

NWT Environmental

Research Bulletin (NERB)



NWT Cumulative Impact Monitoring Program (NWT CIMP)

A source of environmental monitoring and research in the NWT. The program coordinates, conducts and funds the collection, analysis and reporting of information related to environmental conditions in the NWT.

NWT Environmental Research Bulletin (NERB)

A series of brief plain language summaries of various environmental research findings in the Northwest Territories. If you're conducting environmental research in the NWT, consider sharing your information with northern residents in a bulletin. These research summaries are also of use to northern resource decision-makers.

The Ka'a'gee Tu Atlas – Community-based mapping and monitoring of a changing landscape

Community members of Kakisa, NWT are noticing changes to the land and want to play a larger role in monitoring the health of the land. This concern led to the development of the Ka'a'gee Tu Atlas, an innovative web map. The Atlas was constructed for the community by collecting information on traditional land uses and culturally significant places, as well as environmental information and resource development locations. Sharing and documenting pictures and stories from the past helped community members understand and discuss changes to the land. This project demonstrates how mapping can be an important decision-making tool for communities.

Why is this research important?

Communities throughout the NWT are looking to enhance the monitoring of their lands to ensure the health of the water, land, and animals for future generations. The Ka'a'gee Tu Atlas is an example of a community-led collaboration that focused on developing a monitoring and mapping resource for use by the community to record past conditions, traditional knowledge and local observations of change.



Example of environmental change in a photograph. This photo taken 20 years ago; the tent structure is now under water. (Photo: L. Chicot)

What did we do?

Information for the Atlas was collected by digitizing old photos taken by community members from past trips on the land. In addition, interviews and conversations about past conditions on the land provided baseline information that can be used to compare current and future changes.

This information was used to create a web-map interface for community members that contains environmental information, development locations and traditional knowledge, including place names and important locations.

To engage youth in the development of the Atlas, community meetings and other activities were held, including on-the-land camps, to discuss the importance of recording conditions and monitoring the land.

What did we find?

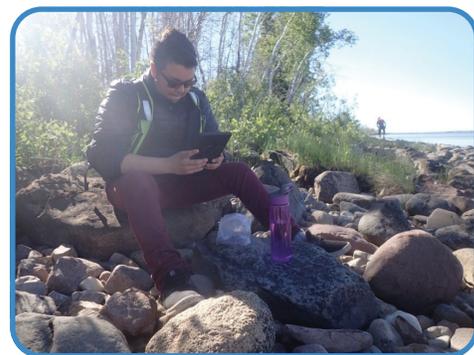
- There is a wealth of information and observation in the community about past conditions and recent changes that are important to document as part of the Atlas.
- There are many areas on the land that have changed over time. Community members have noticed changes in water resources, including water levels, availability, and quality. Land subsidence/permafrost thaw/slumping has created concerns for the health of the land and animals as well as safety of land users.
- There is community concern that the impacts of climate change combined with the effects of developments in the region (oil and gas, forest management and other land uses), may pose a threat to the long-term health of the land, water and animals.

What does this mean?

- With change happening so rapidly in the North, the use of pictures taken from previous years by community members on the land, along with stories about those places, can help to determine baseline conditions.
- Sharing photos and map images stimulated discussions about community priorities for monitoring and future research.
- Creating a collection of map layers in an accessible format can enhance community decision-making.
- Creating opportunities for youth to learn skills and technologies to map and monitor the land is an important step in promoting community land stewardship for the future.

What's next?

- Continue to develop this resource for the community, including more photos and interviews with community members to record past conditions and knowledge of the land.
- Explore ways of adding more science, land use, and modeling information that can inform areas of concern or places that are vulnerable to change.
- Continue to develop ways to encourage community members to use and interact with the Atlas, including recording current conditions and areas of concern to promote monitoring and harvester safety.



A local youth enters observation data into a mapping program during an on-the-land activity. (Photo: K. Kok)

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