



Government of Northwest Territories  
Gouvernement des Territoires du Nord-Ouest

# Science Project Funding Guide for 2026–27

**NWT CIMP**  
Northwest Territories Cumulative  
Impact Monitoring Program

Updated: July 2025



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## NEW: Road Development Impacts Directed Funding Call

**New for 2026–27:** The NWT CIMP is prioritizing a directed three-year funding call to understand cumulative impacts from road development on caribou, water and fish and to inform best practices for mitigating these impacts. This new knowledge and information will provide guidance for ongoing environmental assessments and regulatory processes involving road construction in the NWT. Please continue reading this guide for further details.

Due to the additional work associated with the collaboration, maximum funding of \$100,000 per year for up to three years is available.

## 1. What is the Science Project Funding Guide?

This Guide explains the funding process for science projects under the Northwest Territories Cumulative Impact Monitoring Program (we use NWT CIMP or ‘we’ in the rest of this Guide).

In this Guide, we:

- introduce you to NWT CIMP, the projects we fund and details you need to know before you apply
- explain how to apply for funding and how we assess applications
- outline your next steps and requirements if we approve your project

But first, let’s learn about NWT CIMP and cumulative impacts!

## 2. What is NWT CIMP?

We are the Northwest Territories Cumulative Impact Monitoring Program (NWT CIMP). We are a source of environmental monitoring and research in the NWT.

<b>NWT CIMP Vision</b>	To watch and understand the land so that it can be used respectfully forever.
<b>What our vision means</b>	When we say <i>watch</i> the land, we mean using Traditional Knowledge and science to monitor and research our environment. <i>Understanding</i> what we see means analyzing what we learned. We then take that information and share it, so it can shape policy and decisions that protect the land <i>respectfully forever</i> .

We support projects that monitor and measure **cumulative impacts**. We gather information on cumulative impacts, and we communicate what we learn to key northern decision-makers and the public. Our goal is to contribute to strong decisions on natural resources and sustainable development.

### How we put our vision into practice

NWT CIMP carries out four main activities.

1. We work with our partners to consider what issues, monitoring, research, and approaches are the highest priority.
2. We coordinate, conduct, and fund projects to collect and analyze data, and report on environmental conditions.

**Cumulative impacts** are the combined effects that human activities and natural processes have on our environment.

*Adapted from Canadian Council of Ministers of the Environment, 2014*

3. We communicate what we learn to northern decision-makers and the public.
4. We facilitate environmental audits to assess how the program and regulatory regime are doing.

### We have a responsibility to do this work

Understanding cumulative impacts is:

- essential to sustainable development (see NWT CIMP's vision above).
- our legal responsibility. NWT settled land claim agreements and the *Mackenzie Valley Resource Management Act* (MVRMA) all require cumulative impact monitoring.

### Who we are

NWT CIMP is set up and managed by the GNWT, Department of Environment and Climate Change (ECC). We partner with the following groups to set priorities and conduct monitoring and research:

- Indigenous governments and Indigenous organizations
- co-management boards
- universities
- federal and territorial governments

NWT CIMP is advised by a Steering Committee made up of representatives from Indigenous, federal, and territorial governments and co-management boards. The Steering Committee provides guidance and makes recommendations to our staff, who administer the program.

## 3. What projects do we fund and who can apply?

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### 3.1 WHAT INFORMATION DOES NWT CIMP GATHER?

We consider Traditional Knowledge and scientific data equally valuable.

#### Traditional Knowledge monitoring and research

We place a high priority on environmental monitoring and research that uses Traditional Knowledge. The goal is to apply what we learn from Traditional Knowledge to inform northern decision-making. Monitoring ideas for Traditional Knowledge projects are found in [Appendix A](#). Communities choose the focus of Traditional Knowledge projects they propose. See the [Traditional Knowledge Project Funding Guide](#).

#### Scientific monitoring and research

Science projects must respond to the monitoring and research priorities listed in the monitoring and research Blueprints for caribou, water and fish found in [Appendices B-D](#). These Blueprints inform applicants of our priorities and guide funding allocations.

Whenever possible, science projects should collaborate with existing programs to use standardized data collection and analysis protocols. NWT CIMP recommends several monitoring protocols and guidance listed in [Appendix F](#). This will help ensure the compatibility of datasets for use in regional cumulative impact assessment.

#### If your project collects both Traditional Knowledge and scientific data

Only one application needs to be submitted. However, the application must follow both the Traditional Knowledge Project Funding Guide and the Science Project Funding Guide to be complete. This requires:

1. ensuring a Traditional Knowledge Data-Sharing Agreement is completed prior to receiving funds, unless the community organization is the funding recipient.
2. addressing the specific monitoring and research priorities for caribou, water and fish outlined in the Blueprints.

## 3.2 WHAT PROJECTS DOES NWT CIMP PRIORITIZE?

**New for 2026–27:** The NWT CIMP is prioritizing a directed three-year funding initiative to understand cumulative impacts from road development on caribou, water and fish and to inform best practices for mitigating these impacts. This new knowledge and information will provide guidance for ongoing environmental assessments and regulatory processes involving road construction in the NWT. Please read [Appendix E](#) to ensure requirements associated with this funding opportunity can be met.

Due to the additional work associated with the collaboration, maximum funding of \$100,000 per year for up to three years is available. If applying for this funding, ensure you check the **Road Development Impacts Funding** option on your NWT CIMP Letter of Intent form!

All projects **must** meet the following mandatory criteria:

- report on cumulative impacts of two or more human activity and/or natural stressors on the environment
- collect cumulative impacts information that decision-makers can use to better protect our land and water
- relate to caribou, water, and/or fish and addresses Blueprint Priorities found in [Appendices B-D](#).

We are most likely to fund projects with the characteristics below. When you apply, we may suggest ways to make your project more relevant to our program to help you get funding.

**We encourage projects that:**

✓ **Work with communities, Indigenous organizations, Elders, and youth**

We support projects that include community members, local decision-makers, Indigenous organizations, Elders, and youth in all stages. This:

- engages and builds capacity in the community
- promotes strong and self-sustaining communities
- involves Elders and Traditional Knowledge holders in decision-making
- helps preserve and pass down Traditional Knowledge to future generations
- encourages young people to build careers related to the environment where their work will contribute to long-term monitoring. We give preference to formal, short-term training that is more likely to help youth get jobs in the future.

✓ **Benefit our partners**

We share what we learn with the organizations and communities we partner with. We fund projects that gather information these partners can use to make decisions and to support new monitoring and research. See [Appendix G](#) for a list of these influential decision-makers.

✓ **Support or build on current research and collaborate with others**

We encourage multidisciplinary and collaborative studies. Our funding process connects and encourages collaboration among researchers working in similar locations or addressing similar questions.

✓ **Meet our criteria and are well designed**

A well-designed project is key! You must meet our criteria and deadlines to receive funding. Please:

- contact communities and potential partners early to share your project idea and build support
- follow the instructions in the forms carefully, including page limits, font sizes, and word counts
- use the step-by-step “*Designing Your Project*” Guide in [Appendix H](#). It will help you design a project that is more likely to receive NWT CIMP support.

## 3.3 WHAT PROJECTS DOES NWT CIMP NOT CONSIDER?

We do not fund projects that:

- are clearly another organization’s responsibility.
- collect baseline data for a specific development, for example a proposed or operating mine. We may consider a project that includes a development like a mine if the project goes **beyond** the physical area or

- scope of environmental study for that mine or development.
- focus **only** on community capacity-building or training.

### 3.4 WHAT FUNDING IS AVAILABLE?

The maximum amount of funding per project is up to **\$70,000** per year for standard NWT CIMP funding or up to **\$100,000** per year for Road Development Impacts funding for up to three years. Funding is reviewed annually to ensure continued eligibility. Reference the *What do I include in my budget?* table in [Appendix I](#) for a list of eligible costs.

### 3.5 WHO CAN APPLY?

The following groups are eligible to apply:

- Indigenous, federal, territorial and municipal governments
- academic institutions with preference given to Canadian institutions
- non-government organizations

Industry is **not** eligible for funding. If you represent an industry, you can partner with an Indigenous organization or community.

## 4. How do I apply for funding?

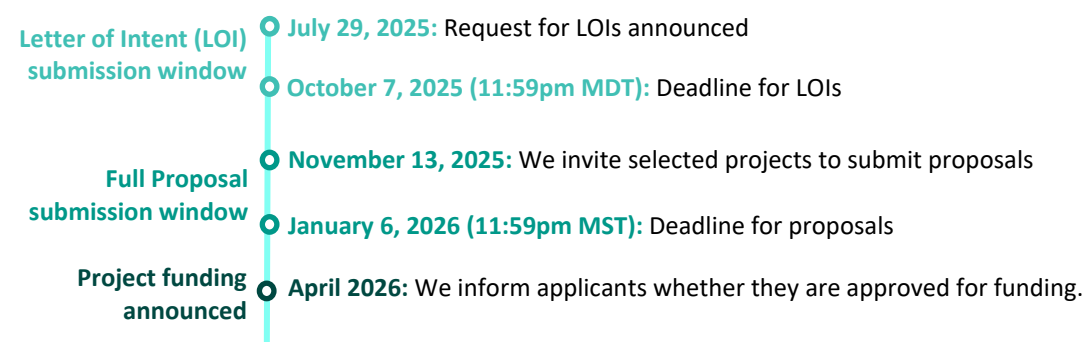
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To apply, you must:

- submit a Letter of Intent (LOI) using the provided form in [Appendix J](#)
- receive an invitation from us to submit a full proposal
- submit a proposal

### 4.1 WHEN DO I NEED TO APPLY? (KEY DATES)

#### For 2026–27 funding



### 4.2 SUBMITTING A LETTER OF INTENT

Your Letter of Intent (LOI) is a short description of your project so we can understand your idea and assess if it meets our criteria.

#### How do I submit my LOI?

- Fill out the Letter of Intent form in [Appendix J](#).
- E-mail the form (in PDF format) to [nwtcimp@gov.nt.ca](mailto:nwtcimp@gov.nt.ca) by **October 7<sup>th</sup>, 2025 11:59pm MDT**.

We will send you an email confirming we have received your Letter of Intent. If you do not receive this email within 24 hours, please call (867) 767-9233 ext. 53084.

### What information do I need to include in my LOI?

There are detailed instructions in the LOI form - be sure to follow them! Note the page limits and font sizes. We will evaluate your LOI using the criteria in Table 1. LOIs that clearly address all evaluation criteria will be more successful in receiving an invitation to submit a proposal in this competitive process.

**Please note:** You only need to submit one LOI if your project collects both Traditional Knowledge and science information, but you must address the evaluation criteria in both this guide and the [Traditional Knowledge Project Funding Guide](#).

**For projects that involve environmental contaminants or other human health risk factors, you should be prepared to share your information and work collaboratively with an Environmental Health Officer from the GNWT's Department of Health and Social Services before sharing results with the public.**

**Table 1—Letter of Intent Evaluation Criteria**

What do you want to do?	
	<ul style="list-style-type: none"> <li>Your research question(s).</li> <li>What your project will be investigating.</li> </ul>
Why is this project needed?	
	<ul style="list-style-type: none"> <li>How your project will increase our understanding of cumulative impacts in the NWT, with specific examples.</li> <li>How your project will contribute to northern resource management decisions, with specific examples.</li> <li>Expected outcomes of your project.</li> </ul>
How will you address your research question and share your results?	
	<ul style="list-style-type: none"> <li>A brief overview of the steps and general timelines of your project.</li> <li>The expected deliverables.</li> <li>Highlight which deliverables could be useful, accessible and impactful to partners or decision-makers.</li> <li>Projects that include communities and decision-makers are preferred.</li> <li>Use the “<i>Designing Your Project</i>” Guide in <a href="#">Appendix H</a> to help you plan a better study.</li> <li>Depending on your research focus, we may have standardized methods and protocols you should follow.</li> </ul>
Who will you work with?	
	<ul style="list-style-type: none"> <li>A list of partners that have agreed to be part of the project. This should include co-management partners, Indigenous Governments and Indigenous Organizations, or communities.</li> <li>A list of partners you plan to approach.</li> <li>A brief description of how each partner will participate in the project.</li> <li>A brief description of how your project will help build local capacity (strongly encouraged).</li> </ul>
Last thoughts?	
	<ul style="list-style-type: none"> <li>A list of anything else about your projects that you would like us to know.</li> </ul>



### What happens after I submit my LOI?

NWT CIMP staff will review each LOI. Selected projects will be invited to submit a full proposal. Feedback will be provided with the invitation to strengthen the proposal.

## 4.3 SUBMITTING A PROPOSAL

Proposals are more in-depth than LOIs and provide an opportunity to give the full picture of your project idea.

### How do I submit my proposal?

1. Include the following documents in your proposal:
  - proposal form—we will send this with the invitation to submit your proposal
  - budget template—we will send this with the invitation to submit your proposal
  - letters of support—see Table 2 for the letters of support you need
  - any other supporting documents
2. E-mail the above documents (in PDF format) to [nwtcimp@gov.nt.ca](mailto:nwtcimp@gov.nt.ca) by **January 6<sup>th</sup>, 2026, 11:59pm MST**.

We will send you an email confirming we have received your proposal. If you do not receive this email within 24 hours, please call (867) 767-9233 ext. 53084.

### What information do I need to include in my proposal?

There are detailed instructions in the proposal form - be sure to follow them! Note the page limits and font sizes. All sections and questions are mandatory. We will evaluate your proposal using the criteria in Table 2.

**Please note:** You only need to submit one proposal if your project collects both Traditional Knowledge and science data, but you must answer the questions in both this guide and the [Traditional Knowledge Project Funding Guide](#).

**Table 2—Proposal Evaluation Criteria**

Form Section and Rating	Criteria
<b>2 – Project Basics</b>	<ul style="list-style-type: none"><li>• Complete each section.</li></ul>
<b>Required letter(s) of support:</b> All applicants <u>must</u> include at least one letter from an Indigenous government, Indigenous organization, or community that clearly states the reasons for the support and how it will be provided. If the project spans multiple regions of the NWT, a letter of support should be provided for each region. Project team members can <u>not</u> submit letters of support on behalf of their organizations. <b>If you do not include a letter of support, your proposal will NOT be further evaluated and considered for funding.</b>	
<b>4 – Project Objectives and Outcomes</b> <b>5 – Relevance to Cumulative Impact Monitoring</b>	<b>What is the project going to do?</b> <ul style="list-style-type: none"><li>• The project objectives and questions are provided and clear.</li><li>• How the project will improve our understanding of cumulative impacts is described.</li><li>• How the project will increase our understanding of baseline conditions and/or environmental trends, if applicable, is described.</li></ul>
<b>6 – Study Design</b>	<b>How will the project be done?</b> <ul style="list-style-type: none"><li>• The project study design is described including the steps or processes, methods, protocols and approaches.</li><li>• Study area and sample sites are well described and a map is included.</li><li>• Detail is sufficient to show how the project objectives will be met.</li></ul>



	<ul style="list-style-type: none"> <li>Expected timeline for the project steps is included and reasonable.</li> </ul>
<b>7 – Deliverables</b>	<b>What results will be produced and shared?</b> <ul style="list-style-type: none"> <li>The expected deliverables are reasonable, timeline and target audience are clear and public availability is indicated.</li> </ul>
<b>8 – Community Engagement, Communication and Capacity-Building</b>	<b>How are community members involved?</b> <ul style="list-style-type: none"> <li>How community(ies) are involved in project planning, implementation and sharing results is provided.</li> <li>How the project results will be shared with the community before sharing elsewhere is described.</li> <li>How the project will build local capacity, training and employment is reasonable.</li> </ul>
<b>9 – Decision-Maker Engagement</b>	<b>How are northern decision-makers engaged with the project?</b> <b>How will the project influence northern decision-making?</b> <ul style="list-style-type: none"> <li>How the project will contribute to and influence specific northern resource management decision(s) is described.</li> <li>Form, timeline, target audience and key organizations engaged are included.</li> </ul>
<b>10 – Project Team</b>	<b>Who is doing the work?</b> <ul style="list-style-type: none"> <li>Roles, responsibilities and length of time working on the project for each active team member is described.</li> <li>Experience or expertise for each active team member is provided.</li> </ul>
<b>11 – Supporting Organizations</b>	<b>Who is supporting the work?</b> <ul style="list-style-type: none"> <li>Supporting people and organizations are listed along with how they support the project.</li> </ul>
<b>12 – References</b>	<ul style="list-style-type: none"> <li>References included in the application may be noted here.</li> </ul>
<b>13 – Budget</b>	<ul style="list-style-type: none"> <li>The budget is reasonable and appropriate based on the size and complexity of the project.</li> <li>Budget identifies other funding sources showing support for the project.</li> <li>Travel costs to present at a northern meeting(s) are included.</li> <li>Dollars are benefitting the North.</li> </ul>

#### What happens after I submit my proposal?

NWT CIMP staff, our Steering Committee, and subject matter experts will review your proposal. We will contact you in April of the following year to tell you whether we will fund your project.

## 4.4 PROJECT FUNDING REMINDERS

- ☐ Plan and contact the communities and potential partners early to kickstart your project idea **together**.
- ☐ Eligible projects are multi stressor based and connect project objectives and outcomes to cumulative impact monitoring.
- ☐ Clearly connect project results to northern resource management decision-making.
- ☐ Deliverables provided help us understand cumulative impacts better.
- ☐ Mark all important deadlines in your calendar.

- ☐ Each form and template (e.g., LOI, proposal, reporting) has instructions - be sure to follow them! Note the page limits and font sizes.

## 5. I am approved—what happens next?

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Congratulations! We will assign a staff member to you as a project liaison. This person is your direct contact to NWT CIMP. They will answer your questions and review your reports. They will also set up an informal kick-off meeting and mid-year check-in.

### 5.1 WHAT STEPS DO I NEED TO TAKE?

#### Apply for licensing

All research in the NWT must be licensed through the GNWT Department of Education, Culture and Employment (ECE) by visiting [www.ece.gov.nt.ca/en/research-licensing](http://www.ece.gov.nt.ca/en/research-licensing). This includes work in the physical, social, health and biological sciences, as well as in Traditional Knowledge, and applies for all researchers, including government agencies and NWT organizations. It is your responsibility to receive the necessary permits, licenses and permissions before your project begins or continues.

Research licensing in the NWT involves authorities at local, territorial and federal levels. The number and types of permits that you must apply for vary depending on the scope, methods, and location of your research. Review [Doing Research in the Northwest Territories Guide](#) to determine what the licensing requirements will be for your project.

The Scientific Services Office advises that you submit your licensing application and documents at least **three months before** your fieldwork starts. This gives NWT community organizations time to review and provide feedback and gives you time to respond to any questions or concerns.

#### Submit a Traditional Knowledge Data-Sharing Agreement (if applicable)

If your project also collects Traditional Knowledge, you **must** submit a Traditional Knowledge Data-Sharing Agreement to show everyone involved in the project has agreed on how you will use, store, and share the Traditional Knowledge you collect. See [Appendix K](#) for more information.

### 5.2 HOW ARE FUNDS PROVIDED?

We will send you a Contribution Agreement from ECC for you to sign. The program will release an Advance on the approved funding amount upon signing of the agreement. The remaining funding will be released after receiving and approving your annual financial report and project deliverables. The deadline to submit your financial report is **June 30, 2027**.

Upon request, we can distribute a minimum of \$10,000 directly to partnering organizations through contribution agreements. Funds under \$10,000 can only be distributed to Indigenous governments and organizations. We do not send funds directly to private businesses.

### 5.3 HOW DOES NWT CIMP SHARE MY PROJECT RESULTS?

We make information public on the [NWT Discovery Portal](#), which we administer. This online Portal includes a wide range of NWT environmental monitoring information, including NWT CIMP-funded project results. We post scientific journal articles, community presentations, reports, data and maps. Please continue to send us your publications and products as you release them!

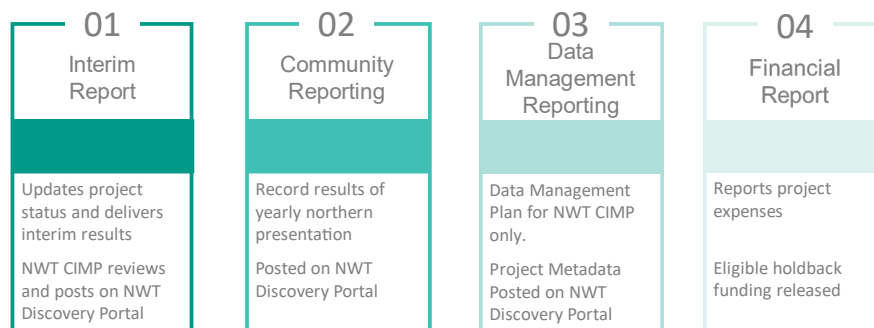
## 6. What reports do I need to submit?

We ask you to report on your project progress and results as the project unfolds. As part of your project, you must:

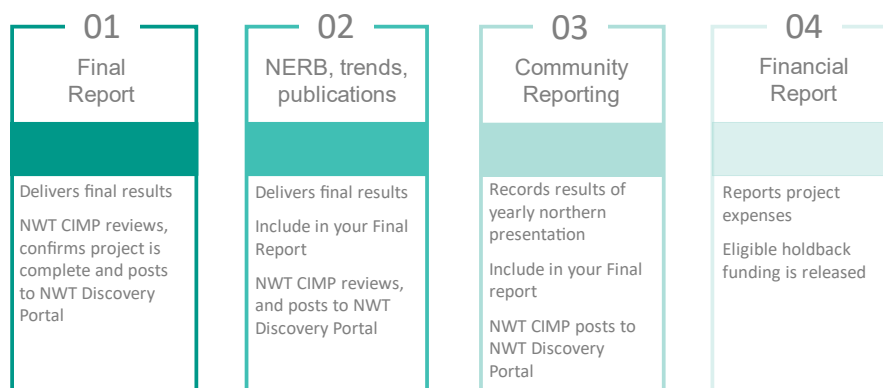
- **Send reports to NWT CIMP**—We use these reports to communicate regularly with communities, northern decision-makers and the public about key results.
- **Report your results to communities**—You must send your results to the communities you are working with and keep them up to date.

### 6.1 PROJECT REPORTING AT A GLANCE

#### First and middle-year projects



#### Final year of funding



**Your project is complete!**

Continue to send us your publications and products as you release them.

## 6.2 WHEN DO I SUBMIT MY PROJECT REPORTS? (KEY DATES)

### For 2026–27 funding



## 6.3 REPORTING DESCRIPTIONS

The list below describes the mandatory and optional reporting requirements. All reports are public, unless stated otherwise.

- Interim Report**—In years 1 and 2, this report summarizes the year’s activities and provides a status update including a financial forecast (we will give you templates).

**How we use it**—The Interim Report helps us assess if a project is on track. NWT CIMP staff review the report, identify any issues and make recommendations on whether to continue funding the project. The financial forecast verifies whether spending is on track and is used to set up the next year’s contribution agreement. Projects that can document progress usually continue to receive funding for the full term.

**How we share it**—Our Steering Committee is updated on project progress. The report is shared publicly (except for the financial forecast) on the NWT Discovery Portal.

**Reporting requirements**—Interim Reports must show how you are addressing each of the criteria in Table 3. You only need to address the current reporting year in your report.

**Table 3—Interim Report Criteria**

Template Section and Criteria	Description
<b>1 – Project Information</b>	<ul style="list-style-type: none"> <li>Project title, lead, organization, location coordinates and status.</li> <li>Attach two high resolution photos with captions, credits and consents.</li> </ul>
<b>2 – Project Progress</b>	<ul style="list-style-type: none"> <li>Provide a status update on project objectives and outcomes.</li> <li>Identify whether anything changed after the contribution agreement was signed. This includes key activities, timelines (completion dates), team members and funding arrangements.</li> <li>Explain any delays in the timelines.</li> </ul>
<b>3 – Key Messages</b>	<ul style="list-style-type: none"> <li>List 3-5 key messages or preliminary results for the year in concise bullets.</li> </ul>

<b>4 – Community Engagement, Communication and Capacity-Building</b>	<ul style="list-style-type: none"> <li>Describe how you involved the community(ies) in the planning and implementation of the project.</li> <li>Describe how you communicated project results to the community(ies).</li> <li>Describe how the project contributed to long-term community capacity, training or employment opportunities.</li> </ul>
<b>5 – Performance Measures</b>	<ul style="list-style-type: none"> <li>Identify and provide a brief explanation of how the project meets the listed performance measures for the reporting year.</li> </ul>
<b>6 – Deliverables</b>	<ul style="list-style-type: none"> <li>Report on the status of each deliverable you outlined in the contribution agreement.</li> <li>Add any additional deliverables you produced.</li> <li>In Year 1, attach your Data Management Plan, Project Metadata and Dataset Metadata (if applicable). Provide annual updates if needed.</li> </ul>
<b>7 – Research License Numbers</b>	<ul style="list-style-type: none"> <li>List all current research licenses associated with this project.</li> </ul>
<b>8 – Financial Forecast (<i>template</i>)</b>	<ul style="list-style-type: none"> <li>Complete the forecast spreadsheet showing how the 2026–27 funding will be spent and explain any proposed revisions.</li> <li>Complete the forecast spreadsheet for 2027–28 and 2028–29 (if applicable) and explain any proposed changes from your proposal.</li> </ul>

- 2. Community reporting**—This is an ongoing requirement throughout your project. You must present key results at least once per year at a relevant northern meeting and provide NWT CIMP with the associated deliverables. Community reporting deliverables may include presentations, summary reports, maps or handouts shared at the meeting.

Here are some options for community reporting:

- Present at NWT CIMP’s regional results workshop (by invite only).** Researchers, community members and decision-makers are invited to discuss results and collaborate on projects. It is a good opportunity to present results, get feedback on the project and form connections. NWT CIMP typically invites projects in their final year to present their findings.
  - Arrange your own northern meeting.** This is a good opportunity to communicate results, collaborate, and attract a wider audience. Some tips:
    - meetings should not charge a registration fee.
    - use plain-language presentations, handouts, and posters to communicate your deliverables.
    - consider using translation when you report your results back to communities.
    - decide what format works best for communicating report results to northern partners (e.g., video conference, pre-recorded video, conference call, and/or poster).
    - may include northern community members and/or representatives of Indigenous Governments, Indigenous Organizations and decision-makers.
- 3. Data Management Plan (DMP)**—This plan is required with your first Interim Report and updated annually. This document outlines how you will store, manage, access and share the information you collect. Here is a sample [template](#) to use in creating your plan. See [Appendix L](#) for more information on our Data Management Policy.
- 4. Project Metadata**—This document is required with your first Interim Report and updated annually. This document includes the information that enables data/information to be discovered, evaluated and reused for other purposes. Here is a sample [template](#) to use. See [Appendix L](#) for more information on our Data Management Policy.

5. **Financial report**—This yearly report summarizes how you spent your funding. Your organization’s financial division usually writes this report. Upon request, a template can be provided. We do not share financial reports publicly.
6. **Final Report**—The Final Report summarizes the findings of the entire project and is submitted in the final project year.

**How we use it**—The Final Report helps us provide a summary of your project to decision-makers and the public.

**How we share it**—It is shared publicly on the NWT Discovery Portal.

**Reporting requirements**—Final Reports must describe how you addressed each of the criteria in Table 4.

**Table 4—Final Report Criteria**

Template Section and Criteria	Description
<b>1 – Project Information</b>	<ul style="list-style-type: none"> <li>Project title, lead, organization, type of research, valued component and location details.</li> <li>Project keywords.</li> <li>Contact information.</li> <li>Attach 2-3 high-resolution photos with captions, credits and consents.</li> </ul>
<b>2 – Key Messages</b>	<ul style="list-style-type: none"> <li>List 3-5 key messages or results in concise bullets.</li> </ul>
<b>3 – Abstract</b>	<ul style="list-style-type: none"> <li>Briefly summarize the project’s purpose, final results and how the project results contribute to a better understanding of cumulative impacts in the NWT.</li> </ul>
<b>4 – Introduction</b>	<ul style="list-style-type: none"> <li>Summarize the project objectives and the project’s relevance to cumulative impact monitoring.</li> <li>Include the monitoring and research questions investigated and why.</li> <li>Include any relevant background information.</li> </ul>
<b>5 – Methods</b>	<ul style="list-style-type: none"> <li>Identify and describe the study area and methods used to collect and analyze the information/data.</li> <li>Provide a map of sample sites.</li> </ul>
<b>6 – Results</b>	<ul style="list-style-type: none"> <li>Identify the project results.</li> <li>Include figures, tables, maps and photos, where appropriate.</li> </ul>
<b>7 – Discussion</b>	<ul style="list-style-type: none"> <li>Interpret the results and put them into context to address the project objectives and questions investigated.</li> <li>Identify how project results contribute to a better understanding of cumulative impacts in the NWT.</li> <li>If applicable, identify how the project has contributed to a better understanding of environmental trends by completing an <a href="#">Environmental Trend Report (ETR)</a>.</li> </ul>
<b>8 – Community Engagement, Communication and Capacity-Building</b>	<ul style="list-style-type: none"> <li>Describe how you involved the community(ies) in the planning and implementation of the project.</li> </ul>

	<ul style="list-style-type: none"> <li>• Describe how you communicated project results to the community(ies).</li> <li>• Describe how the project contributed to long-term community capacity, training or employment opportunities.</li> </ul>
<b>9 – Performance Measures</b>	<ul style="list-style-type: none"> <li>• Identify, explain and provide examples for all the listed performance measures that applied to the project.</li> </ul>
<b>10 – Deliverables</b>	<ul style="list-style-type: none"> <li>• Report on the status of each deliverable included in the contribution agreement.</li> <li>• Explain any changes or delays.</li> <li>• Attach or provide links to updated Project Metadata, Dataset Metadata and open data repositories as applicable.</li> <li>• Note that we require copies of all reports and publications resulting from NWT CIMP-funded research, even after funding is complete.</li> </ul>
<b>11 – References</b>	<ul style="list-style-type: none"> <li>• List all references cited.</li> </ul>
<b>12 – Research License Numbers</b>	<ul style="list-style-type: none"> <li>• List all current research licenses associated with this project.</li> </ul>

7. **NWT Environmental Research Bulletin (NERB)**—This brief project summary follows NERB submission [guidelines](#) and is required in the final project year. We publish these to communicate with communities and decision-makers.
8. **Environmental Trend Report (ETR)(optional)**—If the project involves tracking an environmental trend, we encourage you to complete this [template](#) in the final project year. This is a useful way of communicating environmental trends to communities and regulators. We may publish these in the [NWT State of the Environment Report](#).
9. **Additional publications (optional)**—All project results are useful, even after the project is complete! This includes peer-reviewed reports, non-peer reviewed reports, posters, maps and data. Please share these results with us to make them public on the [NWT Discovery Portal](#).

E-mail all your reporting to [nwtcimp@gov.nt.ca](mailto:nwtcimp@gov.nt.ca) .

***Thank you for your interest!***



# Appendix A: Traditional Knowledge Monitoring Ideas

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NWT CIMP collects cumulative impact monitoring and research information to inform northern decision-making. The program focuses on three valued components: caribou, water and fish. Please see the monitoring and research Blueprints for each valued component's priorities. Many of NWT CIMP's funded projects are successful because they value both scientific data and Traditional Knowledge. For more information, visit our Action Plan and Funding Guides at [www.nwtcimp.ca](http://www.nwtcimp.ca).

NWT CIMP places a high priority on the use of Traditional Knowledge in environmental monitoring and research. The goal is to apply what we learn from Traditional Knowledge to inform northern decision-making. For Traditional Knowledge funded projects, communities choose the focus of projects they propose.

## **NWT CIMP's Definition**

Traditional Knowledge - Facts, information, skills, values and beliefs which have been acquired through experience, observations or by oral means from the land or from spiritual teachings and handed down through generations. Where possible, knowledge will be referred to using the preferred terminology of the knowledge holder or community.

## **NWT CIMP's Key Principles**

NWT CIMP's principles guide us in meeting our mandate and inform project funding allocation. Important principles for applicants to consider are:

- Traditional Knowledge and scientific knowledge are equally important sources of monitoring information and data.
- Community-based monitoring and capacity-building are supported in monitoring cumulative impacts.
- Monitoring cumulative impacts that are **relevant to land and water use decisions** is a strong focus.

We encourage projects to work with communities, Indigenous organizations, Elders and youth to:

- engage and build community-capacity.
- promote strong and self-sustaining communities.
- involve Elders and Traditional Knowledge holders in decision-making.
- help preserve and pass down Traditional Knowledge to future generations.
- encourage young people to build careers related to the environment where their work will contribute to long-term monitoring.

## ***How: Approach(es)***

NWT CIMP supports several monitoring and research approaches including:

- Gathering and reviewing *existing* monitoring or research information.
- Collecting and analyzing *new* information and data, especially where a knowledge gap has been identified.
- Community-led collection, review and documentation of Traditional Knowledge, including people-environment relationships.

## ***Ideas may include:***

- Connections between caribou, water and fish and other parts of the environment.
- How large-scale human activities such as mining and/or linear development, affect caribou, water, fish and peoples' connections to the land.
- How relationships are affected between areas of the environment.
- Ways to incorporate Traditional Knowledge in resource development decision-making.
- **Caribou**
  - Caribou-people relationships and how they are changing.

- Health, range, habitat, vegetation, predation, behaviours, how climate change is impacting these, and how they interact.
- Information on hunting activity, camp and trail locations.
- Establishing and expanding winter track monitoring programs.
- **Water**
  - Water-people relationships and how they are changing.
  - Cultural indicators of water, identification of important water bodies, how climate change is impacting these, and how these interact.
- **Fish**
  - Fish-people relationships and how they are changing.
  - Fish health, habitat use, distribution patterns and changes in fish species over time and with climate change, and how these interact.

# Appendix B: NWT CIMP Caribou Monitoring and Research Blueprint

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NWT CIMP focuses on three valued components: caribou, water and fish. Please see the other Blueprints if your project has the potential to overlap. For more information, visit our [Action Plan](#).

## Background

### **What is the Caribou Monitoring and Research Blueprint and how is it to be used?**

The Caribou Blueprint informs NWT CIMP funding applicants of key caribou-related cumulative impact monitoring and research priorities of key decision-makers and subject-matter experts. It describes information that is necessary to better understand cumulative impacts to caribou and the relationships between people and caribou.

For science projects to be considered for NWT CIMP funding, project submissions *must* demonstrate that they meet Blueprint priorities. The Blueprint guides the NWT CIMP Steering Committee and staff on the allocation of funds. See the NWT CIMP Science Project Funding Guide for more information on the funding process.

### **Who informs the Blueprint?**

NWT CIMP engaged subject-matter experts with direct involvement in caribou monitoring, research and management to update specific and high monitoring and research priorities. These are NWT CIMP's funding priorities for the duration of the current Action Plan (2021–2025). Experts engaged included co-management boards, government scientists and regulators, and the NWT CIMP Steering Committee.

## NWT CIMP's Key Principles

NWT CIMP's principles guide us in meeting our mandate and inform project funding allocation. Funding applicants should be aware of these principles, and, where possible, align their proposals with them. Important principles for applicants to consider are:

- Monitoring cumulative impacts that are relevant to land and water use decisions is a strong focus.
- Traditional Knowledge and scientific knowledge are equally important sources of monitoring information and data.
- Community-based monitoring and capacity-building are supported in monitoring cumulative impacts.
- Effects- and stressor-based approaches are encouraged.
- Use of common and standardized data collection and analysis protocols are encouraged.

## The Caribou Monitoring and Research Blueprint

This section details the locations, methods and topics of focus that are high priorities for NWT CIMP for both barren-ground and boreal caribou.

### **Where: Geographic locations of study**

NWT CIMP prioritizes monitoring and research in areas impacted by disturbances, or vulnerable to disturbances. These include:

- Areas of past, current or future development interest;
- Areas impacted by climate change related disturbances;
- Areas vulnerable to impacts by climate change;
- Areas that support resilience to climate change (e.g., refugia); and
- Temporal (e.g., seasonal and annual variability, long term trends) and spatial (range, regional) scales.

### **How: Approach(es)**

NWT CIMP supports several monitoring and research approaches including:

- Comparative studies across barren-ground herds
- Synthesis and analysis of existing monitoring or research data;
- Collection and analysis of new data, using standardized methods where possible;
- Model development and/or implementation (e.g. empirical or physically-based models); and
- Community-led collection and synthesis of Traditional Knowledge, including people-caribou relationships.

## Priorities for Barren-ground Caribou

NWT CIMP places a high priority on the use of Traditional Knowledge in environmental monitoring and research. Traditional Knowledge is an important source of knowledge to better understand each of the following priority questions. Identifying cultural indicators and methods, changing people-caribou relationships and traditional use mapping are monitoring and research approaches that could be considered. For additional information, refer to Traditional Knowledge Monitoring Ideas.

NWT CIMP's priorities are summarized in the table below and include disturbances from human activities (e.g., roads, oil and gas, forestry, mining, municipal infrastructure) and climate change (e.g., vegetation changes; fire dynamics; permafrost thaw).

To be considered for funding (up to \$70,000 annually for up to three years), the project proposal must clearly address one or more priority questions.

**1. What drives barren-ground caribou herd numbers up and down? (population, abundance and trend metrics)**

- a. What are the predator-prey relationships, implications to caribou recovery and variation with herd size?
  - i. how wolves affect caribou calf and adult survival rates;
  - ii. ecology of tundra wolves and caribou; and
  - iii. how grizzly bears affect early caribou calf mortality
  - iv. how climate change may alter predator-prey relationships (e.g., changes in overlap of predator and prey ranges, and/or prey switching).
- b. What are the drivers of mortality/survival, pregnancy rates and calf survival/recruitment rates?
- c. Why are the patterns and trends so different among barren-ground herds?
- d. modeling that integrates demographic data, predation, harvest, environmental data, and assesses cumulative impacts on population trends
- e. other factors that affect caribou demographics and health

**2. Why does the extent and severity of population cycles differ among herds?**

- a. Comparative studies of migratory herds considering habitat/vegetation diversity, variation in demographics, and predator/prey relationships.

**3. What are the climate change implications to caribou demographics and migrations?**

Traditional Knowledge and understanding is central to answering these questions.

- a. What are the key migratory routes, water body crossings, and climate refugia, and how do we prioritize them to maintain connectivity and free migratory passage among them?
- b. Considering dynamic range use, where are the key areas and how will these change with climate change?
- c. What are the changes in vegetation and impacts of those changes to caribou demographics, comparing across migratory herds?
- d. What are the key climatic drivers of herd demographics?
- e. How can climate change and caribou demographics be used to predict future trends?

## Priorities for Boreal Caribou

NWT CIMP places a high priority on the use of Traditional Knowledge in environmental monitoring and research. Traditional Knowledge is an important source of knowledge to better understanding each of the following priority areas. Identifying cultural indicators and methods, changing people-caribou relationships and traditional use mapping are monitoring and research approaches that could be considered. For additional information, refer to [Traditional Knowledge Monitoring Ideas](#).

NWT CIMP's priorities are summarized in Table 1 below and include disturbances from human activities and climate change. To be considered for funding (up to \$70,000 annually for up to three years), the project proposal **must** clearly address one or more priority areas.

**Table 1:** Boreal caribou priority areas related to disturbances, factors of interest, and scales of study

Many of NWT CIMP priorities can be grouped according to the statement:  <p style="text-align: center;"><b>“The impact(s) of [ disturbance 1] and [ disturbance 2] on [caribou-related factor(s)], at the scale of [scale(s) of study].”</b></p>		
<b>Disturbances</b> (identify two or more)	<b>Related factors</b> (identify one or more)	<b>Scales of study</b> (identify one or more)
<ul style="list-style-type: none"> <li>• <b>Human activities</b> (e.g. roads, oil and gas, forestry, mining, municipal infrastructure)</li> <li>• <b>Climate change-related and/or natural disturbances</b> (e.g. vegetation changes; fire dynamics; permafrost thaw; refugia)</li> </ul>	<p><b>Population abundance and health:</b></p> <ul style="list-style-type: none"> <li>• modeling that integrates demographic data and assesses cumulative impacts on population trends</li> <li>• drivers of mortality/survival, pregnancy rates and calf survival/recruitment rates</li> <li>• predator-prey dynamics (influence on caribou mortality/survival rates)</li> </ul> <p><b>Caribou distribution and behaviour:</b></p> <ul style="list-style-type: none"> <li>• habitat selection, foraging and movement</li> <li>• diets, feeding rates, activity budgets, energetics</li> <li>• key indicators of change</li> <li>• Zone of Influence</li> </ul> <p><b>Range condition:</b></p> <ul style="list-style-type: none"> <li>• habitat/forage quality (vegetation distribution, productivity and phenology)</li> <li>• habitat supply/availability (fragmentation/</li> </ul>	<p><b>Temporal scale:</b></p> <ul style="list-style-type: none"> <li>• seasonal and annual variability</li> <li>• long-term trends</li> </ul> <p><b>Spatial:</b></p> <ul style="list-style-type: none"> <li>• local-scale</li> <li>• seasonal range scale</li> <li>• range-scale</li> <li>• regional</li> </ul>

	<ul style="list-style-type: none"> <li>• connectivity, rates of habitat regeneration, etc.)</li> <li>• changes in important/preferred habitat</li> </ul> <p><b>People-caribou relationships:</b></p> <ul style="list-style-type: none"> <li>• identification of cultural indicators and methods that can be shared widely</li> <li>• traditional use mapping</li> <li>• understanding how relationships with caribou are changing</li> </ul>	
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# Appendix C: NWT CIMP Water Monitoring and Research Blueprint

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NWT CIMP focuses on three valued components: caribou, water and fish. Please see the other Blueprints if your project has the potential to overlap. For more information, visit our [Action Plan](#).

## Background

### **What is the Water Monitoring and Research Blueprint and how is it to be used?**

The Water Blueprint informs NWT CIMP funding applicants of water-related cumulative impact monitoring and research priorities of key land and water decision-makers and subject-matter experts. It describes information that is necessary to better understand cumulative impacts to water, and the relationships between people and water.

For science projects to be considered for NWT CIMP funding, project submissions *must* demonstrate that they meet Blueprint priorities. The Blueprint guides the NWT CIMP Steering Committee and staff on the allocation of funds. See the NWT CIMP Science Project Funding Guide for more information on the funding process.

### **Who informs the Blueprint?**

NWT CIMP engaged subject-matter experts with direct involvement in water monitoring, research and management to update specific and high monitoring and research priorities. These are NWT CIMP's funding priorities for the duration of the current Action Plan (2021-2025). Experts engaged included co-management boards, government scientists and regulators, and the NWT CIMP Steering Committee.

## NWT CIMP's Key Principles

NWT CIMP's principles guide us in meeting our mandate and inform project funding allocation. Funding applicants should be aware of these principles and, where possible, align their proposals with them. Important principles for applicants to consider are:

- Monitoring cumulative impacts that are **relevant to land and water use decisions** is a strong focus.
- Traditional Knowledge and scientific knowledge are equally important sources of monitoring information and data.
- Community-based monitoring and capacity-building are supported in monitoring cumulative impacts.
- Effects and stressor-based approaches are encouraged.
- Use of common and standardized data collection and analysis protocols is encouraged.

## The Water Monitoring and Research Blueprint

This section details the locations, methods and topics of focus that are high priorities for NWT CIMP.

### **Where: Geographic locations of study**

NWT CIMP prioritizes monitoring and research in areas impacted by disturbances, or vulnerable to disturbances. These include:

- Areas of past, current or future development interest;
- Areas impacted by climate change related disturbances;
- Areas vulnerable to impacts by climate change.
- Areas that support resilience to climate change; and
- Temporal (e.g., seasonal and annual variability, long term trends) and spatial (range, regional) scales.

### **How: Approach(es)**

NWT CIMP supports several monitoring and research approaches including:

- Synthesis and analysis of existing monitoring or research data;
- Collection and analysis of new data, using standardized methods where possible;
- Model development and/or implementation (e.g. empirical or physically-based models); and
- Community-led collection and synthesis of Traditional Knowledge, including people-water relationships.

### **What: Priorities**

NWT CIMP places a high priority on the use of Traditional Knowledge in environmental monitoring and research. Traditional Knowledge is an important source of knowledge to better understand the following priorities. Identifying cultural indicators and methods, changing people-water relationships and traditional use mapping are monitoring and research approaches that could be considered. For additional information, refer to [\*Traditional Knowledge Monitoring Ideas\*](#).

NWT CIMP's priorities are summarized in the Table 1 below and include disturbances from human activities and climate change. To be considered for funding (up to \$70,000 annually for up to three years), the project proposal **must** clearly address one or more priority areas.

**Table 1: Water priority areas related to disturbances, water related factors of interest, and scales of study**

<p>Many of NWT CIMP priorities can be grouped according to the statement:</p> <p><b>“The impact(s) of [ disturbance 1] and [ disturbance 2] on [water-related factor(s)], at the scale of [scale(s) of study].”</b></p>		
<p><b>Disturbances</b> (identify two or more)</p>	<p><b>Related factors</b> (identify one or more)</p>	<p><b>Spatial scale(s) of study</b> (identify one or more)</p>
<ul style="list-style-type: none"> <li>• <b>Human activities</b> (e.g. roads, oil and gas, forestry, mining, municipal infrastructure)</li> <li>• <b>Climate change-related and/or natural disturbances</b> (e.g. permafrost thaw, precipitation change, forest fires, flooding)</li> </ul>	<p>Of lakes, rivers/streams, or wetlands (baseline conditions, seasonal variability, and/or long-term trends):</p> <p><b>Water balance</b> (surface and groundwater)</p> <ul style="list-style-type: none"> <li>• Modeling tools to help anticipate future changes</li> <li>• Hydrological studies to develop long-term trends</li> </ul> <p><b>Water quality</b></p> <ul style="list-style-type: none"> <li>• Understanding permafrost thaw slump contributions to sediment load and associated river chemistry</li> <li>• Existing and projected vulnerabilities on lakes from climate change and land use impacts</li> <li>• Impacts to lake ice, water temperature and nutrient dynamics</li> </ul> <p><b>Biotic elements of aquatic ecosystem health: (except fish – please see Fish Blueprint)</b></p> <ul style="list-style-type: none"> <li>• Key indicators of change</li> <li>• Impacts of DOM, nutrients and sediment load</li> </ul> <p><b>People-water relationships:</b></p> <ul style="list-style-type: none"> <li>• Identification of cultural indicators and methods that can be shared widely</li> <li>• Traditional use mapping</li> <li>• Understanding how relationships with water are changing</li> </ul> <p><b>Ecosystem-based:</b></p> <ul style="list-style-type: none"> <li>• Identifying key aquatic ecosystem indicators of stress susceptible to change</li> <li>• Identifying predominant</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Regional-scale</b> (e.g. Dehcho, Mackenzie Delta, Ts’udé Nijiné Tuyeta, Taiga Plains)</li> <li>• <b>Catchment-scale</b> (e.g. Marian Watershed, Baker Creek catchment, community catchments)</li> <li>• <b>Local/point-scale</b> (e.g. a landslide, greater area around a mine, a specific lake)</li> </ul> <p><b>Temporal scale:</b></p> <ul style="list-style-type: none"> <li>• seasonal and annual variability</li> <li>• long-term trends</li> <li>• temporal comparisons within watersheds (e.g. Upper Peel)</li> </ul>

	<p>drivers of variability, and their relative importance</p> <ul style="list-style-type: none"> <li>• Understanding processes governing disturbance-impact relationships</li> <li>• Understanding resilience and ecological thresholds</li> </ul>	
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# Appendix D: NWT CIMP Fish Monitoring and Research Blueprint

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NWT CIMP focuses on three valued components: caribou, water and fish. Please see the other Blueprints if your project has the potential to overlap. For more information, visit our [Action Plan](#).

## Background

### ***What is the Fish Monitoring and Research Blueprint and how is it to be used?***

The Fish Blueprint informs NWT CIMP funding applicants of key fish-related cumulative impact monitoring and research priorities of key land and water regulators and subject-matter experts. It describes information that is necessary to better understand cumulative impacts to fish and the relationships between people and fish.

For science projects to be considered for NWT CIMP funding, project submissions *must* demonstrate that they meet Blueprint priorities. The Blueprint guides the NWT CIMP Steering Committee and staff on the allocation of funds. See the NWT CIMP Science Project Funding Guide for more information on the funding process.

### ***Who informs the Blueprint?***

NWT CIMP engaged subject-matter experts with direct involvement in fish monitoring, research and management to update specific and high monitoring and research priorities. These are NWT CIMP's funding priorities for the duration of the current Action Plan (2021-2025). Experts engaged included co-management boards, government scientists and regulators, and the NWT CIMP Steering Committee.

## NWT CIMP's Key Principles

NWT CIMP's principles guide us in meeting our mandate and inform project funding allocations. Applicants should be aware of these principles, and, where possible, align their proposals with them. Important principles that applicants should consider are:

- Monitoring cumulative impacts that are **relevant to land and water use decisions** is a strong focus.
- Traditional Knowledge and scientific knowledge are equally important sources of monitoring information and data.
- Community-based monitoring and capacity-building are supported in monitoring cumulative impacts.
- Effects- and stressor-based approaches are encouraged.
- Use of common and standardized data collection and analysis protocols are encouraged.

## The Fish Monitoring and Research Blueprint

This section details the locations, methods and topics of focus that are high priorities for NWT CIMP.

### **Where: Geographic locations of study**

NWT CIMP prioritizes research and monitoring in areas impacted by disturbances, or vulnerable to disturbances. These include:

- Areas of past, current or future development interest;
- Areas impacted by climate change related disturbances; and
- Areas vulnerable to impact by climate change.

### **How: Approach(es)**

NWT CIMP supports several monitoring and research approaches including:

- Synthesis and analysis of existing research or monitoring data;
- Collection and analysis of new data, using standardized methodology when possible;
- Model development and/or implementation (e.g., empirical or physically-based models); and
- Community-led collection and synthesis of Traditional Knowledge, including people-fish relationships.

NWT CIMP places a high priority on the use of Traditional Knowledge in environmental monitoring and research. Traditional Knowledge is an important source of knowledge to better understand each of the following priorities. Identifying cultural indicators and methods, changing people-fish relationships and traditional use mapping are monitoring and research approaches that could be considered. For additional information, refer to [\*Traditional Knowledge Monitoring Ideas\*](#).

### **What: Priorities**

NWT CIMP places a high priority on the use of Traditional Knowledge in environmental monitoring and research. Traditional Knowledge is an important source of knowledge to better understand each of the following priority questions. Identifying cultural indicators and methods, changing people-fish relationships and traditional use mapping are monitoring and research approaches that could be considered. For additional information, refer to [\*Traditional Knowledge Monitoring Ideas\*](#).

NWT CIMP's priorities are summarized in Table 1 below and include disturbances from human activities and climate change. To be considered for funding (up to \$70,000 annually for up to three years), the project proposal **must** clearly address one or more priority areas.

**Table 1:** Fish priority areas related to disturbances, fish related factors of interest, and scales of study

Many of NWT CIMP priorities can be grouped according to the statement:  “The impact(s) of [disturbance 1] and [disturbance 2] on [fish-related factor(s)], at the scale of [scale(s) of study].”		
<b>Disturbances</b> (identify two or more)	<b>Related factors</b> (identify one or more)	<b>Spatial scale(s) of study</b> (identify one or more)
<ul style="list-style-type: none"> <li>• <b>Human activities</b> (e.g. roads, oil &amp; gas, forestry, mining, municipal infrastructure)</li> <li>• <b>Climate change-related and/or natural disturbances</b> (e.g. permafrost thaw, precipitation change, forest fires, flooding)</li> </ul>	<p><b>Ecosystem-based:</b></p> <ul style="list-style-type: none"> <li>• identifying key indicators of stress that are susceptible to change</li> <li>• identifying predominant drivers of variability, and their relative importance</li> <li>• understanding processes driving disturbance-impact relationships</li> <li>• understanding resilience and ecological thresholds</li> <li>• thresholds limiting abundance, distribution, or habitat use</li> <li>• establishing baseline conditions, seasonal variability, and/or long-term trends</li> </ul> <p><b>Fish health</b></p> <p><b>Contaminants in fish*</b></p> <ul style="list-style-type: none"> <li>• identifying mechanisms of contaminant movement through the food web and ecosystem</li> </ul> <p><b>Fish habitat</b></p> <p><b>People-fish relationships:</b></p> <ul style="list-style-type: none"> <li>• identifying cultural indicators and methods that can be shared widely.</li> <li>• traditional use mapping</li> <li>• understanding how relationships with fish are changing</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Regional-scale</b> (e.g. Dehcho, Mackenzie Delta, Ts’udé Niljné Tuyeta, Taiga Plains)</li> <li>• <b>Catchment-scale</b> (e.g. Marian Watershed, Baker Creek catchment, community catchments)</li> <li>• <b>Local/point-scale</b> (e.g. a landslide, greater area around a mine, a specific lake)</li> </ul>

**\*Note:** When studying heavy metals in fish tissue, if it is determined that total arsenic concentration exceeds 3.5 ppm or the total mercury exceeds 0.5 ppm in fish tissue, NWT CIMP requires that the waterbody be identified to NWT CIMP and GNWT Health and Social Services. Researchers who are interested in establishing the relationship between total arsenic and the various species of arsenic within fish tissue should contact NWT CIMP for more information.



# Appendix E: Road Development Impacts Funding Call

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## Background

Most of the NWT is protected from the impacts of human disturbance and development due to its extreme remoteness. However, there is currently considerable investment in NWT roads, including both the development of new roads and transitioning winter roads to all-season roads (e.g., Makenzie Valley Highway, Lockhart All-Season Road). There is substantial public concern about the impacts that road development may have on caribou herds, and previously inaccessible waterbodies and fish. Road development may represent a cumulative impact with multiple stressors from the road itself (e.g., physical barrier, increased access to remote areas, traffic) or other environmental stressors may interact with the roads (e.g., climate change, extreme flood or drought, permafrost thaw). NWT decision-makers have a vested interest in ensuring that environmental impacts from roads are well understood, considered and addressed in ongoing and future environmental assessments.

To help address these knowledge gaps, the Government of the Northwest Territories Department of Environment and Climate Change (GNWT ECC) is providing a directed funding call. This opportunity is available through the NWT Cumulative Impact Monitoring Program (NWT CIMP) for projects that are Traditional Knowledge-based, science-based and/or projects that combine both approaches. Participants in the three-year funding initiative will work together to develop new knowledge and information that can provide guidance for ongoing environmental assessments and regulatory processes involving all-season and winter road construction in the NWT.

## Funding opportunity description:

This directed funding call provides targeted funding to understand the cumulative impacts of all-season and winter road development on caribou (any ecotype), water and fish and to inform best practices for mitigating these impacts. A maximum of **\$100,000 for each of the three years** is available.

## How is this different from NWT CIMP's annual funding call?

- Additional funds support project teams in working together to combine research and knowledge (e.g., monthly meetings, workshops, publishing a special report and communications products).
- Project teams put knowledge into action to inform road development and management decisions in the NWT by working together to plan and write a knowledge synthesis report based on the results across projects. To co-develop this report, in-person attendance is required in year 1 and year 3 of the project to meet with regulatory and environmental assessment decision makers (Years 1 and 3), plan chapter outlines (Year 1) and to write the synthesis report (Year 3).
- Traditional Knowledge and science perspectives will be reflected in a collaborative report (Knowledge Synthesis) to guide decision-makers on best practices for minimizing the impact of roads on caribou, water and fish in the NWT.
- To support resource management decision-maker needs, funding decisions will prioritize work that informs mitigation methods.

Eligible projects will meet the following requirements:

1. All applicants *must* address at least one of the **Priority Questions for Road Development** listed below. Project proposals must address multiple stressors from the road itself (e.g., physical barrier, increased access to remote areas, traffic) or other stressors that may interact with the roads (e.g., climate change, extreme flood or drought, permafrost thaw).
2. All applicants *must* meet NWT CIMP's evaluation criteria, reporting and all other requirements as outlined in NWT CIMP's Science Project Funding Guide for 2026–27 and/or the Traditional Knowledge Project Funding Guide for 2026–27.

3. Putting knowledge into action (knowledge mobilization) is a key outcome of this initiative. All applicants *must* participate in co-developing synthesized guidance on minimizing the impact of roads on caribou, water and fish during monthly meetings and two in-person workshops.
4. Applicants *must* demonstrate how community capacity building and engagement will occur throughout the project. Education and outreach can be outcomes of successfully funded projects.
5. Proposals and budgets *must* clearly demonstrate:
  - a. Participation in an in-person NWT workshop in Years 1 and 3 (possibly in Inuvik, NT) to meet with regulatory and environmental assessment decision-makers and develop guidance on minimizing the impact of roads on caribou, water and fish and
  - b. Participation in a minimum of one northern meeting with communities each year.
6. All applicants *must* follow sound data management requirements and practices as per NWT CIMP's Funding Guides.

## **Priority Questions for Road Development**

### *Permeability and habitat fragmentation*

- What determines whether caribou are able and willing to cross roads (i.e. permeability)?
  - Does permeability change seasonally?
  - Does permeability differ between ecotypes or herds?
  - Does traffic level, truck size, and associated mitigation measures (i.e., traffic types [e.g., trucks, 18-wheelers], convoys, speed limit) influence permeability?
  - What physical features determine how permeable a road is to caribou (e.g. road surface, berm height, gravel banks, landscape features)? Can these features be mitigated?
- How can we predict where the road will form a barrier to groundwater flow? How is subsurface ground water impacted by culverts and other road barriers?
- How will surface flow be impacted by roads?
- Can hydrologic models be developed to predict peak flows that account for permafrost thaw and climate change impacts?

### *Mortality and harvest*

- What are the cumulative impacts of roads on caribou at the population level? What are the long-term impacts on population trends?
  - How do roads influence harvest?
    - How much harvest is occurring?
    - How far does harvest occur off roads?
    - What are the impacts of hunting to adult survival rates?
  - How does delayed migration due to road barriers influence caribou survival and reproduction?
  - How do roads influence how caribou interact with other species? How do roads influence predation? Do roads increase access for other species to the area that may not have been there previously?

### *Mitigation measures*

- How effective are mitigation measures at reducing the impacts of roads on caribou? Mitigation measures under consideration include but are not limited to, the following:
  - Mining traffic convoys
  - Road closures
  - Speed limits
  - Right-of-Way policy
  - Specific construction practices
  - Mobile Hunting Zones
  - Bridges
- How effective are mitigation measures at reducing the impacts of roads on fish passage and habitat fragmentation? How effective are these mitigations in the context of permafrost thaw? Mitigation measures under consideration include but are not limited to:

- Different culvert designs (e.g., open bottom culverts, different sizes)
  - Bridges
- How effective are mitigation measures at reducing the impacts of roads on water quality and fish habitat, focusing on impacts related to bank erosion? How effective are erosion mitigations in the context of permafrost thaw? Effectiveness may vary regionally. Mitigation measures under consideration include but are not limited to, the following:
  - Bank stabilization
  - Re-vegetation
  - Capacity to accommodate high flow (e.g., flooding)
- How effective are mitigation measures at reducing the impacts of roads as barriers to groundwater flow? How effective are these mitigations in the context of permafrost thaw? Mitigation measures under consideration include but are not limited to:
  - Different culvert designs (e.g., open bottom culverts, different sizes)

# Appendix F: Data Collection Protocols and Guidance

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We highly recommend the use of the following protocols and guidance for your project.

## CARIBOU

Boreal:

- [National Boreal Caribou Knowledge Consortium](#) monitoring methods (type in “Factsheet” in the search bar)

Caribou behaviour:

- Contact [nwtcimp@gov.nt.ca](mailto:nwtcimp@gov.nt.ca) for a draft monitoring protocol.

## WATER QUALITY AND AQUATIC HEALTH

Community-based monitoring data collection:

- [Community-Based Water Monitoring Protocol](#) developed by GNWT-ECC. It is currently being used to collect water quality data in 22 NWT communities mainly along the Mackenzie River.
- [NWT CIMP Community-Based Water Monitoring Guidance](#) developed by GNWT-ECC.
- [Standardized Water Sampling Instructions](#) developed by GNWT Taiga laboratory.
- [Mackenzie DataStream](#) (accessible through Chrome) has several water quality data collection templates, including for grab samples and sondes.

Northern water quality study design:

- [Northern waters: a guide to designing and conducting water quality monitoring in northern Canada](#) developed by Northern Ecological Monitoring and Assessment Network (Environment and Climate Change Canada)
- [Protocols Manual for Water Quality Sampling in Canada](#) developed by the Canadian Council of Ministers of the Environment (CCME).

Benthic invertebrates as a measure of stream health:

- [Canadian Aquatic Biomonitoring Network \(CABIN\) Protocol](#) developed by Environment and Climate Change Canada.

## FISH

Detection of salmonids in northern mountain streams:

- [Native Stream Occupancy Monitoring Protocol](#)

Fish species and fish communities, physical and chemical water characteristics, aquatic invasive species, and fishing effort for lakes:

- [Broad Scale Fish Community Monitoring Protocol](#)

Broad whitefish community-based monitoring – sampling instructions, protocol and harvest record: CIMP195

- [Broad Whitefish Sampling Protocol](#) (search project CIMP195 in the NWT Discovery Portal)

NWT Mercury Surveillance Monitoring in fish:

- [Protocol](#) and [Sampling Form](#)

## VEGETATION

Natural variability in the vegetation of different site types:

- [Monitoring Vegetation in the Northwest Territories](#). Once this baseline has been established, it can be used to assess the effects of disturbance and other environmental changes. Template data sheets are available at this [website](#) following the Research/Arctic Vegetation Change tab for active layer,

berries, community composition, functional groups, sample collection, site description and tree measurements.

Natural variability in time and space in berry productivity across the Canadian Arctic and Sub-Arctic:

- [Berry Monitoring Protocol](#) developed by the Universities of Quebec, Montreal and British Columbia.

Seismic Line Recovery:

- [Data Collection Manual & Methods](#) developed by the GNWT Forest Management.

*NWT CIMP adds additional recommended protocols and standards to this list as they are adopted.*

# Appendix G: Influential Decision-Makers in the NWT

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The organizations below shape northern resource management decisions. In particular, they help set the monitoring priorities for NWT CIMP. We also communicate results from projects back to these organizations to help them make evidence-based decisions.

We encourage applicants to learn about influential organizations in northern resource management in their project area.

## **Indigenous Governments/Indigenous Organizations**

Akaiitcho Territory Government  
Dehcho First Nations  
Inuvialuit Joint Secretariat  
Inuvialuit Regional Corporation  
Tłıchǫ Government

Gwich'in Tribal Council  
North Slave Métis Alliance  
Northwest Territory Métis Nation  
Sahtu Secretariat Incorporated

## **Northern Resource Co-Management Boards**

Environmental Impact Review Board  
Inuvialuit Water Board  
Gwich'in Land and Water Board  
Gwich'in Renewable Resources Board  
Wek'èezhii Land and Water Board  
Wek'èezhii Renewable Resources Board

Mackenzie Valley Review Board  
Mackenzie Valley Land and Water Board  
Sahtu Land Use Planning Board  
Sahtu Renewable Resources Board

## **Government of the Northwest Territories**

Industry, Tourism and Investment (NWT Geological Survey)  
Education, Culture and Employment (Prince of Wales Northern Heritage Centre; Aurora Research Institute)  
Environment and Climate Change  
Infrastructure  
Executive and Indigenous Affairs  
Municipal and Community Affairs

## **Government of Canada**

Crown-Indigenous Relations and Northern Affairs Canada  
Fisheries and Oceans Canada  
Environment and Climate Change Canada  
Parks Canada  
Natural Resources Canada

# Appendix H: “Designing Your Project” Guide

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A well-designed monitoring or research project is key! Below is a step-by-step guide to help design your project. You are more likely to receive NWT CIMP funding if you follow these steps.

## **Step 1: Define a purpose. Why is monitoring needed?**

The first and most important step is to clearly define the study’s purpose. This may be broad—*We want to know if water is changing*. Or it may be specific—*We want to know if climate change is causing higher water levels*. A clear understanding of the objectives and rationale will help shape all other steps in your study design.

## **Step 2: Identify important connections. How do things connect, and what should we monitor?**

A clear purpose to your project will help you identify exactly what you should monitor. Also, identifying important connections between different parts of the environment—for example, the connections between climate change, permafrost thaw, groundwater and water levels—will help you to figure out if you should monitor additional aspects. You could bring in other partners and subject-matter experts to discuss possible connections.

## **Step 3: Review current information. What is already known?**

This step involves reviewing Traditional Knowledge and scientific reports about the issue you want to study. It will help you identify similar studies, existing information sources, and appropriate methods to collect and analyze data. It may also help you sharpen the project’s purpose and refine your ideas about how things connect (steps 1 and 2).

## **Step 4: Ask the right questions. What needs to be answered?**

At this point, you will have a clear purpose, know what you want to monitor, and have a good sense of available information. You can now define specific monitoring or research questions that will guide the collection and analysis of information. For example: *How is permafrost thaw changing groundwater flow? What impact is changing groundwater flow having on water levels in lakes and rivers?*

## **Step 5: Make a plan. How will we find answers?**

This step is all about finding ways to answer the questions posed in step 4. You will need to create a detailed plan that spells out how, where, and when you will collect, store, analyze, and report information, and who will do these tasks. This step includes figuring out logistics for transportation, equipment, safety, and environmental protection.

## **Step 6: Collect information. How do we gather the observations?**

Data collection is typically the most expensive step in northern monitoring. This means it is important that you clearly define, understand, and have a well-trained team carry out your observations—whether through field work or interviews.

## **Step 7: Analyze information. How can we turn observations into useful knowledge?**

Analyze *how you unlock* the knowledge you gathered in the information you collected in step 6. Traditional stories and observations from communities provide valuable insights into what’s happening on the land. Such insights can go a long way towards answering key monitoring questions.

**Step 8: Report findings. How should we tell our story?**

The “story” your study reveals needs to be told in the *right way* to the *right people*. Know your target audience. Decide what key messages you should deliver and *how* to deliver them. It is very important to report how the results teach us better ways to manage the land.

**Step 9: Adapt to changes. What has changed? Should we adjust the project?**

If a project is designed to take place over a long period, important things might change as time goes on. It is important to keep an eye on and track these changes. They include the environment itself and the original project partners, team leaders, funding levels, community values, or government priorities. You may need to adjust the study design to stay relevant and effective.

If you would like more details on these steps to designing a project, check out this resource: ["Working together towards relevant environmental monitoring and research in the NWT"](#).



# Appendix I: What do I include in my budget?

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## **IMPORTANT:**

We look for budgets that maximize the benefits to northern communities.

Eligible expenses are incremental costs specifically related to the research project. These costs are supplemental to existing ongoing costs and are encountered due to the research work being conducted.

Leveraged funding may include cash and/or in-kind donations to the project. In-kind donations are non-cash contributions valued for the project period only.

Verification of costs incurred and leveraged funding may be requested with the Interim and/or Final financial reporting.

## **Professional fees and services**

- Subcontract services for custom work (e.g. laboratory analyses).
- Wages for people hired specifically for the project.
  - This does not include salaried employees for non-Indigenous or community organizations.
  - Indigenous or community organizations may request a salary replacement for employees participating in the project.
- Honoraria and stipends.
- Tuition and related costs are **not** eligible for funding.

## **Equipment, materials and facilities**

- Equipment needed specifically for the project (whether bought, leased or rented).
- Field and sampling supplies and facilities.
- Hall and meeting-room rental.
- Catering for meetings.

## **Travel Expenses – Related to knowledge transfer through seminar, conference, workshop or northern meetings**

- Airfare, car rental, mileage, meals and accommodation.
- Registration fees to attend event.
- Events held in the NWT are preferred.

## **Travel Expenses – Related to research project activities**

- Airfare, car rental, mileage, meals and accommodation.
- Setup of field camps.
- Vehicle, boat, snowmobile and aircraft rental.
- Gas and shipping charges.

## **Overhead (excluding federal and territorial governments)**

- Maximum 15% of total approved funding provided to organization directly.
- Miscellaneous costs such as office supplies, office space, administration and operating expenses.

## **Copyright for publications (public)**

- We encourage you to publish project results in an open access journal. An additional \$5,000 may be available to allow distribution rights to the paper. This is reviewed on a case-by-case basis.

**Contact us if you have questions about eligible costs and leveraged funding.**

## Appendix J: Letter of Intent Submission Form

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[Fillable Letter of Intent form](#)

# Appendix K: Traditional Knowledge Data-Sharing Agreement

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Traditional Knowledge gathered from Indigenous communities and people is an important resource. Both communities and individuals are keepers of collective cultural knowledge. Researchers must treat this knowledge with respect and only share it with consent.

All Traditional Knowledge projects and projects that include both Traditional Knowledge and science, **must** have and submit a Traditional Knowledge Data-Sharing Agreement to receive funding—unless the community organization is the funding recipient. This agreement will clarify how Traditional Knowledge will be shared with various parties. The agreement ensures you have:

- explained to each person how you will use their knowledge
- received formal consent from each person to share their knowledge

NWT CIMP has a sample [template](#) to help you draft an agreement that meets the needs of everyone involved. Projects can modify this template in collaboration with the community, if necessary.

Every agreement must specify:

- any Traditional Knowledge you gather from the project remains the property of the people who shared it with you
- the agreement does not override the fact that Indigenous communities have full rights over their own unique Traditional Knowledge
- what information will be shared and with whom, while protecting the communities' rights to their knowledge
- the project may share summaries of the research in documents, publications, reports, videos, presentations, websites, or posters (NWT CIMP requires summaries we can share publicly)
- the research based on Traditional Knowledge can be considered in government decisions
- that the project will use, store, and share Traditional Knowledge in a way that honours its commitments to confidentiality

Traditional Knowledge agreements, policies, and guidelines are common in the NWT, and some communities or organizations already have these in place. You should follow or refer to the documents below, depending on which communities you are working with. It is always best to check directly with the community or organization! You can also review these documents as examples to model your agreement on:

- Akaitcho Dene First Nations
  - Akaitcho Exploration Agreement (2008)
- Deh Cho First Nation
  - [Deh Cho First Nation Traditional Knowledge Research Protocol \(2004\)](#)
- Government of the Northwest Territories
  - [Traditional Knowledge Policy 53.03 \(2005\)](#)
  - [Doing Research in the Northwest Territories](#)
  - [Government of the Northwest Territories Traditional Knowledge Best Practices Summary \(2010\)](#)
- Gwich'in Tribal Council - [Gwich'in Social and Cultural Institute](#)
  - [Traditional Knowledge Policy: Working with Gwich'in Traditional Knowledge in the Gwich'in Settlement Region \(2004\)](#)
  - [Conducting Traditional Knowledge Research in the Gwich'in Settlement Area: A guide for researchers](#)
- Inuvialuit Regional Corporation
  - [Inuvialuit Regional Corporation Guidelines for Research in the Inuvialuit Settlement Region \(2000\)](#)
- Mackenzie Valley Land and Water Board
  - [Mackenzie Valley Land and Water Board Engagement and Consultation Policy \(2023\)](#)
- Mackenzie Valley Review Board
  - [Guidelines for incorporating Traditional Knowledge in Environmental Impact Assessment \(July 2005\)](#)

- North Slave Métis Alliance
  - [NSMA Community Engagement Policy](#)
- NWT CIMP
  - [NWT CIMP Working Together Towards Relevant Environmental Monitoring and Research in the NWT \(2013\)](#)
- Sambaa K'e Dene Band
  - [Sambaa K'e Dene Band Policy Regarding the Gathering, Use, and Distribution of Yúndíit'õh \(Traditional Knowledge\) \(2003\)](#)

**Note:** A Traditional Knowledge Data-Sharing Agreement as part of an NWT CIMP project is not intended to replace or supersede other agreements or relationships between the GNWT and Indigenous communities and their governments.

# Appendix L: NWT CIMP Data Management Policy

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We want project information and data to be available to other researchers and other people who are interested. We also want to make it available as soon as possible in the project process. To make sure your project shares information in this way, every project must have a **Data Management Plan (DMP)** and **Project Metadata** submitted with the first Interim Report.

## WHAT DOES MY PLAN NEED TO INCLUDE?

Here is a sample [template](#) to help create a DMP that:

- will describe how you and your researchers will manage and share the information and data you generate
- is appropriate for the information and data you are collecting
- follows current best practices for managing information and data
- can adapt to your discipline and whether you are gathering Traditional Knowledge or scientific data
- can evolve if your research becomes more collaborative

The template will guide you to make sure your DMP includes:

1. what kind of data, samples, software, presentations, curriculum material, and other products you will produce from the project
2. who is responsible for creating Project Metadata and Dataset Metadata. What methods and procedures will be used.
3. your plans for access and sharing knowledge, including how you will protect privacy, confidentiality, security, licensing, intellectual property, or other rights and requirements
4. your plans for archiving data, samples, and other research products and preserving access to them.

Please refer to the [NWT CIMP Data Management Requirements](#) to ensure all reporting is submitted.