

Northwest Territories Mineral Development Strategy Implementation

# PROGRESS REPORT

APRIL 1, 2014 - March 31, 2015

TABLED DOCUMENT 358-17(5)  
TABLED ON OCTOBER 8, 2015





**“The Vision of the NWT Mineral Development Strategy is to realize, responsibly and sustainably, the full potential of our rich mineral resources and use it to ensure lasting prosperity for NWT residents and communities.”**



# TABLE OF CONTENTS

<b>MESSAGE FROM THE MINISTER .....</b>	<b>1</b>
<b>EXECUTIVE SUMMARY .....</b>	<b>2</b>
<b>MINERAL DEVELOPMENT IN THE NWT .....</b>	<b>6</b>
<b>THE NWT MINERAL DEVELOPMENT STRATEGY .....</b>	<b>8</b>
<b>Pillar 1: Creating a competitive edge.....</b>	<b>10</b>
<b>Pillar 2: Establishing a new regulatory environment for the NWT .....</b>	<b>26</b>
<b>Pillar 3: Enhancing Aboriginal engagement and capacity .....</b>	<b>35</b>
<b>Pillar 4: Promoting sustainability .....</b>	<b>39</b>
<b>Pillar 5: Enriching workforce development and public awareness.....</b>	<b>52</b>
<b>STRENGTHENING OUR PROGRESS AND FUTURE PRIORITIES.....</b>	<b>61</b>
<b>Appendix A: NWT Acts and Regulations Mirrored and in Effect on April 1, 2014 .....</b>	<b>63</b>
<b>Appendix B: Administrative and Institutional Capacities in the GNWT Created on or after April 1, 2014 .....</b>	<b>65</b>
<b>Appendix C: List of Acronyms .....</b>	<b>67</b>
<b>Appendix D: GNWT Strategies and Policy Documents Complementing the Goals of the MDS .....</b>	<b>68</b>
<b>List of Maps*</b>	
Map 1 .....	12
<i>Area under Mineral Tenure in the NWT as of September 21, 2015</i>	
Map 2 .....	15
<i>MDS Funded Geoscience Research and MIP Projects in the NWT, 2014 to 2015</i>	
Map 3 .....	19
<i>Electricity and Energy Infrastructure in the NWT</i>	
Map 4 .....	21
<i>Transportation Network and Mineral Potential in the NWT</i>	
Map 5 .....	28
<i>Areas under Settled Land Claims and Areas Withdrawn for the Purpose of Land Claim Negotiations in the NWT</i>	
Map 6 .....	42
<i>Non-Renewable Resource Assessments in Established and Proposed Conservation Areas</i>	
Map 7 .....	47
<i>Development Projects where Socio-Economic Agreements are in Place between GNWT and Developer</i>	

\* The maps in this report are for illustrative purposes only. Actual feature boundaries depicted may not be exactly as shown. Mineral Resources and the NWT Centre for Geomatics are not responsible for errors or discrepancies. The maps were created by the NWT Centre for Geomatics in September of 2015.

## MESSAGE FROM THE MINISTER

When Devolution took effect on April 1, 2014, it changed the landscape for mineral development in the Northwest Territories (NWT).

As the Government of the Northwest Territories (GNWT) has gained responsibility for administering mineral exploration and development activities, the NWT Mineral Development Strategy (MDS) and the MDS Implementation Plan were created to map out our industry plan.

As we take stock of this inaugural year, this progress report shines a light on the headway made and the challenges being faced across the industry.

A notable achievement is the advancement of the Mining Incentive Program (MIP). The MIP has been a valuable tool for sparking interest amongst exploration companies and providing them with needed support to explore the NWT's vast mineral potential. Other highlights include the increase in public outreach to attract investment, the establishment of the Mining Industry Advisory Board, and innovative research being conducted by the NWT Geological Survey.

Our objective continues to be a balanced approach – one that will provide opportunities to NWT businesses, employment to residents, and a boost to our economy while being mindful of environmental and social responsibilities. The work being done now will help set the stage to maintain industry momentum and secure it as the thriving and valuable sector it has been for the last 80 years.



A stylized handwritten signature in black ink, appearing to read 'D. Ramsay'.

The Honourable David Ramsay  
Minister of Industry, Tourism and Investment

# EXECUTIVE SUMMARY

The Northwest Territories (NWT) currently has four operating mines: Ekati Diamond Mine (Ekati), Diavik Diamond Mine (Diavik), Snap Lake Diamond Mine (Snap Lake), and the Cantung Tungsten Mine (Cantung). These mines provide significant benefits to the NWT economy such as increased Gross Domestic Product, employment, procurement, and value-added industries such as transportation and some manufacturing.

The total value of minerals and diamonds produced in the NWT in 2014 was \$1.89 billion, an increase of \$227 million from 2013, when the total value reached \$1.66 billion. The values for 2012 and 2011 were \$1.72 billion and \$2.14 billion, respectively. Diamonds accounted for 95 percent of the total estimated value of metallic and non-metallic production in the NWT in 2014. Considering the NWT's economic reliance on the mining sector, activities need to be underway to discover and create new mines in order to maintain current levels of economic performance.

The Government of the NWT (GNWT) developed the NWT Mineral Development Strategy (MDS) to increase mineral exploration and mine development, and provide residents with a sustainable economy. The MDS does not solely focus on economic incentives but guides the NWT in balancing multiple priorities. Taking a sustainable approach requires the linking of all decision-making and planning tools that concern mineral exploration and mining across the NWT. The GNWT's approach to implementing the MDS is to be innovative, balanced, fair, inclusive, respectful and collaborative.

The MDS Implementation Plan (MDS-IP), released in October 2014, commits the GNWT to fulfil objectives following the Devolution of the responsibility for lands and resources. The MDS-IP includes specific goals to better position the GNWT in developing a viable and responsible mineral economy for a sustainable future. In 2014-15, an amount of \$1.87 million was allocated to implement MDS initiatives.

## Progress Report

Organized into five pillars, the MDS-IP laid out 28 action items to be worked on during the year 2014-15. Following the structure of the MDS-IP, this end of year reporting details the activities completed, in progress of completing or in preparation to be started.

The Department of Industry, Tourism and Investment (ITI) coordinated the reporting under the MDS. Six interdepartmental workshops were held to identify progress made under each action item reported.

The GNWT departments charged with implementing the MDS include: ITI, Education, Culture and Employment (ECE) and the Department of Transportation (DOT), with supporting roles by Environment and Natural Resources (ENR), Aboriginal Affairs and Intergovernmental Relations (DAAIR), Lands (LANDS), and the Executive (EXE).

This first year largely focused on the complex task of Devolution. The GNWT mirrored legislation and adopted regulations, and created several new administrative structures to take authority over new responsibilities. Once the initial transition was completed, attention turned to implementing the MDS initiatives.

### Pillar One: Creating a Competitive Edge

The GNWT supports activities related to public geoscience information, provides exploration incentive programs, supports and encourages improvements to transportation and energy infrastructure and new investment opportunities with the goal to improve the NWT's position within the competitive global and national resource markets. Five Goals guided the activities aiming at strengthening the competitive advantage of the mineral and mining industry in the NWT.

Increasing publicly available geoscience information is a key goal of Pillar One. The Northwest Territories Geological Survey (NTGS) is the principal source of

public geoscience in the NWT. The NTGS hired two specialists, a Surficial Geologist and a Geophysicist to increase its human capacity. The multi-disciplinary and collaborative Slave Geological Province (SGP) Surficial Materials Project (funded by the Canadian Northern Economic Development Agency) was advanced immediately and research activities are in fieldwork and/or advanced stage. Geoscience fieldwork is being conducted in several other areas, such as the regional geochemical research in the NWT's southwest. Construction of the Geological Collections Storage Facility was announced and construction commenced in 2015. Work on improving the website and a web portal to enhance the accessibility to data by the public is in progress.

A Mining Incentive Program (MIP) was created and successfully completed in the pilot year (2014-15), awarding funding to seven exploration companies and two prospectors. Competition for the second year of MIP closed on April 15, 2015; the program was oversubscribed for both years.

Implementation of the Energy Action Plan is underway. The three-year action plan is based on a long-term energy vision and focuses on stabilizing the high cost of energy and the impact of our energy use on the environment. An NWT Energy Charrette was held in November 2014 and provided the GNWT with recommendations toward a renewed energy plan. ITI and the Department of Public Works and Services (PWS) prepared for the implementation of centralized and coordinated energy policies that came into effect on April 1, 2015.

DOT unveiled an updated "Connecting Us: Northwest Territories Transportation Strategy 2015-2040" to connect northerners to opportunities by providing safe, reliable and sustainable multi-modal transportation systems. Studies on the economic feasibility and potential for improved access into the SGP as well as the Tłı̄ch̄ó settlement area that would support opening up the NWTs mineral wealth are underway including a Mineral Potential Study. This activity concerns infrastructure and the support for Resource Access Corridor Studies.

DOT's Climate Change Adaptation Plan, in collaboration with Transport Canada, sets a framework for initiatives to mitigate the effect of climate change on the NWT transportation system. This plan is financing several permafrost research and development projects, including a vulnerability assessment of the Dempster Highway, monitoring of test sections on Highway 3, and construction and monitoring of two test sections along the Inuvik to Tuktoyaktuk Highway.

To foster global awareness of the resource potential in the NWT, the GNWT recognized the need for a coordinated awareness campaign. A draft marketing strategy is under review. The goal of the campaign is to increase awareness and interest in the NWT as a choice destination for responsible and sustainable mineral investment, exploration and development.

## **Pillar Two: Establishing an Improved NWT Regulatory Environment**

The Devolution of responsibilities of land, water and resource management is one of the most important steps taken in the political, social and economic development of the NWT. As the GNWT has taken over responsibilities for mining and other resource management sectors, regulatory processes and administrative capacities are being implemented.

The GNWT created a new Mineral Resources Division (MRD) within ITI responsible for subsurface rights administration and registration. The Intergovernmental Council was established to provide opportunity for cooperation on land and resource management across jurisdictions while respecting authority and autonomy of each government over lands.

ENR created the Water Regulatory Section and developed water standards for the NWT. Authority for water licence approvals under the *Mackenzie Valley Resource Management Act* (MVRMA) was delegated from the federal Minister of Aboriginal Affairs and Northern Development Canada (AANDC) to the territorial Minister of ENR. Similar delegation of land use permit authorization was delegated to the territorial Minister of LANDS. The newly established Liabilities and Financial Assurances Division leads the management and assessment of LANDS securities and is investigating best policy practices.

A new Community Services and Client Relations (CSCR) unit has been created and staff has been active in liaising with Aboriginal governments and communities throughout the NWT. The Interim Resource Management Assistance program is now administered by the GNWT and is operating with GNWT guidelines. Compilation and review of existing tools used in Road Maps designed in other jurisdictions is underway to identify best practices and inform the development of user-friendly regulatory road maps for the NWT.

ITI announced the establishment of NWT MIAB at the Mineral Exploration Roundup Conference in January 2015 in collaboration with the COM. The Board's Terms of Reference were correspondingly prepared in January 2015. MIAB is a tool for both industry and government to help ensure mining regulation is in place to facilitate economic growth, while also achieving high regulatory, environmental, and social standards.

### **Pillar Three: Enhancing Aboriginal Engagement and Community Capacity**

The purpose of this pillar is to enhance adequate engagement and participation with Aboriginal governments and communities in decisions about the use of land and resources of the NWT. This pillar focuses on the enabling of Aboriginal governments and communities in the NWT to participate in all stages of mineral exploration and development, the regulatory processes and to benefit from opportunities related to mineral development and exploration.

The GNWT has formulated its approach to engaging with Aboriginal governments in the Respect, Recognition, Responsibility framework, listing a set of principles and key actions in support of renewing and improving relationships with Aboriginal governments. The GNWT is working towards Memoranda of Understanding (MOU) with Aboriginal governments and organizations. In October 2014, Working Together – The Tłı̄ch̄o Government / GNWT Intergovernmental MOU was signed. A separate MOU is in preparation to be signed by the GNWT and the Gwich'in Tribal Council.

Engagement with Aboriginal governments and organizations prior to and during early mineral exploration is crucial as it considers all perspectives

and interests. It is necessary to support and facilitate capacity building to ensure that Aboriginal governments and organizations are equally enabled to participate in engagement processes relating to mineral development. ITI engaged community members and facilitated processes for them to be informed and provided opportunities to develop relationships with exploration and mining industry.

One community followed up and launched a Prospecting Course and a Geographic Information Systems course for community members. This course provides the training and the analytical tools to explore private lands for minerals and to manage geological data. The same community also became involved in a bedrock mapping project with Natural Resources Canada (NRCan) and received additional Aboriginal Capacity Building funding. CSCR has received two more collaboration requests for the GNWT to support the creation of regional mineral development strategies.

### **Pillar Four: Promoting Sustainability**

While mineral development contributes substantially to the economic viability of NWT communities, there is a need to ensure that negative long-term impacts of mining are minimized to protect and maintain the land and its people. Initiatives ensuring a lasting legacy including environmental stewardship and protection focused on seven areas: land use planning initiatives, conservation areas, mine reclamation planning, management framework for inspections, initiatives that reduce developers' contribution to cumulative effects, Socio-Economic Agreements (SEA) and businesses development.

The existing GNWT Land Use Planning Policy Framework intended to provide guidance to GNWT's review and approval process for regional land use plans, and to shape its approach toward land use plans in areas of the NWT without current land claims. Several GNWT departments continue to participate in the periodic review of approved land use plans in the Gwich'in and Sahtu Settlement Areas. The GNWT participated in the Dehcho Land Use Plan working group, in the Sahtu Land Use Plan amendment process and conducted an inter-departmental review of the revised Gwich'in Land Use Plan.

Since Devolution, the GNWT has increased the number of land and waters inspectors to build public confidence ensuring compliance with legislation and conditions set out in project authorizations. ENR created a Water Resources Division (WRD) and a Contaminated Sites and Reclamation Section.

The GNWT developed guidelines for the mineral industry to minimize individual project contributions to cumulative effects on wildlife and wildlife habitat. The purpose of the Wildlife and Habitat Protection Plans (WWHPP) and Wildlife Effects Monitoring Plans is to prevent and/or reduce the potential individual and cumulative effects of development on wildlife and wildlife habitat. ENR presented Draft WWHPP and Wildlife Effects Monitoring Plans Guidelines in November 2014.

Corporate Sustainability Reporting is a mechanism used by the mining industry operating in the NWT to exercise an improved corporate transparency. Sustainability Reports publicly disclose information about the non-financial performances of a company. Corporate social and environmental disclosure by industry operating in the NWT is at a high level. Annual Sustainability Reports are produced by diamond producing companies with operating mines as well as by companies maintaining advanced exploration projects in the NWT.

Under current SEAs, the NWT is encouraging expansion of points-of-hire to benefit additional NWT communities and their residents. Reporting on SEAs was completed with the Communities and Diamonds Annual Report 2014.

### **Pillar Five: Enriching Workforce Development and Public Awareness**

The aim of Pillar Five is to develop an educated, trained and readily available northern workforce and to foster an awareness of the importance of the mining industry. ECE is the lead within the GNWT in providing access to learning; this mandate includes continued, advanced personal development, be that training to acquire knowledge and/or skills specific to a trade.

ECE's Apprenticeship, Trades and Occupation Certification program develops, maintains and delivers designated trade and occupation training programs which contribute to the development of a skilled northern workforce. There are 53 designated trades and 27 designated occupations in the NWT. Technical training for five trades is offered in the NWT. ECE has created several new initiatives and products, notably the three year employment outlook for the Territories in 2015, conducted by the Conference Board of Canada, and the Skills 4 Success Initiative, leading toward a 10-year labour force market strategic framework.

### **Refining the Strategic Plan**

During the first year of implementing the MDS, many activities focused on Devolution and the administrative and organizational restructuring enabling to take responsibility for new authorities. This report identifies the areas where progress was made. It also identifies areas in which goals and objectives may require review and adjustment. In the coming year, we will refine our strategic priorities, strategic outcomes and performance measures.



## MINERAL DEVELOPMENT IN THE NORTHWEST TERRITORIES

The NWT currently has four operating mines: Ekati, Diavik, Snap Lake and Cantung. These mines provide significant benefits to the NWT economy such as increased Gross Domestic Product, employment, procurement, and value-added industries such as transportation and some manufacturing.

Over the past 80 years, the mineral industry has generated approximately \$47 billion in production from a variety of commodities and stimulated vital infrastructure developments, including the building of highways and hydroelectric facilities. NRCAN reports that national mineral production value decreased by five percent from 2012 to 2013, while NWT production value remained at a constant \$1.7 billion. This stability is attributable to the NWT's operating diamond mines.<sup>1</sup>

Three of the NWT's operating mines are at or past their mid-life points. Current operation estimates determine that lifetimes of the three diamond mines will end in 2020, 2023, and 2029 respectively. It can take as much as a decade to take a mineral discovery to production. For example, while Ekati started production in 1998, exploration discovery was initiated in 1991. Considering the NWT's economic reliance on the mining sector, activities need to be underway to discover and create new mines in order to maintain current levels of economic performance.

The GNWT developed the MDS to increase mineral exploration and mine development, and in the interest of a sustainable NWT economy. The MDS does not focus solely on economic incentives but guides the NWT in balancing multiple priorities. The MDS commits the GNWT to be innovative, balanced, fair, inclusive, respectful and collaborative in its approach. Taking a sustainable approach requires the linking of all decision-making and planning tools that concern mineral exploration and mining across the NWT.

1. Natural Resources Canada. Mineral Production of Canada, by Province and Territory, 2014. <http://www.nrcan.gc.ca/mining-materials/statistics/8850>



**Today it takes 10 years to discover, define and determine the feasibility of a project.**

Source: 2015 Behre Dolbear Minerals Industry Advisor, *Where to Invest in Mining*, p.5.

## The Purpose of this Report

MDS-IP, released in October 2014, highlights the steps that the GNWT is taking to fulfil these objectives post Devolution. It includes specific goals to position the GNWT to develop a viable and responsible mineral economy for a sustainable future. In 2014-15, \$1.87 million was allocated to implement MDS initiatives. This progress report details the actions and achievements that have been taken.

MRD holds the responsibility to report on the MDS.

The reporting under the MDS requires engagement of many GNWT departments and divisions. Multi-layered goals require intergovernmental relations, timely access to regulatory and administrative decisions by other GNWT departments, collaboration among management and outreach to other governments, industry and the public.

MRD engaged those departments with commitments under the MDS and created a working committee of key representatives from the various GNWT departments and outside industry organizations.

The reporting process for the 2014-15 activities under the MDS was facilitated by a structured series of activities in the following order:

- Informing all stakeholders of the upcoming reporting initiative;
- Distribution of MDS documents and information to all stakeholders;
- Organization and facilitation of a series of six inter-departmental workshops in order to identify progress and early achievements under the MDS;
- Offer of support and provision of assistance to those tasked by their department in preparing a submission of activity reports to MRD;
- Collection of reports on activities from 14 divisions as well as the Nunavut and NWT Chamber of Mines (COM) and the Mine Training Society;
- Preparation of MDS Progress Report for 2014-15.

A program evaluation consultant was hired to assist in the reporting process.

# THE NWT MINERAL DEVELOPMENT STRATEGY

## Vision

*The Vision of the NWT Mineral Development Strategy is to realize, responsibly and sustainably, the full potential of our rich mineral resources and use it to ensure lasting prosperity for NWT residents and communities.*

## Goals

The MDS is a strategy across disciplines and sectors, with goals in each pillar that are intended to foster positive impacts to education, employment, community development, environmental protection, geological knowledge and information, client services and investment into the economy.

### Pillar One:

**Creating a Competitive Edge:** Establish the NWT as a destination of choice for responsible minerals investment, exploration and development.

### Pillar Two:

**Establishing an Improved NWT Regulatory Environment:** Improve client service and increase certainty.

### Pillar Three:

**Enhancing Aboriginal Engagement and Community Capacity Building:** Establish effective engagement, consultation and community capacity building processes.

### Pillar Four:

**Promoting Sustainability:** Ensure a lasting legacy including environmental stewardship and protection.

### Pillar Five:

**Enriching Workforce Development and Public Awareness:** Develop an educated, trained and readily available northern workforce and an awareness of the importance and impacts of the minerals industry.



## **Working Together for Sustainability**

Guided by the vision, principles and goals of the MDS, the MDS-IP was prepared with consideration of GNWT policy instruments already in place and new instruments to be developed as a result of the NWT Devolution of Lands and Resources Agreement and ongoing adaptive management. Examples of GNWT strategies and policy documents complementing MDS goals are listed in Appendix D. See Appendix C for a list of acronyms used throughout this report.

## **Strengthening our Progress**

In order to continue implementing the MDS successfully, government and partners can build on the successes and learn from the challenges experienced in this first year. Checking progress regularly through reports and workshops will help ensure that initiatives are working in support of the MDS.

The continuing priorities of lead departments and partners are key to successfully implementing the MDS. The MDS-IP laid out 28 action items to be worked on during the year 2014-15. The year end report identified the action items that the GNWT had completed, or is in the process of completing within the next year.

## PILLAR ONE: CREATING A COMPETITIVE EDGE

In order to improve the NWT's position within the competitive global and national resource markets, the GNWT supports activities related to public geoscience information, provides exploration incentive programs, and supports and encourages improvements to transportation and energy infrastructure and new investment opportunities.

The 2014 Annual Survey of Mining Companies<sup>2</sup> published by the Fraser Institute in February 2015 reports on the opinions of exploration, development, and other mining-related companies operating around the world. The NWT ranked 15th worldwide on the Investment Attractiveness Index. Measured within Canada, the NWT ranked number six. The NWT ranking in key categories includes:

- An increase in its ranking on the Investment Attractiveness Index year over year, to 6th from 10th in Canada, and to 15th from 25th in 122 jurisdictions globally;
- The potential for the NWT to host significant mineral deposits is high - ranking 4th out of 122 jurisdictions globally on the Best Practices Mineral Potential Index; and
- Industry's perception of NWT policies ranks 11th in Canada and 38th out of 122 jurisdictions globally.

Preliminary deposit appraisal and exploration expenditures<sup>3</sup>, released by NRCAN in March 2015 predict that national exploration and deposit appraisal expenditures will decrease by three percent from 2014 levels to \$1.87 billion in 2015. NWT expenditures are predicted to decrease by 54 percent from \$95.8 million to \$43.6 million in 2015 (the lowest expenditures in over five years). This emphasizes the need for the GNWT to encourage companies to do business in the NWT.

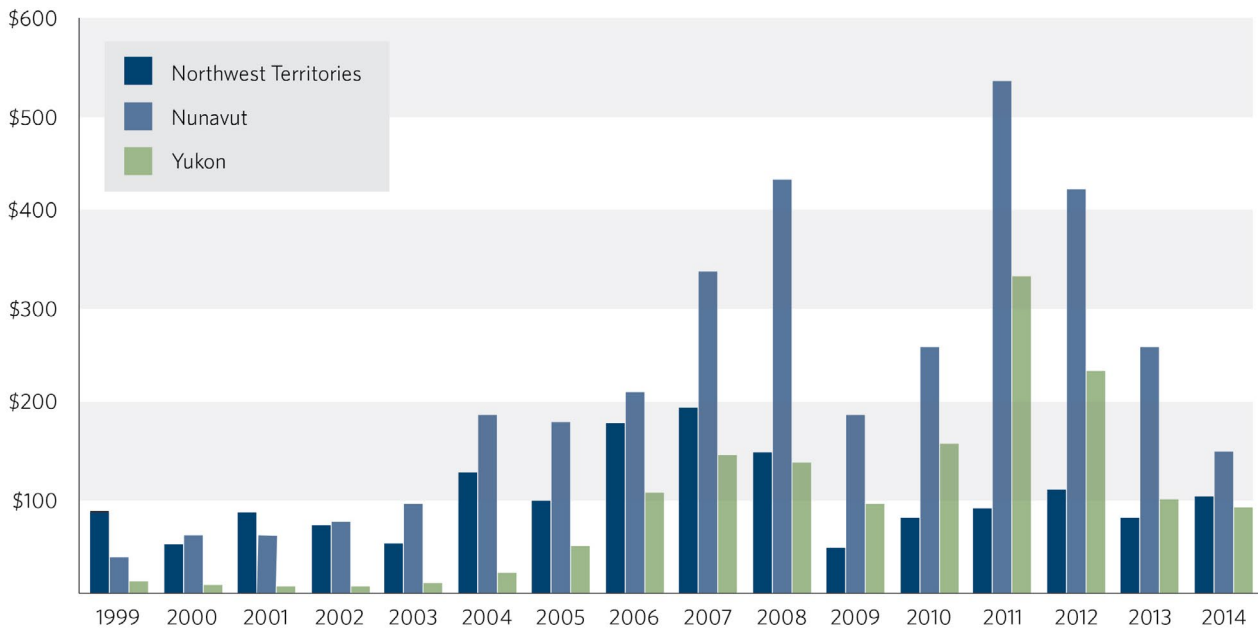
### Current Initiatives Strengthening NWT's Competitiveness for Mineral Development

- Generating public geoscience knowledge
- The Mining Incentive Program
- Support for energy initiatives
- Investments in transportation
- Attracting investment

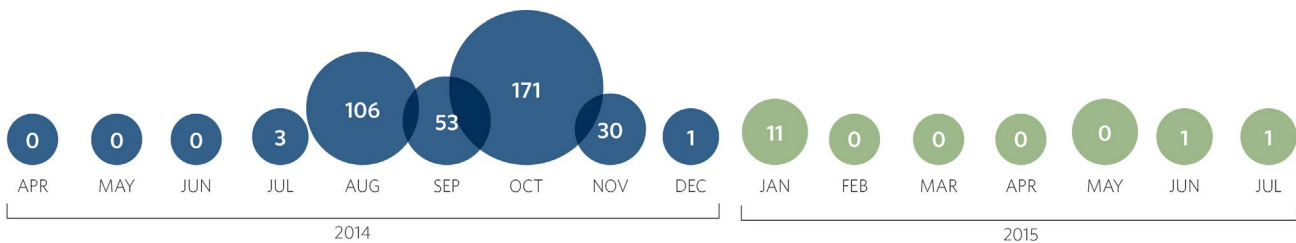
2. Jackson, Taylor, and Kenneth P. Green. 2015. Fraser Institute Annual Survey of Mining Companies, 2014. Fraser Institute. <http://www.fraserinstitute.org>

3. Natural Resources Canada. 2015. Canadian Mineral Exploration Information Bulletin, March 2015. <http://www.nrcan.gc.ca/mining-materials/publications/17762>

**CHART 1: Exploration and Deposit Appraisal Expenditures in the territories, 1999-2014**

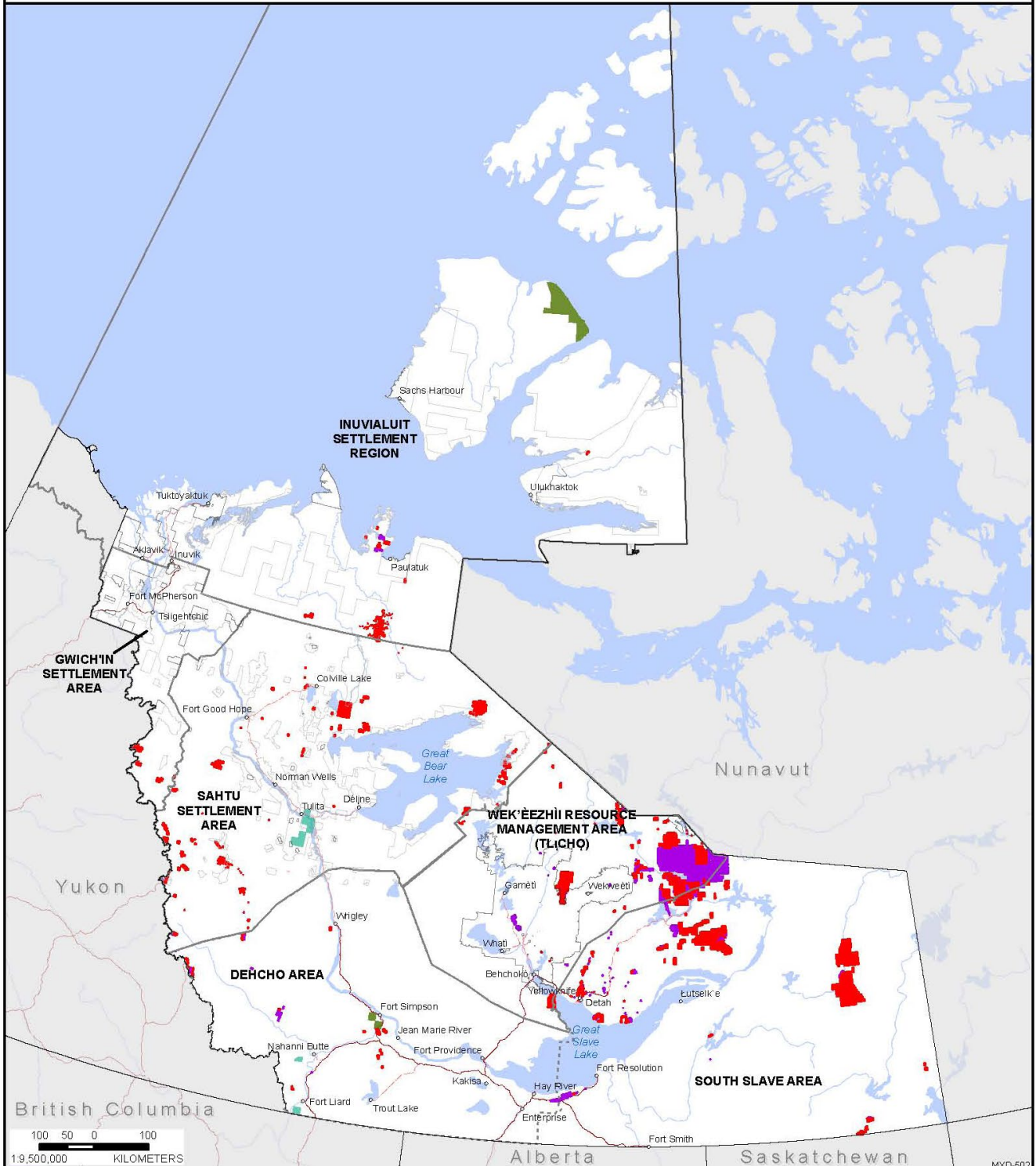


**CHART 2: Claims recorded in the NWT between April 1, 2014 and July 31, 2015**



In the NWT, mineral exploration companies (or “juniors”) are generally targeting diamonds and gold, and to a lesser extent zinc. In August 2014 renewed interest in diamonds in the Lac de Gras region resulted in an increase in mineral claims recorded. The staking of new mineral claims is encouraging, indicative that industry interest in the area continues. Between April 1, 2014 and March 31, 2015, a total of 370 mineral claims were recorded by the NWT’s Mining Recorder’s Office (see CHART 2). During the 2004 staking rush, a high of 2,244 claims were recorded and in 2011 the number fell to 710 claims recorded. A low of 122 claims were recorded in 2012. This is evidence of the cyclical nature of the minerals industry. Map 1 visualizes location and type of mineral tenure in the NWT in 2015.

**Map 1: Area under Mineral Tenure in the NWT as of September 21, 2015**



<b>LEGEND</b>	<b>Active Prospecting Permits</b>	<b>Active Mineral Claims</b>	<b>Active Mineral Leases</b>	<b>Aboriginal title lands for settled land claims</b>
	Active	Active	Active	Surface/Subsurface rights
	<b>Active Coal Exploration Licence</b>	Pending		Surface rights
	Pending			<b>Roads</b>
				All Season Road
				Winter Road

## Goal 1.1: World-class geoscience information is publicly available and contributes to enhancing exploration and development activity in the NWT

Geoscience research increases our understanding of the global environment and can be used to improve human living conditions. Information on the nature and composition of the terrain and sub-terrain is necessary to make informed decisions about infrastructure. Surficial and permafrost geology can aid with the assessment of structural suitability of a site for infrastructure development, leading to building longer-lived and safe infrastructure and avoiding natural hazards.

The availability of public geoscience information is a key determinant in attracting investment for resource economies. Geoscience research helps point exploring companies in the right direction by locating and assessing mineral deposits, their occurrence and prospectivity.

Geoscience knowledge provides information in support of land use decision making processes and plays a role in balancing the economic, environmental and social considerations in making these decisions. Non-renewable resource assessments are for example required for areas proposed as national parks. Geoscientists also need to provide assessments for conservation initiatives in the NWT under the Protected Area Strategy. Knowing a jurisdiction's or country's resources contributes to clarity and provides increased certainty for industry.

The Northwest Territories Geoscience Office (NTGO) was officially renamed as the Northwest Territories Geological Survey (NTGS) on April 1, 2015. It evolved from a partnership between ITI and the federal department of AANDC. With Devolution, management of the NTGS became a GNWT responsibility.

The NTGS is the principal vehicle for disseminating public geoscience knowledge of the NWT. The NTGS received MDS funding for two years in order to undertake targeted research programs, improve web-based geoscience information availability and make publicly available geoscience information of the NWT (Map 2).

The NTGS increased its human resource capacity in 2014-15 by hiring a Surficial Geologist and a Geophysicist to fill significant program gaps. These specialist positions are typically found in other Canadian jurisdictions with government geological surveys. These specialists, typically with M.Sc. or Ph.D. qualifications, collect and interpret geoscience information that private and corporate prospectors, as well as industry, use to identify exploration opportunities. Industry generally relies on government geological surveys to provide baseline geophysical and surficial geology information that they can use in formulating exploration plans and hypotheses.

These two specialists add considerable value to the NTGS by taken on ongoing activities, such as geophysical interpretation and reinterpretation, and preparation of detailed surficial geology maps and a new bedrock geology map. The additional capacity enabled the NTGS to solicit and receive substantial industry donations, of proprietary data, in order to support research, mapping, and other investigations. Much of this new information,

### Current Initiatives Increasing Public Geoscience Knowledge of the NWT:

- Increase specialist capacities at the NTGS
- Conduct surficial materials and permafrost research
- Attract data donations from industry and conduct data analysis
- Compile bedrock mapping
- Increase web access to NWT geoscience information
- Administration and management of the Mining Incentive Program and educational outreach



which complements existing NTGS datasets, will be publicly released either as a stand-alone project, or in the course of other NTGS research programs.

The donation of data by industry demonstrates a willingness by industry partners to work with GNWT scientific staff on maximizing the 'public good', that is, to share information that industry is not obliged to publicly release. It also reflects industries' hope that NTGS specialists may be able to add key interpretations, fill in data gaps and provide observations that will help create new exploration models and ideas.

Less than 15 percent of the NWT has been mapped at a scale of 1:50,000 (or greater detail). This detailed scale is commonly used by exploration companies, when it is available. The NWT lags substantially behind southern Canadian jurisdictions in map-coverage due mostly to the remoteness of the North and the affiliated high costs. The NTGS continues to carry out mapping to expand this coverage. Several programs were aimed at expanding geological knowledge, including:

- Development of a surficial materials research program;
- Increased capability to interpret critical data from the collaborative NTGS Slave Geological Province (SGP) Surficial Materials and Permafrost Study (Slave Province Study) collected, funded by the Canadian Northern Economic Development Agency (CanNor);
- Enhanced ability to attract partner organizations and researchers to do collaborative research on NWT surficial geological problems; and
- Facilitation of the donation of large corporate datasets necessary to carry new ideas for diamond exploration forward.

The NTGS designed and planned the Slave Province Study in order to interpret the surficial history of the Lac de Gras area. This project is support CanNor's Strategic Investments in Northern Economic Development (SINED) program. This large, multi-year study will help to stimulate the next round of diamond and metals exploration in the SGP and to collect permafrost and geotechnical data to inform future infrastructure development and regulatory decision-making.

***“The NWT Geological Survey promotes the discovery of mineral resources in the NWT by documenting resource potential, by generating regional and thematic geoscience knowledge to underpin successful exploration, and to provide scientific advice to inform policy decisions.”***

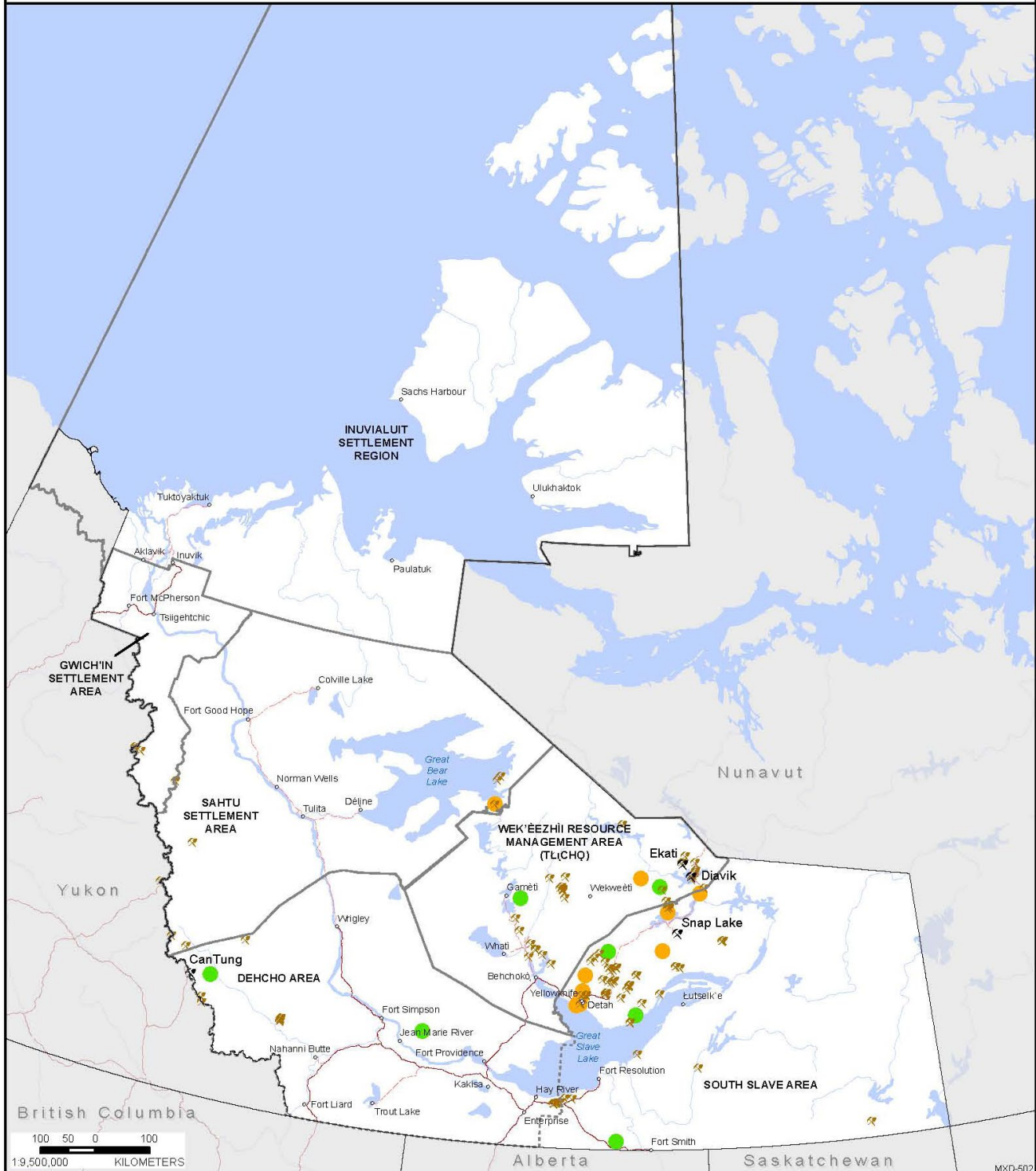
Source: NTGO Strategic Plan 2011-2016, Goal 2.

A number of mining companies are participating in the Slave Province Study and have provided extensive proprietary information including drilling data, glacial process mapping, and other data sets, valued at over \$3.1 million. The surficial geology component of research work required the NTGS to coordinate contractors and consultants as well as attract and oversee 15 university field researchers.

State of the art remote sensing data was provided to the Slave Province Study as part of a large collaborative effort with the mining industry. This data allowed for a reinterpretation of existing surficial materials and legacy geochemical datasets. Preliminary results from this research activity were presented at the 27th International Applied Geochemistry Symposium, a high profile conference held in Tucson in April 2015, and brought visibility to the Slave Province Study as well as to NWT exploration efforts. Additional collaborations of this type are anticipated as new NWT research projects are designed and implemented.

Another key NTGS activity during 2014-15 was stream sediment geochemistry. Regional geochemical data was collected in the NWT's Cordilleran region, a region hosting rich mineral wealth that includes one operating mine and several of the NWT's most advanced base metal projects. This data was analysed and released as a paper at the Mineral Exploration Roundup in Vancouver in January 2015. The dataset identifies multiple geochemical anomalies including gold across a wide spectrum of elements, many not associated with known mineral showings. These results will help

**Map 2: MDS Funded Geoscience Research and MIP Projects in the NWT, 2014 to 2015**



**LEGEND**

- NTGS Projects funded under the Mineral Development Strategy
- Prospector/Corporate Mining Incentive Program Funded Projects
- Mine
- Active Exploration

**Roads**

- All Season Road
- Winter Road

MDS = Mineral Development Strategy  
 MIP = Mining Incentive Program  
 NTGS = Northwest Territories Geological Survey

industry focus its exploration for new mineral showings and deposits.

Other MDS funded NTGS projects included:

- Detailed structural interpretation of geophysical data in the South Nahanni;
- Prairie Creek geophysical interpretation. The data was interpreted in conjunction with the known geology and will be released as a value-added product;
- Jean Marie River geophysical reinterpretation. This release will guide further diamond exploration. Interpretation has already resulted in the identification of 14 geophysical targets with significant kimberlite potential;
- Development of a unique diamond exploration application using apatite as an indicator mineral to predict diamond potential and preservation in kimberlite;
- Release of two new detailed surficial geology maps in the Lac de Gras area using industry-donated 3D LIDAR data; and
- Release of a new bedrock geology map of the NWT compilation.

Industry relies on easy access to digital data when working in a jurisdiction. To provide web based delivery of geoscience information, the first of two pilot years was completed to modernize existing applications with new researched technologies. This first phase identified and initiated work on critical information technology (IT) tasks such as conversion and redesign of the web portal, conversion of current databases, expansion of the accessibility of NTGS publications and industry exploration records (Google-type searches), and investment in associated IT infrastructure procurements. The goal was to capture all usable resources from the legacy system and strengthen some areas of the legacy design. The legacy system consists

of three data web applications that link to a number of geoscience databases. The redesign and upgrade of NTGS geoscience web applications was necessary to streamline their integration with other GNWT web applications and mapping tools.

Through the licensing process, research information is added to the NWT Research Database maintained by the Aurora Research Institute (ARI).<sup>4</sup> This database is a valuable tool to make NTGS research summaries available in a non-technical fashion suitable for professionals from fields other than geology and for the general public. The NTGS website also maintains plain language summaries of all science projects for public consumption by non-technical audiences to facilitate understanding of the research, its applications and its implications.

The NTGS developed a new and easy to use web portal for discovery and dissemination of information. Currently, several archived geology maps are being updated to modern digital standards and work continues on an NWT Industrial Minerals Atlas. A geophysical bibliography of airborne data for NWT regions was recompiled and published and is now accessible in user-friendly format on the website. The NTGS improved the availability of geoscience information via the NTGS website [www.nwtgeoscience.com](http://www.nwtgeoscience.com).

Activity to illustrate the detailed geology and resource potential of Aboriginal private lands was initialized in 2014-15 with the release of the bedrock geology of the NWT digital map. The NTGS engages with Aboriginal Governments by fulfilling research licencing protocols and information requests. This process ensures Aboriginal communities are informed and are enabled to support and engage in NTGS projects.

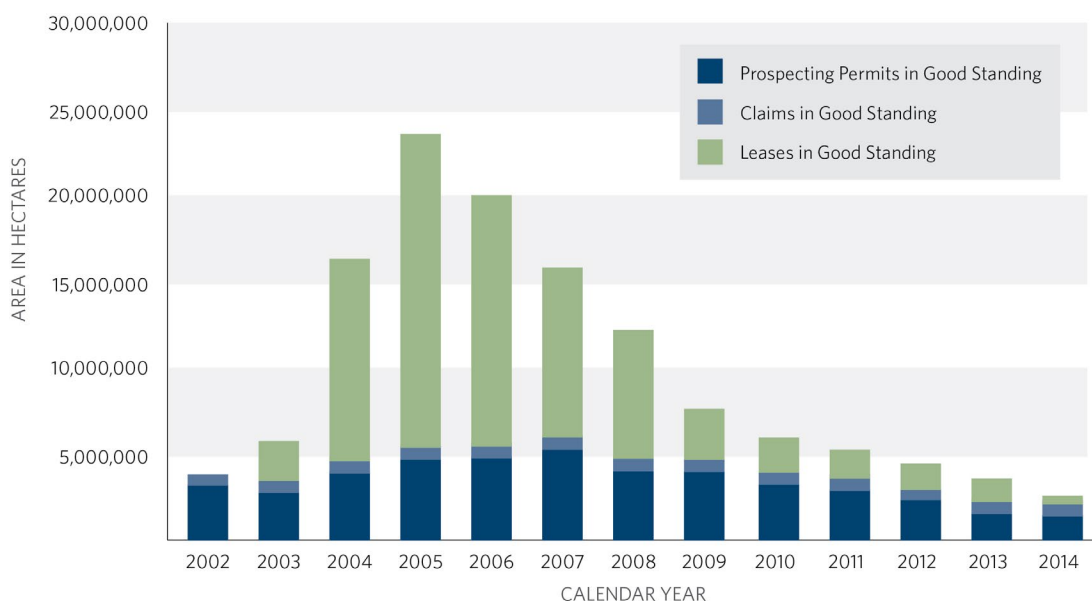
4. <http://nwtresearch.com/licensing-research>

## Goal 1.2: Expenditures in grassroots exploration activities in the NWT increase yearly and the NWT increases its share of total Canadian exploration investment

The exploration sector is critical to the overall success of mineral development in Canada. This sector has traditionally accounted for 50 percent of all exploration and deposit assessment spending in Canada; however that has fallen in recent years to about 40 percent. Incentives are specifically targeted to enhance support for exploration and mineral development activities and enable junior companies and prospectors to continue during these difficult years. Other Canadian jurisdictions such as New Brunswick, Nova Scotia, Manitoba and the Yukon offer similar exploration incentives and/or prospector assistance programs.

The area of NWT under mineral tenure has fallen from 19.8 percent in 2005 to the current level of 2.1 percent (see Chart 3). A mild resurgence in interest in mineral potential, specifically for diamonds in the areas surrounding the Ekati, Diavik, Snap Lake and Gahcho Kue Mines, is evident.

**CHART 3: Claims recorded in the NWT between April 1, 2014 and July 31, 2015**



The GNWT, through the NTGS, introduced a MIP<sup>5</sup> for prospectors and exploration businesses. MIP is a merit-based contribution agreement program that provides partial support to junior mining companies and prospectors for mineral exploration activities. Exploration companies may apply for funding of up to \$100,000 representing 50 percent of their eligible project costs, while prospectors can offset up to \$15,000 of their costs. For locations of MIP projects in the NWT, please see MAP 2.

In 2014-15, the MIP was oversubscribed and awarded funding to seven exploration companies and two prospectors. It has been calculated that this funding leveraged an additional \$2.7 million of private sector investment during the fiscal year, representing a leveraging ratio of 6.8 to one. Due to a \$400,000 limit in funding for the MIP budget, the program has been oversubscribed.

Comments from industry and program applicants indicate that MIP support helps to offset high project costs and lends considerable credibility to the efforts of firms in raising monies for exploration activities. Together these observations suggest that the program is achieving its economic objectives. Three junior companies have included positive comments and results from the MIP in their corporate news releases and two discoveries have been attributed to programs using MIP funds.

5. <http://www.nwtgeoscience.ca/mining-incentive-program>

### Goal 1.3: Investment in infrastructure and energy development in the NWT improves access to mineral potential

Infrastructure is a key component required for mineral resource development. Types of stand-alone infrastructure required in remote areas may include: airstrips, roads, energy generation, fuel storage facilities, and accommodation complexes. Costs to establish road infrastructure is often too large for the private sector to bear alone. Governments and residents alike are aware of the unique challenges that need to be addressed in order to meet the infrastructure needs in the NWT.

Challenges to territorial and community infrastructure and energy production include: northern geography and cold climate, climate change and melting permafrost, limitations to construction and shipping, the large distance between communities and higher costs. A report entitled *Leveling the Playing Field*<sup>6</sup> released in May 2015 by the Mining Association of Canada identified the challenges and the premium that the Canadian mining industry faces in remote and northern Canada. An example of this is an estimate that capital costs for a base metal mine could be as much as 2.5 times higher than those in southern jurisdictions.

Implementation of the Energy Action Plan is underway. In November 2014, the GNWT hosted the second NWT Energy Charrette (the Charette). The objective was to discuss collaborative territorial energy issues

### Current Energy Initiatives supporting Mineral Development

- Three-year action plan based on a long-term energy vision
- Stabilizing the high cost of energy and the impact of our energy use on the environment

and outline how to meet the NWT's future energy needs. Information was gathered from over 100 representatives from NWT communities, Aboriginal Governments, industry, energy experts and other government officials. Some of the main energy issues that were identified include affordability, environment, economy, and energy security. The Charrette put forth a number of short and long term actions in the 2014 NWT Energy Charrette Report<sup>7</sup> including:

- Transmission line expansion;
- Renewed focus on energy efficiency;
- Continued growth of the biomass industry and other renewable energies; and
- Introduction of liquefied natural gas (LNG).

The GNWT response to the 2014 NWT Energy Charrette Report is scheduled for release in 2015-16.

6. [http://mining.ca/sites/default/files/documents/Levelling\\_the\\_Playing\\_Field.pdf](http://mining.ca/sites/default/files/documents/Levelling_the_Playing_Field.pdf)

7. [http://www.iti.gov.nt.ca/sites/default/files/charrette\\_report\\_fnl\\_web.pdf](http://www.iti.gov.nt.ca/sites/default/files/charrette_report_fnl_web.pdf)

**Map 3: Electricity and Energy Infrastructure in the NWT**



**LEGEND**

**NWT Electrical and Energy Infrastructure**

- Solar
- Diesel
- Natural Gas
- Hydroelectric
- Transmission Lines

**Private Electricity Generation**

- Mine or Advanced Exploration
- Diesel
- Wind

**Roads**

- All Season Road
- Winter Road

**Aboriginal title lands for settled land claims**

- Surface/Subsurface rights
- Surface rights

Investments under the Energy Action Plan will help to address the current natural gas supply issue in Inuvik and the NWT Power System Plan presents an opportunity to supply mine sites and businesses with more cost effective electricity solutions. The GNWT supports the development of alternative and renewable energy sources, as well as energy conservation and efficiency. Short-term options being considered include a focus on energy efficiency, biomass energy and solar power. Longer-term actions include considering small-scale hydro, Bluefish Hydro expansion, district heating and combined heat and power for thermal communities.

The GNWT is defining the potential for LNG expansion, solar photovoltaic development, the feasibility of combined heat and power technology and access to biomass energy in the NWT. A preliminary investigation into the potential of use of LNG in southern communities with all season road access such as Fort McPherson, Fort Simpson and Fort Liard. Fort Simpson may provide the best business case for the next small scale LNG project. Work began in 2014-15 to assess the technical feasibility of building small-scale storage, a vaporization facility, and gas generation plant in Fort Simpson which relies on trucked diesel supply.

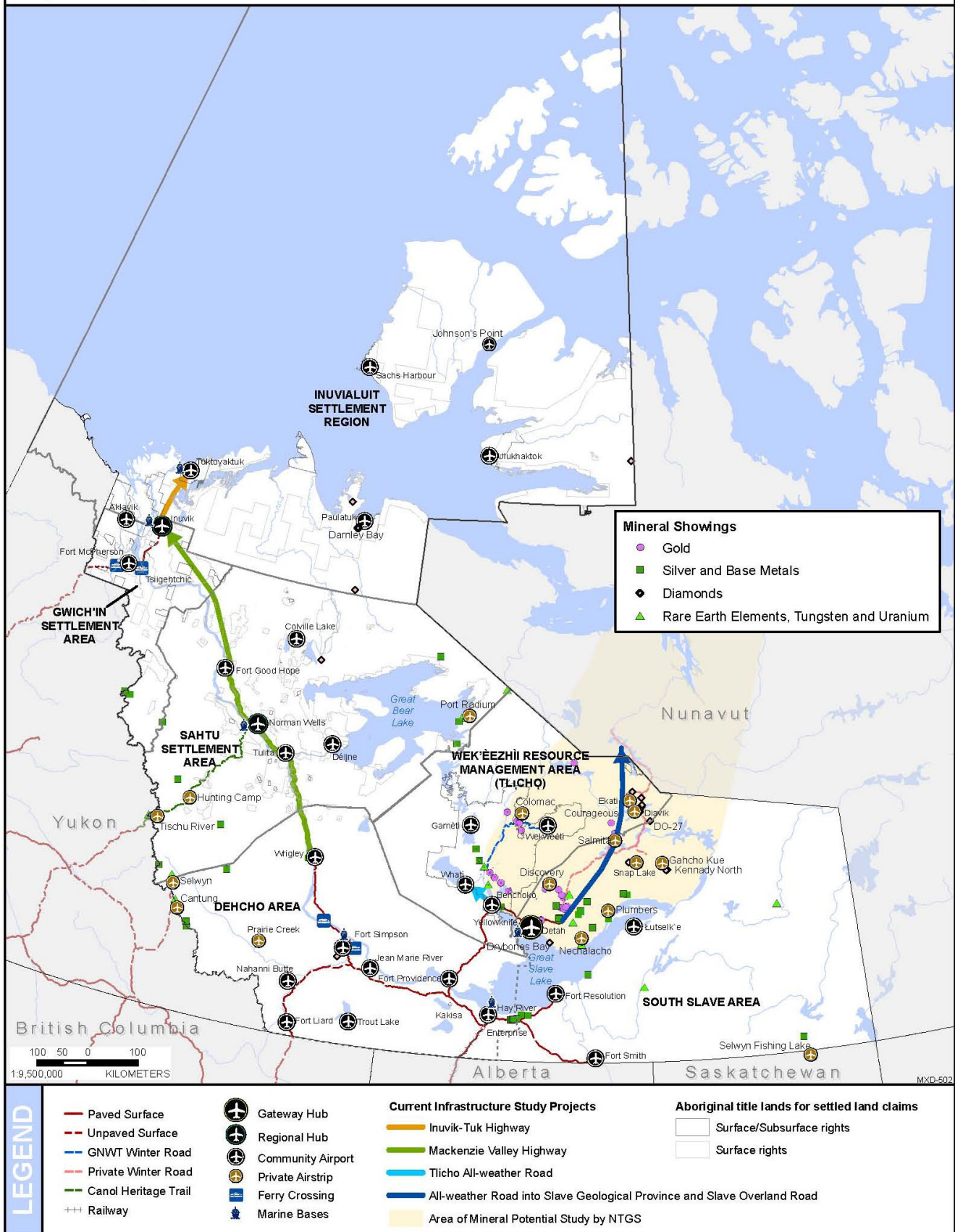
Among the northern communities of the NWT, Tuktoyaktuk has been identified as a possible candidate for expansion of LNG energy once the Inuvik to Tuktoyaktuk highway construction is completed. LNG power generation has proven to be a viable and cost-effective alternative to diesel generation in Inuvik. LNG is part of a portfolio of alternative and renewable

energy options under investigation in 2014-15 that could help improve energy system stability and reliability while optimizing the use of hydropower for new customers, and avoiding diesel power generation in favour of cleaner-burning natural gas. All of this work may offer affordable and secure sources of energy for industry, including the mineral sector.

Efforts were made to ensure energy policy and planning continues to be coordinated by the Energy, Policy and Planning division. ITI and PWS reorganized to enable centralized and coordinated energy policies. The Energy, Policy and Planning Division was established within PWS in order to start operating in April 2015. The division has been tasked to deal with government-wide energy activities, including energy policy and planning, investigation and implementation of alternative and renewable energy projects and fuel services. Looking forward, PWS will be focusing on opportunities to further reduce energy costs and greenhouse gas emissions, and increase renewable energy technology use.

DOT is committed to pursuing funding for Corridors for Canada III investments under the federal government's New Building Canada Plan and under other funding opportunities that may arise. Corridors for Canada III is a plan for investment in NWT infrastructure projects with strategic funding of \$600 million over 10 years. The plan incorporates a series of Corridor Access Studies that can benefit resource projects. This plan supports the MDS vision by focusing on investment that will facilitate the development of NWT's resource potential including minerals.

**Map 4: Transportation Network and Mineral Potential in the NWT**





DOT is responsible for the management and ongoing improvements to 2,200 km of all-weather highways, 1,635 km of public winter roads, four ferries and ice crossings and 27 community airports.

In 1990, the NWT's first comprehensive transportation strategy was released and over the past 25 years, territorial infrastructure has improved. DOT has unveiled the "Connecting Us: Northwest Territories Transportation Strategy 2015-2040" to connect northerners to opportunities by providing safe, reliable and sustainable multimodal transportation systems.

Since April 2014, DOT activities relating to infrastructure included a \$292 million cost sharing agreement with the federal government under the Provincial-Territorial Infrastructure Component of The New Building Canada Plan. Funding will be invested over a 10-year period into improving the NWT highway system. Approximately \$2 million is being utilized for upgrades to Highway 4 (the Ingraham Trail), which provides access to the private winter ice roads servicing SGP and its three diamond mines. Such improvements will provide better and safer access for businesses using Highway 4 to connect to the currently operating diamond mines.

Work within the Mackenzie Valley Energy, Transportation and Communication Corridor included several large scale projects. The construction of an all-weather highway from Wrigley to the Arctic Coast is a long-term priority for the DOT. Known as the Mackenzie Valley Highway, the DOT started the first phase of this project in 2013 with construction of the 137-kilometre Inuvik-Tuktoyaktuk Highway portion of the Mackenzie Valley Highway. Construction is currently underway with a budget of \$300 million (\$200 million provided by the Government of Canada and \$100 million provided by the GNWT).

The second year of construction of the Inuvik-Tuktoyaktuk highway was completed in April 2015, with the final year of construction slated for the winter of 2015-16. This infrastructure is expected to expand to development along the Arctic Coast. In addition, DOT has developed a cost-benefit analysis and Value For Money business case for the next phase of development, which includes the construction of the section between Wrigley and Norman Wells. Improvements were also made to Highway 1, 7 and 8.

## Current Transportation Initiatives supporting Mineral Development

- Inuvik to Tuktoyaktuk Highway
- Mackenzie Valley Highway
- Tłı̄chô All-Weather Road
- Slave Geological Province (SGP)
- Seasonal Overland Route (SOR)

The GNWT, through its DOT, and in coordination with ITI, undertook a series of Corridor Access Studies to evaluate the need and feasibility of a transportation corridor into the SGP. In 2014-15, DOT jointly with ITI and the Department of Finance helped build business cases for investment in road infrastructure to project areas that would promote mineral exploration development in new regions:

- A study of the expansion of the all-weather highway system from Highway 3 into the Tłı̄chô Settlement Area. The financial analysis and Value For Money review resulted in a Public-Private Partnership (P3) Financing Study. This road would lower the cost of transporting mineral concentrate, reduce supply costs for mining projects such as Fortune Minerals' proposed NICO project, and attract industry investment. Connect the community of Whati to the existing NWT transportation system will serve to decrease the cost of living in Whati;
- A study to improve existing winter-only road access into the SGP and additionally to the Nunavut border, to access areas of high mineral potential; and
- Corridor Access Studies that included a mineral potential study of the Slave Geological and Bear Provinces, to determine all-weather route options into the SGP. This study resulted in a mineral potential mapping tool that can be applied to all regions and in land-use planning projects.

DOT's Climate Change Adaptation Plan, in collaboration with TC, sets a framework for initiatives to mitigate the effect of climate change on the NWT transportation system. This plan is financing several permafrost research and development projects, including

- Vulnerability Assessment of the Dempster Highway;
- Monitoring of test sections on Highway 3; and
- Construction and monitoring of two test sections along the Inuvik to Tuktoyaktuk Highway.

The GNWT participates in both of TC's Networks of Expertise: the Network of Expertise on Transportation in Permafrost Regions (the Permafrost Network) and the Network of Expertise on Transportation in Arctic Waters. These networks focus on developing climate change adaptation options for transportation systems in northern Canada and in collaboration with northern jurisdictions, scientists, engineers and other practitioners.

TC will be providing \$669,000 from the federal Northern Transportation Adaptation Initiative<sup>8</sup>. Two of the most recent innovative research projects were started on the Inuvik -Tuktoyaktuk Highway including the application of new techniques for embankment and installing drainage structures. The projects include close monitoring of the test sections and result analysis to determine options for improvement in construction transportation infrastructure on permafrost terrain.

In March 2014, the Climate Change and Mackenzie River workshop was held in collaboration with TC. The results of this workshop culminated in the completion of a Scoping Study on Potential Climate Change Issues for Mackenzie River marine operators.

DOT also carried out:

- The completion of maps within the NWT permafrost and surficial geology mapping studies under the Climate Change Adaptation Program of NRCan to assist with transportation route selection;
- The completion of the Guidelines for Safe Ice Construction. This guide outlines the necessary safety practices to construct and operate winter roads and ice crossings in the NWT and is a reference for all, including industry;
- Improvements to winter roads and ice crossings as well as safe marine navigation on the Mackenzie River; and
- Work towards the finalization of a NWT Road Safety Plan targeted for completion in 2015-16. This plan will consolidate road safety initiatives in the NWT and focus on driver awareness and education. The objective is to reduce traffic collisions in the territory.

8. <https://www.tc.gc.ca/eng/innovation/ntai-menu-1560.htm>

## Goal 1.4: Investors in North America and globally see the NWT as an attractive place to invest in mineral development

The GNWT markets that the NWT is open for business and continues with a coordinated public awareness campaign with strategic partners. To foster global awareness of the resource potential in the NWT, the GNWT recognized the need for an effective public awareness campaign. In cooperation with the COM<sup>9</sup>, the GNWT promotes the NWT's mineral potential, the newly redesigned geoscience web portal and available mineral incentive programs that reduce investor risk. The COM is the leading advocate for responsible and sustainable mineral exploration and development.

ITI established a two-person Promotion and Marketing unit in the fall of 2014 based in the Hay River Office. The unit helped coordinate and create the Development of a Marketing and Promotion Plan called "Promotion of the Northwest Territories as a World Class, High Potential, High Reward Mineral Exploration and Development Jurisdiction", accompanied by the new branding "Unlocking our Potential"; and trade show and marketing materials.

During 2014-15, ITI expanded its promotional reach through advertisements in trade magazines including the Northern Miner, Up Here Magazine, Canadian Mining Magazine, Aboriginal Business Quarterly, North of 60-Mining and Exploration Review. This promotion included an outreach specifically to northern and NWT Aboriginal businesses.

The Yellowknife Geoscience Forum is the pre-eminent and largest northern geoscience conference and trade show in Canada's North. It promotes the resource potential of the NWT and provides a venue for the exchange of information on all aspects of mineral and petroleum exploration, mining, business development, geoscience and environmental research, and community engagement in the NWT. In 2014, the event attracted nearly 725 delegates from industry, academia, and government, and hosted over 100 trade

### Key Activities Raising Public Awareness of NWT Mineral Potential

- Yellowknife Geoscience Forum
- Mining Week
- Prospectors & Developers Association Convention
- Mineral Exploration Roundup Conference

show booths and 93 technical talks. Twenty-two talks were either authored or co-authored by ITI staff, primarily relating to mineral studies supported by the NTGS, Devolution processes and/or MDS initiatives.

ITI co-hosted an NWT Night at the Yellowknife Geoscience Forum with the COM and the NWT Mining Heritage Society. In addition, the GNWT hosted a large tradeshow presence to showcase its new post Devolution role and raise awareness of the mineral sector in the NWT. Participating divisions from ITI included the NTGS, MRD, Petroleum Resource Division, Promotion and Marketing unit as well as Industrial Initiatives and Client Service and Community Relations (CSCR). Other GNWT Departments were also involved included: LANDS, DOT, ENR, Human Resources, and the Office of the Regulator of Oil and Gas Operations. Representatives from all were present to answer questions from delegates.

The Prospectors and Developers Association of Canada, International Convention, Trade Show and Investor's Exchange, held every spring by the Prospectors and Developers Association of Canada in Toronto attracted 23,000 delegates from around the world. ITI showcased its post Devolution role and provided information on the NWT mining sector and industry.

9. <http://www.miningnorth.com/>

The Mineral Exploration Roundup Conference in Vancouver (January 2015) drew over 6,600 delegates. The Minister of ITI hosted and spoke at the event's NWT Night Reception. Before more than 150 attendees, new geoscience results and ITI program updates were announced.

The Assistant Deputy Minister, Mineral and Petroleum Resources and a representative from the MRD of ITI attended the China Mining Exposition and Congress in Tianjin, China (October 2014), which attracted over 8,000 delegates and 1,800 exhibitors. The Promotion and Marketing unit of ITI implemented lead retrieval technologies at all trade shows to track visitor attendance rates at NWT booths. In 2014-2015, the unit tracked more than 470 booth and event interactions at conferences.

The GNWT hosted "2015 NWT Days" in Ottawa with an ultimate goal to promote investment and immigration in the NWT in order to nurture a strong sustainable economy. Information on diamond mining, oil extraction, green energy and general maximization of resources was exchanged between industry representatives from the NWT and those from national and global markets who might invest in the NWT.

The GNWT works through the Aboriginal Capacity Building program to ensure Aboriginal governments and communities are able to attend mining, oil and gas conferences and establish industry connections. Through the CSCR unit of ITI, GNWT ensured that Aboriginal governments and community members were able to attend key industry events as well as educational workshops and courses. Opportunities were provided to establish connections with industry and geoscientists. See MDS Goal 3.3 for more detail.

## PILLAR TWO: ESTABLISHING A NEW REGULATORY ENVIRONMENT FOR THE NWT

A new regulatory environment for mineral development is crucial for the NWT's future and the evolution of the NWT. Activities identified in the MDS-IP include commitments to progress towards the finalization of land, resource and self-government agreements, improve the efficiency and transparency of the existing regulatory environment, support Canada's Regulatory Reform Action Plan and increase cooperation with Aboriginal governments, communities, industry and other stakeholders. A key objective is to increase knowledge of the regulatory processes that guides the resource sector.

### **Key Regulatory Activities Supporting Mineral Development**

- Devolution transfer and mirrored legislation
- Finalizing land, resource and self-government agreements
- Enable public territorial administration to assume new regulatory responsibilities
- Improve client services
- Enable stakeholders to know the regulatory processes for mineral development



## Goal 2.1: Increase efficiency, timeliness and transparency in regulatory processes in the NWT

The Devolution of responsibilities of land, water and resource management is one of the most important steps taken in the political, social and economic development of the NWT. As the GNWT has taken over responsibilities for mining and other resource management sectors, regulatory processes and administrative capacities are being implemented. The GNWT will continue to work with its federal and Aboriginal government partners to make progress in finalizing land, resource and self-government agreements that are workable, affordable and respectful of Aboriginal rights.

In March 2014, the *Northwest Territories Devolution Act* (Bill C-15) received Royal Assent and replaced the *Northwest Territories Act* and amended the *Territorial Lands Act*, the *Northwest Territories Waters Act* and *MVRMA*. The *Northwest Territories Lands and Resources Devolution Agreement* was signed between the GNWT and the Inuvialuit Regional Corporation, the Northwest Territory Métis Nation, the Sahtu Secretariat Incorporated (SSI), the Gwich'in Tribal Council, the Tłı̄ch̄ô Government, the Acho Dene Koe First Nation, Kátł'odeeche First Nation, Fort Liard Métis Local #67, Deninu K'ue First Nation and the Salt River First Nation. The GNWT is continuing discussion with the Dehcho First Nation and the Akaitcho Territory Dene First Nation.

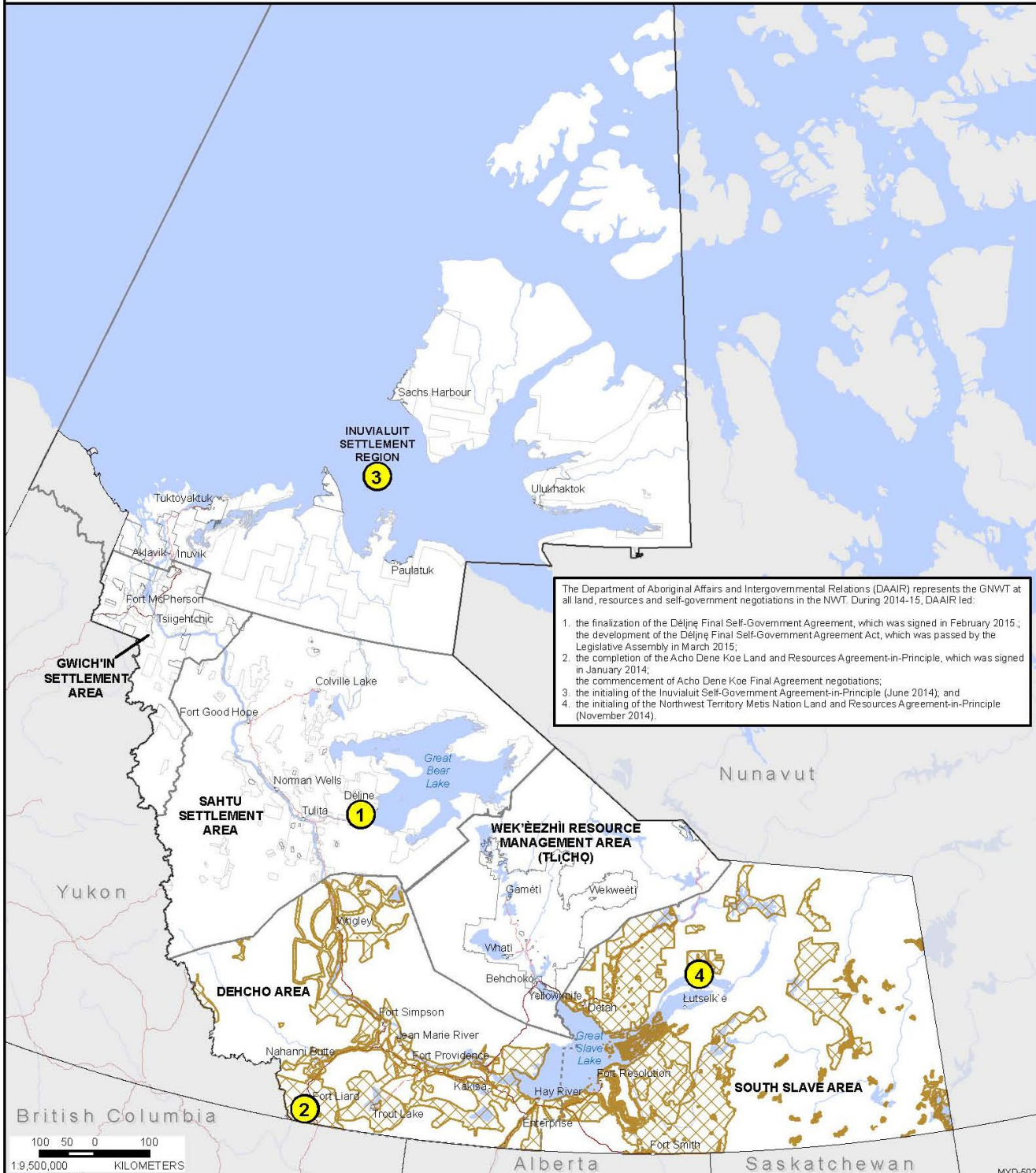
The GNWT has devoted resources to creating new supportive legislation, such as the NWT Intergovernmental Agreement on Lands and Resources Management. This legislation fulfils the goal of Chapter 4 of the Devolution Agreement and provides a mechanism for coordination and cooperation to manage public and settlement lands, and rights in respect of waters.

The Intergovernmental Council was established to provide opportunity for cooperation on land and resource management across jurisdictions while respecting authority and autonomy of each government over lands. During the first meeting in September 2014, leaders approved the Terms of Reference and tasked the Intergovernmental Council Secretariat with work in key areas, including identification of priority legislation for review, processes for the management of water and the planning and development of recommendations to improve Aboriginal capacity throughout the NWT.

The lead department in progressing lands and resources agreements in the NWT is DAAIR. Since Devolution on April 1, 2014, DAAIR led the following agreement initiatives (see Map 5):

- Finalization of the *Déljı̄ne Final Self-Government Agreement* (February 2015);
- Development of the *Déljı̄ne Final Self-Government Agreement Act* (March 2015);
- Commencement of Acho Dene Koe final agreement negotiations building on the completion of the *Acho Dene Koe Land and Resources Agreement-in-Principle*, (January 2014);
- Held the first Intergovernmental Council Meeting on September 18, 2014; The Council is established by the *Northwest Territories Intergovernmental Agreement on Lands and Resources Management* (February 2014);
- Initialization of the *Inuvialuit Self-Government Agreement-in-Principle* (June 2014);
- Initialization of the *Northwest Territory Metis Nation Land and Resources Agreement-in-Principle* (November 2014);
- Acho Dene Koe First Nation, Fort Liard Métis Local #67, Deninu K'ue First Nation and the Salt River First Nation become parties to the *Northwest Territories Devolution Agreement* (May 2014).
- While each negotiating process is at a different stage, progress is dependent on the collaborative efforts of all parties to negotiations. DAAIR continues to represent the GNWT at all land, resources and self-government negotiations in the NWT.

**Map 5: Areas under Settled Land Claims and Areas Withdrawn for the Purpose of Land Claim Negotiations in the NWT**



The Department of Aboriginal Affairs and Intergovernmental Relations (DAAIR) represents the GNWT at all land, resources and self-government negotiations in the NWT. During 2014-15, DAAIR led:

1. the finalization of the Déljine Final Self-Government Agreement, which was signed in February 2015; the development of the Déljine Final Self-Government Agreement Act, which was passed by the Legislative Assembly in March 2015;
2. the completion of the Acho Dene Koe Land and Resources Agreement-in-Principle, which was signed in January 2014; the commencement of Acho Dene Koe Final Agreement negotiations;
3. the initialing of the Inuvialuit Self-Government Agreement-in-Principle (June 2014); and
4. the initialing of the Northwest Territory Metis Nation Land and Resources Agreement-in-Principle (November 2014).

1:9,500,000  
 100 50 0 100  
 KILOMETERS

MXD-502

**LEGEND**

- Land, Resource and Self-Government Negotiations in 2014-2015
- Aboriginal title lands for settled land claims**
  - Surface/Subsurface rights
  - Surface rights
- Land Withdrawal Areas to facilitate Aboriginal Land Agreements**
  - Subsurface
  - Surface
  - Surface/Subsurface
- Roads**
  - All Season Road
  - Winter Road

While each negotiating process is at a different stage, progress is dependent on the collaborative efforts of all parties to negotiations. DAAIR continues to represent the GNWT at all land, resources and self-government negotiations in the NWT.

GNWT departments will continue to work with Canada to implement Bill C-15 changes which will be phased in over a couple of years. In 2014, the GNWT focused on transferring authorities and establishing administrative capacities. Key activities supported the following goals:

- Ensure smooth Devolution transition by mirroring regulation
- Improve identity administration and organizational structure within GNWT
- Establish an *NWT Surface Rights Board Act* and appoint Board members

Under the Devolution Agreement, the GNWT mirrored 26 federal acts and regulations governing public land, water and resource management in the NWT. All were enacted as territorial legislation on April 1, 2014. This mirroring exercise ensured consistency and that the new GNWT laws address the same matters as Canada laws did before and that no gaps or overlap exist.

Devolution has given the GNWT and the Legislative Assembly new powers and created new opportunities to partner with Aboriginal governments, manage land and resource development and share the benefits. This is a process that will continue over the coming years and the GNWT will continue to refine and improve the way these powers and collaborations can create a brighter future for all residents.

All devolved legislation has been assigned to appropriate GNWT departments. LANDS holds the mandate for regulations under the *Northwest Territories Lands Act*, including regulations governing issuance of land use permits in the Inuvialuit Settlement Region and 24 land withdrawal orders. *The Mining Regulations*, as well as Coal and Dredging Regulations are enacted through the *NWT Lands Act* but administered through the MRD. (See Appendix A).

The GNWT is now responsible for administering the laws that regulate water in the NWT and holds the mandate for regulations under the *Waters Act* (see Appendix B). ENR is responsible for developing, implementing and interpreting all legislation and regulation applicable to water use and management.

Regulation of water use in the NWT is a shared responsibility and implementation involves the environmental screening and the issuance of licences by the established co-management Boards (see Text Box).

Modernizing the mineral tenure provisions of the *Northwest Territories and Nunavut Mining Regulations* was an important part of the initiative and was completed prior to April 1, 2014. On April 1, 2014, the *NWT Mining Regulations* came into force. Through the Devolution Agreement, third party rights such as mineral claims and mining leases were protected (or grandfathered). The rights will continue on with the same terms and conditions until they are surrendered or lapse. This also applies to Water Licences, Land Use Permits and surface Land Leases.

## Regulatory Boards in the NWT

- Established under the Inuvialuit Final Agreement:
  - *Environmental Impact Screening Committee*
  - *Environmental Impact Review Board*
- Established under the Mackenzie Valley Resource Management Act (MVRMA) and Regulations:
  - *Mackenzie Valley Environmental Impact Review Board*
  - *Mackenzie Valley Land and Water Board (MVLWB)*
  - *Gwich'in Land and Water Board*
  - *Sahtu Land and Water Board*
  - *Wek'eezhii Land and Water Board*



Post Devolution, the first mineral claim was recorded during the morning of April 1, 2014. There are more than 600 clients including prospectors, licence holders and mineral tenure owners in the NWT.

During the initial transition period, the GNWT will focus its attention on identifying administrative and organizational improvements. In order to ensure transition of authorities and public service delivery, administrative and organizational improvements were implemented starting on April 1, 2014. Appendix B lists the institutional capacities created on, or after April 1, 2014.

On April 1, 2014, the Mining Recorder's Office, which had existed prior to Devolution and operated within the federal department of AANDC, became part of the MRD. The Mining Recorder's Office is responsible for subsurface rights administration and registration and provides client services.

LANDS created and administers the Surface Rights Board (SRB) according to the *Surface Rights Board Act*. The SRB is responsible for overseeing the resolution of disputes related to Gwich'in, Sahtu and Tłı̄chō Settlement Lands with the outcome of increased public confidence in the territory's regulatory system. In 2014-15, the GNWT made appointments to the Board, adopted regulations necessary for the SRB's operations, and negotiated funding arrangements with AANDC. This work will continue in 2015-16 to prepare the SRB for substantive functions by April 1, 2016.

Immediately after April 1, 2014, the GNWT undertook measures identifying regulatory improvement opportunities. The GNWT is taking the 'devolve then evolve' approach to regulatory improvement, as noted in the text box to the right.

During the 2006 Auditor General review of the regulatory process, the development of water standards was raised as an area where regulatory improvement could occur. ENR has developed a number of draft guidance documents which will assist the development of water standards for the NWT and this work was ongoing in 2014-15. Under the *Waters Act*, the Minister of ENR can set water standards that must be adhered to in the NWT. The standards would be used to set water licence limits to make the

## Measures Identifying Regulatory Improvement

- Water standards developed
- Clearer guidance on land and water licences
- Supported the Environmental Assessment (EA) review process
- Spill response protocol developed
- Application of the NWT CIMP

regulatory process more transparent and efficient. These standards would also provide regulatory clarity and consistency for the mining industry.

Clearer guidance on land and water licensing in the NWT was achieved when in 2014, the *Northwest Territories Waters Act* was devolved to the GNWT and some aspects were integrated into the MVRMA to address issues with federal lands and federally managed contaminated sites. In 2014-15, the Land and Water Boards of the Mackenzie Valley were notified of the impending board amalgamation, which is currently under legal review.

On April 1, 2014, authority for water license approvals under the MVRMA was delegated from the federal Minister of AANDC to the territorial Minister of ENR. Similar delegation of land use permit authorization was delegated to the territorial Minister of Lands.

The GNWT and its departments participate in the Environmental Assessment (EA) process. Key departments involved in reviews are DOT, ENR, LANDS, ITI and ECE, however depending on specific requirements other departments may also be part of a project's review process. LANDS's Project Assessment Branch (PAB) has the lead in coordinating GNWT input into project EA processes. The GNWT monitored, reviewed and provided input into active project reviews, some of which have since become inactive.

In 2014-15, key areas of work in support of the regulatory review process were completed by ENR, including:

- The creation of the Water Regulatory Division of ENR to provide technical advice to the Regulatory Boards in the NWT;
- Increased support to NWT Regulatory Boards by providing additional resources to ENR's Conservation, Assessment and Monitoring Division for cumulative effects research related to mineral development projects in the NWT;
- The coordination of GNWT EA reviews and submissions to the Regulatory Boards; and
- The administration of the Interim Resource Management Program - is a capacity building program for Aboriginal groups in unsettled land claim areas and a good portion of this funding is used by Aboriginal groups to participate in the regulatory process.

Effective April 1, 2014, the GNWT Spill Response Communication Protocol was implemented by ENR, LANDS and the Office of the Regulator of Oil and Gas Operations. This protocol guides regulatory oversight/enforcement responsibilities for spills that fall under the jurisdiction of the GNWT including any spills from the mining sector.

A single window approach prevents regulatory overlap. In addition, the Northwest Territories / Nunavut Spills Working Agreement between the Government of Nunavut, Inuvialuit Land Administration, and all GNWT and Federal Government Agencies that have jurisdiction over spills, establishes a clear division of roles and responsibilities with respect to which agencies will act as a lead agency in the event of a spill in the two territories. This initiative will provide clarity and certainty for the mineral industry as well as the permitting process.

In 2014-15, the NWT Cumulative Impact Monitoring Program (CIMP) led and supported 11 projects that were directly relevant to eight current and proposed mineral developments under regulatory review. These included Diavik, Ekati, NICO, Gahcho Kué, Giant, Fortune, Prairie Creek, and Snap Lake. Monitoring data and cumulative effects information provided by these projects inform proponents, interveners, and regulators involved in the EA process.

NWT CIMP is mandated to effectively manage, analyse and report information. The information collected is intended to close known knowledge gaps and increase accessibility of environmental information for project planning, environmental review and impact assessment. NWT CIMP currently:

- Leads an analysis of cumulative impacts on water quality in the Lac de Gras watershed. This information is relevant to the Jay Project EA, and Diavik and Ekati water license renewals; the approach is also relevant to other diamond mining regions, such as the Lockhart watershed including the Snap Lake and proposed Gahcho Kué mines;
- Provides ongoing funding to the Tłı̄ch̄ô Government to conduct community-based monitoring in the Marian watershed using standardized protocols. This information complements baseline aquatic health information collected by Fortune Minerals surrounding the proposed NICO mine;
- Conducts, in partnership with Environment Canada and the WRD, hydrological monitoring that directly contributed to conclusions made about Baker Creek in the Giant Mine Remediation EA, and will be used in the upcoming water licensing process;
- Provides ongoing funding to the Department of Fisheries and Oceans to develop a standardized, cost-effective monitoring protocol to detect salmon habitat in northern streams; the protocol is directly applicable to aquatic effects monitoring at the Canadian Zinc Corporation's Prairie Creek mine.

## Goal 2.2: Improve client services and increasingly responsive decision-making related to NWT regulatory processes

With Devolution, the GNWT focused immediately on improving client services through administrative and organizational changes by creating the CSCR unit within ITI on April 1, 2014. In order to ensure that stakeholders are knowledgeable about the regulatory processes that the mineral exploration and mining sector is subject to, the GNWT created and improved client service delivery. Within ITI, these include:

- CSCR;
- Mining Recorder's Office and MRD;
- NTGS.

GNWT facilitates industry and users in navigating the engagement and regulatory processes as they relate to Devolution. As of April 1, 2014, the Mining Recorder's Office focused activities on informing clients and the general public about the new regulations. Mining Recorder's Office initiatives included:

- Mass mail-outs of information on the new Mining Regulations;
- The creation of a generic emails to receive public requests and inquiries;
- The delivery of workshops on the new NWT *Mining Regulations*;
- The implementation of a new Mineral Information Tenure System (MITS) connected with the expanded Mineral Tenure Viewer, an online tool enabling clients to access up-to-date mineral tenure information in the NWT; and
- The distribution of the Guide to the New Mining Regulations and the brochure *Acquiring Mining Rights in the NWT*.

The Mining Recorder's Office administers mineral tenure in the NWT and maintains client services.

Mineral tenure records are maintained according to the *Mining Regulations*. During 2014-15, the Mining Recorder's Office recorded 375 mineral claims in the NWT.

The GNWT assists with Aboriginal engagement and consultation initiatives. CSCR engaged with NRCan on two geological initiatives in the NWT under the Geo-Mapping for Energy and Minerals II Project, one in the Colville Lake area of the Sahtu Region and the other in the Paulatuk area in the Inuvialuit Settlement Region. Assistance was provided to NRCan in engaging with communities in the project area and advising on the NWT regulatory regime and land claim interpretation. This included the facilitation of several meetings between NRCan, Parks Canada and affected Aboriginal communities. A separate meeting at the Mineral Exploration Roundup was facilitated between community leadership, NRCan and three contractors to support effective community engagement.

The GNWT will establish clear and concise regulatory pathway documents for industry to follow. The compilation and review of existing tools used in Regulatory Road Maps and Engagement Roadmaps from other jurisdictions is underway. The purpose of this review and analysis is to identify best practices in the development of user-friendly regulatory pathway documents for the NWT.

## Goal 2.3: Increased cooperative initiatives with Northern Projects Management Office (NPMO)


The GNWT works cooperatively with CanNor and Northern Projects Management Office (NPMO) to facilitate the effective and transparent environmental impact assessment and regulatory process framework for resource development and infrastructure projects in the NWT. The NPMO, established in 2010 with the mandate to support communities and industry in advancing northern resource development, promoted 34 projects in the three territories. The NPMO signed a Memorandum of Understanding (MOU) with the GNWT to:

- Support major projects through cooperation and respectful engagement;
- Facilitate effective and transparent regulatory processes; and
- Optimize respective opportunities to advance economic development for the people and communities related to major projects.

The MRD of ITI holds regular information meetings with the NPMO in order to remain updated on regulatory processes and government initiatives. The CSCR unit connects with NPMO in support of the federal Community Readiness Program and assists in their engagement with communities. CSCR works with the Resource Development Advisory Group of NPMO in advising proponents in their preparation for regulatory applications and engagement.

The PAB within LANDS is the GNWT's coordinator for all input into EAs. Notable actions undertaken by PAB to improve coordination during 2014-15 include:

- Attendance at NPMO Project Committee Meetings;
- PAB and NPMO have held regular bilateral meetings to discuss current and upcoming EA projects;
- Frequent updates between PAB and NPMO on Aboriginal consultation activities and GNWT/Canada approaches to EA process steps;
- In 2015-16, the department expects to have one EA decision that will be coordinated by NPMO; with the GNWT directly participating in the process.



**Goal 2.4: All stakeholders are knowledgeable about the regulatory processes that the mineral exploration and mining sector is subject to**

ITI announced the establishment of NWT MIAB at the Mineral Exploration Roundup Conference in January 2015 in collaboration with the COM. The Board's Terms of Reference were correspondingly prepared in January 2015.

The NWT MIAB will play an important role in revitalizing the NWT's mining industry, ensuring that the GNWT is moving to secure a dynamic and important future for this sector; and helping to ensure mining regulation is in place to facilitate economic growth while also achieving high regulatory, environmental and social standards. The MIAB was modelled after mining advisory bodies operating in other Canadian jurisdictions, such as the Yukon and Manitoba.



## PILLAR THREE: ENHANCING ABORIGINAL ENGAGEMENT AND CAPACITY

Adequate engagement and participation with Aboriginal governments and communities is a core principle of the MDS. This principle is aligned with the priority of the 17th Legislative Assembly to strengthen relationships with Aboriginal governments and the GNWT's commitment "to engage in a way that acknowledges the unique governance structures, status of Aboriginal rights negotiations, economic opportunities and culture in each community"<sup>10</sup>.

The purpose of this pillar is to enhance adequate engagement and participation with Aboriginal governments and communities in decisions about the use of land and resources of the NWT. The focus is on the enabling of Aboriginal governments and communities in the NWT to participate in all stages of mineral exploration and development, the regulatory processes and to benefit from opportunities related to mineral development and exploration.

### During 2014-15, engagement initiatives supporting mineral development included:

- Enable participation in regulatory processes
  - *Existing Guidelines for Aboriginal Engagement in the NWT*
  - *Programs that support Aboriginal participation in regulatory processes*
- Support development of community capacity
  - *Community Readiness Planning*
- Support programming that enables community participation
  - *Mining 101 courses*
  - *Prospector's courses*

10. [http://www.daair.gov.nt.ca/\\_live/documents/content/RRR%20English%20Brochure.pdf](http://www.daair.gov.nt.ca/_live/documents/content/RRR%20English%20Brochure.pdf)

## Goal 3.1: Aboriginal governments are better positioned to effectively participate in all stages of the mineral development process in the NWT

This goal is marked in the MDS-IP for future implementation. However, principles and guidelines for engagement have been developed and can be relied upon while review processes are in place. The GNWT has formulated its approach to engaging with Aboriginal governments in the *Respect, Recognition, Responsibility*<sup>11</sup> framework, listing a set of principles and key actions in support of renewing and improving relationships with Aboriginal governments.

### The GNWT Principles of Engagement

The GNWT recognizes and respects the diverse interests expressed by Aboriginal leaders since the election of the 17th Legislative Assembly and commits to the following principles of engagement.

- Recognition of constitutionally Protected Rights:  
*The GNWT recognizes that section 35 of the Constitution Act 1982 recognizes and affirms the Aboriginal and Treaty rights of Canada's Aboriginal peoples.*
- Recognition of the Inherent Right to Self-Government:  
*The GNWT recognizes that the inherent right of self-government is an existing Aboriginal right under section 35 of the Constitution Act 1982.*
- Building Mutually Respectful Relationships:  
*The GNWT is committed to building and maintaining mutually respectful government-to-government relationships with Aboriginal governments.*
- Recognition of Aboriginal Rights Agreements:  
*Where Aboriginal rights agreements have been signed, these agreements will form the basis of the GNWT's engagement with that Aboriginal government.*
- Respecting Diverse Governance Structures:  
*The GNWT respects the diverse governance structures of Aboriginal governments and is open to engaging with the governments and community leaders that represent Aboriginal peoples in each region.*
- Responsible, Accountable and Flexible Government-to-Government Relationships:  
*The GNWT will build responsible and accountable government-to-government relationships that are responsive and flexible, and reflect the unique interests and challenges of Aboriginal governments.*
- Sharing Knowledge and Understanding:  
*The GNWT, through the DAAIR, will continue to share knowledge and understanding.*
- Respecting the Importance of a Healthy and Sustainable Environment:  
*The GNWT will continue our commitment to working with Aboriginal governments to ensure responsible stewardship over NWT lands, water and air.*

11. Respect, Recognition, Responsibility - The Government of the Northwest Territories' Approach to Engaging with Aboriginal Governments. GNWT. Yellowknife. 2012. [http://www.daair.gov.nt.ca/\\_live/documents/content/RRR%20English%20Brochure.pdf](http://www.daair.gov.nt.ca/_live/documents/content/RRR%20English%20Brochure.pdf)

The GNWT is working towards Memoranda of Understanding (MOU) with Aboriginal governments and organizations. In October 2014, Working Together –The Tłı̨ch̨ government /GNWT Intergovernmental MOU was signed. A separate MOU is in preparation to be signed by the GNWT and the Gwich'in Tribal Council.

Engagement with Aboriginal organizations prior to and during early mineral exploration is crucial as it considers all perspectives and interests. It is necessary to support and facilitate capacity building to ensure that Aboriginal governments and organizations are equally enabled to participate in engagement processes relating to mineral exploration and development.

DAAIR provides advice to departments on matters of consultation. Responsibilities for engagement initiatives included in the MDS reside with certain program divisions of ENR and ITI's NTGS and CSCR.

Prospectors and companies working in the NWT require certainty that land that is staked or assigned to them for the purpose of mineral exploration will remain their property, as long as they follow the regulations that pertain to their work. Two guidance documents were released to accompany the NWT Mining Regulations: Acquiring Mineral Rights in the NWT<sup>12</sup> and Guide to the new Mining Regulations for the Northwest Territories<sup>13</sup>. These documents communicate the rules and processes of mineral tenure in the NWT using plain language.

The intent of the Mackenzie Valley Land and Water Board *Engagement and Consultation Policy*<sup>14</sup> is to provide clarity and certainty that the Board's expectations in relation to community engagement with the public, and in particular engagement with Aboriginal organizations, governments and communities are fulfilled. This policy is supported by the *Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits*, a document that includes specific requirements for pre-submission engagement to the Boards and engagement planning for the life of a resource project. These documents are currently used for engagement with Aboriginal communities in the regions where the Land and Water Boards apply; they do not apply in the Inuvialuit Settlement Region.

The NWT CIMP, in existence since 1999 and managed by ENR,<sup>15</sup> supports resource management decision-making and sustainable development with a focus on caribou, fish and water projects. The program coordinates, supports and conducts monitoring-related initiatives in the NWT by incorporating both scientific and traditional knowledge while taking into consideration both human and biophysical environments.

Work completed by NWT CIMP in 2014-15 is intended to directly increase the capacity of Aboriginal communities to engage with regulatory reviews conducted for six current mining projects in the NWT (see examples included in reporting under Pillar Two). Existing information provided through NWT CIMP projects was used by Aboriginal organizations to inform the understanding of local conditions and cumulative impacts to land, water and environment in areas of mineral development. Project results were conveyed in plain language, and made publicly available on the NWT Discovery Portal<sup>16</sup>.

The Community Readiness and Opportunities Planning program is delivered by CanNor and facilitates development of community capacity building initiatives throughout NWT Aboriginal communities. The GNWT is currently leading the Sahtu partnership and CSCR has provided advice and support to ensure the partnership is effectively delivered. A Community Readiness Plan for the Yellowknives Dene First Nation was also prepared under this CanNor program in 2014-15.

12. [http://www.iti.gov.nt.ca/sites/default/files/mining\\_rights\\_140404\\_web.pdf](http://www.iti.gov.nt.ca/sites/default/files/mining_rights_140404_web.pdf)

13. [http://www.iti.gov.nt.ca/sites/default/files/guide\\_to\\_the\\_new\\_mining\\_regulations.pdf](http://www.iti.gov.nt.ca/sites/default/files/guide_to_the_new_mining_regulations.pdf)

14. <http://mvlwb.com/sites/default/files/documents/wg/MVLWB%20Engagement%20and%20Consultation%20Policy%20-%20May%202015.pdf>

15. [http://sdw.enr.gov.nt.ca/nwtdp\\_upload/CIMP\\_STRATEGIC\\_PLAN\\_2010\\_15.pdf](http://sdw.enr.gov.nt.ca/nwtdp_upload/CIMP_STRATEGIC_PLAN_2010_15.pdf)

16. <http://nwtdiscoveryportal.enr.gov.nt.ca/geoportal/catalog/main/home.page>



### **Goal 3.3: Communities are able to benefit from opportunities as a result of mineral exploration and development**

The GNWT provides financial and technical resources to Aboriginal governments who intend to develop Engagement Roadmaps. During the first year, CSCR engaged with seven communities within four settlement regions, supported attendance in two mineral industry conferences and an introductory course to mining and exploration. Twenty two Aboriginal participants from six communities were able to attend two geoscience conferences (the Yellowknife Geoscience Forum and the Mineral Exploration Roundup Conference in Vancouver) and learn more about mineral exploration and development projects. In addition, 12 Aboriginal participants successfully completed a Mining 101 workshop at the 2014 Yellowknife Geoscience Forum. The Forum also provided exposure to, and networking opportunities with, the national/international mineral resource industry, as well as various government departments/agencies and the service/supply sector involved in

mineral resource exploration, mining development and geoscience.

This support and funding from the GNWT made way for initiatives organized by the community of Colville Lake. Based on the community's needs, and to increase the community's capacity to effectively participate in activities associated with mineral development, the Ayoni Keh Land Corporation and the Behdzi Ahda First Nation Band funded three projects:

- A prospecting course;
- A Google Earth initiative;
- A Geographic Information System training course.

These course provided community members with the training and the analytical tools to explore private lands for minerals and to manage geological data. The same community also became involved in a bedrock mapping project with NRCan and received additional Aboriginal Capacity Building funding. CSCR has received two more requests for the GNWT to support the creation of regional mineral development strategies.



## PILLAR FOUR: PROMOTING SUSTAINABILITY

Sustainable development is a priority of the GNWT and is reflected in its *Sustainable Development Policy*<sup>17</sup>. The interdependence between reaching long-term economic prosperity and achieving conservation goals is recognized through the application of the concept of sustainable development. While mineral development contributes substantially to the economic viability of NWT communities, there is a need to ensure that negative long-term impacts of mining are minimized to protect and maintain the land and its people.

Corporate Sustainability Reporting is a mechanism used by the mining industry operating in the NWT to exercise an improved corporate transparency. Sustainability Reports publicly disclose information about the non-financial performances of a company. Corporate social and environmental disclosure by industry operating in the NWT is at a high level. Annual Sustainability Reports are produced by diamond producing companies with operating mines as well as by companies maintaining advanced exploration projects in the NWT. RioTinto publishes the Diavik Sustainable Development Report<sup>18</sup>, Dominion Diamond Corporation the Dominion Diamond Socio-economic Report<sup>19</sup>, and DeBeers the Snap Lake Mine Socio-Economic Assessment Toolbox (SEAT) Report<sup>20</sup>.

The GNWT has developed several measures and instruments to create the conditions that will allow mineral development to contribute to the economic viability of NWT communities while ensuring that negative long-term impacts are minimized. This chapter reports on the measures taken and progress made.

17. [http://www.enr.gov.nt.ca/sites/default/files/documents/53\\_02\\_sustainable\\_development\\_policy.pdf](http://www.enr.gov.nt.ca/sites/default/files/documents/53_02_sustainable_development_policy.pdf)

18. [http://www.riotinto.com/documents/2014\\_Diavik\\_Sustainable\\_Development.pdf](http://www.riotinto.com/documents/2014_Diavik_Sustainable_Development.pdf)

19. <http://www.ddcorp.ca/docs/default-source/default-document-library/dd-2013-sea-report-03nov14.pdf?sfvrsn=2>

20. <https://www.canada.debeersgroup.com/pdf/2013%20Snap%20Lake%20Mine%20SEAT%20Report.pdf>

## Goal 4.1: Land use plans, the Land Use Sustainability Framework, land use planning processes, and the Protected Areas Strategy (PAS) are completed and implemented in the NWT

The Northern Lands Northern Leadership - Land Use and Sustainability Framework (LUSF) establishes the government's vision for land use in the NWT. The MDS implements the element of the LUSF committed to ensuring mineral development is sustainable.<sup>21</sup> The LUSF is intended to provide Aboriginal governments and other land partners in particular with greater clarity on the GNWT's interests with respect to land use decisions.<sup>22</sup>

In 2014, LANDS engaged Queen's University to research and report on current approaches to sustainability in the NWT. The objective of the report is to inform future work related to the implementation of the LUSF. In addition, LANDS developed draft Decision Process Guidelines which support the implementation of the LUSF and ensure principles and interests defined in LUSF are reflected in GNWT land management decisions.

New LANDS policies will be based on the LUSF, which was developed in consultation with Aboriginal governments and the public. The GNWT is one partner in an integrated land management system, and will continue to work closely with Aboriginal governments and other partners to make responsible decisions that allow for sustainable land use.

In March 2015, LANDS hosted the External Land Use Planning Forum in Yellowknife. The purpose was to build relationships and networks with participants and receive initial input on the concept of a GNWT Land Use Planning Policy Framework. The Land Use Planning Policy Framework will provide guidance to GNWT's review and approval process for regional land use plans, and to shape its approach toward land use plans in areas of the NWT without current land claims.

The GNWT continues to participate in the periodic review of approved land use plans in the Gwich'in and Sahtu Settlement Areas. LANDS is the lead, on behalf of GNWT departments including ENR, in supporting and reviewing land use plans being developed in the NWT.

### Current Initiatives Promoting Sustainable Mineral Development in the NWT

- Complete and implement land use planning initiatives
- Review Protected Area Strategy
- Adopt effective mine reclamation planning
- Review management framework for inspections
- Support initiatives that reduce developers' contribution to cumulative effects
- Improve the socio-economic agreement process
- Equip businesses to gain from mineral development in the NWT

Land use plans are in place in the Inuvialuit Settlement Region and the Tłı̄chô Settlement Area for Tłı̄chô private lands but not on the public lands of the Wek'eezhii Resource Management Area. Other land use planning activities included the following:

- **Dehcho Region:** draft Land Use Plan under negotiation with an interim land withdrawal in place. GNWT participated in the Dehcho Land Use Plan working group in 2014-15;
- **Sahtu Region Land Use Plan:** Sahtu Land Use Plan approved. During 2014-15 LANDS coordinated GNWT participation in the Sahtu Land Use Plan amendment process;
- **Gwich'in Region:** amendment approved in January 2014 to ensure land withdrawals remained in place during the review of the Gwich'in Land Use Plan. LANDS coordinated inter-departmental review of the revised Gwich'in Land Use Plan started in February 2015, with departmental comments received March 2015.
- **South Slave Region:** no land use plan is in place but the region does have an interim land withdrawal protocol.

21. [http://www.iti.gov.nt.ca/sites/default/files/iti\\_mineral\\_development\\_strategy\\_2013\\_2014\\_wr.pdf](http://www.iti.gov.nt.ca/sites/default/files/iti_mineral_development_strategy_2013_2014_wr.pdf)

22. <http://www.executive.gov.nt.ca/initiatives/land-use-sustainability/>

In 2014-15, progress was made by LANDS in the area of land use planning and planning processes in the following areas:

- The completion of a scoping study for land use planning in the Wek'èezhii Management Area;
- The completion of a land use planning scoping study for the Ingraham Trail-Highway 3 area around Yellowknife; and
- An update of the *Northern Land Use Guidelines*<sup>23</sup>, a series of guidelines previously developed for use in all three territories, transferred to the GNWT on April 1, 2014. Under responsibility of the LANDS, the guidelines were updated during 2015 and were rebranded to reflect current regulatory authorities in the NWT.

The NWT Water Stewardship Strategy provides guidance for unsettled land claim areas and helps guide land use planning exercises for unsettled land claim areas. Annual workshops are held on the NWT Water Stewardship Strategy in order to report progress on the Strategy's implementation. In 2014-15, an evaluation of the NWT Water Stewardship Strategy was initiated and is currently underway, which will guide development of the next five-year action plan.

The NWT Protected Area Strategy<sup>24</sup> recognizes and advances areas of special ecological or cultural significance for consideration as protected areas. The NWT Protected Area Strategy process uses federal and territorial laws to provide long-term protection of lands by establishing conservation areas.

There are currently seven areas proposed through the NWT Protected Area Strategy that are at various stages of completion, one in the Sahtu Settlement Area, five in the Dehcho Area and one in the Tł'chô Wek'èezhii Resource Management Area. Two areas, Pehdzeh Ki deh in the Dehcho Region and Yambahti in the Wek'èezhii Resource Management Area have not yet progressed beyond the initial stages. Additional areas that were proposed initially through the PAS are now included in the conservation zones in the Sahtu Land Use Plan. (see Map 6)

The PAS conducts non-renewable resource assessments (oil and gas and mineral assessments) for areas that are proposed through the PAS process. Non-renewable resource assessments (NRA) have been completed for all areas proposed, except those in initial stages.

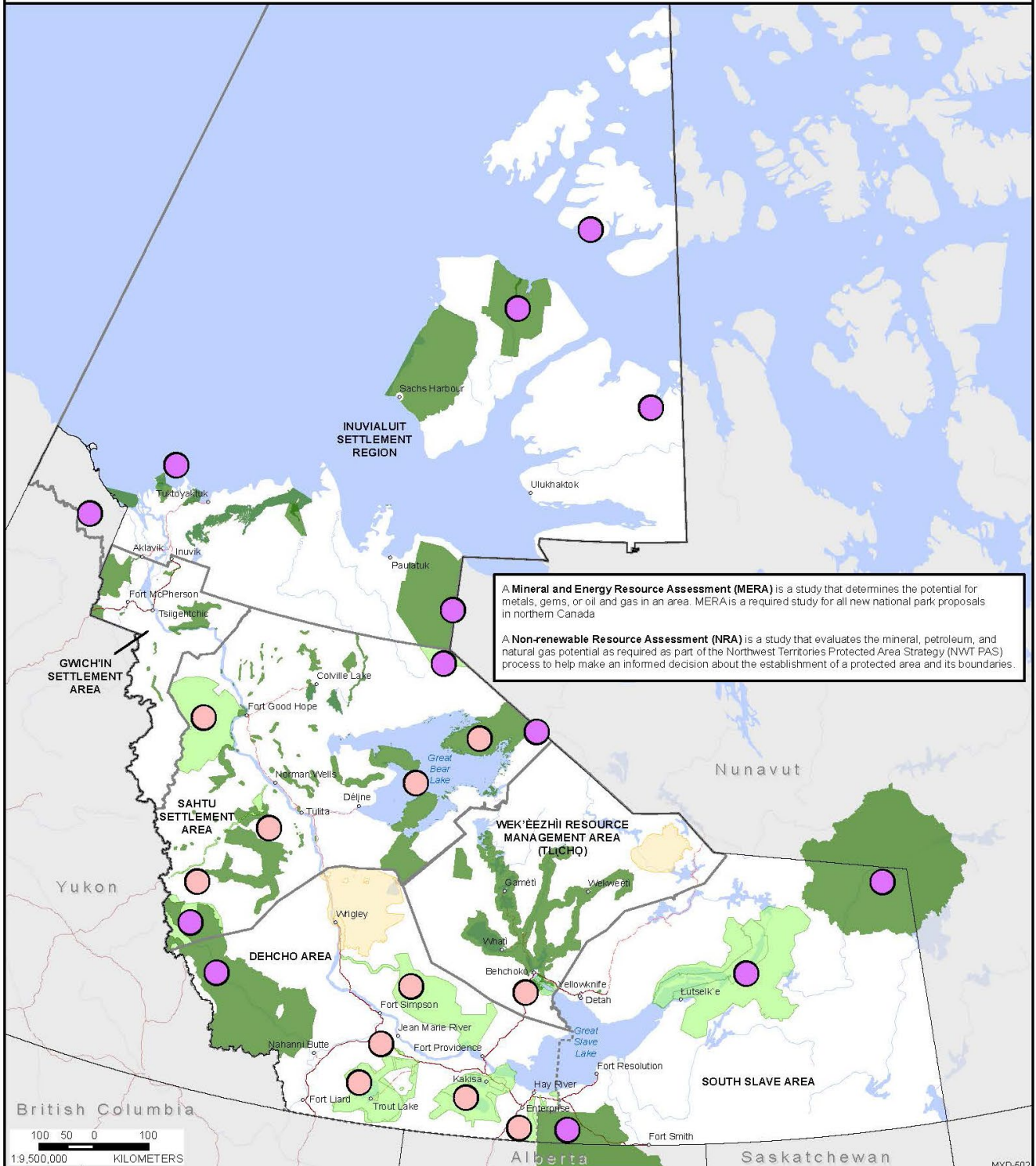
For all national park proposals in northern Canada, a Mineral and Energy Resource Assessment (MERA) is required. MERA studies use available information as well as data collected through field and laboratory studies in order to develop and improve geochemical and geological knowledge.

Following the principles in the LUSF, the GNWT is developing a made-in-the-North approach to conservation planning to ensure biodiversity and ecosystem integrity are maintained into the future. This new approach will include land use planning, park and conservation areas establishment, and ecological representation network planning. Collectively, these initiatives will ensure the progress of responsible economic development in the context of sound environmental stewardship.

23. <http://www.lands.gov.nt.ca/en/northern-land-use-guidelines>

24. <http://www.nwtpas.ca/typesofprotection-description.asp>

**Map 6: Non-Renewable Resource Assessments in Established and Proposed Conservation Areas**



A **Mineral and Energy Resource Assessment (MERA)** is a study that determines the potential for metals, gems, or oil and gas in an area. MERA is a required study for all new national park proposals in northern Canada.

A **Non-renewable Resource Assessment (NRA)** is a study that evaluates the mineral, petroleum, and natural gas potential as required as part of the Northwest Territories Protected Area Strategy (NWT PAS) process to help make an informed decision about the establishment of a protected area and its boundaries.

**LEGEND**

- Established Conservation
- Proposed Conservation
- NWT PAS Areas of Interest
- Mineral and Energy Resource Assessment (MERA)
- Non-renewable Resource Assessment (NRA)
- All Season Road
- Winter Road

## **Goal 4.2: Effective mine reclamation planning, execution, inspections and monitoring are adopted**

As part of Devolution, the GNWT mirrored federal legislation and regulations and created several divisions taking over authorities relating to reclamation legislation and associated compliance. ENR and LANDS are involved with compliance and inspection in mine reclamation. Since Devolution, GNWT has increased the number of land and waters inspectors to build public confidence ensuring compliance with legislation and conditions set out in project authorizations.

On April 1, 2014, a Water Regulatory Section was created within ENR, responsible for undertaking securities assessments and managing securities associated with water licences, as well as providing input on policy development. ENR also created a Contaminated Sites and Reclamation Section that plays a role in reclamation planning, security review, environmental agreements, inspections and monitoring, and also develops management approaches for mine reclamation in the NWT. Monitoring activities are supported by the Taiga Lab<sup>25</sup>, which undertakes the analytical work on the water data.

The ENR Conservation, Assessment and Monitoring Division coordinated over 150 technical regulatory reviews of various management plans (e.g. Aquatic Effects Monitoring Plans, Closure and Reclamation Plans, Spill Contingency Plans, etc.) submitted under water license review and approval process. In 2014-15, ENR participated in four closure workshops for major development projects in the NWT conducted by Land and Water Boards.

## **Goal 4.3: Responsible and sustainable development through sound environmental practice is conducted through all phases of exploration and development which is incorporated into mineral development investment decisions**

The GNWT will address this goal in future implementation plans.

25. <http://www.enr.gov.nt.ca/programs/taiga-environmental-laboratory>

## Goal 4.4: The impacts of development are adequately mitigated and carefully monitored

The GNWT is reviewing the management framework that guides inspections with the goal of ensuring effective, coordinated and timely inspections. LANDS and ENR are responsible for environmental inspections on territorial, Commissioners and private lands where Land and Water Boards issue authorizations related to permits and water licences. LANDS issues and inspects surface land leases. LANDS has primary responsibility to inspect land use permits, and ENR has primary responsibility to inspect water licences. Inspectors are cross appointed under legislation to enable both inspections when required.

The legislative and delegated authority to conduct inspections comes from the *Northwest Territories Lands Act*, *Commissioner's Land Act*, *MVRMA* and the *Waters Act*.<sup>26</sup> Officers and inspectors in the NWT use the Inspection Reporting and Risk Assessment database system to plan, track and produce inspection reports. This system was created prior to Devolution by AANDC and was transferred to the GNWT for continued use in managing inspections associated with all existing leases/permits/licences in the NWT.

Inspectors provide developers with critical advice that helps with the submission of complete applications; they also provide input into lease/permit and licence drafting to ensure a suitable regulatory tool is created based on individual development scale and associated risk. LANDS added five Resource Management Officer positions to work from its Regional Offices. Similarly, with Devolution, ENR regional offices also gained three Water Resource Officers.

The GNWT is working with partners to develop and implement approaches for the monitoring, assessment and management of cumulative effects on wildlife and wildlife habitat. The NWT CIMP is anchored in the Sahtu, Gwich'in and Tłı̄ch'ô comprehensive land claim agreements and a statutory requirement under Part Six of the *MVRMA*. A MOU was signed in 2003, resulting

in the inclusion of the Inuvialuit Settlement Region in the NWT CIMP.

CIMP projects were implemented at a territory wide scale in 2014-2015, as well as at a regional scale in the following areas: in the range of the Bathurst caribou; Lac de Gras region; Central Mackenzie Valley, Sahtu Region; Peel Plateau; and Cameron Hills. For detailed information on cumulative impacts analysis, please contact a CIMP representative<sup>27</sup> or consult the CIMP website<sup>28</sup>.

The GNWT has developed guidelines for the mineral industry to minimize individual project contributions to cumulative effects on wildlife and wildlife habitat. The purpose of the WWHPPs and Wildlife Effects Monitoring Plans is to prevent and/or reduce the potential individual and cumulative effects of development on wildlife and wildlife habitat. ENR presented Draft WWHPP and Wildlife Effects Monitoring Plans Guidelines<sup>29</sup> in November 2014.

The WWHPPs and Wildlife Effects Monitoring Plans are designed to help industry and proponents to understand their role in supporting both local and larger-scale wildlife objectives and meet their legal obligations under species at risk and wildlife legislation. Further, they prevent and/or reduce the potential individual and cumulative effects of development on wildlife and wildlife habitat. WWHPPs and Wildlife Effects Monitoring Plans aim is to facilitate more efficient and timely reviews during environmental impact assessment and regulatory processes. The guidelines were developed with advice from 26 external parties, including industry representatives; they are to be updated and improved in response to operator and regulator experience, comments and suggestions.

ENR further developed the Cumulative Effects Assessment, Monitoring and Management framework for the Bathurst Caribou Herd and made five presentations to various stakeholders. Cumulative Effects (CE) on wildlife is raised consistently as a key issue during EA processes for mineral development in the NWT. Developing the CE Assessment Monitoring

26. <http://www.lands.gov.nt.ca/enforcement>

27. <http://www.enr.gov.nt.ca/programs/nwt-cimp/nwt-cimp-steering-committee-members>

28. <http://www.enr.gov.nt.ca/programs/nwt-cimp>

29. [http://www.reviewboard.ca/upload/project\\_document/EA1415-02\\_Wildlife\\_and\\_Wildlife\\_Habitat\\_Protection\\_Plan\\_and\\_Wildlife\\_Effects\\_Monitoring\\_Program\\_Guidelines.PDF](http://www.reviewboard.ca/upload/project_document/EA1415-02_Wildlife_and_Wildlife_Habitat_Protection_Plan_and_Wildlife_Effects_Monitoring_Program_Guidelines.PDF)

and Management framework, and development of key GNWT initiatives within it, provides assurance that any issues during the EA process and CEs themselves are being properly addressed.

A regional initiative is the Slave Geological Province CE Monitoring Program for Wildlife. ENR initiated, completed and supported initiatives to fill five of the seven key information gaps for the Bathurst Barren-ground Caribou herd including gaps related to vegetation classification, seasonal habitat use, changes in vegetation biomass, human disturbance spatial data and some analysis of response relationships among factors that affect caribou populations. Two of the five initiatives to fill key gaps had multiple mineral industry partners from operators and proponents in the NWT and Nunavut.

In August 2014, a Technical Task Group developed a draft guidance document to monitor a zone of influence for Barren-ground Caribou. This guidance will help industry develop their effects monitoring plans and contribute to tracking and managing effects of development, including mineral development.

Companies Operating in the NWT maintain Wildlife Mitigation Plans, examples are the DeBeers Snap Lake Diamond Project Wildlife Effects Monitoring Program (2004) and the most recent Wildlife Road Mitigation Plan for the Jay Project by Dominion Diamond Ekati Corporation (2015).

The Bathurst Caribou Range Plan and regional Boreal Caribou Range Plans were further developed in the 2014-15 fiscal year. The Bathurst Range Planning process is a collaborative process engaging a dedicated Working Group composed of representatives from various GNWT departments, Aboriginal governments, co-management partners and industry. The Working Group is being guided by a larger Steering Committee to develop a plan for managing disturbance on the range of the Bathurst Herd.

In 2014-2015, three Working Group meetings were held and focused on reviewing cumulative land disturbance, identifying thresholds and acceptable limits of change. For the Boreal Caribou Range Plan, four planning meetings were held, two with communities and two with co-management partner groups to identify key habitat areas and regional priorities to inform the development of a plan for managing land disturbance. Once complete these range plans will provide industry, communities and regulators with greater certainty regarding where, when and how activities on the land can be conducted so as to ensure sustainability of caribou populations.

Filling information gaps identified by Aboriginal governments, co-management partners, industry and government helped to develop an understanding of the main factors and processes affecting caribou population change and the effectiveness of local project-level and landscape-level mitigations which contribute to ensuring the species' sustainability into the long term.



## Goal 4.5: The Socio-Economic Agreement (SEA) process is further improved upon

A SEA is a mechanism for the GNWT to follow-up and report on the socio-economic commitments that are made by resource developers during the EA process. With the help of the SEAs, the GNWT is able to monitor such commitments with the goal of maximizing benefits to residents and communities in the NWT.

ITI's Industrial Initiatives unit works with resource development companies on existing SEAs and collaborates with GNWT departments to ensure SEA implementation and monitoring, outcome tracking and improvements. SEAs formalize commitments and address many areas, including:

- Employment and business opportunities;
- Cultural well-being and traditional economy;
- Community, family, and individual well-being; and
- Net effects on government.

Industrial Initiatives with support from ECE, HSS and Bureau of Statistics, leads the negotiation and implementation of SEAs. The GNWT currently has six SEAs in place (see Map 7):

- Dominion Diamond Corporation, Ekati Diamond Mine (Ekati), signed October 1996<sup>30</sup>;
- Diavik Diamond Mines (2012) Inc. (Diavik), signed October 1999<sup>31</sup>;
- De Beers Canada Incorporated (De Beers), Snap Lake Mine (Snap Lake), signed May 2004<sup>32</sup>;
- Mackenzie Gas Project, signed January 2007<sup>33</sup>;
- Canadian Zinc Corporation, Prairie Creek Mine, signed August 2011<sup>34</sup>; and
- De Beers, Gahcho Kué Project, signed June 2013<sup>35</sup>.

In addition to these six SEAs, ITI monitors ongoing EAs in the NWT to provide socio-economic input, as well as to negotiate SEAs when needed. Of the projects that have been recently completed or are undergoing EAs, the following are of particular note:

- Avalon Rare Metals Incorporated's (Avalon) Nechalacho Project (Nechalacho);
- Fortune Minerals Incorporated's (Fortune) NICO Project (NICO);
- Dominion Diamond Corporation's Jay Project; and
- Canadian Zinc Corporation's all-season road and airstrip project.

Dominion Diamond Corporation's Ekati Jay Project and Canadian Zinc Corporation's all-season road proposals are both extensions of already permitted projects with existing SEAs. Dominion Diamond Corporation's Jay Project, proposed by Dominion Diamond Corporation will extend the life of Ekati. Industrial Initiatives is waiting to resume negotiations with Avalon and Fortune. Both agreement negotiations have been paused due to the financial crisis.

Considering the economic contribution of the three operating diamond mines to the NWT, the SEAs allow the GNWT to measure if goals were achieved. Under the existing agreements, the cumulative northern procurement between 1996 and 2014 from these mines has generated over \$11 billion to northern businesses, of which \$5.4 billion has been with Aboriginal businesses (see Table 1). For the same time period the three diamond mines have provided employment of approximately 22,200 NWT person years.

30. [http://www.iti.gov.nt.ca/sites/default/files/bhp\\_sea.pdf](http://www.iti.gov.nt.ca/sites/default/files/bhp_sea.pdf)

31. [http://www.iti.gov.nt.ca/sites/default/files/diavik\\_sema.pdf](http://www.iti.gov.nt.ca/sites/default/files/diavik_sema.pdf)

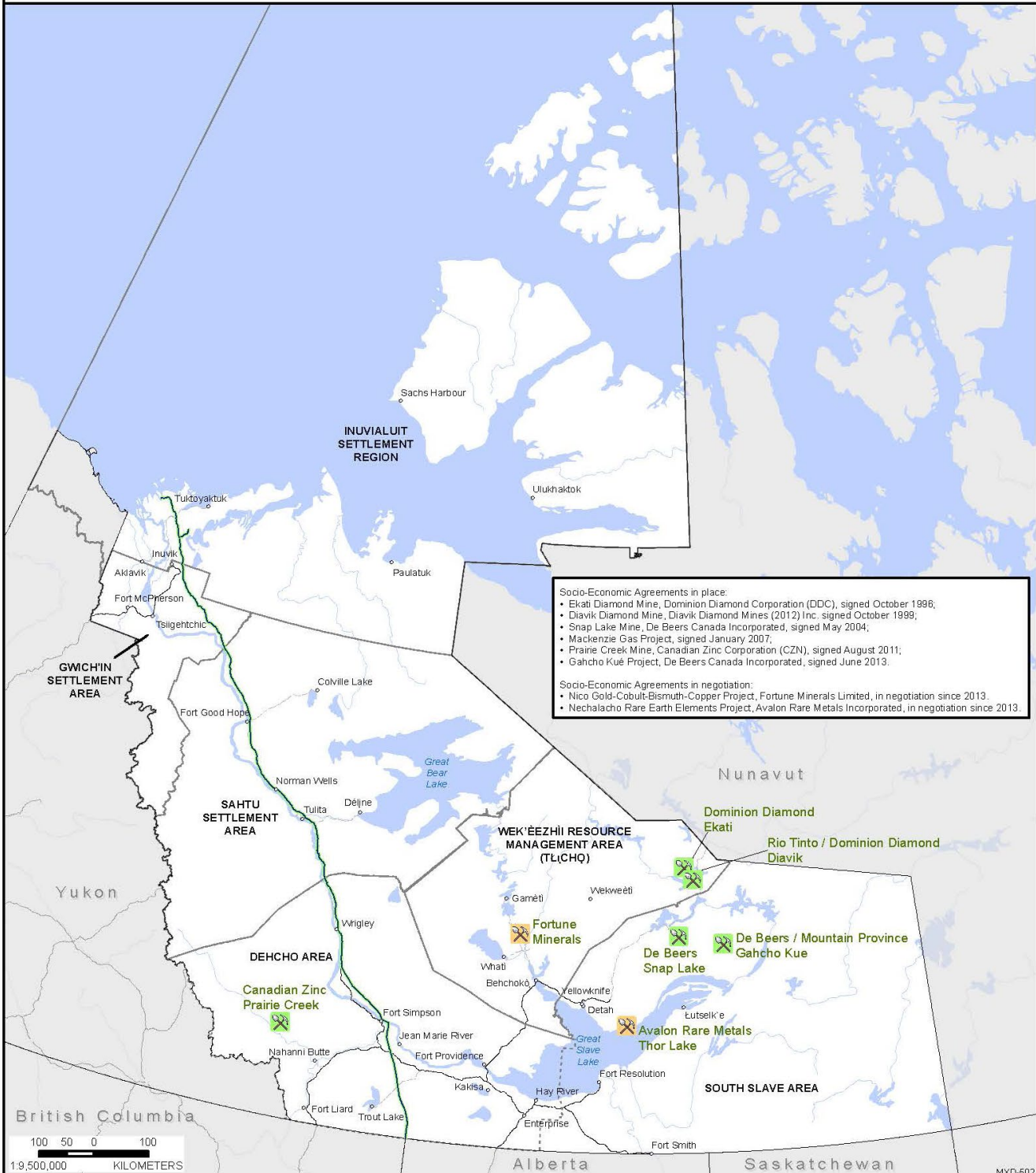
32. [http://www.iti.gov.nt.ca/sites/default/files/debeers\\_agreement\\_0.pdf](http://www.iti.gov.nt.ca/sites/default/files/debeers_agreement_0.pdf)

33. [http://www.iti.gov.nt.ca/sites/default/files/gnwt\\_mgp\\_sea\\_final.pdf](http://www.iti.gov.nt.ca/sites/default/files/gnwt_mgp_sea_final.pdf)

34. [http://www.iti.gov.nt.ca/sites/default/files/prairiecreeksea\\_signed20110822.pdf](http://www.iti.gov.nt.ca/sites/default/files/prairiecreeksea_signed20110822.pdf)

35. [http://www.iti.gov.nt.ca/sites/default/files/gahchokue\\_sea.pdf](http://www.iti.gov.nt.ca/sites/default/files/gahchokue_sea.pdf)

**Map 7: Development Projects where Socio-Economic Agreements are in Place between GNWT and Developer**



Socio-Economic Agreements in place:

- Ekati Diamond Mine, Dominion Diamond Corporation (DDC), signed October 1996;
- Diavik Diamond Mine, Diavik Diamond Mines (2012) Inc. signed October 1999;
- Snap Lake Mine, De Beers Canada Incorporated, signed May 2004;
- Mackenzie Gas Project, signed January 2007;
- Prairie Creek Mine, Canadian Zinc Corporation (CZN), signed August 2011;
- Gahcho Kué Project, De Beers Canada Incorporated, signed June 2013.

Socio-Economic Agreements in negotiation:

- Nico Gold-Cobalt-Bismuth-Copper Project, Fortune Minerals Limited, in negotiation since 2013.
- Nechalacho Rare Earth Elements Project, Avalon Rare Metals Incorporated, in negotiation since 2013.

19,500,000  
100 50 0 100  
KILOMETERS

MXD-502

**LEGEND**

**Socio-Economic Agreement with the GNWT**

- Agreement in place
- Agreement in negotiation
- Mackenzie Gas Project Proposed Route, Agreement in place

**Table 1: Cumulative Northern procurement achieved since the opening of each mine up to and including 2014 (in billions of dollars)**

Mine	Total Northern Procurement (by company in billions of dollars)	Percentage of total spent with northern companies and joint ventures
Diavik	5.2	72%
Ekati	5.1	74%
Snap Lake	1.4	69%
Total	11.8	72%

Sources: Diavik Diamond Mine 2014 Sustainable Development Report; 2014 Dominion Diamond Socio Economic Agreement Report; 2014 Snap Lake Mine Socio-Economic Report.

As of March 2015, the following SEA-related reports are published on ITI's website:

- 2014 *Communities and Diamonds Report*. Report date March 2015. Also published in French.
- *Implementation Report on Commitments Under the Diavik Socio-Economic Monitoring Agreement* July to December 2014. Report date March 2015.
- 2014 Annual Report: *Implementation Report on Commitments Under the Snap Lake Socio-Economic Agreement*. Report date March 2015.<sup>36</sup>

The GNWT Communities and Diamonds Annual Report<sup>37</sup> for 2014 was tabled in March 2015. The 2014 Communities and Diamonds Annual Report highlights employment and economic opportunities provided by the mining industry for businesses and residents across the NWT; and describes observed socio-economic trends. This report serves as a means to determine if, and how, mine activity may be affecting residents in Yellowknife and seven local communities in the NWT. According to a five-point framework, the report examines data informing on community, family and individual well-being, cultural well-being and traditional economy, non-traditional economy, net effect on government and sustainable development.

Dominion Diamond's 2013 Socio-Economic Agreement Report was published on the Dominion Diamond

Corporation website ([www.ddcorp.ca](http://www.ddcorp.ca)). This report details the SEA commitments for Ekati Diamond Mine.

Defined points-of-hire communities vary from mine to mine, but the GNWT has been working towards expanding community pick-ups to benefit NWT residents. Each mine is responsible for producing reports on the status of the implementation of the SEA commitments.

Only GNWT-authored reports are published on the GNWT websites. For 2014-2015 all reports were published online in a timely manner. In the 2015-16 fiscal year, Industrial Initiatives will continue publication of reports.<sup>38</sup>

Industrial Initiatives works with resource development companies on existing SEAs and collaborates with GNWT departments to ensure SEA implementation. Annual meetings took place in December 2014 with all three operating diamond mines and the GNWT. These annual meetings provide a vital opportunity for senior GNWT officials to speak directly to senior officials of the diamond mining companies in the NWT and to discuss the performance of the companies with regard to the SEAs and speak to future improvements. The Standing Committee on Economic Development and Infrastructure was also offered meetings with senior officials. This meeting offer provides SCEDI an

36. [http://www.iti.gov.nt.ca/sites/default/files/snap\\_lake\\_sema.pdf](http://www.iti.gov.nt.ca/sites/default/files/snap_lake_sema.pdf)

37. [http://www.iti.gov.nt.ca/sites/default/files/communities\\_and\\_diamonds\\_2014\\_annual\\_report\\_0.pdf](http://www.iti.gov.nt.ca/sites/default/files/communities_and_diamonds_2014_annual_report_0.pdf)

38. Industrial Initiatives, ITI website.

opportunity to speak directly to senior officials from the respective diamond mines, receive updates on performances and receive responses to any questions or comments SCEDI may have on the reports.

In 2014-15, GNWT departments and mining companies designed and conducted a 2014 Survey of Mining Employees<sup>39</sup> primarily to understand some of the push and pull factors regarding Northern residency. This second survey conducted by the NWT Bureau of Statistics showed that compared to 2009, education levels improved and the proportion of Non-NWT residents increased. Those on a two-week rotational work schedule were more likely (86.5 percent) to prefer their current schedule compared to other employees working Monday to Friday (78.5 percent) or four-day in, three-day out rotational schedules (45.5 percent). Employees living in the NWT identified pay and benefits as the distinct first priority for staying employed with their current mine. One in every three mining employees indicated that they were likely or very likely to look for another job in the next 12 months.

During 2014-15, Industrial Initiatives met with the Tłı̄ch̄ô Government, Lutsel K'e Dene First Nation, and Yellowknives Dene First Nation to discuss SEAs in their territories. These types of community meetings focused on discussing the Communities and Diamonds Report and SEA implementation reports produced and disseminated by mining companies. The meeting provided ample opportunity for dialogue and questions that were relevant to community and stakeholders with the aim of improving the benefits of SEAs for communities.

39. [http://www.iti.gov.nt.ca/sites/default/files/2014\\_nwt\\_survey\\_of\\_mining\\_employees\\_overall\\_report.pdf](http://www.iti.gov.nt.ca/sites/default/files/2014_nwt_survey_of_mining_employees_overall_report.pdf)

## **Goal 4.6: Businesses are better equipped to respond to opportunities created by sustainable mineral development in the NWT**

In order to facilitate business coordination, the creation of a Northern Mineral Business Officer position was brought forward. During 2014-15, this position was re-evaluated and implemented within ITI, as a Business Development Services Advisor. Staffing was planned for the 2015-16 year. The position is located in Yellowknife and aids businesses across all regions of the NWT to seek and explore potential development opportunities and expand their business opportunities; one of the roles of the officer is to create an inventory of mining industry needs and generate a listing of NWT businesses that meet those needs.

Funding is available to the mining sector for prospectors and mineral exploration companies in the

NWT via the Support for Entrepreneurs and Economic Development (SEED) program. The SEED program supports start-up funding, capital assistance, operational support and market and product development. Regional Offices delivered the SEED program to regions/communities via five regional offices and through five program categories: Entrepreneur Support, Sector Support, Community Economic Support, Micro Business and Business Intelligence and Networking. The SEED program was fully subscribed in 2013-14.

Under the SEED category, Micro Business, prospectors can apply for funding from the Prospector's Grubstake Program. The program has total funding of \$50,000 per year and provides funds to qualifying NWT prospectors for a wide range of activities. It is one way that the GNWT is working to stimulate grassroots mineral exploration in the NWT. This program was not subscribed to in 2014-15.

## Goal 4.7: Benefits of mineral development accrue to Aboriginal communities and all NWT residents

A Heritage Fund has been created by the Department of Finance via the *Northwest Territories Heritage Fund Act*. The purpose of the Heritage Fund is to save a portion of resource revenues received by the GNWT, for the benefit of future generations of NWT residents. For the first 20 years of the Fund both the principal and income generated in the Fund are to be retained within the Fund. After that, upon application to the Fund, a portion of the money may be allocated towards specific needs.

According to the Fund requirements, the GNWT makes contributions to the Fund of 25 percent of Net Fiscal Benefit consistent with policy established by the Legislative Assembly. This contribution will be completed during 2015-16, after the Public Accounts are prepared for the applicable fiscal year. The first major resource revenue deposit will be made post-October 2015 based on 2014-15 resource revenues.

Most royalties are received at the end of a fiscal year and the GNWT anticipates receiving \$60 million for non-renewable resource revenues for minerals, oil and gas.<sup>40</sup> The GNWT committed to share up to 25 percent of its portion of resource revenues with Aboriginal Governments. The remaining 25 percent will be transferred to the Heritage Fund.

Resource revenue sharing is anchored in the Devolution Agreement. Some Aboriginal Governments already receive resource revenue shares from public lands pursuant to their land claim and self-government agreements. The GNWT will be collecting resource revenues from public land in the NWT and sharing them in accordance with terms of the Devolution Agreement and its schedules, including the *NWT Intergovernmental Resource Revenue Sharing Agreement*.

### Q: What are Resource Revenues?

**A: Resource revenues are royalties, taxes, lease payments and fees paid to governments for mining and petroleum exploration and development activities, quarrying of aggregates such as gravel and uses of water on public land.**

40. GNWT Main Estimates 2015-16, released February 2015, page Viii, Summary of Revenues.

## PILLAR FIVE: ENRICHING WORKFORCE DEVELOPMENT AND PUBLIC AWARENESS

The aim of Pillar Five is to develop an educated, trained and readily available northern workforce and to foster an awareness of the importance of the mining industry. Skilled employees are required to support the future growth of mining and exploration. NWT employers seek to hire from the local labour force.

ECE is the lead within the GNWT in providing access to learning, this mandate includes continued, advanced personal development, be that training to acquire knowledge and/or skills specific to a trade. ECE supports the development, maintenance and delivery of programs delivered under the *Apprenticeship, Trade and Occupation Certification Act*. ECE has created several new initiatives and products, notably the three year employment outlook for the Territories in 2015, conducted by the Conference Board of Canada, and the Skills 4 Success Initiative, leading toward a 10-year labour force market strategic framework.

### **Workforce Development for Participation in the Mining Industry**

- Identify labour force needs
- Develop a skilled NWT workforce
- Improve student achievement levels
- Develop and implement certification standards
- Increase northerners' understanding of the mining industry



## Goal 5.1: Enable NWT residents to participate in the workforce and benefit from the employment opportunities in the mineral resource development sector

Commitments included in Impact and Benefit Agreements (confidential agreements between mining companies and Aboriginal governments and communities) and SEAs (agreements between the mining company and the GNWT) associate with projects the mitigation of negative impacts and optimization of employment, training and business opportunities. More than half of the NWT mine workforce is made up of NWT residents; other employees or contractors come from elsewhere. The number of mining jobs has the potential to grow significantly in the short-term if current projects in advanced stages of development enter production. In order to align a workforce with labour market needs, the GNWT committed to complete the NWT Labour Market Assessments.

The Mining Industry Human Resources Council (MiHR), contracted by the GNWT and Mine Training Society and with support by CanNor, produced two reports released in April 2015:

- 1) Northwest Territories Mining Hiring Requirements and Available Talent Forecast<sup>41</sup> and
- 2) Northern Territories Mining Hiring Requirements and Available Talent Forecast: An Overview of Canada's Three Territories<sup>42</sup>.

The reports provide information on the labour market pressures in the NWT's mining industry, and a forecast of its hiring requirements and available talent between 2014 and 2024. Projected gaps between hiring requirements and available talent for a select group of occupations relevant to the NWT's mining industry are also analyzed and potential strategies to address the gaps are included in the reports. Several salient details are highlighted in the reports:

- Insufficient available talent and dependence on a commuter workforce;
- Labour non-participants are commonly lacking advanced education (i.e., certificate, diploma, or degree);
- Unemployed commonly lack skills, or are not interested in mine-employment;
- There is a strong need for people in trades and production occupations.

The NWT-specific report estimates that in the mining sector 84 percent of employment is in mining, seven percent in mineral exploration and eight percent in mining support services. Approximately 45 percent of mine workers in the NWT are commuters from outside the NWT. The largest segment of NWT residents within the mining labour force (over 30 percent) is between 25-34 years of age. The median age of NWT residents is 32 years old.

The NWT mining industry employed approximately 3,700 people in 2013. Several scenarios are given to estimate the cumulative hiring requirements forecast for 2024. These vary from 340 to 3,100 employees. The hiring requirements are also separated into broad occupational categories; trades and production personnel are the largest segment.

The GNWT developed, delivered or supported the delivery of a variety of education and training, business development and health and wellness initiatives to support NWT residents and enable them to take advantage of employment opportunities associated with the mining industry in the NWT, including:

- Providing access to information through ECE Service Centres;
- Holding career fairs;
- Offering a diversity of education and training through Aurora College, Community Learning Centres and Adult Literacy and Basic Education; and
- Supporting Regional Training Committees.

41. <http://www.assembly.gov.nt.ca/sites/default/files/td188-175.pdf>

42. <https://www.ece.gov.nt.ca/files/pages/422/northwestterritoriesmininghiringrequirementsandavailabletalentforecasts.pdf>



Development of the 10-year NWT labour market strategic framework: ECE launched the Skills 4 Success Initiative and hosted the Skills 4 Success Symposium<sup>43</sup> in Yellowknife on March 10-12, 2015. The Skills 4 Success Initiative takes a systematic look at adult and post-secondary education, and skills training programs with the objective of enhancing skills available for in-demand jobs in the NWT. As part of the process, the Initiative presented four discussion papers:

- **NWT Labour Market Information;** <https://www.ece.gov.nt.ca/files/pages/931/1-labourmarketinformationdiscussionpaper.pdf>
- **Education and Employment Supports;** <https://www.ece.gov.nt.ca/files/pages/931/2-educationandemploymentsupportsdiscussionpaper.pdf>
- **Skills and Postsecondary Education;** and <https://www.ece.gov.nt.ca/files/pages/931/3-skillsandpostsecondaryeducationdiscussionpaper.pdf>
- **NWT Recruitment and Retention.** <https://www.ece.gov.nt.ca/files/pages/931/4-recruitmentandretentiondiscussionpaper.pdf>

Schools, education experts, and professional associations took part in the Skills 4 Success Symposium where the theme was “Improving Employment Success for NWT Residents.” Discussions at the symposium focused on finding ways to more effectively respond to employer and industry needs.<sup>44</sup> Topics included supply and demand of labour for the mineral sector. The symposium, discussion papers and engagement activities, along with the labour market assessment, will inform the development of the 10-year labour market strategic framework.

In October 2014, ECE contracted The Conference Board of Canada to undertake a NWT Labour Market Needs Assessment Report to help the GNWT better understand forecasted occupational demand in the NWT. The report was not available at the time of this report.

The GNWT meets regularly with existing mines to review commitments under SEAs. The second NWT

## **Mine Remediation Requires Jobs Too!**

**Currently not included in labour force needs assessments is the remediation of already closed mines in the NWT. One example of these is:**

**The Giant Mine Remediation Project: a large and long-term project estimated to require 133 potential positions.**

**The purpose of remediation is to contain and manage the waste, demolition and removal of all buildings on the surface and managing soils, groundwater and sediment so that these will function in a comparable fashion to their original state. Information can be found here:**

**<https://www.aadnc-aandc.gc.ca/eng/1100100027364/1100100027365>**

Survey of Diamond Mining Employees<sup>45</sup> was conducted by the NWT Bureau of Statistics in 2014, succeeding the first survey which was held during 2009. The survey of mine employees fulfills a commitment made by the mines in their respective SEA with the GNWT, and allows for the evaluation of perceptions on various motivating factors of employees. Information collected included demographic characteristics, employment experiences, health and wellness issues, and factors influencing decisions to relocate to the NWT.

The survey allowed the GNWT to identify changes in mine employment characteristics from the previous survey. Participating in the survey signified the industry's continued commitment to fulfill their respective SEA commitments (see SEA reporting under Pillar 4). In 2014-15, senior GNWT officials met with senior officials from each of the three active diamond mines to discuss achievements, address areas of concern and identify ways to work together to best meet commitments under the SEAs.

43. <https://www.ece.gov.nt.ca/files/pages/951/s4symposiumoverviewpresentationbyece.pdf>

44. <https://www.ece.gov.nt.ca/advanced-education/skills-4-success-initiative/skills-4-success-symposium>

45. <https://www.ece.gov.nt.ca/files/pages/422/northernterritoriesmininghiringrequirementsandavailabletalentforecastsanoverviewofcanadasthreeterritories.pdf>

## Goal 5.2: Develop an educated, skilled and trained NWT workforce that meets the mining sector's current and future needs

In order to develop an educated, skilled and trained NWT workforce that meets the mining sector's current and future needs, the GNWT increased the availability of training opportunities. Development of two new programs allowed for identification of training needs, formulation of long-term training plans and coordination of program delivery to communities.

A Geoscience Field Assistant Training program curriculum was developed in partnership with the NTGS and Aurora College. During 2014-15, it was not delivered due to reduced mineral exploration activities and fewer employment opportunities available in the NWT.

Regional Training Partnership Committees (RTPC) work together to identify training needs, develop training plans and coordinate the delivery of training in communities. RTPCs include Aboriginal governments, industry, Aboriginal Skills and Employment Training Strategy coordinators, GNWT departments and other regional labour market stakeholders. During 2014-15, the RTPCs developed action plans to address annual training needs. The RTPCs work toward identifying and addressing short and long-term training needs and aim to meet labour market demands. ECE participated as a member of all RTPCs in 2014-15 and supported each region in developing their training plans which set to meet specific community and regional goals and objectives.

RTPCs developed action plans to address annual training needs. ECE hired a Labour Market Training Coordinator in February 2014 and assisted in action planning and implementing the ECE's Labour Market Framework, and maintained a central training/workshop inventory. This new position attended RTPC meetings held in the Tłı̄ch̄o region. ECE was invited to be a member of this committee, which further strengthens the positive partnership between the Tłı̄ch̄o and ECE.

The GNWT employs Career Development Officers who conduct training needs analysis on an on-going basis. The information for the analysis was collected by 17 Career Development Officer's in Regional ECE Service Centers in 33 communities. The GNWT also employs Economic Development Officers. Economic Development Officers work with clients, both on an individual or organizational level, to develop business opportunities in a wide range of economic sectors, including mining.

Several studies have identified that job-ready candidates are in short supply in the mining industry. The lack of relevant field experience is an impediment to recent graduates entering the mining sector.<sup>46</sup> Access to individual skills development programs, training on the job, youth work experience programs and apprenticeship training can help support gaps in experience. ECE has a number of labour market agreements with the Government of Canada and these are the:

- Canada NWT Job Fund,
- Labour Market Development Agreement,
- Labour Market Agreement for Persons with Disabilities, and
- Targeted Initiative for Older Workers.

These agreements funded training opportunities in the territory with the aim of developing a skilled and trained northern workforce adaptive to the NWT labour market.

ECE supported participation in apprenticeship and occupational training and certifications in the NWT

***"For some occupations, the ability to train and develop talent will be manageable if immediate action is taken (e.g., for underground mine service and support workers). For other occupations, a blend of short-term and longer-term solutions will be needed (e.g., professional geoscientists)."***

46. [http://www.itl.gov.nt.ca/sites/default/files/2014\\_nwt\\_survey\\_of\\_mining\\_employees\\_overall\\_report.pdf](http://www.itl.gov.nt.ca/sites/default/files/2014_nwt_survey_of_mining_employees_overall_report.pdf)

between April 1 and September 30, 2014. ECE supported 287 individuals through individual skills development programs, training on the job, and youth work experience programs. Training included apprenticeship training in plumbing, carpentry, heavy equipment tech, machinery, welding, gas fitting, steam fitting/pipefitting and housing maintenance. In total, 89 apprenticeship training contracts were established with the private sector. Complete data from all three mines for the previous fiscal year is available in September the following fiscal year.

Other training supported includes: safety training, finance administration, driver's training, and trades helper. In total, 64 training contracts were established with the private sector. Third and fourth quarter data is still pending release for the 2014-15 year.

### **Goal 5.3: Improve student achievement, increase high school graduation rates**

ECE is currently addressing the restructuring of curricula and school programming to increase student participation in the K-12 system. In order to improve student achievement and increase high school graduation rates, school programming and curricula are being re-conceived and renewed through the Education Renewal (ERI) and Innovation Initiative (2013). The Education Renewal and Innovation Division works to improve student outcomes by taking a holistic approach to system-wide change and creating a system that better responds to the complex needs of NWT students and to the issues faced by small communities. The graduation rate in small NWT communities lies at 54 percent and is significantly lower than the overall NWT average rate of 65 percent. Through the ERI process the GNWT is determined to decrease this difference and to improve overall graduation rates as well.

School participation and graduation rates are important because students are able to progress on to trades and post-secondary learning that can lead them to careers in the mining sector. In 2014, a total of 8,419 students were enrolled from Kindergarten to Grade 12 in the NWT, including 3,466 in Yellowknife, 1,867 in Regional Centers, and 3,086 in the remaining NWT communities.

A renewed Early Childhood Development Framework (2013) will guide the GNWT's programs and services aimed at improving outcome in early childhood development. In order to design and provide access to high quality early childhood development programs, ECE and HSS renewed the *Right from the Start: A Framework for Early Childhood Development in the Northwest Territories*<sup>47</sup> in 2013. MIHR (2011)<sup>48</sup> found that promoting career awareness in elementary and middle schools provides the ideal time for early exposure to raising children's awareness about careers in mineral exploration and the mineral industry. In

47. [https://www.ece.gov.nt.ca/files/publications/ecd\\_framework\\_-\\_web\\_sept\\_2013.pdf](https://www.ece.gov.nt.ca/files/publications/ecd_framework_-_web_sept_2013.pdf)

48. [http://www.mihrc.ca/en/resources/MiHR\\_Unearthing\\_Possibilities\\_ExecSumm\\_final\\_ENG.pdf](http://www.mihrc.ca/en/resources/MiHR_Unearthing_Possibilities_ExecSumm_final_ENG.pdf)

particular, career awareness opportunities (e.g. career fairs) and experiential learning opportunities (e.g. trips to geology sites or exhibits) were key ways to build an understanding of geoscience and geology.<sup>49</sup>

ECE currently offers earth science programs from Kindergarten to Grade 9 and continues to incorporate earth science and geology into the academic curriculum. The MDS-IP identified key actions toward ensuring earth sciences and geology were part of academic curriculum at the high school level. The earth science and geology courses are provided through the NWT academic curriculum. In order to graduate in the NWT students must successfully complete either Grade 10 science or Grade 10 experiential science. Both courses include earth science and geology student learning outcomes. In the 2014-15 school year, students successfully completed Science 10 at a rate of 88 percent, Experiential Science 10 at 85 percent, Experiential Science 20 at 91 percent and Experiential Science 30 at a rate of 81 percent.

A Career Liaison Coordinator position (funded for 2014-15 and 2015-16) was to be established to provide a more focused and coordinated career development awareness program for students, employers, communities and governments. ECE did not fill the Career Liaison Coordinator position during 2014-15. The competition process took place but was unable to identify an appropriate candidate and recruitment is currently cancelled.

The GNWT is continuing to work with the Mine Training Society, Aboriginal, territorial and federal government partners to advance actions related to funding of the Pan-Territorial Northern Mineral Workforce Development Strategy. Guidance on investment in training has been established and funding further extended. The Mineral Resources Workforce Development Strategy (2012) highlighted the need for mineral-related training in the three northern territories. In addition, the Northern Territories Mining Hiring Requirements and Available Talent Forecasts validated the findings and direction of the Mineral Resources Workshop Development Strategy. In order to enhance training, the Government of Canada's Employment Skills Development Canada extended funding to the MTS for 2015-2016. The Society expects a call for proposal in 2015 for implementation of a new Skilled Partnerships Fund. The fund will enable the MTS to develop and provide further training related to the minerals sector. ECE has partnered with MTS to develop curriculum for the Surface Mining Training program.

49. [http://www.mihrc.ca/en/resources/MiHR\\_Unearthing\\_Possibilities\\_ExecSumm\\_final\\_ENG.pdf](http://www.mihrc.ca/en/resources/MiHR_Unearthing_Possibilities_ExecSumm_final_ENG.pdf)

## Goal 5.4: Develop and Implement Training and Certification Standards for the Mining Sector

One of the goals of the MDS is to develop and implement training and certification standards for the mining sector. Occupational standards have many benefits for the NWT, among them are the following:

- Industry developed relevant job descriptions and performance evaluations exist and do not need to be re-invented;
- Standards serve as a basis for curriculum development;
- Standards allows job seekers to understand the occupation in advance; and
- Standards provide the basis of a certification process and place a trainee in the position to have her/his knowledge, skills and abilities formally recognized.

Certification and ongoing education are part of the foundation for a qualified northern workforce. By establishing and communicating certification standards for the mining sector, the GNWT will help Northerners prepare for certification and support ongoing education and skill development. Five key objectives were put forward in the MDS implementation plan and were implemented as shown in the text box 'Trades training and certification in the NWT'.

The GNWT was to establish an Industry Training and Standards Coordinator in 2014-15. This position continues to be a consideration.

Establishing and communicating standards will help Northerners prepare for certification and support ongoing education and skill development. ECE's Apprenticeship, Trades and Occupation Certification program develops, maintains and delivers designated trade and occupation training programs which contribute to the development of a skilled northern workforce. There are 53 designated trades and 27 designated occupations in the NWT. Technical training for five trades is offered in the NWT:

- Plumber;
- Carpenter;
- Electrician;

### Trades training and certification in the NWT

- Apprenticeship, Trades and Occupation Certification Program administered by ECE
- New professional standards were developed for: industrial trainer, hoist lift operator, front-line supervisor
- Geoscience Field Assistant Training Program developed jointly by NTGS and Aurora College
- Surface Mining Training Program curriculum developed jointly by ECE and MTS

- Heavy Equipment Technician; and
- Oil Heat System Technician.

Training for all other trades professions is offered by the Province of Alberta. Occupational certification is coordinated between ECE and other GNWT departments depending on occupation. There are approximately 430 registered apprentices on an annual basis who are enrolled and approximately 300 per year attend technical training.

Four mining industry standards exist for underground miner, surface miner, diamond driller, and mineral processor. The MiHR ensures standards are reviewed every three years. The availability of certification has increased the ability for NWT residents to become certified and skilled.

The GNWT and the MTS have established strong relationships and certification accreditation with all three diamond mines operating in the NWT. As a result of this collaboration, the GNWT, Mine Training Society and industry work jointly to ensure up to date competitive standards are in place in the NWT and training programs are readily accessible to the local labour supply. In 2014-15, new professional standards were development including industrial trainer, hoist lift operator, and front line supervisor.

The GNWT committed to build strong partnerships with industry and strategic partners to develop training programs. During 2014-15, the GNWT provided financial support for the development of the Introduction to Mining Industry curriculum. Aurora College will be working with ECE to have all five modules turned into CTS dual credits. A dual credit opportunity enables high school students to earn both high school and post-secondary credits for the same courses.

The GNWT is partnering with industry and strategic partners in order to develop and offer training programs. There are three key agencies that play a role in furthering education and skill development between the GNWT, industry and educational institutions and which includes NTGS, ECE and the MTS.

## Goal 5.5: Increase Northerners' understanding of the mineral exploration and mining industry and the associated educational requirements, training and employment opportunities

In conjunction with partners, the GNWT developed and delivered a coordinated strategic public awareness campaign. Primary audiences of the campaign included students, parents, NWT residents, educators, industry and employers. Activities focused on school visits in communities, science camps, adult education events, co-teaching with Aurora College instructors, and public courses on prospector training. In addition, two NWT annual events were organized and delivered: the NWT Mining Week and the Yellowknife Geoscience Forum.

During 2014-15, ITI through the NTGS and MRD collaborated with several partners in order to increase knowledge about the mineral exploration and mining industry in the NWT and the associated educational requirements. Partners included:

- COM;
- Aurora College;
- Daring Lake Tundra Science Camp;
- ECE.

During 2014-15, the NTGS undertook a wide range of youth and adult educational activities promoting the understanding of geoscience, mineral exploration, and the mining industry. The NTGS participated in the following adult educational events and outreach activities catering to elementary and high school students:

- 1) Visited schools in Yellowknife, N'dilo, Behchokò, and Łutsel K'e;
- 2) Provided teaching geoscience at the Daring Lake Tundra Science Camp;
- 3) Hosted the University of Alberta field school;
- 4) Provided teaching at the Aurora College Environment and Natural Resources Technology Program in Fort Smith and at the Aurora College ENRTP in Inuvik;

- 5) Offered two short courses available to the public during the 2014 Yellowknife Geoscience Forum entitled Introduction to Exploration and Mining;
- 6) Co-hosted the 2014 Yellowknife Geoscience Forum and delivered the educational outreach component: NTGS organized school visits during the public hours and offered four sessions of hands-on geosciences activities and four hours of career activities during the Trade Show. Over 380 students from Grades three to 12 and 17 teachers visited the Geoscience Tradeshow. A total of 110 of these students engaged in activities organized by the NTGS outreach team. Each student received a t-shirt;
- 7) Hosted community engagement activities in the Norman Wells, Fort Good Hope, Tulita, and Łutselk'e, as well as engagement with the Yellowknives Dene First Nation, North Slave Métis Alliance, Gwich'in Regional Resource Council, and Inuvialuit Game Council.

CSCR facilitated the attendance of individuals from the communities to attend the Yellowknife Geoscience Forum. Details on this outreach are covered under Pillar Three.

The 2014 Mining Week event was held in June and focused on the Annual Mine Rescue Competition and Miners Picnic, hosted by the Workers Safety and Compensation Commission (WSSCC) in partnership with the COM.

In conjunction with Mining Week, a two-day 'Introduction to Prospecting' course was completed by 30 participants on June 14 and 15, 2015. Participants completed one day of classroom instruction learning about prospecting for minerals, bush navigation and safety, sampling methods, claim staking and NWT geology. The second day field trip provided hands-on prospecting training by professional field instructors at a field location outside of Yellowknife. The course was developed and delivered by the NTGS with the COM and TerraX Minerals Incorporated. The course was open to the public and was over-subscribed.

# STRENGTHENING OUR PROGRESS AND FUTURE PRIORITIES

In order to continue implementing the MDS successfully, government and partners can build on the successes and learn from the challenges experienced in this first year. Checking progress regularly through reports and workshops will help ensure that initiatives are working in support of the MDS.

The continuing priorities of the lead departments and partners are keys to the success of implementing the MDS. Some key priorities are being planned or are already underway:

- Developing a five-year MDS implementation plan;
- Creating an incentive program for exploration companies (double credits);
- Completing the formation of the MIAB and holding two meetings in 2015; and
- Focus on engagement and capacity building.

## Refining the Strategic Plan

During the first year of implementing the MDS, many activities focused on Devolution and the administrative and organizational restructuring enabling to take responsibility for new authorities. This report identifies the areas where progress was made. It also identifies areas in which goals and objectives may require review and adjustment. In the coming year, we will refine our strategic priorities, strategic outcomes and performance measures.







## APPENDICES

<b>APPENDIX A .....</b>	<b>63</b>
<i>NWT Acts and Regulations Mirrored and in effect on April 1, 2014</i>	
<b>APPENDIX B.....</b>	<b>65</b>
<i>Administrative and Institutional Capacities in the GNWT Created on or after April 1, 2014</i>	
<b>APPENDIX C .....</b>	<b>67</b>
<i>List of Acronyms</i>	
<b>APPENDIX D.....</b>	<b>68</b>
<i>GNWT Strategies and Policy Documents Complementing the Goals of the MDS</i>	

## APPENDIX A: NWT ACTS AND REGULATIONS MIRRORED AND IN EFFECT ON APRIL 1, 2014

NWT Legislative Assembly Bills	Acts	Regulations	Responsible GNWT Department
Bill 17	Northwest Territories Lands Act		Lands
		Mining Regulations	ITI
		Coal Regulations	ITI
		Dredging Regulations	ITI
		Quarrying Regulations	Lands
		NWT Land Use Regulations	Lands
		NWT Territories Lands Regulations	Lands
		Oil and Gas Land Regulations (in process)	ITI
	Surface Rights Board Act	(newly created)	Lands
Bill 11	Petroleum Resources Act		ITI
		Environmental Studies Research Fund Regions Regulations	ITI
		Petroleum Lands Royalty Regulations	ITI
		Petroleum Lands Registration Regulations	ITI
Bill 13	Devolution Measures Act		EXEC
Bill 14	Waters Act		ENR
		Waters Regulation	ENR
		Expropriation Fees Regulation	ENR
Bill 15	Oil and Gas Operations Act		ITI
		Oil and Gas Certificate of Fitness Regulations	ITI
		Oil and Gas Diving Regulations	ITI
		Oil and Gas Drilling and Production Regulations	ITI
		Oil and Gas Geophysical Operations Regulations	ITI
		Oil and Gas Installation Regulations	ITI
		Oil and Gas Operations Regulations	ITI
		Oil and Gas Spills and Debris Liability Regulations	ITI

NWT Legislative Assembly Bills	Acts	Regulations	Responsible GNWT Department
Bill 16	Northwest Territories Intergovernmental Resource Revenue Sharing Agreement Act		DAAIR
	Reindeer Act	Reindeer Regulations	ENR
	Archaeological Sites Act	Archaeological Sites Regulations	ECE
	Safety Act	(existing)	WSCC
		Oil and Gas Occupational Safety and Health Regulations	WSCC
	Northwest Territories Intergovernmental Agreement on Lands and Resources Management Act	(Not regulation) Intergovernmental Council on Land and Resource Management	DAAIR

## APPENDIX B: ADMINISTRATIVE AND INSTITUTIONAL CAPACITIES IN THE GNWT CREATED ON OR AFTER APRIL 1, 2014

Capacity Created	Department	Responsibilities
Mineral Resources Division	ITI	Mineral resource planning and policy initiatives and responsible for the implementation of MDS
Mining Recorder's Office of the Mineral Resources Division	ITI	Subsurface mineral rights administration and registration, maintenance and record keeping, provision of client service
Northwest Territories Geological Survey (NTGS)	ITI	Center for all geoscience knowledge about the NWT, delivery of geoscience services and programs, provisions of technical advice to industry, communities and governments, publishing of geoscience information, outreach and education, maintains the largest geoscience library in Canada's North.
Financial Analysis and Royalty Administration (FARA)	ITI	Administers the minerals as well as the onshore oil and gas royalty regimes, diamond valuations, and royalty audits.
Client Services and Community Relations Unit (CSCR)	ITI	Provides hands-on expert assistance to clients to efficiently navigate the post Devolution regulatory process in the NWT, assist with Aboriginal engagement initiatives, and establish engagement roadmaps.
Department of Lands	LANDS	Administration and management of public lands, land use sustainability standards, guidelines and policies, land use initiatives, project assessment, land use planning, land use administration, including permitting and securities compliance and enforcement of land use, including inspections.
Liabilities and Financial Assurances Division	LANDS	Management of environmental liabilities and securities for resource development projects in the NWT.
Surface Rights Board	LANDS	A board designed to oversee resolution of disputes related to Gwich'in, Sahtu and Tłı́chô Settlement Lands.
Water Resources Division	ENR	Responsible for managing onshore waters in the NWT.
Water Regulatory Section of the Water Resources Division	ENR	Shares responsibility for regulating water use in the NWT with the land and water boards created under land claim agreements. Provides advice on EAs and water licencing, and includes water rights, water use, waste disposal, reclamation, and security deposits

Capacity Created	Department	Responsibilities
Water Resource Officers	ENR	Located in the regional offices in Fort Smith, Norman Wells, Inuvik, and Yellowknife.
Water Research and Studies Section of the Water Resources Division	ENR	Develop and manage water quality and quantity programs, conduct research and aquatic ecosystem studies, trans-boundary river monitoring, analyze scientific data and prepare technical and public reports; EAs and water licensing.
Taiga Environmental Laboratory	ENR	Performance of analytical services.

## APPENDIX C: LIST OF ACRONYMS

AANDC	Aboriginal Affairs and Northern Development Canada	MIAB	Mining Industry Advisory Board
ARI	Aurora Research Institute	MIP	Mining Incentive Program
CanNor	Canadian Northern Economic Development Agency	MITS	Mineral Information Tenure System
CE	Cumulative Effects	MOU	Memorandum of Understanding
COM	NWT & Nunavut Chamber of Mines	MRD	Mineral Resources Division of ITI
CSCR	Client Services and Community Relations unit of ITI	MVRMA	Mackenzie Valley Resource Management Act
DAAIR	Department of Aboriginal Affairs and Intergovernmental Relations	NPMO	Northern Projects Management Office
DOT	Department of Transportation	NRCan	Natural Resources Canada
EA	Environmental Assessment	NTGO	Northwest Territories Geoscience Office
ECE	Department of Education Culture and Employment	NTGS	Northwest Territories Geological Survey
ENR	Department of Environment and Natural Resources	NWT	Northwest Territories
EOS	Economic Opportunities Strategy	PAB	Project Assessment Branch
EXE	Department of Executive	PWS	Department of Public Works and Services
GNWT	Government of the Northwest Territories	RTPC	Regional Training Partnership Committee
HSS	Department of Health and Social Services	SEA	Socio-Economic Agreement
IT	Information Technology	SEED	Support for Entrepreneurs and Economic Development
ITI	Department of Industry Tourism and Investment	SGP	Slave Geological Province
LANDS	Department of Lands	SRB	Surface Rights Board
LNG	Liquefied Natural Gas	SSI	Sahtu Secretariat Incorporated
LUSF	Land Use and Sustainability Framework	TC	Transport Canada
MDS	Mineral Development Strategy	WRD	Water Resources Division
MDS-IP	Mineral Development Strategy Implementation Plan	WSSC	Workers Safety and Compensation Commission
MiHR	Mining Industry Human Resources Council	WWHPP	Wildlife and Wildlife Habitat Protection Plans

# APPENDIX D: GNWT Strategies and Policy Documents Complementing the Goals of the MDS

## MDS and Background

**Achieving our Priorities – Believing in People and building on the Strengths of Northerners. The NWT 17th Legislative Assembly's strategic plan. 2013.**

[http://www.assembly.gov.nt.ca/sites/default/files/13-11-07td\\_15-175.pdf](http://www.assembly.gov.nt.ca/sites/default/files/13-11-07td_15-175.pdf)

**NWT Mineral Development Strategy Implementation Plan (MDS-IP). 2014**

[http://www.iti.gov.nt.ca/sites/default/files/mineral\\_development\\_strategy\\_implementationplan.pdf](http://www.iti.gov.nt.ca/sites/default/files/mineral_development_strategy_implementationplan.pdf)

**Northwest Territories Mineral Development Strategy (MDS). 2013**

<http://news.exec.gov.nt.ca/wp-content/uploads/Mineral-Development-Strategy.pdf>

**Pathways to Mineral Development. 2013**

[http://www.assembly.gov.nt.ca/sites/default/files/13-06-04td\\_87-174.pdf](http://www.assembly.gov.nt.ca/sites/default/files/13-06-04td_87-174.pdf)

**NWT Mineral Development Strategy – Discussion Paper. 2013.**

[http://www.iti.gov.nt.ca/sites/default/files/ITI\\_4346\\_Minerals\\_Development\\_Discussion\\_Paper\\_WR.pdf](http://www.iti.gov.nt.ca/sites/default/files/ITI_4346_Minerals_Development_Discussion_Paper_WR.pdf)

## Pillar One

**Northwest Territories Geoscience Office Strategic Plan 2011 – 2016.**

[http://www.nwtgeoscience.ca/sites/default/files/ntgo\\_strategic\\_plan\\_technical\\_english\\_web.pdf](http://www.nwtgeoscience.ca/sites/default/files/ntgo_strategic_plan_technical_english_web.pdf)

**2014 Northwest Territories Energy Charrette. Charrette Final Report. November 2014.**

<http://www.iti.gov.nt.ca/publications/nwt-energy-charrette-final-report>

**Northwest Territories Energy Action Plan. A Three-Year Action Plan and a Long-Term Vision. December 2013.**

[http://www.iti.gov.nt.ca/sites/default/files/energy\\_action\\_plan\\_web\\_feb\\_20.pdf](http://www.iti.gov.nt.ca/sites/default/files/energy_action_plan_web_feb_20.pdf)

**A VISION for the NWT Power System Plan. December 2013.**

[http://www.iti.gov.nt.ca/sites/default/files/nwt\\_power\\_systems\\_plan\\_december2013.pdf](http://www.iti.gov.nt.ca/sites/default/files/nwt_power_systems_plan_december2013.pdf)

**NWT Biomass Energy Strategy 2012 - 2015**

[http://www.grrb.nt.ca/pdf/forestry/NWT\\_Biomass\\_Energy\\_Strategy.pdf](http://www.grrb.nt.ca/pdf/forestry/NWT_Biomass_Energy_Strategy.pdf)

**Connecting Us: Northwest Territories Transportation Strategy 2015-2040**

<http://www.assembly.gov.nt.ca/sites/default/files/td267-175.pdf>

**NWT Transportation Strategy 2015-2040. Public and Stakeholder Engagement Report, February 2015**

<http://www.assembly.gov.nt.ca/sites/default/files/td199-175.pdf>

**Guidelines for Safe Ice Construction. 2015.**

[http://www.dot.gov.nt.ca/\\_live/documents/content/0016-001%20Norex%20Ice%20Road%20Constr.\\_WEB.pdf](http://www.dot.gov.nt.ca/_live/documents/content/0016-001%20Norex%20Ice%20Road%20Constr._WEB.pdf)

**Corridors for Canada III: Building for Prosperity. A Plan for Strategic Investment in NWT Transportation Infrastructure. June 2013**

[http://www.dot.gov.nt.ca/\\_live/documents/content/C%20for%20C3%2013-06-04%20FINAL.pdf](http://www.dot.gov.nt.ca/_live/documents/content/C%20for%20C3%2013-06-04%20FINAL.pdf)

**Corridors for Canada II: Building on Our Success. 2005.**

[http://www.dot.gov.nt.ca/\\_live/documents/content/Corridors%20for%20Canada%20II%20-%20Building%20on%20our%20Success.pdf](http://www.dot.gov.nt.ca/_live/documents/content/Corridors%20for%20Canada%20II%20-%20Building%20on%20our%20Success.pdf)

**Northwest Territories Economic Opportunities Strategy (EOS). Connecting Businesses and Communities to Economic Opportunities.**

<http://nwtopportunities.com/>

## **Pillar Two**

**Northwest Territories Intergovernmental Agreement on Lands and Resources Management, named the Devolution Agreement**

<http://devolution.gov.nt.ca/wp-content/uploads/2013/09/Final-Devolution-Agreement.pdf>

**Northwest Territories Devolution Act (Bill C-15)**

[http://laws-lois.justice.gc.ca/eng/AnnualStatutes/2014\\_2/FullText.html](http://laws-lois.justice.gc.ca/eng/AnnualStatutes/2014_2/FullText.html)

## **Pillar Three**

**Respect, Recognition, Responsibility – The Government of the Northwest Territories’ Approach to Engaging with Aboriginal Governments. GNWT. Yellowknife. 2012.**

[http://www.daair.gov.nt.ca/\\_live/documents/content/RRR%20English%20Brochure.pdf](http://www.daair.gov.nt.ca/_live/documents/content/RRR%20English%20Brochure.pdf)

## **Pillar Four**

**Sustainable Development. Statement of Policy. Government of the Northwest Territories. Revised March 10, 2005**

[http://www.enr.gov.nt.ca/sites/default/files/documents/53\\_02\\_sustainable\\_development\\_policy.pdf](http://www.enr.gov.nt.ca/sites/default/files/documents/53_02_sustainable_development_policy.pdf) Northern

**Lands – Northern Leadership. GNWT Land Use and Sustainability Framework. 2013.**

<http://www.executive.gov.nt.ca/initiatives/land-use-sustainability/documents/LUSF.pdf>

**Northern Voices, Northern Waters. NWT Water Stewardship Strategy. 2010.**

[http://www.enr.gov.nt.ca/sites/default/files/strategies/nwt\\_water\\_stewardship\\_strategy.pdf](http://www.enr.gov.nt.ca/sites/default/files/strategies/nwt_water_stewardship_strategy.pdf)

**Northwest Territories Protected Areas Strategy. A Balanced Approach to Establishing Protected Areas in the Northwest Territories. 1999.**

<http://www.nwtpas.ca/documents/document-1999-PASmanualcomplete.pdf>

**Northwest Territories Protected Areas Strategy Guidelines for Non-renewable Resource Assessment.**

<http://www.nwtpas.ca/documents/guidelines-2015-nonrenewable.pdf>



**Wildlife and Wildlife Habitat Protection Plan and Wildlife Effects Monitoring Program Guidelines. Draft, November 18, 2014.**

[http://www.reviewboard.ca/upload/project\\_document/EA1415-02\\_Wildlife\\_and\\_Wildlife\\_Habitat\\_Protection\\_Plan\\_and\\_Wildlife\\_Effects\\_Monitoring\\_Program\\_Guidelines.PDF](http://www.reviewboard.ca/upload/project_document/EA1415-02_Wildlife_and_Wildlife_Habitat_Protection_Plan_and_Wildlife_Effects_Monitoring_Program_Guidelines.PDF)

**NWT Economic Opportunities Strategy (EOS)**

<http://nwtopportunities.com/sites/default/files/NWT%20Economic%20Opportunities%20Strategy.pdf>

**NWT EOS Implementation Plan 2014**

<http://nwtopportunities.com/sites/default/files/NWT%20EOS%20Implementation%20Plan%202014.pdf>

## **Pillar Five**

**Government of the Northwest Territories Anti-Poverty Action Plan. Building on the Strengths of Northerners 2014/15 - 2015/16. 2014.**

<http://www.hss.gov.nt.ca/sites/default/files/gnwt-anti-poverty-action-plan.pdf>

**Building on the Strengths of Northerners - A Strategic Framework toward the Elimination of Poverty in the NWT. 2013.**

[http://www.hss.gov.nt.ca/sites/default/files/anti-poverty\\_report.pdf](http://www.hss.gov.nt.ca/sites/default/files/anti-poverty_report.pdf)

**Action Plan 2012-2016 20/20: A Brilliant North NWT Public Service Strategic Plan.**

<http://www.hr.gov.nt.ca/sites/default/files/finalactionplan2012-2016.pdf>







**For more information, contact:**

Minerals, Oil and Gas Division  
Department of Industry, Tourism and Investment  
Government of the Northwest Territories  
Box 1320 Yellowknife, NT X1A 2L9  
T: (867) 920-3222  
E: [mineraldevelopmentstrategy@gov.nt.ca](mailto:mineraldevelopmentstrategy@gov.nt.ca)