



# DOT Priorities & Perspectives Canada Transportation Act Review

Government of the Northwest Territories  
Department of Transportation  
December 2014

December 23, 2014



## Introduction

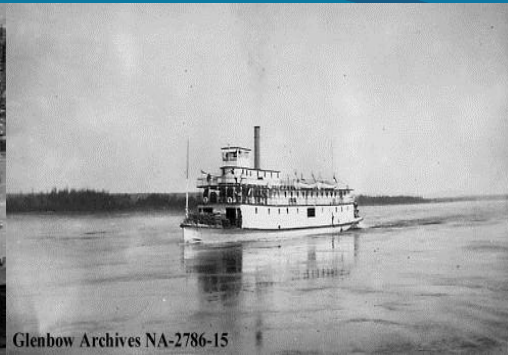
- The Northwest Territories is a land rich in people and resources covering almost 1.2 million square kilometers—over 10 percent of Canada’s land mass. Within this vast area is a population of 43,600 living in 33 communities.
- Only one-third of the land area of the Northwest Territories is within 100 kilometers of an all-weather road. Air and marine transportation thus play a very important role in the mobility of Northerners.
- Transportation infrastructure allows an economy to begin, grow and prosper through increased access to essential goods and services and to natural resources.
- Linking communities within a region provides jobs, fosters social development and trade, and allows for the flow of labor.



## DOT History

- **The Department of Transportation (DOT) was created in 1989, and states its mission as “to provide for the safe, secure, accessible and reliable movement of people and goods to serve the social, economic, and political needs and aspirations of the people of the Northwest Territories.”**
- **Some of the DOT’s major goals are:**
  - Continued improvement of the NWT Transportation system to support economic growth and social development.
  - A continued high level of business and employment opportunities in the transportation sector
  - A safe and secure transportation system in all modes.
  - Maintaining the pristine quality of the NWT environment.
  - Continued support for local transportation infrastructure resulting in improved community access, a reduced cost of living, and continued growth in business, tourism and economic development.





Glenbow Archives NA-2786-15



The first Aeroplane Port Smith

## Early NWT Transportation

- Operation and maintenance of the public transportation system in the NWT was originally the sole responsibility of the Government of Canada.
- Marine transportation was the primary means of moving large, heavy volumes of goods, especially for the early mining industry in the NWT, as well as Imperial Oil's Norman Wells Operation which commenced commercial oil production in 1932.
- On the land, the early transportation infrastructure in the NWT was fairly basic in nature, with public roads and other public transportation infrastructure such as airports virtually non-existent.
- The advent of bush planes started to open up the NWT and the North, allowing for more rapid transportation into the most remote locations.



## Early NWT Transportation

- In the period from 1930 to 1950 the transportation system in the NWT very slowly continued to evolve, serving various small communities and both the Hudson's Bay Company's interests and those of the Northwest Company as well as prospectors and the mineral exploration industry.
- The early bush planes were supplemented by larger and more capable aircraft capable of carrying additional numbers of passengers and cargo over longer distances, such as the Beech 18.
- During World War II the first major construction of airports in the NWT took place, with the military constructing gravel runway airports at Hay River, Fort Simpson, and Norman Wells.
- These military airports were transferred to the Federal Government after WWII, and later to DOT.
- Conservative Prime Minister John G. Diefenbaker "Roads to Resources" Program led to a wave of road construction by the Federal Government in the NWT, including the construction of DOT's current Highway 4, the Ingraham Trail.
- The Ingraham Trail (Highway 4) was constructed in the mid-1960's for a distance of 70 km east of Yellowknife into an area that is very rich in mineral resources, the Slave Geologic Province, as the first leg of a "Road to Resources" into the interior of the Arctic, but it stopped far short of its ultimate goal.
- Billions of dollars in revenues have resulted for Canada and the NWT as a direct result of this modest early investment in NWT transportation infrastructure development by the Federal Government.

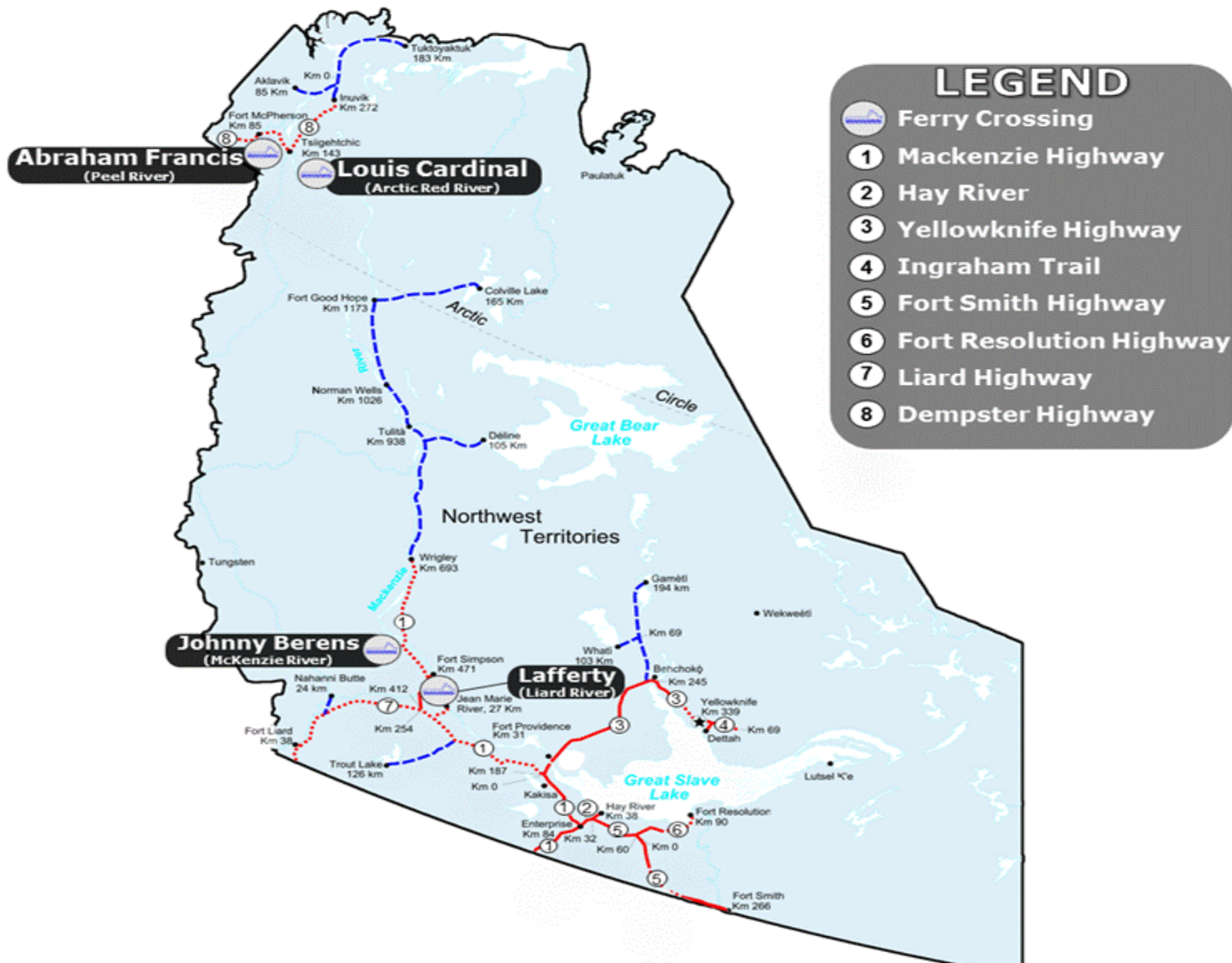


## NWT Transportation System

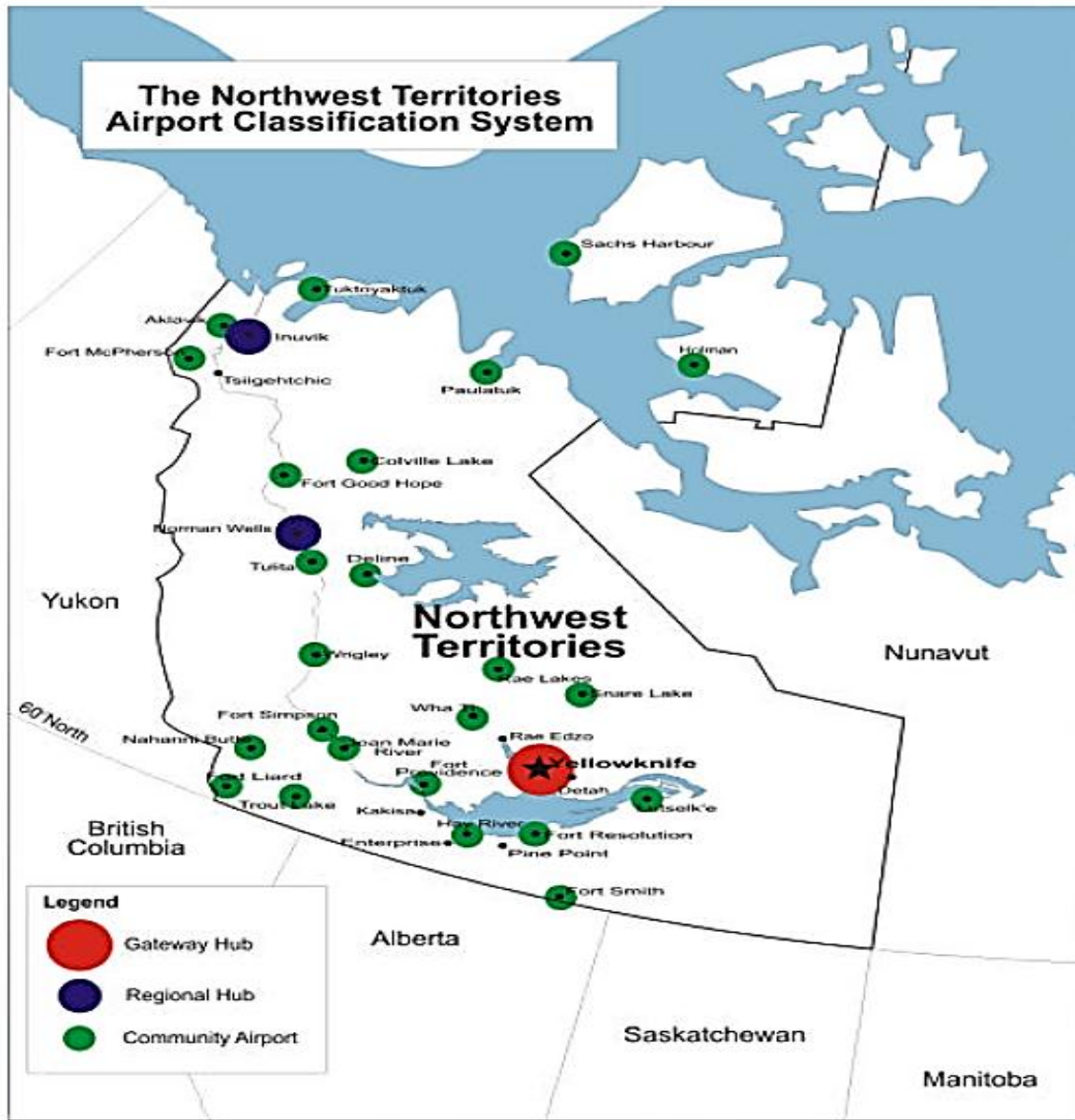
Over 300 DOT employees operate, maintain, repair, and construct the NWT transportation system's infrastructure in partnership with private and aboriginal-owned companies. The transportation system includes:

- 2200 km of All-Weather Highways.
  - 1425 km of Seasonal Winter Roads.
  - 95 Bridges and 244 Major Culverts.
  - 27 Public Airports.
  - 4 Public Ferries.
- CN provides rail service to the Port of Hay River and Edmonton via the 965 km Smith and Meander subdivisions. 130 km of the Meander Subdivision is located within the NWT.
  - CN transports around 4000 carloads per year into Hay River, particularly bulk fuel. At Hay River cargoes are transferred from CN Rail to trucks and to Northern Transportation Company Limited barges for shipment throughout the NWT and western Nunavut.
  - The Government of Canada bears responsibility for support services and critical navigation charts and community infrastructure used by the commercial marine sector across Northern Canada.





## The Northwest Territories Airport Classification System







## Serving Social Needs

- The transportation system in the NWT serves very important social needs, including providing accessibility for residents, especially those living in remote rural communities, and reducing isolation.
- Transportation ensures access to important services that serve social needs including:
  - Health/Medical
  - Education
  - Shopping and Services
  - Cultural
  - Sports and Recreational
  - Social Programs
  - Economic Development



## Competition & Market Forces

- The Department of Transportation recognizes the role of competition and market forces in the NWT marketplace among the various modes of transportation, and strongly agrees that industry needs to be driven by market forces.
- The government's role is to ensure an equitable playing field and open access.
- Government intervention should only be used under extreme circumstances.
- DOT monitors the NWT transportation system with regards to competition, pricing, and the maintenance of market forces and competition.



## Sustainable Economic Development

Sustainable economic development is critically important to the NWT and the North. It is important to recognize that:

- Efficient and cost-effective transportation services are critical to the development of the NWT's economy and considerable resource potential.
- Current land use permitting and environmental assessment processes are very cumbersome.
- Inefficient permitting and assessment processes result in project implementation delays and added costs for the Department of Transportation.



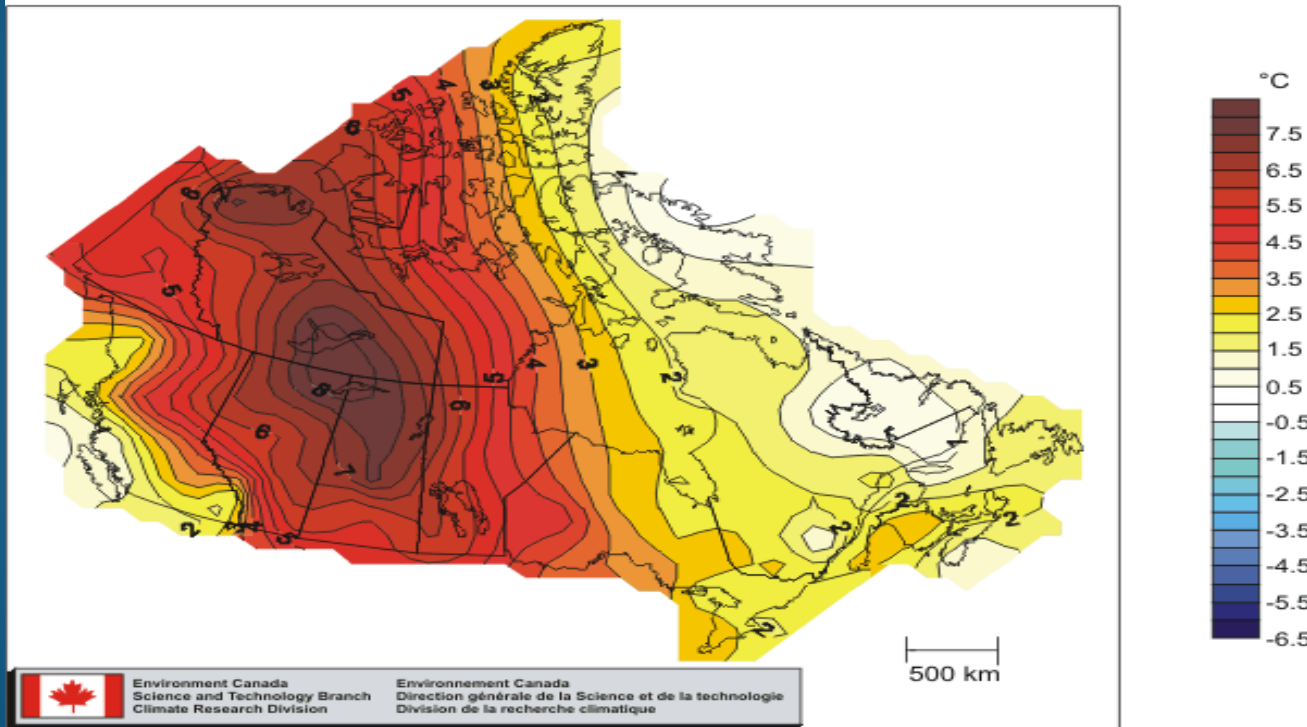


## Climate Change

- The Northwest Territories faces many unique challenges to the operation of an effective transportation system.
- Over the past decades the harsh climate, geographic distances between communities and markets, limited construction season, sensitivity of the environment and developing economy have been the important considerations in the construction, operation and maintenance of transportation infrastructure.
- Now, climate change and aging infrastructure are the preeminent challenges.
- During the Winter of 2005-06 temperature increases of between 4.5 and 7.5 degrees Celsius were experienced in the NWT.
- This warmer weather shortened the Tibbett-to-Contwoyto Winter Road season from 70 to 50 days.
- The result was \$100 million in additional mine resupply costs.



**TEMPERATURE DEPARTURES FROM NORMAL**  
**Winter (Dec, Jan, Feb) 2005/2006**  
**ANOMALIES DE LA TEMPERATURE PAR RAPPORT A LA NORMALE**  
**Hiver (dec, jan, fev) 2005/2006**





## Climate Change & DOT's Commitment to Innovation

- Climate change is impacting transportation infrastructure and services in the NWT.
- The NWT transportation system faces many challenges stemming from climate change, particularly the prospect of milder winters.
- DOT is working to identify and mitigate the impacts, which include permafrost degradation leading to road surface and airport runway instability, washouts from spring run-off, shortened winter road operating seasons, and increased use of sand or salt on highways and glycol at airports.
- These steps include implementing DOT's recently developed Climate Change Adaptation Plan, and continued investment in research and development to collect baseline data and prepare appropriate climate change adaptation strategies.
- DOT is also an active participant in various organizations that are on the leading edge of climate change research, infrastructure impacts related to climate change, and climate change adaptation strategies.
- DOT has also demonstrated a strong commitment to innovation in its introduction of new technologies such as: online driver vehicle licensing services and the TRACR II touchscreen runway condition reporting system to DOT airports.



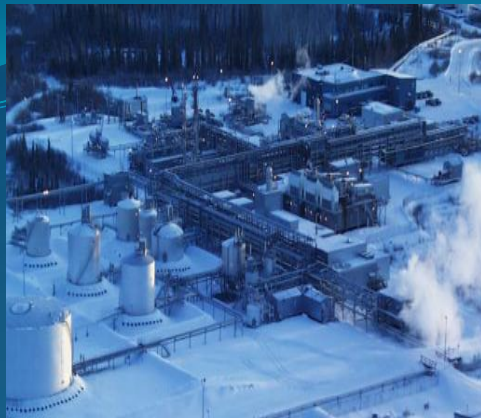


## A Strategic Plan for Continued Canada-NWT Economic Growth

- *Corridors for Canada III – Building for Prosperity* is the Department of Transportation's strategic plan to invest \$600 million over ten years to improve NWT highways, winter roads, airports, bridges, and marine infrastructure.
- DOT's strategic plan addresses NWT transportation infrastructure needs that will contribute to business and economic development in both the NWT and Canada. Proposed investments come under two separate components of the new Building Canada Fund: the \$10 billion Provincial-Territorial Infrastructure Fund and the \$4 Billion National Infrastructure Fund.

## Focused On Jobs, Economic Growth, & Prosperity

- The objective of *Corridors for Canada III* is to continue working with the Government of Canada on NWT transportation infrastructure initiatives that lead to jobs, economic growth, and prosperity for both the Northwest Territories and Canada.
- Strategic investments in NWT transportation infrastructure increase access to Northern resources, helping to ensure Canada's current and future prosperity.



## DOT Strategic Plan – Priority Infrastructure Projects

### Inuvik-Tuktoyaktuk Highway (ITH):

- Construction is currently in progress on the ITH, the northern segment of the Mackenzie Valley Highway. The ITH is jointly funded by Canada (\$199 million) and the GNWT (\$99 million). Last winter 29 km of the 140-km highway was constructed, with completion scheduled for 2018. This highway will substantially support hydrocarbon development in the Mackenzie Delta and Beaufort Sea.

### Mackenzie Valley Highway:

- The Government of Canada recognizes the Mackenzie Valley Highway as a project of national significance, which will improve industry access to energy resources and lead to prosperity and economic benefits across the country.
- The GNWT proposes to invest \$700 million, under the National Infrastructure Component of the New Building Canada Plan, to develop the next phase of the Mackenzie Valley Highway from Wrigley to Normal Wells. This section of the highway will provide a year-round link between Southern Canada and the resource-rich Central Mackenzie Valley, including the Canol shale oil deposit, estimated at 10 billion barrels.





### Tłıchǫ All-Season Road :

- The GNWT is working with the Tłıchǫ Government and the mining sector to secure the funds to construct a road to replace the existing winter road to Tłıchǫ communities and nearby mining projects.
- The area is rich in mineral potential, including the NICO deposit (depicted above at left) under development 50 KM north of Whatı by Fortune Minerals (gold-cobalt-bismuth-copper). Fortune plans to build a mine and concentrator in the Northwest Territories (depicted above at right), with refining conducted in Saskatchewan.
- To date a positive feasibility study has been completed, as well as test mining, a pilot plant, and environmental assessments. The NICO deposit holds over 1 million ounces of gold, and the bismuth present amounts to 12% of global reserves, in addition to further reserves of cobalt and copper .

### Seasonal Overland Road - Slave Geological Province:

- The GNWT, the diamond mining industry, and the NWT & Nunavut Chamber of Mines are investigating financing options to initiate construction of a road into the mineral-rich Slave Geologic Province in the Western Arctic.





## Nation Building

- The Government of the Northwest Territories appreciates the many successes that have been achieved working cooperatively in partnership to develop the NWT's transportation infrastructure with the Government of Canada.
- This partnership has been an excellent achievement in Canadian nation-building, in that the development of Northwest Territories transportation infrastructure has contributed strongly to the harnessing of rich mineral and oil and gas resources in the Northwest Territories that have benefitted all of Canada.
- However, there is still some nation-building to do. DOT and the GNWT have identified a number of key NWT transportation infrastructure projects which will:
  - Promote NWT and Canadian economic development.
  - Enable the NWT and Canada to better meet social needs.
  - Reduce the cost of living in the NWT and Northern Canada.
  - Enhance Canadian sovereignty over the NWT and Northern Canada.



## Benefits to the Northwest Territories

- Development of NWT oil and natural gas reserves in the Sahtu Region, Mackenzie Valley, and the Beaufort Delta and additional mineral developments will position the NWT solidly in Canada's economic mainstream as a major contributor.
- Improving NWT infrastructure will facilitate diversification of the NWT economy and improve the quality of life for residents who will receive better, cheaper access to essential services, increased mobility, and a lower cost of living.
- The transportation system serving NWT communities is incomplete and in need of upgrading.
- The result is higher transportation costs to the communities that lead to a higher cost of living for community residents and reduced economic development opportunities.
- Improving our highway connections to communities will result in less reliance on air service and generate savings that could be used for other social or economic opportunities within these communities.
- Opportunities translate into improved access, lower transportation costs, and economic diversity.



## Benefits for Aboriginal People

- Aboriginal people in the Northwest Territories are partners in the political and economic development of the North.
- The support of Aboriginal people and Aboriginal governments is essential to DOT and GNWT objectives and initiatives.
- Aboriginal support for large-scale development is contingent upon long-term benefits to all communities, such as a vastly improved transportation network.
- Aboriginal governments will benefit from resource development through increased business and employment opportunities for individuals and Aboriginal development corporations.
- Improving the lives of Aboriginal people and Aboriginal communities makes for stronger communities, a stronger NWT, and ultimately a stronger and better Canada.





## Aboriginal Partnerships & Capacity Building

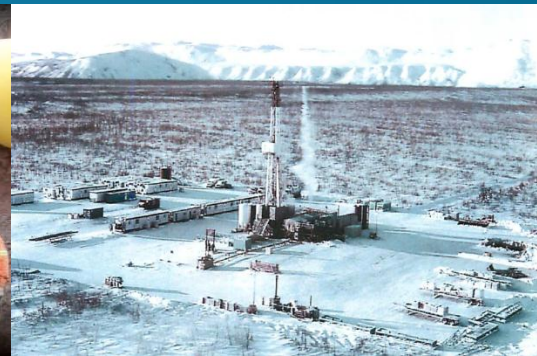
- DOT and the GNWT also actively supports and encourages its Aboriginal citizens, communities, and businesses via:
  - Aboriginal partnerships with DOT and the GNWT.
  - Building the capacity of Aboriginal businesses and communities to undertake work involving the operation and maintenance of the transportation system and transportation infrastructure.
  - Job creation in rural and remote northern communities.
- The GNWT and Aboriginal communities and businesses have developed a strong record of success in this regard, laying the foundation for continued mutual achievements in developing the NWT transportation system and delivering prosperity to both the NWT and Canada.



## Excellence in Aboriginal Engagement

- DOT received the Institute of Public Administration of Canada (IPAC) Award for Innovative Management in August 2012 for its *New Aboriginal Engagement Processes for Planning Major Infrastructure Projects*.
- The submission was for planning and consultation work required for the Mackenzie Valley Highway (MVH) Project.
- DOT shared information and knowledge with Aboriginal governments and helped build capacity within Aboriginal governments and at the community level.
- This was the second IPAC Award for Innovative Management for the GNWT in the past seven years.
- Through its Aboriginal Engagement Strategy, “Respect, Recognition and Responsibility”, the GNWT is strengthening relationships with Aboriginal government partners through projects such as the Mackenzie Valley Highway.

DOT & the GNWT are continually seeking ways to improve our engagement of our Aboriginal stakeholders and partners. “This initiative, which is focused on bringing Aboriginal governments and organizations into the decision-making process, has now been recognized nationally as a model for best practices in Aboriginal consultation and engagement.”



## Benefitting All of Canada

- Developing the transportation infrastructure of the Northwest Territories benefits all of Canada.
- Over the next 30 years, existing and proposed NWT oil and gas and energy developments, diamond mines, and rare mineral mines are expected to contribute \$54 to \$84 billion to Canada's national GDP and create 215,500 to 306,500 person-years of employment across Canada.
- Increased development activity will result in more revenue flowing to Canada through royalties and taxes.
- Economic modeling estimates that Southern Canada will receive approximately 71 percent of jobs resulting from NWT resource development.
- NWT transportation infrastructure development projects and related resource developments will help build on Canada's fast-growing Asia-Pacific trade.
- The recent report commissioned for the Alberta Government, "An Arctic Energy Gateway for Alberta," recommends the NWT as a new transportation corridor for Alberta bitumen to the Asia-Pacific region and other key Alberta energy markets. The report identifies initial volumes of from 831,600 to 1.2 million barrels per year transported via the NWT as early as the summer of 2015.





## A Partnership for Prosperity

- The Government of the Northwest Territories (GNWT) and DOT are committed to continue working in partnership with Canada on nation-building transportation infrastructure to:
  - Bring the NWT's wealth of natural resources to markets.
  - Enable competitiveness and economic growth throughout Canada through stimulation of the economy.
  - Job creation within and outside of the NWT.
  - Lowering the high cost of living in the North and increased mobility for Canadians.
  - Support Canadian sovereignty objectives.
- Canadian transportation regulations and policies must recognize that “one-size does not fit all” and special considerations for the North are necessary to recognize our unique markets and operating environment.
- In partnership with Canada, the GNWT looks forward to continuing work on upgrading existing NWT transportation infrastructure, and to building new highways such as: the Inuvik-to-Tuktoyaktuk Highway; the Mackenzie Valley Highway into the hydrocarbon-rich Sahtu Settlement Region; an all-season road into the Tłıchǫ Settlement Area, to serve mineral resource and community development needs; and a Seasonal Overland Road into the mineral-rich Slave Geological Province .



## Summary

- All Canadians will benefit from investing in and developing the Northwest Territories and Canada's North.
- Canada's investments to date in the NWT have been outstanding successes, providing billions in direct revenues as well as additional billions in income and other benefits to Canadians.
- Continued cooperation with Canada and the private sector is essential to making the most of the economic opportunities that the North has to offer.
- The GNWT strongly values its partnerships with the Government of Canada and Aboriginal governments.
- The NWT transportation system faces many challenges stemming from climate change, particularly the prospect of milder winters.
- DOT looks forward to continuing to work with the CTA Review Panel.