

NWT Cumulative Impact Monitoring Program

GWICH'IN REGION 2018-2019 SUMMARY



To watch and understand the land so it can be used respectfully forever.

2018-2019 NWT CIMP-FUNDED PROJECTS IN THE GWICH'IN SETTLEMENT AREA

NWT CIMP projects in the Gwich'in area address the key regional cumulative impact questions of regulators, governments, and communities.

In 2017-2018, NWT CIMP provided **\$232,000** to support **eight projects that involved work in the Gwich'in Settlement Area**. This year (2018-2019), seven projects will be supported in the region.

HIGHLIGHTED PROJECTS

Community-based long-term monitoring of the Peel River near Fort McPherson: pilot study

CIMP 195 –YEAR 2 OF 2

LEAD

Emma Hodgson, Simon Fraser University
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PURPOSE

To develop a community-based fish and water monitoring program in Fort McPherson focusing on the ecology and composition of whitefish harvest.

WHY?

To build community monitoring capacity while developing a better understanding of how future development projects and changes related to climate warming may impact broad whitefish populations.



Alice and Ernest Vittrekwa sampling fish.

Government of
Northwest Territories



How will fish communities in Gwich'in and Inuvialuit lakes respond to climate change?

CIMP 197 – YEAR 2 OF 3

LEAD

Derek Gray, Wilfrid Laurier University | dgray@wlu.ca

PURPOSE

To collect baseline information on fish species presence and abundance in small lakes in the Gwich'in and Inuvialuit Settlement areas. And to compare lakes between these areas to inform predictions about how small northern lakes may respond to climate change

WHY?

This information will help predict how fish populations may be impacted by future changes in climate. Project results can be used for effective fish management, including management of water withdrawals in local lakes.

The Northwest Territories Cumulative Impact Monitoring Program (NWT CIMP) provides important environmental information about cumulative impacts and environmental trends to decision-makers and communities. Cumulative impact monitoring is a requirement of settled land claim agreements in the NWT, and the *Mackenzie Valley Resource Management Act*.

Changes in Water within the Mackenzie Delta/Beaufort Region as Indicators of Aquatic Health

CIMP 200 – YEAR 1 OF 3

LEAD

Phillip Marsh, Wilfrid Laurier University | pmarsh@wlu.ca

PURPOSE

To assess changes in water quality, quantity and size of lakes in the Delta region using remote sensing, climate and past water monitoring data. This will help determine how these changes may be impacting water quality and fish.

WHY?

To provide information on how changes (drying) of the landscape is impacting the aquatic ecosystem for better decision-making.

Cumulative impacts are changes in the environment caused by human activities and natural processes that accumulate over space and time. It is important to understand both the environmental impacts of individual developments and the cumulative impacts of many developments in a region.

Developing environmental DNA as a tool to monitor fish distributions in the NWT

CIMP 181 – YEAR 3 OF 3

LEAD

Karen Dunmall, Department of Fisheries and Oceans Canada
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PURPOSE

To develop environmental DNA as an inexpensive and simple tool to monitor distributions of northern fish using a community-based monitoring approach. Work is underway with the Gwich'in Renewable Resources Board to test the method along the Rat River.

WHY?

To provide important information on fish distribution and critical habitat for decision-makers to use in assessing cumulative impacts of environmental change.



R. O'Halloran

Karen Dunmall and Freddie Furlong (Aklavik) electrofishing in Rat River.

CONTACT INFORMATION

NWT CIMP is guided by a Steering Committee of Indigenous, territorial and federal government representatives.

GWICH'IN SETTLEMENT AREA REPRESENTATIVE

Stephen Charlie (interim) (Gwich'in Tribal Council)
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FOR MORE PROJECT RESULTS, VISIT

nwtcimp.ca or search for the CIMP project number at nwtDiscoveryportal.enr.gov.ca

FOR GENERAL PROGRAM INQUIRIES, CONTACT

(867) 767-9233 or nwtcimp@gov.nt.ca