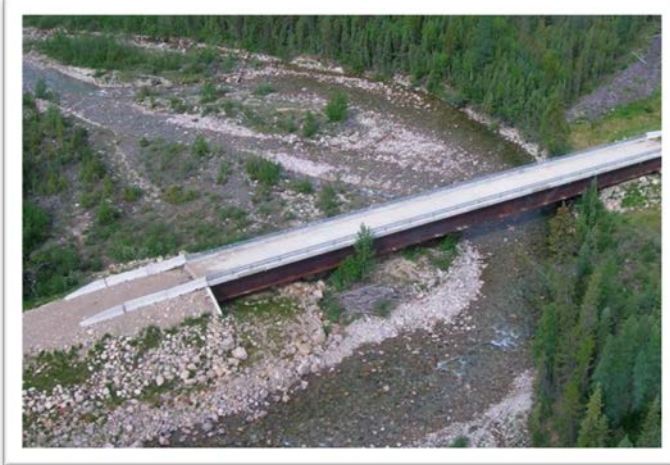


Pan-Territorial Adaptation Partnership



Changes to our Environment



Changing:

- Ice conditions
- Wildlife patterns
- Coastal erosion
- Waterways
- Extreme weather events

Climate Change Impacts



Photo credit: D. Forbes



General Impacts on the North:

- Transportation
- Traditional activities
- Coastal communities
- Food security

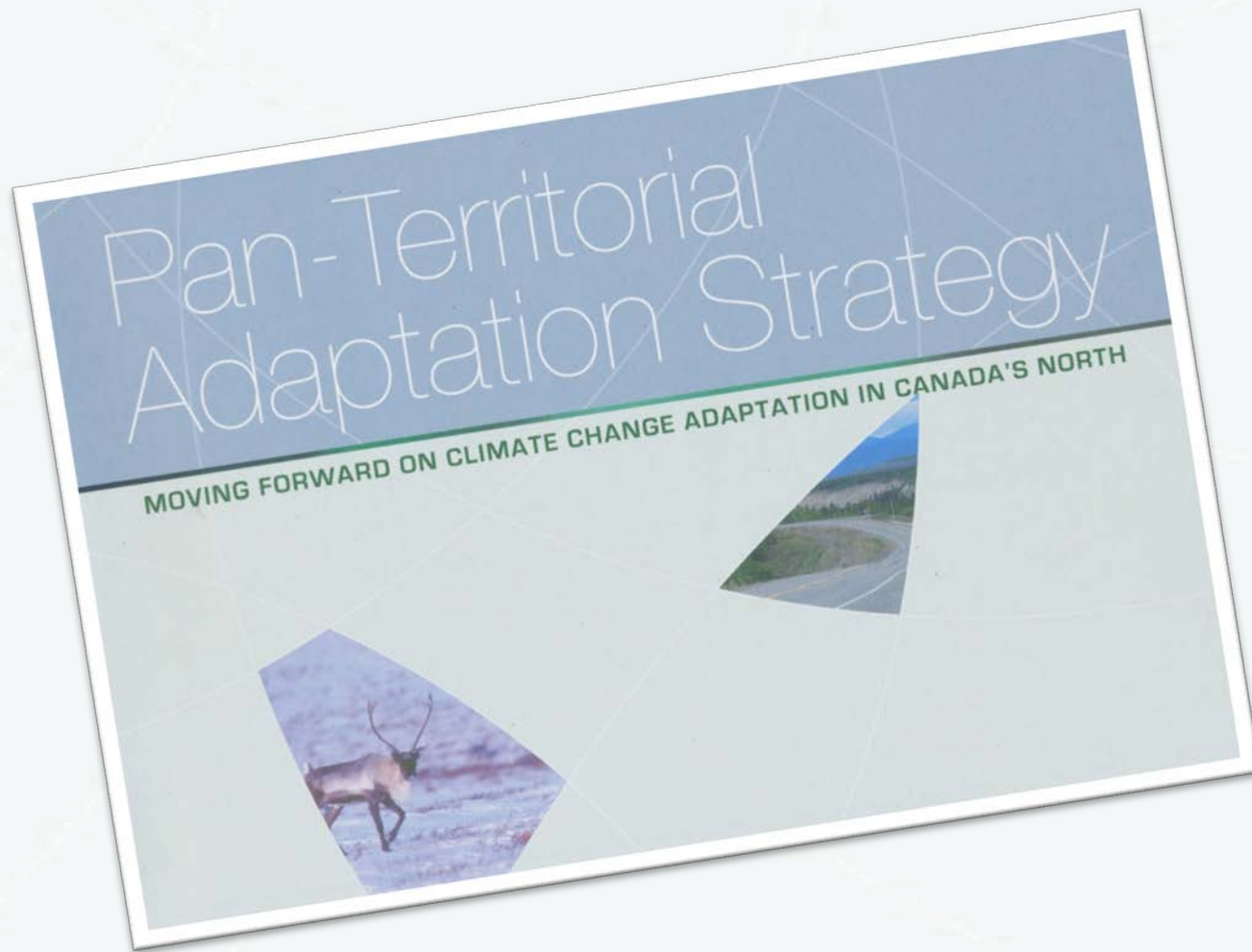
Northern Challenges



PAN-TERRITORIAL ISSUES:

- Limited financial capacity
- Prioritization of issues
- Human capacity
- Risk identification
- Logistics with northern isolation
- Limited baseline data

Pan Territorial Adaptation Strategy



Collective Action:

- Released in 2011
- Sharing best practices
- Protecting communities from climate change risks

Yellowknife NWT
Nov 5-7 2013



BUILDING KNOWLEDGE TO SUPPORT EVERYDAY DECISIONS IN A CHANGING NORTH

Hosted by:



www.northernadaptation.ca



- Discussing climate change impact on permafrost

Pan-Territorial Activities

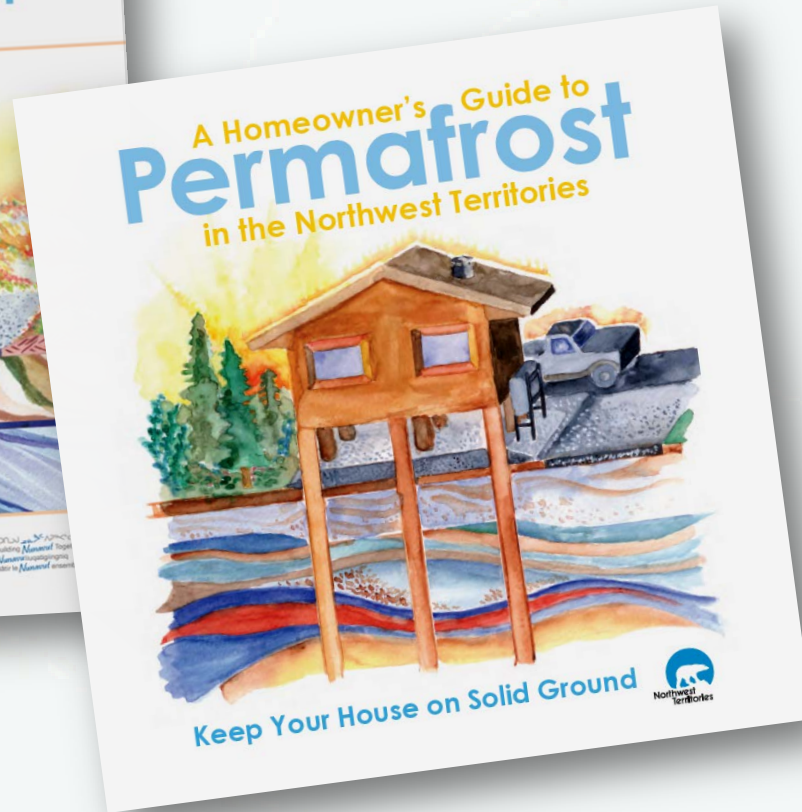
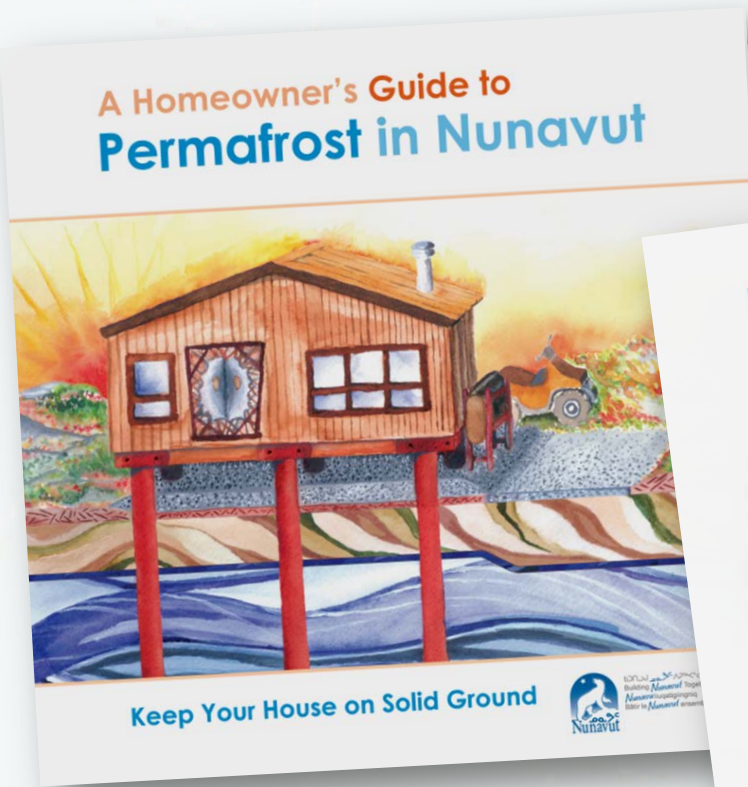


Pan-Terr. Information

Notes Share Information & Project Ideas:

- Across Canada's North
- Permafrost projects
- With community stakeholders and decision makers

Pan-Territorial Activities



Homeowner Guides to Permafrost in NWT & NU:

- Plain language permafrost information
- Potential Impacts on homes
- Useful tips for home-owners

Yukon Activities



Partnerships

- AANDC
- YC3, Health Canada and Public Health Agency of Canada
- And many others

Yukon Activities

The screenshot shows the Yukonwater website with a blue header containing navigation links: understanding yukon water, managing yukon water, and monitoring yukon water. Below the header, a dark grey box contains the text: "WELCOME TO YUKONWATER. Here, you'll find information about Yukon's water resources. There is information about how water is used, managed and monitored. Please visit the water catalogue and use the interactive map to see where various types of water data have been collected by numerous different agencies." To the right of this text is a map of Yukon with numerous blue circular markers indicating water data collection points. Below the map is a red button that says "explore our water data catalogue".

Water News

North Yukon Water Monitoring - Posted October 24, 2013

New water monitoring stations have been added in the North Yukon to enhance baseline data collection (news release). Interested in the locations of monitoring stations in the area? Check out this map.

Photo below is of a hydrometric technologist taking a North Yukon in August 2013.

The screenshot shows the Yukon Permafrost Network website. The header features a large photo of people working in a permafrost environment with the text "YUKON PERMAFROST NETWORK". Below the header is a navigation menu with links: HOME, PERMAFROST 101, MEMBERS, DATA, DISCUSSIONS, and CONTACT US. The main content area includes a paragraph: "The Yukon Permafrost Knowledge Network has been created to facilitate and encourage cooperative relationships between those active in permafrost related work and research activities." Below this text is a photo of a person in a yellow jacket and red hat working in a permafrost environment. To the right of the main content is a sidebar with a photo of a stone building and a "Newsletter" link.

Knowledge Sharing

- Permafrost Network
- Yukonwater.ca
- Arctic Council Portal

Northwest Territories Activities



- Climate change and permafrost thaw are part of GNWT Departments day to day operations
- MACA, Housing Corporation, Transportation, Public Works and Services, ENR, ECE

Northwest Territories Activities

Flat Loop Thermosyphon Foundations in Warm Permafrost

Prepared for
Government of the NT
Asset Management Division
Public Works and Services
and

Climate Change Vulnerability Assessment
Canadian Council of Professional Engineers



prepared by:
Igor Holubec, Ph.D., P.Eng
I. Holubec Consulting Inc.

March 2008



Canada

PIEVC CVIIP

engineers+canada ingénieurs+canada

GEOTECHNICAL SITE INVESTIGATION GUIDELINES FOR BUILDING FOUNDATIONS IN PERMAFROST



Prepared for:

Department of Public Works and Services
Government of the Northwest Territories

I. Holubec Consulting Inc.
January 2010

Best Practices

- For construction and maintaining buildings
- Good Building Practices Handbook, Monitoring temperatures & thermosyphons
- NISI (also DOT, MACA, ENR)
- Tool assessing building foundations risk assessment (AANDC)

Northwest Territories Activities



Transportation

- 1.85 million research Building Canada
- Adaptation Plan
- Risk assessment infrastructure
- Network of Expertise Permafrost
- Corridors for Canada III – 600 million infrastructure

Northwest Territories Activities

**Northwest Territories Geoscience Office
Industry Tourism and Investment**



Permafrost Science

- Permafrost Scientist
- Permafrost Slumping
- Mapping Slumping
- Advice to GNWT departments

Northwest Territories Activities

- Terrain Mapping – Slump Prediction to identify cultural sites at risk
- (Education Culture and Employment, PW NHS)
- Municipal Waste Risk Assessment (ENR)
- Territorial Hazard Assessment – Emergency Planning
(MACA)
- Permafrost Mapping (Centre for Geomatics)
- Coastal Erosion (Centre for Geomatics)

ENR:

Coordinates adaptation & projects for good of all departments:

- downscaling
- framework
- website
- AANDC partnership

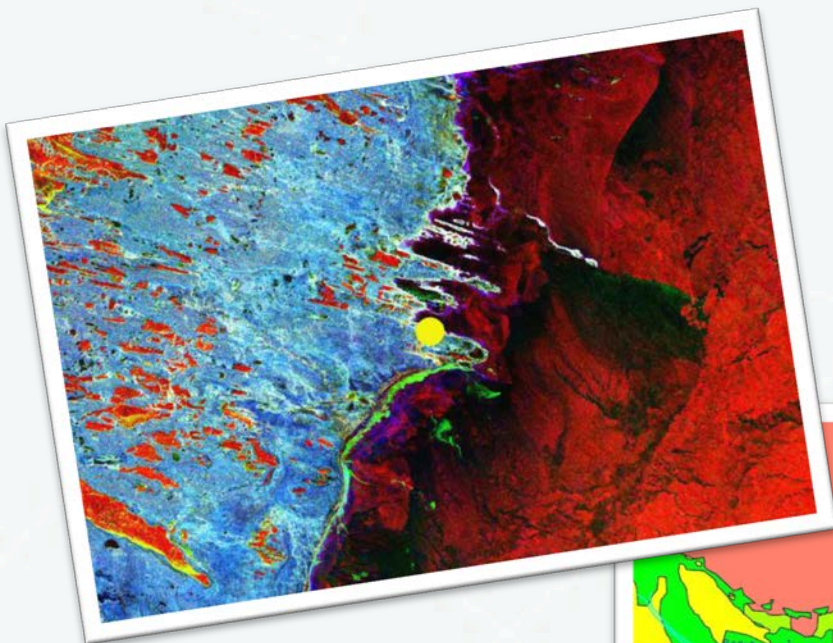
Nunavut Activities



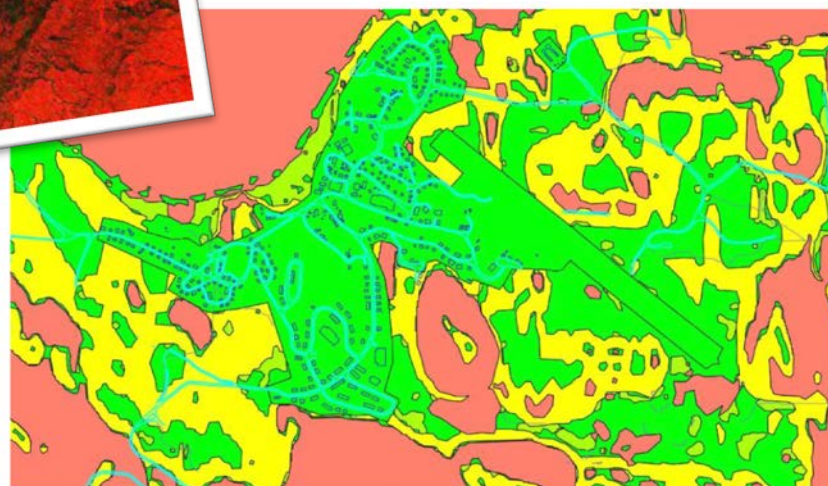
Adaptation Action Plan:

- Mainstreaming climate change adaptation into all GN activities
- Multi-partnered projects
- Released March, 2014

Nunavut Activities



RADARSAT- 2 images of Arviat showing ground displacement



Initial development suitability map for Cape Dorset

Hazard Mapping:

- Mainstreaming climate change adaptation
- Multi-partnered projects
- Building off past community mapping work
- Eight communities selected for this phase

Nunavut Activities



Mining and Permafrost in Nunavut:

- Assessed the risks of climate change to Nunavut's mining sector
- Documented existing best practices for coastal infrastructure and tailings management facilities
- Integrated into future mining design
- Transferrable to similar community-based infrastructure (i.e. roads and ports)

Nunavut Activities



ENGLISH / FRANÇAIS / ᐃᓄᐃᑦ

NUNAVUT CLIMATE CHANGE CENTRE

Newsletter [Sign Up](#)



Understanding Climate Change
What's happening and what you can do about it

Voices From The Land
Climate Change IQ

Community Map
What's happening where you live?

RESEARCH

RESOURCES

ABOUT US

CONTACT



MOVING FORWARD TOGETHER ON CLIMATE CHANGE ADAPTATION IN CANADA'S NORTH

www.northernadaptation.ca



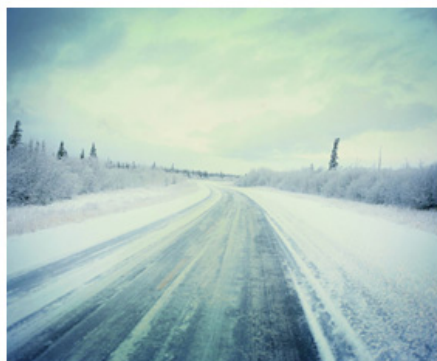
Looking to the Future

Pan-Territorial Adaptation Partnership

HOME | PERMAFROST WORKSHOP | ABOUT THE PARTNERSHIP | CONTACT

SEARCH

WELCOME



**MOVING FORWARD ON
CLIMATE CHANGE IN
CANADA'S NORTH**

NEWS & UPDATES



**NEW PAN-
TERRITORIAL
ADAPTATION
WEBSITE COMING
SOON!**

OCTOBER 30, 2013

The Pan-Territorial Adaptation Partnership (PTAP) is excited to announce that we will be...



Pan-Territorial
Permafrost Workshop
November 2013

**PAN-TERRITORIAL
PERMAFROST
WORKSHOP 2013**

OCTOBER 30, 2013

PTAP is pleased to bring together Northern practitioners decision-makers and

PERMAFROST WORKSHOPS



**Pan-Territorial
Permafrost Workshop
November 2013**

THANKS FROM GOVERNMENT

The Governments of Nunavut, Northwest Territories and Yukon would like to thank all participants of the Pan-Territorial Permafrost Workshop. The workshop identified challenges associated with building on

MOVING FORWARD TOGETHER ON CLIMATE CHANGE ADAPTATION IN CANADA'S NORTH

www.northernadaptation.ca



Thank You



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