

Permafrost Homeowner's Guide

The Government of the Northwest Territories (GNWT) has created a Homeowner's Guide to Permafrost, designed to assist residents of the Northwest Territories (NWT) with understanding and mitigating permafrost impacts on their homes.

CONTEXT

Climate change in the NWT is beginning to thaw and degrade the permafrost that has traditionally acted as a solid foundation for buildings and homes. Infrastructure built on permafrost that was once stable, is beginning to succumb to structural issues due to this weakening of the permafrost that underlies them. This degradation, caused by increased surface air temperatures, is unlikely to slow, making adaptation essential to avoiding costly damage to houses. Educating NWT residents on how to prevent negative impacts on permafrost is an excellent means to avoid unnecessary permafrost degradation and teach them what they can do to encourage permafrost to remain frozen even as air temperatures increase.



Government of the Northwest Territories

OBJECTIVE

The GNWT's Climate Change Unit aimed to develop a plain language guide that can be used by homeowners within the NWT to take action in preventing permafrost degradation around their homes. This guide provides simple solutions that can help mitigate and even reverse the damages caused to permafrost by increased air temperatures.

APPROACH

A contractor was contacted to develop an approachable, plain language document that would be released to communities and residents. This guide is comprehensive, yet simple and concise, allowing easy pickup and use.

The document helps homeowners identify if their household is susceptible to permafrost damage and ways to prevent damage to the home resulting from permafrost heave and subsidence. The document also provides advice to mitigate permafrost thaw beneath structures and even restore permafrost that has begun to thaw and degrade.

RESULTS

The Permafrost Homeowner's Guide is now available both as a hardcopy print at various locations throughout the NWT and as an online file. The document was distributed to communities by working with the Northwest Territories Association of Communities. The distribution of this guide will increase the resilience of residents of the NWT in the face of climate change impacts on infrastructure.

Significance

The degradation of permafrost, from climate change as well as indirect human actions, can be prevented by changing certain behaviours. This guide helps to identify and explain how homeowners can avoid damaging permafrost under their homes.

Partners

- Environment and Natural Resources
- Northwest Territories Association of Communities
- CS Environmental
- Soaring Tortoise Design
- Natural Resources Canada
- Government of Nunavut, Department of Environment

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