GOVERNMENT OF YUKON
SCIENCE STRATEGY

JANUARY 2016

Yukon
Government

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SCIENCE STRATEGY

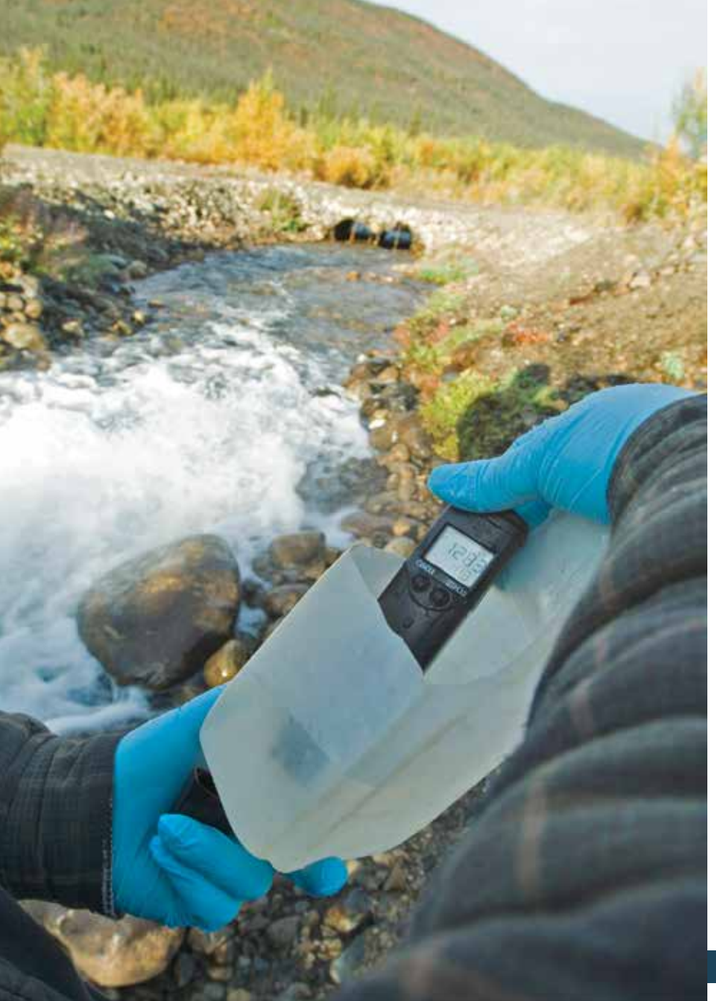
Purpose

The purpose of this strategy is to:

- establish a long-term approach to the development of science capacity in Yukon by outlining a corporate vision, principles and goals for developing, applying, sharing and managing scientific knowledge;
- provide a strategic and integrated approach to aligning Yukon's competing science and associated policy priorities so that policy is informed by sound science and, in turn, scientific priorities are informed by policy needs; and
- enable Yukon science initiatives to be connected to established priorities and goals so that investments are made strategically and maximum social, economic and environmental benefits can be realized.

Vision

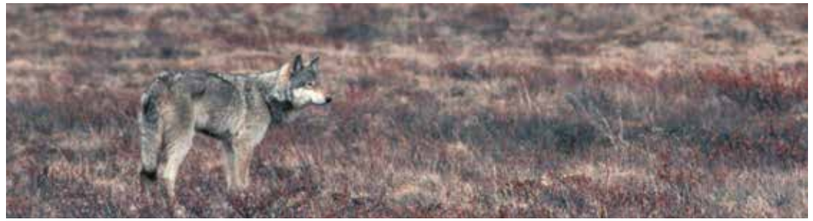
The Government of Yukon supports the active pursuit, gathering and storage of scientific knowledge so it can be easily retrieved, transferred, shared and used to support evidence-based decision-making.



Guiding principles

Recognize the importance of science and innovation

Science enhances the Yukon government's ability to achieve its four priorities: better quality of life, the environment, the economy and good government. Science and technology provide the knowledge and the means to help manage the challenges that economic change creates, such as the availability of housing and land, increasing demand for transportation and communications infrastructure, increasing pressures on health and social services, increasing demand for education and training, increasing pressures on land, and designing resource management systems that protect Yukon's environment. Innovation can result in opportunities and solutions and is essential to continued economic growth, prosperity and competitiveness.



Incorporate traditional and local knowledge

Traditional and local knowledge are valid and essential sources of information, and knowledge systems that are complementary to scientific knowledge. The Government of Yukon encourages efforts to incorporate the traditional and local knowledge of Yukon First Nation people and local residents in research projects and decision-making.

Focus on needs

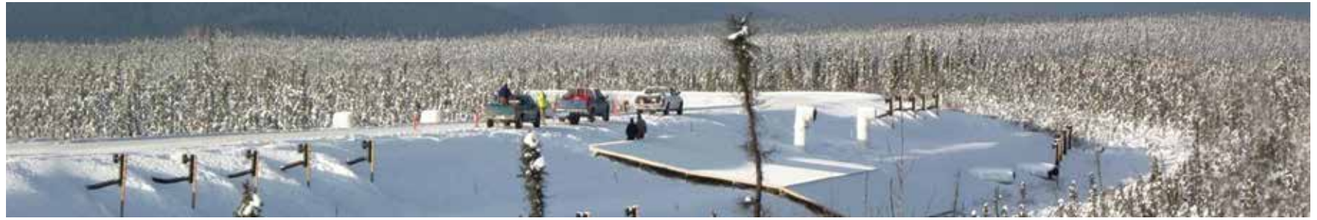
The Government of Yukon recognizes the importance of being focused and strategic in its scientific activities and to deliver a "whole of government" approach to the many science and associated policy needs facing Yukon. Science activities must be connected to established needs and goals so investments are made strategically and social, economic and environmental benefits can be maximized. A focus on needs will allow the Government of Yukon to leverage funds and involvement from federal, academic and industrial funders as well as direct available resources to scientific activities more strategically.

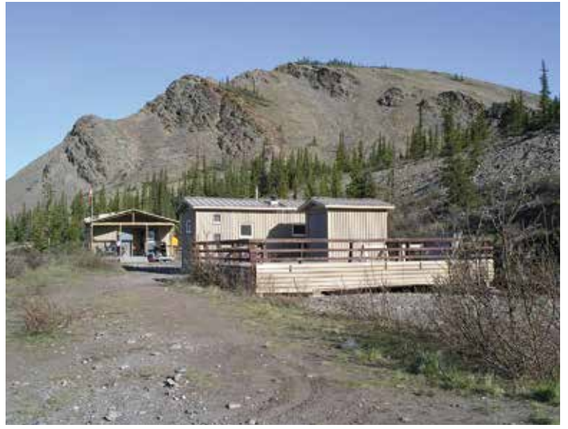
Support improved coordination

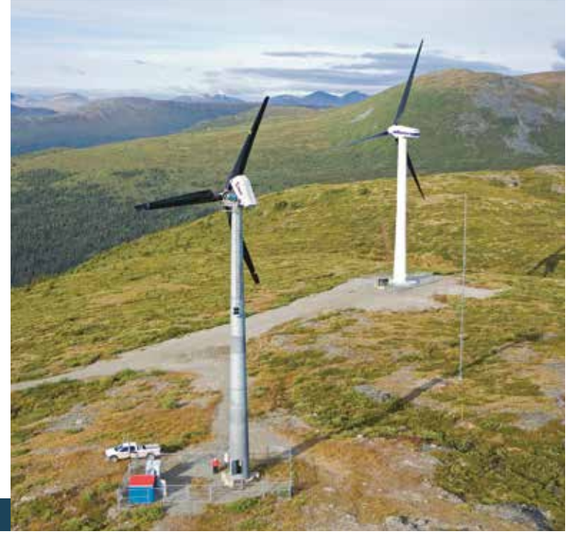
Coordinating scientific efforts will support integrated science among departments and agencies. Effective coordination prevents duplication, increases efficiency and facilitates exchanges and transfers of data and information between government, industry, and academic organizations and scientists. Innovations are increasingly the product of interdisciplinary endeavours, making the role of coordination that much more important.

Provide appropriate resources for scientific activities

The Government of Yukon recognizes that







scientific activities are long-term and require significant human and financial resources. While limited resources require governments to focus on activities that are most urgently needed, stable financial support for scientific activities is essential.

Keep pace with development

Government science programs and activities help support the identification of industrial and resource developments that are ecologically sustainable, socially acceptable and economically sound. To support sustainable development, the breadth and depth of our science programs must keep pace with industrial innovation and activity. It is also important to promote and adopt technological advances that facilitate sustainable development.

Keep current with scientific advances

Scientific advances are made at a rapid rate. Keeping up to date with new, relevant scientific information is critical to being able to use the best available knowledge to guide decisions and activities.

Promote health and social sciences

Historically, research funding for health sciences and social sciences has been relatively underrepresented in the Canadian North. However, these fields have an essential role to play in enhancing the quality of life of Yukoners. Research in health and social sciences, including systems and implementation, aims to address broad social issues such as mental health, crime, poverty, violence and education and are integral to the Government of Yukon Science Strategy.

Foster partnerships

Cooperating in the development and exchange of scientific information can help to manage emerging issues. Through partnerships across departments, organizations, jurisdictions, circumpolar nations and disciplines, participants can bring together their capabilities, interests, expertise and resources. This will help to achieve advancements in knowledge and understanding that are not possible when parties work in isolation. Partnerships also accelerate the pace of knowledge gathering and make the best use of limited resources.

Establish and maintain a strong Yukon-based science community

Human capital is fundamental to any scientific endeavour. Supporting, creating and maintaining a professional intellectual environment that will attract, promote and support research and science is essential to the successful implementation of this strategy.

Goals

1. **Support decision-making**
   To develop scientific knowledge and science-based solutions to support and enhance decision-making and innovation within the Government of Yukon.

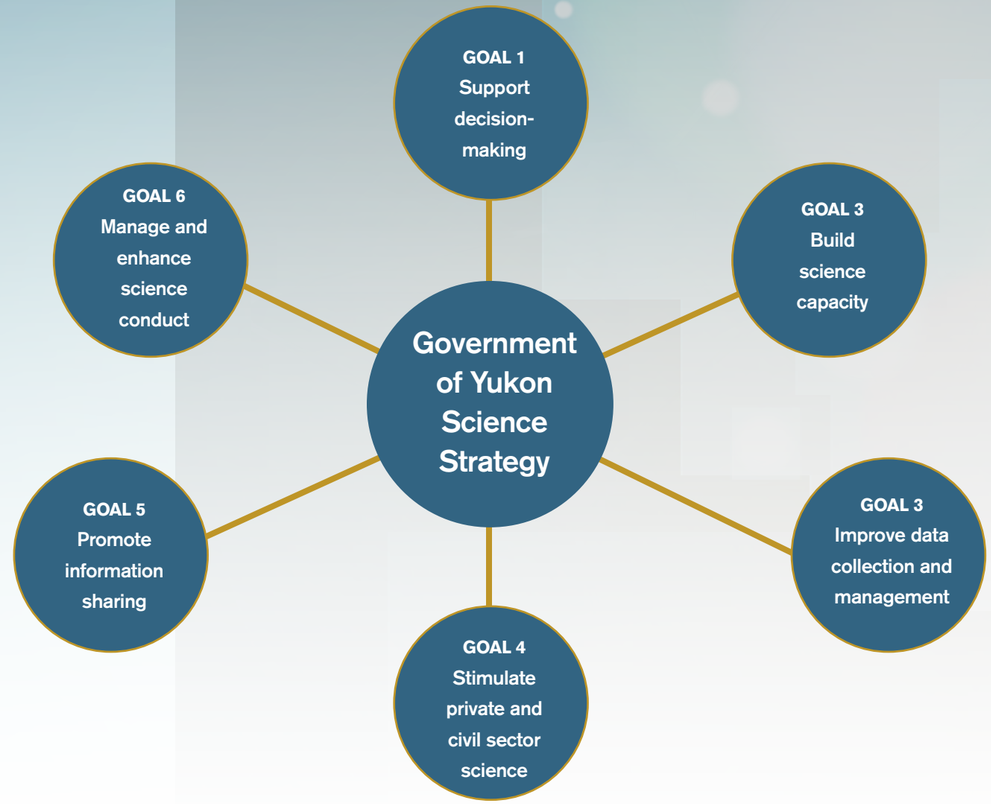
2. **Build science capacity**
   To develop science capacity in order to enhance the Government of Yukon's ability to access, apply and develop scientific knowledge.

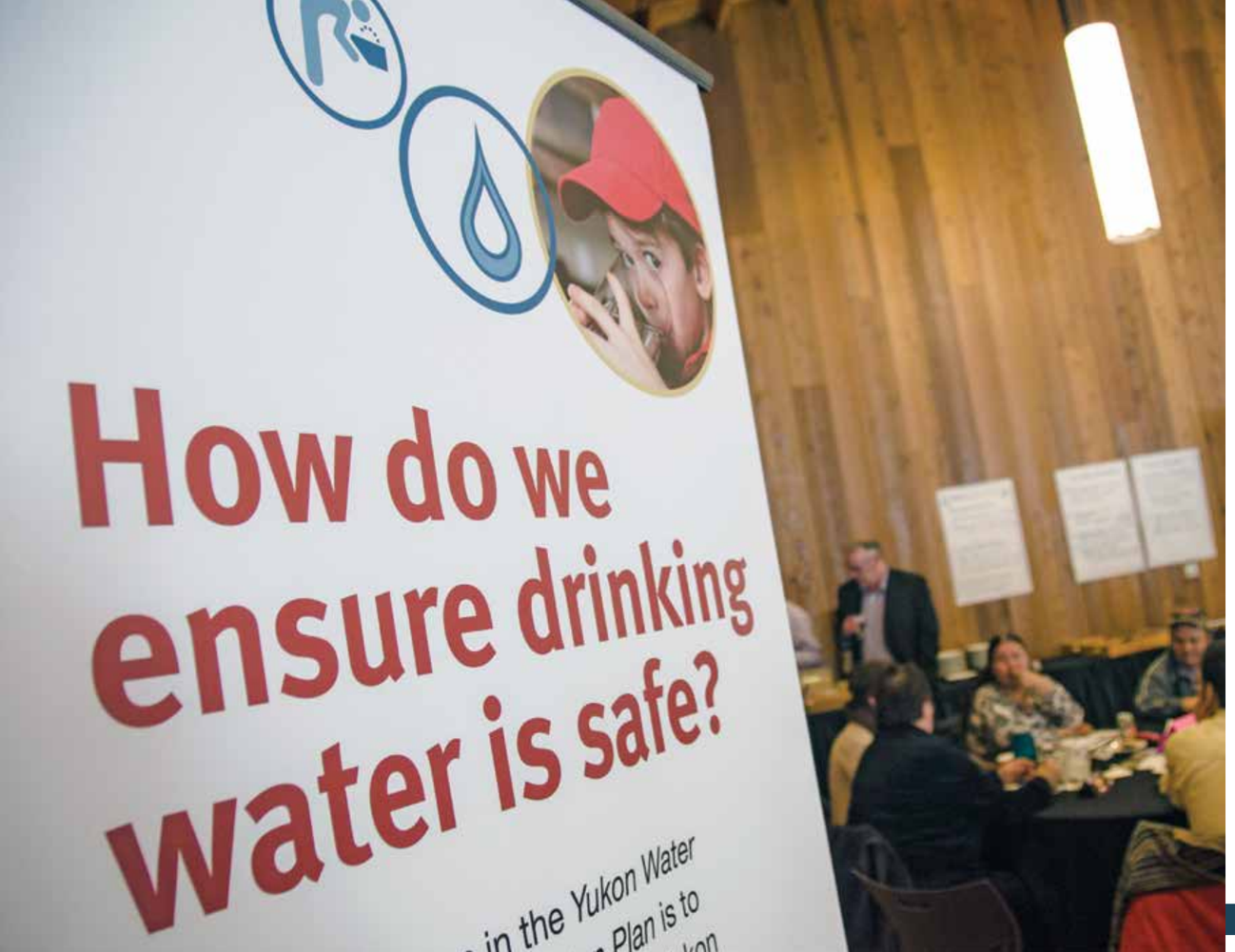
3. **Improve data collection and management**
   To enhance the use of data standards and improve scientific information management systems so data can be easily retrieved, transferred, shared and used.

4. **Stimulate private and civil sector science**
   To stimulate private sector research, innovation and commercialization activities in order to support the growth and development of the knowledge sector in Yukon.

5. **Promote information sharing**
   To promote the sharing and distribution of scientific information generated in Yukon in order to raise awareness of the Government of Yukon's science expertise, activities, facilities, interests and needs and to enhance science literacy.

6. **Manage and enhance science conduct**
   To identify and address science policy needs that enable scientific activity, enhance scientific coordination, ensure the effective oversight of scientific activity, and facilitate and promote scientific excellence.





Strategic initiatives

The Government of Yukon will focus on strategic initiatives under each of the goals, both by aligning existing activities and initiating new activities. A selection of these activities is provided below (note this is not a comprehensive list).

GOAL	STRATEGIC INITIATIVES	EXAMPLE ACTIVITIES (not a complete list)
1. Support decision-making	• Identify and communicate science needs • Conduct necessary research • Support evidence-based decision-making • Link science to policy development and decision-making • Produce accessible and understandable science • Support innovation that is linked to organizational goals and objectives • Develop a companion research strategy	• Labour market information system (EDU) • Mineral potential assessments (EMR) • Mountain pine beetle risk analysis (EMR) • Fish and wildlife inventories (ENV) • Beaver Creek permafrost test site (HPW) • Agriculture research plan (EMR) • Clinical Services Plan (HSS) • CanRisk (HSS) • Yukon Addictions Services Systems Standards and Evaluation project (HSS) • Yukon Science and Technology Indicators (ECO)
2. Build science capacity	• Cultivate scientific partnerships • Support training and professional development • Enhance recruitment and retention of science practitioners and professionals • Support science education • Support the Yukon Research Centre • Support industry's science capacity	• Science Community of Practice (ECO) • Yukon Science Policy Forum (ECO) • Yukon Research Centre (EDU) • Yukon College university programming (EDU)

GOAL	STRATEGIC INITIATIVES	EXAMPLE ACTIVITIES (not a complete list)
3. Improve data collection and management	• Enhance baseline and long-term data collection • Standardize data collection protocols • Enhance data openness • Preserve datasets for long-term use • Undertake data management planning • Increase data collaboration at local, regional, national and international scales	• Geomatics Yukon (HPW) • Social-economic web portal (ECO) • Yukon permafrost database (EMR) • Yukonwater.ca (ENV) • Geoscience data, publications and maps (EMR) • Panorama public health electronic information system (HSS) • Department data management, quality and reporting initiatives (HSS) • Road Weather Information System (CS, HPW)
4. Stimulate private and civil sector science	• Promote and encourage innovation and commercialization • Support and encourage R&D investment by the private sector • Support knowledge sector business development • Support industry partnerships • Support the development of science and technology as a secondary industry • Encourage innovation through flexible policies	• Cold Climate and Technology Innovation programs at Yukon College (EcDev) • ICT sector strategy (EcDev) • Survey of Yukon's knowledge sector (EcDev) • Federal research and development review panel (EcDev)
5. Promote information sharing	• Support and enhance internal information sharing • Support and enhance outreach	• Compendium of current research (ECO) • EMR library (EMR)

GOAL	STRATEGIC INITIATIVES	EXAMPLE ACTIVITIES (not a complete list)
5. Promote information sharing (continued)	• Inventory Government of Yukon science assets, interests and needs • Enhance access to sound and reliable scientific information • Increase publication of Government of Yukon science • Enhance library services • Share information promptly	• Yukon Science Institute (T&C) • Yukon Invasive Species Interdepartmental Working Group (ENV, EMR, HPW) • Climate Change Information and Mainstreaming Program (ENV) • Circumpolar Adaptation Portal (ENV)
6. Manage and enhance science conduct	• Enhance consistency in government-wide operational science policies and procedures • Enhance data capture and standardization of data collected by outside agencies • Ensure effective and appropriate oversight of scientific activity in Yukon • Facilitate and promote scientific excellence	• Yukon Scientists and Explorers' Act (T&C) • Guidebook on Scientific Research in Yukon (T&C) • Science policy guidance on evidence- based decision-making (ECO) • Research funding priorities (ECO)

Key: Acronym — Government of Yukon department		
ECO — Executive Council Office	**EDU —** Education	**HPW —** Highways and Public Works
EcDev — Economic Development	**EMR —** Energy, Mines and Resources	**HSS —** Health and Social Services
CS — Community Services	**ENV —** Environment	**T&C —** Tourism and Culture

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