cooperation and coordination related to measures' development, implementation, and effectiveness.



## Why is this dialogue important?

This dialogue:

- helps parties better participate in EAs and provide better input in the future,
- helps verify future EA predictions,
- helps determine if mitigation is implemented and effective, and
- helps improve the quality of future EA decisions and outcomes.

## Summary of the previous workshops

The previous workshops on EA Measures, hosted by Indian and Northern Affairs Canada (now Crown-Indigenous Relations and Northern Affairs Canada), focused on the effectiveness of measures and conditions.<sup>3,4</sup> Participants discussed:

- the implementation of 'orphan measures' (measures without a regulatory home),
- the need for a more integrated approach between EAs and regulatory authorities,
- how to improve tracking tools and approaches,
- ensuring that inspection and enforcement meet the needs of boards and regulators, and
- ways to develop better and more consistent terminology.



Figure 2. Participants listening to an in-person presentation.

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<sup>3</sup> [2007 Workshop summary report](#)

<sup>4</sup> [2008 Workshop summary report](#)



## Perspectives on how EA measures are implemented and enforced

The workshop began with a series of presentations on measure implementation and enforcement from several different groups and organizations within the resource co-management system, followed by a plenary Q&A. All presentation slides can be found in Appendix C.

Presentations
<p><b>Setting the Stage</b></p> <ul style="list-style-type: none"> <li>• Overview and objectives of the workshop</li> <li>• How are EA measures developed? How has this process evolved over time?</li> </ul>
<p><b>Differing perspectives on how EA measures are implemented and enforced</b></p> <ul style="list-style-type: none"> <li>• Government of the Northwest Territories</li> <li>• Government of Canada</li> <li>• Land and Water Boards of the Mackenzie Valley</li> </ul>
<p><b>Q&amp;A summary:</b></p> <p>Participants talked about the federal duty to Consult (conducted through the Review Board’s process) and duty to accommodate (which can occur outside of the EA if the issue is not addressed through measures). Concerns raised during an EA and addressed through measures can be monitored through follow-up programs. Those conducting monitoring should be engaged during the EA.</p>

## Themed sessions

The workshop continued with themed sessions, each followed by a plenary Q&A discussion:

1. Spotlight on monitoring and follow-up
2. What makes a good measure? and
3. Case studies on the Tłı̄ch̄o and Tuktoyaktuk Highways
4. Enforcement and Compliance
5. Spotlight on key valued components and issues
6. Experiences with joint management and oversight programs

Themed session #1 – Spotlight on monitoring and follow-up
<p><b>Presentations</b></p> <ul style="list-style-type: none"> <li>• Mackenzie Valley Review Board</li> <li>• Nunavut Impact Review Board</li> <li>• Impact Assessment Agency of Canada</li> </ul>



**Q&A summary:**

The plenary discussion following these presentations included:

- the still unknown timeframe for the coming in to force of development certificate provisions in the *Mackenzie Valley Resource Management Act*,
- NIRB's response to unacceptable impacts, and
- IAAC's funding and consideration of social and cultural impacts, including the use of monitoring panels.

**Themed session #2 – What makes a good measure?****Presentation**

- Mackenzie Valley Review Board - Deconstructing measures

**Breakout group share back:**

Participants were divided into five groups and presented with one measure. Each group discussed how a specific measure (and all more generally) could be improved. Key points included:

- Measures need:
  - a clear purpose (are they assessing or mitigating an impact?)
  - to be relevant (will they achieve the intended outcome?)
- The measures' preambles must clearly outline the context, intent, and rationale for the measure (that is, not only sections of a measure). If measures provide a tool to achieve a goal (like using engagement to support the development of indicators), the ultimate intent of the measure should be stated.
- Measures should not be approved if they are not financially realistic for the organization implementing them. Of note, measures do not provide or attract more resources (human or financial) and may add burden, come at the expense of another project, or slow down existing processes.
- What success means for each measure should be clarified, especially since some impacts can take years to be visible, making the effectiveness of related measures hard to evaluate.
- Measures need to clarify responsibilities: who implements the measure (especially in a co-management context) and who funds its implementation.
- The Review Board should limit redundancy by ensuring that similar data is not collected under different measures.
- The coming into force and implementation of development certificates will give opportunities to amend measures without reopening an entire EA.





## Themed session # 3 – Case Studies: the Tłı̨chǫ and Tuktoyaktuk Highways EA measures

### Panel discussion with perspectives from:

- Mackenzie Valley Review Board
- GNWT – Department of Infrastructure
- Tłı̨chǫ Government
- GNWT – Health and Social Services
- Wek'èezhìi Renewable Resources Board
- Environmental Impact Review Board (Inuvialuit Settlement Region) on the Inuvik to Tuktoyaktuk Highway

### Q&A summary:

#### Measures need to:

- outline clear objectives and goals,
- have jurisdictional clarity,
- be written in clear and plain language,
- chart roles, responsibilities, and timelines for funding, implementing, and reporting,
- allow time for participatory processes, and
- foster open communication and collaborative work between all parties participating in their implementation.

#### Measures addressed to Indigenous governments also need to:

- be co-developed with Indigenous governments to ensure that joint knowledge informs initial drafts and that measures are relevant and practical,
- support Elders' participation,
- consider available resources in terms of funding, labour, and capacity-building, and be flexible enough to support operational realities, and
- be tested by Indigenous governments.



Figure 3. Hybrid discussion and presentation.



## Themed session #4 – Enforcement and Compliance

### Presentations

- GNWT – Environment and Climate Change
- GNWT – Office of the Regulator of Oil and Gas Operations

### Q&A summary:

Participants discussed:

- terminology differences, including the different ways that “impact on the environment” is defined across legislations and how it affects the work of different organizations,
- links between enforcement and justice,
- the spectrum of enforcement (from education to litigation) and the desire to work cooperatively with developers whenever possible to ensure compliance,
- the difficulties with enforcing measures for cumulative effects,
- inspectors’ views on the relationship between impacts, harm, and non-compliance,
- roles and responsibilities in the enforcement of the Wildlife Act, and
- authority to enforce compliance or require clean up activities.

## Themed sessions #5 and #6 – Spotlight on key valued components and issues

### Key valued components and issues included:

- wildlife
- water and aquatics
- air quality and greenhouse gas emissions
- impacts on people
- cumulative effects

### Q&A summary:

Participants suggested improving measures by:

- creating objective-oriented measures that give flexibility to those implementing them,
- clearly stating responsibilities, timeframe, and implementation methods,
- reviewing measures with those implementing them before placing them in the report of EA,
- considering social impacts on equal footing with biophysical impacts,
- giving a regulatory home or hooks to measures so they can be implemented and enforced (as enforcement is tied to legislation), and
- ensuring those implementing measures have the authority and capacity to do so.



Figure 5-5. Review Board staff introduce key valued components and issues.

## Themed session # 7 - Experiences with joint management and oversight programs

### Panel discussion with NorZinc Ltd. And Ni Hadi Xa

**Q&A summary:** Measures should have a clear purpose yet be flexible enough so that they can be adapted to the needs of those implementing them. The measure’s wording should be open to allow diverse groups to discuss what they want to see in the future and how they can realize the measures’ intent in alignment with their values. Measures need to be understandable in the language of the land and translated into Indigenous languages whenever necessary.



Figure 4-7. Presentation in session and wrap-up.





## Summary

Several key themes emerged from the workshop, including what measures ought to be, how measures work in the co-managed system, and metrics of successful measures.

- I. Measures should:
  - have clearly stated purposes and relevance to the impact they are intended to address,
  - include informative preambles,
  - be adaptable and objective-oriented so that parties can implement them in meaningful and appropriate ways,
  - clearly define roles and responsibilities for implementation and enforcement,
  - contain a clear timeframe for implementation that considers and allows people to work together collaboratively,
  - be co-developed with Indigenous governments before being finalized in a *Report of EA*,
  - be available for public review for all parties responsible for implementation before being finalized in a *Report of EA*,
  - consider the financial and human resources required for implementation,
  - be translated into Indigenous languages where needed.
  
- II. Implementation and enforcement within an integrated co-management system can be complicated:
  - Measures need clear regulatory homes and legislative enforcement hooks to be enforced.
  - Coordination between co-management partners is key.
  - Measures should not take away from or impose additional responsibilities on existing regulatory authorities.
  
- III. Development certificates will be a key tool for improving EA measure implementation and effectiveness since measures could be amended if they are not working.
  
- IV. The Review Board should define what success means for each measure. Defining success will allow those implementing measures to see if the outcome has been achieved.

## Actions items

Participants finished the workshop by describing what actions they feel are most important to work towards improving EA measure implementation and effectiveness. These actions encourage us to:

- **Continue the dialogue** on measures implementation and effectiveness.
- **Review measures** with all parties responsible for their implementation in an informal yet procedurally fair manner before finalizing them to ensure they will be as effective and easy to implement as possible.
- **Seek regular updates** from parties responsible for implementing measures to gather feedback on implementation successes and challenges.



- **Improve the clarity and readability of measures** to avoid misinterpretation. Measures should be viewed through both Indigenous and non-Indigenous lenses and understood by all parties.
- **Continue reminding parties that they can propose measures during an EA.**

## Next Steps

The Review Board would like to thank everyone who helped plan and participate in this workshop. Review Board staff look forward to continuing the discussions from this workshop at the larger public workshop that will be held later in 2023. We will start engagement and outreach to plan and prepare for this workshop soon. We look forward to continuing the conversation and working with co-management partners and the public to improve EA measure implementation and effectiveness.



Figure 8. Hybrid discussion and presentation.

## Appendix A: Workshop agenda



# Workshop Agenda

## 2023 EA Measure Implementation and Effectiveness Practitioners' Workshop

8:30am – 4:00pm MST on June 28 & 29, 2023

 Caribou room at Chateau Nova Yellowknife  
Yellowknife, NT

The Mackenzie Valley Environmental Impact Review Board (Review Board) is hosting a workshop about environmental assessment (EA) measure implementation and effectiveness. This workshop is a continuation of workshops from 2007 and 2008 which asked how well EA Measures have been implemented and how effective they are at mitigating significant adverse impacts or public concerns from development in the Mackenzie Valley. To keep this conversation going, the Review Board is hosting:

- A focused **practitioners' workshop on June 28-29, 2023**; and,
- A larger, public workshop on EA Measure Implementation and Effectiveness later in 2023.

The June practitioners' workshop will bring together individuals from organizations and groups who have *a legal responsibility for EA decision making and/or implementation of EA measures, and direct past or current experience implementing or monitoring the effectiveness of EA measures.*

We hope that the June practitioners' workshop will prepare a foundation for the larger, public workshop for EA practitioners, Indigenous Governments and Organizations, communities, members of the public and developers later in the year that more broadly discusses EA measure implementation and effectiveness, with an eye towards future improvements. Details about the larger public workshop will come later.

Please see the final agenda for the June workshop below for more information about the discussion topics and sessions.

The practitioner's workshop includes an online participation option via ZOOM for those who are unable to join in person.

### June Workshop Objectives

- ✓ Reconnect and strengthen relationships.
- ✓ Make space for open discussion about EA measure implementation and effectiveness.
- ✓ Build on past work and plan for the future.

**ZOOM Meeting ID**

868 05323 1826

**8:30 – 4:00pm MST**

no passcode

If your internet is unstable, use phone call for audio:

Dial 855 703 8985 (toll free)



Workshop Agenda- Day 1 (June 28, 2023)	
8:30 AM	Welcome: coffee and tea
9:00 – 9:30	<b>Setting the Stage (Mackenzie Valley Environmental Impact Review Board)</b> <ul style="list-style-type: none"> <li>• Overview and objectives of the workshop</li> <li>• How are EA measures developed? How has this process evolved over time?</li> </ul>
9:30 – 10:30	<b>Differing perspectives on how EA measures are implemented and enforced</b> <ul style="list-style-type: none"> <li>• Government of the Northwest Territories</li> <li>• Government of Canada</li> <li>• Land and Water Boards of the Mackenzie Valley</li> </ul> <b>Plenary Q&amp;As</b>
10:30 – 10:45	<b>Break</b>
10:45 – 12:00	<b>Themed session #1 - Spotlight on monitoring and Follow-up</b> <ul style="list-style-type: none"> <li>• Mackenzie Valley Review Board</li> <li>• Nunavut Impact Review Board</li> <li>• Impact Assessment Agency of Canada</li> </ul> <b>Plenary Q&amp;As</b>
12:00 – 1:00	<b>LUNCH (provided)</b>
1:00 – 2:30 PM	<b>Themed session # 2 - What makes a good measure?</b> <ul style="list-style-type: none"> <li>• Deconstructing measure examples</li> </ul> <b>Breakouts &amp; Share Back</b>
2:30 – 2:45	<b>Break</b>
2:45 – 3:30	<b>Themed session # 3 Case Study of the Tłı̄ch̄o All-Season Road EA measures and panel discussion with perspectives from:</b> <ul style="list-style-type: none"> <li>• Government of Northwest Territories- Department of Infrastructure</li> <li>• Tłı̄ch̄o Government</li> <li>• Government of Northwest Territories – Health and Social Services</li> <li>• Wek'èezhii Renewable Resources Board</li> <li>• Environmental Impact Review Board – Inuvialuit Settlement Region</li> </ul> <b>Plenary Q&amp;As</b>
3:30 – 4:00	<b>Wrap up and summary</b>





Day 2 (June 29, 2023)	
8:30 AM	Welcome: coffee and tea
9:00 – 9:15	Day 1 recap and highlight key discussions
9:15 – 10:30	<b>Themed session #4 – Enforcement and Compliance</b> <ul style="list-style-type: none"> <li>• Environment and Climate Change</li> <li>• Office of the Regulator of Oil and Gas Operations</li> </ul> <b>Plenary Q&amp;As</b>
10:30 – 10:45	<b>Break</b>
10:45 – 12:00	<b>Themed session # 5 – Spotlight on key VCs and issues [Part 1/2]:</b> <ul style="list-style-type: none"> <li>• wildlife</li> <li>• water and aquatics</li> <li>• air quality and emissions</li> </ul> <b>Plenary share back</b>
12:00 – 1:00	<b>LUNCH (provided)</b>
1:00 – 2:30 PM	<b>Themed session #6 – Spotlight on key VCs and Issues [Part 2/2]:</b> <ul style="list-style-type: none"> <li>• impacts on people (social, cultural, economic well-being and health)</li> <li>• cumulative effects</li> </ul> <b>Plenary share back</b>
2:30 – 2:45	<b>Break</b>
2:45 – 3:30	<b>Themed session # 7 - Experiences with joint management and oversight programs</b> <ul style="list-style-type: none"> <li>• discussion with NorZinc Ltd. and Ni Hadi Xa</li> </ul> <b>Panel discussion</b>
3:30 – 4:00	<b>Wrap-up and next steps</b>

## Appendix B: Workshop participants' list





## List of Participants

In-person participants	Affiliated Organization
Alan Ehrlich	Review Board
Alasdair Beattie	GC Fisheries and Oceans Canada
Alice Lotaladio	Environmental Impact Review Board
Alison Heslep	GNWT Environment and Climate Change
Anneli Jokela	Wek'èezhìi Land and Water Board
Benjamin Bey	GNWT Department of Infrastructure
Boyan Tracz	GC Canadian Northern Economic Development Agency - Northern Projects Management Office
Brandon Bradbury	GNWT Office of the Regulator of Oil and Gas Operations
Chris Rose	GC Crown-Indigenous Relations and Northern Affairs Canada
Clementine Bouche	Review Board
David Krutko	Review Board
Dianna Beck	GNWT Industry, Tourism and Investment
Donna Schear	Review Board
Ethel-Jean Gruben	Environmental Impact Review Board
Gerald Inglangasuk	Environmental Impact Review Board
Ginger Gibson	Firelight Group representing Tłıchǫ Government
Jamie Steele	GNWT Environment and Climate Change
Jeremy Freeman	Review Board
Jody Pellissey	Wek'èezhìi Renewable Resources Board
Kate Mansfield	Review Board
Lara Mountain	GNWT Environment and Climate Change





In-person participants	Affiliated Organization
Laura Meinert	Wek'èezhìi Renewable Resources Board
Laurie Mcgregor	GNWT Environment and Climate Change
Leila Cai	Review Board
Lorraine Seale	GNWT Environment and Climate Change
Mark Bell	GNWT Industry, Tourism and Investment
Mark Cliffe-Phillips	Review Board
Melissa Pinto	GC Environment and Climate Change Canada
Mike Martin	GNWT Office of the Regulator of Oil and Gas Operations
Morgan Moffitt	GNWT Education, Culture and Employment
Pauline Dejong	GNWT Office of the Regulator of Oil and Gas Operations
Pierre-Olivier Émond	GC Natural Resources Canada
Rosy Bjornson	Ni Hadi Xa
Ryan Fequet	Wek'èezhìi Land and Water Board
Shannon Allerston	Mackenzie Valley Land and Water Board
Scott Stewart	GNWT Environment and Climate Change
Simon Toogood	Review Board
Tatiana Leclerc-Beaulieu	GC Fisheries and Oceans Canada
Terry Stein	GC Fisheries and Oceans Canada
Todd Slack	Environmental Impact Screening Committee
Tyanna Steinwand	Tłıchọ Government
Tyree Mullaney	Mackenzie Valley Land and Water Board



Online participants	Affiliated Organization
Alasdair Beattie	GC Fisheries and Oceans Canada
Alice Lotaladio	Environmental Impact Review Board
Angela Plautz	Mackenzie Valley Land and Water Board
Catherine Fairbairn	Review Board
Chris Hewitt	GNWT Municipal and Community Affairs
Claudine Lee	NorZinc Ltd.
Eli Arkin	GC Natural Resources Canada
Fletcher Dares	Environmental Impact Screening Committee
Herb Mathisen	GNWT Industry, Tourism and Investment
Jamie Steele	GNWT Office of the Regulator of Oil and Gas Operations
Jim Edmonson	Review Board
Kelli Gillard	Nunavut Impact Review Board
Kim Hayward	Firelight Group representing Tłıchǫ Government
Lynette Esak	GC Health Canada
Malorey Nirlungayak	Review Board
Mark Bell	GNWT Industry, Tourism and Investment
Melissa Pink	GNWT Health and Social Services
Paul Schafer	GC Impact Assessment Agency of Canada
Sarah Elsasser	Wek'èezhìi Land and Water Board
Shannon O'Hara	Environmental Impact Screening Committee
Troy Pretzlaw	GC Parks Canada
Victoria Shore	GC Environment and Climate Change Canada

## Appendix C: Workshop presentations



## Workshop Goals



- ✓ reconnect and strengthen relationships between those with responsibility to decide on, implement and enforce measures
- ✓ make space for open discussion about EA measure implementation and effectiveness
- ✓ build on past work and plan ahead
  - previous workshops in 2007 and 2008
  - larger, public workshop on measure implementation and effectiveness will be held later in 2023



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## Objectives



- provide an overview of what a measure is and how they are developed
- improved understanding of how measures are implemented with a focus on the inter relationship between regulatory terms and conditions and measures
- identify issues, challenges and opportunities for new innovations and future cooperation and coordination related to the development, implementation, and effectiveness of measures

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## Why is this dialogue important?



- help parties better participate in EA's and provide better input in the future
- help verify future EA predictions
- determine if mitigation is implemented and effective
- improve quality of future EA decisions and outcomes



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## Workshop 2007



- Outcome of NWT Board Forum
- Hosted by INAC
- Focus on measures and conditions
- Orphan measures
- Need for more integrated approach between EA and regulatory boards and agencies
- Improved tracking tools and approaches (ex. Integrated Environmental Management System)
- Improved inspection (and enforcement) that meets the needs of boards and regulators
- Develop better and more consistent terminology



4

# How EA Measures are Developed

Alan Ehrlich  
Manager of EIA  
June 28, 2023


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## Outline



- What is a measure?
- Where do they come from?
- How can you influence EA measures?
- Opportunities in the EA process

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# What's a measure?



- **significant** impacts need **mitigation**
- measures prescribe **how** to mitigate
- recommendations become **binding** when accepted
- usually about:
  - **improving** project design and management
  - mitigating cumulative impacts
  - may build on commitments
- usually to:
  - developer
  - regulators
  - government

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# Measures don't just appear magically



measures

↑

Board's significance determinations

↑

evidence and arguments

↑

parties to the EA




8



## To *influence* measures...



- **give evidence** about what impacts are significant
  - What likely **impacts matter enough** to avoid or reduce?
  - impact characteristics, acceptability
- **propose measures** you want the Board to recommend
  - say what measures *you* would require to mitigate the impact



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## Opportunities *throughout* the EA



- **technical sessions**
  - Review information requests responses
  - Prepare possible measures with other departments or consultants
  - Discuss at technical sessions- barriers? alternatives? opportunities?
- **written interventions**
  - Clearly state what important issues remain + why they matter
  - Describe in writing what measures you think are needed



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## Opportunities *throughout* the EA



- hearing presentations

- first, review the developer’s responses to interventions
- prepare possible measures (with other expert departments or consultants if needed)
- prepare lines of questioning and presentations with proposed measures



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## After the REA, measures are:



- usually approved by
  - By ministers
  - Tłıchǫ Government (if applicable)
- incorporated into regulatory authorization
- implemented
- monitored




*measures baked in!*





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**In summary:**

Mackenzie Valley  
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- Measures reduce or avoid significant impacts
  - usually improve project design or management
- **measures** ← **significance determinations** ← **evidence** ← **YOU**
- Use technical sessions, interventions and hearings to propose the measures you want!

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Measures implementation and effectiveness  
practitioners' workshop  
GNWT Environment and Climate Change

June 28, 2023

Government of  
Northwest Territories

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## Context

- MVEIRB requested overview and discussion of GNWT approach to:
  - Measure approval
  - Measure implementation
  - Measure monitoring/tracking
  - Commitments and suggestions



## EA decision process

- After the Review Board issues its Report of Environmental Assessment and recommendation for a development, GNWT and federal staff work together per MVRMA s. 130 to recommend a consensus decision on the recommendation to the responsible Ministers
- Liaise with other EA decision-makers and their staff (e.g. Tłı̄ch̄ Government, Canada Energy Regulator) if applicable
- The decision process includes a review of the Report of EA and the recommended measures, and Aboriginal consultation (to fulfill the duty to consult and, where appropriate, accommodate)



## Measure analysis

- Before adopting a Review Board recommendation, RMs must appropriately exercise their discretion and must be assured that all the measures will be implemented
- For each recommended measure, GNWT and federal staff undertake due diligence to consider factors such as:
  - Clarity of measure
  - What likely significant adverse impact the measure would prevent
  - Who is the measure directed at? Who would implement it? What involvement would government have?
  - Implementation mechanism and timelines – regulatory instrument, developer action, government action
  - Enforcement considerations
  - Resource and capacity requirements
  - Technical feasibility
  - Relevant developer commitments
  - Jurisdictional and other legal considerations
  - Is there any relevant new information or matter of public concern? (MVRMA 130(3))
- Distinct from but linked to Aboriginal consultation process
- Occasionally, the measure analysis may lead to a consult to modify process or a return for further consideration



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## Measure implementation

- MVRMA 130(5): obligation on RMs to carry out an EA decision to the extent of their authorities; obligation on government and others to act in conformity with the EA decision to the extent of their authorities
- Many measures directed at GNWT can be implemented via existing programs and workplans
- If GNWT is issuing a permit, licence, or authorization, it incorporates the EA decision, including measures, into that instrument, as required
- If GNWT is implementing a measure without a regulatory home, it is guided by the EA decision, along with considerations specific to the measure
- If GNWT is participating in a post-EA LWB or other regulatory process, it considers EA measures when developing its submissions
- GNWT does not have direct enforcement authorities for measures



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## Measure monitoring/tracking

- Since 2016 (Jay EA), MVEIRB has required developers, regulators, and government to report annually on implementation and effectiveness of measures directed to them
  - Main vehicle for communicating measure implementation
- Current GNWT measure tracking is based on these reporting requirements
- Reports available on MVEIRB public registry
- Still early days for evaluating effectiveness of measures
- Measures from past EAs can inform future EAs



## Commitments and suggestions

- GNWT considers developer commitments, as set out in the Report of EA, when reviewing recommended measures, and in post-EA processes
- GNWT reviews suggestions during EA decision phase
- Given that suggestions are not legally binding, the EA decision does not imply RM acceptance or rejection of suggestions
- When there is something to report, GNWT shares updates on consideration of suggestions with MVEIRB





## Next steps


- Valuable to have regular discussions about measure development, implementation, and evaluation





Government of  
Northwest Territories

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 Crown-Indigenous Relations and Northern Affairs Canada    Relations Couronne-Autochtones et Affaires du Nord Canada

## Overview of CIRNAC and federal roles in EA




Canada

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 Crown-Indigenous Relations and Northern Affairs Canada / Relations Couronne-Autochtones et Affaires du Nord Canada

## EA/EIR Decisions

- Post-devolution, the NA Minister retains authority for decisions only for projects at least partly on federal lands (e.g., contaminated sites, parks, etc.)
  - For projects where there are other federal responsible ministers (e.g., ECCC, DFO, NRCan), the NA Minister continues to consolidate the decisions of these ministers
  - The last federal Minister decision in the Mackenzie Valley was for the Prairie Creek All-Season Road
- The GNWT (Minister of Environment and Climate Change) is the delegated Minister for EA decisions on territorial lands
  - There will almost always be federal responsible ministers involved in these decisions




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## Consult-to-Modify


For projects on federal lands...

- The NA Minister can request modifications to the Board's recommendation (measures)
  - Modifications are intended to improve measure implementation, and do not change the intent of the measures
  - The “consult-to-modify” process amounts to an extension of the EA process (parties are invited to comment), and is generally a collaborative exercise
  - The last consult-to-modify process initiated by the NA Minister was for NICO
- Federal responsible ministers can also support a consult-to-modify process brought by another decision-maker (e.g., GNWT)
  - Federal responsible ministers supported the consult-to-modify process for the Tłı̄ch̄o road




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## Other federal roles

- CIRNAC Region (NWT Regional Office) has an inspection and enforcement role for projects on federal lands
- DFO, ECCC, NRCan, Health Canada, Transport Canada, and others provide expert advice during EAs, including interventions and recommended measures



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# Land and Water Boards of the Mackenzie Valley

Mackenzie Valley Review Board 






## 2023 EA Measure Implementation and Effectiveness Working Group Meeting

June 28 and 29, 2023



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# Integrated and Coordinated Land and Water Management

Under direction of the *Mackenzie Valley Resource Management Act* (MVRMA), the Land and Water Boards regulate the use of land and water, and deposit of waste through the issuance of land use permit and water licences

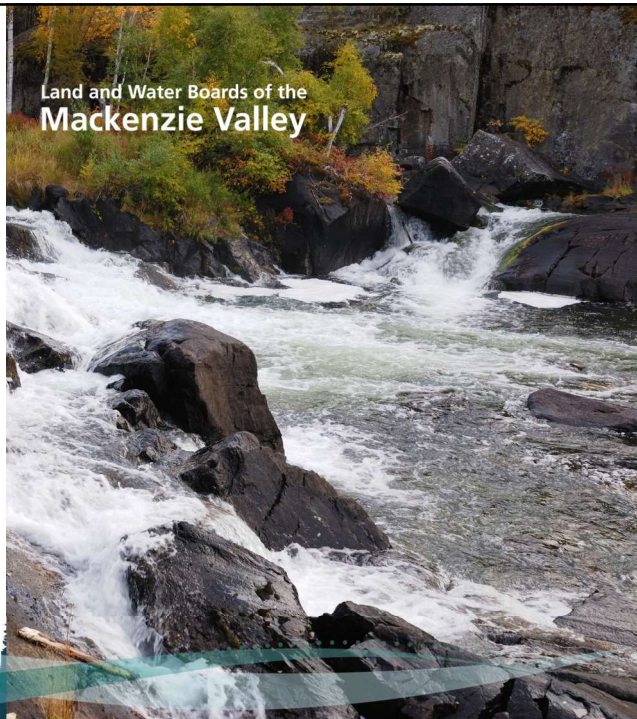


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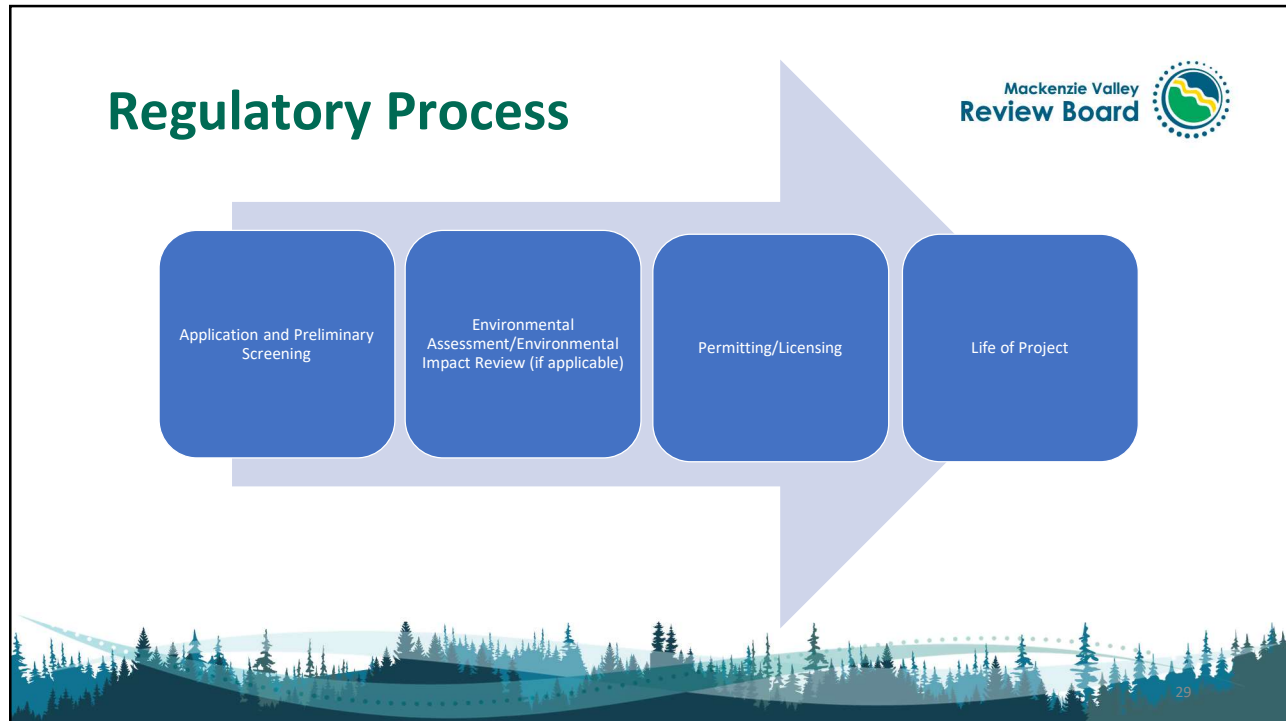
## The LWB's Toolbox to Mitigate Impacts

### Water Licences and Land Use Permits

- Term
- Conditions
- Reporting Requirements
- Monitoring Programs (e.g. Surveillance Network Program, Aquatic Effects Monitoring Program)
- Management Plans (e.g. Waste Management, Water Management, Spill Contingency, Engagement, Closure and Reclamation)
- Federal/Territorial Inspectors enforce conditions



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## How are EA measures implemented in regulatory instruments or other authorizations (management plans, etc)?



*Any measures from the EA that fall within the LWBs' jurisdiction are tracked and addressed in the licence/permit conditions.*


The bottom of the slide features a decorative landscape with a forest, a lake, and mountains under a starry sky.

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**Mackenzie Valley  
Review Board** 

**How is measure implementation communicated  
(to the Review Board, to the public, to parties to  
their process)?**

*An explanation of how each measure has been  
addressed are included in the RFD. RFD are  
circulated to all parties and publicly available on  
the LWB online registry.*




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**Mackenzie Valley  
Review Board** 

**How does the LWB consider EA measure  
implementation through the life of a project?**

*Once the licence/permit is issued, the LWBs regulate  
the project according to the licence/permit. Ongoing  
life of project mgmt. (e.g. mgmt. plan and report  
reviews, renewals, etc.) give all parties an opportunity  
to assess the project.*



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**What has worked well to assist the LWB with EA measure implementation, and what are some of your challenges?**



***Worked well: LWB staff being intricately involved in MVEIRB EA processes, well articulated measures that are clearly within jurisdiction***

***Challenges: overlapping or unclear jurisdiction, measure too specific, measure not specific enough***



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**How does the LWB consider commitments & suggestions?**



***Commitments and suggestions are reviewed and may be incorporated into requirements, however, are not systematically tracked or included in the same way that measures are.***



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# Monitoring and Follow-up in the Mackenzie Valley

An overview of the current framework with an eye to future changes

Kate Mansfield  
EA Policy and Planning Manager  
Mackenzie Valley Environmental Impact Review Board

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## Measures and suggestions

EA decisions usually include:

- measures and
- suggestions
- commitments (?)



Measures are enforceable through permits, licences and authorizations



Suggestions are not necessarily enforceable

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## Current legislative framework

- **Follow-up program** is defined in subsection 111(1) of the MVRMA as a program for evaluating:
  - the soundness of an environmental assessment or environmental impact review of a proposal for development and
  - the effectiveness of the mitigative or remedial measures imposed as conditions of approval of the proposal.
- Review Board has no existing authority beyond the ability to recommend a follow-up program in or as part of a measure

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## Past examples



The Review Board has used different approaches for measures requiring monitoring and reporting:

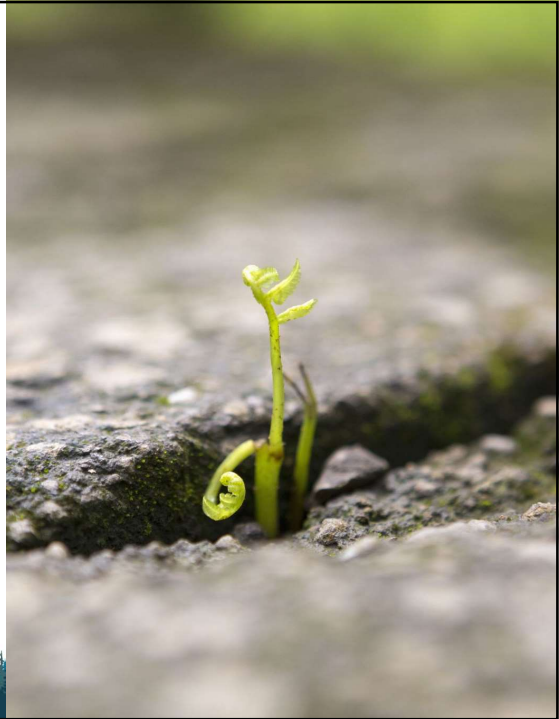
- general reporting on commitments (Cameron Hills)
- monitoring and reporting on specific impacts or to a specific audience (Giant)
- annual reporting on EA measure implementation and effectiveness from developers, governments and regulators (Ekati Jay)

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## Challenges with existing framework

- some measures do not have regulatory homes
  - social, cultural and economic measures
  - measures for cumulative impacts
- Review Board can recommend measures for follow-up monitoring and reporting but has no mandate to enforce compliance
- no mechanism for reviewing and/or amending measures based on implementation and effectiveness



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## Development certificates

- [2021 Reference Bulletin](#) describes MVRMA provisions related to development certificates
- provisions require the Review Board to issue development certificates for approved projects, creating regulatory “home” for all EA measures directed to developers
- development certificate conditions can be amended if necessary and enforced by designated inspectors



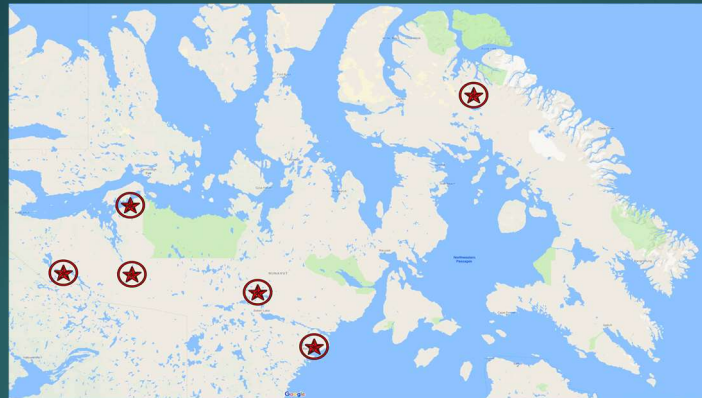
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## Preparing for development certificates

- development certificates will be integrated into existing regulatory framework in the resource co-management system
- need to modernize and update online public registry (ongoing)
- coordination with regulatory partners to ensure harmonization between development certificate and regulatory authorization conditions
- outreach and education to ensure that all co-management partners and participants in EA are prepared



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MONITORING AT THE NIRB

*EA Measures Workshop, Yellowknife 2023*



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Nunavut Impact Review Board

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## Land and Resources Management



**Nunavut Planning and Project Assessment Act**  
Loi sur l'aménagement du territoire et l'évaluation des projets au Nunavut





**Wildlife Management**



**Land Use Planning**



**Impact Assessment**



**Dispute Resolution**



**Water Licencing**




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Nunavut Impact Review Board

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## Who is the NIRB and What Does NIRB Do?




Identify scope and area affected




Review changes to the biophysical and socio-economic impacts




Decide if project should proceed or not



Develop conditions to mitigate and monitor project



Monitor approved projects



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Nunavut Impact Review Board

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## How Scientific and Inuit Qaujimajatuqangit perspectives inform each other



### Inform ongoing use and development of proposals

Both scientific and traditional knowledge used to design projects and frame impacts

### Benefits clear to communities

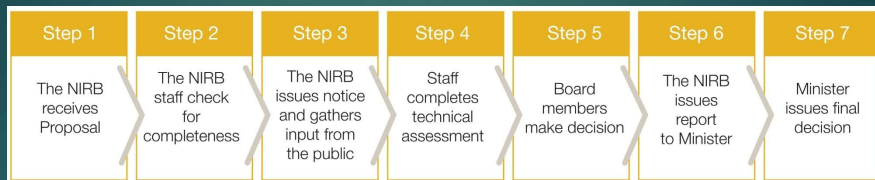
### Effectiveness of Monitoring (HTO and Community)

- ▶ Assist with tracking compliance issues
- ▶ Perception of changes and how to track the source of changes



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## Screening



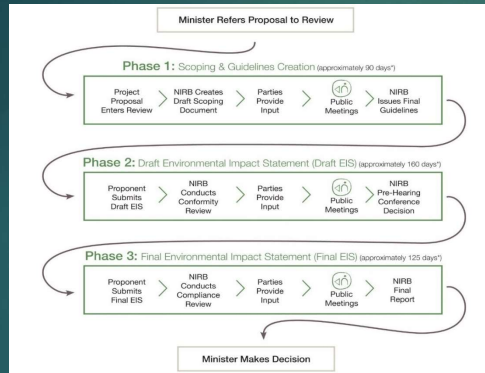
### ▶ The Screening Process asks:

- ▶ Does the project proposal have the potential to result in significance or socio-economic impacts?
- ▶ Is a review required?
- ▶ Will the project proposal result in unacceptable impacts?



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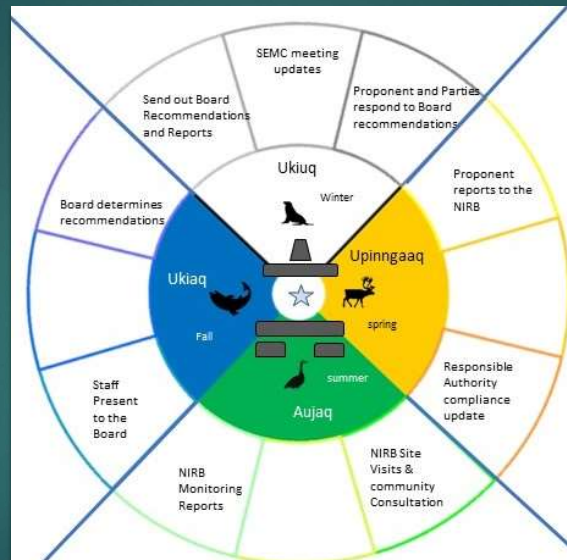
# Review



- The Review Process asks:
- Are the Conclusions in the Impact Statement supported by the Analysis?
  - Were the appropriate methods used to develop the conclusions?
  - What is the quality and presentation of the information in the Impact Statement?
  - What comments regarding additional information would be useful in assessing impacts?
  - Are proposed monitoring measures appropriate? And if not, what would more appropriate monitoring measures be?



# Monitoring



## Evolution of Project Certificates

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- ▶ Improved wording of Terms and Conditions and important information built into tables
- ▶ More targeted Project Certificates
- ▶ Coordination between Regulatory Authorities and the NIRB
- ▶ Improved Report Templates
  - ▶ Site Visit
  - ▶ NIRB Monitoring
- ▶ Understanding that monitoring is the best feedback mechanism and the importance of thresholds identified in the EA review process



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## Challenges to Monitoring

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- ▶ What is a NIRB Project Certificate?
  - ▶ A Project Certificate is NOT a licence to operate, the information from an EA and ongoing monitoring feeds into the regulatory process.
  - ▶ The NIRB can make recommendations for Socio-ec but is NOT allowed to make requirements
  - ▶ The NIRB is a PART of the overall monitoring program that happens for approved Projects in Nunavut, and everyone shares the responsibility
- ▶ Amendments to Projects
  - ▶ Phased development



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# What is Consistent in Monitoring?

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- ▶ It happens annually
- ▶ Knowledge and understanding of the Projects is always changing
  - ▶ Everyone makes the best decision at that time with the knowledge available.



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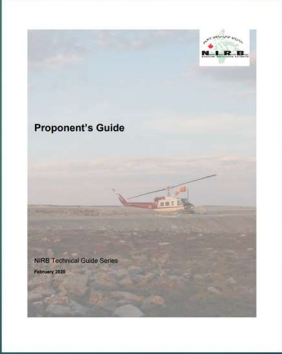
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# Public Guides

- ▶ Plain Language Public Guides
- ▶ Technical Guides for Proponents, Intervenor and Authorizing Agencies, Terminology Guide, Process Maps



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Nunavut Impact Review Board

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Nunavut Impact Review Board  
(NIRB)  
P.O. Box 1360  
Cambridge Bay, NU  
Toll Free: 1-866-233-3033  
Fax: 1-867-983-2594  
[www.nirb.ca](http://www.nirb.ca)



<p>Kelli Gillard Manager, Project Monitoring Direct: 867-983-4619 <a href="mailto:kgillard@nirb.ca">kgillard@nirb.ca</a></p>	<p>Tara Arko Director, Technical Services Direct: 867-983-4611 <a href="mailto:tarko@nirb.ca">tarko@nirb.ca</a></p>	<p>Mark Ings A/Executive Director Direct: 867-983-4600 <a href="mailto:mings@nirb.ca">mings@nirb.ca</a></p>
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Nunavut Impact Review Board


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# Framework for Reporting on Follow-up Programs

## EA Measures Implementation and Effectiveness


### Working Group Meeting, Mackenzie Valley Review Board

JUNE 2023



Impact Assessment  
Agency of Canada

Agence d'évaluation  
d'impact du Canada



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## Introduction

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- Follow-up Team put in place with the coming into force of the IAA.
- Identified challenges through a review of CEAA 2012 projects currently submitting results of follow-up programs.
- Quality and quantity of information provided by proponents varies greatly.
- Need to see improvements in proponent reporting to go beyond the current compliance reporting style.

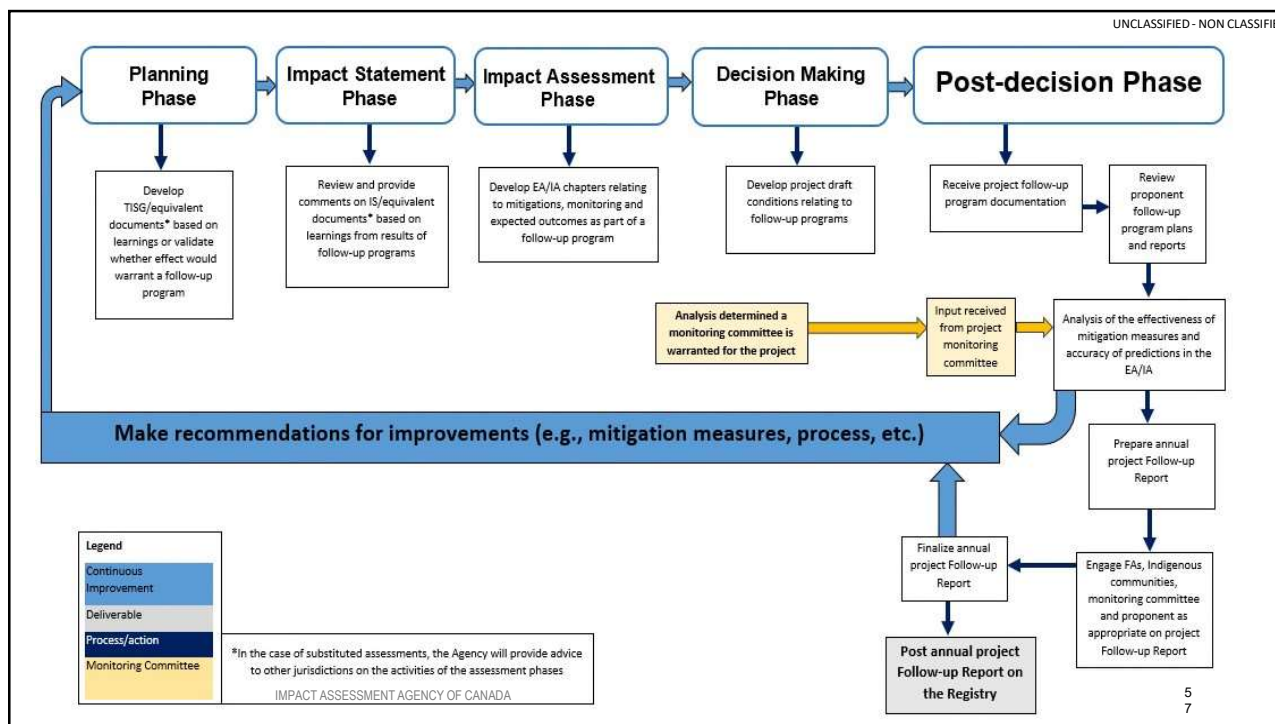
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## Follow-up Programs

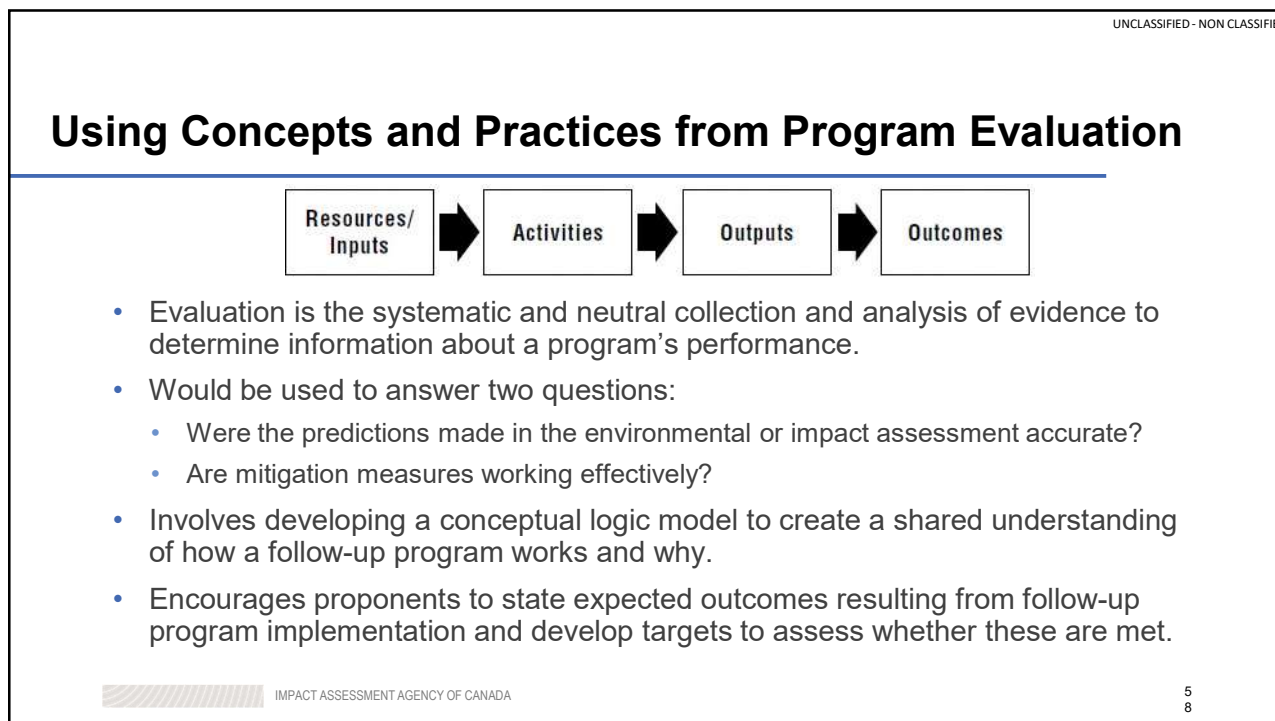
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- Intends to answer two main questions in the post-decision phase:
  - Were the predictions made in the environmental/impact assessment accurate?
  - Are mitigation measures working effectively?
- Developed the Follow-up Framework
  - Sets out process for tracking and reporting on project-specific follow-up programs.
  - Identifies sources of improvements to the EA/IA process by increasing consideration of the post-decision phase through the conduct of the EA/IA.
  - Will seek to make recommendations once the Agency can effectively learn from the results of a project's follow-up program.

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## Expected Outcomes for Follow-up Programs

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- Would be developed by proponents and used by the Agency to evaluate the effectiveness of mitigation measures.
- Defined as benefits or changes, expected or unexpected, during or after engaging in program activities (e.g. mitigation measures).
- Provide additional learning in the post-decision phase.
- Potential to reframe follow-up activities to be less negative and would allow an opportunity for proponents to report on positive impacts, or successful implementation of mitigation measures.

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## Monitoring Committees

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- Where appropriate, engage with Federal Authorities, Indigenous communities and monitoring committee in the post-decision phase.
- IAA provides the authority to establish monitoring committees where Federal Authorities may be asked to participate.
  - Related to the implementation of follow-up programs and adaptive management plans.
  - The Agency will engage with relevant departments through the development of the Terms of Reference for the Committee.

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## Engagement

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- Seeking feedback and comments on:
  - Agency's analysis presented in Follow-up Reports and any recommendations developed;
  - Whether their input was implemented in a meaningful way through the development of a proponent's follow-up programs;
- Intending to share Agency's draft Project Follow-up Reports with proponents ahead of posting to the Registry.

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## Next Steps

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- Working on development of two key guidance documents:
  - Proponent Guidance on Developing, Evaluating and Reporting on Follow-up
  - Proponent Guidance on Developing Adaptive Management Plans under IAA
- Both documents undergoing review by federal authorities
- Anticipate obtaining senior management approvals and posting on IAAC's Registry in the Fall.

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# What makes a good measure?




Alan Ehrlich  
Manager of EIA  
June 28, 2023





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# Outline



- why preambles matter
- ingredients of a measure
- characteristics of an effective measure
- SMART principles



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## Preambles matter!



- preamble - the paragraph or section right before each measure
- explains:
  - **intent** and rationale – What impact is being mitigated?
  - **how** the measure will achieve the objective (unless obvious)
  - **linkages** to other measures (if any)
- preamble may tie together overall results of
  - project design
  - + commitments
  - + measure(s)



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## Ingredients of a measure



- **WHY** (the specific objective, beyond general intent)
- **WHAT** (the required action)
  - prescriptive but often leaving some discretion for regulators
  - clear enough to track and report on
- **WHO** (the responsible party(ies))
  - May include supporting or advisory parties too
- **WHEN** (the timing)
  - *e.g.* project phase
- **WREPORTING** (and tracking)



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## Characteristics of *effective* measures

- clear purpose and rationale
  - mitigates a likely significant adverse impact
  - hard to misinterpret
- practical and enforceable
  - links intent/rationale to specific requirement that is meaningful in practice
    - workable
    - often adaptive
    - reasonable to implement (like best available technology)
  - enforceable (so it's clear whether measure is complied with; trackable)
    - measure wording is particularly important for this characteristic



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## Characteristics of *effective* measures



- matches scale of impact
  - proportionate to significance
- authority and jurisdiction
  - Review Board jurisdiction is broad, so measures are too
  - explicit link to regulator(s), where possible
- does not conflict
  - with other legal requirements (like MMER, Fisheries Act, Waters Act, land claims)
    - a) measures cannot authorize anything that is prohibited by law
    - b) measures should avoid frivolous duplication



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<b>S</b> pecific	<b>M</b> easurable	<b>A</b> chievable	<b>R</b> elevant	<b>T</b> ime-bound
Says what actions will be taken	The goal achievement should be measurable.	The goal should be a delicate balance between being ambitious and realistic yet achievable.	The goal should be aligned with the assessment's objectives.	The goal outcomes should be within the targeted time.

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## Propose the EA measures you want

- describe the impact you want to mitigate, and how the measure will do it
- say why, what, who and when
- keep it clear, practical, enforceable and proportionate
- propose S.M.A.R.T. measures

**S**pecific    **M**easurable    **A**chievable    **R**elevant    **T**ime-bound

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# Breakout Groups



Online Group

- Measure Example 1

Group One

- Measure Example 2

Group Two


- Measure Example 3

Group Three

- Measure Example 7


Group Four

- Measure Example 4

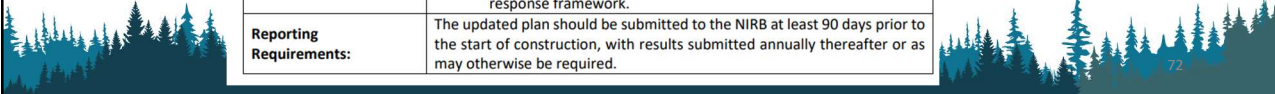


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## Clear Measure Example:



Air Quality	
<b>Term and Condition No.</b>	<b>1</b>
<b>Category:</b>	Air Quality – Updated Air Quality Monitoring Plan
<b>Responsible Parties:</b>	The Proponent
<b>Project Phase:</b>	Pre-construction, Construction, Operations, Temporary Closure/Care and Maintenance, Closure and Post-Closure monitoring
<b>Objective:</b>	To define plans for the monitoring of data and mechanisms for response with regard to potential air quality impacts arising from the Project
<b>Term or Condition:</b>	<p>Prior to commencing construction activities, the Proponent shall update its Air Quality Monitoring Plan, and shall consider installing two real-time air monitoring stations in advance of mining operations. The updated plan shall include, but is not limited to, details regarding the following:</p> <ol style="list-style-type: none"> <li>a. Description of real-time air monitoring stations including proposed timing of installation, location, and any factors considered with regards to planning for the installation;</li> <li>b. Plans for the collection of total suspended dust samples year round, including sampling for metals content relevant to the Project;</li> <li>c. Description of snowpack surveys and dustfall collectors;</li> <li>d. Description of lichen surveys;</li> <li>e. Identification of near field, far field and reference sites that are located with consideration of ambient wind conditions;</li> <li>f. Baseline data collected prior to significant construction activity; and</li> <li>g. A description of the proposed annual reporting mechanism and response framework.</li> </ol>
<b>Reporting Requirements:</b>	The updated plan should be submitted to the NIRB at least 90 days prior to the start of construction, with results submitted annually thereafter or as may otherwise be required.



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### Example 1: EA1314-01 Measure 8-1 (online group)

#### Measure 8-1, Minimize negative socio-economic impacts of the Project on communities

In order to mitigate significant cumulative adverse **socio-economic impacts** of the Jay Project on health and well-being, the **Government of the Northwest Territories** will engage and work with diamond mining communities to adaptively manage adverse social impacts to health and well-being from the Jay Project, in combination with other diamond mining projects. As part of this process, the GNWT will actively **investigate and address linkages** of diamond mining effects on the health and well-being of affected communities. The GNWT will also **meet with communities within one year** of the Ministerial approval of this Report of EA, and annually thereafter, to discuss:

- 1) priority social issues at the individual, family and community level related to diamond mining, as identified by communities and by the GNWT
- 2) The effectiveness of GNWT programs to address these identified issues, and
- 3) implementing improvements to mitigate identified issues.

The GNWT will submit an **annual progress report** on the above to each diamond mining community, describing GNWT's engagement on and adaptive management of social impacts, and GNWT's plans to address identified issues.

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### Example 2: EA1415-01 Measure 6-1 parts 1 and 2

#### 6-1, Part 1: Wildlife baseline information collection, monitoring, mitigation and adaptive management program

In order to reduce adverse impacts on **wildlife and wildlife habitat** so they are no longer significant, the **developer** will collect additional wildlife **baseline information** to be integrated with mitigation, focused monitoring, and a systematic approach to **adaptive management**. In order to accomplish this, CanZinc will:

- i. collect baseline data as described in Part 2 of this measure;
- ii. monitor wildlife and wildlife habitat during construction and operations as described in Part 3;
- iii. incorporate Traditional Knowledge in developing and implementing a monitoring program; and,
- iv. develop and implement an adaptive management framework to manage impacts on wildlife.

#### 6-1, Part 2: Collection of baseline wildlife information for caribou, collared pika and bird species at risk that occur in the area

The purpose of this baseline information collection is to **confirm the presence or absence of listed wildlife species in the Project area, their population size, seasons of use and important habitat** for species described below in the All Season Road corridor. In order to support Part 1, the developer will:

- a) submit a baseline survey plan for review and approval to Parks Canada within the Nahanni National Park Reserve (NNPR) and to GNWT on territorial lands;
- b) conduct baseline surveys for northern mountain caribou, boreal caribou, collared pika, and bird species at risk;
- c) use recognized methods and standards approved by Parks Canada within NNPR, by GNWT on territorial lands, and by ECCC for species at risk;
- d) conduct surveys at the direction and approval of Parks Canada within NNPR and of the GNWT on territorial lands;
- e) complete surveys prior to road construction;
- f) share its baseline wildlife information with Aboriginal organizations, including NBDB, LKFN and DFN; and,
- g) present the results of its baseline information collection with Aboriginal organizations, including NBDB, LKFN and DFN, in a culturally-appropriate way.

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### Example 3: EA1314-01 Measure 6-2a

#### Measure 6-2a- Caribou offset and Mitigation Plan

- i. **Dominion will offset residual adverse impacts to caribou** by human activities that cumulatively affect the Bathurst caribou herd, beyond direct impacts of the Jay Project. Dominion will set out these offsets in a **Caribou Offset and Mitigation Plan**, which it will complete within **one year** of Minister's acceptance of this Report of EA. This plan will be in force throughout the **duration** of the Jay Project.
- ii. Dominion will implement the Caribou Offset and Mitigation Plan as described in DARMVEIRB-UT2-06 and incorporate the following into the Plan:
- caribou offsets related to roads that result in enhanced mitigation, such as scheduling of activities during caribou migration or dust suppression offsite from Jay Project
  - zone of influence research with funding as committed by Dominion
  - identify mitigation actions from the Plan and apply at other Ekati operations
  - options for the scheduling of other Ekati operations to offset Jay Project impacts during caribou migration periods
  - an enhanced dust mitigation study including:
    - a pilot test on application of dust suppressant
    - a dustfall sampling program
    - report on results and propose improvements to be incorporated into the Air Quality Emission Monitoring and Management Plan
    - if dust mitigation improvements are identified, Dominion will apply them on all roads at Ekati
  - accelerate progressive reclamation of Long Lake Containment Facility substantially beyond current Interim Closure and Reclamation Plan requirements to return it to productive caribou habitat sooner
  - incorporate waste rock storage area egress ramps, designed in consultation with Elders to prevent injuries and entrapment of caribou
- iii. Following implementation of the Caribou Offset and Mitigation Plan, Dominion will:
- **annually report** on the effectiveness of monitoring, mitigation and adaptive management of the Caribou Offset and Mitigation Plan to communities in person in a culturally appropriate manner
  - annually report on the activities conducted under the Caribou Offset and Mitigation Plan and the effectiveness of related monitoring, mitigation and adaptive management, to GNWT ENR, WRRB and IEMA
  - **submit an updated Caribou Offset and Mitigation Plan for approval by GNWT ENR every three years.** Prior to approval, the GNWT should provide the opportunity for public comment.
- iv. **The GNWT will enforce the Caribou Offset and Mitigation Plan** under the section 95 of the Wildlife Act.

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### Example 4: EA1819-01 Measure 5

**Diavik will conduct additional and more effective engagement** with potentially affected Indigenous communities to accomplish Measures 2, 3, and 4 and prevent significant adverse impacts on **cultural use** of Lac de Gras from this Project. Diavik's engagement for this Project will:

- a) include all potentially affected Indigenous communities,
- b) ensure potentially affected Indigenous communities' access to meaningful and plain language results from monitoring programs,
- c) include Traditional Knowledge in monitoring plans and management programs,
- d) enhance opportunities for potentially affected Indigenous communities to provide feedback directly to Diavik about the Project, its potential impacts, and mitigation options, and,
- e) include reporting back to potentially affected Indigenous communities on how Diavik acted (or reasons for not acting) in response to feedback from communities.

As part of its engagement for this Project, Diavik will collaborate with each potentially affected Indigenous community individually to **develop meaningful engagement protocols** that are culturally appropriate to each group. At a minimum, each of these engagement protocols will describe:

- i. how often Diavik will engage to discuss the Project,
- ii. an updated contact list for each potentially affected Indigenous community, relevant to specific purposes for engagement (listing contacts such as community government staff, technical consultants, Traditional Knowledge advisors, community leadership), and,
- iii. preferred engagement methods, frequency, and triggers.

Diavik will submit an **updated engagement plan** incorporating this measure for review and approval by the Wek'èezhì Land and Water Board with sufficient time for the engagement to inform Measures 2-4.

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## Example 7: EA1617-01 Measure 9-1

### Measure 9-1: Monitoring harvest and managing wildlife to maintain successful harvest

#### 9-1 Part 1: Aboriginal harvest monitoring and reporting program

To mitigate **impacts on Aboriginal harvesters** and to effectively inform management of wildlife populations in the area of the Project, **GNWT-ENR will work together with the Tłı̨chǫ Government and Wek'èezhìi Renewable Resources Board** to develop and implement an Aboriginal harvest monitoring and reporting program. The harvest monitoring and reporting program will:

- a) focus on boreal caribou, barren-ground caribou and moose population trends in areas accessed by winter roads and trails from the Project;
- b) be **community-based** and involve collaboration between Tłı̨chǫ Government and the developer;
- c) involve **Traditional Knowledge** holders and harvesters in monitoring wildlife harvesting trends; and,
- d) **report on wildlife harvesting numbers and trends** from monitoring checkpoints and/or other harvest monitoring methods annually to the Tłı̨chǫ Government, Wek'èezhìi Renewable Resources Board, GNWT-ENR and other wildlife co- management partners. The developer will fund this harvest monitoring and reporting related to the project. The harvest monitoring will meet the requirements of Appendix C.

#### 9-1, Part 2: Use monitoring to inform management

GNWT-ENR, in collaboration with the Tłı̨chǫ Government and Wek'èezhìi Renewable Resources Board, will **consider wildlife management actions and mitigations** based on the results of the monitoring above and the information collected by the GNWT's existing Resident Hunting Reporting Program, to help ensure sustainable Aboriginal harvesting of wildlife and report on monitoring results and management actions in the annual reviews of the Wildlife Management and Monitoring Plan.



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## EA Measure Implementation and Effectiveness for the Tłı̨chǫ Highway {Tłı̨chǫ All-Season Road (TASR)}: A Case Study.

Mackenzie Valley Environmental Impact Review Board Workshop  
June 28-29, 2023

Presenter:


**Benjamin Bey, PhD., P. Biol.**

Department of Infrastructure- Design and Technical Services  
Government of Northwest Territories




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## Outline

- Overview and Current Status of the Tłı̨chǫ Highway
  - **Reconnect and strengthen relationships**
- Tłı̨chǫ Highway EA Measures
  - **Make space for open discussion about EA measure implementation and effectiveness**
- Challenges to Implementation
  - **Build on past work and plan for the future**



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### Tłı̨chǫ All Season Road Yellowknife Highway (No. 3) to Whati

GNWT IRP | May 16, 2018



## The Tłı̨chǫ Highway

- Road Construction Completed on November 30, 2022






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## The Tłı̄chō Highway



- A Whole-of-Government Approach
  - *Who is the “Developer” under this concept?*
  - *A dual role of a “Developer” and Regulator as a concern.*
    - *ENR/ECC as a regulator and a “Developer”*
- Public-Private Partnerships (P3)
  - **First P3 Highway in NWT**



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## Tłı̄chō Highway EA Measures

- **Total Tłı̄chō Highway EA Measures = 23**
- Cultural, Socio-Economic, Health, and Well-Being
  - EA Measures 5-1 and 5-2: Implementation and Monitoring by **Department of HSS and TG**
  - EA Measures 5-3, 5-4, 5-5, 5-7, and 9-2: Implementation and Monitoring by **P3 Partner**



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## Tłı̨cho Highway EA Measures

- Wildlife Related
  - EA Measures 6-1, 6-2, 7-1, 7-2, 8-1, 9-1, 10-1, and 10-2: Implementation and Monitoring by **ECC, TG, and INF**
  - **EA Measures 6-3:** Implementation and Monitoring by **ECC and INF** in collaboration with **WRRB and TG**
- Others
  - EA Measures 11-1: Permafrost management requirement - **INF**
  - EA Measures 14-3: Corridor Working Group - **INF**



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## Challenges to Implementation



- Unclear definition of the “developer” in a Whole-of-Government approach
- Unclear definition of “**Support**” in Measures 5-1 and 5-2
- Reporting schedule for WMMP
- Meeting schedules for the Corridor Working Group



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**Tłı̄chǫ Government and Whatı̄ Community Government**

**2023 EA Measure Implementation and Effectiveness Practitioners' Workshop**

June 28 & 29, 2023

Tłı̄chǫ Ndeek'awoo  
Tłı̄chǫ Government

The slide features a background image of a person in traditional clothing, possibly a woman, with a large circular graphic overlaid. The text is centered on the slide. The logo for Tłı̄chǫ Ndeek'awoo is present in the top right and bottom center.

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## Measures directed to Tłıchq Government



- Measures 5-1 and 5-2 (Health and well-being)
- Measure 5-6 (Emergency Management)
- Measure 6-1 (Caribou recovery strategy and range planning)
- Measures 6-2, 7-1, 9-1 (Temporary no-hunting corridor, incorporate TK into caribou monitoring)
- Measure 6-3 (Habitat offsetting)
- Measure 8-1 (Fisheries management)
- Measure 10-1 (Bird species at risk adaptive management)
- Measure 10-2 (Wildlife management & monitoring plan)

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## Successes – What is working




- A foundation for relationship
- Information sharing
- Helpful baseline requirements
- Securing resources
- TG autonomy & leadership
- TK integration
- Tłıchq active management

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**Lessons Learned:  
EA Measure Implementation**



- **Labour & resources:** Implementation calls for labour & resources that are not accounted for in the measures. Oftentimes these have been sources from the TG
- **Funding:** externally sourced funds from GNWT (proponent) have not covered costs of meaningful and effective implementation
- **Operations & Management:** challenge to source and sustain O&M resources

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**Lessons Learned:  
EA Measure Implementation**



- **Authorities & responsibilities:** measures lack clarity around who is responsible for ensuring implementation and supplying the resources required
- **Timelines:** some measures lack timelines- when does monitoring requirement end or slow?
- **Role of Elders & TK:** all issues need to be integrated in public and annual sessions, and engage Elder participation

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## Lessons Learned: Enforcement & Compliance



- **Legislative enforcement hooks:** lack of enforcement hooks for socio-ec measures
- **Regulatory mechanisms and Indigenous governance:** need for a more integrated relationship
- **Internal capacity building:** resources needed to build internal capacity for improved enforcement response

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## Lessons Learned: EA Measure Development



- Need for **ground-truthing with partners** to ensure relevance and practicality of measures
- Measure design must include thorough consideration of **implementation mechanisms & accountabilities**
- Need for a **co-development process** that ensures joint knowledge informs initial drafts

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## Reflections on EA Measures & Indigenous Governance



- Lack of co-governance consideration in the development of EA measures
- Some redundancy between Indigenous co-management and Review Board role
- Considerations around participation of various Indigenous intervenors and impact to ongoing governance

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## Concluding Thoughts – What makes a good measure?



- Clear purpose and rationale
- Realistic and feasible to implement
- Accounts for implementation mechanisms
- Clarifies responsibilities
- Clear timelines
- Legislative hooks
- ***Tested or developed by Indigenous government***
- ***Flexible enough to support operational realities***

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Tłıchǫ All-Season Road Measures Implementation and Effectiveness: Measure 5-1 and 5-2 case study

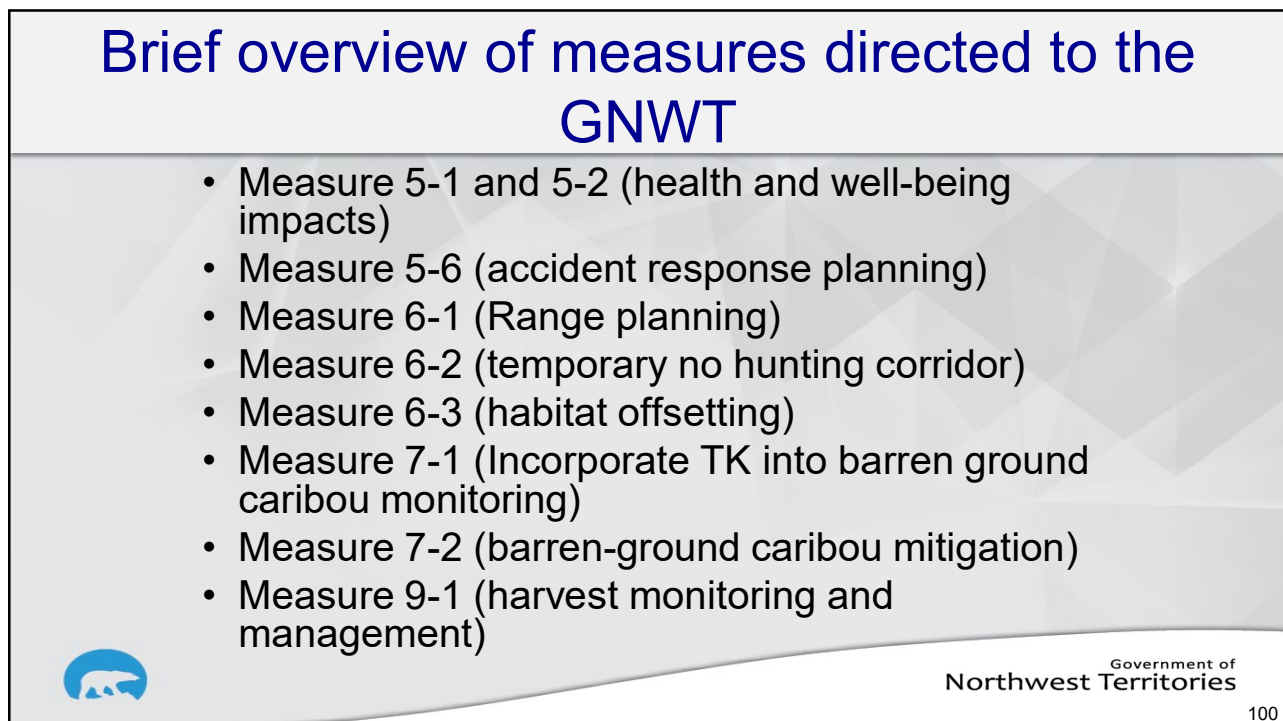
June 2023

Government of Northwest Territories

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## Brief overview of measures directed to the GNWT

- Measure 5-1 and 5-2 (health and well-being impacts)
- Measure 5-6 (accident response planning)
- Measure 6-1 (Range planning)
- Measure 6-2 (temporary no hunting corridor)
- Measure 6-3 (habitat offsetting)
- Measure 7-1 (Incorporate TK into barren ground caribou monitoring)
- Measure 7-2 (barren-ground caribou mitigation)
- Measure 9-1 (harvest monitoring and management)



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## General challenges

- In general, the measures directed to the GNWT are measures without regulatory homes
- Many of the nine measures require support from the developer
  - Support is an undefined term throughout the measures.
- The project moved from EA to regulatory to construction and operation in a very short time period
  - There wasn't a lot of time to 'figure out' and implement all the measures.



## General challenges: consult to modify

- Measures giving authority to bodies / government departments
  - As an example, ECCC was given authorities on range planning that they don't hold (setting thresholds for regional disturbances within NT1).
- Measures taking away authorities normally in place
  - Pre-supposing any determinations by co-management bodies
- The co-management system in the NWT is participatory and requires time to allow for participation (range planning).



## Measures 5-1 and 5-2

- Measures require:
  - Monitoring, evaluation, and adaptive management of adverse health and well-being impacts for a minimum of ten years
    - The GNWT, Tłıchǫ Community Services Agency, Tłıchǫ Government and the Community Government of Whatı all have responsibilities regarding these measures
  - Engagement and reporting of adverse health and well-being impacts



## Challenges with Measures 5-1 and 5-2

- To capture the initial spike in harmful behaviours, the indicators to be measured and assessed needed to be identified and agreed upon
  - There wasn't a lot of time between the environmental assessment and the construction of the road.
  - It was critical to have the feedback from the Tłıchǫ Government
  - Roles and responsibilities were not defined.



## Challenges with Measures 5-1 and 5-2

- Within the GNWT, no responsible minister had the mandated responsibility for the requirements of the measures
- Organizationally, there were assumptions made regarding who would undertake certain components of the Measure implementation within the GNWT
  - It is a complex socio-political landscape
- The measures were also written with assumptions regarding what different organizations had the ability to undertake



## Successes with Measure 5-1 and 5-2

- GNWT's Health and Social Services department quickly became the lead within the GNWT.
- An interdepartmental / intergovernmental working group was formed and has been instrumental in driving the work.
- We have enough data and feedback now to start implementing adaptive management.
- Implementation has involved working collaboratively with Tłı̨chǫ Government
  - working out where responsibilities/authority lays for implementation
  - It has always been key to have Tłı̨chǫ Government lead decisions in recognition self government and the principle of self-determination





## Effectiveness

- The Tłıchǫ Highway opened in November 2021
- There is evidence of an initial increase in harmful behaviours that was predicted.
- Currently at the beginning stages of adaptive management
  - We need more time to determine if the mitigations in place will be effective
- Defining effectiveness is not easy – it might look different to different parties
  - When possible, define effectiveness early



## Moving forward - generally

- Define roles and responsibilities early
  - Terms of Reference or Memorandum of Understanding
  - Make sure the people responsible for implementing the Measure are involved in defining the roles and responsibilities.
- Open dialogue between all parties involved in implementation.
- Understand the authorities of all those involved, and the limitations of what departments, agencies, etc can undertake.






# Themed session #3 Case Study: Tłıchọ Highway

- Wek'èezhii Renewable Resource Board






# GNWT-ECC Enforcement and Compliance

June 29 2023

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Northwest Territories




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## Overview

- Department Of ECC
- Mandate
- Legislation
- Inspections
- Investigations
- Enforcement and Compliance
- Environmental Issues
- Communications
- Conclusion

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## Department of Environment and Climate Change

On April 1 2023 the new Department of Environment and Climate Change was created from the merger of Departments of Lands and Environment and Natural Resources.

The Department of Environment and Climate Change is responsible for ensuring the land, water, wildlife, and environment in the NWT are well-managed and sustainably used, and it is the territorial lead for climate action. This includes promoting, planning and supporting the wise and sustainable use of land and natural resources, and protecting, restoring and stewarding the environment in a balanced manner for the social and economic benefit of all NWT residents.

We share this responsibility with Indigenous and community governments, federal and territorial departments, boards, and agencies, and every resident of the NWT.



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## Legislation

***Northwest Territories Lands Act and Regulations (Public Lands Act to include Commissioner's Land Act)***

***Northwest Territories Land Use Regulations***

***Mackenzie Valley Resource Management Act***

***Waters Act***



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## Inspections

- 29. (1) The Minister may appoint persons or classes of persons as enforcement officers for the purposes of the administration and enforcement of this Act.

### **Duties of the inspector:**

- Provide information and help to ensure compliance with applicable acts and regulations
- Inspect, monitor and analyze data, and conduct investigations to measure compliance
- Recommend options for compliance
- Prepare court briefs and evidence in the case of non-compliance
- Take other actions deemed necessary to prevent or minimize danger to the environment and the public, and to prevent misuse of natural resources



## Enforcement Approach

- Enforcement through education
- Warnings
- Directions
- Orders
- Suspension of Operations
- Formal Prosecutions





### MVRMA Enforcement Challenges

- Measures are not directly enforceable by Inspectors.
- Ideally Measures will be incorporated into licence conditions
- Enforcement action needs to be tied directly to legislation



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### Additional Enforcement Challenges

- Even once licence conditions have been created there are still challenges with enforcement.
- In the presence of a violation an Inspector must believe on reasonable grounds that there is a danger to people/property or the environment



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## Remedial Measures

Waters Act 67.1 MVRMA 86.1

Remedial measures If an inspector, whether or not a report has been made under subsection 11(3), believes, on reasonable grounds,

(a) That

(i) waters have been or may be used in contravention of subsection 10(1) or of a condition of a licence,

(ii) waste has been or may be deposited in contravention of subsection 11(1) or of a condition of a licence, or

(iii) there has been, or may be, a failure of a work related to the use of 43 waters or the deposit of waste, whether or not there has been compliance with any standards prescribed by regulations made under paragraph 63(1)(j) and with any standards imposed by a licence,

and

(b) **That** a danger to persons, property or the environment results, or may reasonably be expected to result, from the adverse effects of that use, deposit or failure, the inspector may direct a person to take such reasonable measures as

the inspector may specify, including the cessation of an activity, to prevent the use, deposit or failure from occurring or to counteract, mitigate or remedy the adverse effects.



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## Conclusion

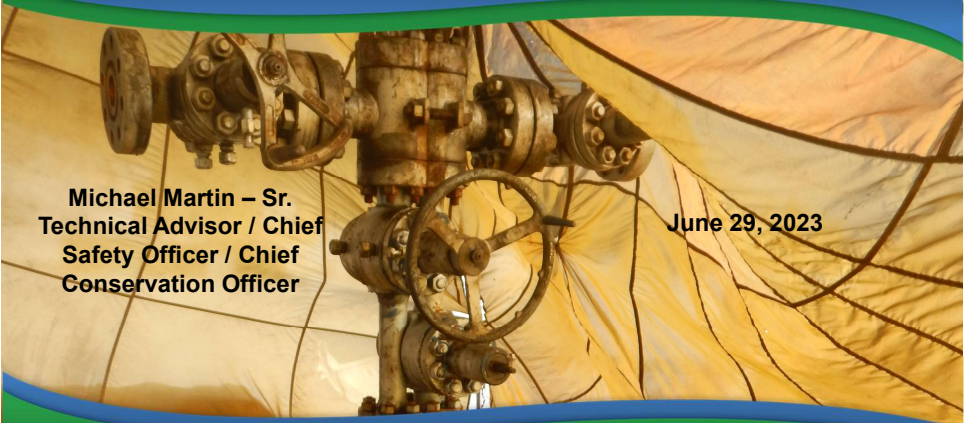
- Enforcement needs to be tied directly to legislation
- The Inspector must reasonably believe there is a danger to people, property or the environment
- Candidly, outside of the most extreme cases of noncompliance, social licensing is usually more effective than direct enforcement



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## EA Measure Implementation and Effectiveness Practitioners Workshop – Enforcement and Compliance



**Michael Martin – Sr.  
Technical Advisor / Chief  
Safety Officer / Chief  
Conservation Officer**

**June 29, 2023**

**OROGO**  
NWTF OFFICE OF THE REGULATOR OF OIL AND GAS OPERATIONS

**BOROPG**  
BUREAU DE L'ORGANISME DE RÉGULATION DES OPÉRATIONS PÉTROLIÈRES ET GAZIÈRES DESTINÉ

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## Agency Background

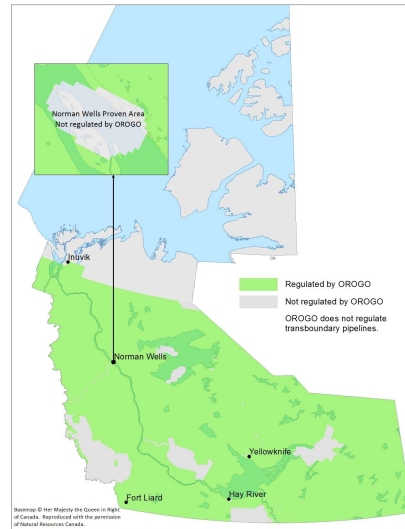
- OROGO was established on April 1, 2014.
- The Regulator has responsibilities under:
  - *Oil and Gas Operations Act*
  - *Petroleum Resources Act*
  - *Mackenzie Valley Resource Management Act*
- OROGO regulates oil and gas activities in order to:
  - Ensure human safety
  - Protect the environment
  - Conserve oil and gas resources

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## Jurisdiction

Onshore NWT except:

- Inuvialuit Settlement Region
- Retained federal lands
- Transboundary pipelines



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## OROGO and the MVRMA

- The “Regulator” is the decision-making authority under the *Oil and Gas Operations Act*.
- Pauline de Jong (Executive Director, OROGO) is currently the Regulator.
- Under the MVRMA:
  - The Regulator is a “regulatory authority”
  - The Regulator must:
    - Check for Land Use Plan conformity
    - Conduct preliminary screenings for authorizations
    - Delay issuing an authorization until the EA/EIR process is complete
    - Implement the final EA/EIR decision (within their authority)
  - The Regulator may:
    - Refer a project to EA

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## Compliance Continuum

Compliance is not binary. Things need to be considered in context:

- Due diligence apparent?
- Harm to the environment / Injury or death?
- Were all causal factors within the operators control?

Where there has been a non-compliance and due diligence has been proven, there has been no environmental damage/injury or death or there were factors outside the control of the operator, gaining voluntary compliance/enhancements should be the next step by an enforcement body.

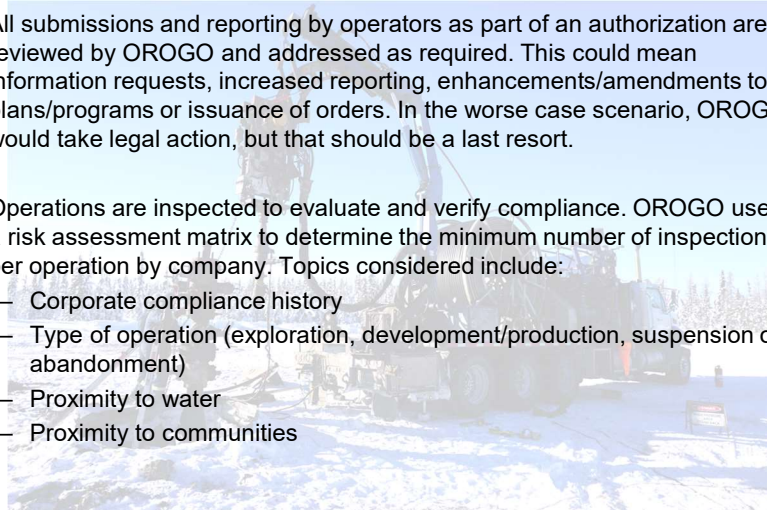
OROGO has a *Compliance and Enforcement Policy* ([www.orogo@gov.nt.ca](mailto:www.orogo@gov.nt.ca)) to enhance certainty and predictability of regulatory compliance and enforcement. This policy considers legislative compliance while adhering to the principles of Promote – Evaluate – Enforce.



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## Risk Assessment / Inspections

- All submissions and reporting by operators as part of an authorization are reviewed by OROGO and addressed as required. This could mean information requests, increased reporting, enhancements/amendments to plans/programs or issuance of orders. In the worst case scenario, OROGO would take legal action, but that should be a last resort.
- Operations are inspected to evaluate and verify compliance. OROGO uses a risk assessment matrix to determine the minimum number of inspections per operation by company. Topics considered include:
  - Corporate compliance history
  - Type of operation (exploration, development/production, suspension or abandonment)
  - Proximity to water
  - Proximity to communities



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# Sample Risk Assessment

OROGO OPERATIONS RISK PROFILE - INSPECTIONS									
Key Objective at Risk: Safety and Environment					Operational Year: 2022-2023				
Activity: Well Abandonment					Assessment Date: December 19, 2022				
Well Name	Frequency	Probabilty	Overall Rating	Inspection	Observation	Classification	Notes	Probability/Frequency	
<b>Extreme (Fatalities/Injuries)</b>									
<b>High (Critical/Severe)</b>									
<b>Medium (Moderate/Minor)</b>									
<b>Low (Minor/Few)</b>									
<b>Risk Breakdown</b>									

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# Inspections

Inspections are meant to verify an operator's compliance with the legislation and authorizations. OROGO breaks down inspections into specific topics and ranks them as follows:

- **Compliant** - Meets the requirements of the legislation and authorization.
- **Corrected Non-compliance** - Does not meets the requirements of the legislation and authorization but deficiencies were corrected during the inspection.
- **Non-Compliant** - Does not meets the requirements of the legislation and authorization and requires further action.

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# Sample Inspection Report

<p>Version: August 23, 2022</p> <p style="text-align: center;"><b>OROGO</b> <small>WESTERN OFFICE OF THE REGULATOR OF OIL AND GAS OPERATIONS</small></p> <p style="text-align: center;"><b>OROGO Operations Inspection Summary Report</b></p> <p><b>Well Information</b></p> <p>Well name: Swede G-21 4 digit WID: 1764</p> <p>Coordinates (In decimal degrees; verified onsite) Datum: <input type="checkbox"/> NAD 27 <input checked="" type="checkbox"/> NAD 83 <input type="checkbox"/> Unknown Lat: 60° 10' 29" N Long: 117° 34' 39" W</p> <p>Operator: Strategic Oil &amp; Gas Ltd c/o Alvarez &amp; Marschal Canada ULC Well status: Suspended</p> <p>OROGO risk level: Level 2</p> <p>Shallow wellbore plug? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>24-hour operations? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p><b>Inspection Date and Contact Information</b></p> <p>Date of inspection: January 21<sup>st</sup>, 2023 Access method: Vehicle</p> <p><b>Activity Inspected</b></p> <p>OA#: OA-2018-003-Strategic Nature of activity: Abandonment</p> <p><b>Inspection Results</b></p> <p>Rig Safety Accumulator function test <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p>	<p>Version: August 23, 2022</p> <p style="text-align: center;"><b>OROGO</b> <small>WESTERN OFFICE OF THE REGULATOR OF OIL AND GAS OPERATIONS</small></p> <p>Equipment certifications <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>Authorization / Approval available <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>Boiler inspection <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>Guards and covers on moving equipment <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>Pump lines and hoses secured, intact and appropriate? <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>Adequate lighting <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>Wind indicators visible and functional <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>Fire extinguishers <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>Equipment spacing <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>Comments: Serial Numbers of the BOP were given to the Inspectors verbally by the floor hand as he read them from the stack. The certification numbers for both the Annular and the Double Gate matched the certificates (Photo #1 &amp; #2) submitted to OROGO on December 20, 2022. - Annular: 25607 - Double Gate: 29494</p> <p>Comments: Authorizations issued by OROGO located in the Consultants trailer and the Doghouse.</p> <p>Comments: Boiler certifications were readily available and matched the on-site equipment (Serial # 4629). (Photo #3 &amp; #4)</p> <p>Comments: All guards and covers on moving equipment were in a condition satisfactory to the Inspector.</p> <p>Comments: All pump lines/hoses were secured and in a condition satisfactory to the Inspectors (Photo #5)</p> <p>Comments: Light plants were in site but inspection took place entirely during daylight hours</p> <p>Comments: Wind indicators were present on the Service rig and on the Rig pump.</p> <p>Comments: All fire extinguishers inspected have been recertified within the last 12 months.</p> <p>Comments: The construction of lease site at G-21 did not provide for adequate spacing of equipment. The following bolded items did not meet minimum spacing requirements: - Flare stack - Well centre = 42.1m - Rig pump - Rig tank = 8m - Rig Tank - Well centre = 43.9m - Pressure tank - Well centre = 18.3m - Doghouse - Well centre = 24.7m - Flare stack - Pressure tank = 22.9m</p> <p>Minimum spacing requirements adopted by OROGO, listed in the Alberta Energy Regulator's Directive 36, are required to be adhered to unless otherwise authorized by OROGO.</p> <p>Should the lease site not allow appropriate spacing while maintaining safe ingress/egress of the site, an exemption must be applied for</p>
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# Sample Inspection Report

<p>Version: August 23, 2022</p> <p style="text-align: center;"><b>OROGO</b> <small>WESTERN OFFICE OF THE REGULATOR OF OIL AND GAS OPERATIONS</small></p> <p>through OROGO prior to the commencement of operations.</p> <p>Additionally, this lease site could have been cleared to a larger area (Photo #6). Lease clearing/construction crews should endeavour to maximize the amount cleared within the historic lease footprint to maintain required spacing.</p> <p>Engine kills <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>Sufficient N<sub>2</sub> back-up? <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>Flow turns <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>General housekeeping <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>Other Rig Safety notes: Although BOP function tests are required to be conducted at the beginning of operations and every week thereafter, the rig crew were conducting and recording these tests at the beginning of every shift (Photo # 8).</p> <p>Personnel Safety Valid safety tickets <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>Safety meetings and documentation <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p>	<p>Version: August 23, 2022</p> <p style="text-align: center;"><b>OROGO</b> <small>WESTERN OFFICE OF THE REGULATOR OF OIL AND GAS OPERATIONS</small></p> <p>SCBAs and/or supplied air available and visible <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>First Aid equipment and EMS on site and accessible <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>Gas detection equipment on site and accessible <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>Communication plans available <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>Hazard identification and signage <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>ERP available upon request <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>Safety Plan available upon request <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>BOP drills and documentation <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>Function tests and documentation <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance</p> <p>Other Personnel Safety notes: Rig crew, testers and other on-site personnel showed a knowledge and understanding of the safe operation of the service rig and associated equipment.</p>
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# Sample Inspection Report

Version: August 23, 2022

**OROGO**  
OIL AND GAS OPERATIONS

**Blowout Prevention Equipment**  
BOP certifications  Compliant  
 Non-Compliant  
 Corrected Non-Compliance

Comments: Serial Numbers of the BOP were given to the Inspectors verbally by the floor hand as he read them from the stack. The certification numbers for both the Annular and the Double Gate matched the certificates (Photo #1 & #2) submitted to OROGO on December 20, 2022:  
- Annular: 29507  
- Double Gate: 29494

BOP pressure rating  Compliant  
 Non-Compliant  
 Corrected Non-Compliance

Comments: The BOP used for this operation was 7 1/16"/34.5 MPa which is an appropriate pressure rating for this well.

Kill sheet in dog house  Compliant  
 Non-Compliant  
 Corrected Non-Compliance

Comments:

Stabbing valves and cross-overs  Compliant  
 Non-Compliant  
 Corrected Non-Compliance

Comments:

Flow lines and choke lines secured  Compliant  
 Non-Compliant  
 Corrected Non-Compliance

Comments: As seen in Photo #5 & #7, flow lines and choke lines were secured.

Other Blowout Prevention Equipment notes: All blowout prevention equipment had a valid certification and appeared to be well maintained.

**Specific to Shallow Wellbore Plug (Not Applicable)**  
Shrubbing unit in place  Compliant  
 Non-Compliant  
 Corrected Non-Compliance

Comments:

Other Shallow Wellbore Plug notes: Click or tap here to enter text.

**Specific to 24-Hour Operations (Not Applicable)**  
Cross-over notes  Compliant  
 Non-Compliant  
 Corrected Non-Compliance

Comments:

Other 24-hour operations notes: Click or tap here to enter text.

**Environment**  
Rig matting  Compliant  
 Non-Compliant  
 Corrected Non-Compliance

Comments: Rig matting was placed below the service rig.

Version: August 23, 2022

**OROGO**  
OIL AND GAS OPERATIONS

Drip trays  Compliant  
 Non-Compliant  
 Corrected Non-Compliance

Comments: Drip trays were located under most equipment to prevent the possibility of hydrocarbon impacts to the underlying ground. The exception to this was at the light plant generator where there was no secondary containment. A drip tray was placed under the light plant prior to the Inspectors leaving site.

Materials handling and storage  Compliant  
 Non-Compliant  
 Corrected Non-Compliance

Comments:

Spill response equipment on site and accessible  Compliant  
 Non-Compliant  
 Corrected Non-Compliance

Comments: Although spill response materials were on site, Inspectors recommend that spill kits be readily available in the vicinity of all fuel handling and storage locations to minimize the response time in the event of a spill during refueling.

Tubing laydown area protection  Compliant  
 Non-Compliant  
 Corrected Non-Compliance

Comments: Tubing racks were not utilized on the site. No concerns were noted since no obvious impacts were observed on the ground surface near the Service rig.

Other Environment notes: Click or tap here to enter text.

Safety Plan  
Compliant?  Yes  No

Comments: Click or tap here to enter text.

Environmental Protection Plan  
Compliant?  Yes  No

Comments: Click or tap here to enter text.

Emergency Response (Contingency) Plan  
Compliant?  Yes  No

Comments: Click or tap here to enter text.

Authorization and Approvals  
Following program as approved?  Yes  No

Comments:

Meeting all conditions?  Yes  No

Comments:

**Other Documents Requested / Received During Inspection**  
Details: N/A

**Photographs**  
Number of photographs attached: 11

**Additional Comments / Observations**  
**SPACING:** If minimum spacing requirements cannot be achieved while rigging up the site, Strategic Oil & Gas Ltd personnel must do the following:  
1) Notify OROGO of the spacing limitations;  
2) Provide a site diagram with proposed locations and distances of equipment, and

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# Sample Inspection Report

Version: August 23, 2022

**OROGO**  
OIL AND GAS OPERATIONS

3) Identify site limitations, with rationale, on how to maximize the allowable spacing between equipment and the wellbore.

Additionally, this lease site could have been cleared to a larger area (Photo #6). Lease clearing/construction crews should endeavour to maximize the amount cleared within the historic lease footprint to maintain required spacing.

**TICKETS:** All people on the lease must ensure that their tickets are valid and available on request. Failure to provide proof of required training may lead to an immediate shut down of the operation until the training can be verified or that person has been replaced. In this case all other people on the site had valid first aid and the floor hand was able to show their profile on Energy Safety Canada's website to confirm when the course was taken and that the course was passed. The Inspectors used their discretion to allow work to continue as it was reasonable that the training had been completed by the driller and the floor hand. Tickets were provided within 48 hours to OROGO as requested.

Aside from what was noted above, the Inspectors were pleased with operation and the cooperation of the onsite staff.

This inspection was conducted under the Oil and Gas Operations Act and associated regulations.

Name: Michael Martin	Name: Brandon Bradbury
Designation: Chief Safety Officer	Designation: Safety Officer
Date: 2023-02-03	Date: 2023-02-03
Signature:	Signature:

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## Inspections vs Investigation

### **Inspections:**

Used to oversee operators to ensure compliance with legislation and authorizations. During inspections, problems can be identified and steps taken to have the problems rectified. Inspectors have certain authorities during inspections, including:

- Trespass – enter land and facilities
- Take photographs
- Production of documents
- Take samples

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## Inspections vs Investigation

### **Investigations:**

Conducted to obtain evidence of an offence under the officer's legislation. There are two main reasons officers initiate an investigation:

1. Evidence of an offence is discovered during a routine inspection.
2. The officer is responding to a specific request or report.

When an investigation begins, the powers an officer had to conduct an inspection are gone. Inspectors must apply for search warrants, seek court orders and/or issue production orders to continue to gather information. This is a lengthy and complicated process. When voluntary compliance can be achieved, it can expedite resolution of issues and usually result in a more favorable outcome.

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**Thank You**

OROGO  
4th floor, Northwest Tower  
867-767-9097  
orogo@gov.nt.ca

Follow us on Twitter: @OROGO\_NWT

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**Mackenzie Valley  
Review Board** 

**Themed Session #4**  
**Enforcement and Compliance**  
Experience and lessons learned

- by Fisheries and Oceans Canada



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## Issue (VC) based dialogue



- Outcomes from last workshop and changes since that time.
- Key challenges, common problems, strategies that we've tried to use, etc.
- How are the measures written? How are they implemented in post EA decisions?

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## Workshop 2007



- Outcome of NWT Board Forum
- Hosted by INAC
- Focus on measures and conditions
- Orphan measures
- Need for more integrated approach between EA and regulatory boards and agencies
- Improved tracking tools and approaches (ex. Integrated Environmental Management System)
- Improved inspection (and enforcement) that meets the needs of boards and regulators
- Develop better and more consistent terminology

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## Orphan Measures



- No regulatory home
  - Air Quality
  - Wildlife
  - Socio-economic
  - Cultural
  - Others?
- Changes since 2007
  - Updates to legislation
    - *Wildlife Act*
    - *Environmental Protection Act*: air quality standards
    - *Species At Risk Act*
  - Devolution
  - Follow-up programs
  - Measures to Indigenous Governments
  - Other changes?

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## Themed session #5 Valued Components and Issues (1/5)



### Spotlighting wildlife



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## Mitigating impacts to wildlife: measures, permit conditions and plans

Regulatory instruments have evolved

Land use permits

Wildlife Act, section 95

Wildlife Management and Monitoring Plans

Species at Risk requirements

Commitments by the developer, project design changes during EA

- Wildlife is co-management so measures directed to developer, GNWT ECC but including Renewable Resources Boards and ECCC



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## Wildlife – gathering evidence, results in measures

Wildlife almost always a key line of inquiry, holistic view, linkages, not viewed in isolation

Caribou but other wildlife as well

- Evidence gathered during EA process steps:
- DAR adequacy review
- Information requests
- technical sessions
- community cultural workshops
- interventions, public hearings
- Report of EA with measures for significant adverse impacts



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## Measures – types, multi part

- Incorporating TK into all aspects, project design, monitoring
- TK panel
- baseline data collection for project construction, wildlife crossings on new roads
- Specific mitigation – dust suppression (cut across different VECS like air and vegetation)
- Monitoring and follow-up, adaptive management
- Monitors or guardians along a new road
- Culture camps to maintain ties to the land during and after operations
- Annual reporting to communities

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## Types of measures, plans and reporting

- Wildlife Management Plans, Caribou Range Plans,
- WMMP, can be associated with AQMMMP
- Off-set plans when standard mitigation is not sufficient
  
- Measures reporting by proponent and governments
  
- **How well have these been implemented?**
- **How effective have they been?**

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**Themed session #5 Valued Components and Issues (2/5)**



**Spotlighting water and aquatics**



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**Themed session #5 Valued Components and Issues (3/5)**



**Spotlighting air quality, greenhouse gas emissions**



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**Themed session #6 Valued Components and Issues (4/5)**



**Spotlighting impacts on people**



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**Themed session #6 Valued Components and Issues (5/5)**



**Spotlighting cumulative effects**



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2023 EA Measure Implementation  
and Effectiveness Practitioners  
Workshop

Mackenzie Valley Environmental Impact Review Board  
Yellowknife, NT Chateau Nova  
June 29, 2023

**NI HADI XA**

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Ni Hadi Xa was not an EA measure, however it was a collaborative effort between indigenous parties and Industry. The model was presented to the review board at the public hearing

**NI HADI XA**

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## In the Beginning:

### Ni Hadi Yati

Ni Hadi Yati is a joint proposal from several Aboriginal organizations and De Beers that was

presented at the Public hearing during the final stages of this EIR. Ni Hadi Yati proposes to

provide a forum for Aboriginal groups to increase their technical capacity to assist in the

development and implementation of environmental monitoring and management plans for

the Project. Participating Aboriginal organizations and De Beers have agreed to negotiate a

contract to initiate Ni Hadi Yati.

The Panel supports Ni Hadi Yati because it was developed in the spirit of collaboration and

could facilitate the incorporation of Traditional Knowledge into the monitoring and management and facilitate transparency and accountability throughout the life of the

Project.

(from the MVEIRB website "Report of Environmental Assessment" Page 8)



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Ni Hadi Xa currently has five staff positions: Manager, Environmental Monitor, Traditional Knowledge Administrative Assistant and Traditional Knowledge Monitors.



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Three (3) programs

On the land family  
Travel Program


Environmental  
Monitoring

Traditional Knowledge  
Monitoring program



The logo for NI HADI XA features a stylized globe with a white moon on the right side. The globe is divided into green, blue, and pink sections. Seven black stars are arranged in a semi-circle above the globe. Below the globe, the text 'NI HADI XA' is written in white on a black background.

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The collage consists of five photographs: 1. A person in an orange hoodie in a field at sunset. 2. A person on a couch in a living room. 3. A person in a field. 4. A person in a field. 5. A person in a field.

On the land family travel program

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## Ni Hadi Xa Environmental Monitor (NHX EM)

- NHX EM works out at the mine site two-week rotations.
- The EM is responsible to work with the Mine Environment Staff.
- The EM reports to the Ni Hadi Xa Governance Committee about everything they participated in during their shift. A shift report is completed and reviewed by the on-site supervisor and the NHX Manager.
- Daily activities such as participating in the implementing of the different plans, such as the surveillance network program, aquatics effects monitoring program, wildlife monitoring, air quality, ice road monitoring, caribou behavior etc.



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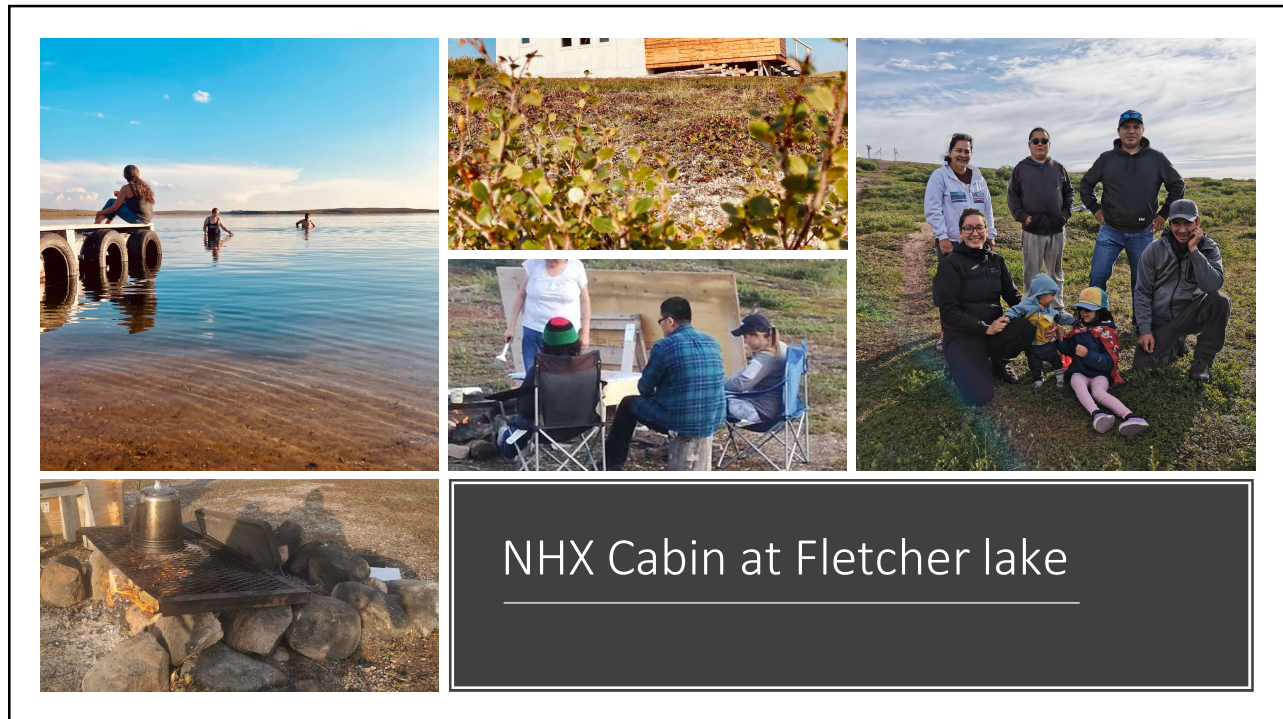
## Ni Hadi Xa Traditional Knowledge Program

- NHX TKMP has three staff, two TK monitors and one administrative Assistant.
- TK monitors are responsible for but not limited to go out on the land around the Gah Cho Kue mine and take daily observations.
- TK monitors stay at the Fletcher Lake cabin.
- Hike in the summer and use snowmobile.
- TK monitors will spend up to twelve weeks each year at the cabin monitoring.
- Daily trip reports are completed and included but are not limited to microdata. This is where they can explain their observations or experiences.
- Use of Traditional Knowledge is used to make the observations of weather, animal sightings, tastes of country foods.
- The TK monitors also help maintain the cabin and area.
- The TK monitors also tag along on each of the Family trips, assisting in bear monitoring and interviewing each family member at the end of the trip as part of the monitoring program.
- NHX TKMP has been digitizing the data that has been collected since the beginning. In the early years there was a lot of construction of the camp, however there is data and it is being uploaded into the Trailmark software. Each TK monitor also has access to use the app on their phone rather than voice record or writing it on paper.



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## Map of the Monitoring area

- [https://www.google.com/maps/d/u/0/edit?mid=1vKW99h8wGjWFXmgEpYdyRGUh\\_gGOqmg&ll=63.77953297166489%2C-109.56624780781252&z=9](https://www.google.com/maps/d/u/0/edit?mid=1vKW99h8wGjWFXmgEpYdyRGUh_gGOqmg&ll=63.77953297166489%2C-109.56624780781252&z=9)
- [https://www.google.com/maps/d/edit?mid=1vKW99h8wGjWFXmgEpYdyRGUh\\_gGOqmg&usp=sharing](https://www.google.com/maps/d/edit?mid=1vKW99h8wGjWFXmgEpYdyRGUh_gGOqmg&usp=sharing)



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# Challenges

- Turnover in employment
- Skidoo breakdowns
- Weather
- Communications



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# Success


- NHX accepted an award for Excellence in Sustainable Development and Community Engagement
- Tom Unka, Chair of Ni Hadi Xa and representative of Northwest Territory Metis Nation, William Liu, De Beers Canada and myself went to Vancouver in May 2022.
- NHX delivered 6 on the land family travel trips safely.
- NHX hosted since 2019 two on the land meetings for the Governance committee at Fletcher Lake safely.

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Marsi cho!  
Questions?  
Presented to you on  
the traditional  
territory of the  
Akaitcho Dene,  
Yellowknives, Lutsel  
Ke and Deninu Kue  
as well as the North  
Slave Metis Alliance,  
NWT Metis Nation  
and Tłı̨chǫ  
Government

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**3:30pm**  
**Experience and Lessons Learned**

- by NorZinc Ltd.



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# Mackenzie Valley Review Board



Mackenzie Valley  
Environmental Impact Review Board  
Phone (867) 766-7050  
Fax: (867) 766-7074

[www.reviewboard.ca](http://www.reviewboard.ca)

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