

# NWT Cumulative Impact Monitoring Program

## INUVIALUIT 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 INUVIALUIT SETTLEMENT AREA

NWT CIMP projects in the Inuvialuit region address key regional cumulative impact questions of regulators, governments and communities.

In 2017-2018, NWT CIMP provided support for **four projects** that **included work in the Inuvialuit Settlement Region**. This year (2018-2019), NWT CIMP is supporting four projects in the region; three continuing projects and one new project.

### HIGHLIGHTED PROJECTS

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

CIMP197 – YEAR 2 OF 3

##### LEAD

Derek Gray, Wilfrid Laurier University | [dgray@wlu.ca](mailto: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*.

Government of  
Northwest Territories



## Mapping permafrost disturbance and impacts to aquatic systems across northern NWT

CIMP164 – YEAR 5 OF 6

### LEAD

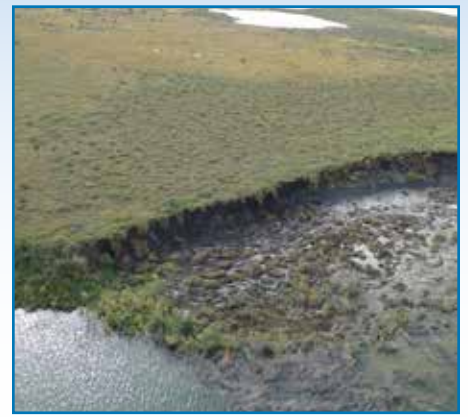
Steve Kokelj, NWT Geological Survey | [steve\\_kokelj@gov.nt.ca](mailto:steve_kokelj@gov.nt.ca)

### PURPOSE

Working with the communities of Sachs Harbour and Paulatuk to track and understand the cumulative impacts of broad-scale landscape changes, such as thaw slumps and drained lakes, in the zone of continuous permafrost.

### WHY?

To help local resource managers make decisions based on a better understanding of permafrost disturbance and its effect on aquatic health and the integrity of infrastructure.



Broad-scale slump.

## 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](mailto: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.



Tundra lakes of the Tuktoyaktuk Coastlands region.

## Building a cumulative impact monitoring network: Standardizing permafrost ground temperature and geohazard information

CIMP186 – YEAR 3 OF 3

### LEAD

Steve Kokelj, NWT Geological Survey | [steve\\_kokelj@gov.nt.ca](mailto:steve_kokelj@gov.nt.ca)

### PURPOSE

To develop a NWT ground temperature database including protocols and data reporting templates to guide the collection, management and distribution of permafrost ground temperature.

### WHY?

A comprehensive database of ground temperature data will help support cumulative impact monitoring and assessment, project and community planning, and regulatory decision-making. There is a strong link between permafrost conditions and aquatic health.

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.

## CONTACT INFORMATION

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

### INUVIALUIT SETTLEMENT REGION REPRESENTATIVE

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### FOR MORE PROJECT RESULTS, VISIT

[nwtcimp.ca](http://nwtcimp.ca) or search for the CIMP project number at [nwt.discoveryportal.enr.gov.ca](http://nwt.discoveryportal.enr.gov.ca)

### FOR GENERAL PROGRAM INQUIRIES, CONTACT

(867) 767-9233 or [nwtcimp@gov.nt.ca](mailto:nwtcimp@gov.nt.ca)