



Corridors For Canada II: Building on Our Success

**A Proposal for Investment in Strategic
Transportation Infrastructure**

Prepared by the Government
of the Northwest Territories

September 2005



Message from the Government



The original **Corridors for Canada** proposal was released in May of 2002 as the Government of the Northwest Territories' response to the federal government's announcement of the Canada Strategic Infrastructure Fund. It demonstrated that resource development in the Northwest Territories was placing great strain on the Northwest Territories highway system and that strategic investment was required to ensure that the full and enormous potential of this development would benefit both the Northwest Territories and Canada.

We have realized significant progress since the **Corridors for Canada** proposal was presented. The improvements to existing infrastructure accomplished have advanced us towards the long-term vision presented in our 2000 Highway Strategy: **Investing in Roads for People and the Economy**. This includes improving existing infrastructure in the Mackenzie Valley Corridor in response to oil and gas and pipeline developments and sections of the National Highway System in the Slave Geologic Province, including the proposed Deh Cho Bridge.

But resource development has not stopped. We are now on the eve of the construction of the Mackenzie Gas Project. Construction of a third diamond mine in the Northwest Territories and Nunavut's first diamond mine started earlier this year. Plans for other new mineral developments are being finalized. The increased pace and scope of resource development have prompted the GNWT to update the original **Corridors for Canada** proposal to ensure that the transportation infrastructure can keep pace with these developments.

Corridors for Canada II: Building on Our Success builds on the success and accomplishments of the 2002 **Corridors for Canada** proposal and demonstrates the need for further investment in transportation infrastructure in response to the pressures of resource development. **Corridors for Canada II** also acknowledges that improvements to the transportation system are required to ensure that our smaller communities can fully benefit from the increased economic activity that is occurring.

Canada, the Northwest Territories and industry have a shared role in responding to these opportunities. **Corridors for Canada II** provides a plan to address transportation infrastructure needs and bring us closer to achieving the vision of the 2000 Highway Strategy, the GNWT's Strategic Plan and the proposed Northern Strategy. Advancing the vision of improving social and economic opportunities for the people of the NWT will ensure all Northerners and Canadians benefit for many generations to come.

A handwritten signature in black ink, appearing to read "J. Handley". The signature is fluid and cursive, with a large initial "J" and "H".

Joseph Handley
Premier

A handwritten signature in black ink, appearing to read "Michael McLeod". The signature is more stylized and less legible than the one on the left, with several overlapping loops.

Michael McLeod
Minister of Transportation



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Executive Summary

Introduction

In 2002, the Government of the Northwest Territories (GNWT) submitted a proposal for funding under the Government of Canada's Strategic Infrastructure Fund (CSIF), titled **Corridors for Canada**. The proposal was put forward with the strong conviction that improving transportation corridors serving the enormous oil and gas and mineral reserves of the Northwest Territories would bring measurable and lasting economic and social benefits to the Northwest Territories and Canada. It would also advance the goal and vision of both the NWT and the federal government of a strong, unified and self-reliant Northwest Territories.

The Government of Canada, recognizing the benefits of improved transportation infrastructure in the Northwest Territories responded to the **Corridors for Canada** proposal with a promise of a \$65 million investment. This investment, which was matched by the GNWT, provided a total of \$130 million to start addressing the strategic transportation infrastructure needs of the Northwest Territories. Construction of the first projects under this funding commenced in 2003.

Since 2002 when the original **Corridors for Canada** was submitted to the federal government, resource development in the NWT and the corresponding pressures on the transportation system have continued to mount more quickly than anticipated. The NWT has experienced

“...the Government of Canada intends to renew and extend into the future these infrastructure programs as they expire...”

Excerpt from the Federal Budget, 2005

increased oil and gas exploration in the Mackenzie Valley and Beaufort Delta, significant activity and preparations for the proposed Mackenzie Gas Project, and the construction of a third diamond mine. These additional activities far surpass what was envisaged in 2002.



“I would like to congratulate you on the quality of your proposal (Corridors for Canada)...I am aware of the major initiatives, of great economic significance for the North and for Canada, underway in the Northwest Territories. I would like to commend you and your colleagues for the time and efforts...to raise the level of awareness on developments in the Northwest Territories and your needs in terms of infrastructure.”

Former Prime Minister Jean Chrétien in a letter to former NWT Premier Stephen Kakfwi dated June 21, 2002.

The opportunities provided by this increased development activity have also raised a concern that in various regions of the NWT the transportation system that services some communities is incomplete and in need of upgrading. Without improvements to the transportation system some communities' and residents' access to resource development opportunities will be lost. Also lost will be an opportunity to move forward on an economic diversification agenda for these communities. Improvements to the transportation corridors serving NWT communities will ensure all communities benefit from resource development and related opportunities.

The increased pace and scope of resource development in the NWT have prompted the GNWT to update the original **Corridors for Canada** proposal. The updated proposal, which has been titled **Corridors for Canada II: Building on Our Success**, puts forward the case that additional investments in transportation infrastructure will help sustain the recent dramatic economic growth and productivity of the Northwest Territories and contribute to the long-term wealth of Canada.

Corridors for Canada II: Building on Our Success

Corridors for Canada II: Building on Our Success highlights the success and accomplishments of the 2002 **Corridors for Canada** proposal and demonstrates the need for further investment for the benefit of the Northwest Territories and all of Canada. The benefits of the original **Corridors for Canada** proposal are demonstrated through the improved geometric and surface conditions on the Liard, Mackenzie, Dempster, Yellowknife and Ingraham Trail highways. Bridge building and grade improvements on the Mackenzie Valley Winter Road have helped to extend and stabilize the winter road season as well as increase the road's capacity. These infrastructure improvements have supported and improved the logistical requirements of the diamond and oil and gas industries and have also enhanced intercommunity travel for Northern residents.

The infrastructure improvements resulting from the **Corridors for Canada** proposal have contributed to improved planning and implementation of resource exploration and development in the Northwest Territories. These improvements have facilitated the continued expansion of the oil and gas and diamond industries. Oil and gas exploration continues to expand in preparation for the proposed Mackenzie Gas Project. At the same time, the Northwest Territories' third and Nunavut's first, new diamond mines are in the construction and development stages.

Similar to the 2002 proposal, **Corridors for Canada II** is strategic, in that it will better position the Northwest Territories and all of Canada to benefit from resource developments in the North. This proposal is an investment which will yield significant employment, royalties and taxation revenues. This proposal deals with improving transportation infrastructure, in that it will expand service levels of existing transportation corridors to meet the demands of industry and to better connect communities. **Corridors for Canada II** also recognizes that where improved road access is not economically feasible, improved airport infrastructure could offer similar benefits.



Corridors for Canada II calls for an additional investment of \$162 million. The total investment required responds to both the pressures of resource development and the need to promote economic diversification and improve the quality of life of northern residents by improving access. At a high level this investment would be directed to two types of transportation corridor needs:

Responding to the Pressures of Resource Development

- **\$117 million is required to improve all-weather and winter roads that serve existing and future oil and gas and mineral development in the Northwest Territories. These investments are critically and urgently needed to facilitate and to respond to the pressures of resource development.**

Economic Diversification and Connecting Communities

- **\$45 million is required to promote economic diversification, provide better access to essential services, increase mobility and intercommunity travel and lower the high cost of living for Northerners.**

The projects proposed under these two corridor types are identified on the maps which follow on pages 8 & 9. A breakdown of these projects and investment needs is detailed on the following page in **Table 1: Corridors for Canada II Investment Needs**.

Recognizing the proposed timetable for the Mackenzie Gas Project and increased mineral developments in the Slave

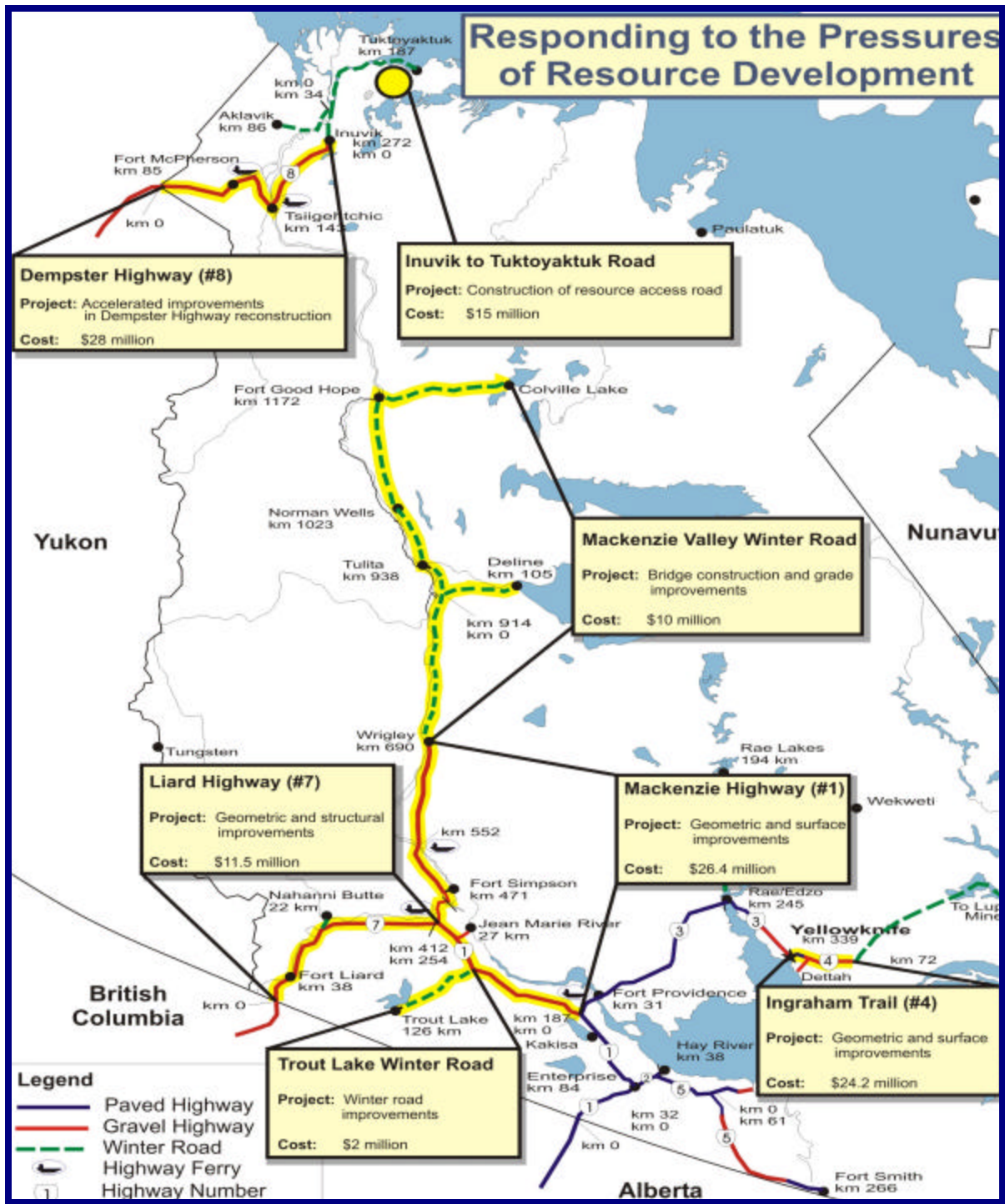
Geologic Province, this investment would be directed to transportation infrastructure projects almost immediately. The GNWT views the \$162 million investment as the bare minimum for sustaining natural resource development while meeting the needs of other users for a safe and effective transportation system.

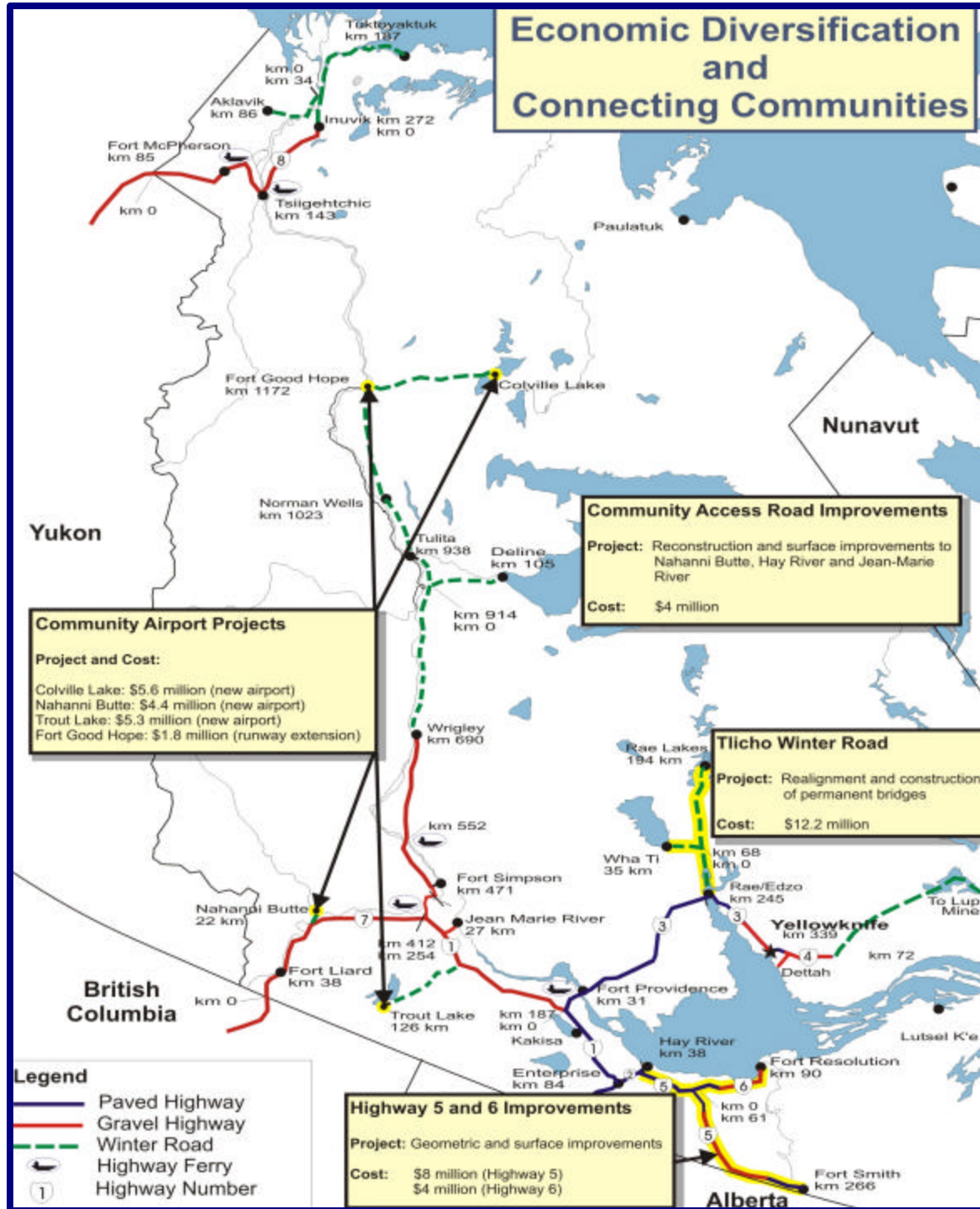


Table 1: Corridors for Canada II Investment Needs

2005/06—2008/09 (million \$\$\$)

Responding to the Pressure of Resource Developments	Project Investment
Mackenzie Valley Corridor	
Mackenzie Valley Winter Road Improvements	10
Dempster Highway (No. 8) Reconstruction	28
Tuktoyaktuk Resource Access Road	15
Liard Highway (No. 7) Reconstruction	12
Mackenzie Highway (No. 1) km 187 to 690 Reconstruction	26
Trout Lake Winter Road Improvements	2
Subtotal Mackenzie Corridor	93
Slave Geologic Province Corridor	
Ingraham Trail (No. 4) Reconstruction	24
Subtotal Slave Corridor	24
Responding to the Pressure of Resource Developments Total	117
Economic Diversification and Connecting Communities	
Fort Smith Highway (No. 5) Improvements	8
Fort Resolution Highway (No. 6) Improvements	4
Tlichon Winter Road Realignment	12
Community Access Road Improvements (1)	4
Community Airport Projects (2)	17
Economic Diversification and Connecting Communities Total	45
Total	162
(1) Community Access Road Improvements Include: Nahanni Butte, Hay River Reserve and Jean Marie River.	
(2) Community Airport Projects Include: New Airport Construction at Colville Lake, Nahanni Butte and Trout Lake and Runway Extension at Fort Good Hope Airport.	



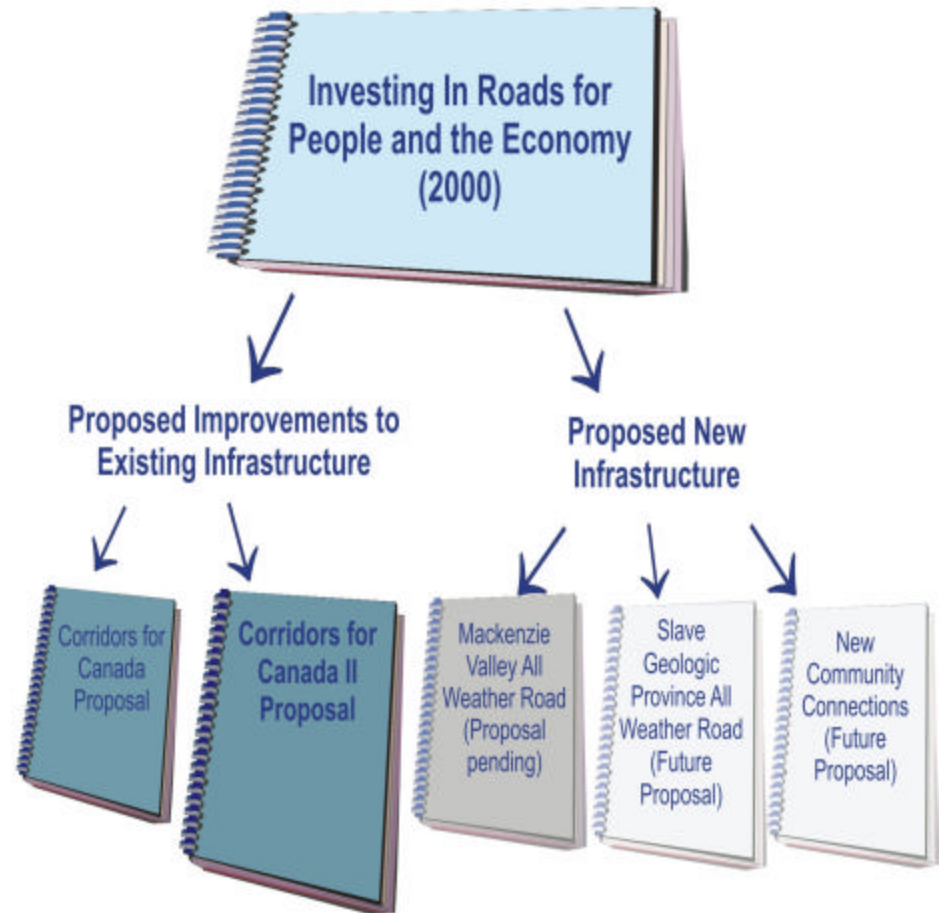


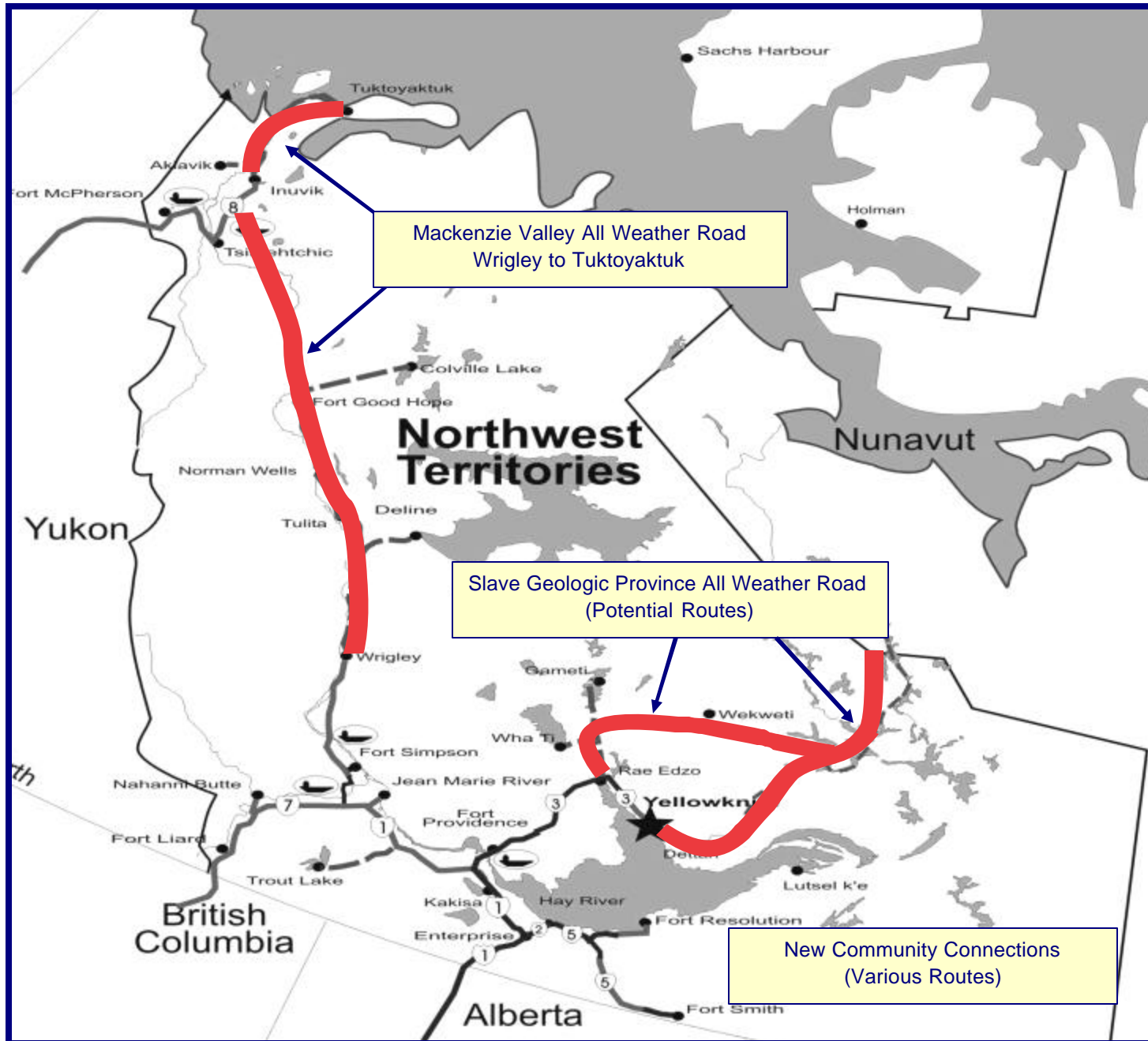
Investing in Roads

The proposed projects in **Corridors for Canada II** are incremental steps in pursuit of the long-term vision for roads in the Northwest Territories that was developed in the 2000 Highway Strategy, **Investing in Roads for People and the Economy: A Highway Strategy for the Northwest Territories**. This vision includes:

- An upgraded highway system that provides improved safety and more reliability for people and resource development,
- A road down the Mackenzie Valley from Wrigley to Tuktoyaktuk to provide all-weather road access for communities and to facilitate development of the resources of the Mackenzie Valley and Delta,
- Greater northern involvement in land-based access into the Slave Geologic Province and new road infrastructure that is responsive to the needs of industry to create economic development opportunities, and
- New or upgraded community access roads to provide improved land-based access for communities.

The graphic demonstrates the linkages between the vision contained within the 2000 Highway Strategy, **Investing in Roads for People and the Economy**, and the subsequent proposals to achieve that vision. As the graphic illustrates, **Corridors for Canada II** is the second proposal to improve existing infrastructure. The map on the following page depicts the long-term vision for new infrastructure in the Northwest Territories. This vision includes all-weather transportation corridors through the Mackenzie Valley and the Slave Geologic Province, as well as various new connections to communities.





NWT Vision: Proposed New Highway Corridors

Return on Investment

Over the next 30 years, existing and proposed Northwest Territories diamond mines and oil and gas developments are expected to:

- **Contribute between \$54 and \$84 billion to the national GDP.**
- **Create between 215,500 and 306,500 person-years of employment across Canada, 71% of these jobs created outside the NWT.**
- **Generate between \$14.5 and \$22.5 billion in government revenues, of which up to 95% will flow to the federal government.**

These benefits, which are already significant, do not include the considerable additional growth from new exploration and development, job-generating secondary industries and reinvestment of profits.

Improving the North's infrastructure will support the non-renewable resource industry, facilitate the diversification of the Northwest Territories economy and improve the quality of life of its citizens who will gain better access to essential services, increased mobility and a lower cost of living. These benefits will result in safer and healthier communities. The plan for infrastructure investment outlined in **Corridors for Canada II**

The NWT was ranked 4th out of 64 countries worldwide surveyed by the Fraser Institute in terms of mineral potential. However the NWT ranked last in terms of quality of infrastructure. 41% of mining companies indicated the quality of infrastructure was a strong deterrent to investment, with 4% indicating they would not pursue exploration due to this factor.

The Fraser Institute Annual Survey of Mining Companies 2004/2005

will also enhance northern security and sovereignty and improve our ability to adapt to changing climatic conditions.

Northern sovereignty and security is dependant upon transportation infrastructure. Currently this infrastructure is inadequate to respond to environmental emergencies, natural disasters, non-environmental accidents and increasing threats to Canada's sovereignty. Strategic investment would support Canada's efforts to extend its influence over the North and increase support for responding to emergencies in the North.

Strategic investment will significantly improve the NWT communities' position to turn the challenges of resource development into positive opportunities. Like other Canadians, all Northern residents want development to make their lives better and provide a better future for their children. The Government of Canada, the Government of the Northwest Territories, and industry have a responsibility and an opportunity to ensure that this development in the Northwest Territories provides a net benefit to the people of the Northwest Territories.

Improved transportation can reduce the cost of living and help to create strong and healthy communities. Improving highway connections to NWT communities in the outlying regions will result in less reliance on expensive air service and generate savings that could be used for other social or economic opportunities within these communities. A transportation system that links these communities effectively to markets, services and businesses will provide NWT residents with many of the opportunities that Canadians in the south take for granted. These opportunities translate into improved access, lower transportation costs and economic diversity.

The strategic investments proposed in **Corridors for Canada II** will enable us to create an environment that attracts industry, manages development effectively, and maximizes the benefits from resource development. Together, we can ensure that development of the Northwest Territories' rich resources is a benefit for all of Canada, including the people of the Northwest Territories.

“The NWT’s rudimentary transportation and municipal capacity is being overwhelmed by world-class industrial development with which some 19,000 taxpayers cannot realistically cope – thus endangering a lucrative strategic investment opportunity for the entire country.”

Excerpt from A Prime Strategic Investment Opportunity for All of Canada prepared by the NWT Business Coalition

Conclusion

Corridors for Canada II will build on the success of the original **Corridors for Canada** proposal and help the Northwest Territories become more self-reliant. Investment will ensure that additional large-scale resource developments are able to proceed which will, in turn, create numerous opportunities for business and industry in the Northwest Territories, and across Canada. There is an unprecedented opportunity today for the Northwest Territories to become Canada's first "have" territory.

However, the GNWT cannot achieve this on its own. The support of the federal government in the proposed strategic investments in transportation infrastructure is essential. The GNWT's ability to invest in infrastructure is hampered by the fact that it receives no resource royalties and only minimal tax revenues.

Corridors for Canada was funded under the Canada Strategic Infrastructure Fund (Budget 2001 and 2003). In the 2005 Federal Budget, the Government of Canada announced that it "intends to renew and extend into the future these infrastructure programs as they expire." The future of resource development and northern communities depends on renewed infrastructure investment today. The existing window of opportunity will not last forever.

Without sustained and timely funding availability, the benefits to the Northwest Territories and Canada will be

reduced, and the risk will be increased of a transportation network that cannot efficiently or effectively service existing let alone additional future oil and gas and mineral development.

Support for **Corridors for Canada II** will ensure that resource development in the Northwest Territories and its associated economic benefits will contribute to self-reliant communities and continue a stream of benefits that will be enjoyed by present and future generations of Northerners and Canadians.



Executive Summary



The Vision

“...a strong Northwest Territories is in the best economic, social, and security interests of Canada and all Canadians... We are in a period of unprecedented economic development in the Northwest Territories – development that not only benefits our territory but the country as a whole. This development provides a unique opportunity to make the Northwest Territories a self-reliant territory... The people of this territory want to be sure our communities are ready for large-scale development, such as the Mackenzie Valley pipeline. This means investing in our communities and people to prepare for and help mitigate the infrastructure and social pressures that will accompany this development... The additional needs created by our rapidly expanding economy place an increased demand on our resources. The long-term implication for our territory is serious.”

*Premier Joseph Handley
Wednesday, February 23, 2005
Statement to the Legislative Assembly: A Northern Strategy*

The Northwest Territories, a land rich in people and resources, is unrivalled in potential and opportunities.

The Northwest Territories covers 1.2 million square kilometres, over 10 percent of the Canadian total. Within this vast area is a population of approximately 43,000 living in 33 communities, the largest being the capital, Yellowknife, with a population of 19,000. The population of the Northwest Territories is one-tenth of one percent of Canada's total population; 50 percent of this population is Aboriginal.

The vision contained within **Corridors for Canada II** has been guided by three strategic documents: The GNWT Strategic Plan, **Self-Reliant People, Communities and Northwest Territories – A Shared Responsibility**; the 2000 Highway Strategy, **Investing in Roads for People and the Economy: A Highway Strategy for the Northwest Territories** and, the proposed **Northern Strategy**.

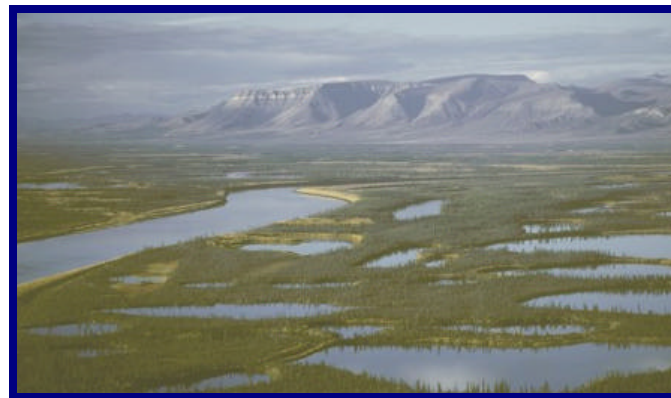
The Strategic Plan of the 15th Legislative Assembly, **Self-Reliant People, Communities and Northwest Territories – A Shared Responsibility**, identifies the vision of the Northwest Territories as “self-reliant individuals and families sharing the rewards and responsibilities of healthy communities and a prosperous and unified Northwest Territories”. The goals included in this vision are:

- **a strong northern voice and identity;**
- **healthy, educated people living in safe communities, who are able to contribute and take advantage of life's opportunities;**

- **well-governed, sustainable communities and regions able to fulfill their potential;**
- **a diversified economy that provides Northerners with opportunities and choices; and,**
- **care and protection of the natural environment.**

The 2004 Federal Speech from the Throne committed to developing Canada's first ever comprehensive, multi-dimensional Northern Strategy. The federal and territorial governments, in cooperation with Aboriginal governments, organizations and Northern residents, have been working together to finalize this common vision for the North. The proposed goals of the Northern Strategy include:

- **Strengthening governance, partnerships and institutions;**
- **Establishing strong foundations for economic development;**
- **Protecting the environment;**
- **Building healthy and safe communities;**
- **Reinforcing sovereignty, national security and circumpolar cooperation;**
- **Preserving, revitalizing and promoting culture and identity; and,**
- **Developing northern science and research.**



The 2000 Highway Strategy, **Investing in Roads for People and the Economy: A Highway Strategy for the Northwest Territories** provides the vision for roads in the Northwest Territories. The proposed projects contained within **Corridors for Canada II** are incremental steps in pursuit of this vision.

The Vision of the 2000 Highway Strategy includes:

- An upgraded highway system that provides improved safety and more reliability for people and resource development,
- A road down the Mackenzie Valley from Wrigley to Tuktoyaktuk to provide all-weather road access for communities and to facilitate development of the resources of the Mackenzie Valley and Beaufort Delta,
- Greater northern involvement in land-based access into the Slave Geologic Province and new road infrastructure that is responsive to the needs of industry to create economic development opportunities, and
- New or upgraded community access roads to provide improved land-based access for communities.

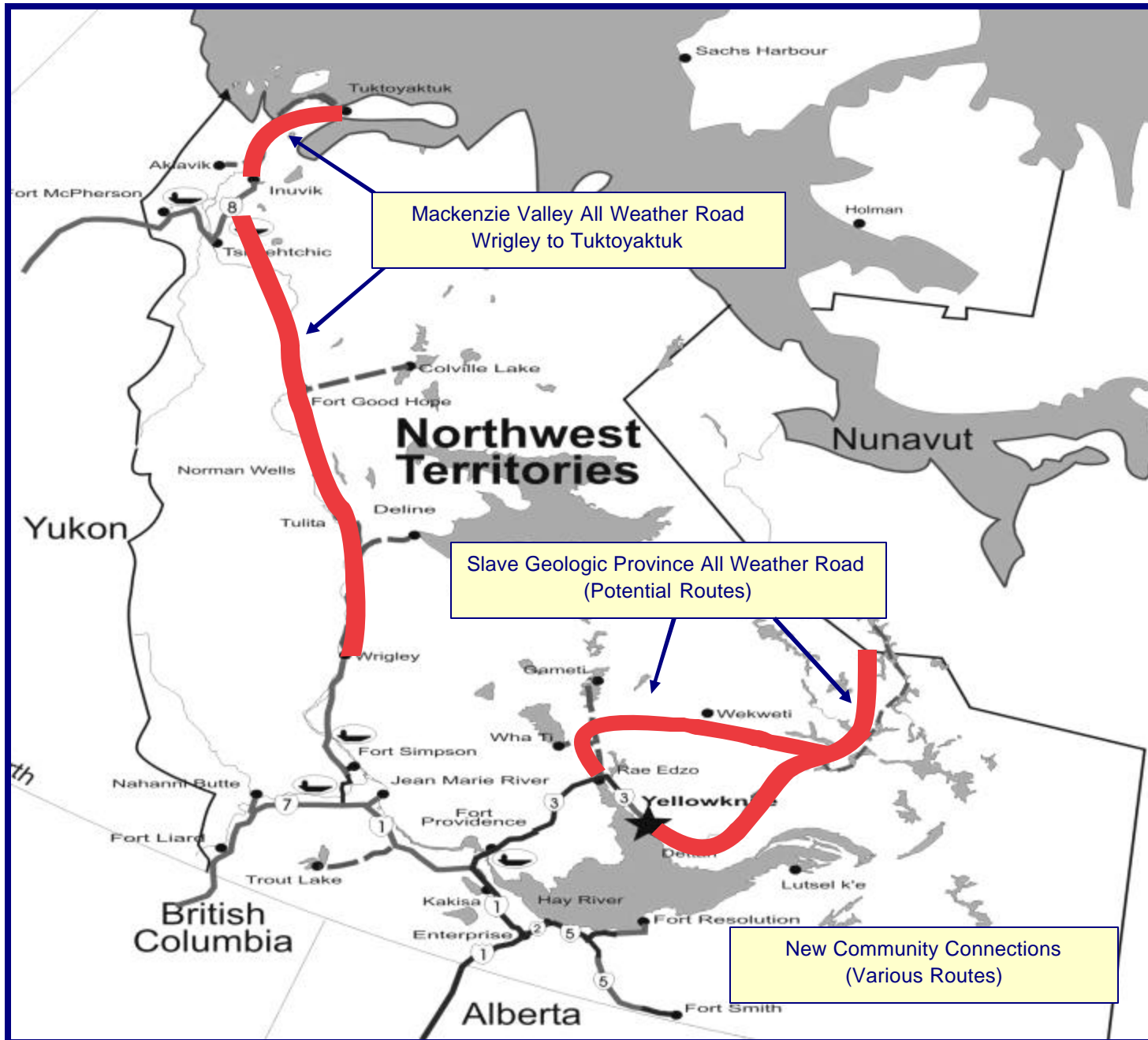
This Vision will:

- create opportunities to guarantee a prosperous future for all residents of the Northwest Territories;
- improve the health and well-being of individuals and communities by providing better access to government services and employment in all sectors;
- provide better access to resources and improve opportunities for their development and related employment and trade; and,
- unify communities and people and strengthen our connections to the rest of Canada.

The 2000 Highway Strategy provides the vision for both existing and new transportation infrastructure. The map on the opposite page depicts the long-term vision for new roads in the Northwest Territories. This vision includes all weather transportation corridors through the Mackenzie Valley and the Slave Geologic Province, as well as various new connections to communities.

“...the Federation was built on a vision, expressed in a railway, to unite the country from coast to coast. This tangible expression of unifying the country continues to be reflected in our national transportation infrastructure, which now must include both east-west and north-south focus...Absent or aging highway systems ... are eroding Canada’s ability to compete in the global economy”

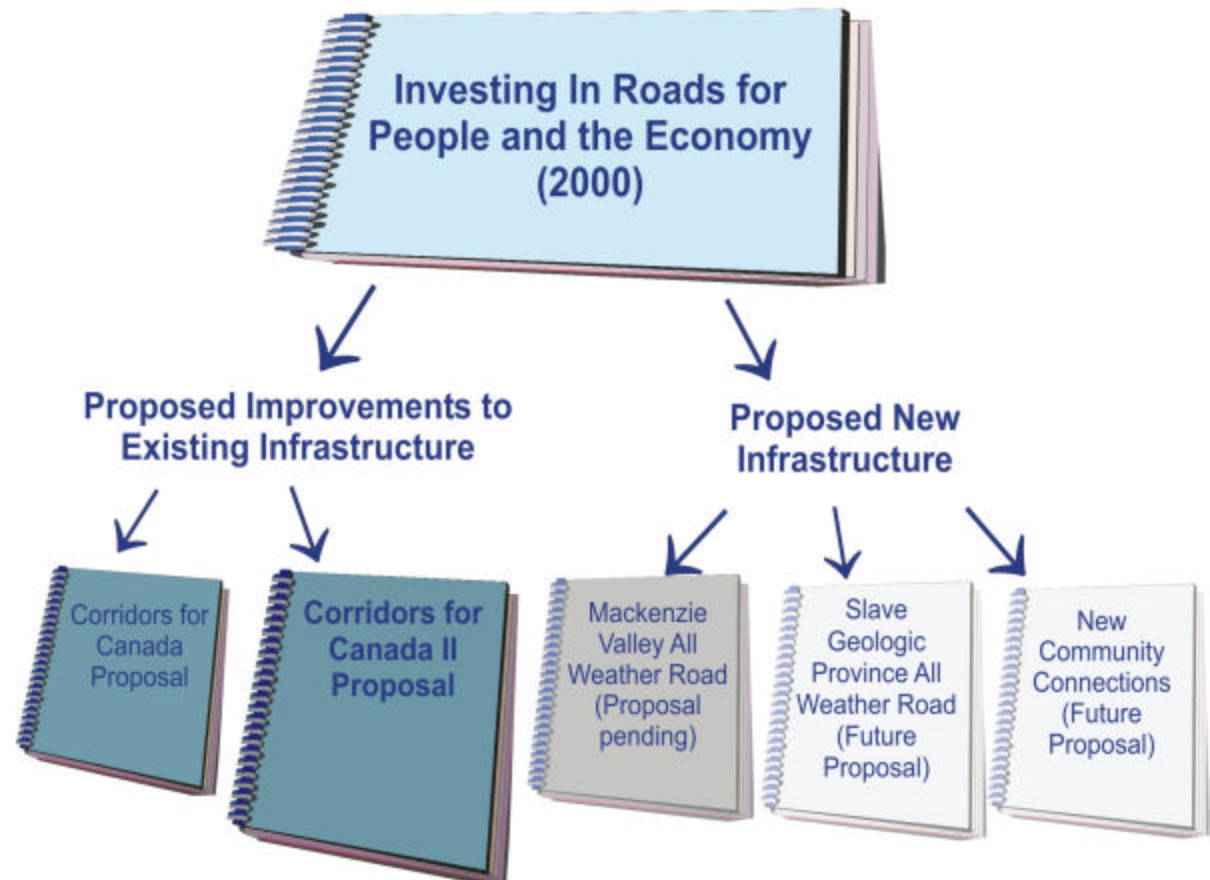
From the Council of the Federation Communique, August 2005, issued by Canadian Premiers

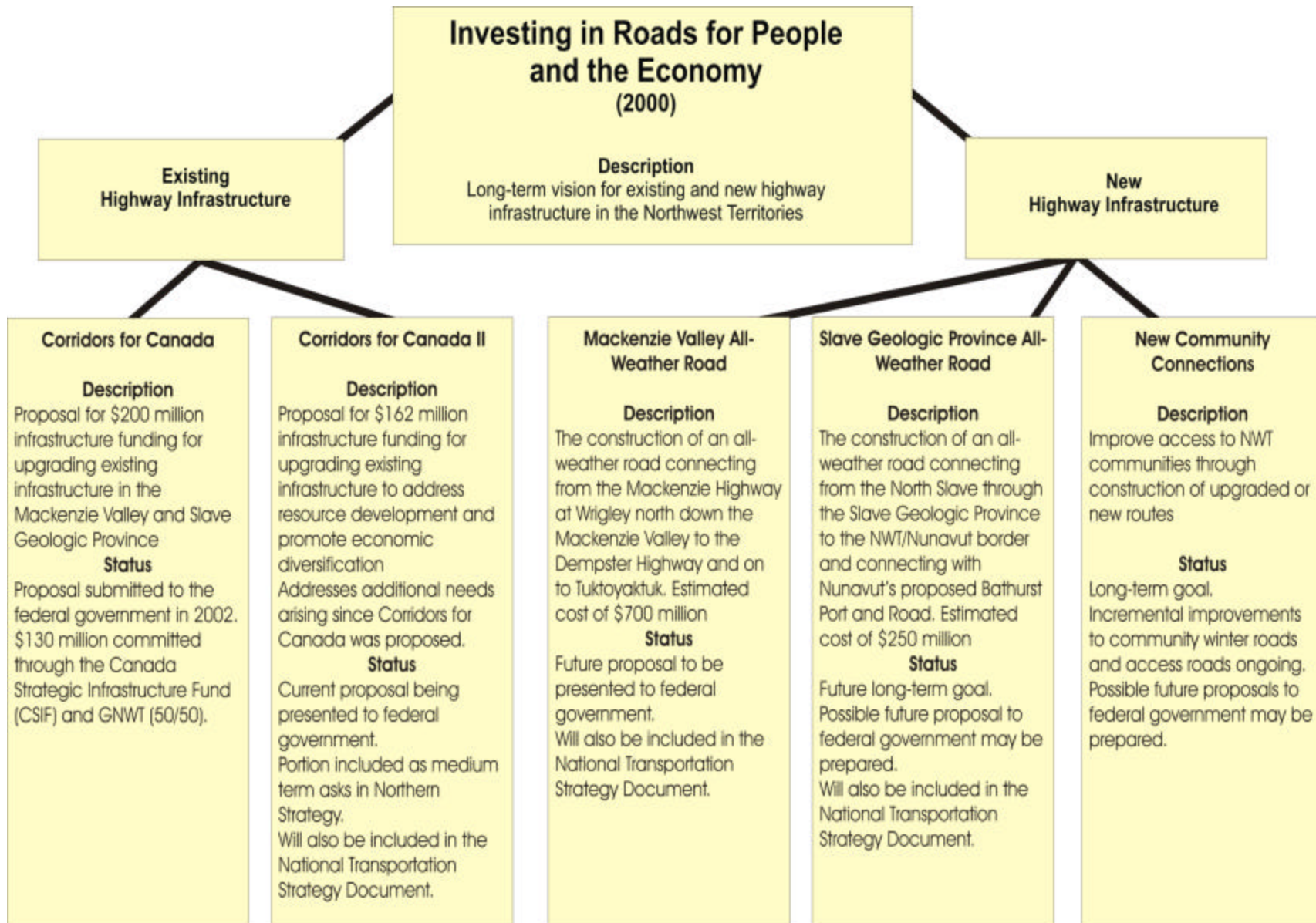


NWT Vision: Proposed New Highway Corridors

- *65% of NWT residents have access to land-based transportation modes for only 10 or 11 months of the year, due to ferry service and ice road disruptions caused by freeze-up and spring thaw;*
- *Only 19% of NWT residents have year-round highway access;*
- *Only one-third of the land area of the Northwest Territories is within 100 kilometres of an all-weather road.*
- *13% only have land access via winter road a few weeks or months each winter;*
- *3% of NWT residents rely on marine or air access only; and,*
- *81% of NWT residents rely on air transportation as the only source of access and resupply for a month or more each year.*

The graphic below demonstrates the linkages between the vision contained within the 2000 Highway Strategy, **Investing in Roads for People and the Economy**, and subsequent proposals. As the graphic illustrates, **Corridors for Canada II** is the second proposal to improve existing infrastructure. The process map on the following page provides a detailed description of the elements of the Highway Strategy vision and the planned process to achieve that vision.





Achieving the Highway Strategy Vision

Other strategies that have been developed by the GNWT and/or other organizations that support the vision and objectives of the GNWT Statigic Plan, Northern Strategy and Highway Strategy include:

A Non-Renewable Resource Development Strategy, prepared by the GNWT, presents an action plan for government investment to seize the current non-renewable resource development opportunities;

Common Ground, prepared by the Economic Strategy Panel, which consisted of representatives from all major economic-related organizations, presents five recommendations for improving transportation infrastructure;

A Prime Strategic Investment Opportunity for All of Canada, prepared by the Northwest Territories Business Coalition, a group consisting of all major Chambers and business organizations in the Northwest Territories, presents a business case for increased federal investments in transportation infrastructure;

Economic Diversification - Equitable Access, the 2004 GNWT Economic Strategy, identifies limited transportation infrastructure, which increases uncertainties and costs, as one of the weaknesses in diversifying the economy; and,

Corridors for Canada: An Investment in Canada's Economic Future, the first proposal for federal funding under the Canada Strategic Infrastructure Fund, documented the need for strategic investment in

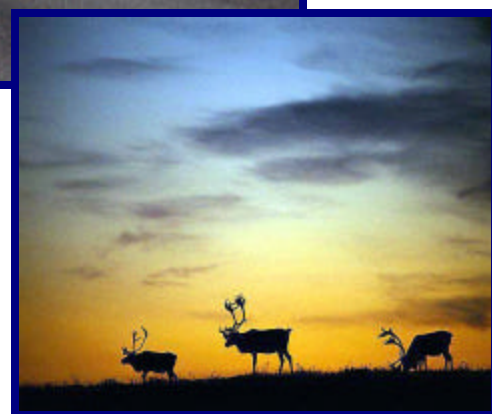
transportation infrastructure. This proposal received overwhelming support from the business community, industry and other levels of government.

Significant investment in transportation infrastructure is a key ingredient to realizing this vision and has been recognized as such in each of these strategy documents. Continued strategic investment in northern transportation corridors will create significant economic opportunities and benefits for both the Northwest Territories and for all of Canada. These opportunities and benefits will be remembered and enjoyed by Canadians for many generations to come.

“We must each do our part if we are going to improve the lives of Northerners and achieve self-reliance.”

Excerpt from The GNWT Strategy: Self-Reliant People, Communities and Northwest Territories – A Shared Responsibility

The Vision



The Potential



Roads and Resources in the Northwest Territories

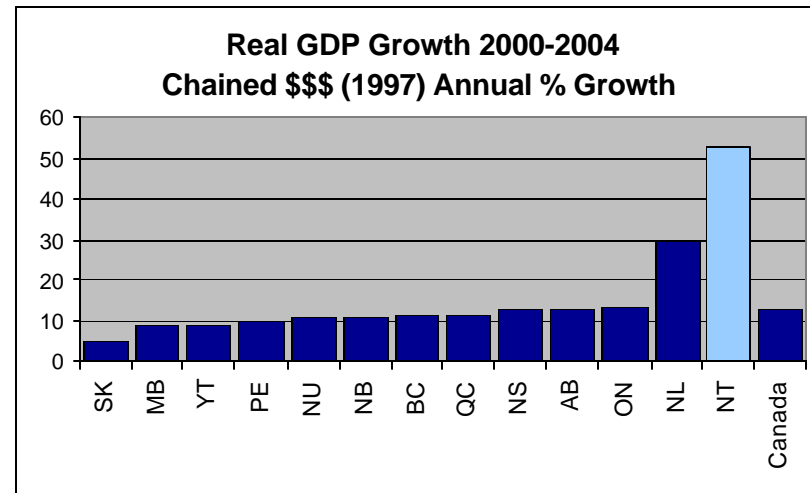
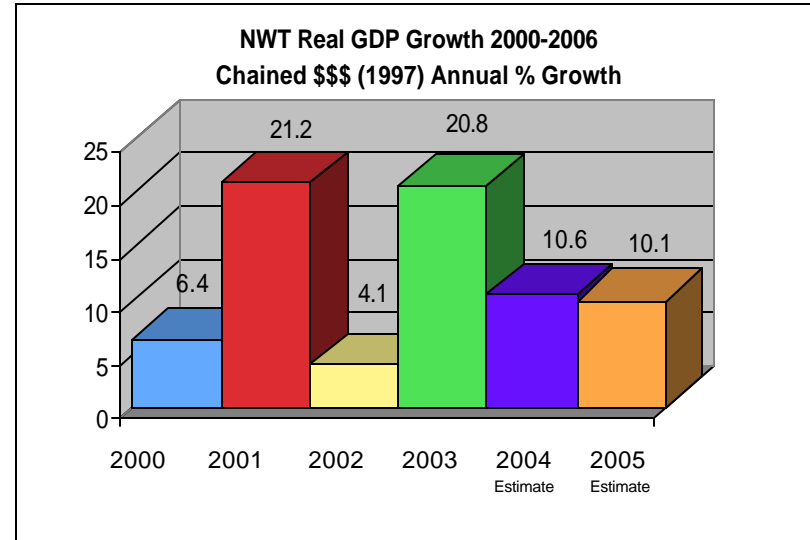
The vision of the Northwest Territories is set against a backdrop of enormous non-renewable resource potential, along with incredible challenges to development.

Since the release of **Corridors for Canada** economic growth in the Northwest Territories continues unabated. The Northwest Territories experienced economic growth of 20.8 percent in 2003, while the growth for Canada was two percent. Among provinces and territories, the Northwest Territories had the highest growth in both 2001 and 2003. Economic forecasting predicts that it will grow by a further 10.6 percent in 2004 and 10.1 percent in 2005.

Relative to other jurisdictions, the real gross domestic product (GDP) in the NWT far surpasses that of Nunavut and Yukon combined, and now exceeds the size of Prince Edward Island's economy, which has three times the population.

Fueled by non-renewable resource development, the NWT GDP has grown 52.5 percent from 2000 to 2004. To put this in perspective, the comparable number for Canada is about 12 percent. This growth is driven mainly by diamond exports and followed by oil and gas production. Non-renewable resource development is expected to continue to drive strong economic growth for the foreseeable future.

Non-renewable resource development has also spurred growth in other sectors of the NWT economy. Between 1999 and 2004, retail trade has increased over \$150 million, or 41 percent, wholesale trade increased 20 percent, and manufacturing shipments have grown from \$22 million to an estimated \$63 million.



Oil & Gas

The North American market for natural gas has experienced a surge in demand. At 6 trillion cubic feet per year (tcf/year), Canada is the world's third largest producer of natural gas. Canada exports about 60 percent of its annual natural gas production to the USA, with total export growth of over 300 percent since 1989. The demand is expected to reach approximately 32 tcf/year or 87 billion cubic feet per day (bcf/day) by the year 2010. Export volume is expected to increase by 40 percent over the next decade and 50 percent by 2025.

This market growth has been driven by the increased use of natural gas for electric power generation, implementation of clean air and greenhouse gas reduction initiatives, and the fact that it is the preferred fuel for domestic use in North America. To meet this growing demand, the Northwest

Territories will be the main new source of natural gas production and export in Canada.

The Northwest Territories has 60 to 70 tcf of proven natural gas, with an estimated total value of over \$140 billion. The National Energy Board estimates that the Beaufort Delta region contains a further 55 tcf of potential reserves.

At the end of 2003, there were six producing oil and natural gas fields in the Northwest Territories, producing \$501 million in oil and gas revenues. In 2004 more than 20.4 bcf of natural gas was produced in the southern NWT and an average of 20 thousand barrels of oil per day was produced from the Sahtu. In addition, a number of exploration companies are actively drilling and testing wells for potential reserves in the Beaufort Delta and Sahtu regions. It is expected that oil and gas companies will invest in excess of \$1 billion in exploration projects alone over the next five years, exclusive of pipeline-related developments.



Mackenzie Gas Project

The biggest Canadian project on the horizon is the Mackenzie Gas Project (MGP). The construction of the MGP, which comprises the pipeline, compressor stations, as well as the gas fields and collector system, will require tens of thousands of tonnes of equipment and materials as well as thousands of personnel and their supplies to be transported into and out of construction sites over two construction seasons. These demands and those during the periods before and after construction required to accommodate various mobilization and demobilization activities, will place great strain on the NWT transportation system.

Pre-construction work for the Mackenzie Gas Project is expected to start in 2006 with pipeline construction scheduled from 2007 to 2010. If the Mackenzie Gas Project is approved, and this work schedule holds, natural gas will begin flowing south from the Beaufort Delta by the end of this decade. Based on the proven reserves alone, NWT gas will supply southern markets until at least the year 2033.

The wealth from this project provides important opportunities for NWT communities and residents to take control of their economic future. Investment for these gas projects and the associated long-term development of the Beaufort Delta reserves will be approximately \$7.6 billion.



The return in dollars and jobs, over the next 30 years, based on a price scenario of \$4 US per thousand cubic feet (Mcf), would see:

- **Total project revenues of \$65.9 billion;**
- **Gross Domestic Product of \$58.8 billion;**
- **Total government revenues of \$15.1 billion;**
 - **\$13.3 billion to the federal government; and,**
 - **\$631 million to the GNWT;**
- **Total labour income would be \$9.9 billion;**
- **Total direct and indirect employment would be an estimated 180,000 person years;**

- **Re-investment of corporate profits in new exploration and development could generate an additional \$22 billion in GDP and between 26,000 and 272,000 additional person years of employment; and,**
- **The impact of the spending of labour income could generate another \$0.2 billion to \$0.4 billion in GDP and 58,000 to 132,000 more person years of employment.**

New gas supplies would also help restrain gas price increases. Every 10-cent per Mcf restraining effect would save Canadian consumers \$350 million per year. The availability of this supply of cleaner burning fuel could also save Canada up to \$2.1 billion in greenhouse gas emission costs.

Construction of the Mackenzie Gas Project would not only provide access to the proven reserves of the Beaufort Delta, it would also open new regions of the Northwest Territories for exploration and development. The provision of improved transportation infrastructure would reduce costs and increase reliability, thus allowing Canadian-based junior and intermediate exploration companies the opportunity to participate.



Minerals

The Northwest Territories has a vast mineral potential, consistently ranked by mining companies surveyed by the Fraser Institute as one of the highest in North America.

We have come a long way from 1998 when the opening of the Ekati diamond mine started the Canadian diamond mining industry. The NWT is now the world's third largest supplier of rough diamonds by value, providing 12% of the total global output. Production from the Ekati and Diavik diamond mines was worth \$1.7 billion in 2003 and is estimated to have grown to \$2.1 billion in 2004. The Snap Lake project received final approval last May to become the NWT's third diamond mine. Construction has begun and production is scheduled for 2006.

By 2006, the NWT will have three diamond mines producing approximately 12 to 15 percent of the world's gem quality stones, or \$1.5 billion annually, most of which will be exported. Canada will continue to gain global diamond production market share as other Canadian mines, such as Tahera's Jericho Diamond Project in Nunavut, start production. Initial indications are that the North American demand for Canadian diamonds is high. Increasing international concern over the politics of diamonds mined in western and southern Africa is likely to increase this demand.

It is estimated that these three diamond mines will generate \$26 billion in GDP over their lifetimes, generating \$7.5 billion in total government revenues.

Despite the recent downturn in commodity prices that has resulted in a slowdown in other mineral-related exploration and development, the Northwest Territories has enormous potential for many other types of mineral development such as gold, base metals and other precious metals. Our full potential has yet to be realized. An investment in transportation infrastructure would reduce the costs associated with exploration and development of these resources and would, in turn, generate employment and supply opportunities throughout Canada.

Tourism

Tourism is one of the pillars of northern economic development. The North has some of Canada's most spectacular scenery; it is home to an abundance of exotic wildlife and birds, and a fascinating cultural heritage. Domestic and foreign tourists who use the highway system are an important part of tourism in the Northwest Territories.

While tourism is a rapidly expanding industry throughout the world, the Northwest Territories' tourism industry has been experiencing relatively low growth rates for the summer season. Given the great natural heritage and abundant wilderness, opportunities for growth in the tourism sector are



great. These opportunities would be enhanced through improved and expanded transportation infrastructure.

The tourism industry is an important part of our renewable resource sector. Tourism, particularly winter aurora viewing tourism, has rebounded from the setbacks caused by the terrorist attacks on the USA and the SARS outbreak. Tourists and business visitors contribute \$90 million in direct spending annually into the NWT economy and the tourism

industry has the potential to provide an even larger contribution, especially in smaller communities. We need to continue to support the tourism industry in its efforts to market the NWT as a four-season destination.

Improvements to road transportation corridors in the Northwest Territories would also complement recent efforts by the federal government to market Canada as a safe, secure place for adventure travel.



Hydro

Preliminary studies indicate that the Northwest Territories has the potential to generate more hydro power than James Bay or Churchill Falls, using modern run-of-the-river technology that eliminates the need for large dams and massive flooding.

The NWT hydroelectric generation potential is massive, with as much as 11,000 megawatts in undeveloped sites. This potential is world class. Future hydro development prospects include Upper Snare River, Taltson, Great Bear River and Lac La Martre River. Improved transportation infrastructure would help facilitate the development of these future hydro projects.

Not only will hydro development diversify the NWT economy but it will also help reduce Canadian greenhouse gas emissions by supplying a renewable and clean energy alternative.



Our People

Transportation has a history of being a key factor in the development of the economic and social fabric of Canada's North. Much of the existing transportation system was originally developed to support resource development such as mining. Over time, however, this system evolved to support and sustain the communities that emerged around these developments. The transportation system now servicing NWT communities is incomplete and in need of upgrading. These characteristics bear themselves out in higher transportation costs to the communities that marginalize economic development and other opportunities.

Improving our highway connections to communities in our outlying regions will result in less reliance on expensive air service and generate savings that could be used for other social or economic opportunities within these communities. A transportation system that links our communities effectively to markets, services and businesses will provide our residents with many of the opportunities that Canadians in the south take for granted. In communities where improved road access is not economically feasible at this point, similar benefits could be realized through improvements to airport infrastructure.





The Need

The surface transportation system serving the Northwest Territories is under-developed, consisting of approximately 2200 kilometres of all-weather road, 1450 kilometres of publicly constructed winter road and other privately constructed winter roads. All-weather and winter roads in the Northwest Territories are a vital link in the supply chain for non-renewable resource exploration, development and resupply. This limited surface transportation system is under extreme pressure from recent industrial expansion. At the same time, the lack of land-based transportation infrastructure results in inefficiencies for existing developments, increased uncertainty and costs in the exploration and development of new developments, reduced mobility and a high cost of living for Northerners.

Also because of the lack of surface transportation, the Northwest Territories relies heavily on the air system for mobility and resupply. The Government of the Northwest Territories operates 27 community-based airports. The facilities at NWT airports were designed and are maintained for typical levels of traffic that are expected in these regions. The current airport system cannot safely or efficiently accommodate the forecasted increase in air traffic due to resource development, especially the construction, post construction and induced exploration anticipated by the Mackenzie Gas Project.

The lack of effective and essential transportation infrastructure could eventually discourage future investment by companies that would otherwise be willing to pour billions of dollars into Canada's North, and subsequently the

nation's coffers. A significant investment is needed to make the Northwest Territories highway system more efficient and effective.

“The Department of Transportation will bear a direct and significant burden associated with the proposed Mackenzie Gas Project. Since its inception, the Mackenzie Gas Project has assumed it would have access to the territorial public transportation system for its logistical needs. Indeed, a significant volume of equipment, material, personnel and supplies involved in this \$7 billion project will move through our airports or over our roads.”

*Michael McLeod, Minister of Transportation
Wednesday, February 23, 2005
Statement to the Legislative Assembly*

Geometric Deficiencies

There are many geometric and surface deficiencies on the existing highway network. The system was originally built to minimum standards that cannot support the increases in traffic we have experienced. Increased industrial traffic exacerbates the safety-related problems associated with poor geometrics and surface conditions. As a consequence, the system has been functioning poorly and safety related issues have been increasing.



System Reliability

The surface transportation system relies on a number of ferries, ice bridges and winter roads to connect communities and provide access to resources. Northern transportation is subjected to winter freeze-up, spring break-up and other climatic influences that can affect the duration and reliability of the system. The variable nature of the transportation system adds uncertainty to development projects and poses challenges for community mobility, resupply and economic diversification. The existing limited transportation window makes development and exploration activities expensive and inefficient.

Corridors for Canada II proposes investments that would improve the reliability and certainty of road opening and closing dates as well as extend the period of operation. Bridge building, all-weather road construction and winter road realignment projects would significantly stabilize and increase the reliability of the transportation system. This would facilitate exploration and development and improve the lives of community residents.

Northern Sovereignty

Sovereignty over an area is generally provided by the presence of people, communities, a governance structure and support infrastructure. Sovereignty can be compromised if one or more of these elements is missing. Northern sovereignty and security is dependant upon the communities and the transportation infrastructure that supports them. Current infrastructure is inadequate to respond to environmental emergencies, natural disasters, non-environmental accidents and increasing threats to Canada's sovereignty. With the opening up of polar air routes and the resulting increase in over-flights, there is a greater possibility of an emergency situation or disaster. In the three northern territories, only one road, the Dempster Highway, crosses the Arctic Circle. This highway does not reach the third coast of Canada. Investing in the northern transportation system to extend this road from Inuvik to Canada's Northern coast and the community of Tuktoyaktuk would compliment Canada's efforts to demonstrate sovereignty and increased support for responding to emergencies in the North. Extending this road would also benefit tourism throughout the region.



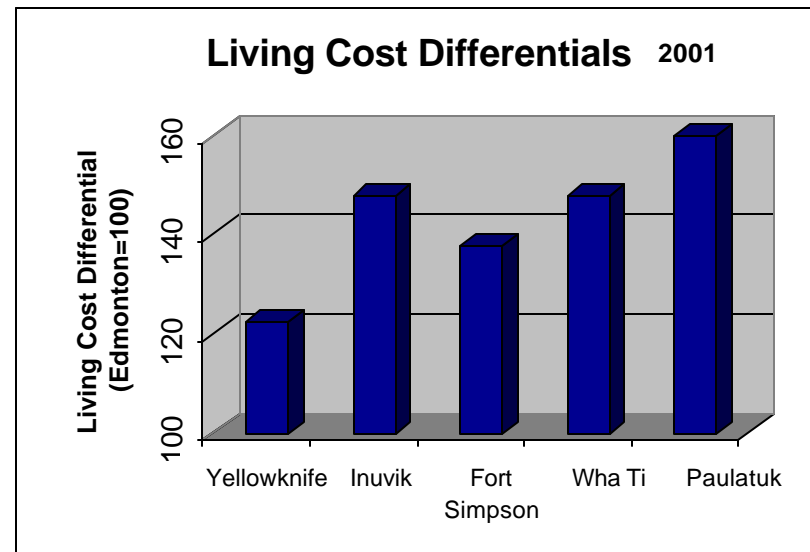
Healthy and Safe Communities

Transportation system improvements can build strong and healthy communities. Improving highway connections to NWT communities in the outlying regions will result in less reliance on expensive air service and generate savings that could be used for other social or economic opportunities within these communities. A transportation system that links these communities effectively to markets, services and businesses will provide NWT residents with many of the opportunities that Canadians in the South take for granted. Opportunities translate into improved access, lower transportation costs and economic diversity. Candidate projects include improved winter road access to the communities off of the all-weather road system, and rehabilitation work on highways in support of tourism, small

business creation and the development of renewable resources. In communities where improved road access is not economically feasible at this point, improved airport infrastructure could offer similar benefits.

Cost of Living

Northern communities face an extremely high cost of living. The availability of transportation infrastructure is a significant factor in these costs. Yellowknife, for example, is linked to the south through the surface transportation system for most of the year. The living cost differential is 122.5, compared to Edmonton at 100. On the other hand, a community such as Paulatuk, which does not have any surface transportation connections, has a living cost differential of 162.5. This is especially significant when also considering that the average annual income in Yellowknife is more than double that of Paulatuk and other small communities in the North with higher living costs. Improving transportation access to communities will lower the cost of living and significantly improve the quality of life for residents.



Economic Diversification

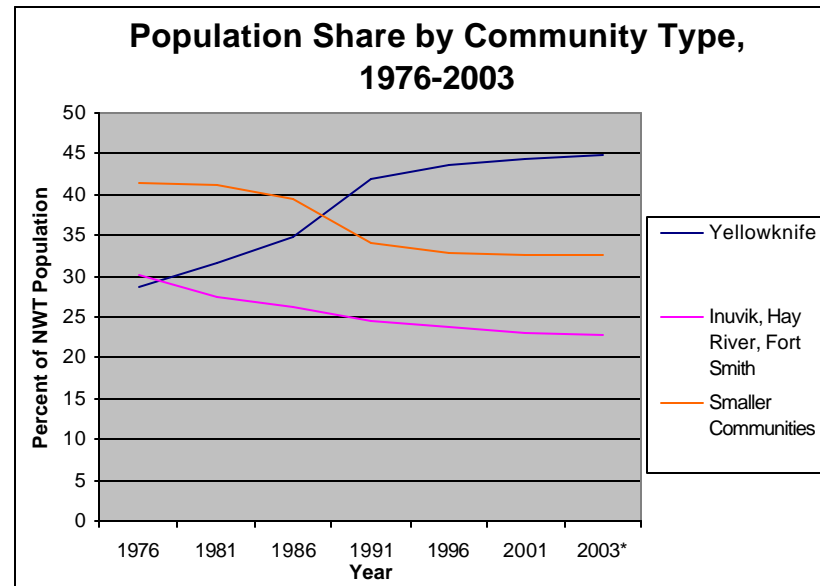
As of December 2004, the NWT employment rate was almost 71 percent, the second highest in Canada. Despite a booming economy, there continue to be quality of life indicators that are significantly below national standards. Economic activity in the NWT is unevenly distributed with unemployment rates ranging from 5 percent in Yellowknife to almost 40 percent in smaller communities.

In addition to these alarming income statistics, population statistics are showing a decline in smaller northern communities. Limited opportunities for employment and the high cost of living are factors contributing to this decline. Transportation system improvements would help turn around this trend and contribute to the sustainability of northern communities and, in turn, northern sovereignty.

Recent resource development has started to improve the equality of wealth distribution in the NWT. Until 2000, the NWT had been experiencing an increase in disparity of income, which means fewer communities were receiving a relatively large proportion of overall income. Since 2000 this trend has begun to reverse. Income distribution analysis indicates that income disparity has been decreasing since 2000. In addition, supplemental income data shows a dramatic decrease in support payments throughout the NWT. The increasingly equitable distribution of earned income among communities and the decline in

supplemental income could be due to the recent growth we have seen in the exploration and extraction of natural resources along with an overall growth in the NWT economy.

Transportation system improvements identified in **Corridors for Canada II** will ensure all Northerners have the opportunity to benefit from economic development. These investments will translate into improved access, lower transportation and living costs, and enhanced opportunities for small business creation, tourism resource development and other employment opportunities. The development we are experiencing can result in improved social conditions and help provide a better quality of life for all NWT residents.



Currently, less than one percent (by volume) of Canada's rough diamonds remain in Canada to be cut and polished. The annual value of diamonds at final retail level is 7 times higher than that of rough diamonds.

Mackenzie Gas Project and Diamonds—Economic Benefits, GNWT Backgrounder December 10th, 2004



Climate Change

According to the 2003 Environment Canada's report on temperature and precipitation trends, warmer than normal temperatures have occurred in 25 of the last 26 seasons, and this warming trend has been strongest in northern Canada. This warming trend in the NWT has and will continue to pose challenges for the transportation system. The system is dependant upon climatic conditions and relies on the strength of frozen materials for stability.

Climate change has impacted fall freeze-up and spring thaw dates, which in turn has delayed the opening dates of ice bridges on our all-weather highways and reduced the operating window of our winter road system. This warming trends has also accelerated permafrost degradation, which has led to the rapid deterioration of road surfaces and increased need for road maintenance.

Projects identified in **Corridors for Canada II** will help mitigate the effects of climate change by improving poor surface conditions caused by permafrost degradation, realigning winter roads and building permanent bridges to help extend and stabilize winter road seasons.



“We can meet these challenges, in partnership with Canada and Aboriginal Governments. But to do so will require strategic investments – investments will enable the GNWT and its Aboriginal partners to create an environment that attracts industry, to manage development effectively, and to maximize the benefits of resource development not just for Northerners, but for all Canadians”

Excerpt from A Non-Renewable Resource Development Strategy for the Northwest Territories

The Need



The Benefits

All of Canada has a strategic interest in better connections between its vast northern territories and the rest of the country, and in underlining its sovereignty in this region through a physical presence that can only be achieved with adequate transportation infrastructure.

Significant expenditures in infrastructure will yield even larger financial returns by making current non-renewable resource development sustainable in the long term. Benefits from these developments flow to Canada, the GNWT, Aboriginal governments and industry itself.

Benefits to Canada

Canada collects and will continue to retain 100 percent of royalties and most of the taxes flowing from Northwest Territories developments until land claims are concluded and resource revenue sharing agreements are reached.

Increased development activity will result in increased revenue flows to Canada, through royalties and taxes. Much of the increased employment impacts will occur outside of the Northwest Territories. Economic modeling estimates that southern Canada would capture approximately 71 percent of jobs and 85 percent of tax revenue resulting from Northwest Territories resource development.

Over the next 30 years, existing and proposed Northwest

“Tapping new Canadian natural gas sources will increase our nation’s security of supply, and support both national and international efforts to reduce greenhouse emissions by enabling U.S. and Canadian jurisdictions to replace coal and diesel-fired power sources with natural gas”

Excerpt from A Non-Renewable Resource Development Strategy for the Northwest Territories

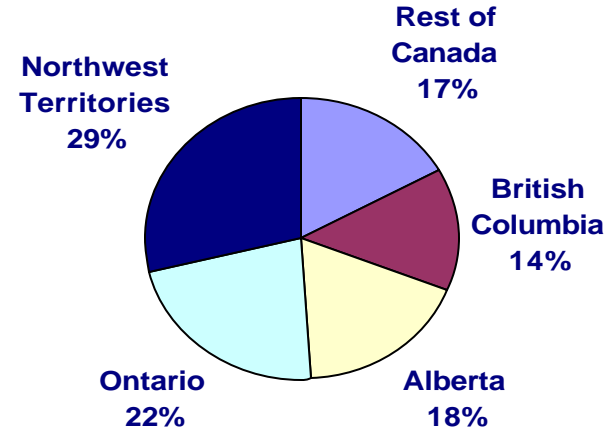
Territories diamond mines and petroleum developments are expected to generate the following impacts:

- **Contribute between \$54 billion and \$84 billion to the national GDP.**
- **Create between 215,500 and 306,500 person-years of employment across Canada, 71% of these jobs created outside the NWT.**
- **Generate between \$14.5 billion and \$22.5 billion in government revenues, of which the vast majority would flow to the federal government.**



The employment impact projections shown below are based on three operational diamond mines and the Mackenzie Gas Project. Employment impacts within the NWT are based on recent economic modeling. The ratio of employment impacts outside of the NWT is based on projections from **A Prime Strategic Investment Opportunity for all of Canada**, published by the NWT Business Coalition.

Employment Impacts



Benefits to the Northwest Territories

Over the next 30 years, the development of Mackenzie Valley and Beaufort Delta natural gas and additional mineral development will bring the Northwest Territories into the Canadian economic mainstream and contribute to our vision of becoming Canada's first "have" territory. Other notable benefits include:

- Based on current formula financing agreements, a Mackenzie Gas Project would fuel the Northwest Territories economy with up to \$631 million in government revenues.
- Three diamond mines will contribute direct and indirect employment opportunities of 55,000 person-years to the NWT economy.
- Secondary diamond industries, such as cutting and polishing, jewelry design and retailing, offer opportunities to diversify the NWT economy and provide residents of northern and remote rural communities opportunities for employment and higher standards of living.

More economic activity means more taxation revenue for the GNWT. However, it is noted that this increased revenue is offset by a reduction in federal transfer payments. In fact, it is in the interest of the federal government to invest since it derives the majority of the tax and royalty benefits.

Improving the North's infrastructure will do more than just support the non-renewable resource industry. Infrastructure improvements will facilitate the diversification of the Northwest Territories economy and improve the quality of life of its citizens who will gain better access to essential services, increased mobility and a lower cost of living. Like other Canadians, all northern residents want development to make their lives better and provide a better future for their children.



Benefits to Aboriginal People

Unlike in the 1970's, Aboriginal people in the Northwest Territories are now partners in the political and economic development of the North and their support is pivotal. Aboriginal support for large-scale developments is contingent on 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. Proof of this is demonstrated by the Aboriginal Pipeline Group which was formed to maximize Aboriginal ownership and benefits from the Mackenzie Gas Project.

The majority of residents in 30 out of 33 communities in the NWT are Aboriginal.

NWT Bureau of Statistics

Benefits to Northern Communities

Transportation improvements can help build strong and healthy communities. Improving highway connections to NWT communities in the outlying regions will result in less reliance on expensive air service and generate savings that could be used for other social or economic opportunities within these communities.

A transportation system that links these communities effectively to markets, services and businesses will provide NWT residents with many opportunities and benefits from development.

Opportunities translate into improved access, lower transportation costs and economic diversity.



Benefits to Industry

Accessibility of transportation infrastructure is important in all phases of an oil and gas or mining project, from initial grassroots exploration through to operations.

Known deposits in the Northwest Territories are in remote locations and lack transportation infrastructure that developments in southern Canada and much of the rest of the world enjoy. The lack of infrastructure also increases the cost of exploration programs. To overcome this deficit, deposits must be larger and higher in grade to be considered for development compared with other regions with better transportation access.



“Accessibility to good transportation can result in:

- *easier project planning,*
- *reductions in initial capital construction and ongoing operating costs,*
- *reduction in project risks and respective investment uncertainty,*
- *reduction in environmental impacts due to defined travel corridors.”*

Excerpt from letter sent from Diavik Diamond Mine to the Honourable David Collenette, former Minister of Transport

The Benefits



The Progress

In 2002, the GNWT submitted a proposal for funding under the Government of Canada's Strategic Infrastructure Fund, titled **Corridors for Canada**. The proposal was put forward with the strong conviction that improving transportation corridors serving the enormous oil and gas and mineral reserves of the Northwest Territories would bring measurable and lasting economic and social benefits to the Northwest Territories and Canada. It would also advance the goal and vision of both the NWT and the federal government of a strong, unified and self-reliant Northwest Territories.

The proposal identified six infrastructure improvement projects needed to support the long-term economic growth and productivity of the Northwest Territories' oil and gas, mineral, tourism, and hydro industries. The proposed partnership arrangement included a federal investment of \$133 million, an Aboriginal and industry contribution of \$43 million, and a GNWT contribution of \$67 million over a four-year period beginning in 2003/2004.

The proposal was built upon the work and lobby effort for federal funding initiated by the Northwest Territories Business Coalition. The proposal received overwhelming support from the business community, industry and other levels of government.

The Government of Canada, recognizing the benefits of improved transportation infrastructure in the Northwest Territories, responded to the Corridors for Canada proposal with a promise of a \$65 million investment. This investment, which was matched by the GNWT, provided a total of \$130 million to start addressing the strategic transportation infrastructure needs of the Northwest Territories. Construction of the first projects under this funding commenced in 2003.

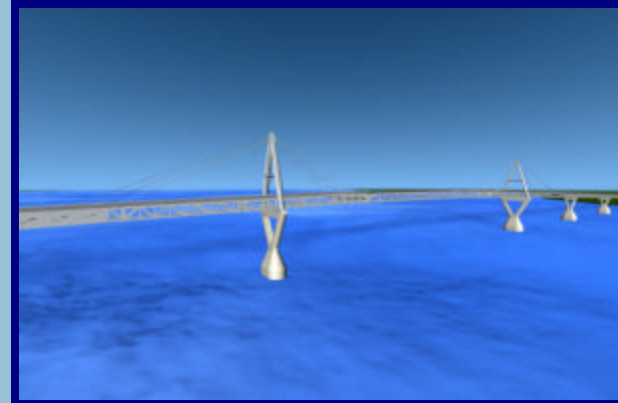
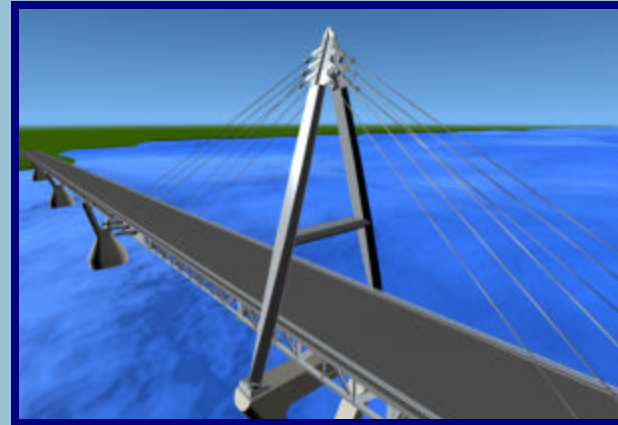
We have realized significant progress on the vision presented in the original **Corridors for Canada** document. In the Mackenzie Valley Corridor, work continues on permanent bridge structures and grade improvements on the Mackenzie Valley Winter Road. Reconstruction activity, which will see improved surface and geometric conditions provided on the Liard, Mackenzie and Dempster highways also continues. All these improvements will increasingly come into play as development of the proposed Mackenzie Gas Project proceeds.

Significant progress has also been made in the Slave Geologic Province Corridor. The only gravel section of the National Highway System, Highway 3, will be paved this year. The reconstruction of the Ingraham Trail (Highway 4) is also underway. The surface and geometric improvements realized from reconstruction will improve safety and capacity of these highways which serve the two, soon to be three, diamond mines in production in the Northwest Territories. These improvements have also helped support the development of the first diamond mine in Nunavut, Tahera's Jericho Project.



The Deh Cho Bridge project which was originally proposed in **Corridors for Canada** is now being pursued as a public-private partnership with an Aboriginal group. On November 5, 2002, the Fort Providence Combined Council Alliance and the GNWT signed a Memorandum of Intent to enter into formal negotiations to build a bridge across the Mackenzie River at Fort Providence. Construction is expected to start in late 2005.

Table 3: Progress on Corridors for Canada outlines the investments made in the Slave Geologic Province and the Mackenzie Valley Transportation Corridors.



Digital imaging of the proposed Deh Cho Bridge across the Mackenzie River near Fort Providence. Construction is planned to start in late 2005.



Table 3: Progress on Corridors for Canada

2003/04-2008/09 (million \$\$\$)

Mackenzie Valley Corridor

Mackenzie Valley Winter Road Improvements	41
Dempster Highway (No. 8) Reconstruction	29
Liard Highway (No. 7) Reconstruction	12
Mackenzie Hwy (No.1) km 187 to 690 Reconstruction	9

Subtotal Mackenzie Corridor 91

Slave Geologic Province Corridor

Yellowknife Highway (No. 3) Reconstruction	28
Ingraham Trail (No. 4) Reconstruction	12

Subtotal Slave Corridor 39

Total CSIF Funding 130

Since 2002 when the original **Corridors for Canada** was submitted to the federal government, resource development pressures in the NWT have continued to mount more quickly than anticipated, therefore exacerbating pressures on the transportation system. The NWT has seen increased oil and gas exploration in the Mackenzie Valley and Beaufort Delta, significant activity and preparations for the proposed Mackenzie Gas Project along with the construction of a third diamond mine. These additional activities far surpass the original transportation system user characteristics and timeframes that were envisaged in 2002.

The benefits of the original **Corridors for Canada** proposal are demonstrated through the improved geometric and surface conditions on the Liard, Mackenzie, Dempster, Yellowknife and Ingraham Trail highways. Bridge building and grade improvements on the Mackenzie Valley Winter Road have helped to extend and stabilize the winter road season as well as increase the road's capacity. These infrastructure improvements have supported and improved the logistical requirements of the diamond and oil and gas industries and have also enhanced intercommunity travel for Northern residents.

The infrastructure improvements resulting from the **Corridors for Canada** proposal have contributed to improved planning and implementation of resource exploration and development in the Northwest Territories. These improvements have facilitated the continued expansion of the oil and gas and diamond industries. Oil and gas exploration continues to expand in preparation for the proposed Mackenzie Gas Project. At the same time, the Northwest Territories' third and Nunavut's first, diamond mines are in the construction and development stages.

“The GNWT proposal (Corridors for Canada) is the best prepared proposal that came before me. It was well researched, it was well presented, it was thoughtful.”

A statement made by John Manley, former Deputy Prime Minister and Federal Minister of Finance, during a video teleconference with NWT leaders and business advocates January 20, 2003.

In March 2005, Northrock Industries announced the largest oil and gas discovery in the last decade. The well, expected to produce 100 times the volume of the average well in Northern Alberta, was discovered near Tulita. This significant discovery, coupled with improved logistics provided by upgraded infrastructure, will increase exploration activities into the future. Other companies active in the area, such as ChevronTexaco, are expanding exploration in hopes to increase reserves in preparation for the proposed Mackenzie gas Project. ChevronTexaco plans to explore an additional 500 square kilometres as well as drill an additional five exploratory wells in the next two seasons, at a cost of between \$10 million and \$30 million each. The benefits of exploration and development, in terms of business and employment opportunities, will continue to improve and support the quality of life of Northerners.



“The Canadian Chamber of Commerce recommends that the federal government, through the Strategic Infrastructure Fund invest \$133m for the NWT transportation network, with an additional commitment of \$100m from the private sector and the Government of the NWT.”

Resolution, or ‘official policy position’, of the Canadian Chamber of Commerce, issued at the 73rd Annual General Meeting, September 2002.

The Progress



The Plan

Corridors for Canada II proposes to continue the work we started back in 2002 and build on our successes. **Corridors for Canada II** expands upon the original vision of improving transportation corridors to accommodate resource development by adding vision elements of economic diversification in NWT communities and the reinforcement of sovereignty and national security in Canada's North. These objectives are mirrored in Investing in Roads for People and the Economy: A Highway Strategy for the Northwest Territories, this government's Strategic Plan and the proposed Northern Strategy.

Realization of this vision requires a reconfirmation of the partnership we developed for the original **Corridors for Canada** proposal. This partnership between Canada, the Government of the Northwest Territories and industry has already realized significant progress and benefit to the people of the Northwest Territories and Canada.

There is some urgency to achieving our vision. The pressures of resource development continue to mount parallel with a desire of Northerners to have the proper transportation infrastructure in place to accommodate this development and allow benefits and opportunities to flow to all communities and people in the NWT. By itself the GNWT, due to limited budgets and other priorities, can only sustain a modest program for renewal and development of transportation infrastructure. **Corridors for Canada II** advances the vision and plan outlined in the 2000 Highway Strategy which will address these needs and benefit all Northerners and Canadians for many generations to come.

Similar to the 2002 proposal, **Corridors for Canada II** is strategic, in that it will better position the Northwest Territories and all of Canada to benefit from resource developments in the North.

This proposal is an investment that it will result in employment, royalties and taxation revenue. This proposal deals with improving transportation infrastructure that will expand service levels of existing transportation corridors to meet the demands of industry and to better connect communities. **Corridors for Canada II** also recognizes that where improved road access is not economically feasible, improved airport infrastructure could offer similar benefits.

Corridors for Canada II calls for an additional investment of \$162 million. The total investment required responds to both the pressures of resource development and the need to promote economic diversification and improve the quality of life of northern residents by improving access. This investment would be directed to two types of transportation corridor needs:

Responding to the Pressures of Resource Development

- **\$117 million is required to improve all-weather and winter roads that serve existing and future oil and gas and mineral development in the Northwest Territories. These investments are critically and urgently needed to facilitate and to respond to the pressures of resource development.**

Economic Diversification and Connecting Communities

- **\$45 million is required to promote economic diversification, provide better access to essential services, increase mobility and intercommunity travel and lower the high cost of living for Northerners.**

The projects proposed under these two corridor types are described on the pages which follow. A breakdown of these pro-

jects and investment needs are detailed in **Table 1: Corridors for Canada II Investment Needs**.

Recognizing the proposed timetable for the Mackenzie Gas Project and increased mineral developments in the Slave Geologic Province, this investment would be directed to transportation infrastructure projects almost immediately. The GNWT views the \$162 million investment as the bare minimum for sustaining natural resource development while meeting the needs of other users for a safe and effective transportation system. **Table 2: Corridors for Canada II Investment Timing** outlines the timing of the investments required.



Table 1: Corridors for Canada II Investment Needs

2005/06—2008/09 (million \$\$\$)

Responding to the Pressure of Resource Developments	Project Investment
Mackenzie Valley Corridor	
Mackenzie Valley Winter Road Improvements	10
Dempster Highway (No. 8) Reconstruction	28
Tuktoyaktuk Resource Access Road	15
Liard Highway (No. 7) Reconstruction	12
Mackenzie Highway (No. 1) km 187 to 690 Reconstruction	26
Trout Lake Winter Road Improvements	2
Subtotal Mackenzie Corridor	93
Slave Geologic Province Corridor	
Ingraham Trail (No. 4) Reconstruction	24
Subtotal Slave Corridor	24
Responding to the Pressure of Resource Developments Total	117
Economic Diversification and Connecting Communities	
Fort Smith Highway (No. 5) Improvements	8
Fort Resolution Highway (No. 6) Improvements	4
Tlicho Winter Road Realignment	12
Community Access Road Improvements (1)	4
Community Airport Projects (2)	17
Economic Diversification and Connecting Communities Total	45
Total	162

(1) Community Access Road Improvements Include: Nahanni Butte, Hay River Reserve and Jean Marie River.

(2) Community Airport Projects Include: New Airport Construction at Colville Lake, Nahanni Butte and Trout Lake and Runway Extension at Fort Good Hope Airport.

Table 2: Corridors for Canada II Investment Timing

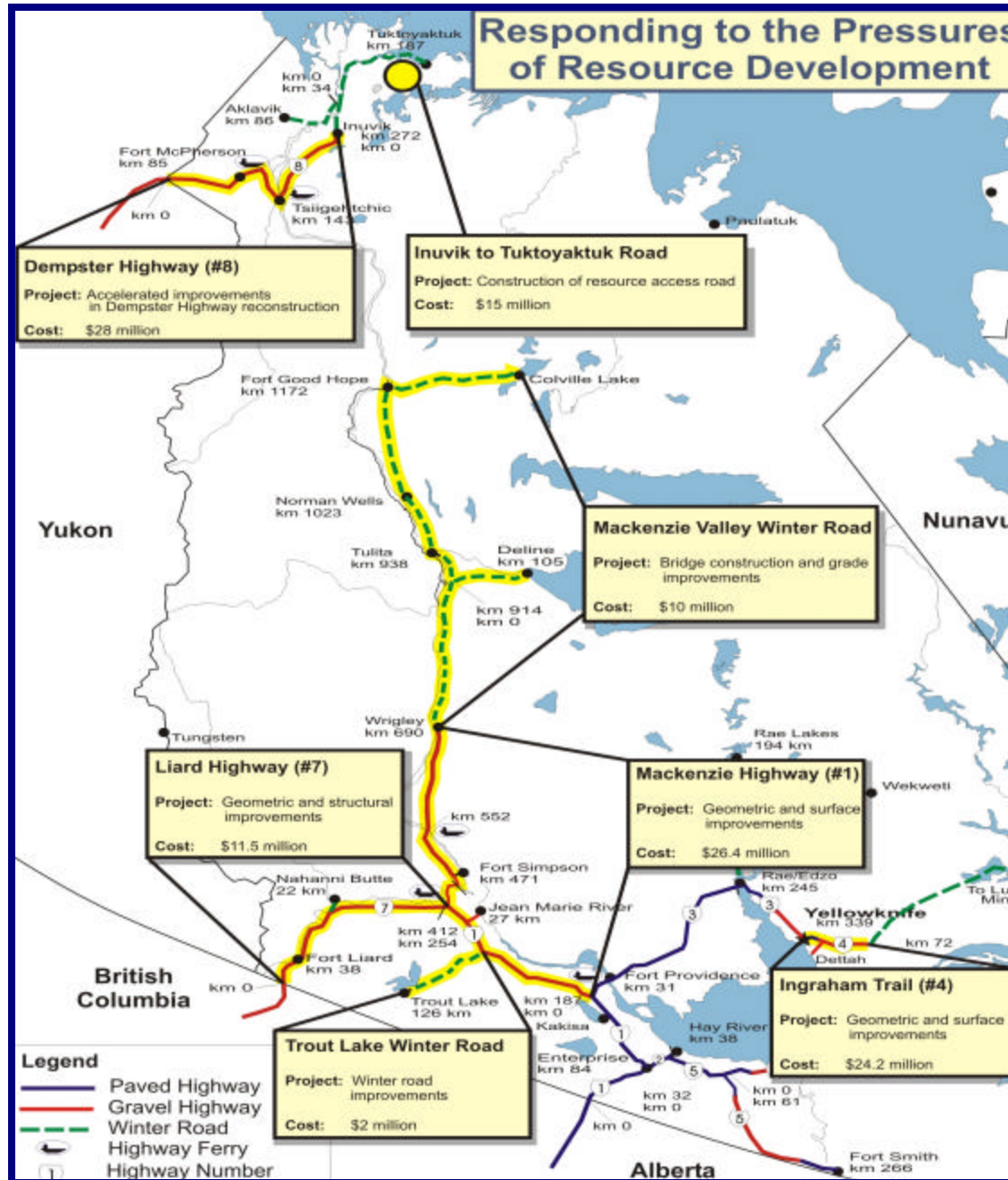
(million \$\$\$)

	2005/06	2006/07	2007/08	2008/09	Total
Responding to the Pressure of Resource Developments					
Mackenzie Valley Corridor					
Mackenzie Valley Winter Road Improvements	2.5	2.5	2.5	2.5	10
Dempster Highway (No. 8) Reconstruction	7	7	7	7	28
Tuktoyaktuk Resource Access Road	5	5	5	0	15
Liard Highway (No. 7) Reconstruction	3	3	3	3	12
Mackenzie Highway (No. 1) km 187 to 690 Reconstruction	13	13	0	0	26
Trout Lake Winter Road Improvements	2	0	0	0	2
Subtotal Mackenzie Corridor	32.5	30.5	17.5	12.5	93
Slave Geologic Province Corridor					
Ingraham Trail (No. 4) Reconstruction	6	6	6	6	24
Subtotal Slave Corridor	6	6	6	6	24
Responding to the Pressure of Resource Developments	38.5	36.5	23.5	18.5	117
Economic Diversification and Connecting Communities					
Fort Smith Highway (No. 5) Improvements	2	2	2	2	8
Fort Resolution Highway (No. 6) Improvements	1	1	1	1	4
Tlicho Winter Road Realignment	6	6	0	0	12
Community Access Road Improvements (1)	2	2	0	0	4
Community Airport Projects (2)	4	4	4	5	17
Economic Diversification and Connecting Communities	15	15	7	8	45
Total	53.5	51.5	30.5	26.5	162

(1) Community Access Road Improvements Include: Nahanni Butte, Hay River Reserve and Jean Marie River.

(2) Community Airport Projects Include: New Airport Construction at Colville Lake, Nahanni Butte and Trout Lake and Runway Extension at Fort Good Hope Airport.

Responding to Resource Development Pressures



Mackenzie Valley Winter Road Improvements

- Grade and Safety Improvements on Mackenzie Valley Winter Road between Wrigley and Fort Good Hope.
- Bridge construction at Bosworth Creek.

The Northwest Territories Department of Transportation annually constructs a 482-kilometre winter road from Wrigley to Fort Good Hope. This winter road facilitates community resupply and intercommunity travel for Mackenzie Valley communities. The winter road is also used for oil and gas exploration activities occurring in the Mackenzie Valley.

The Department of Transportation is currently completing the construction of 22 permanent bridges on the winter road in partnership with DIAND, through the Regional Partnerships Fund, and Infrastructure Canada, through the CSIF Program. Construction of these bridges is expected to expand the window of operation for the winter road, facilitating oil and gas exploration activities and community resupply and travel. The completed bridge construction and grade improvements will also reduce travel time between communities.

The winter road will be used extensively for the construction of a Mackenzie Gas Project. Construction of this pipeline will be undertaken over two, four-month winter seasons. Safety improvements are required to accommodate the volume increases associated with pipeline development.

Winter road improvements will create significant local employment and business opportunities for Aboriginal persons and companies. These improvements will enhance intercommunity travel, increase access to services and reduce consumer prices.

Grade and safety improvements will facilitate oil and gas exploration and potential development activities, as well as facilitating pipeline construction. However, the current window of operation is limited. This results in higher expenditures on transportation and logistics, and less on actual exploration activities.

A future all-weather road through the Mackenzie Valley will also benefit from these winter road improvements.

- Since 2002, \$52.5 million has been invested in bridge building and grade improvements on the Mackenzie Valley Winter Road. Through the CSIF program \$41.1 million will have been invested since 2003. Through the Regional Partnerships Fund administered by DIAND, \$11.4 million has been invested since 2002.
- Further investment of \$10 million is required.

Investment Timing	2005/06	2006/07	2007/08	2008/09	Total (million \$\$\$)
	2.5	2.5	2.5	2.5	10

Dempster Highway (No. 8) Reconstruction

- Reconstruction of the Dempster Highway from the North-west Territories/Yukon border to Inuvik.

The Dempster Highway extends 259 kilometres from the North-west Territories/Yukon Border to Inuvik. This highway provides surface access to Inuvik and the Beaufort Delta region. The highway is used by the oil and gas exploration and development industry .

Reconstruction would involve straightening and widening the road to improve road geometrics, along with the correction of drainage and permafrost problems which appear to be increasing as a result of climate change.

Oil and gas companies currently exploring in the Beaufort Delta region would benefit from improved road conditions. The reconstruction of this highway will improve the certainty and level of service for this vital link in the oil and gas supply chain.

Vehicle operating costs, for both private and commercial users, will be reduced through improved surface conditions and improved roadway geometrics.

Safety will also be improved through improved geometrics and improved surface conditions.

In addition, a reconstructed highway would attract more tourists to the region, particularly from the Alaska Highway.

Local training and employment opportunities, and contracting opportunities for Aboriginal companies are provided through road construction.

- Through the CSIF program \$29 million has been invested since 2003.
- Further investment of \$28 million is required.

Investment Timing	2005/06	2006/07	2007/08	2008/09	Total (million \$\$\$)
	7	7	7	7	28

Inuvik to Tuktoyaktuk Road Phase 1 : Tuktoyaktuk Resource Access Road:

- Construction of a 22-kilometre access road from Tuktoyaktuk south to area gas deposits and gravel sources as the first phase of a road from Inuvik to Tuktoyaktuk.

At present, the Department of Transportation annually constructs a 187-kilometre ice road from Inuvik to Tuktoyaktuk.

Construction of an all-weather road to the Arctic Ocean at Tuktoyaktuk has been considered as far back as the 1960's by the federal government and is a long-term objective of the GNWT. The Inuvik to Tuktoyaktuk all-weather road would be a step towards a Mackenzie Valley all-weather route connecting southern Canada to the Arctic Coast.

As part of the last Highway Strategy initiative, the engineering, economic, environmental and land issues associated with the Inuvik-Tuktoyaktuk Road were studied.

The road would facilitate exploration and development of oil

and gas reserves in the region. Devon Energy Corporation and Petro-Canada have recently discovered natural gas near the end of the proposed gravel access road (Tuk M-18 well).

The construction of this road would provide considerable local and Aboriginal training and employment opportunities during construction. Local contractors could undertake this work.

The road would be the only link in Canada to the Beaufort Sea/Arctic Ocean and would connect the country from 'coast to coast to coast' and would significantly benefit Canada's security and sovereignty.

The construction of an initial 22 kilometres would provide the community of Tuktoyaktuk and industry with a year-round access to gravel. The road would provide the community with a high potential for tourism development and other economic diversification opportunities.

This would be the first stage of an eventual Inuvik to Tuktoyaktuk all-weather road. The total cost to construct a road from Inuvik to Tuktoyaktuk is \$100 million.

- The cost to construct the 22-kilometre access road from Tuktoyaktuk to the gravel source, phase 1 of the Inuvik to Tuktoyaktuk road, is \$15 million.

Investment Timing	2005/06	2006/07	2007/08	2008/09	Total (million \$\$\$)
	5	5	5	0	15

Liard Highway (No. 7) Reconstruction

- Reconstruction of selected sections of the Mackenzie Highway from the BC border to Highway 1.
- These investments include geometric, structural and drainage improvements, and guardrail installation.

The Liard Highway extends 257 kilometres from the Northwest Territories/British Columbia border to Highway 1 near Fort Simpson. This highway is the NWT's only link to British Columbia.

Oil and gas companies currently exploring in the Mackenzie Corridor would benefit from improved road conditions. These improvements are identified as essential to facilitate the Mackenzie Gas Project.

The reconstruction of this highway will improve the certainty and level of service for this vital link in the oil and gas supply chain.

Vehicle operating costs, for both private and commercial users, will be reduced through improved surface conditions and improved roadway geometrics.

Safety will be improved through improved geometrics and improved surface conditions.

Local training and employment opportunities, and contracting opportunities for aboriginal companies are provided through road construction.

- Through the CSIF program \$11.5 million has been invested since 2004.
- Further investment of \$11.5 million is required.

Investment Timing	2005/06	2006/07	2007/08	2008/09	Total (million \$\$\$)
	3	3	3	3	12

Mackenzie Highway (No. 1) Reconstruction

- Reconstruction of selected sections of the Mackenzie Highway between Highway 3 and Highway 7.
- Investments include geometric, structural and drainage improvements, guardrail installation, dust suppressant and pullout construction.

The Mackenzie Highway, the longest highway in the NWT, extends 690 kilometers from the Northwest Territories/Alberta border to Wrigley, where the Mackenzie Valley Winter Road continues to Fort Good Hope.

The reconstruction of this highway will improve the level of service for this vital link in the oil and gas supply chain. Oil and gas companies currently exploring in the Mackenzie Corridor would benefit from improved road conditions.

Safety and vehicle operating costs, for both private and commercial users, will be reduced through improved surface conditions and roadway geometrics.

Local training and employment opportunities, and contracting opportunities for aboriginal companies are provided through road construction.

- Through the CSIF program \$9 million has been invested since 2004.
- Further investment of \$26.4 million is required.

Investment Timing	2005/06	2006/07	2007/08	2008/09	Total (million \$\$\$)
	13	13	0	0	26

Trout Lake Winter Road Improvements

- Improvements on the Trout Lake Winter Road including upgrades and bridge installation.

The Northwest Territories Department of Transportation annually constructs a 126-kilometre winter road from Highway 1 to the community of Trout Lake. This winter road facilitates community resupply and intercommunity travel for the community of Trout Lake.

Grade and safety improvements will facilitate oil and gas exploration and potential development activities, as well as improve the logistics of pipeline construction. The identified investment is essential to improve the standard of the winter road to facilitate construction and accommodate project volumes associated with the Mackenzie Gas Project.

The investments are urgently required in order to prepare for the construction of the Mackenzie Gas Project. These improvements must be completed prior to pipeline construction.

Improvements to the winter road will increase the road's capacity, improve safety and increase reliability. This will in turn improve oil and gas logistics and enhance intercommunity travel, increase access to services and reduce consumer prices.

Winter road improvements will create significant local employment and business opportunities for Aboriginal persons and companies.

Safety improvements are required to accommodate the truck volume increases associated with pipeline development.

- An investment of \$2 million is required to address safety and capacity issues before the Mackenzie Gas Project proceeds.

Investment Timing	2005/06	2006/07	2007/08	2008/09	Total (million \$\$\$)
	2	0	0	0	2

Ingraham Trail (No. 4) Reconstruction

- Reconstruction, paving and geometric improvements along the Ingraham Trail.

The 69-kilometre long Ingraham Trail (also referred to as Highway 4) begins near Yellowknife at the intersection with Highway 3 and terminates at Tibbit Lake. This highway provides access to local mines (Giant), the community of Dettah, permanent and recreational residents along its route, recreational areas, and the winter road servicing mine sites north of Yellowknife for annual resupply.

The Ingraham Trail does not meet current highway geometric standards for its use. Road width, horizontal and vertical curvature and sight distance conditions require reduced speed limits and limit passing opportunities. Geometrically, it is the worst highway within the Northwest Territories, and maximum speed limits are posted at 70 km/h.

Commercial trucking activities on this road have increased dramatically over the past several years, due to the development of diamond mines in the Slave Geologic Province. Over 8000 truckloads of freight (16,000 truck trips annually) travelled over this road in the 2005 winter season. It is projected that these volumes will increase to 12,000 by 2010.

The increased truck traffic creates safety concerns as they mix with other light vehicles on a road with poor surface and geometric conditions. Safety would be greatly enhanced through improved geometric and surface improvements.

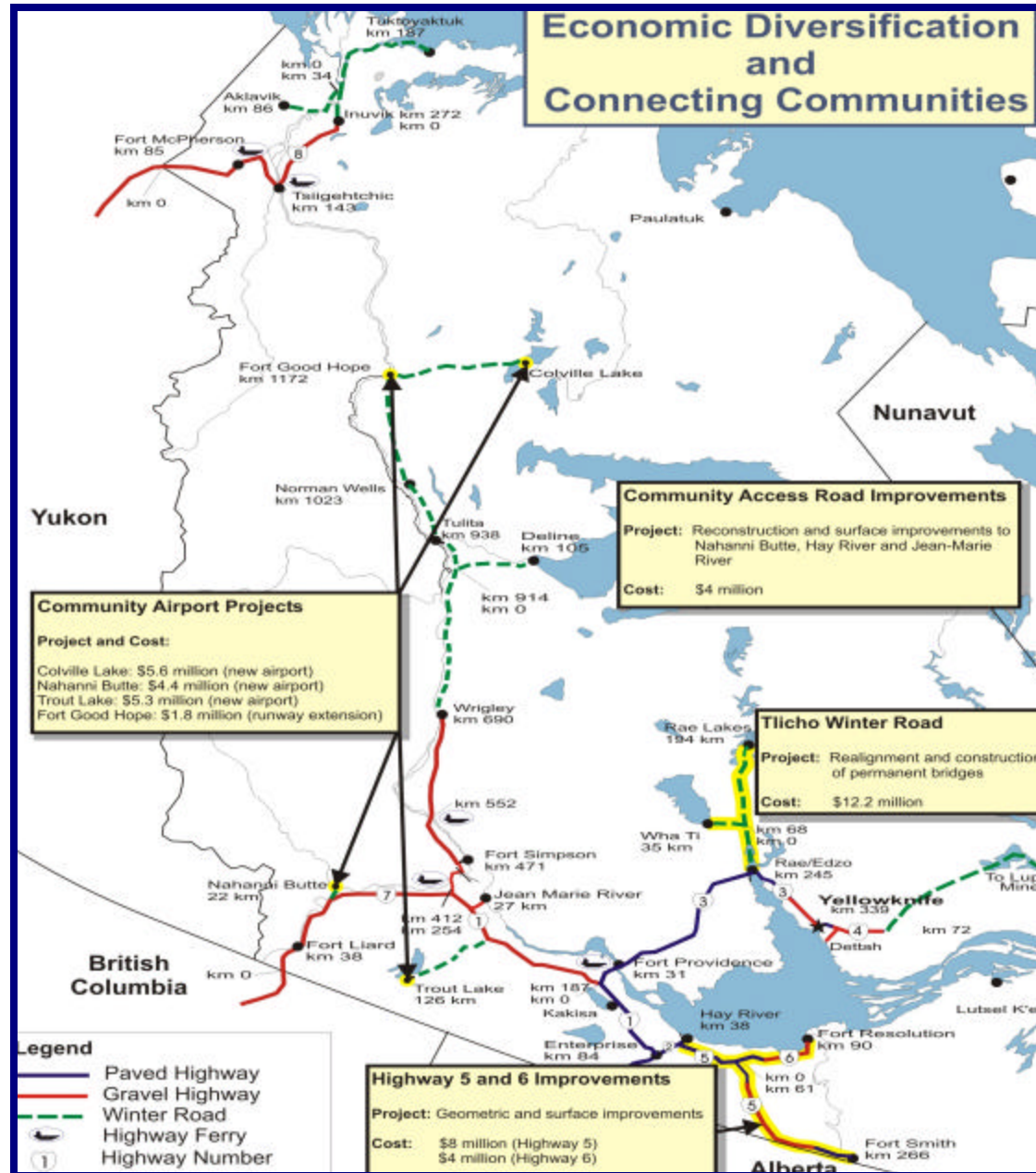
The reconstruction and paving of this section will increase economic efficiency through improved reliability and operating performance of the trucking industry. This will be a direct benefit to the mining industry.

The Ingraham Trail is used extensively by tourists. Tourism opportunities would be enhanced through the provision of a safer road with an improved surface.

- Through the CSIF program \$11.8 million has been invested since 2003.
- Further investment of \$24.2 million is required.

Investment Timing	2005/06	2006/07	2007/08	2008/09	Total (million \$\$\$)
	6	6	6	6	24

Economic Diversification and Connecting Communities



Fort Smith Highway (No. 5) Improvements

- Completion of chip seal surface and grade improvements on Highway (No. 5) serving the community of Fort Smith.

The Fort Smith Highway travels through Wood Buffalo National Park on the drive from Hay River to Fort Smith. Only about half of the 266-kilometer highway is paved.

Safety and vehicle operating costs, for both private and commercial users, will be reduced through improved surface conditions and roadway geometrics.

The road realignment would also improve opportunities for tourism development and economic diversification. The realignment may enhance ecotourism and adventure travel business opportunities offered by the communities' vicinity to Wood Buffalo National Park.

Improved surface conditions would reduce travel time and improve highway safety.

Other benefits include environmental and health benefits associated with the reduction of gravel surfaces and associated dust and airborne sediment.

- Investment required is \$8 million.

Investment Timing	2005/06	2006/07	2007/08	2008/09	Total
	2	2	2	2	8

Fort Resolution Highway (No. 6) Improvements

- Surface and grade improvements on Highway (No. 6) serving the community of Fort Resolution.

The Fort Resolution Highway begins at kilometer 60 of Highway No. 5 to Fort Smith and winds around Great Slave Lake to Fort Resolution. Less than half of the 90-kilometer highway is paved.

The highway also provides access to the lead and zinc potential near the former Pine Point Mine.

Safety and vehicle operating costs, for both private and commercial users, will be reduced through improved surface conditions and roadway geometrics.

The road realignment would also improve opportunities for tourism development and economic diversification. The realignment may enhance opportunities for access to potential tourism opportunities offered by the highway location adjacent to Great Slave Lake.

Improved surface conditions would reduce travel time and improve highway safety.

Other benefits include environmental and health benefits associated with the reduction of gravel surfaces and associated dust and airborne sediment.

- Investment required is \$4 million.

Investment Timing	2005/06	2006/07	2007/08	2008/09	Total (million \$\$\$)
	1	1	1	1	4

Tlicho Winter Road Realignment

- Realignment of the current winter road and construction of permanent stream crossings.

The Tlicho Winter Road connects the communities of Wha Ti, Gameti and Wekweti to Rae-Edzo. Currently, the Department annually constructs a winter road to Wha Ti and Gameti. The winter road connection to Wekweti has been built as required for community resupply.

The winter road also serves the Snare Lakes Hydro Project and the Colomac Mine, which is in the reclamation phase.

The Department is currently studying corridor route options for the winter road realignment. This winter road realignment route will serve as a potential all-weather route in the future.

The winter road realignment would significantly improve inter-community travel. With the Tlicho Agreement coming into effect, this link will improve government efficiency and capacity as the Tlicho People establish and run their new government.

The Tlicho Winter Road realignment would improve the reliability and extend the operating window of the winter road. This would improve logistics and help facilitate non-renewable resource development, such as Fortune Minerals' gold, bismuth and uranium deposit. Improved transportation will also help facilitate the abundant hydro potential in the area. The realignment and bridge construction will also mitigate the effects of climate change and the subsequent reduction of the winter road season.

Improved reliability and an extended operating window will result in social benefits arising from reduced isolation, improved level of service and lowered cost of living.

The Tlicho Winter Road realignment may also have environmental benefits as the requirement for temporary bridge structures and ice crossing along the route are reduced, thus reducing stream bank erosion and stream sedimentation concerns.

The road realignment would also improve opportunities for tourism development and economic diversification. The realignment may enhance opportunities for access to the abundant waterfalls and other potential ecotourism and adventure travel opportunities.

- Investment required for the Tlicho Winter Road Realignment is \$12 million.

Investment Timing	2005/06	2006/07	2007/08	2008/09	Total (million \$\$\$)
	6	6	0	0	12

Community Access Road Improvements

- Various grade and surface improvements as required on Nahanni Butte, Hay River Reserve and Jean Marie River access roads.

Community access road improvements will enhance intercommunity travel, increase access to services and reduce consumer prices.

Grade and safety improvements will facilitate exploration and potential development activities. Community access road improvements will create significant local employment and business opportunities for Aboriginal persons and companies. Local training and employment opportunities, and contracting opportunities for Aboriginal companies are provided through road construction.

Vehicle operating costs, for both private and commercial users, will be reduced through improved surface conditions and improved roadway geometrics.

Safety will be improved through improved geometrics and improved surface conditions.

- Further investment of \$4 million is required.

Investment Timing	2005/06	2006/07	2007/08	2008/09	Total (million \$\$\$)
	2	2	0	0	4

Community Airport Projects

- Construction of new airports at Colville Lake, Nahanni Butte and Trout Lake.
- Fort Good Hope Airport Runway extension of 1,500 feet to bring the runway to 4,500 feet.

The Fort Good Hope Runway Extension would allow for service by larger aircraft and increase the capacity of the Fort Good Airport to handle the increased demands being placed on it.

The Fort Good Airport is seeing increased demands due to oil and gas exploration and development. This demand will certainly increase as a result of the Mackenzie Gas Project. This airport is one that the Mackenzie Gas Project proponents plan to use for transport of personnel.

Improved facilities and services would enhance the safety of the Fort Good Airport and the reliability of air services to the community.

Construction of new airports at Colville Lake, Nahanni Butte and Trout Lake would replace the existing non-certified airports serv-

ing their respective communities. The existing airports cannot easily be certified in their existing locations. Certification would allow for scheduled air service and improve safety.

All four airports have experienced increased traffic related to oil and gas exploration. Induced activity, expected to following the construction of the Mackenzie Gas Project, will pose further demands on these three airports.

These airports do not currently have the capacity to handle issues related to the expected increased traffic flow.

Increased safety and improved services would facilitate increased oil and gas exploration in the region, which is expected to follow the construction of the Mackenzie Gas Project. Capacity and safety improvements, which are required before certification and scheduled air service, will reduce the cost of living and improve opportunities for economic diversification.

- Total investment required for Community Airport Projects is \$17 million.
 - \$5.6 million required at Colville Lake Airport
 - \$4.4 million required at Nahanni Butte Airport
 - \$5.3 million required at Trout Lake Airport
 - \$1.8 million required for at Fort Good Hope Airport

Investment Timing	2005/06	2006/07	2007/08	2008/09	Total (million \$\$\$)
	4	4	4	5	17

Conclusions

Corridors for Canada II proposes to continue the work we started back in 2002 and build on our successes. **Corridors for Canada II** expands upon the original vision of improving transportation corridors to accommodate resource development by adding additional vision elements of economic diversification in NWT communities and the reinforcement of sovereignty and national security in Canada's North.

Realization of this new vision requires a timely reconfirmation of the partnership we developed for the original **Corridors for Canada** proposal. This partnership between Canada, the Government of the Northwest Territories and industry has already realized significant progress and benefit to the people of the Northwest Territories and Canada.

There is some urgency to achieving our vision. The pressures of resource development continue to mount, parallel with a desire of Northerners to have the proper transportation infrastructure in place to accommodate this development and allow benefits and opportunities to flow to all communities and people in the NWT. **Corridors for Canada II** provides a vision and plan that will address these needs and benefit all Northerners and Canadians for many generations to come.

Corridors for Canada II calls for an additional investment of \$162 million. The total investment required responds to both the pressures of resource development and the need to promote economic diversification and improve the quality of life of northern residents by improving access. This investment would be directed to two types of transportation corridor needs:

Responding to the Pressures of Resource Development

- **\$117 million is required to improve all-weather and winter roads that serve existing and future oil and gas and mineral development in the Northwest Territories. These investments are critically and urgently needed to facilitate and to respond to the pressures of resource development.**

Economic Diversification and Connecting Communities

- **\$45 million is required to promote economic diversification, provide better access to essential services, increase mobility and intercommunity travel and lower the high cost of living for Northerners.**

Improved transportation can reduce the cost of living and help to create strong and healthy communities. Improving highway connections to NWT communities in the outlying regions will result in less reliance on expensive air service and generate savings that could be used for other social or economic opportunities within these communities. A transportation system that links these communities effectively to markets, services and businesses will provide NWT residents with many of the opportunities that Canadians in the South take for granted. These opportunities translate into improved access, lower transportation costs and economic diversity.

The strategic investments proposed in **Corridors for Canada II** will enable us to create an environment that attracts industry, manage development effectively, and maximize the benefits from resource development. Together, we can ensure that development of the Northwest Territories' rich resources is a benefit for all of Canada, including the people of the Northwest Territories.

Conclusions

