

# Northwest Territories Geological Survey

## Permafrost Science Team – Strategic Plan (2021-2024) Summary

### VISION

*The ideal future state we are working towards*

**The Northwest Territories has the permafrost science knowledge, expertise, capacity, and partnerships required to plan for and adapt to the impacts of changing permafrost conditions.**

### MISSION

*A succinct statement of our purpose: what we do, for whom, and the benefit/value.*

**The NTGS Permafrost Science Team advances permafrost knowledge by:**

- **Leading, supporting, planning, and conducting collaborative research**
- **Collecting, managing, and analyzing permafrost data**
- **Providing information and advice**
- **Sharing permafrost knowledge with practitioners, partners, and the public**
- **Developing permafrost research and monitoring capacity in the NWT**

**Through these activities, we contribute to planning and decision-making for a diverse range of stakeholders, improving the prediction and mitigation of risks, and informing adaptation to the challenges of a rapidly changing northern environment.**

### PRINCIPLES

*Our values and how they inform our actions and decisions*

We value **KNOWLEDGE**. *As scientists, we create knowledge through the scientific method, and by learning and sharing.*

We are **INTEGRATIVE** and **INCLUSIVE**. *We work collaboratively across disciplines and scales. We listen and are open to the diverse perspectives and types of information that will advance permafrost knowledge, and seek to connect them.*

We value **QUALITY SCIENCE** and follow the **SCIENTIFIC METHOD**. *We dedicate the time and space necessary to conduct thoughtful, rigorous science. This means we must be selective in the work we take on; we prioritize scientific work that is important to the NWT, and we are careful not to overcommit our resources.*

We are **FORWARD-LOOKING**. *We are focused on our long-term vision and goals. We contribute to the leading edge of our field through a northern lens. We are proactive in identifying and addressing emerging permafrost science needs, and we work collaboratively with our partners to develop innovative research to address these.*

We build and maintain **TRUST** with our clients, partners, stakeholders, and the public. *We do this by acting with integrity, supporting our partners, providing unbiased information, and being transparent and accountable.*

We value our **RELATIONSHIPS**. *We see them as central to developing permafrost knowledge and enhancing the scope of work essential to the NWT. We approach our relationships respectfully and collaboratively and ensure mutual benefit when working with partners.*

### POSITIONING STATEMENT

*How we have chosen to position ourselves to respond effectively to the key facts in our environment*

**Permafrost affects ground conditions across the NWT and is the foundation for northern ecosystems, communities, and infrastructure. Climate change is altering permafrost with major implications for the environmental, economic, and social well-being of the NWT.**

**The need for permafrost knowledge is growing across all sectors and its development and application are critical to ensuring a resilient territory. This requires northern science capacity, leadership, and collaboration.**

**Therefore, this strategic plan was shaped by our belief that the NTGS Permafrost Science Team must focus its unique scientific and northern expertise on high-value, relevant activities that advance permafrost knowledge and its application.**

<b>GOALS</b> <i>Our broad long-term aims</i>		<b>OBJECTIVES</b> <i>Specific target outcomes</i>	<b>STRATEGIES</b> <i>How will achieve our objectives</i>
SCIENCE	<b>Goal #1: Conduct and support high-quality research and monitoring that generates permafrost knowledge for the NWT</b>	1.1. Improved characterization of permafrost in the NWT (what is the state of permafrost)	<b>STRATEGY 1</b> <b>Develop a Permafrost Science Strategy</b>  <b>STRATEGY 2</b> <b>Work with partners to develop an NWT Permafrost Data Management Strategy</b>  <b>STRATEGY 3</b> <b>Build an annual learning plan process to create more focus for the team's approach to professional development, in line with the goals and objectives of this strategic plan and the Permafrost Science and Data Management Strategies</b>  <b>STRATEGY 4</b> <b>Develop a guidance document for the NTGS Permafrost Science Team's approach to mentorship</b>  <b>STRATEGY 5</b> <b>Actively identify, monitor, and engage in critical permafrost issues/initiatives</b>  <b>STRATEGY 6</b> <b>Advocate for, and support the development of an NTGS outreach and communications plan</b>
		1.2. Improved understanding of permafrost processes and behaviour in natural and built environments	
		1.3. Increased infrastructure to support permafrost science and monitoring	
DATA	<b>Goal #2: Lead the stewardship of NWT permafrost data</b>	2.1. More NWT permafrost data is standardized and discoverable due to improved communication and collaboration among permafrost data generators	
		2.2. Improved interoperability of data between permafrost databases developed by our partners and other organizations	
		2.3. Increased use of NWT permafrost data in research, synthesis reports and modelling outputs	
LEADERSHIP	<b>Goal #3: Provide scientific leadership, mentorship and advice that advances the state of permafrost knowledge and improves the quality of decision-making in the NWT</b>	3.1. Increased number and diversity of NTGS-led permafrost research and monitoring initiatives that create knowledge to support NWT practitioners, planners, and decision-makers	
		3.2. Through collaborative and equitable science partnerships, the NWT permafrost community increases its influence and the benefits from permafrost research and monitoring of importance to the NWT	
CAPACITY BUILDING	<b>Goal #4: Foster a growing and collaborative community of permafrost experts who bring passion, vision and diverse talents to their work and are able to make a scientific contribution to northern issues</b>	4.1. Increased permafrost positions at NTGS or in other NWT departments and/or NWT organizations (e.g., permafrost specialists, interns, etc.)	
		4.2. Increased staff retention and a consistently high degree of job satisfaction within the NTGS Permafrost Science Team	
		4.3. Increased depth and breadth of expertise in the NWT permafrost community	
COMMUNICATIONS AND OUTREACH	<b>Goal #5: Advance professional and public understanding of permafrost issues and their importance to the NWT</b>	5.1. Increased public and partner awareness of permafrost issues and of research and monitoring by the NTGS Permafrost Science Team and collaborators	
		5.2. More partners are participating in or conducting activities that align with the NTGS Permafrost Science Team's values, and research and monitoring projects and mandates	
		5.3. Increased support for long-term funding for permafrost research and monitoring	
		5.4. Increased support from partners that enhances the NTGS Permafrost Science Team's ability to conduct outreach, communications	