

Government of Northwest Territories  
Gouvernement des Territoires du Nord-Ouest

# Knowledge Agenda Action Plan

ANNUAL REPORT 2019/20

## Plan d'action du Programme du savoir

RAPPORT ANNUEL 2019/20





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# Knowledge Agenda Action Plan

## ANNUAL REPORT 2019/20

The Knowledge Agenda Action Plan outlines GNWT actions that support the implementation of the Knowledge Agenda. The Action Plan is centered on three interrelated pillars:

- **GNWT Research Community:** GNWT researchers need to be able to effectively connect and collaborate with each other and maintain expertise in five research priority areas.
- **Collaboration for Results:** GNWT needs to partner with communities, external researchers and funding agencies to meet our program priorities.
- **Research Impact:** Results and data need to be accessible and in a usable format for target audiences to ensure the work supports evidence-based decision-making.

This 2019-20 Annual Report documents progress across these three pillars and highlights examples of actions that support the progress of the Knowledge Agenda Action Plan in its first year.

Progress on key actions will be reported annually and a full review will be undertaken in five years to update the Agenda and Action Plan based on feedback, identified gaps and emerging priorities.

# Plan d'action du Programme du savoir

## RAPPORT ANNUEL 2019/20

Le plan d'action pour le Programme du savoir vise à préciser les mesures que le GTNO met en place pour atteindre les objectifs du Programme du savoir. Le Plan d'action comporte trois piliers interreliés :

- **La communauté de chercheurs du GTNO** : les chercheurs du GTNO doivent pouvoir communiquer entre eux, collaborer, et préserver l'expertise dans cinq domaines prioritaires.
- **La collaboration orientée vers les résultats** : pour atteindre ses objectifs, le GTNO doit nouer des partenariats avec les collectivités, des chercheurs externes, et des bailleurs de fonds.
- **Les retombées de la recherche** : les résultats et les données doivent être accessibles dans un format utilisable par les publics cibles pour garantir que les travaux appuient la prise de décisions fondées sur des données probantes.

Le rapport annuel de 2019-2020 dresse l'état d'avancement des activités associées aux trois piliers et donne des exemples de mesures entreprises par le GTNO au cours de sa première année pour atteindre les objectifs du plan d'action pour le Programme du savoir.

Un rapport annuel des progrès réalisés dans les domaines clés sera présenté tous les ans, ainsi qu'un bilan complet après cinq ans pour mettre à jour le programme et le plan d'action en fonction des réactions, des lacunes identifiées et des nouvelles priorités.

# Report Structure and Highlights

This report is organized by the three pillars identified in the Knowledge Agenda Action Plan. Progress is reported for all 17 key actions. Example projects supporting the actions are highlighted throughout the report.

*The actions are coded as follows:*

- **Green** = complete, or on-going
- **Yellow** = in-progress, but not complete
- **Grey** = scheduled to begin in 2022

## Acronyms Defined

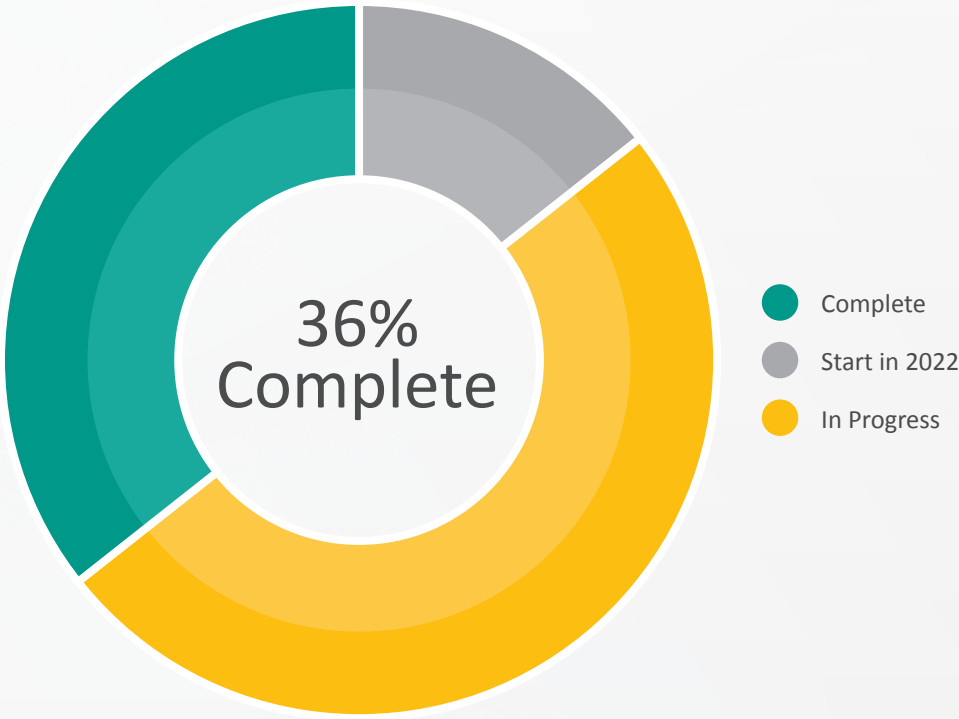
<b>AC</b>	Aurora College	<b>MVLWB</b>	Mackenzie Valley Land and Water Board
<b>ARF</b>	Arctic Research Foundation	<b>NGO</b>	Non-governmental organization
<b>ARI</b>	Aurora Research Institute	<b>NRC</b>	National Research Council Canada
<b>CCAQ</b>	Climate Change and Air Quality Unit CFI – Canadian Foundation for Innovation CIHR – Canadian Institutes of Health Research	<b>NRCan</b>	Natural Resources Canada
<b>ECE</b>	Department of Education, Culture and Employment	<b>NSERC</b>	Natural Sciences and Engineering Research Council
<b>ENR</b>	Department of Environment and Natural Resources	<b>NTPC</b>	NWT Power Corporation
<b>GNWT</b>	Government of the Northwest Territories	<b>NWT</b>	Northwest Territories
<b>GNWTA</b>	Government of the Northwest Territories Science Advisor	<b>NWT CIMP</b>	NWT Cumulative Impacts Monitoring Program
<b>HSS</b>	Department of Health and Social Services	<b>NTHC</b>	NWT Housing Corporation
<b>INF</b>	Department of Infrastructure	<b>NWTCG</b>	NWT Centre for Geomatics
<b>IRC</b>	Inuvialuit Regional Corporation	<b>NTGS</b>	NWT Geological Survey
<b>ISSS</b>	Informatics Shared Services	<b>PWNHC</b>	Prince of Wales Northern Heritage Centre
<b>ITI</b>	Department of Industry, Tourism and Investment	<b>SSHRC</b>	Social Sciences and Humanities Research Council
<b>IWGRA</b>	Interdepartmental Working Group on Research Activities	<b>IK</b>	Indigenous Knowledge
<b>KA</b>	Knowledge Agenda	<b>WLU</b>	Wilfrid Laurier University
<b>Lands</b>	Department of Lands	<b>WMIS</b>	Department of Wildlife Management Information System
<b>MACA</b>	Department of Municipal and Community Affairs	<b>FIN</b>	Department of Finance

# Pillar 1: GNWT Research Community

## SUMMARY OF PROGRESS

The objective of this pillar is that the GNWT will effectively lead, support and influence northern research priorities. Target outcomes include GNWT researchers working together on common issues, using best practices, and maintaining expertise in key areas.

Progress in 2019-2020 included convening the first annual Interdepartmental Working Group for Research Activities workshop to determine how departments could continue to collaborate and coordinate research and develop a new data management platform to share planning and reporting documents between all GNWT departments. Significant progress has been made in developing new resources, which will be made available on the Knowledge Agenda website, including key contacts for researchers in each department and links to best practice documents.



# Pillar 1: Highlights

Full list of key actions on page 17.

## ► TASK 2.4

Establish interdepartmental mechanisms to share information about new and existing research projects (e.g., websites, dashboards, newsletters, regular meetings)

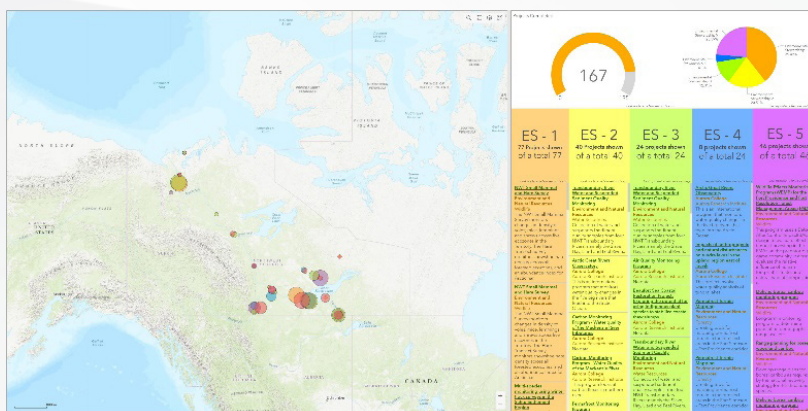
MACA's School of Community Government Webinar Series helps community governments gain timely access to up-to-date information needed to help them perform all aspects of government operations. The webinars share new and existing research projects and provide easy access to research information from GNWT departments. Webinars cover best practices for working with communities on research that affects the health and wellbeing of residents. In 2019/20, research presented included data collected on retail sales of cannabis in NWT, introduction to federal and territorial sources of data on climate change, and an introduction to the ATLAS Mapping System.

The webinars are a tangible way to encourage collaboration and represent an opportunity for the GNWT to regularly connect with communities to advance shared knowledge goals and develop positive relationships between researchers and community members.

**Lead Department:** *MACA*

In 2019/20, a pilot research map dashboard was developed to share information between departments, as well as communicate the GNWT's research activities effectively with the public. Research projects that address Environmental Stewardship, one of the Knowledge Agenda research priority areas, are shown in this screenshot.

**Lead Department:** *ENR*



*This is a screenshot of the research map dashboard. Environmental Stewardship is shown here.*



### ► TASK 3.3

Provide an assessment of current and future needs for research infrastructure and opportunities for shared research facilities

The Nahidik, a multidisciplinary research vessel, was launched in 2019/20 and is capable of supporting several research programs simultaneously on Great Slave Lake, the Mackenzie River or near shore Beaufort Sea. This allows for collaboration between scientists, students and northern communities, while engaging in critical research work. A new science program is being built for this vessel.



**Lead Department:** *The ship is owned by INF with a 20 year lease to the Arctic Research Foundation. ENR is collaborating with ARF and other partners to develop future research plans.*

### ► TASK 6.1

Convene regular meetings of GNWT research-focused business units to review existing strategic plans and discuss current and future needs to identify opportunities for alignment and collaboration

Staff members at the NWT Center for Geomatics collaborate with partners from both inside and outside of the NWT to provide access to advanced remote sensing information. Successful deployment of drones to capture images involves several GNWT departments. Collaborations with NASA in 2019 provided opportunities to connect staff with some of the world's most advanced airborne imaging systems.

**Lead Department:** *FIN-NWTCCG*



Photo: (From left to right): Melanie Desjardins & Colin Avey, NWT Centre for Geomatics, with Peter Griffith, NASA. The GNWT works with NASA to exchange information in support of research projects.

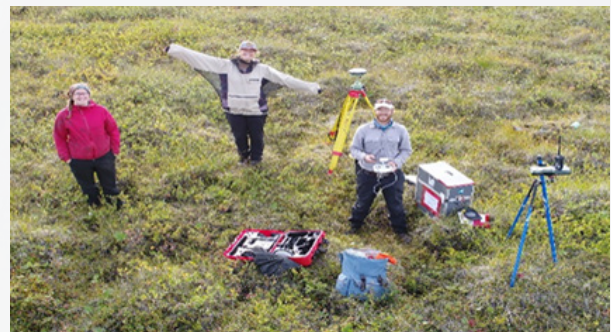


Photo: (From left to right): Staff from the Aurora Research Institute (Alice Wilson), Northwest Territories Geological Survey (Ashley Rudy) and NWT Centre for Geomatics (Jurjen van der Sluijs) working together to collect drone survey information along the Inuvik-to-Tuktoyaktuk Highway.

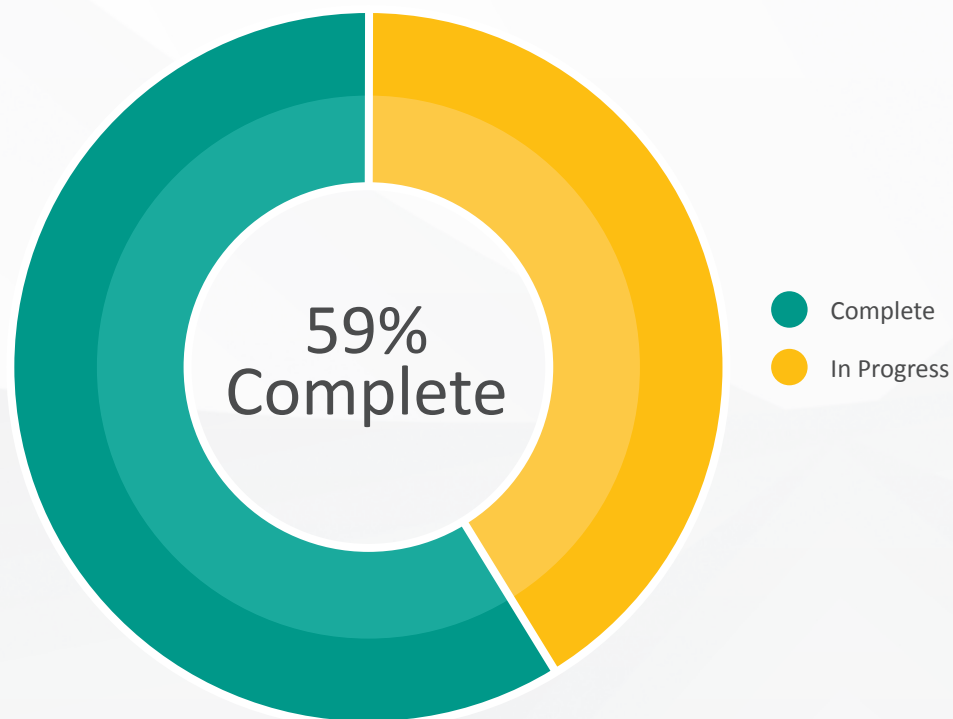
# Pillar 2: Collaborate for Results

## SUMMARY OF PROGRESS

The purpose of this pillar is to expand research activity in the NWT by developing key collaborations with other networks and partners to address the needs of northerners.

Significant progress was made in developing new and existing research partnerships in 2019-2020:

- The GNWT led the development of the NWT Thermokarst Collective, a collaborative effort to map permafrost across the entire NWT;
- A partnership with ArcticNet led to the development of new research positions at Aurora College;
- A collaborative effort between GNWT departments and the ARF to start planning for new programs to use the ship Nahidik for research and training in NWT waters; and
- The decade old strategic partnership between GNWT and Wilfrid Laurier University was renewed for the next 10 years. Included in the new partnership agreement is a steering committee designed to provide a venue for senior managers at the University to discuss opportunities to collaborate with GNWT Assistant Deputy Ministers from six departments.



# Pillar 2: Highlights

Full list of key actions on page 24.

## ► TASK 10.2

### Work with other jurisdictions to develop research programs and networks of mutual benefit and interest

GNWT staff from the NWT Geological Survey and the Department of Infrastructure collaborated with other research and government organizations to monitor and study climate change impacts and adaptations for highways built on permafrost. This collaboration helped support ongoing efforts to establish a new research network bringing permafrost science and infrastructure planning together.

**Lead Department:** *ITI-NTGS, NWT CG*



*Photo: GNWT staff collaborate with other research and government organizations to monitor and study climate change impacts and adaptations for highways built on permafrost.*

In 2019, the GNWT - WLU Partnership was renewed to 2029 to continue to build research capacity in the NWT to address northern priorities across multiple government departments. First decade activity highlights include:

- Opening Laurier's year-round Yellowknife research office.
- Training more than 280 students, some of whom now work in NWT.
- Leading NWT projects involving over 15 universities across Canada.
- Attracting \$33.5 million in external research funding.
- Building a network of research facilities in the NWT through the Changing Arctic Network.
- Providing leadership in cold regions research through multiple projects funded by Global Water Futures, a NWT-focused consortium working to address the impacts of climate change and industrial activity on water resources.
- Establishing the first boreal forest dynamics plot in the NWT as part of the Smithsonian Institute Forest Global Earth Observatories.
- Bringing WLU students and northern high school students together through field courses, on-the-land camps.
- Water Knowledge Camps to strengthen community partnerships in the Sahtú through on-the-land experiences.



*Photo: WLU President and Vice-Chancellor Deborah MacLachy and Jonathan Newman, Vice President Research in front of the Laurier Yellowknife office.*

**Lead Department:** *ENR*

In 2019/20, the Primary Health Care Reform project built on the System Transformation effort that created the Northwest Territories Health and Social Service Authority to respond to concerns about access to services and a lack of relationship with care providers and cultural safety within our system. A research project determined how a dedicated Integrated Care Team impacts:

- Client and staff satisfaction;
- Impact on costs and health resource utilization; and
- Relationships between providers and clients.

Measures included standard primary care indicators such as median time to third-next-available appointment, and new qualitative measures such as patients' self-reported experience with the cultural competency and continuity of care received.

**Lead Department and Partners:** *HSS, researchers at Hotiì ts'eeda, the Institute of Health Economics of Alberta.*



Photo: Health Family Program poster for families.

HSS is also working with Hotiì ts'eeda to create a robust, peer-reviewed, made-in-the north curriculum under the guidance of health experts, elders, caregivers, and a curriculum expert. A curriculum prototype has been developed to support staff in enhancing client experiences, activities, and programs. The prototype will be revised, refined and aligned through the implementation process by a toolkit development working group, and peer review panels.

**Lead Department and Partners:** *HSS, partnered with Hotiì ts'eeda*



Photo above: February 2020 knowledge holder's panel.

## ► TASK 13.2

Participate in general meetings to share plain-language information, understand research and communication needs, and develop positive relationship between researchers and community members

Through the development of Community Housing Plans, the Northwest Territories Housing Corporation (NWTHC) has embarked on an initiative, which involves every NWT community, the scale of which has not been seen in any jurisdiction in Canada.

On December 17, 2019, the Whatì Community Government and the NWTHC held a housing forum bringing together community leaders and partners to review priorities from the Whatì Housing Plan and develop a timeline for actions moving forward.

The forum provided an opportunity to celebrate the work accomplished by the community and build on the goals and actions. Partners from the Community Government, Tłı̄ch̄o Government, NWTHC, and other GNWT departments came together in Whatì to participate in the work.

On January 30, 2020, the Honourable Paulie Chinna, Minister Responsible for the Northwest Territories Housing Corporation (NWTHC) and Homelessness, along with Chief Alfonz Nitsiza, announced the completion of the Community Housing Plan in Whatì.

**Lead Department:** *NWTHC*



*Photo: Whatì community engagement session, 2019.*

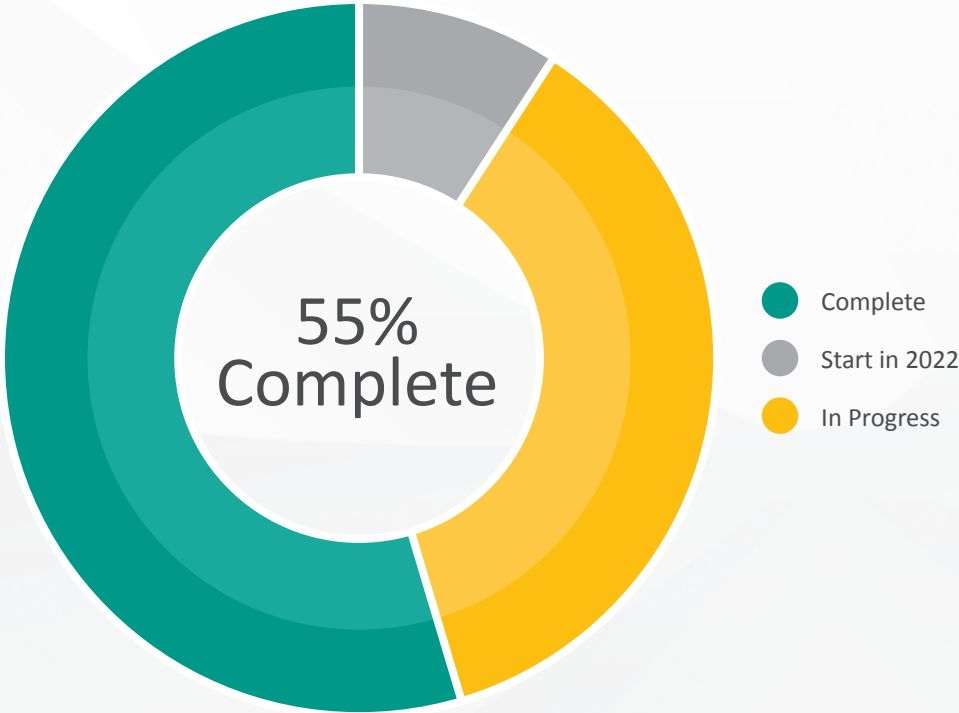
# Pillar 3: Research Impact

## SUMMARY OF PROGRESS

The purpose of this pillar is to ensure that research being conducted supports evidence-based decision-making and that research data and results are available in a format that is accessible by the people who need it.

Significant progress occurred in 2019-2020 toward developing public facing summaries of GNWT-led research programs. NWT Environmental Research Bulletins were shared with the IWGRA as an excellent example of communications products which ensure results are being shared in a meaningful way. NTGS completed very concise and easy to share summaries of their research programs. Communities were provided contacts for accessing research information in early 2020. These contacts and information on how to access research results will be released on the KA website.

KA staff continue to encourage academic research networks like Alberta Genome and the World Water Network to better communicate research results in plain, accessible language, and to place a renewed focus on building awareness.



# Pillar 3: Highlights

Full list of key actions on page 28.

## ► TASK 15.2

Develop a common reporting mechanism for the GNWT and external researchers to provide brief plain language “so what” summaries of their projects

The Northwest Territories Environmental Research Bulletins (NERB) are a series of brief, plain language summaries of various environmental research findings in the Northwest Territories.

As of 2019/20, the NWT CIMP Program has published 18 issues to date.

This is an example of a potential option for improving how plain language research result summaries are delivered to NWT communities.

The GNWT will assess this template for broader government use in 2021.

**Lead Department:** *ENR*

## ► TASK 17.2

Facilitate university collaboration with Aurora College and the GNWT on academic initiatives that support and grow knowledge-based programs, education needs and knowledge capacity throughout the NWT

The NWT Thermokarst Collective is a collaborative project to map permafrost across the NWT using satellite imagery.

In the summer of 2020, Steve Kokelj and Ashley Rudy of the NWT Geological Survey and Jurjen van der Sluijs of the NWT Centre for Geomatics completed aerial surveys using GPS tracked photos and a classification system to collect fine-scale data on permafrost features. This information will be used to check the broad scale mapping completed using satellite imagery.

Surveys of the Central Mackenzie Valley and Beaufort-Delta regions resulted in 9576 photos collected, 1586 permafrost features inventoried and 6,991 km flown in a helicopter.

**Lead Department:** *ITI (NTGS), multiple partners including Wilfrid Laurier University*

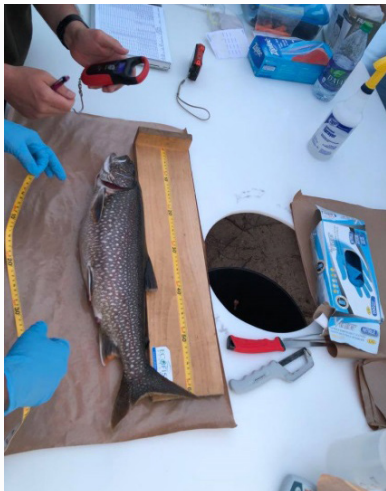


## ► TASK 15.2

Develop a common reporting mechanism for GNWT and external researchers to provide brief plain language “so what” summaries of their projects

NTPC reports on the results from field programs for hydro facilities that monitor issues of concern for regulators and the public. In 2019, monitoring reports for: Riparian habitat and fish use assessment; mercury in sediment and fish flesh; and sediment and erosion at Taltson Hydro were submitted, reviewed by regulators, approved and available on Mackenzie Valley Land and Water Board public registry. NTPC worked with Indigenous Governments and stakeholders to provide information and follow up analysis based on comments and recommendations received in the public review for the reports. These recommendations will guide future work under the various programs NTPC completes.

**Lead Department:** *NTPC*



Photos above: NTPC field work for monitoring reports on:

- Riparian habitat and fish use assessment.
- Mercury in sediment and fish flesh.
- Sediment and erosion at Taltson Hydro.







# Key Actions




## PILLAR 1: GNWT RESEARCH COMMUNITY



This table is organized by the three pillars identified in the Knowledge Agenda Action Plan. Progress is reported for all 17 key actions below. Example projects supporting the actions are highlighted earlier in the report.

The actions are coded as follows:





- **Green** = complete, or on-going
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- **Grey** = scheduled to begin in 2022

Key Action #1: Improve GNWT's capacity to integrate Indigenous Knowledge (IK) into research programs.		
Associated Tasks	2019/20 Progress	Status
1.1 Investigate how all departments engage in Indigenous Knowledge research and develop a list of options for addressing priority needs for each department.	<ul style="list-style-type: none"> <li>2021 Annual Science Meeting was planned and all GNWT departments were polled to determine how IK is being used in research. This information will be used as a starting point for identifying the priority needs of each department.</li> </ul>	
1.2 Convene an annual meeting between GNWT IK Committee and Interdepartmental Working Group for Research Activities (IWGRA) to discuss opportunities to engage communities in Indigenous Knowledge projects associated with departmental research goals.	<ul style="list-style-type: none"> <li>The GNWT Indigenous Knowledge Committee is working to complete a new IK Action Plan in 2022. The new IK Action Plan will be shared with IWGRA when it is completed.</li> <li>A meeting between ENR's On the Land Unit and Knowledge Agenda (KA) staff to plan a joint workshop with the GNWT IK Committee and IWGRA in 2021 will take place once the new IK Strategy is developed.</li> </ul>	
Key Action #2: Create and maintain venues and mechanisms for GNWT research community to share information and identify opportunities to collaborate.		
Associated Tasks	2019/20 Progress	Status
2.1 Host an annual interdepartmental workshop to share information on existing programs and facilities, describe research results and identify priorities going forward.	<ul style="list-style-type: none"> <li>The 11<sup>th</sup> Annual GNWT Research Coordination Meeting was held on Feb 27, 2020.</li> <li>All departments were represented.</li> <li>Major program highlights were shared along with emerging research needs.</li> <li>Several key areas of collaboration were determined including developing data management tools and ways to coordinate work planning between departments.</li> </ul>	
2.2 Maintain Interdepartmental Working Group (IWGRA) to lead initiatives and as a venue to regularly identify opportunities for collaboration on knowledge priorities.	<ul style="list-style-type: none"> <li>IWGRA met 6 times.</li> <li>Department specific meetings were held with Wilfrid Laurier University (WLU) President and VP Research.</li> <li>Department specific meetings were held with the National Research Council (NRC) to outline new program initiatives, and to discuss how GNWT may access NRC staff and facilities.</li> <li>Six research results presentations were organized and open to all departments, highlighting federal, territorial, academic and international research teams.</li> </ul>	

<p><b>2.3</b> Regularly update GNWT research community on tools, facilities, resources, technologies available for data management, communication and research.</p>	<ul style="list-style-type: none"> <li>• There is a standing item on IWGRA meeting agendas to plan and develop a information management system internal to GNWT as well as external communication products.</li> <li>• A pilot geospatial research program viewer is being developed.</li> <li>• Geoscience research results publications will be released biannually to all employees with ITI, ENR, LANDS and Northwest Territories Geological Survey.</li> </ul>	
<p><b>2.4</b> Establish interdepartmental mechanisms to share information about new and existing research projects (e.g., websites, dashboards, newsletters, regular meetings).</p>	<p>Interdepartmental mechanisms to share research:</p> <ul style="list-style-type: none"> <li>• Development is progressing on an internal GNWT file management system for all departments to share research program details arranged by KA priority themes to be completed in 2021.</li> <li>• Development is progressing on an interactive map by Knowledge Agenda pillar and region, which will be available publicly in 2021.</li> <li>• Opportunities to share public facing data platforms with GNWT Climate Change and Air Quality (CCAQ) are being evaluated. Alternatively, enhancements to the Discovery Portal (KA) Modernized website, specifically changing the data structure to an open platform to enhance the ability of departments to share data internally and with external agencies (NWTTCG) are being explored.</li> <li>• Coordinated and hosted The Pan-Canadian Spatial Data Infrastructure virtual summit focused on “Responding to needs of remote and northern communities” Spatial data Infrastructures: availability, discovery and access to geospatial information (NWTTCG).</li> <li>• A web-based species &amp; habitat viewer for discovery of spatial information related to species at risk, caribou, biodiversity (ENR/NWTTCG) collaboration was developed.</li> <li>• A tracker for infrastructure research activities such as on-going initiatives, key contacts, what committees those in the department sit on, etc. was developed.</li> <li>• Research was presented in recent MACA’s School of Community Government Webinar webinars included data collected on retail sales of cannabis in the NWT, introduction to federal and territorial sources of data on climate change, and an introduction to the ATLAS Mapping System (MACA).</li> <li>• Annual NWT biologists meeting with co-management partners and CWS to update all on regional research programs was carried out by territorial, Indigenous and federal government funded programs. Current research priorities are discussed (ENR).</li> </ul>	
<p><b>2.5</b> Sharing information on available research grants and potential internal and external partnerships.</p>	<ul style="list-style-type: none"> <li>• Connected academic researchers with Indigenous partners, and GNWT staff in all regions with 42 requests for information from collaborators and potential partners. Formal support letters were provided for 17 academic proposals in the NWT (ENR).</li> <li>• Organized a multi-partner meeting in Délı̄në leading to the development of a community based research needs project and a new remote sensing project (ENR).</li> <li>• HSS Research Coordinator was established to act as research liaison connecting researchers with relevant HSS staff. The HSS system (DHSS or NTHSSA) is a collaborator on 13 active or pending projects, and has provided Letters of Support for eight funding applications for active or pending projects (HSS).</li> <li>• List of funding opportunities circulated to all staff and Research Associates monthly through Aurora College (AC).</li> <li>• Research administration staff became members of the Canadian Association of Research Administrators, gaining access to new information about research funding and best practices in academic research reporting and administration (AC).</li> </ul>	

<p><b>2.6</b> Work with AC to share NWT research information, establish partnerships and access resources that support Knowledge Agenda goals.</p>	<ul style="list-style-type: none"> <li>• GNWT Science Advisor (GSA) and AC Vice-President of Research (VPR) established regular biweekly meeting schedule to ensure collaboration in funding opportunities and program planning. 21 meetings were conducted during 2019/2020. (AC and ENR).</li> <li>• GSA worked with AC to help develop the ArcticNet North by North funding program (AC and ENR).</li> <li>• HSS Research Coordinator worked with AC to build relationships and ensure that HSS Research priorities are incorporated/ reflected in research licensing process (HSS).</li> <li>• NTPC shared strategic research needs with AC and completed NWT Scientific Research Permit applications for all monitoring programs (NTPC).</li> </ul>	
<p><b>2.7</b> Establish a regular interdepartmental forum to plan IK components in GNWT research plans.</p>	<ul style="list-style-type: none"> <li>• Discussed at IWGRA meetings – No formal process yet, pending discussions with the Indigenous Knowledge Committee and the release of the GNWT IK Action Plan (see Action 1.2).</li> <li>• Secured NSERC capacity development funds to develop institutional Equality Diversity and Inclusivity Plan, revise IK Policy (AC).</li> <li>• AC established an IK Advisory group to advise on updating IK policy for AC.</li> </ul>	

**Key Action #3:**  
Encourage department's business units to pool resources to solve common research-related issues and/or maximize the value of research dollars.

Associated Tasks	2019/20 Progress	Status
<p><b>3.1</b> Identify and implement field program synergies that reduce costs of travel, equipment, or staff time.</p>	<ul style="list-style-type: none"> <li>• Sahtú energy industry and academic research partnerships funded by ITI (Environmental Studies Research Fund) and supported by ENR regional staff work collaboratively with multiple universities to deliver research in exploration lease lands.</li> <li>• Tasseled Cap Analysis: Derived territory-wide imagery that will help field based researchers to more efficiently identify areas of landscape disturbance using satellite imagery and historical archive information. Analysis completed March 2020, Quality Assessment ongoing (NWTTCG).</li> <li>• Joint research programs in the Snare Basin, Jackfish Lake and Bluefish Hydro all work with project partners to increase efficiencies that reduce the cost of travel and field time (NTPC).</li> <li>• Identified and implemented opportunities to share resources to deliver drone mapping field program for cultural resources research in the Sahtú (ECE, NWTTCG).</li> <li>• For all NWT CIMP funded projects, encourage coordination between project leads through project development and kickoff meetings, regular check-ins with project leads, and through the funding proposal process. (ENR).</li> <li>• Cost sharing for remote sensing data acquisition, (NWTTCG, ENR, INF, ITI).</li> <li>• Standing item on IWGRA agenda to identify regional and field based activities which may provide opportunities to share costs.</li> </ul>	
<p><b>3.2</b> Provide an assessment of education and training needs for northern-based researchers and develop initiatives to meet those needs on a priority basis.</p>	<ul style="list-style-type: none"> <li>• Action not yet initiated.</li> </ul>	
<p><b>3.3</b> Provide an assessment of current and future needs for research infrastructure and opportunities for shared research facilities.</p>	<ul style="list-style-type: none"> <li>• A partnership with the Arctic Research Foundation to facilitate bringing a multidisciplinary research vessel into service in the NWT was established. The ship Nahidik is capable of supporting multiple research programs on Great Slave Lake, the Mackenzie River or near shore Beaufort Sea. A new science program is being built for the Nahidik (INF, ITI, and ENR).</li> </ul>	
<p><b>3.4</b> Coordinate IK programs, where appropriate, that reduce costs for travel, meetings and staff time.</p>	<ul style="list-style-type: none"> <li>• Logistics planning will be an agenda item in a joint meeting with IWGRA and the Indigenous Knowledge Committee when the new IK Action Plan is released.</li> </ul>	



**Key Action #4:**

Consolidate and build on NWT research 'best practice' guidelines, policies, and protocols.

Associated Tasks	2019/20 Progress	Status
4.1 Compile and share existing GNWT research-related best practice guidelines, policies and protocols.	<ul style="list-style-type: none"> <li>Initiated compilation of GNWT best practice documents (IWGRA), all documents will be available in the shared internal file management system and Knowledge Agenda website.</li> <li>Resources from Aurora Research Institute include: <ul style="list-style-type: none"> <li>Doing Research in the Northwest Territories: A Guide for Researchers Applying for a Scientific Research Licence <a href="https://achh.ca/wp-content/uploads/2018/07/Guide_NWT.pdf">https://achh.ca/wp-content/uploads/2018/07/Guide_NWT.pdf</a></li> <li>Templates for communicating results <a href="https://nwtresearch.com/licensing/communicating-research/communicating-results-templates">https://nwtresearch.com/licensing/communicating-research/communicating-results-templates</a></li> </ul> </li> <li>Hoti ts'eeda website has GNWT and regional laws and policies that researchers should consider on its website: <a href="http://nwtsp.or.ca/resources/research-nwt/regional-laws-and-policies">nwtsp.or.ca/resources/research-nwt/regional-laws-and-policies</a> (HSS).</li> <li>Four Standard Operating Procedures (SOP) for animal care associated with information on wildlife handling permits have been developed. SOP specific for bison is the most recent and was reviewed by 2019/2020 NWT Wildlife Care Committee (ENR).</li> <li>Best practices for monitoring are also provided in Tundra Ecosystem Experimental Station Monitoring Protocols, wildlife research project reviews (method section), Wildlife Research Permits (ENR).</li> <li>Standard protocols are included in the NWT CIMP Scientific Proposal Guide including data collection for caribou, fish, metadata standards for water quality and aquatic health and vegetation (ENR).</li> </ul>	
4.2 Identify priority gaps in best practice guidelines and protocols for research in NWT.	<ul style="list-style-type: none"> <li>Action not yet initiated.</li> </ul>	
4.3 Develop and communicate GNWT code of ethical practices for researchers including for the use of Indigenous Knowledge	<ul style="list-style-type: none"> <li>Departments will share best practices with IWGRA when completed.</li> <li>Standards for Human health research, including the use of IK, are under development (HSS).</li> </ul>	
4.4 Share best practices on how to effectively communicate research results to the public.	<ul style="list-style-type: none"> <li>Developed a draft platform for mapping research activities which could support linked communications products (ENR).</li> <li>Outreach coordinators have received federal support under the Natural Science and Engineering Research Council Promoscience program. This model can be used as a best practice example for effective communications with schools/public (AC) and will be presented to IWGRA when completed.</li> <li>Initiated discussion about best practices for engaging school aged residents about research programs and results at forest fire results workshop in 2019 (ECE, ENR).</li> </ul>	
4.5 Develop practical guidance for GNWT researchers on how to work with external research partners or consultants, including advice for writing research proposals, grants and contracts.	<ul style="list-style-type: none"> <li>NWT CIMP Proposal Guides published annually outline how to apply, tips for success for receiving NWT CIMP funds (ENR).</li> <li>Annual Guide to Doing Research in the NWT updated in 2020 and presented to IWGRA to highlight its usefulness to departments and outside partners (AC).</li> <li>AC website resources and Research CASH project initiatives/resources. Research Capacity and Support Here (CASH) is a grant-writing workshop focused on improving Northern researchers' access to and success competing for federal research funding.</li> </ul>	



**Key Action #5:**

Strengthen internal research expertise required to advance Knowledge Agenda research priorities.

Associated Tasks	2019/20 Progress	Status
5.1 Work in partnership with ACand the Aurora Research Institute to evaluate NWT research capacity challenges and opportunities.	<ul style="list-style-type: none"> <li>A discussion paper was developed evaluating the advantages, opportunities and costs associated with developing research Chairs supporting climate change related research within Aurora College. Completed in January 2020.</li> </ul>	
5.2 Explore options for creating a “revolving fund” to support priority information gaps.	<ul style="list-style-type: none"> <li>Topic discussed with Department of Finance and a number of barriers to revolving fund arrangements were highlighted. Various options will be outlined in a discussion paper (ENR).</li> <li>Knowledge Economy paper commissioned by ENR and ITI recommended a need for dedicated funds to be established to take advantage of leveraged funding opportunities for GNWT and AC. Deemed not feasible in current fiscal climate (ENR).</li> <li>Jurisdictional scan for government health research systems is underway which includes research funding programs and will be distributed to IWGRA when completed (HSS).</li> </ul>	




**Key Action #6:**

Sustain and enhance world class regional research facilities and programs.

Associated Tasks	2019/20 Progress	Status
6.1 Convene regular meetings of GNWT research-focused business units to review existing strategic plans and discuss current and future needs to identify opportunities for alignment and collaboration.	<ul style="list-style-type: none"> <li>Four meetings of the entire IWGRA and Annual Science Committee were held this year. More than 30 additional meetings were organized to focus on GNWT research needs and opportunities to partner with southern academic agencies (ENR).</li> <li>Departments collaborated with outside researchers from Carleton University and McGill University and coordinated support for two emerging research networks associated with changing permafrost. One network, PermafrostNet was funded (ITI).</li> <li>Results of programs using remote sensing drones were presented at IWGRA meetings highlighting capacity of NWTCCG, and several field based programs resulted from new collaborations (NWTCCG, INF, AC, ECE).</li> </ul>	
6.2 Develop communications products to highlight capacity of GNWT research facilities and opportunities to host research programs.	<ul style="list-style-type: none"> <li>Canadian Symposium for Remote Sensing was planned to take place in July 2020 to showcase GNWT capacity. Due to COVID-19, the conference was held virtually with a special session run on GNWT activities related to remote sensing (NWTCCG).</li> <li>Expanded and updated print and electronic communications products about regional facilities and programs supported by AC as well as newly enhanced services for partners, clients and networks (ARI).</li> <li>NWT research facilities highlighted in materials developed by the Canadian Network of Northern Research Operators (CNNRO).</li> <li>Locations of GNWT labs, services and capacities presented by ARI staff at ArcticNet annual meeting December 2019 (ARI).</li> <li>New ARI website released Nov. 2019, WWW.NWTRESEARCH.COM (AC).</li> <li>Tundra Ecosystem Research Station credited in numerous publications through partnerships with researchers, Canadian Network of Northern Research Operators (CNNRO), Knowledge Agenda presented as guidance for new partnerships with GNWT at science planning meetings with NASA, and ArcticNet (ENR).</li> </ul>	




## Key Action #7:

Find creative solutions to recruit, train, retain research expertise in the NWT.

Associated Tasks	2019/20 Progress	Status
<p>7.1 Promote the importance of and opportunities for knowledge-based careers in the north to NWT students and residents.</p>	<ul style="list-style-type: none"> <li>Promoscience programs delivered in schools in the Beaufort Delta communities (AC).</li> <li>Supported Science Day organization and facilitated multiple research teams, funders and organizers to attend public presentations and to speak with community members about how new programs may provide opportunities for students and other residents in Tuktoyaktuk in August 2019 (ENR).</li> <li>ECE supports Apprenticeship and Occupational Certification programming and continues to introduce and implement opportunities to increase program options, interest and participation in the skilled trades and occupations.</li> <li>Career Development Officers (CDO), when meeting with clients, use the Skills 4 Success NWT Jobs in Demand 15 year forecast to inform and steer individuals towards occupations in high demand. Career counseling involves the creation of a Career Action Plan (CAP) and takes into account many factors to advise clients on career options (ECE).</li> <li>Skills Canada, one of ECE's partners, provides NWT residents with the following programs: <ul style="list-style-type: none"> <li><b>Skills Clubs</b> Every year, a number of adults in skilled trades and technology careers volunteer their time to mentor and share their knowledge with youth grades 9 through 12. The Skills Clubs are instrumental in recruiting and supporting Skill Competition participants.</li> <li><b>Power Up! Territorial Youth Conferences</b> These one-day conferences provide Grade 8 students throughout the NWT with an opportunity to learn about some of the exciting career options available to them.</li> <li><b>Territorial Skills Competition (TSC)</b> The TSC is a one-day, Olympic-style competition that showcases the talents of our youth who are already developing expertise in skilled trades and technology.</li> <li><b>Canadian Skills Competition</b> Hosted on an annual basis, this is Canada's largest national multi-trade and technology competition for Canadian students and apprentices. The event attracts hundreds of secondary and post-secondary students from across Canada to compete in over 40 areas.</li> </ul> </li> </ul>	
<p>7.2 Explore opportunities to strengthen research capacity through co-op programs, cross-appointments, internships, researcher-in-residence programs and externally-funded research positions that are situated in the NWT.</p>	<ul style="list-style-type: none"> <li>Initiated several meetings with GNWT Human Resources to make co-op placements more feasible with departments (ENR).</li> <li>AC expanded Research Associate capacity with additional GNWT staff (AC).</li> <li>Co-op students as a mechanism to develop research capacity was raised at Annual science meeting in February 2020 and several departments agreed to share information on successful collaborations (IWGRA).</li> <li>HSS Research Coordinator is developing a plan for practicum opportunities within GNWT health system. Partnerships with universities are being considered as part of this plan (HSS).</li> <li>Work is ongoing with the federally funded program Hoti ts'eeda, which supports capacity building in communities through research (HSS, AC).</li> <li>Established "Researcher in Residence" program policy in 2020 to enhance opportunities to bring new research capacity to the NWT (AC).</li> <li>Co-op &amp; internship programs continue to be supported by NTPC, background on who the placements are, what the program goals are, and how successful northern students are in the program will be shared with IWGRA (NTPC).</li> <li>Fourth year engineering capstone projects were integrated into capital project delivery (INF).</li> <li>Funding secured for new permafrost and climate change-related researcher positions (ITI).</li> </ul>	
<p>7.3 Assess research-related staffing needs with an increased focus on succession planning.</p>	<ul style="list-style-type: none"> <li>Action not yet initiated.</li> </ul>	

## Key Action #8:




Improve GNWT's capacity to store, manage and share data collected through research and monitoring.

Associated Tasks	2019/20 Progress	Status
<p><b>8.1</b> Compile information on current research-related data, data products and data management systems and governance across the GNWT.</p>	<ul style="list-style-type: none"> <li>• Initiated compilation of more than 30 research databases across the GNWT. Departments will determine which of these databases will be available to provide links to via the KA or other websites (ENR).</li> <li>• Centralized geomatics data management information for the GNWT and some public resources is available from the NWTCCG.</li> <li>• HSS data via the Bureau of Statistics and Canadian Institute for Health Information (HSS).</li> <li>• Processes for administering data access requests for health related information will be updated in 2021. Work is also being done to document, at a high level, the data available in various HSS information systems (HSS).</li> <li>• A departmental process for determining how research projects can access infrastructure data is being developed and will be in place in 2021 (INF).</li> <li>• Developing an inventory of untenured structures using remote sensing and aerial photography to be used for land management initiatives (Lands).</li> <li>• Working with Indigenous Government Organizations to establish an inventory of rights-based cabins (RBC) in their traditional Territories. This will enable Lands to exclude these lawful RBCs from actions against unauthorized occupants (Lands).</li> </ul>	
<p><b>8.2</b> Investigate possible synergies with national and international providers of research data and data management services.</p>	<ul style="list-style-type: none"> <li>• Engagement has occurred with several international polar data coordination organizations including: Sustaining Arctic Observation Networks (SAON); NETWORK; Polar Data Catalogue; and Genome Canada to discuss how GNWT data could be archived or linked to their databases (ENR).</li> <li>• Data management issues were highlighted as a future focus in Interdepartmental Research annual meetings (IWGRA).</li> <li>• Development is continuing on a geoscience metadata database (ITI).</li> <li>• Work progressed to establish relationships with the Canadian Data Platform/Data Access Support Hub (HSS).</li> <li>• The GNWT was represented at Transportation Association of Canada meetings where northern research data management was discussed (INF).</li> <li>• Discussions occurred with NatureServe Canada to determine how they can assist with increasing accessibility of GNWT data (ENR).</li> <li>• The GNWT participates in information and data management discussion hosted by the National Geological Surveys Committee (ITI).</li> </ul>	
<p><b>8.3</b> Investigate potential for integrating Indigenous Knowledge into existing GNWT data management systems.</p>	<ul style="list-style-type: none"> <li>• Agreements in place with Canadian Institutes for Health Information (CIHI) and Health Canada. NWT participation in Data Access Support Hub of Health Data Research Network, a CIHI initiative (HSS).</li> </ul>	

## PILLAR 2: COLLABORATE FOR RESULTS

### Key Action #9:

Provide easy access to GNWT research information.





Associated Tasks	2019/20 Progress	Status
<p><b>9.1</b> Establish an inventory of current GNWT research projects organized by the core subject areas and cross-cutting themes in the Knowledge Agenda.</p>	<ul style="list-style-type: none"> <li>An interactive map system was developed and presented at the annual GNWT Research meeting.</li> <li>Development of public facing geospatially referenced summaries of GNWT led programs was supported by IWGRA.</li> <li>Future development will include naming key search fields, and development of policies to ensure that final reports and data associated with research are uploaded or integrated into a new or updated NWT Discovery Portal.</li> <li>An internal file management project tracker is under development (ISSS, ENR).</li> <li>Options for mapping all research permits, such as Wildlife Research Permits and Scientific Research Permits will also be examined in future IWGRA sessions.</li> <li>Tracking GNWT publications related to research was also listed as a potential link to the public facing map of research activities (ENR).</li> </ul>	
<p><b>9.2</b> Establish, maintain and promote a list of GNWT points of contact for key research areas.</p>	<ul style="list-style-type: none"> <li>Support for developing a list of key departmental research contacts was solicited at the annual GNWT research meeting.</li> <li>A draft list of key contacts has been compiled and will be reviewed by IWGRA prior to posting on the KA website.</li> <li>The HSS Research Coordinator is single point of contact for HSS-related research inquiries (HSS).</li> <li>Infrastructure will also be establishing a full-time research coordinator (INF).</li> </ul>	
<p><b>9.3</b> Host an “InfoNorth” or Knowledge Agenda website that summarizes the GNWT’s research and encourages external researchers to partner or collaborate with GNWT researchers.</p>	<ul style="list-style-type: none"> <li>Key elements of an updated KA website will continue to be discussed within IWGRA. Opportunities to share development with related programs such as climate change will be examined.</li> </ul>	

### Key Action #10:

Coordinate existing and future research efforts and bring multiple partners together to advance Northern research and innovation.




Associated Tasks	2019/20 Progress	Status
<p><b>10.1</b> Highlight the respective roles of AC, ARI, &amp; GNWT depts. in engaging external researchers and funding agencies, providing and maintaining infrastructure, establishing academic networks and communicating research priorities.</p>	<ul style="list-style-type: none"> <li>A discussion paper was produced exploring opportunities and potential for collaboration between GNWT and AC to support permanent research positions (AC).</li> <li>KA staff facilitated meetings between the Canada Research Coordinating Committee (CRCC and AC) in August 2019 to ensure AC input into the development of the CRCC Indigenous Research Strategy.</li> <li>AC and KA staff have collaborated to provide comments on draft planning documents for the Canada Foundation for Innovation (CFI) to help ensure that new research infrastructure programs are designed to meet the needs of northern academic institutions.</li> <li>In meetings in November 2019 with NSERC and CFI, KA staff communicated the need for engaging AC directly in developing funding programs which will work for the NWT.</li> <li>Specific research priorities for ENR were documented and provided to ARI to assist in identifying new opportunities to collaborate on developing programs.</li> <li>NWT CIMP monitoring blueprints, which identify monitoring priorities from decision-makers in the NWT, are available to all research partners and are updated annually (ENR).</li> </ul>	



<p><b>10.2</b> Work with other jurisdictions to develop research programs and networks of mutual benefit and interest.</p>	<ul style="list-style-type: none"> <li>• Support Inuit Health Survey and development of Inuit Research Ethics Committee (HSS).</li> <li>• Participates in Canadian Data Platform, Data Access Support Hub (HSS).</li> <li>• GNWT ENR, Global Water Futures, Wilfrid Laurier University to develop and support hydrology research programs in the Snare River Basin that are mutually beneficial for all parties (NTPC).</li> <li>• Climate Change and the Potential Socio-economic Effects on Communities Resulting from Reduced Winter Road Access research project funded, working with WLU, Wekweètì and Aklavik (ENR).</li> </ul>	
<p><b>10.3</b> Provide guidance and advice to new research networks and projects that helps to maximize benefits for NWT residents.</p>	<ul style="list-style-type: none"> <li>• Senior Science Advisor currently is part of two Research Management Committees for NCE funded programs, ArcticNet and the Canadian Mountain Network (ENR).</li> <li>• HSS Research Coordinator facilitates review of all research projects to ensure alignment with priority areas and knowledge gaps, including recommendations for knowledge translation (HSS).</li> <li>• New research projects involving GNWT staff and several universities were established to help improve forecasting and resiliency in the Snare River basin which provides the generation for the Snare Hydro Facility (ENR, NTPC, AC).</li> <li>• Staff provided guidance for developing new outreach, training and research methodologies to build capacity in Indigenous and community driven research initiatives in the Inuvik Region. Partners included: Inuvialuit Regional Corporation; Gwich'in Tribal Council; Gwich'in Renewable Resources Board; Inuvialuit Game Council, Hunters and Trappers Committees (AC).</li> <li>• Letters of support and guidance provided on research programs to NSERC PermafrostNet (Carleton University) and Metal Earth (Laurentian University) (ITI).</li> <li>• KA staff supported development of three network proposals to NSERC: PermafrostNet (Carleton University), Carbon Feedbacks Network (WLU) and the Canadian Arctic Responsive Engineering Network (McGill University).</li> </ul>	
<p><b>10.4</b> Update guidance for external agencies that describes NWT best research practices.</p>	<ul style="list-style-type: none"> <li>• The Primary external resource assisting for external to GNWT parties in following best practices and meeting regulatory obligations is the publication "Guide to Doing Research in NWT". This document was updated in 2019 (AC).</li> <li>• In partnership with the Hoti ts'eeda, online resources for HSS-related research in NWT are currently being updated (HSS).</li> <li>• NWT Scientific Research License information on COVID-19 is updated regularly on NWTresearch.com (AC).</li> <li>• Active membership in Canadian Association of Research Ethics Boards (CAREB) to remain current on Research Ethics issues and practice (AC).</li> <li>• Developed updated Archaeological Impact Assessment Guidelines (ECE PWNHC).</li> <li>• Developed Water Quality Reporting Standards to be adopted by Land and Water Boards of the Mackenzie Valley (ENR).</li> <li>• Wildlife Research Permit process and guidelines were updated and distributed to regional staff (ENR).</li> </ul>	
<p><b>10.5</b> Promote linkages between research agencies, Indigenous governments and organizations, and co-management boards.</p>	<ul style="list-style-type: none"> <li>• KA staff organized and participated in meetings with the CRCC and Indigenous governments, communities, and co-management agencies in support of the development of the National Indigenous Research Strategy (ENR).</li> <li>• Organized and attended meetings between Regional Indigenous Governments and organizations and communities to introduce the potential for working with ARF to develop operating plans for the research ship Nahidik as well as to gauge interest in partnering to deploy and use mobile research labs (ENR).</li> <li>• HSS Research Coordinator brokering relationships between researchers, NGOs, Indigenous governments and agencies, internal stakeholders/care providers. Examples: Tłı̨chǫ Government, IRC, Hoti ts'eeda (HSS).</li> <li>• Formalized collaboration with Tłı̨chǫ to support access to Research Support Fund for Hoti ts'eeda (AC).</li> </ul>	


**Key Action #11:**

Promote the GNWT's Knowledge Agenda and research priorities.

Associated Tasks	2019/20 Progress	Status
11.1 Develop a communications plan to actively promote the GNWT's Knowledge Agenda and research priorities and cross cutting themes, such as climate change, to key audiences.	<ul style="list-style-type: none"> <li>ENR Communications developed Knowledge Agenda and Climate Change Strategic Framework Communications Plans (ENR).</li> <li>A Climate Change Outreach Plan is being developed (ENR).</li> </ul>	
11.2 Identify and highlight current research gaps that the GNWT believes need to be addressed in the short term.	<ul style="list-style-type: none"> <li>Representatives of six departments are members of GNWT-WLU Partnership Strategic Management Committee. This provides a connection for the departments to communicate short term research needs to an academic partner (ENR).</li> <li>Monthly meetings scheduled with HSS Research Coordinator and the WLU Research Partnerships Manager allows HSS to communicate emerging needs to WLU (HSS).</li> <li>All divisions of ENR contributed to a department research needs inventory which has been shared with academic and federal funding partners (ENR).</li> </ul>	
11.3 Inform funding agencies of Northern needs with respect to research & related infrastructure.	<ul style="list-style-type: none"> <li>SSA solicited and delivered meetings with science policy units in 12 federal research and funding agencies presenting the Knowledge agenda and Action Plan priorities (ENR).</li> <li>SSA met with Canada's Chief Science Advisor, to propose using federal departmental science advisors to establish better communication of GNWT research needs with departments (ENR).</li> <li>SSA met with CFI to provide feedback on new northern program (ENR).</li> <li>SSA met with leadership of the NRC to explore how northern governments will advise on new Arctic programs (ENR).</li> <li>KA staff facilitated program staff from the NRC meeting with ENR, ITI and AC in Yellowknife to help inform development of new Arctic Challenge program (ENR).</li> <li>Meetings throughout the year held with CRCC, NSERC, SSHRC personnel, academic network partners, and international research funders to promote priority needs outlined in the KA.</li> </ul>	

**Key Action #12:**

Modernize GNWT legislation that regulates research, science and knowledge generation.

Associated Tasks	2019/20 Progress	Status
12.1 Compile an overview of NWT legislation that regulates research activities and identify how current regulations could be amended to better align with Knowledge Agenda goals.	<ul style="list-style-type: none"> <li>NWT Research Regulatory summary was prepared by AC and will be shared with a proposed sub-committee of the IWGRA to discuss the potential for sharing information and discussing improvements in how research is regulated (AC, ENR).</li> <li>On-going tracking of issues identified in application of research-related legislation (AC).</li> </ul>	

## Key Action #13:

Support best practices for working with communities on research.

Associated Tasks	2019/20 Progress	Status
<p><b>13.1</b> Continue to encourage GNWT departments and external researchers to engage early with communities on the objectives and scope of proposed research projects.</p>	<ul style="list-style-type: none"> <li>• A barren-ground caribou research planning meeting was organized by ENR on February 18-19, 2020 with scientific and IK researchers, and representatives from community based monitoring programs to discuss new ideas for caribou research, including those programs led by co-management agencies, and guardian programs (ENR).</li> <li>• NWT Scientific Research License application and permit database (POLAR) was updated and streamlined in July 2019.</li> <li>• KA and climate change staff met with NWTAC on multiple occasions to talk about research into winter road sustainability (INF, ENR).</li> <li>• School of Community Government provides external researchers with a mechanism for engaging communities in a timely manner regarding their proposed and ongoing research. The MACA Webinar series inspires northern researchers to engage with community stakeholders and ensures that community leaders are informed of research happening in their communities, making knowledge available at the right time in the right form to be used by decision-makers (MACA).</li> <li>• KA staff attended Tuktoyaktuk Science Day, August 1, 2019 to bring scientists and community members together and engage with one another about research needs and results of existing projects (ENR, AC).</li> <li>• Worked with Arctic Research Foundation (ARF) to inform communities about ARF's research infrastructure in the NWT. CCAQ travelled to the Beaufort Delta Region with NWTAC and Northern Youth Leadership in early March 2020 to meet with community representatives and discuss community priorities, representation and involvement in research in the NWT, specifically involvement in a new science program currently being built for ARF's research vessel the Nahidik. Meetings were held in Aklavik, Tsiigehtchic, Fort McPherson, and Inuvik (ENR).</li> <li>• Facilitated community engagement for PhD student to begin programs to explore heritage resources on the Beaufort Sea coast at risk due to rapidly melting permafrost (ECE, PWNHC).</li> <li>• Supported northern community members, local decision-makers, and Indigenous organizations to be involved in defining the purpose of NWT CIMP monitoring, project design and how it will be implemented. Developed the Pathways Approach, to assist researchers in developing projects in collaboration with northern partners (ENR).</li> <li>• Climate change related Hazard Mapping Working Group, partnered with Inuvialuit Land Administration to advise on ongoing environmental monitoring planning (ITI).</li> </ul>	
<p><b>13.2</b> Participate in regional meetings to share plain-language information, understand research and communications needs, develop positive relationships between researchers, and community members.</p>	<ul style="list-style-type: none"> <li>• Community Housing Plan announced in Whatì on January 30, 2020 (HSS, NWTHC).</li> <li>• Participated in Arctic Science Day in Tuktoyaktuk in August 2019 (ENR, INF).</li> <li>• Participated in Hotì ts'eeda gathering in September 2020 (ENR).</li> <li>• Provided funding to academic partners working with communities (e.g., WLU Dehcho Collaborative on Permafrost (ENR).</li> <li>• Partnered with Let's Talk Science and Actua Canada Network to support STEM outreach (AC).</li> <li>• Created 2 externally funded positions to support STEM &amp; research outreach in Inuvik and Fort Smith, plus support from Polar Knowledge Canada and NSERC Promoscience (AC).</li> <li>• Presented to construction industry on research opportunities within capital projects in December 2019 (INF).</li> <li>• Wildlife Workshops or Wildlife Tours organized in each region biannually (ENR).</li> <li>• Hosted the Conservation Network Gathering in February 2020. 111 people attended and research on protected areas was part of the agenda (ENR).</li> <li>• Participated in Sahtù Research and Environmental Monitoring Workshop 2019 to share plans for caribou fence research (ECE PWNHC).</li> <li>• Co-hosted a 2019 results workshop with the SRRB in Tulita to share the results of NWT CIMP-funded projects conducted in the Sahtù (ENR).</li> </ul>	



**Key Action #14:**  
Support community research capacity.

Associated Tasks	2019/20 Progress	Status
14.1 Investigate options for making contribution agreements more efficient & effective for community research partners (e.g., multiyear funding, joint agreements with business units).	<ul style="list-style-type: none"> <li>Investigation of building research funding into contribution agreements for large federally funded infrastructure projects. By making research activities an eligible expense on these large multi-year projects, the department will be better situated to support research partners with more than just in-kind contributions (INF).</li> </ul>	
14.2 Encourage GNWT departments and external researchers to design projects in a manner that builds community research capacity (e.g., hiring & training local people, using local businesses).	<ul style="list-style-type: none"> <li>Community capacity requirements for funding proposals, On the Land, Canadian Mountain Network Indigenous led and partnered research (ENR).</li> <li>Health Research Coordinator refers external researchers to Hoti ts'eeda, who can connect them with local support (HSS).</li> <li>Training Guardians and community members in set up of remote sensing equipment (ENR).</li> </ul>	
14.3 Build on community-based monitoring initiatives including training, support for Guardian programs.	<ul style="list-style-type: none"> <li>Supporting WLU in activities with Dehcho First Nations Guardians for training related to permafrost monitoring (ENR).</li> <li>Providing ongoing support for environmental monitoring through the Sahtú based Ne K'á Dene Ts'ı́ Forum which provides resources for training in Sahtú communities (ENR).</li> </ul>	

## PILLAR 3: RESEARCH IMPACT




**Key Action #15:**  
Improve the way research is translated and made available to decision-makers.



Associated Tasks	2019/20 Progress	Status
15.1 Provide key decision-making bodies with a list of departmental contacts who can provide information on various areas of NWT research.	<ul style="list-style-type: none"> <li>Established framework for departmental contact information at annual meeting in February 2020.</li> <li>The HSS Research Coordinator is the main point of contact for all HSS research requests, inquiries, and acts as a liaison between researchers and HSS content experts (HSS).</li> </ul>	
15.2 Develop a common reporting mechanism for GNWT and external researchers to provide brief plain language "so what" summaries of their projects.	<ul style="list-style-type: none"> <li>Supported a project with University of Calgary to document all Genomic research in the NWT in plain language (ENR).</li> <li>NWT Environmental Research Bulletins Project summaries completed and shared with communities for all CIMP funded research (CIMP).</li> <li>The research report database was updated with all new and ongoing geoscience research led by GNWT staff explained and showcased (ITI).</li> <li>Research summaries submitted to regulators as part of standard reporting requirements (NTPC).</li> <li>Geospatial viewer presentation was created to brief departments on current research activities (INF).</li> <li>Research compendia annual publication (ARI).</li> <li>HSS has integrated a knowledge translation question into the project review process for research licensing. As part of updating the HSS Research Agenda, HSS divisions are being asked how they prefer to "consume" research findings. This information will be used to make recommendations to researchers (HSS).</li> </ul>	

<p><b>15.3</b> Evaluate web-based dashboards and other tools that highlight current NWT research on Knowledge Agenda priorities.</p>	<ul style="list-style-type: none"> <li>Potential website discussions have taken place with multiple departments to collaborate on complementary internet based information management and data visualization and (NWTCG, IWGRA, ENR).</li> </ul>	
<p><b>15.4</b> Develop options for improving how plain language research result summaries to are delivered to NWT communities.</p>	<ul style="list-style-type: none"> <li>Templates for communicating results (project finding, PowerPoint presentations, plain language checklist) can be found at: <a href="http://nwtresearch.com/licensing/communicating-research/communicating-results-templates">nwtresearch.com/licensing/communicating-research/communicating-results-templates</a> (ARI, ENR).</li> </ul>	



### Key Action #16:

Leverage NWT features, infrastructure and expertise to help generate new sources of investment and revenue for the NWT.

Associated Tasks	2019/20 Progress	Status
<p><b>16.1</b> Develop a plan to promote the NWT to national and international stakeholders as a unique natural laboratory for climate change and cold weather research.</p>	<ul style="list-style-type: none"> <li>Assessed existing online mechanisms for promoting GNWT operated infrastructure including Polar Knowledge Canada and Canadian Network of Northern Research Operators (CNNRO) to assess their accuracy and completeness. Recommendations for changes were suggested to the host agencies.</li> <li>Development of a Communications Plan for Climate Change Strategic Framework (CCAQ).</li> </ul>	
<p><b>16.2</b> Use GNWT infrastructure, infrastructure networks, resources and letters of support to advance academic partner funding proposals in priority areas.</p>	<ul style="list-style-type: none"> <li>Seventy-eight direct contacts from researchers, funders or community-based groups requesting advice, support, or guidance on research program development. 12 academic groups received letters of support (ENR).</li> <li>Partnership with ARI to co-develop projects of common interest (NWTCG).</li> <li>The HSS Research Agenda commits to supporting research via letters of support, in-kind and financial support. As of August 2020: 29 active or pending reviewed projects. Of these, HSS is a collaborator or advisor on 12 projects, letter of support for 8 projects, research agreements for data sharing or in-kind support on 12 projects (HSS).</li> <li>Letters of in-kind support were issued to NSERC permafrost network, and a Pan-Canadian engineering study to improve Canada's infrastructure to Climate Change in the Arctic fund (NWTCG).</li> <li>Tundra Ecosystem Research Station (Daring Lake) partnerships with researchers, Canadian Network of Northern Research Operators (CNNRO), NASA, CHARS, ArcticNET, LIFEPLAN (ENR).</li> <li>22 Contribution Agreements with Academic partners totaling \$574K for 2020-21 (ITI).</li> </ul>	
<p><b>16.3</b> Encourage and establish new partnerships that enhance NWT research capacity (i.e. new research chairs, increased program support, and new equipment.</p>	<ul style="list-style-type: none"> <li>Collaboration with a Networks of Centers of Excellence (NCE) funded program at the University of Laval (ArcticNet) helped fund three research leadership positions at Aurora College (AC, ENR).</li> <li>Funding secured for projects through the Canadian Mountain network (PWNHC).</li> <li>Prestigious Canada Research Chair program named Homa-Kheyrolla-Pour as new Canada Research Chair in Remote Sensing and Environmental Change at WLU.</li> </ul>	

<p><b>16.4</b> Provide information to GNWT departments on Federal Government funding options available through AC.</p>	<ul style="list-style-type: none"> <li>• Several discussions were initiated with Aurora College to outline opportunities for developing Research Associate (RA) status for GNWT Staff. Included in research Chair's discussion paper (January 2020) (ENR).</li> <li>• Significant expansion in AC RA Program to support NWT access to research funds. PWNHC secured funds through research associate status with AC in 2019-2020.</li> </ul>	
<p><b>16.5</b> Conduct a study to examine the feasibility of developing new infrastructure to support development of the knowledge economy in the NWT.</p>	<ul style="list-style-type: none"> <li>• Northern Knowledge Centre concept is being explored at Inuvik Satellite Station Facility (NRCan, NWTCG).</li> <li>• Western Arctic Research Centre developed proposal to CFI with research partners to replace research warehouse infrastructure in Inuvik (ENR).</li> <li>• A consultant interviewed multiple parties within the GNWT and Aurora College to inform a report examining the potential for developing a knowledge economy in the NWT. Key recommendations included focusing on a Virtual partnership with many agencies across the territory and establishing better coordination of GNWT research investments (ENR, ITI, AC).</li> </ul>	

**Key Action #17:**  
Assess knowledge gaps across the NWT.

Associated Tasks	2019/20 Progress	Status
<p><b>17.1</b> Develop a plan to engage with communities on a territory-wide research strategy or agenda for the NWT.</p>	<ul style="list-style-type: none"> <li>• Action not yet initiated.</li> </ul>	
<p><b>17.2</b> Facilitate university collaboration with Aurora College and the GNWT on academic initiatives that support and grow knowledge-based programs, education needs and knowledge capacity throughout the NWT.</p>	<ul style="list-style-type: none"> <li>• ArcticNet's new North by North Program resulting in three new Research Chairs for the NWT.</li> </ul>	

# 2019/20 Active Partners and Collaborators

- Actua Network
- Association of Canadian Universities for Northern Studies (ACUNS)
- Arctic Research Foundation
- Canada 3D
- Canadian Network of Northern Research Operators (CNNRO)
- Canadian High Arctic Research Station (CHARS)
- Canadian Institute for Health Research (CIHR)
- Fisheries and Oceans Canada (DFO-MPO)
- Genome Prairie
- Government of Yukon
- Tech-Access Canada
- Interact
- International Polar Data Coordination Network
- Inuvialuit Land Administration Environmental Monitors
- Let's Talk Science
- LIFEPLAN
- National Geological Surveys Committee
- NASA ABoVE
- National Geological Survey
- NatureServe Canada
- Natural Resources Canada
- RENEW (Species at Risk Recovery)
- Transport Canada
- Transportation Association of Canada
- Hotii ts'eeda - NWT SPOR Support Unit
- Canadian Institute for Health Information
- Institute of Health Economics
- And more

## Research Networks

- Alberta Genome
- ArcticNET
- Canadian Mountain Network
- Global Water Futures
- PermafrostNet
- Polar Knowledge Canada

## Research Institutions

- Aurora College
- Aurora Research Institute
- Brock University
- Carleton University
- Royal Military College
- University of Alberta
- University of Victoria
- University of Saskatchewan
- University of Waterloo
- Wilfrid Laurier University
- Indigenous and Global Health Research Group, University of Alberta

## Research Administration Networks

- Canadian Association of Research Administrators
- Canadian Association of Research Ethics Boards (CAREB-ACCER)
- Community-Based Research Canada (CBRC)

