LEGISLATIVE ASSEMBLY OF THE NORTHWEST TERRITORIES

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STANDING COMMITTEE ON FINANCE

EIGHTH REPORT

TO THE LEGISLATIVE ASSEMBLY

ON

RESPONDING TO NON-RENEWABLE RESOURCE DEVELOPMENT

DECEMBER 1980.

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I. INTRODUCTION

At the first session of the Ninth Legislative Assembly of the Northwest Territories the Standing Committee on Finance was authorized to investigate and make recommendations concerning appropriate Territorial Government response to non-renewable resource development.

The authorization from the Legislative Assembly was requested by the Committee following its first meeting where members identified five major areas of concern with respect to non-renewable resource development projects. They were and still are:

(1) non-renewable resource development is on the brink of major expansion throughout the north;

(2) there is no overall development strategy for the Northwest Territories;

(3) there is no Territorial authority in non-renewable resource projects other than by way of recommendation;

(4) the Territorial Government collects no royalties or land lease fees in a direct manner from exploratory or development projects;

(5) it is the responsibility of the Territorial Government to provide service delivery to northern communities and to respond to the need for expanded community service delivery systems resulting from resource development. Federally approved resource

development projects, therefore, affect Territorial Government spending in both Operating and Maintenance and Capital.

A. Resource Revenue Sharing

The Finance Committee recognizes that resource revenue sharing (royalties and land lease fees) is the established way in which funds are obtained in most Governments to help offset the cost of impact due to non-renewable resource development. In the Northwest Territories, however, the following applies:

(1) The Federal Government, by virtue of its land ownership rights and constitutional control, collects those monies identified as lease fees and royalties.

(2) Royalties and lease fees do not amount to very much in the Northwest Territories in relation to the Territorial Government's fiscal budget, although they probably will in the future.

(3) The Federal Government provides an operating and capital grant to the Territorial Government (Appendix #1) 1979-80 figures are as follows:

Territorial Revenues, Recoveries & Transfer Payments	$ 83,067,000
Grant - Operating & Capital	$202,690,000

It soon became evident to the Standing Committee that resource revenue sharing by the Territorial Government would probably take some time to negotiate. It has been demonstrated that resource sharing and ownership is under dispute by the federal and provincial governments and not subject to an early resolution. In addition, the fact that the Northwest Territories is still a federal territory, with no provincial - like responsibility for land and non-renewable resources, will further delay such negotiations.

Having agreed that direct resource revenue sharing was a legitimate, but long term goal, the Committee set about discussing a mechanism through which the Territorial Government could respond and deal effectively with the financial aspects of non-renewable resource development impact in the immediate short term.

B. The Present Situation

Presently, individual departments of the Territorial Government are involved with offsetting the impact of resource development as best they can. However, severe restraint and inadequate budget increases over the last few years have made it increasingly difficult for the government to respond as it should in high impact areas. The Department of Economic Development, for instance, is an excellent example of a high priority department which has seen little expansion over several years because of a lack of funds and expertise.

C. The Decision to Proceed

The Standing Committee was concerned about the effect on Territorial Government spending if several major non-renewable resource development projects were to receive federal approval in the very near future.

Would the Federal grant to the Territorial Government be increased accordingly and significantly to allow proper response to the impact of such projects? No one knew.

The Standing Committee was of the opinion that the Territorial Government urgently had to develop a comprehensive plan of action to, not only, improve its response to existing impacted areas, but also, to be prepared to respond quickly and efficiently as major development projects are approved by the Federal Government over the coming decade.

This report recommends a financial plan of action. It must be noted that the financial aspect of the comprehensive plan of action mentioned above is only the first step. Without funding, however, it will be exceedingly difficult for the Territorial Government to respond effectively to development of any kind in the Northwest Territories.

II. BACKGROUND

Over the years non-renewable resource development and exploration projects either created new communities (Pine Point, Nanisivik) or impacted on existing communities (Tuktoyaktuk, Baker Lake). In some cases both circumstances applied (Norman Wells/Fort Norman or Pine Point/Fort Resolution).

It was recognized and acknowledged by the Standing Committee that there were some areas that had, and are now, coping with development successfully using the existing structures within government. It was noted, however, that these areas are primarily dominated with white northerners who understand and use the existing system to their advantage. The Native people in the same area appear to remain impoverished and seldom have jobs in those projects. The degree of success, in relation to improving existing socio-economic factors, therefore is questionable.

In addition, development projects such as the Gold Mines in Yellowknife, Lead Zinc Mine in Pine Point, have evolved over many years starting small and growing with the years. The Mining Industry itself contributed heavily to the infrastructure of the community in the early stages of development as did both levels of Government. Thus, today, would the same apply to any community impacted by Oil/Gas or Mineral exploration and development?

The Standing Committee did not want to leave it to fate or good will. It wanted a comprehensive plan developed whereby responsibilities of all involved in resource development were clearly defined.

A. Not a new idea

In the course of its research the Committee discovered that the idea of a non-renewable resource development impact policy/legislation/funding was not something new. In 1972 the Assembly considered a private members bill entitled GROWTH CENTRE ORDINANCE (Appendix #2) which was later withdrawn.

The Yukon Government on March 4, 1978 obtained Federal Cabinet approval to borrow up to $200 million from any source (including the Federal Government) in order to meet pipeline - related expenditures. The repayment of the loan was to be financed from real property taxes levied against the pipeline. In addition, the Yukon Government received authorization to establish a Yukon Heritage Fund of up to $50 million for specific economic, cultural and historical purposes, financing again to be derived from real property taxes against the pipeline.

This clearly establishes that the Federal Government is not adverse to providing loan money in advance to a Territory to offset immediate impact of a project (Letter and Cabinet Document authorization Appendix #3).

In January 1979 the Territorial Government tabled a document called a Policy on Single Resource Communities (Appendix #4).

This policy provided a means by which the Northwest Territories Government could assist single resource communities created as a result of a non-renewable resource project. It was passed by the previous Legislative Assembly but never enacted by the Executive Committee. The policy remains in limbo and, since it addresses only the impact to newly created communities and not that of existing communities, it is not adequate.

Although the development of a comprehensive plan has been addressed in various ways over the years, the situation still exists where nothing concrete has been resolved or developed.

The Committee, therefore, felt some urgency in dealing with this problem. It was evident that there were areas in the North where projects were in the planning stages, about to go ahead, were already in operation, or cancelled as a result of decisions made by the Federal Government (Appendix #5). If these projects were to proceed the Committee wanted a plan which could be in place prior to further major expansion of the resource sector. The Committee felt that the Northwest Territories should not and could not wait for Provincehood and/or Resource Revenue Sharing. Urgent needs dictate that decisions have to be made now.

In the interests of "good governing" the Standing Committee developed a mechanism whereby the Legislative Assembly could, with its limited governing powers, respond to the impact of non-renewable resource development in an orderly fashion immediately.

III. METHODOLOGY

(A) The Finance Committee adopted certain principles before it began its year long investigation:

(1) That limited jobs and business opportunities are simply not enough compensation for development in the Northwest Territories.

Because of the nature of many of the projects there is high employment at the development stage and following that a return to low employment at the production and operational stage, a boom and bust situation.

Because of stated problems and high costs of transportation, utilities and isolation it is generally accepted that secondary industry (smelters, factories) is not, at this time, viable. Secondary industry, as a high employer of people, however, is desirable in the north.

(2) A controlled build-up of infrastructure is one of the few

areas where long-term benefits to Northerners could be realised from major development.

(3) That the formula developed for responding to non-renewable resource development by the Legislative Assembly should not erode community government and its need for local and regional control.

(B) Consultant Engaged

The Finance Committee agreed that the Territorial Government should seek additional extraordinary impact funding from the Federal Government each time the Federal Government authorized a major non-renewable resource project. The amount would be based on a negotiated agreement.

In order to make a case your Committee felt it had to document that development projects did strain the NWT's already overburdened budget.

The Committee engaged the technical services of Richard C. Hudson, CMC of Manecon Limited to assess the costs (a) related to upgrading of neglected developing areas and (b) the costs required by the Government of the Northwest Territories to offset needs created by new resource development.

(C) For the purposes of the study the Committee chose to examine the following existing communities:

1. NORMAN WELLS - IMPERIAL OIL - OIL/GAS - Production stage
2. TUKTOYAKTUK - DOME PETROLEUM and IMPERIAL OIL - OIL/GAS - Exploration stage
3. RESOLUTE BAY - COMINCO LTD. - THE ARVIK PROJECT - LEAD-ZINC MINING - Planning stage

IV. CONCLUSIONS

(A) SOCIO-ECONOMIC BENEFITS

It has been stated over the years by the Federal Government, the Territorial Government, the Native Groups, Industry and all MLA's that the Northwest Territories must benefit from resource development.

The fact remains that we are unable to go beyond limited jobs and limited business opportunities when we speak of socio-economic benefits to the North.

The government, industry and people of the North have not addressed this critical issue with sufficient imagination, innovation, energy and resources.

The Finance Committee has identified one possible area of benefit, that of community infrastructure. It recognized that there were

existing communities already impacted by development where the dilemna is or would be the inadequate number of long term residents to support this infrastructure through taxation.

It also recognized, however, that as a result of the demands of people moving into a wage economy and the pressures of increased population due to the transient non residents, the infrastructure would have to be put in place whether the permanent residents totalled 150 or 2000 or more.

The Committee was immediately concerned about the danger of establishing infrastructure which would not be sustained after the initial rush of development.

The Committee identified that there must be a formula developed locking the Federal and Territorial Governments into providing on-going support if the community, because of its nature, could not afford the infrastructure that develop during the non-renewable resource impact phase.

The Standing Committee has committed itself to address the whole aspect of identifying new or enhanced socio-economics benefits as a result of development. It awaits specific direction from the Legislative Assembly in this matter.

(B) Costs as revealed by the Study

The study, Responding to Non-Renewable Resource Development Impact on the Government of the Northwest Territories, revealed that at

least $6.25 million in Capital should be spent NOW by our Government in order to provide adequate levels of service in the three communities identified.

An additional $575,000 would be required annually to adequately meet the operating and maintenance costs of these same three communities.

In addition to the above, a further $5.6 million for capital cost and $2.5 million per annum for operating cost would be required to meet the anticipated needs generated by the advancement of the specific projects in the three communities as they were assessed in the report.

NOTE: It must be remembered that only three communities impacted by development were studied. As a result of that study the Committee felt it could safely assume that wherever a development project is located the Territorial Government's budget is affected to some degree.

(C) Once having proved the case, the next step in the Committee's plan was to:

(1) Develop the mechanism whereby developing areas would receive extraordinary funding and assistance.

(2) Develop criteria for receiving funding.

(3) Develop or identify an authority structure to designate funding using the developed criteria.

(4) Identify funding sources.

It was essential, however, that any new structure NOT erode community government and its need for local and regional control.

The Committee recommends caution in any development of additional structures or authorities and will evaluate the success of its recommendations following implementation and recommend further action if it is appropriate.

V. RECOMMENDATIONS

The Standing Committee on Finance recommends to the Legislative Assembly that:

(1) It officially recognize the need to designate certain areas in the Northwest Territories as Developing Zones and further that it direct the administration to establish a Developing Zone Policy.

(2) The definition of a Developing Zone be "an area which may be impacted or already is impacted by non-renewable resource development."

(3) Application by a community or communities to be designated a Developing Zone be made to the Resource Development Committee of the Territorial Government.

(4) Once an area or community is designated as a Developing Zone, application for initial funding be made to the Resource Development Committee (Terms of Reference Appendix #6).

(5) The Territorial Government immediately identify and set aside funds for initial funding of Developing Zones and that those funds granted shall be used by the Zone for assessing, planning for management, budgeting, presentation, and negotiation related to identified impact of the non-renewable resource development project or projects.

(6) Until direct revenue sharing is established, the Federal Government be approached for extraordinary funding for non-renewable resource impact. The amount would be based on a negotiated requirement determined on the basis of the type and length of the project and the needs as identified by the Developing Zone and both levels of government following the #1-5 procedure.

Respectfully submitted,

Lynda Sorensen

Lynda Sorensen, Chairman

Ms. N. Cournoyea, Deputy Chairman

Mr. P. Fraser

Mr. B. McLaughlin

Mr. L. Pudluk

Mr. D. Stewart

Mr. K. Tologanak

Government of the Northwest Territories
1980-81 Main Estimates

Appendix #I

Summary of Sources of Income

	1979-80	Change	Actual 1978-79
	$000's	$000's	$000's
REVENUES			
Motor Vehicle & Operators Licenses	800	220	790
Business Licenses	70	30	33
Professional Licenses	4	6	3
Miscellaneous Licenses & Fees	7	5	21
Companies, Societies & Co-op Reg. Fees	58	(8)	50
Public Trustee Fees	6	4	16
Document Search Fees	22	(2)	17
Boiler Inspection Fees	85	(20)	80
Fines & Court Fees	150	50	151
Vital Statistics Fees	6	7	7
Insurance Companies Tax	225	(40)	278
Library Fees	1	(1)	1
Library Services Agreement	3	(3)	-
Fuel Taxes	3,825	115	3,696
Tobacco Tax	1,350	-	1,217
Liquor Profits	5,074	126	5,923
Investment Interest	2,500	(500)	2,443
Income Tax	21,567	2,207	19,850
Game Licenses & Fees	160	28	142
Fees for Collection of Wild Animals	2	(2)	-
School Levies	1,200	(250)	978
Taxes from Taxation Areas	350	1,100	455
Quarry & Timber Fees	40	-	65
Economic Development Sundry Permits & Fees	8	2	7
Course & Examination Fees - Education	10	(10)	8
Tuition Fees (A.V.T.C.)	15	-	-
Total Revenues	37,538	3,064	36,231

Summary of Sources of Income (continued)

	1980-81	1979-80	Change	Actual 1978-79
	$000's	$000's	$000's	$000's
TRANSFER PAYMENTS				
Emergency Measures	25	25	-	22
Legal Aid Program	290	267	23	238
Air Charter & Transcripts	33	80	(47)	49
Criminal Injuries	18	40	(22)	30
Inspection Services Agreement	-	20	(20)	10
Court Workers Program	142	142	-	132
Mailiganik Tukisiiniakvik	-	50	(50)	-
Federally Funded Programs (Justice & Public Services)	14	70	(56)	-
D.I.A.N.D. Share of Mackenzie Highway Maintenance	6,355	6,447	(92)	5,100
Medicare Act (Canada)	2,074	1,773	301	1,514
Grant - Provision of Hospital Care for Indians & Inuit	600	775	(175)	554
Hospital Insurance & Diagnostic Service	6,020	5,000	1,020	5,547
Grant - Provision of Hospital Care for Indians & Inuit	6,300	6,159	141	4,944
Extended Health Care Services	1,271	293	978	66
Fort Smith Health Centre - Health & Welfare Canada	-	459	(459)	250
Medical Services Contract	580	-	580	-
Canada Assistance Plan	7,000	7,275	(275)	5,797
Professional Training Grants	-	3	(3)	-
Community Parole Supervision	15	10	5	175
Canadian Penitentiary Service	130	120	10	-
E.P.F. Medical Social Services	930	878	52	720
V.R.D.P.	25	25	-	9
Canadian Manpower Employment Division	250	250	-	258
General Development Agreement	285	-	285	-
Continuing Education - Canada Manpower	1,000	1,300	(300)	1,140
Training in Industry	20	20	-	19
Dental Therapy - Community Service	50	-	50	14
Post Secondary Education Grants	3,792	3,338	454	2,880
Total Transfer Payments	36,919	34,819	2,100	29,468
TOTAL OPERATING INCOME	89,246	83,067	6,179	77,764

Summary of Sources of Income (continued)

	1980-81	1979-80	Change	Actual 1978-79
		$000's	$000's	$000's
RECOVERIES				
Office of the Special Representative to the Prime Minister	-	25	(25)	-
Department I.A.N.D. (Water Board)	-	13	(13)	-
Sale of Government Publications	20	20	25	18
Personnel Training	-	15	(15)	23
Sale of Rations	60	60	-	71
Legal Aid Repayments	10	10	-	11
Workers' Compensation Board Investment Management Fee	-	20	(20)	-
Workers' Compensation Administration Fees	85	150	(65)	102
Sundry Recoveries	750	750	-	2,070
Building Maintenance Services	25	20	5	100
Equipment Repair Services	10	20	(10)	26
Sale of Electrical Power - Baffin	150	50	100	81
Sale of Natural Gas - Norman Wells	55	30	25	29
Sale of Steam Heat - Frobisher Bay	600	600	-	403
Rental of Office & General Accommodation	640	700	(60)	659
Recovery Tenant Damage	10	6	4	6
Rental of Housing Accommodation	4,965	4,364	601	4,381
Vehicle Parking Payments	15	14	1	-
Road Maintenance - Wood Buffalo National Park	-	65	(65)	62
Sale of Confiscated Fur	-	15	(15)	17
Refund of Trapper Assistance	60	60	-	67
Land Sales & Leases	350	250	100	204
Sale of Water & Sewer Services	250	250	-	185
Public Health Agreement	-	21	(21)	18
Board & Lodging - Corrections	15	12	3	16
Board & Lodging - Transient Centres	250	250	-	191
Special Allowances	100	90	10	88
Sundry Recoveries - Social Services	100	100	-	79
Sale of Commercial Goods & Services	3,000	2,500	500	2,977
Board & Lodging (A.V.T.C.)	130	180	(50)	139
Hostel Receipts	50	50	-	42
Total Recoveries	11,725	10,710	1,015	12,065

Summary of Man Year Requirements

		1979-80	Change	1978-79
LEGISLATIVE ASSEMBLY				
Continuing	[illegible]	6.0	2.0	6.8
Casual	[illegible]	3.5	2.5	4.0
TOTAL	[illegible]	9.5	4.5	10.8
EXECUTIVE				
Continuing	[illegible]	134.0	(4.0)	124.0
Casual	[illegible]	5.1	(1.2)	6.1
TOTAL	[illegible]	139.1	(5.2)	130.1
FINANCIAL MANAGEMENT SECRETARIAT				
Continuing	[illegible]	12.0	2.0	12.4
Casual	[illegible]	1.0	(.4)	1.2
TOTAL	14.6	13.0	1.6	13.6
INFORMATION				
Continuing	45.0	43.0	2.0	37.0
Casual	1.3	2.0	(.7)	3.0
TOTAL	46.3	45.0	1.3	40.0
PERSONNEL				
Continuing	125.0	138.4	(13.4)	111.5
Casual	5.9	5.0	.9	9.5
TOTAL	130.9	143.4	(12.5)	121.0
JUSTICE & PUBLIC SERVICES				
Continuing	109.2	111.1	(1.9)	102.3
Casual	12.6	11.2	1.4	10.9
TOTAL	121.8	122.3	(.5)	113.2
FINANCE				
Continuing	83.2	92.8	(9.6)	87.1
Casual	10.4	13.7	(3.3)	12.5
TOTAL	93.6	106.5	(12.9)	99.6
GOVERNMENT SERVICES				
Continuing	109.9	118.2	(8.3)	121.9
Casual	6.5	12.4	(5.9)	20.3
TOTAL	116.4	130.6	(14.2)	142.2
PUBLIC WORKS				
Continuing	428.0	452.0	(24.0)	423.6
Casual	63.0	69.5	(6.5)	103.1
TOTAL	491.0	521.5	(30.5)	526.7

Summary of Sources of Income (continued)

	1980-81	1979-80	Change	Actual 1978-79
	$000's	$000's	$000's	$000's
OTHER RECOVERIES				
Repayment of Debentures - Municipalities	3,020	2,251	769	2,147
Repayment of Debentures - School Districts	116	116	-	116
Repayment of Mortgages - Private Entrepreneurs	15	15	-	15
Lease Recoveries - Strathcona Sound	299	299	-	44
Total Other Recoveries	3,450	2,681	769	2,322
GRANTS				
Capital	59,463	54,814	4,649	52,378
Operating	155,542	147,876	7,666	132,740
Total Grants	215,005	202,690	12,315	185,118
LOANS				
Third Party Loans	4,000	4,000	-	3,471
Total Loans	4,000	4,000	-	3,471
WORK PERFORMED ON BEHALF OF THIRD PARTIES				
Work Performed on Behalf of Third Parties	17,413	19,176	1,763	9,508
Total	17,413	19,176	1,763	9,508
TOTAL INCOME	329,114	311,614	17,500	278,183

Appendix "2"

AN ORDINANCE TO PROVIDE FOR THE ORDERLY DEVELOPMENT OF INCORPORATED MUNICIPALITIES AND HAMLETS LOCATED IN RAPID DEVELOPMENT AREAS.

The Commissioner of the Northwest Territories, by and with the advice and consent of the Council of the said Territories, enacts as follows:

1. Short title — This Ordinance may be cited as the GROWTH CENTRE ORDINANCE.

INTERPRETATION

2. Definitions — In this Ordinance,

(a) "growth centre" means an area designated as such by the Commissioner pursuant to this Ordinance;

(b) "Board of Administrators" means the board of administrators of a growth centre;

(c) "elector" means a person qualified to vote at a municipal election or at the taking of a vote, as the case may be, at a growth centre.

3. Establishment of a growth centre

(1) Application for the formation of a growth centre shall be made to the Commissioner.

(2) The applicant shall file with the Commissioner such information as he may require to determine whether establishment of a growth centre is necessary, practical and in the public interest, and to assist in that determination the Commissioner may require

(a) such facts as may prove the necessity for establishment and development of a growth centre,

(b) surveys, plans, maps and aerial photographs indicating the physical and topographical features of the proposed growth centre and its relationship to the adjoining and near-by areas,

(c) economic planning studies of the proposed new growth centre including costs of land acquisitions, utilities and other services,

(d) estimated selling prices of developed lots for industrial, commercial and residential uses.

4. Functions of the Commissioner

(1) On receipt of an application for the formation of a growth centre the Commissioner may

(a) give such notice as he considers necessary of the application,

(b) cause a public hearing to be held at which any person may make representation with regard to the application,

(c) refer the application to the Minister of the Department of Indian Affairs and Northern Development for his recommendation on the financial aspects thereof,

(d) engage consultants or technical experts to report to him on any phase of development of the proposed growth centre.

(2) After making such inquiries as he considers necessary, the Commissioner shall make such recommendations as he believes proper and necessary in each case, or he may designate as a growth centre any settlement or incorporated municipality in the Territories where he considers that it will be necessary in the public interests to regulate the orderly development of such centre as contemplated by this Ordinance.

5. Order establishing growth centre

(1) When the Commissioner designates the formation of a growth centre the order forming the growth centre

(a) shall describe the boundaries of growth centre, and

(b) shall state the date upon which the order becomes effective.

6. Transfer of rights and liabilities

(1) When a new growth centre has been established, the rights, debts, liabilities, taxes and all other assets including property of the former settlement or municipality in and of the area of the growth centre pass to the newly designated growth centre.

(2) Where a growth centre is established in the place of an existing settlement, hamlet, village or town, the council of the settlement, hamlet, village or town shall act as the board of administrators of the growth centre and shall continue in office until such time as the board of administrators has been constituted under this Ordinance.

(3) All by-laws and resolutions in force and effect in a settlement, hamlet, village or town that has been established as a growth centre shall continue in force and effect in the growth centre until amended or repealed.

7. Board of Administrators

(1) A growth centre shall have a board of administrators.

(2) The board of administrators and the electors of every growth centre are a corporation with the name given the growth centre in the order forming it.

(3) A board of administrators has and shall exercise all the rights, duties, privileges and powers conferred on a council of a municipality pursuant to the Municipal Ordinance including, without restricting the generality of the foregoing, the power to levy and collect taxes.

8. Membership of board of administrators

(1) A board of administrators shall consist of six or more members not exceeding nine in number and constituted as follows:

(a) one representative of the Federal Government;

(b) two representatives of the Territorial Government;

(c) six representatives elected by residents within the area of the growth centre.

(2) An elected member shall serve for the time specified in the Commissioner's order and appointed shall serve during the pleasure of the Commissioner.

(3) When the office of an elected member becomes vacant before the expiry of his term, the Commissioner may appoint a person to the board of administrators to complete the term of the office that is vacant.

(4) An election ordered by the Commissioner under this section shall be conducted under the Municipal Ordinance, which applies mutatis mutandis thereto.

9. Chairman of the board of administrators

(1) The board of administrators with the approval of the Commissioner will elect one of their number to be chairman thereof.

(2) The chairman of a board of administrators is the chief executive officer of a growth centre and is vested with all rights, duties, privileges and powers of the mayor of a town, except as otherwise provided in this Ordinance.

10. Fees and Allowances

(1) A board of administrators may provide for the payment to its members of fees and allowances for attendance at board meetings and committees thereof or performing additional duties.

(2) A board of administrators may provide for the payment to its members of reasonable allowances for travel-

ling, subsistence and out-of-pocket expenses incurred in attending meetings affecting the growth centre.

(3) The salaries, expenses and travelling allowances of employees of the Government serving on a board of administrators shall be paid by the department of which he is an employee.

11. Employees

(1) A board of administrators shall appoint

(a) a board secretary, or

(b) a board treasurer, or

(c) a board secretary-treasurer.

(2) A person appointed under this section is hereby vested with all the rights, duties, privileges and powers of a secretary, treasurer, or secretary-treasurer of a town.

(3) A board of administrators may provide for the appointment of such other officials as it considers necessary for the efficient operation of the growth centre.

12. anning and evelopment

(1) As soon as possible after its appointment, a board of administrators shall submit to the Commissioner for his approval comprehensive plans and proposals for the planning and development of the growth centre.

(2) The proposals for the planning and orderly development of a growth centre may from time to time be added to, amended or rescinded by

(a) order of the Commissioner,

(b) the board of administrators with the approval of the Commissioner.

13. Additional powers of board of administrators

A board of administrators may, with the consent of the Commissioner,

(a) acquire by expropriation or otherwise, and for any municipal purpose, land either within or outside the growth centre,

(b) enter into agreements with private land owners or proposed developers of land within the growth centre, with regard to the subdivision of land, the provision of utilities, streets, sidewalks and other services, the selling price of lots and the method by which lots will be offered for sale,

(c) prohibit any owner or developer of land from subdividing, selling or developing land until such an agreement as mentioned in clause (b) is entered into, and

(d) provide, by the construction and operation of trailer camps, camp grounds and like facilities, for the temporary housing and shelter of residents of the growth centre.

14. Approval of expenditures

Except for the immediate and urgent needs of a growth centre, a board of administrators shall not expend any moneys, undertake any works, make any agreements with land owners or developers or do any other matter or thing until its proposal for the planning and development of the growth centre has been approved by the Commissioner.

15. Approval of financial progarm

Except for the immediate and urgent needs of a growth centre, the board of administrators of a growth centre shall not obtain any loans or advances, expend any moneys, pass any money by-law or issue any debenture until the financial program of that year has been approved by the Commissioner.

16. A board of administrators is responsible to the Commissioner with regard to all matters relating to the planning and development of the growth centre, and with regard to all matters relating to the financing of the growth centre's development and operation, and shall carry out any instructions with regard to these matters that the Commissioner may issue from time to time.

Responsibility of board of administration

17. (1) The Commissioner may, upon the establishment of a growth centre and from time to time thereafter, pay to the board of administrators of any growth centre out of the Consolidated Revenue Fund and without any further or other appropriation than is provided by this section, such sums as will enable the board of administrators to meet all authorized current and capital expenditures that may be required for development and operation of the growth centre.

Current and capital expenditures

(2) The sums paid under subsection (1) may be

(a) by grant, or

(b) by advance or loan, or

(c) by the purchase of debentures of the growth centre.

(3) Any sum advanced or loaned by the Commissioner is a debt due by the growth centre to the Commissioner and shall be repaid by the growth centre.

(4) The Commissioner may specify the terms of repayment or retirement of moneys advanced or loaned under this section.

18. As soon as possible in each year the board of administrators of a growth centre shall submit to the Commissioner a financial program for that year which shall include particulars of its estimates of

Responsibility of board of administrators

(a) general revenues and expenditures,

(b) capital revenues and expenditures,

(c) utilities revenues and expenditures,

(d) population growth, and

(e) the amount of its taxable assessment.

19. Except where inconsistent with this Ordinance, a growth centre shall be deemed to be a town for the purpose of any other Ordinance.

20. Change in Status

(1) Upon arrangements being made for the repayment or retirement of all special loans or advances made to a growth centre by the Commissioner under this Ordinance, the Commissioner may provide for the formation of the growth centre into a city, town or village.

(2) The formation or reformation of a growth centre into a village, town, or city shall take place in accordance with the requirements of population or the number of occupied dwellings or at the request of a majority of the electors of a growth centre.

(3) Dissolution of the growth centre shall take place pursuant to the provisions of this Ordinance.

21. Regulation

(1) The Commissioner may make regulations to provide for any matter not provided for or insufficiently provided for in this Ordinance.

(2) The Commissioner may exclude any Ordinance or provision thereof from application to a growth centre.

RE-TYPED DUE TO POOR COPY OF LETTER

Original Copy Available

Appendix # 3

March 4, 1978.

Dr. Arthur Pearson,
Commissioner of the
Yukon Territory,
P. O. Box 2703,
Whitehorse, Yukon.
Y1A 7C6.

Dear Dr. Pearson:

This letter will confirm the Cabinet decision approving proposals for the financing of indirect pipeline-induced expenditures by the Yukon Territorial Government and the establishment of a Yukon Heritage Fund. Although these proposals were discussed with you and your officials during their formative stage, I regret the shortness of time available for you and the Executive Committee to consider the questions raised in our DEX of January 12. The purpose of our communication was to obtain the Executive Committee's reaction prior to seeking Cabinet approval. This approval permits considerable flexibility in developing the criteria which will form the basis of the agreements and other arrangements which are now required, and I am sure that this will provide you and the Executive Committee sufficient opportunity to shape these matters to your satisfaction.

Specifically the Cabinet has authorized me to negotiate agreements with the Government of the Yukon whereby;

(1) The Government of the Yukon may borrow up to $200 million from any source in order to meet pipeline-related expenditures recommended by the Inter-governmental Committee on Federal-Territorial Financial Relations. Loans under this arrangement will, of course, require the usual approval of the Governor-in-Council under the Yukon Act;

(2) The repayment of loans will be financed from real property taxes levied against the pipeline;

(3) The Commissioner-in-Council may establish a Yukon Heritage Fund not to exceed $50 million in 1983 dollars for specific economic, cultural and historical purposes agreed upon by myself and the Territorial

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Government. Again, the criteria for expenditures from the Fund will be developed by the Inter-governmental Committee on Federal-Territorial Financial Relations;

(4) The Commissioner-in-Council may finance the Yukon Heritage Fund from revenues derived from real property taxes levied against the pipeline, such revenues to be applied at the rate of a maximum of 20% per annum (of gross taxes), and, at the option of the Commissioner-in-Council, from other new sources of revenues not presently taxed or insufficiently taxed according to provincial standards.

It will be evident from the foregoing that a number of the questions you raised in your letter of January 13 to Mr. Neil Faulkner are answered, at least in part, by the Cabinet decision or the Northern Pipeline Bill presently before the House of Commons. You are correct in stating in your letter that there will be a ceiling of $200 million on the amount that can be borrowed to meet indirect pipeline costs. It is also correct that one of the first things that must be done is to define precisely what will constitute pipeline-related costs. I am pleased to see that your officers are already working on this.

In your letter to Mr. Neil Faulkner you also express the concern of the Executive Committee about the limit of $50 million placed on the Heritage Fund. I would take it that this disappointment is partially due to the assumption that the Fund will be financed from property taxes generated by the pipeline and that these will not materialize for several years. What the Cabinet has approved, however, is an arrangement whereby the Fund can be financed not only from pipeline property tax revenues (up to a maximum of 20% of such revenues), but also from any other new territorial taxes that you and the Council may to wish to impose. While this source of revenue would be confined to new taxes or increases in the rates of existing taxes (i.e. not increases in revenue resulting from increases in volume and price), it does allow for the establishment of the Fund and the accumulation of prinicpal during the interval prior to pipeline property taxes coming on stream.

As you can see, there is still a considerable amount of work to be done in connection with the Heritage Fund. After developing its objectives and the criteria to be used in the disbursement of revenues from the Fund, it will also be necessary to determine how the Fund is to be built up. Revenues from pipeline taxes will be a major source of income, but you will no doubt wish to look at other possible sources of tax revenue which will make it possible for the Fund to accumulate principal over the next two or three years. It will be particularly important to decide how the Fund is to be managed. You will no doubt wish to retain some operational control, but I assume that you will also wish to have representatives on the Fund's executive committee from the community at large, including the native people. The mechanics of the Fund and its relationship to the Territory's budgetary

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process will have to be worked out to insure that monies channeled into the Fund are clearly identified as part of your revenue budget and that they are accounted for in the normal way.

In addition to agreements to cover the financing of indirect socio-economic costs and the Heritage Fund, it will also be necessary for the Territorial Government to enter into an agreement with the Government of Canada with respect to the operation of the Central Pipeline Agency. This will be negotiated with the Territory by the Agency and I understand that you will require an enabling ordinance. Farly thought should be given to the preparation of such an ordinance and we will endeavour to facilitate discussions in this regard. This agreement will be similar to the agreements which will have to be entered into between the Government of Canada and the western provinces following passage of the Northern Pipeline Bill.

A further piece of legislation that you will no doubt wish to consider is an ordinance authorizing the Territorial Government to recover from Foothills (Yukon) Limited the direct costs incurred by the Territory in relation to the construction of the regulation of the pipeline. Such an approach would be consistent with the position adopted by the Federal Government and you should be aware of the possibility of passing an ordinance of this kind.

One very important piece of legislation that will be necessary is an ordinance to establish the real property taxes applicable to the pipeline. Your officers will already be familiar with the provisions of the Northern Natural Gas Pipeline Agreement with the United States which allows the Territory to impose taxes on the pipeline up to levels which could be applied under similar legislation in Alaska. I think it is important that your officers familiarize themselves with the limits permitted under the agreement with the United States and with the Alaska legislation. It is of critical importance that you keep yourselves aware of any changes that may be made from time to time, or may be contemplated in the Alaska legislation. Your legislation must comply, of course, with the non-discriminatory provisions of the Transit Pipeline Treaty with the United States. As a result, the application of a new system of taxation for the pipeline will also have to apply to existing pipelines in the Yukon. The implications of this should be examined carefully and I would appreciate being informed of the details as you develop your tax legislation. In any event, you should insure that your taxation bill as well as other bills that will be required, are referred to us before they are introduced in Council.

My officials are presently preparing draft agreements with respect to both the indirect pipeline expenditures and the Yukon Heritage Fund, and these will be sent to you as soon as possible. As you can see, there is a great deal of work to be accomplished within the next few weeks, and I cannot emphasize too much the importance of this work progressing as rapidly as possible. My officials would be available to travel to Whitehorse about mid March to work with your officials on the necessary agreements and other

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necessary arrangements. I would hope that we would then be in a position to have everything ready for a meeting of the Inter-governmental Committee as soon as possible after the first of April. Could you please let Mr. Neil Faulkner know what dates in March would be suitable for our officers to go to Whitehorse.

Yours sincerely,

Copy of original available and signed

J. Hugh Faulkner.

FINGLAND/wjr

March 1, 1978

CC: H.R. Robinson.

Appendix #4

TABLED DOCUMENT 11-67

Tabled January 26, 1979

GOVERNMENT OF THE NORTHWEST TERRITORIES
CANADA

POLICY ON SINGLE RESOURCE COMMUNITY

DEFINITION

The term "single resource community" means a population centre established for the purpose of extracting a primary resource and in which the economic activity of the residents is dependent upon the extraction and/or primary processing of that resource. Dependency is measured either in employment or export base terms. The concept includes mining towns and towns based on the forestry industry. It does not include administration, port, defence, communications, conventional communities, or communities based on wildlife resource harvesting. Conventional communities may be involved, however, to the extent that labour and business services for the resource extraction may be drawn from existing communities.

OBJECTIVE

It is the objective of this policy: a) to state the position of the Government of the Northwest Territories with regard to the services of the government available to such communities; and b) to provide a means whereby government, industry and single resource communities can respond to matters of mutual concern to their mutual benefit.

POLICY STATEMENT

A. The Government of the Northwest Territories supports orderly exploration and development of resources, and is concerned with providing long term employment for northern residents. The resource exploration and development industry is recognized as a major sector of the Northwest Territories economy. Future resource development is considered essential in contributing to the growth of the Territories economy and to the improvement of the general welfare of northern people.

B. In the case of existing single resource communities, and for new communities to be established, the Government of the Northwest Territories may negotiate with the development company a Special Services Agreement. The Agreement will stress employment, training and business opportunities

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to N.W.T. residents and outline services to be provided by the G.N.W.T.

C. The Government of the Northwest Territories also encourages the development of projects that will not require new permanent municipal facilities or additional infrastructure. The Government of the Northwest Territories approves of job rotation schemes to facilitate employment of Northern residents. In such cases, the Government of the Northwest Territories may draw up a Special Services Agreement with the development company with a view to bolstering the economic base of the communities from which the labour force is drawn.

D. The Government may extend capital services to communities it considers permanent, the measure of permanence being an expected community duration of approximately 20 years. In return, the Government will expect to influence rates of depletion, production and exploration through an agreement with the company providing a mechanism for decision making input.

The Capital services which may be considered under an extension of the policy include the cost-shared provision of municipal and other facilities such as: water supply, storage and distribution; sewage collection, treatment and disposal; road construction; fire protection; street lighting; airstrip construction and facilities; recreation facilities; schools; and nursing stations.

IV.

A. STATUTORY SERVICES

1) The Government of the Northwest Territories will, in accordance with Territorial Ordinances and consistent with current program criteria, provide universal statutory services to new and existing single resource communities. Such services include the following:

   i. assistance to education;

   ii. health services; and

   iii. social services.

2) Government expenditure on such services is designed to provide the base for community development. It is expected that the company will utilize in its resource development project the resources and business facilities of existing communities in the proximity of the development.

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B. SPECIAL SERVICES AGREEMENT

The Government of the Northwest Territories under a Special Services Agreement, will provide negotiated discretionary services in addition to the statutory services. Negotiation of such an Agreement will be on a case by case basis between the company and the Government of the Northwest Territories. Other interested parties will be consulted as required.

1) The Discretionary services include but are not limited to:

   i. enriched education on a program basis including Adult Education;

   ii. employment and training assistance;

   iii. assistance to local businesses;

   iv. assistance to organize a work rotation scheme between existing communities and the development site;

   v. assistance to fund a training-on-the-job program, in conjunction with Canada Employment and Immigration Commission's funding of the training-in-industry program;

   vi. recreation grants made available on a per-capita basis;

   vii. assistance for additional social services such as alcohol, drug and social counselling;

   viii. assistance, as provided for in existing policy prior to incorporation as a tax-based municipality, in provision of municipal facilities and infrastructure and the operation and maintenance services on a cost recovery basis from users over the projected life of the resource (refer to Item C.2). Presently funded municipal services include distribution of water, collection and disposal of sewage and garbage, road maintenance and airport operation and maintenance.

2) The company and the Government of the Northwest Territories may negotiate conditions and responsibilities which the company will be expected to meet and may include the following:

   i. Development and implementation of a plan, in consultation with the Government of the Northwest Territories for:

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a. the employment and training of N.W.T. residents;
b. support for small businesses in the single resource community and/or surrounding communities.

ii. Any health facility or services funded or partially funded by the Government of the Northwest Territories will come under the jurisdiction of the Department of Health, G.N.W.T., and/or Medical Services, Health and Welfare Canada, with respect to level of service, standards of operation and certification of medical personnel.

iii. The company will consult with the Government of the Northwest Territories on the development of the community and will establish a procedure for community consultation throughout the course of the development.

iv. The company will give as much advance notice as feasible of shutdown to the G.N.W.T. and to the affected communities.

v. The Government of the Northwest Territories may conduct periodic reviews to monitor compliance with the Agreement.

C. LOCAL GOVERNMENT

1. Single resource communities will be encouraged to be open towns with an elected Council.

2. Where projected life span of the operation exceeds 20 years, the community will be encouraged to work toward incorporation as a tax-based municipality within the first five years. At the time of community incorporation, the respective repayment responsibilities of the company and the community will be negotiated.

3. If a new single resource community is planned or if the company intends to operate a commuter rotation work system, the company and the Government of the Northwest Territories will consult with councils and residents of surrounding communities.

D. ADMINISTRATION OF SINGLE RESOURCE COMMUNITIES

Upon incorporation of a new single resource community and implementation of a Special Services Agreement, the community will be integrated into the normal regional administrative framework of the Government of the Northwest Territories.

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E. CONSULTATION WITH GOVERNMENTS

The Government of the Northwest Territories will establish consultative mechanisms with other Governments with a view to preventing inconsistencies in the treatment of single resource communities and promoting resource exploration and development in resource-rich areas adjacent to Provincial and Territorial borders.

F. CONSULTATION WITH INDUSTRY

The Government of the Northwest Territories will consult with industry to ensure that the policy position of this Government remains compatible with changing conditions.

APPENDIX #5

Non Renewable Resource Development Projects
Page One

The following material describes non-renewable resource development projects that are either producing or in the planning or exploration stages.

Material was obtained from Terry Foster, Head of Mineral and Petroleum Resources, Department of Economic Development and supplemented through telephone conversations with Mr. Murray Morison, Assistant Director, Non Renewable Resources and Mr. John Goodwin, Staff Geologist for the same section. Both are on staff in the Northwest Territories as part of the D.I.A.N.D., Northern Affairs Program.

Mr. Foster's material was last reviewed August 1980 (Economic Development plans its next review in January 1981).

Eight additional names were supplied by Mr. Morison and Mr. Goodwin as were the majority of comments coming after the names of the respective companies.

1 Producers:

(a) Oil and Gas:

- Imperial Oil - Norman Wells (substantial expansion planned)
- Amco Canada Ltd. - Pointed Mountain

(b) Mining:

- Can-Tung - Tungsten Mines
- Terra Mine - Silver - Great Bear Lake
- Echo Bay Mines - Silver - Great Bear Lake
- Con Mine - Gold - Yellowknife
- Giant Mine - Gold - Yellowknife
- Nanisivik Mine - Lead/Zinc - Pine Point (have also re-opened a mine site)
- Camlaren - Gold - Gordon Lake

2 Mines Under Construction: (Production within 2 years)

- Polaris (Arvik Mine) - Lead/Zinc - Little Cornwallis Island
- Lupin - Gold - Contwoyto Lake
- Cadillac Mine - Lead/Zinc - Silver - Copper - near Nahanni National Park
- Cullaton Lake Gold Mines - Gold - Cullaton Lake (150 miles west of Eskimo Point)

3 Potential Oil and Gas:

- Beaufort Sea Oil - Dome Petroleum (oil and natural gas)
- Arctic Pilot Project - Liquid Natural Gas: - Petro Canada, Dome Petroleum
  - Pan Arctic, Melville Shipping

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4 "Possible" New Mines:

(a) Yellowknife Area:

- Indigo Mine - Gold - Indian Lake (considered not that promising by Indian Affairs)
- Salmita Mine - Gold - owned by Giant - close to Courageous Lake
- Roxwell Mine - Gold - 50 miles East of Yellowknife

(b) Yukon Border Area:

- McMillan Pass - Lead/Zinc - Hudson Bay Exploration and Development: deposit on the Yukon side
  - Pan Ocean - Tungsten - deposit on the Yukon side
  - Amax - Tungsten
- Howards Pass - Lead/Zinc - Canex Placer - deposit on the Yukon side but access through NWT

(c) North of Yellowknife - above the treeline:

* Bathurst Norse Mines and Cominco - Hacket River - Lead/Zinc
* Kennco Exploration Ltd. (Canada Ltd.) - Zinc/Copper/Gold - High Lake
* Texas Gulf - Lead/Zinc/Copper - Ingot Lake - Lead/Zinc/Copper

* Not feasible to develop because of lack of transportation infrastructure

(d) Keewatin Area:

- Urangesellschaft Canada Ltd. - Uranium - Sissons Lake
- Pan Ocean - Potential open pit deposit of uranium - West of Bisset Lake
- St. Josephs Exploration - copper/lead/zinc - Henik Lake

Development 8 to 10 years away

(e) Baffin Region:

- Dejour Mines - Uranium - Northwest of Igloolik on Baffin Island - considered by Indian Affairs as not very promising
- Borealis Exploration - Iron ore - Melville Peninsula
- Nanisivik Mine - regular exploration activities
- Aquitaine - Offshore exploration for oil and natural gas

5 Exploration Stage:

Based on prospecting permits, land use permits and claims records.

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- A.G.I.T. Canada Ltd. Hottah Lake - Staking claims
-*Amax of Canada Ltd. Pelly Lakes (Nahanni Mining District) Diamond Drilling
- Aquitane
- Arctic Red Resources - West of Fort Norman - not active this year
- Ashnola Mining Company - West of Prosperous Lake - not active this year
- B.P. Minerals - Takujuak Lake - Schultz Lake
- Barren Lands Exploration - Courageous Lake
- Brascan Resources - Schultz Lake
- Canadian Homestead Oil - Arctic Islands
- Canuk Exploration - Coronation Gulf
- Canadian Nickel Company - 5 locations throughout NWT - staking claims
- Canadian Superior Exploration Ltd. - Little Cornwallis Island - not active this year
- Chevron Standard - Uranium exploration - Hottah Lake
- Comaplex Resources - Keewatin
-*Cominco - throughout NWT - Diamond Drilling work
- Consolidated Five Star Resources - near Prosperous Lake - have not been active for 2 years
-*Coronation Gold Exploration - Coronation Gulf - Diamond Drilling
- Diapros Canada Ltd. - Blackwater Lake
- Dual Resources - Keewatin - uranium
- Dynamic Mining Exploration - South of Baker Lake - not active this year
- E & B Explorations - Edehon Lake - North of Great Bear Lake
- Eldorado Nuclear - North of Lac La Martre
- Essex Minerals - Northeast of Baker Lake/Tehek Lake/Yathheyed Lake
-*Esso Minerals - South of Hemik/Taulstar River - Diamond Drilling
- Esso Resources - Mosquito Lake/Dubwant Lake
- Giant Yellowknife Mines - Prosperous Lake/Pelly Lake/East of Great Slave Lake
- Goldfields Exploration - East of Great Slave Lake
- Guardian Resources - East of Great Slave Lake - have not been active for 2 years
- Gulf Minerals - Northeast of Great Bear Lake/East of Hay River/Byeberry Lake

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- Hemisphere Development Corporation - North of Hearne Lake
-*Hidden Lake Gold Mines - Hidden Lake
- Highwood Resource - Buckham Lake
- Hudsons Bay Oil and Gas - throughout the NWT
- Imperial Oil - High Arctic Drilling for Oil
- Indian Mountain Metal Mine - Benjamin Lake - have not been active for 2 years
-*Kelvin Energy Ltd. - Nose Lake
- Kengate Resources - Gordon Lake - have not been active for two years
- Logan Mines - Yukon Border Area
- Lynx Canada Exploration - Hope Bay - have not been active for two years
- Marlene Oil Corporation - East Dubwant Lake and Aberdeen Lake
- Mobile Energy Minerals Ltd. - Baker Lake
- Newmount Exploration - northeast of Dismal Lakes
- Noranda - throughout the NWT - also involved in exploration with Getty Minerals
- Norwest Surveys Corporation - Yukon border area
- PanArctic Oils - High Arctic
- Perry River Nickel Mines - Courageous Lake
-*Placer Developments - Border area - Yukon
- P.N.C. Exploration - Nueltin Lake/Lady Grey Lake
- Pyx Exploration - Northarm Great Slave Lake - have not been active for two years
- Ramrod Mining Corporation - Border area Christie Pass
- Rio Tunto Canada Exploration - Yukon border area around Pelly Lakes
-*Saskatchewan Mining Corporation - Lady Grey Lake
- SERU Nuclear - Aberdeen Lake (French Company)
- Seaforth Mines Ltd. - Hottah Lake - no activity for two years
- Scurry Rainbow - East Arm of Great Slave Lake
-*Shell Canada Resources - Fort Resolution
- SMD Mining - Big Lake Area (same group as Saskatchewan Mining Corporation)
-*St. Josephs Exploration Ltd. - Henik Lake
- Stephan Simik - Tibbet Lake

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- Tagia Consultants - Dubwant Lake
- *Texas Gulf - Mosquito, Aberdeen, Gary and Contwoyto Lakes
- Union Carbide - Dismal Lake and in Yukon Border area
- Union Oil - Gary Lake and Beaver Hill Lake areas
- Uranerz Exploration - South of Coppermine and Sparks Lake
- Viscount Resources - Hearne Lake - no activity for two years
- Western Mines - Aberdeen Lake
- Welcome North Mines - Border and Christie Pass

By way of additional information there are five basic stages in the mining/petroleum discovery process:

1. Prospecting/Drilling
2. Delineation - refers to describing the size of a mineral body or petroleum field
3. Feasibility Studies - when companies move this far it can usually be assumed that they are on to something
4. Decision to proceed
5. Development and Construction

In total, approximately 19 permits for land use were issued to Oil and Gas companies and approximately 70 Mining companies were issued either prospecting or land use permits.

Appendix 6

OFFICE OF THE COMMISSIONER
NORTHWEST TERRITORIES
CANADA

Yellowknife, N.W.T.
X1A 2L9
11 April 1980

DEPUTY MINISTERS,
HEADQUARTERS AND REGIONAL DIRECTORS

The Executive Committee System

You may recall that the Commissioner's Task Force on Administration reported that support to the Executive Committee was weak in the areas of policy advice, broad government planning, and program co-ordination. To correct this deficiency, the Task Force recommended the establishment of an Executive Sub-Committee on Priorities and Planning, and the establishment of Inter-Departmental committees to provide the Executive with advice and recommendations.

The basic Executive Committee structure was approved by the Executive Committee (Record of Recommendation 79-34-2), and members were named to the Financial Management Board, the Sub-Committee on Legislation, and the Sub-Committee on Priorities and Planning. The Executive Committee Secretariat was then directed to prepare a detailed proposal to further develop the Executive Committee system. The proposal had two objectives:

(1) To increase the effectiveness and efficiency of the Executive decision-making process.

(2) To facilitate the inclusion of political discussion and consensus in the process of establishing priorities and considering policies.

The development of the proposal was carried out with extensive consultation with individual Executive Members. The Executive Committee, acting on the advice of the Sub-Committee on Priorities and Planning, approved the proposed Executive Committee System on April 3, 1980 (Record of Recommendation 80-12-1(b)). The Executive Committee Hierarchy consists of three levels:

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1) Executive Committee

Makes decisions on all matters requiring an Executive decision. Consists of Executive Members only and is supported by the Executive Committee Secretariat.

2) Sub-Committees of the Executive Committee

Priorities and Planning, Financial Management Board and Legislation and House Planning.

Sub-Committees of the Executive Committee are established and operate under the authority of the Executive Committee. Sub-Committees establish priorities for the short and long term and consider the financial and legal implications of pending Executive decisions. Sub-Committees consist of Executive Members and except for the Financial Management Board are supported by the Executive Committee Secretariat.

3) Advisory and/or Special Committees

a) Advisory Committees:

Government Programs and Internal Management

These committees are established and members appointed by the Executive Committee to review and report on subject areas requiring inter-departmental co-ordination. Reports and recommendations are submitted to the Committee to which they are responsible. Advisory Committees consist of Deputy Ministers and are supported by the Executive Committee Secretariat.

b) Special Committees:

Resource Development Committee

The Resource Development Committee was established to provide advice and to carry out the directions of the Executive Committee on Resource Development matters. Members are appointed by the Executive Committee and are called at the prerogative of the Chairman.

Capital Planning Committee

This Committee was established to allocate annual Capital Budget and to monitor expenditures on a periodic basis. This Committee meets at the call of the Chairman.

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AGENDA MARCH MAY 14 1986

RESOURCE DEVELOPMENT COMMITTEE

a) Membership

Chairman	-	To be appointed from the Committee Membership
Members	-	Deputy Minister, Economic Development and Tourism Deputy Minister, Local Government Deputy Minister, Renewable Resources Deputy Minister, Social Services Director, Regional Operations Deputy Minister, Finance.

b) Support Staff

To be recommended by the Resource Development Committee to the Sub-Committee on Priorities and Planning.

c) Terms of Reference

1. To act as a point of focus for the exchange of information between resource developers and government on issues related to resource development.

2. To develop integrated policies and positions addressing resource development-related issues by taking into account departmental, public, and other concerns and recommend these policies and positions to the Executive Sub-Committee on Priorities and Planning.

3. To provide information and advice to the Executive Sub-Committee on Priorities and Planning to enable the Government of the Northwest Territories to adequately address opportunities and problems related to resource development projects.

4. To recommend to the Sub-Committee on Priorities and Planning on how the Government of the Northwest Territories should be represented on intergovernmental committees and in intergovernmental planning related to resource development, particularly in the negotiation and implementation of socio-economic terms and conditions concerning Resource Development in the N.W.T.

FD. 01-81(1)

RESPONDING

TO

NON-RENEWABLE RESOURCE DEVELOPMENT

IMPACT ON THE GOVERNMENT OF THE NORTHWEST TERRITORIES

AUGUST, 1980

MANECON LIMITED
MANAGEMENT & ECONOMIC CONSULTANTS

MANECON LIMITED

MANAGEMENT & ECONOMIC CONSULTANTS

The Speaker of the Legislative Assembly
of the Northwest Territories,
Yellowknife, NWT.

September 15, 1980.

Dear Sir,

We enclose the report on our assignment to assess the costs that may be required to be borne by the Government of the Northwest Territories in response to needs generated by major non-renewable resource projects proposed for the vicinity of Norman Wells, Tuktoyaktuk and Resolute Bay.

Forecasts of Impact

In order to fairly assess these costs it was first necessary to establish an order of magnitude for community population increases related to the projects. Because they tend to be so sensitive to many issues of employment and demography, yet they can have such far-reaching effects when used for planning purposes, such forecasts are seldom made public by proponents of major resource development projects until the last possible moment - usually when the proponent must make application to Government for approval to commence construction.

Our experience in reviewing historical forecasts made in connection with other resource developments now in place led us to develop for each of the subject communities a scenario of high, medium and low growth. For the purposes of this analysis we feel these forecasts will provide reasonable parameters of population growth within which to estimate the resultant need for infrastructure and delivery of key services. The forecasts of population we have used, however, should not be used for planning purposes for the reasons mentioned in the previous paragraph.

The ranges we have used are provided below:

	1980	Population Scenario - 1990		
		High	Medium	Low
Norman Wells (Esso/IPL)		710	547	451
Tuktoyaktuk (Beaufort Sea)		3200	2000	1200
Resolute Bay (High Arctic)		1500	350	250

Assessments made in this report are based on these forecasts and recognize that the cost of offsetting the impacts of major resource projects is mostly associated with the socio-economic impacts of the projects.

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200·10190·104 ST. EDMONTON, ALBERTA T5J·1A7 (403) 420·1527

The Speaker of the Legislative Assembly
Contd.

Existing Levels of Service Delivery and Infrastructure

Prior to calculating costs associated with upgrading service levels to those required for expanded use under impact we found it necessary to assess the adequacy of existing levels of service.

In Norman Wells, already a community whose economy depends on a substantial oil production and refining operation, we found certain areas where improvement should be made in facilities to meet the needs of the present population. We found through discussions with community representatives, GNWT officials and Esso Resources management that many of the issues identified were already in various stages of evaluation regarding upgrading or replacement. The range includes issues related to water supply, education, recreation, internal roads and municipal administration staffing. The cost of making the appropriate provisions amounts to approximately $4.4 Million in capital expenditures and annual operating costs of about $350,000.

Infrastructure in Tuktoyaktuk also shows deficiency in a number of areas. Major concerns here relate to water and sewage facilities, solid waste disposal, education for adults, administrative capacity in Hamlet organization, recreation and perhaps as serious as the inadequate water supply, the condition of internal roads. Gravel supply appears to be a major constraint on provision of smoother road surfaces in Tuktoyaktuk. We have included photographs of Tuktoyaktuk road surfaces taken in May and September 1980, for your consideration. We suggest that the cost of making the appropriate improvements to the infrastructure at Tuktoyaktuk would be about $1.75 Million and would require expenditures on operations and maintenance of about $215,000 per annum. This figure is greatly dependent on the cost of gravel.

We found that Resolute Bay, built during the 1970's specifically for a large population expected to arrive associated with planned High Arctic exploration, is presently considerably over supplied with infrastructure in most facilities. The GNWT has recently closed up a large apartment complex because there are insufficient residents to offset its operating costs. The only area where there appears to be deficiency of infrastructure is that there is no gymnasium and the community hall is used as a gym. The cost of adding a gym to the school has been estimated at $100,000 and would require operating cost of $10,000 per annum extra,per annum.

Basic Development Philosophy

We have assumed the basic philosophy of development that the increase in population in the communities will be by wage earners who expect to pay

...../3

for their own accommodation as they would in any economically viable community. We have, therefore, assumed that subdivision construction costs on-site, and off-site connections, are legitimately borne by residents or other occupiers and at no cost to GNWT. With the expansion of municipal services in a tax-based community the additional costs are shared among all residents where advantages gained are global in nature, and locally only in cases such as subdivision construction. In the event that improvements are made that are financed through major debt support mechanisms it is possible that the GNWT may incur additional costs to those detailed in this report related to financing charges and shared costs that would otherwise be applied to longer term residents who are living from transfer payments. The justification for this philosophy is that there are a number of well provided and comparatively self-supporting communities in the Northwest Territories whose incomes are a product of maximising benefits available from non-renewable resource development.

Offsetting Needs created by Resource Development

In connection with the communities under review we have documented in this report the further development of infrastructure and service delivery we believe is necessary in order to adequately provide for the additional demands associated with our population projections.

In Tuktoyaktuk further water and sewage facility improvements would be required, a road should be constructed to link the community with Inuvik if development of the hamlet is to be encouraged along with development of the hydrocarbon reserves, the fire and medical facilities would need to be expanded and more recreation facilities should be added. Some of these costs would be shared with the Federal Government. It is assumed that the bulk of direct employees of the resource developers would maintain their homes elsewhere and would rotate into and out of camps in the neighbourhood of Tuktoyaktuk.

In Norman Wells the population increases would require expansions of the utilidor system and fire protection facilities and would require addition of one nurse to the nursing station. The local representatives we met with were also concerned that a doctor is required in the community.

We consider that the level of infrastructure at Resolute Bay is sufficient to meet the needs of a community expanded beyond our projections. It is possible that minor expansions and additions would be required as the population grows.

In each of the communities it is our opinion that additional expertise is required to deal adequately with resource developers and senior levels of government as resource development projects are planned and developed.

...../4

The Speaker of the Legislative Assembly
Contd.

Management of Impact

In many other areas subject to major resource development projects it has been clear that management of the municipal development and socio-economic impacts associated with the resource development, and of the relationships between levels of government has been a very serious problem. A prominent example is the development of Fort McMurray as the Syncrude plant was built. We have described some of the relevant difficulties in this report. With such examples, and recognizing the particular dynamics and stresses associated with development in the areas under review in the Northwest Territories, we have suggested the strongest structure be established to provide support, liaison and access to communities in development areas. We recommend that a most senior official be appointed to provide this coordination and that he or she be given unprecedented authority to resolve the many problems to be faced during the coming years if development is to proceed. This individual would report to the Executive Committee of the Legislature or to the Commissioner of the Northwest Territories and would be responsible for the orderly development of communities facing impact from resource development projects. It is important that this individual has access to GNWT line departments and we have suggested that he or she sit as co-chairman of the Resource Development Committee. Additionally, this individual would be required to develop committees in development impact areas including both administrative and elected representatives of municipalities, representatives of Regional Offices of the GNWT and resource developers.

The communities would be encouraged to direct and actively participate in managing impacts of nearby resource development projects and funding should be provided as determined by the senior coordinator to make available the appropriate analytical and negotiating skills. The full powers of the coordinator would be available to intervene in disputes and other areas as necessary.

Development Zones

The establishment of Development Zones would be an effective way to manage the anticipated impacts. These zones would be established by the Executive Committee or the Commissioner on the recommendation of the senior coordinator whose role is described above. Communities located within the zones would be subject to special consideration as development is planned and commences. These considerations would include streamlined planning and approval processes at senior levels of government (GNWT) and provision of special funding for projects designed to ameliorate the impacts of resource development.

...../5

The Speaker of the Legislative Assembly
Contd.

Administrative Costs to GNWT

In addition to the costs associated with the development of infrastructure and structures for impact management GNWT will bear the additional burden of increased demand on administrative and technical services at both Headquarters and Regional levels. We have made an overview assessment of these costs as legitimate charges against meeting the needs generated by resource development. It was difficult to make such assessments partly because the GNWT record keeping systems do not readily provide such information and partly because increased costs in this area are really, in most cases, a natural expansion of established functions of government. Through discussions with officers of GNWT we have identified key areas of interest.

Other Costs.

It is logical to assume that if GNWT wished to encourage resource development as a policy it would be most beneficial to take additional steps planned to attract developers such as, for example, opening schools for mining or oil industry support technicians. We have not taken such issues into account in our projections.

Total Cost

The actual total costs to be borne by GNWT will be subject to budgetary constraint, assessment by government officials as to need, etc. We believe that without those constraints, the costs of meeting the needs generated by non-renewable resource development as we have assessed them in this report will be, subject to the variations discussed, approximately $5.6 Million for capital cost and $2.5 Million per annum for operating the appropriate mechanisms and equipment, based upon a snapshot of one year.

Revenues to GNWT

It is clear that insufficient revenue will be generated from the resource developments under review to offset the costs to be incurred, from the GNWT perspective. Revenues can be increased through increased property taxation, revenue sharing with the Federal Government or resource developers, or by increasing Federal Government contributions to deal with special needs. The latter course of action may be considered as a short term measure but will not benefit the GNWT economy as well in the longer term as will other options.

We have found this to be a most interesting assignment. We would like to express our appreciation for the cooperation and assistance provided to us during our work by officials of the Northwest Territories government, the resource developers and many other sources of information we used.

The Speaker of the Legislative Assembly
Contd.

We will be happy to review the contents of this report with you at your convenience and we look forward with pleasure to the opportunity of providing you with assistance again in the future.

Yours truly,
MANECON LIMITED

Richard Hudson

Richard C.Hudson, CMC

RESPONDING

TO

NON-RENEWABLE RESOURCE DEVELOPMENT

IMPACT ON THE GOVERNMENT OF THE NORTHWEST TERRITORIES

AUGUST, 1980

MANECON LIMITED
MANAGEMENT & ECONOMIC CONSULTANTS

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INTRODUCTION

Development of Northern Canada's mineral and hydrocarbon resources historically has been restricted by economic relationships between the price at market of the resource after primary production and the high cost of resource development in isolated locations. High demand, increased market prices and potential shortages of supply in recent years, technological advances and ongoing success in exploration have resulted in increased potential for development of these resources.

Such development will often take place close to, or will impact on existing northern communities, resulting in substantial costs to be borne by local and regional levels of government. Due to the uncertainties associated with non-renewable resource development, it is often not possible for existing budgets to respond adequately to the resulting needs in these communities.

Non-renewable resource development in the Northwest Territories is approved on application by proponents, at the discretion of the Federal Government. It is, though, the responsibility of the Government of the Northwest Territories to provide service delivery to northern communities and to respond to the need for expanded service delivery systems resulting from resource development. This document addresses the cost of meeting such needs and suggests a mechanism designed to manage the delivery of the various programs required.

IMPACTS OF RESOURCE DEVELOPMENT

Substantial local economic and social impacts occur in every case where major non-renewable resource development commences close to an existing community. Because they tend to be related to population growth, increases in community income and service delivery, these impacts are usually most dramatic in the case of smaller communities. Even in the larger communities, though, major disruptions in services and community life style take place.

The key periods of impact are described below.

Exploration

During the exploration, initial testing and deposit delineation process local economic conditions change with the income derived from new employment opportunities (often these are casual or seasonal, particularly in northern climates). During this period, particularly as encouraging resource finds are made, great optimism among local and external entrepreneurs results in the expansion of the local base of available goods and services, thus increasing local employment, further; speculation begins to drive up prices for land and buildings; increased prices and reduced availability of the previously balanced supply of local services begin to disrupt community management as often key local businesses focus their attention on revenues obtainable from the developer at the expense of otherwise major customers; tourism often begins to increase; temporary increases in population occur as the developer imports a work force of employees not available locally; local infrastructure and service delivery, usually adequate for the community prior to commencement of the impact, begin to fail or need expansion as they are put to increased use by the equipment, employees and activities of the developer; social problems often result from the increased cash in the community; local administration resources become overworked and need supplementing by extra staff, more money and external expertise; higher levels of government begin to "gear up" to offset immediate

impacts and to commence processes of evaluation of the impacts and planning for growth management.

Post Exploration/Pre Construction

Following exploration and prior to construction, a lull in the local economy often occurs. Some of the new businesses which are dependent on the development project fail; returning to previous income levels and lifestyles is difficult for residents and dissatisfaction generates further social problems; the newly expanded local business base begins to become competitive, seeking to remain active in the face of major reductions in community income and other sources of revenue.

Project Construction

Construction of Production Facilities provides major stimulus to the local economy. Often large numbers of unskilled, semi-skilled and skilled employees are required for project construction which usually results in 100% local employment and attracts workers from other areas who take up temporary residence. Construction camps are built in the community or at the project site and larger numbers of workers rotate into the camps from other areas. The local base of goods and services increases again to meet the needs of project construction; further speculation on land, buildings and business opportunities occurs; major economic change results from cash paid for wages, goods and services and municipal infrastructure is again strained due to heavy utilization associated with construction activities and increased labour. Social problems often result from the interface between the imported construction employees and the community.

Operations and Maintenance

Operations and Maintenance of the production facility generate an ongoing, steady draw on local resources. Often the high employment and wages associated with construction are reduced considerably during

operations and maintenance as many less employees are required. Nevertheless, even where camps are used to house project employees, the impacted community exhibits dramatically altered economic indicators than before the development commenced. Locally available goods and services are broader in scope and cost more; community income is higher; municipal infrastructure is used more; local and other levels of government have been increased to assist the community, its residents and to deal with linkages to a variety of levels of the economy; and budgets of all levels of government are affected.

Secondary and Tertiary Growth

Secondary and tertiary industries continue to develop. Although their growth is usually dependent upon supply and demand ratios, much of the general infrastructure and increased opportunity which developed around the primary project is taken advantage of, offering to the new industries better opportunities for success and profits. These industries are often impeded by the location and economic and social environment in which the primary project is situated. However, they represent continued growth to be withstood and managed by the community.

Further Projects

Further resource development again imposes strain on the community. The most substantial short term impacts of further development projects are again associated with increased opportunities for local employment and need for goods and services during construction. Longer term impacts will, themselves, also induce further growth as the service and retail sectors grow. The adequacy of meeting the needs created by the earlier project will affect proposed new developers' decisions regarding further development. If infrastructure is adequately developed; a well trained work force is available; transportation networks are established; local communities are adequately prepared; municipal and other levels of government are ready to respond, etc., the net costs of development to future developers will be less and the opportunity will be more attractive.

Conversely, if the bare minimum interim measures are taken to ameliorate impacts developers will view the situation differently.

Avoiding Impact

The impact of non-renewable resource development on regions and economies cannot be avoided. The extent of the impact will vary depending upon the local political, social, economic and environmental conditions. It will be less if camps are built by the developer away from built-up areas. Under such circumstances, the major impact will be from increased employment opportunities and will be distributed more-or-less evenly throughout a region. Transportation centres will be affected due to increased utilization and low measurable costs and benefits will result to the regional economy.

In many cases, a more isolated camp or resource town is a reasonable option due to the location of existing communities. It is also often possible to locate the project operational centre away from the community in cases where the resource to be developed is not immediately in the vicinity of a community and where the nearest community is not already adequately prepared to withstand the impact of a major development. In many cases the location of the operational centre is a case of negotiation of costs and benefits between the project proponent, the local community residents, administrators and businessmen and regional and central government. Often, though, such options do not exist due to the close proximity of the resource to the existing community.

REPORT STRUCTURE

In this report, we have developed a series of scenarios related to the impact of:

- The Esso Resources Oilfield Expansion and Associated Pipeline on Norman Wells;
- The Beaufort Sea Developments on Tuktoyaktuk;
- The High Arctic Developments on Resolute Bay.

The basic impacts of these scenarios are examined and a framework is developed which would meet adequately the resultant need and manage the commensurate growth. The cost to the Government of the Northwest Territories (GNWT) of making these provisions is assessed.

Discussions on revenues to GNWT from Non-Renewable Resource Development are also included.

CONSTRAINTS ON DOCUMENTATION AND ANALYSIS

Earlier investigation by many researchers into the impacts of non-renewable resource development indicates clearly that initial conceptual planning by developers and other analysts cannot be used to project accurately real future demands. Throughout the exploration, design and construction periods of preparation for operations, the precise need for manpower, goods and services and transportation are modified regularly as project design develops.

Much of the impact of a development project would be defined by measuring projected primary and secondary employment, calculating population increase using a variety of methods and analyzing the demand for locally supplied goods, services and infrastructure. Because these projections are modified so often and by such drastic values before the project comes "on stream" and, afterwards, with experience and relative success, it is

not realistic to use specific numbers but is more appropriate to make assessments based on ranges of impact.

Experience with earlier resource development projects in other areas demonstrates clearly that, regardless of demographic projections, the structure of the eventual population of the impacted community will often bear little similarity to that projected before or during project construction. Naturally, this complication creates further complexities and variations in data used in the planning and development of communities. Some examples of this phenomenon are outlined below.

North Sea Oil Development

Planning to meet the impact of North Sea Oil Development on Aberdeen and District, Scotland, has been hampered by changing population forecasts. Because of its already large pre-impact isze, Aberdeen and the surrounding region is better able to cope with these fluctuations than other, smaller areas. Also, until oil development began in the North Sea, this region had experienced regularly high out-migration when compared with other, similar regions in Scotland.

Table 1 (below) shows forecasts of 1981 population for Aberdeen: 1971 population (pre-impact) was 438,000.

TABLE 1 1981 Population Projection Variations - Aberdeen

Year of Forecast	1981 Population	Projection By
1973	489,000	Aberdeen University
1975	465,000	Aberdeen University
1976	466,000	Grampian Regional Council
1979	479,000	Grampian Regional Council

Source: Grampian Regional Council, Scotland

The reason for the major fluctuations was initially that in the early projections it was anticipated that most jobs would be filled by newcomers. A development scale change resulted from the fact that indigenes took a much higher proportion of jobs than had been expected and a much larger number of oil companies than had been anticipated established administrative and executive offices in Aberdeen. The city was already established with a large administrative base because it had developed earlier as a regional service centre. Economic commentators are surprised by the number of new commercial developments. Fourteen operators have established major white-collar facilities in Aberdeen with an average of 5,000 square metres each.

Demographic and economic growth projections are done annually. The 1980 forecast of new jobs during the period 1981-1985 inclusive, is 1,500 higher than the forecast for the same period done in 1979. The number of jobs has increased so rapidly over the past seven years that the City of Aberdeen has not been able to keep up with housing development requirements and population increase has occurred in rural areas surrounding the City.

Oil related population is dealt with by the City of Aberdeen and the Grampian Regional Council in gross terms, however, the present estimates of employment and demography shown in Table 2 (below) are provided by the Grampian Regional Council.

TABLE 2 Oil Related Employment - Aberdeen

Direct Oil Related Jobs	Approx. 20,000	Onshore
	Approx. 13,000	Offshore
Residence of Offshore Employees	Approx. 4,000	Grampian Region
	Approx. 9,000	Elsewhere

Onshore Population related to Oil Workers: Approx. 18,000

NOTE: In addition to the increased levels of employment of indigenes, Aberdeen has found itself a collecting point for the unemployed seeking work. Similar characteristics were found in Fort McMurray Alberta.

Source: Grampian Regional Council

It is considered that oil related employment will increase from about 32,000 in 1979/80 to 50,000 by 1991 and that during the same period employment resident in the Grampian Region will rise from 23,500 to 37,500. The continued growth in oil related employment in Aberdeen and Buchan (the pipeline landfall area) may exaggerate the gradient of economic health between these areas and the rest of the Grampian Region. Employment growth has mainly occurred in these two areas while in other areas of the Region some limited indirect oil related impact has taken place.

Alberta Oil Sands Development

Projection of population of Fort McMurray, Alberta, under the impact of the Syncrude project, clearly confirms the problem of projecting demographic data. Table 3, below, displays a number of projections of Fort McMurray's 1979 population indicating the broad range covered by estimates. Many other estimates had been made and changes took place frequently.

TABLE 3 1979 Population Projection Variations - Fort McMurray

Year of Forecast	1979 Population	Projected by
1973	15,500	Reid, Crowther & Assoc.
1978	20,000	Canadian Bechtel Ltd.
1979 (actual)	25,000	
1980: Population	27,500	

Source: Various

Most of these projections were made related to housing demand. It became clear that neither employment forecasts nor demographic mix projections were accurate. In 1978, Canadian Bechtel Ltd., who built the Syncrude Plant, forecast a 1979/80 workforce of 1700. Syncrude, at this time, has approximately 3,000 workers. Population growth in Fort McMurray in response to the GCOS and Syncrude impacts is shown in Table 4 (below).

TABLE 4 Population Growth - Fort McMurray

Year	Population	Comments
1963	1,300	Pre GCOS
1967	4,984	GCOS start-up
1968	6,000	1967-72: growth of service sector
1972	8,148	Pre-Syncrude
1980	27,500	Syncrude operational

Source: Fort McMurray General Plan

Uncertainty about demographic mix and population increase proved to be a major constraint on effective growth management in Fort McMurray. Major delays in building, for example, school and hospital facilities resulted from this uncertainty. Growth was so rapid that increases in the planned capacity of facilities had to be made regularly - each time delaying the process, increasing the real cost and delaying facility construction. Also the Alberta Government, processing applications for planning approval for such facilities, had recently experienced the construction of a major school at Grande Cache, Alberta, anticipating growth according to demographic projections. Because fewer people with families moved to Grande Cache than expected, the school had become something of a "white elephant".

TABLE 5 CHRONOLOGICAL EVOLUTION OF LOCAL BUSINESS COMMUNITY, FORT MCMURRAY, 1963 - 1978

Table 5(a) Chronological Evolution of Industry Sector Fort McMurray, 1963-1978

Industry Sectors	Number of Establishments															
	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
Construction	5	ND	18	24	27	25	23	28	23	34	62	86	119	155	176	220
Transportation	11	ND	11	16	14	16	18	19	16	17	24	30	35	35	35	36
Retail	7	ND	25	30	38	50	47	45	52	59	73	78	91	100	134	180
Finance, Insurance and Real Estate	1	ND	4	5	6	8	9	10	10	13	17	21	22	25	36	34
Services to Business Management	0	ND	1	2	2	2	3	3	4	5	12	13	23	23	27	32
Personal Services	1	ND	6	6	5	8	10	10	9	11	12	11	20	25	32	47
Services to Travellers	2	ND	13	13	15	16	15	15	15	17	19	22	24	28	33	42
Miscellaneous and Unclassified	0	ND	3	0	1	5	4	2	4	7	12	21	29	26	30	42
Total	27	ND	81	96	108	130	129	124	133	163	231	282	363	417	506	633

Table 5(b) Chronological Evolution of Sector Shares, Fort McMurray, 1963-1978[a]

Industry Sectors	Sector Composition															
	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
Construction	.19	ND	.22	.25	.25	.19	.18	.16	.17	.21	.27	.30	.33	.37	.35	.35
Transportation	.41	ND	.14	.17	.13	.12	.14	.15	.12	.10	.10	.11	.10	.08	.07	.06
Retail	.26	ND	.31	.31	.35	.38	.36	.36	.39	.36	.32	.28	.25	.24	.27	.28
Finance, Insurance and Real Estate	.04	ND	.05	.05	.06	.06	.07	.08	.08	.08	.07	.07	.06	.06	.07	.05
Services to Business Management	.01	ND	.01	.02	.02	.02	.02	.02	.03	.03	.05	.05	.06	.06	.05	.05
Personal Services	.04	ND	.07	.06	.05	.06	.08	.08	.07	.07	.05	.04	.06	.06	.06	.07
Services to Travellers	.07	ND	.16	.14	.14	.12	.12	.12	.11	.10	.08	.08	.07	.07	.06	.07
Miscellaneous and Unclassified	.00	ND	.04	.00	.01	.04	.03	.02	.03	.04	.05	.07	.08	.06	.06	.07
Total	1.00[b]	ND	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Table 5(c) Chronological Evolution of all Industry Sectors, Fort McMurray, 1965-1978[c]

Industry Sectors	Year-to-Year Rate of Change (%)														
	1965[d]	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
Construction	90	33	13	-7	-8	-13	15	48	82	39	38	30	12	26
Transportation	0	45	-12	14	13	6	-14	6	41	25	17	0	0	3
Retail	90	20	27	32	-6	-4	16	13	24	7	17	10	34	34
Finance, Insurance and Real Estate	100	25	20	33	13	11	0	30	31	24	5	14	44	-6
Services to Business Management	0	100	0	0	50	0	33	25	140	8	77	0	17	19
Personal Services	145	0	-17	60	25	0	-10	22	9	-8	82	25	28	47
Services to Travellers	155	0	15	7	-6	0	0	13	12	16	9	17	14	31
All Industry Sectors	73	19	13	20	-1	-4	7	23	42	22	29	15	20	27

a Each element contains each sector's proportion of total enterprises in a given year.

b Columns should add to 1.00, but may not do so due to rounding

c No data are available for the years 1963 and 1964 for this section of Table 5.

d 1965 elements are annual rates, calculated assuming equal percentage increases in 1964 and 1965.

Source: "Overview of Local Economic Development in Athabasca Oil Sands Region Since 1961" Alberta Oil Sands Environmental Research Program, 1979.

Growth of the business sectors in Fort McMurray also did not take place commensurately with either Syncrude expenditures or population growth. Table 5 (opposite) shows the chronological evolution of the local business community. This table shows the sensitivity of various sectors of the economy to local economic change.

It is particularly interesting to note the response of the retail and service trade sectors during the period to 1976. Table 6 (a&b) (opposite) displays this growth and shows clearly the reduction in the number of service trade outlets between 1969 (after GCOS began operations) and 1972/73 (when activity on Syncrude construction was planned and began). The lag in establishment of service trade outlets after Syncrude began construction in 1973 resulted in a 50% increase in average receipts/outlet and allowed ample opportunity for profiteering. It is also interesting to observe the increase in number of employees per thousand dollars of receipts during the period reviewed.

The retail trade, by comparison, showed more steady growth. Again, it can be seen that receipts increased dramatically after 1973 in response to Syncrude's construction commencement.

RELATIONSHIP OF FORT MCMURRAY AND ABERDEEN EXPERIENCES TO NWT GROWTH

Jobs made available by resource developers are taken by locally available, qualified individuals first. The point arrives soon when the local workforce can no longer supply the needs of the developer and in-migration or rotation of workers take place. Population is expanded further by expansion of the service, retail and construction industries. It is interesting to observe that in the various projections of population growth in Fort McMurray, forecasters were consistently under the reality and in Aberdeen, recent forecasts for 1981 population are gradually moving towards the first, done in 1973, after substantial reduction in the 1974 forecast.

Also, it must be recognized that profit seeking retailers, service trade operators and entrepreneurs in a variety of other trades and services, will see the N.W.T. non-renewable resource development areas as suitable for quick profits or solid ongoing business opportunity.

It will be most important to develop a mechanism for growth management that can respond quickly to changing forecasts to avoid the serious delays experienced in Aberdeen and Fort McMurray in providing serviced land, education and hospital facilities, etc., for rapidly growing communities.

It is suggested that lessons learned in Fort McMurray, in Aberdeen and similarly in other areas impacted by major resource development projects are considered when developing the appropriate response mechanisms for the N.W.T. Later in this document some details of actual costs met by regional governments in both jurisdictions are provided. While it is not realistic to compare these costs based upon a common denominator such as, for example, induced population change, the figures do indicate the order of magnitude of improvements that were required to respond to resource impacts.

II

IMPACT OF DEVELOPMENT ON SELECTED COMMUNITIES

The description provided above outlines the difficulties associated with using early employment projections made available by non-renewable resource developers as planning tools in assessing the development-generated need for community infrastructure. This problem is aggravated in the Northwest Territories by the relatively small size and isolation of communities and the resultant lack of an adequate, available and skilled workforce close to proposed developments. Non-renewable resource project proponents are, therefore, forced to use migratory employment planning techniques, assuming that the majority of their exploration, construction and operations and maintenance workforce is not supplied from the Northwest Territories. Because of the small size of the nearest NWT community to most projects and pre-existing regional unemployment problems it is also anticipated by project proponents that the northern element of their required workforce will come from a range of the nearest communities in the Region.

A discussion follows of potential impacts from non-renewable resource development on each of the communities under review.

TUKTOYAKTUK

A typical example of the relationship referred to above is shown in Dome Canmar's Beaufort Sea exploration program where an analysis of employees' residence is displayed in Table 7, below, conducted for the 1976-79 workforce:

TABLE 7 1976-79 Dome Canmar Northern Workforce - Breakdown by Community

	Number of Employees[1]				Population	
Community	1976	1977	1978	1979	1979[2]	%[3]
Tuktoyaktuk	87	103	76	78	760	10
Inuvik	151	28	35	51	2,938	2
Aklavik	7	22	18	27	763	4
Coppermine	3	15	18	19	803	2
Sachs Harbour	1	5	55	8	180	4
Paulatuk	3	8	11	11	170	2
Holman Island	--	4	8	6	328	2
Other	11	9	14	19	—	
TOTAL	263	194	235	219		

Key on next page

1. Note: does not represent man years of employment or number of jobs.
2. GNWT: Population Projections
3. Shows % of 1979 population who worked for a period of time at Dome Canmar. Source of Data: Dome Canmar

Employment

It can be seen from the above table that Tuktoyaktuk is the largest northern supplier of employees to the Dome Canmar project, both as a finite number and as a proportion of its population. While its supply of employees has averaged 80 with the exception of the peak that occurred in 1977, it is declining in percentage of total employees as a contributor to the northern employment supply. This is shown in Table 8 below.

TABLE 8 Tuktoyaktuk as a Contributor of Northern Employees to Dome Canmar

	1976	1977	1978	1979
Number of Employees[1] From Tuktoyaktuk	87	103	76	78
Total Northern Employees	127	194	185	219
Tuk as % of Total	68%	53%	41%	36%

1. See Table 7.
Source: Dome Canmar

The relationship shown above indicates that the supply of employees available in Tuktoyaktuk may be reaching the maximum with the present community population. Discussions with the Hamlet of Tuktoyaktuk Secretary-Manager confirm that in Tuktoyaktuk there is approximately 100% employment among employables. Employment is offered by all levels of government, long standing businesses, new or expended businesses providing goods and services to resource developers and directly by Esso Resources and Dome Canmar.

It appears, therefore, that increased population would result in additional Dome Canmar employment in Tuktoyaktuk. Natural growth in Tuktoyaktuk, assuming zero net migration, is shown in Table 9 below.

TABLE 10

Employment in Canada/NWT Related to Beaufort Sea Developments

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	TOTAL
Total Direct, Indirect, Induced Labour (man years) Related to Beaufort Sea Oil and Gas Developments												
Canada[1]	10,200	22,100	42,500	79,900	137,700	181,900	180,200	173,400	171,700	176,800	183,600	1,360,000
NWT[2]	600	1,300	2,500	4,700	8,100	10,700	10,600	10,200	10,100	10,400	10,800	80,000
Direct Dome Canmar Jobs[3]												
Total		1,065	1,170	1,345	1,870	2,415	3,070	2,795	2,795	3,040	3,040	
Resident NWT[4]		215	235	270	380	480	460	420	420	400	400	

Source: Dome Canmar - 5 years of Progress
Dome Canmar - discussion with R. Duzcek

1. Based upon 40 man years of direct, indirect and induced labour per $1 million of expenditures (Statistics Canada)
2. 5% of Canada total
3. Outline of a possible employment scenario - not provided as an estimate or forecast.
4. Initially approximately 20%. Later reduction assumes difficulty in obtaining and training sufficient employees within population projections.

TABLE 9 Tuktoyaktuk Population 1962-1990

		1962	1967	1976	1978	1988	1990
Population	Total	437	500	590	760	1055	1062
	Native	409	450	525	664	912	956
	% Native	93%	91%	89%	87%	86%	90%

Source: GNWT Population Projections
Earlier economic and planning documents

While longer periods of employment will increase wage income to the community from direct Dome Canmar jobs, there is little capacity within the natural growth of population to increase the number of employees. Any substantial increase in the number of local employees would be as a result of job-seekers moving to Tuktoyaktuk from other communities.

While Dome Canmar has not completed planning to the stage where projections of employment, population, etc. could be reliable, some suggestions of employment opportunity have been provided by the company and are outlined in Table 10 (opposite). Table 10 includes outline estimates made by Dome Canmar of direct employment by Dome Canmar and by Statistics Canada for all resource developers in the Beaufort Sea area. Under such conditions it can be assumed there will be opportunity for Tuktoyaktuk residents to increase the period of their employment if they wish to.

Esso Resources, in its present exploration program employed 10 Tuktoyaktuk residents among 71 northerns in the Field Services (Construction) Division. While the 71 northerns employed include those employed by this division in Norman Wells it is assumed that all Tuktoyaktuk residents counted are employed in the Beaufort Sea area. Esso's level of activity in the Beaufort Sea is lower now than in previous years.

Local Expenditures

Analysis of northern expenditures by Dome Canmar is shown in table 11, (below).

TABLE 11

Dome Canmar Northern Business Expenditures

\# - indicates number of Northern Resident Businesses patronized

Northern Resident Businesses	1976 #	1976 $000	1977 #	1977 $000	1978 #	1978 $000	1979 #	1979 $000
Tuktoyaktuk	6	$ 100,	23	$ 370,	25	$1,364,	26	$2,204,
Inuvik	23	320,	48	800,	53	1,311,	68	3,252,
Coppermine	--	---	--	---	2	6,	3	8,
Aklavik	1	30,	2	30,	2	53,	2	157,
Paulatuk	--	---	--	---	1	11,	1	2,
Sachs Harbour	---	---	--	---	--	---	1	2,
Hay River	1	50,	2	340,	4	375,	12	565,
Yellowknife	2	500,	2	750,	4	1,922,	16	2,166,
Holman Island		---		---		---	2	2,
Other	--	---	--	---	--	---	4	43,
Totals	33	$1,000,	77	$2,290,	91	$5,042,	135	$8,401

Source: Dome Canmar

This table shows growth of expenditures in Tuktoyaktuk and the expansion of the service area to other communities. The number of Tuktoyaktuk businesses patronized has grown only marginally between 1977 and 79, although expenditures in Tuktoyaktuk have increased sixfold. Again, it appears that the supply of goods and services may be restricted by the availability and range of outlets. It is likely that the demand from other developers would be similar in nature to that of Dome Canmar. Returning for a moment to the Fort McMurray experience (Tables 5 and 6) the response of the retail and service sectors can be seen fluctuating throughout the growth of the community under the consecutive impacts of GCOS and Syncrude, but nevertheless, growing rapidly in overall terms during the impact periods. It is reasonable to assume that growth of the retail and service sectors in Tuktoyaktuk would increase if Dome Canmar moved to production on a Tuktoyaktuk base, and population increased.

Using the data and general assumptions outlined above, growth scenarios for Tuktoyaktuk can be developed.

Table 12 Tuktoyaktuk Growth Scenario 1

Growth Assumptions	Base: 1978 Add	Pop.	Exploration Period: 1981 Add	Pop.	Pre-Construction Lull: 1982 Add	Pop.	Construction Peak: 1986 Add	Pop.	O & M 1988 Add	Pop.
BASIC POPULATION (Zero Net Migration) PROJECTION		760		820		849		952		1005
Exploration Period: Add 10% increase in Tuk. resident workers over 1978 figures employed by Dome Canmar-supplied by immigration			8							
Add families of 50% of in-migrants at 5 per family			20							
Add 1 local government employee (presently under recruitment) + family (total 4)			4							
NEW POPULATION + GROWTH AT ZERO NET MIGRATION				858		882		985		1041
Pre-Construction Lull: Reduction of 20% of new growth due to reduced work opportunity and project new population - reduction at zero net migration					(7)	875		977		1033
Construction Peak: Add 25% increase in Tuk. resident workers over 1981 total, supplied through immigration from other area communities							21			
Add families of 50% of immigrants at 5 per family							50			
Add Social Worker & Economic Development Officer + families (total 6), and one nurse (single)							9			
All 3 entrepreneurs in the construction or other trades + families (total 12)							36			
Construction Peak: (Cont'd) Add temporary immigrant work force of 8 construction crews employed in Tuktoyaktuk other than by Dome Canmar (all single)										
NEW POPULATION AND PROJECTION AT ZERO NET MIGRATION:							25			
								1118		1181
Operations & Maintenance Peak: Reduction of 40% of construction crews not employed by Dome Canmar										
Add 3 entrepreneurs in retail and service sectors plus families (total 12)									(10)	
All other immigrants return									12	
New Population										1183
SCENARIO 1 - POPULATION PROJECTION:	1978 760		1981 878		1982 875		1986 1118		1988 1183	

Recognizing the uncertainty of continued development in the Beaufort Sea generally and specifically the rate of growth of production operations, a wide range of population growth has been identified for the purpose of this evaluation.

Growth Scenario 1

Scenario 1 ("S1") is a low growth scenario. It assumes that low in-migration occurs; that Dome Canmar's Tuktoyaktuk base is restricted, as requested by the Hamlet Council, to a 400 man camp and other facilities are located elsewhere; and that no other development takes place within the next ten year period that causes population increase, employment increase or further demand on infrastructure except for a moderate increase in purchases of goods and services from Tuktoyaktuk. Scenario 1 is quantified in Table 12 (opposite). This table shows population change to meet the needs of critical periods of the Dome Canmar project from 1978 exploration through to operations and maintenance.

Even under this extremely low growth scenario, the impact of the non-renewable resource development on Tuktoyaktuk is quite considerable, showing an increase in projected 1986 and 1988 population of 17-18% over the basic, zero net migration projection.

Growth Scenario 2

Scenario 2 is a high growth picture. It assumes major in-migration of workers and their families from other communities to meet the direct need of Dome Canmar and other developers. Tuktoyaktuk becomes a major service centre for Beaufort Sea Development; restrictions on Dome Canmar's camp size are lifted; there is major growth in the retail and service sectors; growth of exploration and production activities are according to the projection of development shown in Dome Canmar's

TABLE 13 TUKTOYAKTUK GROWTH SCENARIO 2

GROWTH ASSUMPTIONS	Base: 1978	Exploration Period: 1981		Pre-Construction Lull: 1982		Construction Peak: 1986		O & M 1988	
		Change	Pop.	Change	Pop.	Change	Pop.	Change	Pop.
APPROX. DISTRIBUTION OF MAN YEARS OF EMPLOYMENT TO NWT RESIDENTS AT 20% OF DISTRIBUTION ACCORDING TO EXPENDITURES (Dome Canmar "5 Years of Progress" - Table 6.1.10)	260	260		500		800		800	
APPROX. DEMAND FOR NORTHERN RESIDENT EMPLOYEES AT DOME CANMAR, AT 20% (approx.) OF NEED FOR AGGRESSIVE PROGRAM (commence construction 1984, commence operations 1987, commence construction of second plant 1989). These data were based upon a scenario developed by Dome Canmar in 1979, since which time many changes have taken place in plans.		215		235		460		420	
TUK. SUPPLY BASED ON: - 1 employee per man year - 30% of northern workforce supplied by Tuk. - Demand is average of A + B and is calculated in man years.									
TUK. LABOUR SUPPLY		214		331		567		549	
POPULATION PROJECTIONS BASIC POPULATION:									
Zero Net Migration Projection	760		826		849		952		1005
DIRECT EMPLOYMENT:									
- add direct labour supply		214		331		567		549	
- add 5 dependents each for 50% of labour supply		535		828		1417		1372	
GROWTH OF BUSINESS SECTORS:									
15% annual growth in number of outlets. Total Outlets - (50% of increase 1975-80) (lower than Ft. McMurray growth rate)	15	26		30		53		70	
Population associated with growth:									
60% of new businesses opened by immigrants		7		9		23		33	
50% of immigrants bring families (3 dependents/family)		21		27		14		50	
GROWTH OF GOVERNMENT SECTORS:									
Additional public service positions for local regional/territorial and Federal responsibility		2		3		5		6	
Families of additional public servants (3 dependents/family)		6		9		15		18	
POPULATION GROWTH CAUSED BY IMMIGRANT EMPLOYMENT SECTORS:									
Other than those mentioned above (all single)		5		7		15		17	
POPULATION PROJECTION: SCENARIO 2			1642		2093		3081		3170

report "5 Years of Progress". The dramatic increase in the size of the community itself begins to generate further growth due to increased employment opportunities and economic conditions. Table 13 (opposite) outlines growth Scenario 2.

Population would again increase for 1989, 90, etc., by about 10% per annum to account for generally increasing opportunity directly associated with Dome Canmar and other operators and service industries.

Growth Scenario 3

Scenario 1 is low compared with the economic benefits potentially available to inmigrants and Scenario 2 represents growth faster than it would likely be accommodated by the community due to political, administrative and infrastructure constraints. It would not be surprising, though, to see Tuktoyaktuk with a population of around 3,000 by the mid-1990's if development continues and production facilities are built and Dome Canmar and other developers operate major bases from Tuktoyaktuk.

This assumes that Tuktoyaktuk also becomes, to a great extent, the major northern operations centre, leaving Inuvik to remain an administrative and government centre.

A "middle line" projection, anticipating rapidly accelerating growth during plant construction and continuing steadily into the operations and maintenance period, is suggested in Table 14, which describes Scenario 3.

TABLE 14 Tuktoyaktuk Growth Scenario 3

	1967	1978	1981	1982	1986	1988	1990
Population	500	760	858	927	1567	1895	2293

(For justification, see text)

TABLE 15 Population Projections - Tuktoyaktuk

	1967 (Pre-Impact)	1978 (Base)	1981 (Exploration Peak)	1982 (Pre Construction)	1986 (Construction Peak)	1988 (O & M)
Basic Projection (Zero Net Migration)	500	760	826	849	952	1005
SCENARIO 1	500	760	858	875	1118	1183
SCENARIO 2	500	760	1642	2084	3066	3102
SCENARIO 3	500	760	858	927	1567	1895

These scenarios were developed by Manecon Limited to be used in conjunction with other documentation and assumptions contained in this report. The projections are not to be used for the purposes of planning.

Scenario 3, assumes that growth in Tuktoyaktuk's population in response to resource development would lag demand by about 1-2 years. Growth rates as shown below have been assumed:

1978-1981	4% per annum (As Scenario 1)
1981-1982	8% per annum (Commencement of growth curve)
1982-1983	27% per annum (As Scenario 3, 1981-82)
1983-1988	10% per annum (As Scenario 3, 1982-86)

Population under Scenario 3 would exceed 2200 by 1990.

The Scenario 3 projection assumes some growth of the service and other trades sectors, a substantial construction workforce increase that becomes absorbed by plant operations and maintenance, and the continued maintenance of a camp environment at Tuktoyaktuk by Dome Canmar. Inuvik remains the Government and administrative centre and Tuktoyaktuk becomes a "staging post" for operational needs. It is likely that the bulk of the increase caused by employees of resource developers would still be resident in camps, both during construction and O and M.

Summary of Tuktoyaktuk Growth Scenarios

Table 15 (opposite) summarizes the growth scenarios used for the purposes of this analysis. It is possible that even more substantial growth may occur, than is shown in Scenario 2, but even to meet the needs of Scenario 2 it is likely that Tuktoyaktuk would begin to be so overtaken by local development that a new town would, in any case, be built. At present the Tuktoyaktuk council is wrestling with a development plan. This plan suggests further construction and development in the area where the community is located, north of the airport. It is the wish of Tuktoyaktuk Council rather to develop new areas south of the airport. If this were the case, most new development would be a satellite of the present community and could readily become a new town built for the inmigrant population. Scenario 3 has been used for the purpose of forecasting the kinds of costs required to be incurred by GNWT to mitigate the impacts of Beaufort Sea development. Where appropriate in following sections of this report, the sensitivity of the projection is dealt with in assessing these costs.

TABLE 16

NORMAN WELLS GROWTH SCENARIOS

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
BASIC POPULATION PROJECTION (zero net migration)	357	360	363	366	368	371	374	376	379	382	384
SCENARIO 1											
PROJECTION OF PERMANENT POPULATION	361	398	415	339	432	435	438	441	444	447	451
CAMP POPULATION OF ROTATIONAL WORKERS	33	461	450	289	75	75	75	75	75	75	75
TOTAL POPULATION	394	859	865	628	507	510	513	516	519	522	526
SCENARIO 2											
PROJECTION OF PERMANENT POPULATION	374	518	580	504	649	659	669	679	689	699	710
CAMP POPULATION OF ROTATIONAL WORKERS	53	738	720	462	113	113	113	113	113	113	113
TOTAL POPULATION	427	1256	1300	966	762	772	782	792	802	812	823
SCENARIO 3											
PROJECTION OF PERMANENT POPULATION	368	475	520	456	525	529	532	536	540	544	547
CAMP POPULATION OF ROTATIONAL WORKERS	37	495	500	322	75	75	75	75	75	75	75
TOTAL POPULATION	405	970	1020	778	600	604	607	611	615	619	622

NORMAN WELLS

Esso Resources plans, subject to government approvals, to increase recovery of crude oil from the Norman Wells oilfield from 500 cubic metres/day to 4,000 cubic metres/day. While this expansion will require substantial construction and drilling activity, the existing refinery, taking crude oil from 50 wells, will not be changed. The entire volume of increased production is planned to be transported by pipeline from Norman Wells to Zama, Alberta. A small diameter pipeline is planned to be constructed by Interprovincial Pipe Line (NW) Ltd. at the same time as the oilfield expansion is underway.

This increase in oil production is forecast to provide benefit to Canada's Balance of Payments position by reducing oil imports. However, substantial impacts will likely occur on Norman Wells, the host community for the fieldgate and refinery, as the construction of the 168 new wells and fieldgate facility and the pipeline takes place.

These impacts will be felt through increases in the temporary and permanent population of Norman Wells and other area communities. The demand for municipal and service delivery infrastructure will exceed the existing supply, both during the construction and operations and maintenance periods.

Unlike the undefined developments at Tuktoyaktuk, the Esso Resources/ Interprovincial Pipe Line project has been documented in an application for government approval to proceed with construction and implementation. Population projections have been made for these applications in "Norman Wells Oilfield Expansion and Pipeline Project: Regional Socio Economic Impact Assessment" by Esso Resources Canada Limited and Interprovincial Pipe Line (NW) Ltd. (March, 1980) and these are included as a medium growth scenario (Scenario 3) for Norman Wells growth. Three scenarios of growth are shown in Table 16 (opposite). Scenarios 1 and 2 are based upon the projections referred to above, but include some differences in growth perspective.

Norman Wells, a predominately (82 per cent) non-native community, was founded on the site and at the time of early oil exploration and remains closely dependant upon the existing Esso Resources operations. In the event that major population expansion takes place in response to the project , it is suggested that growth will occur in both the native and non-native portions of the population. The native segment increase will likely come from nearby communities and will usually take the lesser skilled jobs. Natives will be employed extensively in construction jobs and many will stay on to work in operations and maintenance jobs.

The non-native population increases will increase from inmigration of workers who take residence because of job opportunities.

A large proportion of the population expansion will be accommodated in camps. Camps built for construction will be used for accommodating operations and maintenance employees.

Thirty houses are owned by Esso Resources in Norman Wells. These buildings are located in the area in which the fieldgate will be constructed. Many of these houses will be moved to new serviced lots. Twelve will be moved in 1980 and five new houses will be added. The balance will be moved or erected in 1981.

Although a camp population is planned for construction and operations and maintenance workers, the present importance of the existing Esso plant to the community has resulted in extensive interaction between plant employees and the rest of the population. For this reason it can be assumed that the camp population, although often not considered in population forecasts, will effectively become a part of the community as a whole in many regards. Growth in the retail and service sectors will also take place.

Growth Scenario 1

A low growth scenario for Norman Wells assumes the projections provided by Esso Resources with the following modifications:

Construction:

- Construction phase multiplier of 1.1 estimates secondary employment generated by the project rather than 1.2 used by Esso Resources. Distribution of indirect jobs is more in favour of Hay River and Yellowknife than suggested in Section 5 of the Esso Resources Socio-Economic Impact Study. Distribution to Norman Wells is, therefore, 30% rather than 40%.
- One third, rather than one half, of indirect jobs will be filled by inmigrants from outside the study area.
- Those establishing households do not conform to census data in average household size, but average 2.75 rather than 3.14.

Operations and Maintenance:

- An operations and maintenance multiplier of 1.5 is used rather than 2.0 for permanently resident O & M positions.
- A multiplier of 1.25 was used rather than 1.5, to calculate secondary jobs related to field production positions.
- One half, rather than all of direct and secondary job opportunities will be filled by new inmigrants.

Other assumptions remain the same. The reductions shown for Scenario 1 fall within the range reasonable for low impact due to the remoteness, high level of employment, lack of broader employment opportunity and small size of Norman Wells.

TABLE 18 NORMAN WELLS GROWTH SCENARIO 2

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
BASIC POPULATION PROJECTION (ZERO NET MIGRATION)	357	360	363	366	368	371	374	376	379	382	384
DIRECT PROJECT EMPLOYMENT (Corrected to calendar year during construction and inflated 20% during construction, 50% during operations).	109	1538	1500	965	137	137					
POPULATION IMPACT	17	158	217	138	281	GROWTH APPLIED AT 1.5 % PER ANNUM					
REVISED PERMANENT POPULATION BASED ON EMPLOYMENT	374	518	580	504	649	659	669	679	689	699	710

TABLE 17

NORMAN WELLS GROWTH SCENARIO 1

Table 17(a) Scenario Development

	CONSTRUCTION						OPERATIONS AND MAINTENANCE	
	1980/81 Winter	1981 Summer	1981/2 Winter	1982 Summer	1982/3 Winter	1983 Summer	1984 Manecon	1984 Esso Resources
DIRECT PROJECT EMPLOYMENT								
- Norman Wells Plant	91	274	188	354	385	378		
- Pipeline	91	108	713	81	343	62		
TOTAL	182	382	901	435	728	440	91	91
INDIRECT EMPLOYMENT								
- Norman Wells	5	11	27	13	22	13	16	54
TOTAL	18	38	90	43	73	44	—	—
Norman Wells Area POPULATION INCREASE	7	15	37	18	30	18	64	157
(WITH FAMILIES)	25	52	124	59	100	59		
Norman Wells Area ESSO PROJECTION OF POPULATION INCREASE	22	47	113	55	91	55		
(WITH FAMILIES)	59	126	297	144	241	146		

Table 17(b) Scenario 1

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
NORMAN WELLS POPULATION PROJECTION ZERO NET MIGRATION	357	360	363	366	368	371	374	376	379	382	384
IMPACT POPULATION INCREASE	4	38	52	33	64	GROWTH APPLIED AT 0.7% P.A. 1985-1990.					
REVISED PERMANENT POPULATION PROJECTION SCENARIO 1	361	398	415	399	432	435	438	441	444	447	451

Scenario 1 is shown in Table 17 (opposite). Table 17(a) establishes the population impact criteria related to employment in conjunction with the above details and 17(b) applies these criteria to population. In Table 17(b), continued growth of 0.7% per annum, in keeping with historical Norman Wells growth rates, is applied after 1984. Population growth during seasonal construction periods is smoothed on averages to generate calendar year impacts.

Growth Scenario 2

Table 18 (opposite) shows growth scenario 2 for Norman Wells. This high impact scenario assumes the basic data set out in the Esso Resources Socio-Economic impact statement are correct except:

- 20% under estimation of construction labour force.
- As in Fort McMurray, gross underestimation of the direct operations and maintenance work force requirement occurred. 50% error is assumed in new resident work force.
- Households are established by families of 3.75, not 3.14 due to their supervisory/managerial status and their family development
- Growth rate after impact has been felt increases from 0.7% to 1.5% per annum due to the more family oriented growth.

It is possible that growth beyond that shown in Scenario 2 could take place if the unemployed from other areas make their way to Norman Wells to find work.

Growth Scenario 3

Table 19 (below) displays Scenario 3. This scenario is the same as that shown in the Esso Resources Socio-Economic impact assessment. Construction employment impact is averaged and redistributed according to calendar years.

TABLE 19 — NORMAN WELLS GROWTH SCENARIO 3

	1980	81	82	83	84	85	86	87	88	89	90
Basic Population Projection (Zero net migration).	357	360	363	366	368	371	374	376	379	382	384
Population Increase	11	115	157	100	157	Growth applied at 0.7% P.A.					
Projected Permanent Population	368	475	520	466	525	529	532	536	540	544	547

RESOLUTE BAY

Resolute Bay was established in the early 1950s by the inmigration of 4 Inuit families from other communities, at the suggestion of the then Department of Northern Affairs and Natural Resources. The community grew with further inmigration of Inuit families. The airport, located some 8 kilometres from the community, had been operating since the 1940's and during high levels of arctic exploration in the early 1970's it became particularly important as a staging post and transportation centre.

In the mid 1970's the community was moved from its location (under the flight path to the airport and in an area which was prone to snow drifting) to a new site. Residential accommodation from the airport was also to be moved into the new community, as was residential accommodation from a camp.

With the exciting levels of exploration activity in hydrocarbon and mineral resources during the early 1970's, a large community was planned. Under various residential density plans, accommodation for 2000 - 3200 could be accommodated within existing infrastructure with little further development.

However, the anticipated growth in Resolute Bay did not take place. 1980 population is about 131 Inuit and a few non natives in Resolute Bay. A further approximately 130 non-natives live at the airport/ base and the South Camp.

Resource Development

Two major current proposals for resource development that may impact on Resolute are the Polaris Mine planned for Little Cornwallis Island, and the Arctic Pilot Project.

TABLE 20

RESOLUTE BAY - GROWTH SCENARIOS

	1980	1985	1990
Scenario 1 (Low Growth)	131	200	250
Scenario 2 (High Growth)	131	450	1500
Scenario 3 (Medium Growth)	131	250	350

These data were developed by Manecon Limited for purposes connected with this assignment. Projections shown above are provided for demonstration purposes and are not to be used for planning.

A socio-economic impact assessment of the Polaris project is under preparation at the time of this report commissioned by Cominco Ltd., owners of Polaris. Unfortunately, this document was not available to Manecon Limited as a source of reference. The consultants preparing the socio-economic impact assessment suggest that in response to the Polaris mine development some ten to twelve additional families, or about 50 persons, may move from other Inuit communities to Resolute Bay. The consultant suggested that if rotation schedules were amended from present plans of six weeks in four weeks out, to a special arrangement of one week in, one week out or two in two out for residents of Resolute Bay only, more families may move to the community. Otherwise, it appears there is little to attract people from the central arctic to relocate. Of the families that may move to Resolute Bay in order to obtain work at the Polaris mine, it is suggested that most would be earlier residents who have left or relatives of present residents.

If other resource development proceeded to offer substantial employment in northern oil, gas or other mineral programs and the transportation centre was Resolute Bay, further growth of the community might occur. It is likely, also that in response to such development perhaps another hotel or two might be opened at the airport to provide temporary accommodation for transiting passengers. For example, those arriving from the south to begin a tour of duty at a remote site may not be able to continue to their journey the same day. If overnight accommodation were provided at the airport it would enable temporary stayovers of this kind to take place without affecting the community of Resolute Bay.

Because of the history and nature of the community, the region and the projects under consideration it is difficult to project levels of growth that may occur and thus to develop population projections. The growth scenarios shown in Table 20, opposite, are general estimates of growth that may result from present and future plans.

Growth Scenario 1

Assumes low growth for the community.

- 50 people move (10-12 families) to follow work opportunities at Polaris.
- one Cominco position and one GNWT position added
- natural growth occurs at 3.1 % (Inuit natural growth rate at zero net migration: GNWT Population Projections).

Growth Scenario 2

Assumes high growth resulting from in-migration of workers with their families. Growth in Resolute Bay is encouraged by adjusting rotation schedules.

- 150 employees and their families (x5) move to Resolute to take jobs at Polaris, Arctic Pilot Project and other non-renewable resource projects.
- 2 Government positions are added and employees with families arrive.
- Expediting company offices are set up in Resolute Bay by in-migrants.
- Retail and personal service sectors expand.

Growth Scenario 3

A medium growth picture assuming moderate in-migration in response to modified rotation schedules, and some growth allowed for growth of the retail and service sectors.

It is clear that the scenarios outlined above do not approach the capacity of the community and its existing infrastructure. Discussions with the Regional Director, Baffin Region, GNWT, and with community representatives confirm that local expectations of growth in Resolute Bay do not appear to present a picture of massive expansion that would meet the infrastructure design characteristics of the community within the time frame addressed by this report. Airport/base population is disregarded in making these projections.

SUMMARY OF GROWTH SCENARIOS

The above paragraphs have reviewed the growth that might occur in response to non-renewable resource development in these key areas of the N.W.T. It is clear from the projections that major population growth will occur in Tuktoyaktuk, Norman Wells and Resolute Bay if developments proceed.

In each of the projects the proponent plans camps for project workers to avoid impacts on the communities. Camps of the developers will be 'dry' and will be monitored carefully. Each camp will have its own recreation and eating facilities and it is expected that project workers will be discouraged to some extent from mixing with the local population so social impacts related to such interaction are avoided.

It is important to reiterate the unreliability of projections of population associated with early planning of major non-renewable resource projects. Projects must be monitored continuously and speedy response to changes must take place.

The next section of this report deals with levels of infrastructure.

TABLE 26

COMPARISON OF RELATIVE INFRASTRUCTURE

NORMAN WELLS

INFRASTRUCTURE	NORTHERN ALBERTA[1]	N.W.T. SAMPLE	NORMAN WELLS	DEFICIENCY N.W./Alta	DEFICIENCY N.W.T./Alta
		Nanisivik			
POPULATION	250-500	265	353		
WATER: Pipe-treated	47	X	X	None	None
Wells/Lake	53				
SEWER: Yes	79	X	X	None	None
No	21				
ROAD ACCESS: Paved	74			Summer	Year round
Gravel	16	X		road	road access
Oil	10			access	
Winter			X		
SOLID WASTE[2]: Mod	74	X	X	None	None
San					
None	26				
POLICE: Yes	5	X	X	None	None
No	95				
FIRE: Volunteer	53	X	X	None	None
Full Time					
None	47				
HEALTH: Hospital	16			None	None
Other	10		X		
None	74	X			
RECREATIONAL[3]: One or Two	5		X		
Three to Five	63				
More than Five					
None	32	X			

1 All figures except population expressed as % of sample
2 Mod - modified land fill; San - sanitary land fill
3 Represents number of recreational facilities in community

SOURCES: Canada North Almanac, 1977, Research Institute of Canada; A Study of Municipal Infrastructure with Reference to Northern Alberta, 1979 (1977 data) Peter C. Nichols & Assoc. Ltd; Community Discussions

TABLE 27

COMPARISON OF RELATIVE INFRASTRUCTURE

RESOLUTE BAY

INFRASTRUCTURE	NORTHERN ALBERTA[1]	N.W.T. SAMPLE	RESOLUTE BAY	DEFICIENCY R.B./Alta	DEFICIENCY N.W.T./Alta
		Lac La Martre			
POPULATION	100-250	191	131		
WATER: Pipe-treated	26		X	None	None
Wells/Lake	64	X			
SEWER: Yes	37		X	None	None
No	63	X			
ROAD ACCESS: Paved	51		None	N/A	Year Round
Gravel	40				Road Access
Oil	6				
Winter	3	X			
SOLID WASTE[2]: Mod	74		X	None	None
San					
None	26	X			
POLICE: Yes	3		X	None	None
No	97	X			
FIRE: Volunteer	14	None	X	None	None
Full Time					
None Organized	86				
HEALTH: Hospital	6			None	None
Other	3		X		
None	91	X			
RECREATIONAL[3]: One or two	46	X	X	None	None
Three to Five					
More than Five					
None	54				

1 All figures except population expressed as % of sample
2 Mod - modified land fill; San - sanitary landfill
3 Represents number of recreational facilities in community

TABLES 26 and 27

TABLE 24

LIST OF ADMINISTRATIVE COMPONENTS
INFRASTRUCTURE - TUKTOYAKTUK

HAMLET		G.N.W.T.	
Employees	Buildings	Employees	Buildings
Secretary Manager	Hamlet Office	Game Warden	D.P.W. Garage
Secretary	Housing Association Officer	D.P.W. Maintenance Man	School W/Gym
By-Law Officer	Garage	School Janitor	8 Staff Houses
Recreation Director	Library	Fur Shop Manager	Adult Education Building
Foreman	Firehall	8-9 Teachers	Social Workers Office
Mechanic	Community Hall		Fur Shop
Mechanics Helper	3 Staff Houses		Game Warden House
Employment Officer	Transient Center		
Gas Salesman	Radio Station		
Fuel Truck Driver	Curling Rink		
Two Sewage Truck Drivers	New Arena		

SOURCE: Hamlet of Tuktoyaktuk, Community Plan, 1980.

TABLE 25

COMPARISON OF RELATIVE INFRASTRUCTURE
TUKTOYAKTUK

INFRASTRUCTURE		NORTHERN ALBERTA[1]	N.W.T. SAMPLE	TUKTOY-AKTUK	DEFICIENCY	
					TUK/ALTA	N.W.T./ALTA
			Aklavik			
POPULATION		500-1000	700	697		
WATER:	Pipe-treated	45	X		None	None
	Wells/Lake	55		X		
SEWER:	Yes	82			None	Poor
	No	18	X	X		
ROAD ACCESS:	Paved	73			Summer Road Access	Year Round Road Access
	Gravel	18				
	Oil	9				
	Winter		X	X		
SOLID WASTE[2]:	Mod San	82	X	X	None	None
	None	18				
POLICE:	Yes	27	X	X	None	Good
	No	73				
FIRE[3]:	Volunteer	64	X	X	None	Good
	Full Time					
	None Organized	36				
HEALTH:	Hospital	36			None	None
	Other		X	X		
	None	64				
RECREATIONAL[3]:	One or Two	18	X	X	None	None
	Three to Five	55				
	More than Five	9				
	None	18				

1 All figures except population expressed as % of sample
2 Mod - Modified land fill; San - Sanitary landfill
3 Represents number of recreational facilities in community

TABLES 24 and 25

TABLE 23 ANALYSIS OF CURRENT INFRASTRUCTURE
RESOLUTE BAY

COMPONENT	DESCRIPTION	PROBLEMS/DEFICIENCY	SOLUTION	INITIAL COST $	O & M COST $
WATER	Utilidor System Source - Char Lake	None	N/A	N/A	N/A
SEWAGE	Collection - Utilidor System Disposal - The Bay	None	N/A	N/A	N/A
SOLID WASTE	Collection - Truck Disposal - Landfill and Burning	None	N/A	N/A	N/A
FUEL SUPPLY	Delivered Yearly Main Tank Farm is at Airport	None	N/A	N/A	N/A
POLICE	RCMP - 3 Man	None	N/A	N/A	N/A
FIRE	Volunteer - 10 men	None	N/A	N/A	N/A
EDUCATION/ SCHOOL	Grades K-9 3 Classrooms	No Gym	Community Hall Used as Gym	N/A	N/A
ADMINIST-RATION	Council of 8	None	N/A	N/A	N/A
RECREATION	Community Hall Drop-in Centre	No Gym	Add Gym to Existing School	100,000	10,000
INTERIOR ROADS	Gravel	None	N/A	N/A	N/A
HEALTH	Nursing Station	None	N/A	N/A	N/A
				100,000	10,000

SOURCES: General Development Plan Resolute Bay, N.W.T., Underwood McLellan & Associates Limited; The Communities of Resolute and Kuvinaluk: A Social and Economic Base Line Study; Community Discussions; Canada North Almanac, Research Institute of Northern Canada.

TABLE 21

ANALYSIS OF CURRENT INFRASTRUCTURE
TUKTOYAKTUK

COMPONENT	DESCRIPTION	PROBLEM/DEFICIENCY	SOLUTIONS	INITIAL COST	O & M COSTS
WATER	Summer - small lake south of built-up area Winter - the Bay Individuals - fresh water creek	Obtaining secure supply source. Storms cause sea waters to flow into lakes	Pipe water to a permanent reservoir	$ 1,000,000	$ 40,000
SEWAGE	Collection - Tanks/trucks - Honey buckets/ Trucks	Lagoon not properly maintained	Upgrading & Maintenance of lagoon	500,000	20,000
SOLID WASTE	Collection - Private contractor Disposal - Landfill	Lagoon not properly maintained	Increase amount of cover material	N/A	30,000
FUEL SUPPLY	Storage - small tank near hamlet offices, large tank farm near harbour Delivery - hamlet operated truck	Will need expansion as community grows	N/A	N/A	N/A
POLICE/FIRE	Location - RCMP Base	GNWT considering new site for fire hall	N/A	N/A	N/A
EDUCATION/ SCHOOL	9 classrooms, 10 teachers grades K-9, enrollment 200 student/teacher 20:1, Capacity 202	Attendance - 63% Adult education	Programs for adult education & awareness of education for children	N/A	20,000
ADMINISTRATION	Council of 9 including Mayor, committees; town planning, finance, recreation, by-laws one councillor on school Committee See table 24	Administration staff not experienced with major non-renewable resource development, administrative capacity overloaded	Hiring person to act as liaison between developers and council	N/A	40,000
			Recruiting for administrative manager	N/A	25,000
RECREATION	List of buildings Table 24	Low level of interest	Organized programs, training for directors volunteer manpower	N/A	30,000
INTERIOR ROADS	Total length 10 KM gravel	Very poor condition (badly rutted, narrow, uneven)	Proper build-up and adequate maintenance	250,000	10,000
HEALTH	Nursing Station - 3 nurses	None	N/A	N/A	N/A
				1,750,000	215,000

SOURCE: Hamlet of Tuktoyaktuk, community plan, M.M. Dillon Limited, 1980; community discussions; Department of Local Government, Dec., 1979 expenditures on infrastructure at Tuktoyaktuk.

TABLE 22

ANALYSIS OF CURRENT INFRASTRUCTURE
NORMAN WELLS

COMPONENT	DESCRIPTION	PROBLEM/DEFICIENCY	SOLUTIONS	INITIAL COST $	O & M COSTS $
WATER	Utilidor: created by IOL, MOT & GNWT. Also trucked: Source - reservoir near Bosworth Creek	Must secure long term supply	Large reservoir closer to community or negotiate with IOL	1,200,000	48,000
SEWAGE	Collection - utilidor disposal - ground up and pumped into river	None	N/A	N/A	N/A
SOLID WASTE	Trucked to garbage dumps	Imperial trucks must go through town to dump garbage - hard on roads	Build a detour road around town for dump access	See roads	N/A
FUEL SUPPLY	Supply - Imperial Oil Storage - 478,000 gallons.	None	N/A	N/A	N/A
POLICE	RCMP - 2 men	None	N/A	N/A	N/A
FIRE	Volunteer - 3 trucks incl. 1 shared with IOL	None	N/A	N/A	N/A
EDUCATION/ SCHOOL	4 classrooms, grades K-9, 3 teachers, enrollment 59, student/teacher 20:1, capacity 90	At stage where grades 9-12 may be needed	Plans are in progress to build new school	980,000	220,000
ADMINISTRATION	Settlement council has 12 members	need a settlement manager	Hire same	N/A	25,000
RECREATION[1]	Community hall capacity 150	Need capacity of 300	Construct new community hall	225,000	10,000
INTERIOR ROADS	Approximately 7 miles of road, gravel	Heavy traffic, loads on main street through settlement	Build bypass road around settlement	2,000,000	50,000
HEALTH	Nursing station 3 nurses, 12 beds	None	N/A	N/A	N/A
				4,405,000	353,000

[1] Construction of new recreational facilities will be partially or wholly assisted by Esso-Resources.

Sources: Discussions with communities; Esso Resources Regional Socio-Economic Impact Assessment, resources management consultants, 1980; a study of municipal infrastructure, Peter C. Nichols & Associates Ltd.; Norman Wells Development Regulations, 1978, GNWT.

III

INFRASTRUCTURE

This section assesses the municipal infrastructure of the three communities under consideration. A description of the infrastructure in place is provided (opposite) in Tables 21, for Tuktoyaktuk, 22 for Norman Wells and 23 for Resolute Bay. These tables provide brief comment on the standards and condition of existing infrastructure, known or perceived problems or deficiencies, suggested solutions or current plans, and estimates of costs of initially meeting current need and of operations and maintenance of the facility. Table 24 (opposite) provides a list of the administrative components of Tuktoyaktuk infrastructure. This table is included to indicate the scope of involvement of the two levels of government in community management and development in this community.

A summary of basic municipal infrastructure standards at the three communities under examination is compared in Tables 25 (Tuktoyaktuk) 26 (Norman Wells) and 27 (Resolute Bay) with equivalent data for communities in Northern Alberta. A consultant study conducted in 1979 assessed for the Government of Alberta the level of provision of municipal infrastructure in Alberta's northern communities comparing levels of service for all communities in a range of population bands. In order to ensure that relevance to the Northwest Territories is maintained, an additional NWT community of similar size range is also compared in Tables 25, 26, and 27. The comparisions made are as shown in Table 28 (below).

TABLE 28 Comparison Framework - Infrastructure

Impact Community	Pop.	NWT Comparison Community	Pop.	No. of Alberta Communities in Sample	Population Range of Sample
Tuktoyaktuk	697	Aklavik	700	11	500-1000
Norman Wells	353	Nanisivik	265	19	250-500
Resolute Bay	160	Lac La Martre	191	35	100-250

In all cases (including Northern Alberta) 1977 data were used.

In the Alberta communities, it is interesting to observe the progression of municipal service delivery as communities grow. Table 29 (below) compares the northern Alberta situation as community population increases.

TABLE 29

Comparison of Infrastructure - Northern Alberta Communities

Infrastructure	Percentage Distribution			
Population	100-250	250-500	500-1000	Over 1000
	%	%	%	%
Water: Pipe treated	26	47	45	87
Wells/lake	64	53	55	13
Sewer: Yes	37	79	82	96
No	63	21	18	4
Road Access Paved	51	74	73	96
Gravel	40	16	18	
Oil	6	10	9	4
Winter	3			
Solid Waste Mod. Landfill	74	74	82	75
San. Landfill				25
None	26	26	18	
Police Yes	3	5	27	100
No	97	95	73	
Fire Volunteer	14	53	64	100
Fulltime	86	47	36	
None organized	6	16	36	71
Health Hospital	6	16	36	71
Other	3	10		29
None	91	74	64	
Recreation One or Two	46	5	18	4
Three to Five		63	55	65
More than Five			9	31
None	54	32		

The status of municipal infrastructure provided in the three communities under review is assessed above. It appears from a review of these descriptions that while some basic standards for infrastructure are set down by the Department of Local Government the actual level of service provided can vary widely from community to community. It is difficult to compare empirically the standards of serviced facilities and equipment between different communities. It is clear, though, that certain

TABLE 30

Factors contributing to poorer levels of service in smaller, northern communities.

Service/Facility	Factors
Police	- dispersed communities; poor transporation access; sparsely settled region
	- detachments being centralized in larger centres
Fire	- diseconomies of small scale
	- general absence of adequate water supply
	- lack of opportunities to joint-share facilities
	- local financial capacity
	- level of education; institutional development; local interest
Roads	- local financial capacity and contributions
	- small population, isolation, geography contribute to high costs, poorer economic justification
Recreation	- no vocalization of wants, needs
	- lack of opportunity to joint-share facilities
	- local financial capacity and contribution
	- institutional development; local interest, no vocalization of wants and needs
Solid Waste	- isolation and inaccessibility
Water	- diseconomies of small scale
	- poor groundwater supplies
	- diseconomies of small scale
	- local financial capacity and contribution
	- housing and development conditions
	- institutional development lacking; educational levels; no vocalization of wants and needs
	- isolation, climate, access, absence of skilled local labor force escalates costs
Sewer	- as above
	- absence of municipal water systems

economic constraints which are always assessed in considering delivery of infrastructure are major factors in these communities. These points are outlined below:

- small, dispersed communities do not offer essential economies of scale in, for example, distribution networks. This means that higher per-capita infrastructure costs result than in urban settings for the same services. This situation is aggravated in the more remote small communities as equipment, skilled manpower and materials are often not available locally, thus increasing capital and operating costs further.
- Local financial base, a major governing factor in the provision of municipal services, is comparatively low in remote northern centres because of the following issues:
  - absence of land tenure
  - lack of commercial and industrial base
  - poor housing and property conditions
  - low levels of income
  - relatively large proportion of non-taxpaying government and institutional property
  - lack of local taxation policy.
- less developed socio-economic conditions in the more remote settlements result in less advanced exposure to alternative levels and standards of service available and less awareness of the benefits associated with them. This in turn leads to a perception of local apathy, disinterest, lack of involvement and relative acceptance of existing service levels when viewed from government offices in major urban centres.
- lower levels of institutional development in remote communities result in less vocalization of concerns and less local pressure to ensure that development of infrastructure is planned and implemented to meet local needs. Greater devolution of authority and control to such communities, aided by provision of appropriate professional and technical expertise, would serve to meet more adequately the best interests of the people with respect to infrastructure development.

Table 30, opposite, highlights the main factors contributing to poorer levels of service delivery in the smaller, northern communities. It is clear that these issues have great relevance in assessing service delivery in the three communities that are the subject of this report. It is not surprising to find the most representative situation in Tuktoyaktuk, the least developed of the three communities.

SUMMARY OF SERVICE DELIVERY CRITERIA

It is important to recognize that the degree of provision of municipal services is a function of what local residents want, how much they are prepared to pay for it and/or how vocal they are prepared to become in soliciting input from industry and from other levels of government. Because of the market economy prevalent in Norman Wells and the fact that Resolute Bay is so young a community, Tuktoyaktuk again becomes the example of a poorly provided community measured against standards of institutional and infrastructure development and service delivery. Tuktoyaktuk has been much less successful than the better organized communities in deriving substantial improvements in local conditions through interface and negotiation with governments and resource developers. An interesting philosophical point raises itself here: As a hamlet, Tuktoyaktuk has more autonomy than the settlements of Norman Wells and Resolute Bay. It appears there is great scope for pressure from Tuktoyaktuk residents to improve their environment if they are prepared or if they choose to take a stand. Due to the lack of local experience, this may require extensive guidance in the form of imported professional assistance. Securing and making use of such assistance, though, must be at the discretion of local residents although other levels of government should be instrumental in encouraging community awareness of key issues. As development continues to take place around Tuktoyaktuk these issues will become increasingly pressing. If the community becomes more active in taking advantage of opportunities and planning for its future, major changes in socio-economic and economic conditions can occur.

Impact of Rapid Growth of Population

In all areas where massive population growth occurs in existing communities in response to resource development it has been observed that the supply of infrastructure and service delivery lags the demand. This is partly due to operational constraints, such as remoteness, climate and competition between the municipal developer and the resource developer for a construction workforce inadequate to meet both demands. Also, it is partly due to the fact that bureaucratic processes involved in planning, approving and

financing infrastructure projects are not geared up to meet dramatic, urgent and rapidly changing demands.

Many typical examples of these phenomena can be drawn from the Fort McMurray experience, but a brief review the planning and approvals process related to a new school in that area is a worthy illustration. The school was initially proposed at a time when demand had been forecast as meeting the need for a new school. The application for planning approval was delayed seriously at Provincial government levels, probably due to the "white elephant" at Grande Cache (referred to earlier in this report). By the time approval for planning was given, a new application was required because forecast demand had grown so rapidly that a larger school was required. The school was eventually built after five years of delays of various kinds, and lagged real demand by 2-3 years.

Many administrative problems existed in Fort McMurray related to the dynamics of the relationships of various organizations at different levels of government involved in the development period. These topics will be discussed in the next section of this report.

IV
IMPACT MANAGEMENT

It is clear from earlier research conducted by Manecon Limited with respect to Fort McMurray developments; from discussions with the Grampian Regional Council in Scotland; from the concern of the Province of Newfoundland, and from interviews held in the Northwest Territories in research during this study, that a strong mechanism must be developed to manage the community impacts resulting from N.W.T. non-renewable resource development. A summary of the Fort McMurray situation is provided below, followed by a description of a mechanism designed to deal more adequately with the issues of concern.

LOCAL ADMINISTRATION - FORT MCMURRAY

The roles of organizations involved in local administration during the impact period were not sufficiently well defined to meet the management needs of the rapidly developing town.

An initial appointed Board of Administrators of three members was replaced during the early development period by a larger, elected Board. The transition was just completed by the start of the massive Syncrude impact, when the greatest need existed for experienced and highly skilled impact management.

Due to lack of clearly documented policies, this Board was not able to exercise adequately its key responsibilities of executive policy and decision making and leadership. It found initially that much of its power was being assumed by AHC. As it was unable to regain those responsibilities, it began operating in a more administrative role, encroaching on the role of town management. The Board was also unsure of the role of the Northeast Alberta Commission and other key players at senior levels of Government.

With this confusion, the Town's management was also unable to exercise its role of administering the policy of the Board of Administrators and eventually the roles of the two organizations lost definition and focus. These problems were further aggravated by high levels of staff turnover in the administration.

It became of serious concern that the public perceived the Town's administration as providing poorly. The administration was blamed for many problems associated with growth, although it had no control over the issues.

Public Participation

Candidates for public office were not representative of the population at large but rather were usually members of the longer standing, mature population. The younger, mobile people that formed the majority of the new population were often not interested either in running for public office because they were too busy, or they did not intend to take up long term permanent residence. The problems that resulted between the two categories of population may have been alleviated had an appointed, rather than elected, Board of Administrators remained in place during the development period. The appointment Board would have been better able to evaluate the multi-directional interests of longer standing and newer residents during this most critical of periods.

To some extent (most in Tuktoyaktuk and least in Norman Wells) this issue could result in serious dissention in the communities which are the topic of this study.

Municipal Finances

Fort McMurray's financial position was, and continues to be, seriously hampered by the impact of the rapid development of the 1970's. The town suffered with difficulties related both to expenditure and to revenue.

Expenditure:

- front ending costs were high as almost all development was new.
- competition from Syncrude/Bechtel for employees, goods, services and equipment resulted in dramatically increased prices.
- the Town's isolated location and other factors allowed for profiteering.

Revenue:

- the oil sands plants were located outside municipal boundaries. Local taxation was, therefore, not payable. By arrangement Syncrude pays local taxes, although this was not a requirement until operations commenced in 1979, long after the development of expensive municipal infrastructure had been built and financed.
- potential for revenue from property taxation was reduced due to the large numbers of trailers, leases and empty lots. Grants in lieu received from the Government of Alberta were much lower than would be revenue from residential/commercial/industrial assessments in a community of 25,000 people.
- not initially recognizing the problems, the Provincial Government was slow to respond to the unusual needs of Fort McMurray.

The need to spread the financial load among all residents affected the pre-boom population most. As property owners, most of these longer standing residents have not yet benefited from the developments and cannot understand the reason for increased levels of taxation.

As the town's financial position worsened, despondency set in and irrational and poorly controlled spending policies aggravated the situation further.

PROVINCE OF ALBERTA INVOLVEMENT - FORT MCMURRAY

The major involvement of the Provincial Government was focused through the Department of Municipal Affairs. This Department was involved as a requirement of the "New Town" designation. The role of the Department was not close, but was exercised through a number of agencies reporting to the Minister.

The following relationships existed:

New Town's Act

Through the New Town's Act, the Department appointed the Board of Administrators which, according to the Act, is to be phased out in time in favour of elected representatives. The Board is provided under the Act with certain powers:

- it can borrow without going to plebescite
- funds provided by Government through loans and debentures are repayable "at the discretion of the Government".
- The Board is responsible to the Local Authorities Board for finances and operations and to the Provincial Planning Board for planning and development - both also reporting to the Minister of Municipal Affairs.

The Act appears to meet the needs of the newly developing town, but is perhaps requiring some modification for application to a boom town situation. The Government mechanisms in place do not adequately respond to urgent and unusual needs associated with boom management. Also, due to the general nature of the Act, issues such as delineation and structure of authority, remain unresolved.

If it were decided to enact legislation in the Northwest Territories to deal with management of population/economic boom situations related to development of existing communities it is likely that legislation based upon the Alberta New Town's Act would be suitable provided specific attention was paid to the mechanisms of implementation to be employed in Government offices. A copy of the New Town's Act of Alberta has been provided to our clients.

Northeast Alberta Regional Commission (NARC)

In order to deal with the Fort McMurray boom situation the Government of Alberta enacted Bill 55. The authority of Bill 55 formed NARC. A copy of the Bill has been provided to our clients.

It appears that the Government was expecting more than one Oil Sands plant and, perhaps the development of several communities, and that the appropriate management mechanisms should be developed around the Syncrude/ Fort McMurray operation to continue for future projects.

Some important comments made in the Legislature in 1974 in connection with the introduction of this Bill raised the following points:

- the purpose of the Bill was to provide for orderly development and supply for support and related services in developing Northeast Alberta's resources.
- the Government wanted a better coordinated structure than was in place through the New Town's Act.
- the need to arrange financing ($121 million of Provincial funds estimated during a 5 year period) and to arrange for transfer of local administration to new municipalities.
- the absence of a regional planning commission.

The Premier stated that "the whole objective of the Bill is services to people." He said there was a need for an individual to make decisions in the field. With this in mind, the mandate assigned to NARC included unprecedented potential in its authority. The Commission was responsible to Cabinet through a direct relationship with the Minister of Municipal Affairs.

Unfortunately, the assignment of powers to NARC was indecisive as can be seen from Section 7 of the Bill. The Bill assigned massive authority to be used at the discretion of any one of the Government parties involved in the development of the community. There appears to have been major concern among the administrators that calling in NARC under the provisions of the Act would be seen as failure or abdication of responsibility. The assistance of the powers of NARC would have been most valuable in the orderly development of the community, but as NARC was not called into play,

Quotation from the Debate on Bill 55 in the Alberta Legislature

1974

"I do see another danger in this situation - not one of power - but the concept of putting a horizontal type of authority in a position over the vertical forms of authority that exist at present. We have a local council that is concerned about the local problems in the area. We have the advisory council of the ID, we may, before too long, have some expansion in the Town of Fort McKay.....

In the area as well, we have various government departments all working in a vertical type of activity. When you try to control the activities of those vertically oriented groups or authorities with a horizontal authority that cuts across all of them, it becomes a very serious problem.....

I think there is real danger here of this causing considerable friction. I think if that horizontal authority is weak, then you will create real chaos in the area. Therefore, I think the only way you can avoid this danger is to give the horizontal authority sufficient power to be able to override, in some instances, the vertical authorities that are being applied to the problem."

it could only act passively to resolve the very obvious, sensitive and real difficulties that began to occur as the impact progressed.

NARC was included in roles with respect to both municipal development and regional development. Because of the problems in Fort McMurray, less attention was paid to regional issues. NARC set up monitoring committees to review and coordinate town-related development processes. These committees did not have powers and decision making bodies; they were restricted to informal liaison. Representatives sitting on these committees were initially senior officers from the various development, construction and administrative bodies involved, but as time passed representation on the committees gradually became diluted and ineffective.

The major problem for NARC was the need to use powers of persuasion rather than vested authority in problem solving. The lack of authority was compounded by the absence of line authority in dealings across a number of line departments. This issue was raised as a concern by an MLA during the debate on Bill 55. A quote from this speech is provided opposite. The concern at lack of sufficient power is clear.

SUMMARY - LOCAL ADMINISTRATION

Local administration under severe impact conditions was hampered by a serious lack of integration and coordination of both organization and strategy. Poor definition of roles resulted in dispersed and uncoordinated responsibilities and lines of authority. Major overlaps in authorities and responsibility existed. In these areas, effective decision-making was hampered by duplication of effort and conflict between parties involved.

Little local power or control was in place. While the Board of Administrators was nominally the controlling group, its authority was in fact being exercised by AHC. Except for its dealings with the Town Board, most AHC contact was with other agencies reporting to the Minister

to which it was responsible, or with its own consultants and agents. The Town Board of Administrators felt pushed out and gradually lost its ability to function at the appropriate level.

Serious lack of direction existed because of the two extremes of needs to be met in providing services. The pre-existing and new town populations, each pressured the agencies involved in developing the town to meet their need. The agencies, with ill-defined relationships and split responsibilities, were not able to respond adequately.

It is clear that in future developments of the magnitude which caused the Fort McMurray impact, planning, direction, coordination and leadership will be of the utmost importance if such difficulties are to be avoided or, at least, dealt with adequately.

In the Social Impact-Benefit/Cost Analysis Document presented by the Alsands Project Group to the Alberta Energy Resources Conservation Board this issue was identified as an area of major concern in planning a new town. Pointing out the necessary coordination between government and industry involving all relevant government agencies, the proponent says:

"The applicant recommends that a single body or development agency be established to oversee the socio-economic effects of the project, as well as ensuring the successful and timely development of the new town. This agency should include representatives from the Provincial Government, Northeast Regional Commission, the communities of Fort Chipewyan, Fort MacKay, Fort McMurray and the Applicant and its contractors, as well as those responsible for new town development.

The central purpose of this agency would be to:

a) mobilize to manage growth at the regional and community level,

b) monitor ongoing socio-economic impacts and evaluate the best means for handling them,

c) develop and monitor the implementation of a rapid growth plan that anticipates regional and local needs, with particular reference to the new town."

Similar problems in the early days of Aberdeen's development were alleviated to some extent with the organization of the Grampian Regional Council.

In the context of the Northwest Territories it is difficult to see potential impacts of the magnitude of Fort McMurray, although the relevance of the lesson learned in managing impact there is most valuable. Less problems were experienced in smaller communities in Alberta, which suffered major impacts from oil development.

RECOMMENDATION FOR N.W.T.

Manecon Limited recommends the early establishment of a strong growth management organization, incorporating the involvement of all parties potentially affected by the proposed resource developments. Legislation which incorporates with some modifications, the appropriate powers of Alberta's Special Areas Act, Northeast Alberta Commission Act and New Town Act, could prove to be an effective tool in managing the impacts.

This structure recognizes:

- as mentioned by the Premier of Alberta, the focus of impact management is dealing with people.
- socio-economic impacts of non-renewable resource development are felt most in communities located close to resource projects.
- these impacts are mostly caused by increasing population.
- pre-existing small municipalities are neither equipped nor trained to deal adequately with these impacts and require a high level of assistance in dealing with senior levels of government, incoming population and the resource developers.

The following structure for impact management is suggested, to ensure the maximum level of involvement of communities in moulding their destiny.

Structure

A senior official should be appointed to coordinate and manage growth in impact prone regions. This individual would report to the Commissioner of the N.W.T., or to the Executive Committee, and would sit as co-chairman of the Resource Development Committee presently organized. The RDC would be expanded to include a representative from each geographic area under impact.

In addition to his responsibilities as co-chairman of the RDC, this official would develop a local group in each of the impacted or potentially impacted areas. The committee would comprise two representatives each from the communities bearing or expecting to bear impact from a neighbouring development project; a senior level manager from each locally active resource company; a representative of the local Regional Office of the GNWT; and two members of the RDC. The local community representatives are recommended at two members from each community to allow for the inclusion of an elected and an appointed member. This factor is most important to ensure both administrative and political views are heard.

Powers

To avoid the situation, described above, that occurred in Fort McMurray, it is of the utmost importance that this senior appointed official is provided with the power to resolve the complex and sensitive issues that will arise frequently in his work. Co-chairmanship of the RDC will provide access to line managers at the appropriate level of seniority to ensure a quick process of evaluation and decision making when necessary. With the approval of the Commissioner or the Executive Committee this key individual must be in a position to assume the decision making role at times of crisis. With that same authority he must be able to make commitments that cross the boundaries of authority of one or more GNWT Departments. Naturally, such powers must be carefully controlled and it is, therefore, suggested that they can only be called into force by the Commissioner or Executive Committee on the written recommendation of this position. No such submission should be made without prior attempts at resolution at the RDC.

With the experiences of the Fort McMurray situation so recent, it is to be expected that the line departments involved in the planning and approvals processes would be clearly briefed to ensure the appropriate response is made to communities requesting projects related to boom population growth impacts. It may be considered appropriate to develop a formal policy for applications where, perhaps, requests would be made through the central coordinating office or the regional GNWT representatives, and would then be considered subject to special procedures developed to deal speedily with the special circumstances of such applications.

The meetings of the impact area committees and the RDC should be sufficiently frequent to ensure that a problem issue or policy concern is given prompt attention, but not so frequently that attendance becomes a chore and the committees begin to decrease in effectiveness. The timing of meetings would, naturally, differ from project to project, but would take place at mutually agreed times and locations both on a regular basis and on the special request of a member. It would not be necessary for the entire committee to meet to review a particular issue. The Chairman would coordinate a meeting only of the parties involved.

Funding of Impact-Related Costs

The concept of development zones appears to be most appropriate to deal with assessment and management of the impacts of non-renewable resource development in the NWT. This is because impacts of the kind anticipated will likely be regional or sub-regional and will be different from region to region, although similar within each region or zone. There would be arranged for example, a Beaufort Sea zone dealing with local issues there, a Norman Wells zone for those impacts of the Esso Resources/IPP Plant, etc. Funding of impact-related costs in these areas is available from a number of sources, including contributions from resource developers, property taxation, existing territorial budgets, etc. The extent to which local communities have control over these funds will vary depending upon the status of the community (i.e. settlement, hamlet, village, etc.) Additional funds beyond those readily available must be sought from external sources such as, perhaps the Federal Government and/or shared

revenues with resource developers. This will be particularly important in dealing with funding the less direct costs. A discussion follows later in this report on the funding issue.

Responsibilities of the Central Coordinator

Documentation of the development zone would be a policy issue to be recommended by the senior individual whose role is under discussion, for approval at the level of Executive Committee or Commissioner. This individual would document in each proposal the time-frame estimate of extent of expected socio-economic impact and details of preliminary impacts anticipated. Assuming that the application is approved, funds would be made available from a special research budget to begin to work with communities potentially at risk of impact. Special professional guidance and expertise would be provided to help the community assess and understand proposals and to state a case for special funding of initial planning, negotiations with the developer and governments.

Based upon such inputs from communities and on other zonal impact assessment conducted, the Central Development Impact Coordinator would begin to document the potential fiscal needs and to identify sources of funds appropriate to meeting the impact-related costs.

Special funding would be allocated, based upon these plans, that is for use within the development area. This funding may, by virtue of its source, be allocated either specifically to one community such as, for example, property taxation revenues assessed within municipal boundaries, or regionally such as a federal government contribution provided to offset costs of resource development impacts in lieu of royalties or other revenue.

It would be the responsibility of this Coordinator to provide guidance to communities with internal revenue sources, and to approve disbursements against the broader funding, thus supplementing GNWT normal budget allocations.

The individual appointed to these responsibilities must be an effective and highly experienced senior manager with experience in, or close familiarity with, the resource development industries, the construction industry and municipal development. His role in this position must be exercised on a full time basis and would include the following responsibilities in addition to those outlined above.

- Monitoring growth of the non-renewable resource industries to identify potential areas of impact on communities.
- Developing and coordinating working relationships between communities and resource developers
- Conducting research into potential areas of impact and developing techniques and processes that would ensure the maximum benefit for communities commensurate with community policies, at the same time as ensuring undesireable impacts are mitigated to the fullest extent possible.
- Working with communities and resource developers to ensure the orderly development of supply of labour, goods and services in response to the development.
- Working with communities, developers and government to ensure the orderly development of infrastructure takes place in response to development needs by developing special standards and providing guidance and other assistance during the evaluation and infrastructure development process.
- Intervening in the various administrative and policy areas either on the request of one of the parties involved or where he sees potential difficulties imminent, and making representation to other authorities or recommending executive approval of his decisions regarding the mitigation of the impacts.
- Taking initiative and working closely with the RDC to seek the maximum benefit for the Northwest Territories and its residents from non-renewable resource development.

Role of the Municipality

The involvement with the municipality of higher levels of government is in most cases only related to providing expertise or financial assistance to ameliorate or offset negative impacts. For this reason, it is important that the municipality plays a large role in developing criteria for local impact management, and is in a position to make decisions regarding locally important issues.

In order to exercise such a role in the face of development pressures it is recommended that:

a) access is improved for the municipalities to the appropriate professional and technical skills, and that

b) municipalities are encouraged by central or regional levels of government to deal with impacts before they happen, rather than wait until it is, effectively, too late.

It is expected that the bulk of activity related to dealing with the impacts of resource development will originate and take place in the impacted community, using directly engaged professionals or resources provided by the central coordination office as appropriate. The power of the Coordinator, though, must be immediately available to the community when necessary. In order to exercise fully his vital role, the Coordinator must maintain the closest relationship with each of the impacted communities so, for example, if a community is missing potential advantages, having difficulties with the developer or slipping seriously in management, timing, etc., the Coordinator can quickly become involved.

Alternatives for Growth Management

The approach described above is recommended because it allows for the advantages of a single individual with extensive experience and strong problem solving powers dealing with authority with the leaders of industry and government on similar issues relating to resource development impacts in all of the key areas of the NWT. This individual would be much stronger by representing the interests of Northerners with respect to development

of non-renewable resources in all geographic regions and different resources than would different individuals from each of the different communities. Credibility would be higher, experience would be more valuable and there would be built a stronger rapport within business relationships.

An alternative to the single individual appointment would be the selection and hiring of an expert for each area or community. This alternative is less attractive because the authority of the high profile, individual development Coordinator would become diluted. It would be necessary, still, to develop a local committee to maintain responsibility for local interests and impact protection. If a negotiator or other expert were hired by each seriously affected community, the developer and the government may be less able to respond adequately to requests or develop special arrangements than would be the case with the more central function.

If each community hired its own coordinator/negotiation expert each submission would be different and disorganization of the functional role would occur.

Cost

The cost of operating these functions is a legitimate impact of non-renewable resource development. Table 31, below, outlines these costs.

TABLE 31

COST OF GROWTH MANAGEMENT
CENTRAL COORDINATOR BUDGET

Salary for Central Coordinator	$45,000 - $65,000
Support Staff: - analyst	30,000
- secretarial help	15,000
Administrative costs, rent, benefits	40,000
Travel and Accommodation	20,000
Research Related to Impacts	80,000
Payments to Community Representatives (including travel/accommodation, etc.)	55,000
	$285,000 - 305,000

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COSTS OF MITIGATION

This section of this report draws together the costs of mitigating the impacts discussed. A brief summary of the anticipated impacts is provided first.

SUMMARY OF IMPACT

In the cases discussed in this report, as in most examples of the impact of non-renewable resource development projects on populated areas, the impacts are led by increased community income and population growth that results from employment opportunity and high demand for goods and services associated with the development project. These impacts have been researched extensively in connection with a wide variety of projects.

Three situations are under consideration in this study:

- The impact of Beaufort Sea oil and gas developments on Tuktoyaktuk.
- The impact of the Esso Resources oilfield expansion and the related pipeline on Norman Wells.
- The impact of High Arctic development on Resolute Bay.

These three topics present interestingly different impact overviews. In Tuktoyaktuk only exploration is presently underway. No carefully analyzed statements regarding the potential economic and social impacts of ongoing projects have been prepared by the exploration companies. Dome/Canmar is likely to be the first major company to make the transition from exploration to production.

As mentioned above, the keys to measuring impacts of the nature under discussion are related to employment generation by the developer, are greatly dependent upon transportation adequacy, but are almost exclusively dependent upon decisions made by individuals recognizing employment opportunity and deciding upon whether or not to relocate themselves and their families.

No firm plans which detail ongoing personnel requirements have been prepared by Dome/Canmar or any of the other possible project proponents. Dome/Canmar suggest that preliminary plans of this nature may be available in late 1980 or 1981. Experience gained from other resource development impacts suggests that these plans are not likely to be accurate, when compared in the future with actual employment data, even though Dome/Canmar plans a camp environment and rotational work schedule.

In this regard, therefore, growth scenarios are developed by Manecon Limited to attempt to assess the impact of the Beaufort Sea developments. These scenarios display projected growth in Tuktoyaktuk to a range of from 1.5 to 3 times the baseline 1978 population during the next ten years, and are based on a number of hypothetical assumptions, mostly developed from outline data discussed with Dome/Canmar, Esso Resources, community residents, government officials, etc.

The response to growth in Norman Wells oil activities will also be an increase in the local population. At this time Esso Resources and Interprovincial Pipe Line, the developers, have completed a detailed socio-economic impact analysis, reviewing the potential impacts of their proposed expansion to the oilfield and the associated pipeline.

The Manecon Limited projections vary the assumptions and employment demand forecast contained in the report on that research. Norman Wells is predominantly oil oriented with a longstanding oil production facility and refinery inside the boundary of the community. Activity related to oil production is a part of life in the community and further activity may have less impact in many areas than anticipated. Growth of up to two times present population is forecast.

Resolute Bay is sized with infrastructure far greater in capacity than its population demands. Even at over tenfold growth of the local population there is still capacity in the existing infrastructure. The community was sized anticipating inmigrant growth to man resource development of the 1970's, which, in fact, did not continue to take place.

TABLE 33 ESTIMATE OF GNWT ADMINISTRATIVE COSTS RELATED TO NON-RENEWABLE RESOURCE DEVELOPMENT

Department	Function/Operations	Cost
Executive Offices	Representation, travel, attending meetings and hearings, etc.	$ 150,000
Regional Offices	Add 2 staff members and support costs	100,000
	Travel Costs	15,000
Economic Development	Losses on SBLF loans due to management problems in small businesses	50,000
	Hire North add 1 employee and support costs	50,000
	Employment and Training increased apprenticeship costs	75,000
	Add 1 staff member and costs	50,000
	Travel assistance to employees or resource developers, etc.	25,000
	Planning and Development Division	75,000
	Substantial operational expenses (computer time, travel costs, etc.)	
Education	Travel Costs (Teacher salaries included in O & M costs of schools)	8,000
Health & Social Services	100% increase in social service payments to 3 communities	113,000
	Add 3 social workers and support	150,000
Local Government	Planning & Policy Division	25,000
	Travel	10,000
	Town Planning & Lands Division, Travel	20,000
	Consultants & specialist services	150,000
	Add 2 employees	50,000
Natural and Cultural Affairs	Add 2 wildlife officers (net cost)	50,000
	Wildlife research & recreation	30,000
Personnel	Recruitment Costs	5,000
Public Works	Travel Costs	10,000
Public Services	Court Costs for increased visits to communities	150,000
	Mining Inspector (50%) including travelling	50,000
	Add 1 RCMP	35,000
	Support of legal profession growth in Inuvik	50,000
	Legal Aid	100,000
	P.U.B. Board Hearings	5,000
	Highway Transport Board Hearings	2,000
		$1,603,000

Table 33

TABLE 32

Municipal Infrastructure Response to Population Scenario 3 (medium growth)

Infrastructure Components Impacted by Scenario 3 Projections	COSTS						
	Construction		O & M		Total		
	GNWT	Federal	GNWT	Federal	GNWT	Federal	Total
	$	$	$	$	$	$	$
Tuktoyaktuk							
Pipe-treated water and sewage pipeline-Utilidor system	2,000,000		250,000		2,250,000		2,250,000
Year round access road from Inuvik to Tuktoyaktuk		70,000,000	90,000	510,000	90,000	70,510,000	70,600,000
Expanded Fire Facilities	250,000		20,000		270,000		270,000
Two Nurses and Expansion to Existing Facility		100,000		80,000		180,000	180,000
Upgrade Curling Rink, Community Hall and Outdoor Facilities							
Norman Wells							
Expand Fire Facilities	200,000		20,000		220,000		220,000
Expand Utilidor System	300,000		30,000		330,000		330,000
Add One Nurse to Nursing Station				30,000		30,000	30,000
Total	2,750,000	70,100,000	410,000	620,000	3,160,000	70,720,000	73,880,000

1 Costs associated with impact on Resolute Bay not significant as current infrastructure over supplied for current and projected population needs.

Sources: discussions with communities; contacts with GNWT

EXPANSION OF INFRASTRUCTURE

A major impact of resource development is the need to expand existing infrastructure to accommodate the needs of the increased population. In Table 32 (opposite) the lists of infrastructure discussed earlier are now evaluated against the medium growth scenarios for each community projected earlier in each case as Scenario 3. Costs shown are to expand or replace existing infrastructure. Tuktoyaktuk's population projections are particularly sensitive. Scenario 3 population would require substantial development of infrastructure. However, to date, there does not appear to have been much immigration to Tuktoyaktuk, and most of those who have moved in were earlier residents. The most noticeable growth in Tuktoyaktuk is the number of locally owned businesses that have started during the last three years in response to the needs of developers.

It is assumed that many costs, such as those associated with developing residential and commercial land, are passed on to new land owners.

Estimated Cost Impact in Administrative Budgets

Table 33 (opposite) estimates additional costs that will be incurred in continued operations directly attributable to the resource development projects. Much of these costs will be related to visiting communities and analyzing impacts for program implications. The estimates shown in this table indicate the extra funds required as the impact is planned for and as is felt. It is suggested that these expenditures may be as much as doubled by the end of the study period.

Most of the non-infrastructure related impact is likely to be in social areas, such as alchohol and drug counselling, providing court services and social service payments.

Data for this table were estimated by Manecon Limited following discussions with Departmental officials. It became clear that the GNWT record-keeping system does not allocate costs of this nature by community, indeed in most cases officers were not able to provide such a breakdown.

Equipment

Equipment inventories held by GNWT at the three communities are (in total terms) as follows:

	1980	1990	Incremental
Tuktoyaktuk	71,000	112,000	41,000
Norman Wells	116,000	145,000	29,000
Resolute Bay	195,000	292,000	97,000

Figures shown for 1990 assume that equipment inventory increases at 50% of the rate of increase of population of the community.

Buildings

Building inventories held by GNWT at the three communities are (in total terms) as follows:

	1980	1990	Incremental
Tuktoyaktuk	2,131,508	2,842,000	710,492
Norman Wells	1,095,286	1,460,000	364,714
Resolute Bay	4,796,503	6,395,000	1,598,497

This assumes an increase of 1/3 over 10 years.

Estimated Increase in Municipal Operating Contributions

It is assumed that 15% of increased population in the communities comes from outside the NWT. The per-capita operating contributions have been increased proportionately to accoount for this factor.

	Scenario		
	1	2	3
Tuktoyaktuk	$16,394	$91,686	$44,056
Norman Wells	194	726	392
Resolute Bay	207	2,360	376
Total	$16,795	$94,772	$44,824

TABLE 34

SUMMARY OF COSTS TO GNWT DIRECTLY ATTRIBUTABLE TO NON-RENEWABLE RESOURCE DEVELOPMENT[1]

	TABLE #	CAPITAL EXPENDITURES $	OPERATING COSTS $
Increase in Operating Grant	Text	-0-	44,824[2]
Growth Management	31	-0-	300,000+
Municipal Infrastructure	32	2,750,000	410,000
Administration	33	-0-	1,603,000
Equipment	Text	167,000	82,000[3]
Buildings	Text	2,673,703	70,000[4]
		5,590,703	2,509,824

1 Within the context of this report.

2 Scenario 3 estimate

3 0.40¢/lb.

4 0.90¢/sq.ft. for residencial, $1,25/sq.ft. for other.

\+ Could increase dramatically depending upon community/type and extent of impact. Costs of $20,000 to $75,000 would be likely as a contribution to help a community assess and plan to accommodate a major impact.

SUMMARY

Table 34 (opposite) estimates costs incurred in the NWT government relative to non-renewable resource development near existing communities, within the context of the assumptions made in this report.

REVENUES TO GNWT

The GNWT receives but a small share of the total tax revenue dollar created as a result of resource development in the N.W.T. This situation is basically a result of the way in which the taxes are assessed to profits and production of operations involved in the development of resources and related services and activities in Canada. These facets of taxation coupled with the social, economic, and geographic definition of the areas in focus creates a situation where the GNWT is not able to collect tax revenues sufficient to offset expenditures to meet its responsibility to provide adequate infrastructure and other service delivery. A number of key factors contributing to the current situation are outlined below:

PROPERTY TAXES

Property taxes are a potentially major contributor to the GNWT economy from non-renewable resource development. Recent assessments are not available for the communities under review. 1979, revenues, though, are as follows:

Norman Wells	$135,000
Resolute Bay	19,000
Tuktoyaktuk	57,000

Tax liability is calculated using the base year 1963 and a rate of 25 mills on assessment. Revenues from commercial and industrial developments are quite substantial. For example, it is expected that, based upon $800 million of project investment, property tax revenues from the Norman Wells project and the associated pipeline will amount to about $1 million each, or $2 million per annum. The GNWT property tax revenue from the Polaris mine in 1979 was over $130,000 compared with the $19,000 shown for Resolute Bay itself. There is not a recent assessment for Tuktoyaktuk so when one is completed in 1980 a substantial change will likely take place. Naturally, at this stage property tax related to the Beaufort Sea programs will be related only to onshore development.

PERSONAL TAXES

Bearing in mind that this is the largest, single source of revenue for GNWT (estimated $24 million for 1980/81 fiscal year), the majority of wages and salaries expended directly/indirectly as a result of resource

development will be taxed in other provinces as a result of the transient, rotating work force employed. The incremental revenue to be enjoyed by the GNWT will be represented by personal income taxes in those individuals who take up permanent or semi-permanent residence in the northern communities.

As a group those individuals were referred to earlier in this report as the focus of our scenario analysis. Table 35 below outlines estimates of potential revenues to be realized by the GNWT from personal income tax based on our population growth scenarios and taxation statistics.

TABLE 35 PERSONAL TAXES

Scenario 1	558
Scenario 2	2,664
Scenario 3	1,133

A key ingredient in determining the increase in personal tax revenue is that an increase of about five people must take place in order to get another tax source - a personal tax return, as a result of the settlement of families rather than singles. We assume that while many individuals counted as population increase are already resident in the Northwest Territories, all jobs in this category are new.

FUEL, TOBACCO, LIQUOR AND OTHER TAXES/PROFITS/LICENCES

The revenues from these sources account for approximately 35-40% of the total revenues collected by the GNWT. The major components in this category are fuel taxes (10%), liquor (14%), and other (16%). Overall profits from sale of liquor are not expected to increase substantially as a result of resource development. Outlined below are comments from communities and developers, used as a basis for our findings.

- all camps are dry
- increased demand in one community will be partially

TABLE 36

SUMMARY OF ESTIMATED REVENUE FLOWS

	Revenue Flows To: Govt. N.W.T.	Govt. Alberta
Norman Wells Development		
A. Construction (1979 $)		
Property Taxes	$ 200,000[a]	-
Quarrying Fees	200,000	-
Fuel Taxes	300,000	-
Personal Income Taxes	1,300,000	-
B. Operations (1984 $)		
Property Taxes	$ 800,000/yr.	-
Personal Income Taxes	210,000/yr	
Pipeline		
A. Construction (1979 $)		
Quarrying Fees	$ 30,000	negligible
Fuel Taxes	510,000	not applicable
Personal Income Taxes	included with Norman Wells Development figure	negligible
B. Operations (1984 $)		
Property Taxes	$ 890,000/yr.	$120,000/yr.
Personal Income Taxes	included with Norman Wells Development figure	

Note: There will be additional revenues accruing from other sources, such as corporate income taxes and stumpage fees. However, no attempt has been made to quantify these.

(a) for estimating purposes, this figure was assumed to be 25% of the property tax payable for the first operating year.

SOURCE: Esso Resources Socio-Economic Impact Assessment, 1980

offset by a decrease in another as the residents migrate

- it is possible that the increase in employment and activity in the communities may lessen the socially depressed state.

CORPORATE INCOME TAX

Corporate taxation data are not readily available. The GNWT could be in a position to gather revenue from corporate profits on local purchases of goods and services by non-renewable resource developers and from the developers directly. As of March, 1980 Esso Resources had not attempted to quantify its potential corporate tax outlay, neither had the other developers

REVENUE FLOWS

Table 36 is taken from the extensive Esso Resources/IPP Socio Economic Impact Study. It shows estimates of revenues to the GNWT and the Federal Governments during the construction and operation of the project. The other resources developers are not yet in a position where such forecasts are available.

DISCUSSION PAPER: - Standing Committee on Finance - Eighth Report to the Legislative Assembly on Responding to Non-Renewable Resource Development - December 1980.

Tabled Document No. 1-81(1)
Tabled Feb 4, 1981

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(3) ᓴᓐᖏᓂᓕᒃ ᑕᖃᓐᖏᓪᒪᑦ ᓄᓇᒥᐅᑕᓕᑎᔨᒃ ᑯᓐᓂ ᑭᓯᐊᓂ ᐊᑐᓕᖁᔭᐅᑦᓯᑎᒃ ᐱᕙᕐᒪᑕ.

(4) ᓄᓇᑦᓯᐊᑉ ᒐᕙᒪᖏᑦ ᓄᐊᑦᓯᕙᓪᓕᓐᖏᓪᒪᑕ ᕿᓇᐅᔭᓕᐅᕈᑕᐅᔪᓂᒃ ᐱᓯᒃ ᑲᓐᓂᕈᓐᓇᓐᖏᑦᑐᑦ ᐱᕙᓪᓕᐊᑎᓪᓗᒋᑦ ᔫᓇᐅᓪᓗ ᐊᑐᖅᑐᐊᑕᐅᓂᖓᓂᒃ ᐱᕙᓪᓕᐊᑦᑎᔪᓄᑦ;

(5) ᐱᓕᕆᐊᖃᖅᑎᑕᐅᕐᒪᑕ ᓄᓇᑦᓯᐊᑉ ᒐᕙᒪᖏᑦ ᕿᓇᔭᐅᓂᒃ ᐋᓚᒃ ᔪᑕᐅᕙᒃᑐᓂᒃ ᓄᓇᓕᕐ ᓄᑦ ᐊᒻᒪᓗ ᐊᑎᖅᑖᑎᐊᖅᐸᑕ ᓄᓖᑦ, ᕿᓇᐅᔭᑦ ᐋᓚᒃ ᔪᑕᐅᔪᑦ ᐊᖏᒃ ᓕᒥᐊᑎᐊᖃᖁᔭᕐᒪᑕ ᐱᕙᓪᓕᐊᔪᑦ ᐱᕈᖅᐸᓪᓕᑎᓪᓗᒋᑦ.

ᑲᓇᑕᐅᑉ ᒐᕙᒪᖏᓐᓄᑦ ᐊᖏᖅᑕᐅᓯᒪᔪᑦ ᓄᓇᒥᓐᖁᖅᓯᒪᔪᓂᒃ ᐱᓕᕆᐊᒍᔪᑦ, ᐃᒃ ᐱᒍᓯᓕᖅᑎᑦᑎᕚᕐᓕᕐᒪᑕ ᓄᓇᑦᓯᐊᑉ ᒐᕙᒪᑕ ᕿᓇᐅᔭᓂᒃ ᐊᑐᕐᓂᖏᑦ ᐋᓚᑦᓯᓂᕐᒧᑦ ᐋᖅᑭᐅᒪᐃᓐᓇᕈᑕᐅᔪᓂᒃ ᓗ ᐊᒻᒪᓗ ᐱᓪᒪᑎᕐ ᓄᑦ ᐊᑐᖅᑕᐅᕙᒃᑐᑦ.

A. ᓄᓇᑦᓯᐊᓪᓗ ᑲᓇᑕᐅᓪᓗ ᒐᕙᒪᖏᑕ ᕿᓇᐅᔭᑦ ᐱᕙᓪᓕᐊᔭᖏᑦ

ᕿᓇᐅᔭᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨᕋᓛᑦ ᐃᓕᓴᖅᓯᓯᒪᕗᑦ ᑕᒪᒃ ᑯᐊ ᓄᓇᒥᑦ ᐲᔭᖅᑕᐅᔪᑦ ᐱᓯᒃ ᑲᓐᓂᕈᓐᓇᖏᑦᑐᑦ ᑲᑐᑎᔭᐅᔭᑎᐊᖃᕋᓗᐊᕐᒪᑕ ᑕᐃᒫᒃ ᐋᖅᑭᒃ ᓯᒪᓕᖅᒍᒐᓗᐊᕐᒪᑕ ᕿᓇᐅᔭᐃᑦ ᐱᔭᐅᔪᑦ ᒐᕙᒪᐅᔪᓄᑦ, ᐊᑭᓖᒃ ᔪᑕᐅᔪᓐᓇᖁᓪᓗᒋᑦ ᐃᓯᐊᓐᖏᓕᐅᕈᑕᐅᔪᖃᖅᑐᓄᑦ ᐱᓯᒃ ᑲᓐᓂᕈᓐᓇᖏᑦᑐᑦ ᐱᕙᓪᓕᐊᑎᓪᓗᒋᑦ, ᓄᓇᑦᓯᐊᕐᒥᓕ ᐅᑯᐊ ᐱᔪᓐᓇᕋᔭᕋᓗᐊᕋᑦᑎᒍ:

(1) ᑲᓇᑕᐅ ᒐᕙᒪᖏᑦ ᐊᔪᓐᖏᓐᓂᖅᒥᑎᒍᑦ ᓄᓇᖁᑎᖃᕐᒪᑕ ᐊᒻᒪᓗ ᑐᓐᖓᕕᓕᕆᓂᕐᒥᒃ ᐋᓚᑦᓯᔪᓐᓇᕐᓂᖃᕐᒪᑕ, ᓄᐊᑦᓯᒍᓐᓇᕐᓗᑎᒃ ᓗ ᕿᓇᐅᔭᓂᒃ ᐊᑐᖅᑐᐊᖅᕈᑕᐅᔪᓂᒃ ᓄᓇᒥᒃ, ᕿᓇᐅᔭᓕᐅᕈᑕᐅᕙᓪᓕᐊᔪᓂᒃ ᓗ ᓄᓇᒥᒃ ᐱᓯᒃ ᑲᓐᓂᕈᓐᓇᖏᑦᑐᑦ ᐱᕙᓪᓕᐊᔭᐅᑎᓪᓗᒋᑦ.

(2) ᕿᓇᐅᔭᖅᑖᑎᔭᐅᕙᓪᓕᐊᔪᑦ ᓄᓇᒥᐅᑕᐃᑦ ᐲᔭᖅᑕᐅᕙᓪᓕᐊᓂᖏᓐᓄᑦ ᓄᓇᒧᑦᓗ ᐊᑐᖅᑐᐊᕈᑕᐅᔪᑦ ᐊᖏᓗᐊᓐᖏᓪᒪᑕ ᓄᓇᑦᓯᐊᒥ ᐃᓚᓕᐅᖅᑎᕙᑦᓯᒥᑦ ᓄᓇᑦᓯᐊᑉ ᒐᕙᒪᖏᑕ ᐊᑐᕈᒪᓂᐊᖅᑕᖏᓐᓂᒃ ᕿᓇᐅᔭᒃ ᓴᓂᒃ, ᐃᒪᖃ ᓯᕗᓂᒃ ᓴᑦᑎᓐᓂ ᐊᖏᑦ ᓕᒥᐊᕈᒫᖅᑐᒐᓗᐊᑦ.

(3) ᑲᓇᑕᐅᑉ ᒐᕙᒪᖏᑦ ᐱᑕᖃᖅᑎᑦᑎᕙᕐᒪᑕ ᐋᓚᒃ ᔪᑎᒃ ᓴᓂᒃ ᐊᒻᒪᓗ ᐱᓪᓚᑎᕐ ᓄᑦ ᐊᖏᔫᑎᓄᑦ

ᐊᑐᖅᑐᑉ ᓴᓂᑉ (ᓇᓗᓇᐃᑉ ᑯᑕᒥᒃ (1)) 1979-80-ᒥᓗ ᐊᑐᖅᑐᐱᓃᑦ ᐅᑉᐸᐅᔪᑦ:
ᓄᓇᑦᓯᐊᑦ ᕿᓇᐅᔭᑦ ᐱᕙᓪᓕᐊᔪᖏᑦ, ᕿᓇᐅᔭᓐᓗ ᐅᑎᖅᐸᓪᓕᐊᔪᑦ ᐊᒻᒪᓗ
ᑲᓇᑕᐅᑉ ᒐᕙᒪᖏᓐᓂᑦ ᕿᓇᐅᔭᑦ ᐱᔭᐅᔪᑦ $83,067,00.00

ᕿᓇᐅᔭᑦ ᐊᐃᑦᑐᖅᓯᐊᑦ ᐆᓚᒃᔪᑎᑦ ᐊᖏᔫᑎᓄᓐᓗ ᐊᑐᖅᑐᑉ ᓴᑦ
$202,690,000.00

ᓇᓗᒍᓐᓃᓕᐅᖅᐳᑦ ᕿᓇᐅᔭᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨᖁᑏᑦ ᕿᓇᐅᔭᖅᑖᖃᑕᐅᕙᓪᓕᐊᔪᑎᑉ ᓴᖏᑦ ᐊᑯᓂᐊᓗᒃ ᐊᖏᖃᑎᒌᑦᑕᐅᒐᓯᐊᖁᔭᑎᐊᖑ ᖃᐅᔨᒪᓐᓇᑉᒪᑦ ᑲᓇᑕᐅᑉ ᒐᕙᒪᒃ ᑯᖏᑦ ᑲᓇᑦ ᐊᐃᑉ ᑐᖅᓯᒪᓂᖏᓐᓗ ᐊᑲᐅᓐᖏᓕᐅᕈᑕᐅᑉᒪᑎᒃ ᓇᑉᒥᓂᖅᑯᑉᓂᑉᒥᒃ ᐊᒻᒪᓗ ᕿᓇᐅᔭᖅᑖᕈᑕᐅᓪᓕᐊᔪᑉᑐᓂᒃ ᐱᕈᒃ ᑲᓐᓂᕈᓐᓇᖏᑦᑐᓄᑦ. ᒫᓐᓇᒫᒃ ᑯᑦ ᐋᖅᑭᒃᓴᖅᑯᓂᒃᓗ. ᐊᒻᒪᓗ ᓄᓇᑦᓯᐊᑦ ᓱᓕ ᑲᓇᑕᐅᑉ ᒐᕙᒪᑦ ᓄᓇᕗᑎᒥᑉᒪᒍ, ᐊᒃᑐᖅᓯᒪᓂᒍᓐᖏᓪᒪᑦ ᐱᓕᕆᐊᖅᑐᑦ ᓄᓇᒥᒃ ᐊᒻᒪᓗ ᐱᕈᒃ ᑲᓐᓂᕈᓐᓇᖏᑦᑐᑦ ᐱᕙᓪᓕᐊᓂᖕᓂᒃ, ᑭᐅᔾᔨᑎᐊᕈᑕᐅᓂᐊᑎᓪᓗᓂᓗ ᐊᖏᖃᑎᒌᑦᑕᐅᓇᓯᐊᖁᔭᖅᑐᒥᒃ.

ᐊᖏᖃᑎᒌᓚᐅᖅᑎᓪᓗᒋᑦ ᐊᑲᐅᒐᔭᑎᐊᖑ ᐱᕈᒃ ᑲᓐᓂᕈᓐᓇᖏᑦᑐᓄᑦ ᕿᓇᐅᔭᖅᑖᕈᑕᐅᕙᓪᓕᐊᔪᑦ ᑲᑐᒃᔭᐅᒃᐸᑦ, ᐊᑯᓂᐅᔪᒥᒃ ᐱᓕᕆᐊᑎᔭᐅᓂᐊᑉᓗᓂ, ᑲᑎᒪᔨᖁᑏᑦ ᐅᖃᓕᒪᐅᑎᖃᖅᐸᓪᓕᐊᓕᓚᐅᖅᐳᑦ ᐱᒋᐊᕈᑎᒃ ᓴᖏᓂᒃ ᐊᒻᒪᓗ ᒫᓐᓇᐅᔪᖅ ᐊᑐᒐᔭᖅᑐᓂᒃ, ᑖᒃ ᑯᐊ ᓄᓇᑦᓯᐊᑦ ᒐᕙᒪᑦ ᓇᑭᑦ ᕿᓇᐅᔭᓂᒃ ᐊᑐᒐᔭᖅᐸᑦ ᕿᓇᐅᔭᓕᐅᕈᑕᐅᕙᓪᓕᐊᒐᔭᖅᑐᓂᒃ ᐱᕈᒃ ᑲᓐᓂᕈᓐᓇᖏᑦᑐᑦ ᐱᕙᓪᓕᐊᑎᑕᐅᓕᖅᐸᑦ.

B. ᒫᓐᓇ ᖃᓄᐃᓕᖓᓂᖓ

ᒫᓐᓇᐅᔪᖅ, ᓄᓇᑦᓯᐊᑉ ᒐᕙᒪᖏᑕ ᐃᖅᑲᓇᐃᔭᕐᐱᖏᑦ ᐃᓖᒃ ᑯᑦ ᕿᓇᐅᔭᓂᒃ ᑐᓂᓯᕙᒃ ᑑᓚᓗᐊᑦ ᐱᓕᕆᐊᑎᒃᔪᑕᐅᓂᐊᖅᑐᓂᒃ ᐱᕈᒃ ᑲᓐᓂᕈᓐᓇᖏᑦᑐᑦ ᓄᓇᒥᒃ ᐲᔭᖅᑕᐅᕙᓪᓕᐊᔪᑎᒃ ᓴᖏᓐᓄᑦ, ᐊᔪᖏᑲᖑᒥᒃ. ᑭᓯᐊᓂ ᐊᔪᕈᑕᐅᔪᖅᐸᑉᒪᑦ ᐊᒻᒪᓗ ᕿᓇᐅᔭᐃᑦ ᐊᕐᖂᒍᒧᑦ ᐊᑐᖅᑐᑉ ᓴᐃᑦ ᐊᖏᓪᓕᕙᓪᓕᐊᓯᒪᓪᒪᑎᓪᒪᑦ ᐊᕐᖂᒍᓚᓴᐅᓕᖅᑐᑦ ᐊᑐᓕᖅᑎᓪᓗᒋᑦ ᑕᒪᓐᓇ ᐊᔪᕈᑕᐅᓯᕙᑉᒪᑦ ᓄᓇᑦᓯᐊᑦ ᒐᕙᒪᖏᑦ ᐱᓕᕆᐊᖅᑐᑉ ᓴᐅᒐᓗᐊᖅᑎᓪᓗᒋᑦ ᐃᑉ ᐱᒍᓯᓕᖅᓯᑕᐅᕙᑉᑐᓂᒃ. ᑖᒃ ᑯᐊᓕ ᐱᕙᓪᓕᐊᔪᓕᑎᕈᑉ ᑯᑦ ᐆᒃ ᑑ ᑎᒥᒧᑦ ᑖᒃ ᑯᐊ ᓯᐅᓪᓕᖅᐸᐅᑎᑕᐅᓯᒪᔪᑦ ᐱᕙᓪᓕᐊᔪᓕᑎᕈᑉ ᑯᑦ ᐊᖏᓪᓕᒥᐊᖅᓯᒪᖏᓪᒪᑦ ᐅᑭᐅᓂᒃ ᐊᒥᓯᓂᒃ ᐱᒃᔪᑎᖃᖅᓗᑎᒃ ᕿᓇᐅᔭᑦ ᒥᑭᓗᐊᕐᓂᖏᓐᓄᑦ, ᐊᒻᒪᓗ ᖃᐅᔨᒪᓪᓚᑎᒃ ᑐᓂᒃ ᐱᓕᕆᕈᖃᖏᓐᓂᑦ.

C. ᑲᔪᓯᒃᔪᑎᑉᓴᖅ

ᑖᒃ ᑯᐊ ᑲᑎᒪᔨᖁᑏᑦ ᐃᓯᒫᓗᑎᖃᑉᒪᑕ ᓄᓇᑦᓯᐊᑉ ᒐᕙᒪᖏᑕ ᕿᓇᐅᔭᐃᔭᕈᑎᒋᐸᓪᓕᐊᓚᐅᖅᑕᖏᓐᓂᕐ ᓴᖅᑭᑐᖅᑳᓪᓕᕐᓂᖅᐸᑦ ᓄᓇᒥᒃ ᐱᕈᒃ ᑲᓐᓂᕈᓐᓇᖏᑦᑐᑦ ᐱᓕᕆᐊᑎᔭᐅᓯᒋᐊᓖᑎᒃᐸᑕ ᒫᓐᓇᒫᒃ ᑯᑦ ᐊᒻᒪᓗ ᐊᖏᖅᑕᐅᓐᓂᖅᐸᑕ ᑲᓇᑕᐅᑉ ᒐᕙᒪᒃ ᑯᖏᓐᓄᑦ.

ᑖᒃ ᑯᐊ ᑲᓇᑕᐅᑉ ᒐᕙᒪᒃ ᑯᖏᑦ ᕿᓇᐅᔭᓂᑦ ᓄᓇᑦᓯᐊᑉ ᒐᕙᒪᒃ ᑯᖏᓐᓄᑦ ᓈᓚᒃ ᑐᓂᒃ ᑐᓂᓯᒪᔪᖅᐸᑦ? ᐱᓕᕆᖅᑕᐅᑦ ᓯᐊᕈᓐᓇᕈᑎᑉ ᓴᖏᓐᓂᒃ ᐱᓕᕆᔪᖅ ᔪᐊᓕᑦ ᓂᖅᔫᑦ? ᖃᐅᔨᒪᔪᖅᑲᓪᓚᐅᖏᑦᑐᖅ.

ᑲᑎᒪᔨᖁᑏᑦ ᐃᓯᒪᖅᑲᓪᓚᐅᖅᒪᑕ ᑖᒃ ᑯᐊ ᓄᓇᑦᓯᐊᑉ ᒐᕙᒪᒃ ᑯᖏᑦ ᐋᖅᑭᒃ ᓯᐃᑦ ᓴᐅᑎᒥᒥᐊᖅᑲᓪᓚᐅᖅᒪᑕ ᐱᓕᕆᔪᑎᑉ ᓴᓂᑉ ᐊᒻᒪᓗ ᐱᐅᓯᒥᐊᕈᑎᑉ ᓴᓂᑉ ᒫᓐᓇ ᓴᖅᑭᓯᒪᓕᕐᖢᑐᓄᑦ, ᐊᒻᒪᓗ ᐸᓐᓇᐃᖅᓯᒪᓪᓗᑎᒃ ᐱᓕᕆᒥᐊᖅᑕᐅᑦ ᓴᐅᑎᒥᔪᓐᓇᖁᔭᖅᒪᑕ ᑲᓇᑕᐅᑉ ᒐᕙᒪᖏᑕ ᐊᖏᖅ ᓂᖅᐸᑕ ᐱᓕᕆᐊᑎᔭᐅᔪᒪᔪᓂᒃ.

ᑖᒃ ᑯᐊ ᐅᓂᒃ ᑳᓕᐊᑎᑉᐅᓯᒪᔪᑦ ᐋᖅᑭᒃ ᓯᐃᒥᐊᕿᑎᒃᓴᑦ ᕿᓇᐅᔭᓄᑦ. ᖃᐅᔨᒪᓂᐊᖅᐳᖓ ᑕᒪᓐᓇ ᕿᓇᐅᔭᓕᕆᓂᖅ ᐋᖅᑭᒃ ᓱᖅᑕᐅᕙᓪᓚᐊᓂᖓ ᐱᒋᐊᕆᑎᑐᐃᓐᓇᐅᑉᒪᑦ. ᕿᓇᐅᔭᒃᓴᖅᑎᓐᓇᒍ, ᑭᓯᐊᓂ, ᐊᔪᖅᓴᐅᑎᖃᓪᒪᑎᓚᔪᕐᒪᑦ ᓄᓇᑦᓯᐊᑦ ᒪᐸᒪᔩᑦ ᐱᓕᕆᖃᑕᐅᔪᓐᓂᒃ ᓴᒥᒃ ᐱᓕᕆᔪᒃᑲᓪᓂᖅᐸᑦ ᑕᐃᒪᐃᑦᑐᓂᒃ ᓄᓇᑦᓯᐊᕐᒥ.

11. ᖃᓄᐃᓕᖓᓯᒪᓂᖓ

ᐊᕐᕿᒍᐃᑦ ᓈᓯᒪᓕᖅᑐᑦ ᐊᒥᓯᑲᓴᑦ ᑕᒪᒃ ᑯᐊ ᓄᓇᒥ ᐱᕈᒃ ᑲᓐᓂᕈᓐᓇᖏᑦᑐᓂᒃ ᐱᑕᓪᒪᑎᒃᑐᑦ ᐅᖅᓯᐊᓗᒃ ᓯᐅᖅᑐᓪᓗ ᓄᓇᓕᓕᐅᖅᓯᒪᑉᒪᑦ (Pine Point, ᓇᓂᓯᐱᒃ) ᐅᑉᐸᓗᓐᓂᑦ ᐃᒃ ᐱᒍᓯᓕᖅᑎᑦᑎᓯᒪᑉᒪᑦ ᒫᓐᓇ ᓄᓇᓕᑐᖃᕐᓂᒃ (ᑐᒃ ᑑᔭᖅᑐᖅ, ᖃᒪᓂ'ᑐᐊᖅ). ᐃᓖᓐᓂᒃ ᑯᑦ ᑕᒪᕐᒥᒃ ᐊᑐᓕᖅᐸᑉᒪᑦ (Norman Wells-ᒥ /Fort Norman) ᐅᑉᐸᓗᓐᓂᑦ Pine Point/Fort Resolution).

ᐃᓕᓴᑎᑉᐅᓯᒪᓕᐅᑎᔪᑦ ᓇᓗᓇᐃᖅᑕᐅᓗᑎᒃᓗ ᑲᑎᒪᔨᕋᓛᓄᑦ ᐃᓕᖏᓐᓂᑦ ᓄᓇᓖᑦ ᒫᓐᓇ ᐊᑲᐅᓈᖅᑐᒥᒃ ᐃᖏᕐᖁᑦᓯᐊᕐᒪᑦ ᐊᑐᖅᓯᑎᒃ ᒫᓐᓇ ᐊᑐᖅᐸᒃ ᑕᒥᕐᓂᒃ ᒪᐸᒪᒃ ᑯᑎᑐᑦ. ᖃᐅᔨᒪᔭᐅᓕᖅᐳᑦ ᑭᓯᐊᓂ ᑕᒪᒃ ᑯᐊ ᐱᓕᕆᐊᕐᕕᐅᔪᑦ ᖃᓪᓗᓈᖃᕐᓂᖅᓴᐅᕙᒻᒪᑦ ᖃᐅᔨᒪᓂᖅᓴᐅᓂᖏᓐᓄᑦ ᐊᒻᒪᓗ ᐊᑐᖅᓯᑎᒃ ᒫᓐᓇ ᐊᑐᖅᑕᐅᕙᒃᑐᓂᒃ.

ᐊᓪᓗᓈᕐᔪᖏᑦᑐᑦ ᑕᐅᕙᓂ ᐱᓕᕆᐊᕐᕕᓂ ᓯᓚ ᓱᒃ ᑰᓂᖅᓴᐅᑉᒪᑦ ᐊᒻᒪᓗ ᐱᓕᕆᐊᖅᐃᓐᓇᕈᓐᓇᕋᑎᒃ ᐱᓕᕆᕕᐅᓚᓗᐊᓂᒃ. ᐊᑲᐅᓈᕐᓂᐊᕐᒪᖔᑦ ᓇᓗᓇᖅᑐᖅ ᑕᒪᓐᓇ ᕿᓇᐅᔭᓕᐅᕈᑕᐅᕙᒃᑐᖅ ᐱᐅᓯᕆᐊᒃ ᑲᓐᓂᖁᓯᐊᑎᐊᓪ.

ᐊᒻᒪᓗ, ᑖᒃ ᑯᐊ ᐱᕙᓪᓕᐊᑎᑕᐅᔪᑦ ᐅᔭᕋᕐᓂᐊᑉ ᐱᖓᓂ ᔭᓗᓇᐃ, ᓴᐱᒃ ᓴᐃᔭᑉᐱᒃ Pine Point-ᒥ ᐊᖏᒃ ᓕᕙᓪᓕᐊᓯᒪᓪᒪᑦ ᐱᒋᐊᓪᖓᕐᓯᑎᒃ ᒥᑭᓕᕆᐅᖁᐊᕐᓯᑎᒃ. ᐅᔭᕋᕐᓂᐊᕐᓂᒃ ᐃᓖᒃ ᑯᑦ ᐱᒋᐊᖁᑖᕐᑎᓪᓗᒥᑦ ᓴᖅᑭᑎᑦᑎᓗᐊᕐᓯᑕᐅᕙᒥᔪᑦ ᐃᑲᔪᖅᑕᐅᕙᒃᑐᓂᒃ ᑭᓯᑐᐃᓐᓇᕐᓂᒃ ᐱᕙᓪᓕᐊᔪᖅᑎᓪᓗᒍ ᒪᐸᒪᐅᔪᑦ ᑕᐃᒪᐃᑦᐸᓪᒪᑦ. ᐅᓪᓗᒥ ᑕᐃᒪᐃᓐᓇᐳᖅᐸᑕᑦ ᑕᒪᒃ ᑯᐊ ᓄᓇᓖᑦ ᐱᓕᕆᐊᕈᔪᑦ ᐅᖅᓯᐊᓗᐃᓐᓂᐊᕐᑐᓄᒃ ᐅᑉᐸᓗᓐᓂᑦ ᐅᔭᕋᕐᓂᐊᕐᑐᓄᑦ ᐱᕙᓪᓕᐊᓯᔪᓄᓪᓗ. ᑲᑎᒪᔨᕋᓛᓄᑦ ᑕᒪᓐᓇ ᔭᒐᑐᐃᓐᓇᖃᕐᓂᐅᓯᒪᓚ. ᐋᖅᑭᒃ ᓱᖅᓯᐊᖅᓯᒪᔪᓂᒃ ᑐᑭᓯᐊᓐᓇᖅᑐᒥᒃ ᐋᖅᑭᒃ ᓱᖅᓯᒪᔭᑎᐊᖃᒪᑦ ᐊᒻᒪᓗ ᐱᓕᕆᐊᑎᔪᖏᑦ ᐃᓚᐅᖃᑕᐅᔪᑦ ᐱᕙᓪᓕᐊᔪᓄᑦ ᓇᓗᓇᐃᖅᓯᒪᑦᑎᐊᖅᑐᒥᑦ.

A. ᐃᓯᒪᒋᔭᐅᓯᒪᔪᑦ ᓄᑖᖑᕐᓂᖓ

ᑲᑎᒪᔨᕋᓛᑦ ᖃᐅᔨᓴᖅᓯᑎᒃ ᖃᐅᔨᓕᐅᕐᒪᑦ ᓄᓇᒥᐅᑕᐃᑦ ᐱᕈᒃ ᑲᓐᓂᕈᓐᓇᖏᑦᑐᑦ/ᒪᓕᒐᖏᓐᓄ/ᕿᓇᐅᔭᖅᑖᖅᑎᑕᐅᓂᖏᓐᓄ ᓄᑕᐅᖏᒃᑲᖏᑦ. 1972-ᖑᑎᓪᓗᒍ ᒪᓕᒐᓕᐅᖅᑏᑦ ᐃᓚᖏᑦ ᒪᓕᒐᓕᐅᑎᐊᓚᐅᕐᒪᑦ ᓄᓇᓖᒃ ᐱᕈᖅᐸᓪᓕᐊᓂᖏᓐᓄᑦ ᒪᓕᒐᒃ ᓴᓂᒃ (ᓇᓗᓇᐃᒃ ᑯᑕᖅ 2 ᑕᑯᔭᒃ ᓴᓂᒃ) ᑖᓐᓇ ᐲᖅᑕᐅᑐᐃᓐᓇᓚᐅᕐᒪᑦ;

ᔫᑲᓐ ᒪᐸᒪᔨᑦ ᒫᑦᓯ 4-ᖑᑎᓪᓗᒍ 1978-ᒥ ᐊᖏᖅᑕᐅᓪᓚᐅᕐᒪᑦ ᑲᓇᑕᐅᑉ ᒪᐸᒪᒃ ᑯᖏᓐᓂ ᐊᑭᓕᒃᓴᓂᒍᓐᓇᖅᑎᑕᐅᓪᓗᑎᒃ ᑎᑭᓪᓗᒍ $200 ᒥᓕᐊᓐ ᓇᑭᑐᐃᓐᓇᖅ (ᐃᓚᐅᑎᓪᓗᒋᑦ ᑲᓇᑕᐅᑉ ᒪᐸᒪᒃ ᑯᖏᑦ) ᑖᒃ ᑯᐊ ᓯᓪᓗᓕᐊᓗᓕᐅᕈᑕᐅᓯᒍᓪᓗᒋᑦ ᐊᒻᒪᓗ ᐃᓚᖏᑦ ᕿᓇᐅᔭᑦᓂᐊᖅᑐᑦ. ᑖᒃ ᑯᐊ ᐊᑭᓕᖅᑐᐃᔭᖅᑕᐅᕙᓪᓕᐊᓂᐊᖅᑐᑦ ᐊᑭᓕᖅᓴᖅᑖᓄᑦ ᐱᔭᐅᕙᓪᓕᐊᓗᑎᒃ ᓯᓪᓗᓕᐊᓗᓕᑎᑦᑐᓂᒃ ᑖᒃ ᓯᔭᐃᔭᓂᖏᓐᓄᑦ. ᐊᒻᒪᓗ ᓯᓕ, ᔫᑲᓐ ᒪᐸᒪᔨᑦ ᐊᖏᖅᑕᐅᓪᓗᑎᑦ ᐋᖅᑭᒃ ᓱᖅᑯᐃᓪᓗᑎᒃ ᐱᖁᔨᖅᑐᖅᑐᓂᒃ ᕿᓇᐅᔭᑦ ᐊᑐᖅᑐᒃ ᓴᓂᒃ $5* ᒥᓕᐊᓂᒃ; ;ᑖᒃ ᑯᐊᓗ ᕿᓇᐅᔭᑦ ᐊᑐᖅᑐᒃ ᓴᐅᓪᓗᑎᒃ ᐱᕙᓪᓕᐊᔪᓄᑦ ᐃᒪᓐᓇᓴᓄᓪᓗ ᐊᒪᑦ ᑕᐅᖅ ᑖᒃ ᑯᐊ ᓯᓪᓗᓕᐊᓗᓴᑦ ᑖᒃ ᓯᔭᐅᓂᖏᓐᓄᑦ

ᐊᑭᓕᐅᑕᐅᓂᖕᓂᐊᖅᑐᑦ.

ᑕᒪᓐᓇ ᑐᑭᓯᓇᑦᑎᐊᓕᖅᐳᖅ ᑖᒃ ᑯᐊ ᑲᓇᑕᐅᑉ ᒐᕙᒪᒃ ᑯᖏᑦ ᓄᓇᑦᓯᐊᕐᒥ ᑭᓇᐅᔭᓂᒃ ᐊᑐᖅᑎᑦᑎᒥᐊᑲᐅᑎᒥᔭᓐᓇᖅᐳᑦ ᐱᓕᕆᐊᖅᑭᒪᓕᑐᐊᖃᐃᒍᑎᒃ (ᑎᑎᖅᑲᑦ ᐊᒻᒪ ᑎᑎᖅᑲᓕᒫᑦ ᐃᓚᖓ 3-ᒥ).

ᔭᓄᐊᕆ 1979-ᖑᑎᓪᓗᒍ ᓄᓇᑦᓯᐊᖅ ᒐᕙᒪᒃ ᑯᖏᑦ ᑎᑎᖅᑲᓂᒃ ᓴᖅᑭᑎᑦᑎᓚᐅᖅᐳᑦ ᐃᒪᓐᓇ ᐊᑎᖅᑎᑕᐅᓪᓗᓂ: ᒪᓕᒐᐃᑦ ᐊᑕᐅᓯᕐᒥᒃ ᐱᕙᓪᓕᐊᔪᒥᒃ ᐱᑕᖅᑐᓄᑦ ᓄᓇᓕᖕᓂ (Appendix 4).

ᑕᒪᓐᓇ ᒪᓕᒐᖅ ᑐᑭᖃᖅᐳᖅ ᑖᒃ ᑯᐊ ᓄᓇᑦᓯᐊᖅ ᒐᕙᒪᒃ ᑯᖏᑦ ᐃᑲᔪᕈᓐᓇᖅᐳᑦ ᐱᕙᓪᓕᐊᔪᑕᖅᐸᑦ ᓄᓇᓕᖕᓂ ᐊᒻᒪ ᑕᒪᓐᓇ ᐱᕙᓪᓕᐊᓂᑎᔭᐅᔪᖅ ᓄᓇᒥᓐᖃᖅᓯᒪᒃᐸᑦ ᐱᕈᒃ ᑲᓐᓂᕈᓐᓇᖏᓐᓗᓂᓗ. ᑕᒪᓐᓇ ᐱᒋᐊᖅᑎᑕᐅᓚᐅᖅᓯᒪᔪᖅ ᓄᓇᑦᓯᐊᖅ ᒪᓕᒐᓕᐅᖅᑎᒃ ᑯᖏᓐᓂᑭᓯᐊᓂᓕ ᒪᓕᒐᓕᐅᖅᑎᒃ ᑯᑦ ᐅᓚᑦᓯᔨᖏᓐᓂ ᐱᒋᐊᖅᑎᑕᐅᓚᐅᖅᓯᒪᓐᖏᑦᑐᑦ. ᑕᒪᓐᓇ ᒪᓕᒐᖅ ᑕᐃᒪᓐᖓᑦ ᓯᑦᖁᓚᐅᕈᓐᓂᖅᑐᖅ, ᑐᓴᕐᓂᖅᑐᐃᓐᓇᕐᒪᑦ ᓄᓇᓕᖕᖑᓕᓴᖅᑐᓄᑦ, ᓄᓇᓕᑐᖃᐅᖏᑦᑐᓄᑦ. ᑕᐃᒪᐃᓕᖓᒻᒪᑦ ᐊᑲᐅᖏᒃᔪᑎᖅᐳᖅ.

ᐊᖅᖁᒍ ᐊᒥᓲᔪᑦ ᑕᒪᓐᓇ ᖂᖅᑭᒃ ᑕᐅᓇᓯᒃᑲᒥᓐᖏᑉᐳᖅ ᑭᓯᐊᓂ ᐃᓯᒪᓕᐅᕈᑕᐅᓯᒪᓐᖏᑦᑐᖅ ᓯᓕ ᒫᓐᓇᐅᔪᒧᑦ.

ᑲᑎᒪᔨᖃᑖᖑᔪᑦ ᑕᒪᑐᒥᖓ ᐊᔪᓕᕈᑕᐅᔪᓂᒃ ᖂᖅᑭᒃ ᓯᔪᒪᓕᖅᓯᒪᓗᐊᑦ. ᑕᒪᓂ ᓄᓇᑦᓯᐊᕐᒥ ᐱᕙᓪᓕᐊᓇᓱᒃᑐᑦ ᐅᐊᓯᑦ, ᐃᓚᖏᑦ ᖂᖅᑭᒃ ᓱᖅᑕᐅᓇᓱᒃ ᐸᓪᓕᐊᓕᖅᑐᑦ, ᐃᓚᖏᑦ ᐱᒋᐊᑐᐃᓐᓇᑎᐊᖅᑲᓕᖅᑐᑦ, ᐃᓚᖏᑦ ᐃᖏᖃᓯᔪᑦ ᐅᖅᐸᓗᓐᓂᑦ ᓄᖅᑲᖅᑎᑕᐅᓯᒪᔪᑦ ᑲᓇᑕᐅᑉ ᒐᕙᒪᒃ ᑯᖏᓐᓂᑦ (Appendix 5). ᑕᒪᒃ ᑯᐊ ᐱᕙᓪᓕᐊᔪᑦ ᐊᖏᒃ ᓕᓚᐅᓐᖏᓐᓂᖏᓐᓂ, ᑲᑎᒪᔨᖃᑦ ᖂᖅᑭᒃ ᓱᐃᓯᒪᔪᒥᒃ ᒪᓕᒃ ᑕᐅᔪᒃᓴᒥᒃ ᐱᕈᖅᐸᓪᓕᐊᓂᕐᒧᑦ ᑐᓴᖁᔪᓂᒃ. ᑲᑎᒪᓕᖃᑦ ᐃᓯᒪᓚᐅᖅᑐᑦ ᓄᓇᑦᓯᐊᕐᒥᐅᑦ ᐅᑕᖅᑭᔭᑎᐊᖅᑲᓯᒥᖏᓐᓗᓂᔪᒃ ᑕᒪᓐᓇ ᐃᓯᒪᓕᐅᕈᑕᐅᔭᑎᐊᖅᒪᑎᒃᐳᖅ ᒫᓐᓇᑲᐅᑎᒥ ᐱᕙᓪᓕᐊᔪᖅᑲᓗᐊᓚᐅᖏᓐᓂᖓᓂ.

ᑲᑎᒪᔨᖃᑖᖑᔪᐃᓐᓇᖅᑐᑦ ᐅᓚᑦᓯᑎᐊᓂᐊᕈᑎᒃ ᑕᐃᒪᓕ ᓄᓇᑦᓯᐊᖅ ᒪᓕᒐᓕᐅᖅᑎᖏᖅ ᐊᔪᓐᖏᓐᓂᑎᔭᒥᓂᒃ ᐊᑐᑦᓗᑎᒃ ᑕᒪᒃ ᑯᓂᖓ ᐱᓕᕆᐊᒃᑲᑲᐅᑎᒋᔭᑎᐊᖅᐳᑦ ᐃᖏᖃᑎᑦᑎᑦᑎᐊᓂᐊᕈᑎᒃ.

111. ᖂᖅᑭᒃ ᑕᐅᓯᒪᓂᖏᑦ

(A) ᑭᓇᐅᔭᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨᖃᑦ ᖃᐅᔨᓴᐃᓚᐅᓐᖏᓐᓂᕐᒥᓂᒃ ᒪᑯᓂᖓ ᒪᓕᒃ ᑕᐅᔪᒃ ᓴᓂᒃ ᖂᖅᑭᒃ ᓱᐃᓚᐅᖅᐳᑦ:

(1) ᐃᖅᑲᓇᐃᔭᓚᐅᒃᑲᓂᐊᖅᑐᑦ; ᓇᒻᒥᓂᖅ ᓗ ᐱᓕᕆᓂᖅᑖᓚᐅᒃᑲᐅᒃᑐᑦ ᓄᓇᑦᓯᐊᖅ ᐱᕙᓪᓕᐊᓂᖕᓄᑦ ᓈᒻᒪᒋᔭᐅᖏᑦᑐᑦ, ᐃᓚᒃ ᑕᒪᒃ ᑯᐊ ᕿᓚᒥᓗᐊᑯᓗᒃ ᐃᖅᑲᓇᐃᔮᖅᑎᑕᐅᖃᑦᑕᕐᒪᑕ ᐊᒻᒪ ᐱᓕᕆᓂᓖᑦ ᐃᖏᖃᓚᐅᑲᑐᐃᓐᓇᖃᑦᑕᓂᖏᓐᓄᑦ.

ᑕᒪᒃ ᑯᐊ ᐱᕙᓪᓕᐊᑎᑕᐅᔪᑦ ᓴᓇᔭᐅᓕᓵᖓᓕᒥᒃ ᐊᒥᓱᐊᓗᐃᓐᓂᒃ ᐃᖅᑲᓇᐃᔭᖅᑎᑦᑎᖃᑦᑕᖅᐳᑦ ᐊᒻᒪ ᐃᖏᖃᓕᑎᓕᓴᓕᒥᒃ ᐃᖅᑲᓇᐃᔭᖅᑎᖏᑕ ᐃᓚᖏᑦ ᐲᖅᑕᐅᑉ ᓗᑎᒃ ᑕᐃᒪᓐᓇ ᐃᖅᑲᓇᐃᔭᖅᑎᑦᑎᓚᐅᖅᑕᐅᓐᓇᖅᓗᑎᒃ ᐲᖅᓯᓕᖃᑦᑕᓂᖏᑦ ᐊᑲᐅᒥᖏᑕᖏᑦ.

ᑕᒪᒃ ᑯᐊ ᐊᐅᓪᓚᖅᑎᑦ, ᐃᑯᒪᓪᓗ ᐃᒃ ᓗᓄᑦ ᐱᒫᔪᑎᓄᓪᓗ ᐃᓄᖃᖏᓐᓂᖅ ᒧᑦ ᐊᑭᓗᐊᖅ ᓂᖏᓐᓄᑦ, ᑕᒪᒃ ᑯᐊ ᐱᕙᓪᓕᐊᔪᑦ ᒥᑭᓐᓂᖅᓴᑦ (ᓴᐱᖁᔭᒃ ᓄᑦ ᐊᐅᒃ ᑕᖅ ᐱᐅᔪᑦ; ᐱᓕᕆᖅ ᐱᒋᔭᐅᔪᓪᓗ) ᒫᓐᓇᐅᔪᒧᑦ ᐊᐅᓚᓂᖅᑎᐊᖏᓛᑦ. ᐱᖅᑖᓗ ᐅᖃᐅᓯᕆᔭᐅᓚᖅᒥᔪᖅ ᑕᒪᒃ ᑯᐊ ᓄᓇᑦᓯᐊᖅ ᒥᐅᑕᐃᑦ

ᐃᖅᑲᓇᐃᔮᖅᑎᑕᐅᑉ ᑲᓐᓂᒍᒪᓚᓚᐊᖅᑐᑎᒃ.

(2) ᓄᓇᓕᓐᓂ ᐊᑐᖅᑕᐅᕙᑦᑐᑦ (ᐊᖅᑯᑏᑦ, ᐃᓕᓐᓂᐊᕐᕖᑦ, ᐃᑯᒪᖅᑯᑎᓄᑦ ᐆᓚᐅᑏᑦ, ᐅᖃᓘᑏᑦ, ᐊᓯᖏᓪᓗ) ᐋᖅᑭᒃᓱᖅᑕᐅᔪᓐᓇᕐᒪᑕ ᑭᓯᐊᓂ ᐃᓄᐃᓐᓄᑦ ᐃᑲᔪᕐᓂᖅᓴᖅᑕᕈᓐᓇᕋᔭᖅᐳᑦ.

(3) ᐋᖅᑭᒃᓯᕙᖅᓂᖅᐸᑦ ᐊᑐᖅᑕᐅᕙᖅᓴᒥᒃ ᓄᓇᒥᖓᖅᑐᑦ ᐱᕈᖅ ᑲᓐᓂᕈᓐᓇᓐᖏᑦᑐᑦ ᐱᕙᓪᓕᐊᔪᐅᓇᓱᖅᑐᑦ ᒪᓕᒐᓕᐅᖅᑎᒃᑯᓐᓂᑦ ᓄᓇᓕᓐᓂ ᓯᕗᑉ ᓯᕗᑎᐊᖃᕐᖏᓕᑦ.

(B) <u>ᖃᐅᔨᒪᔭᑦᑎᔭᐅᔪᒥᒃ ᐃᖅᑲᓇᐃᔭᖅᑎᑦᑎᔪᑦ</u>

ᑮᓇᐅᔭᓕᕆᔩᒃᑯᑦ ᑲᑎᒪᔨᕋᓛᖏᑦ ᐊᖏᖅᑎᕆᓚᐅᖅᐳᑦ ᑖᒃᑯᐊ ᓄᓇᑦᓯᐊᑉ ᒐᕙᒪᒃᑯᖏᑦ ᑲᓇᑕᐅᑉ ᒐᕙᒪᒃᑯᖏᑦ ᑮᓇᐅᔭᖅᑖᕋᓂᕋᓱᒃᑕᑎᐊᕙᖅᐳᑦ, ᑲᓇᑕᐅᑉ ᒐᕙᒪᒃᑯᖏᑦ ᐊᖏᖃᑎᒋᕙᓚᑕ ᓄᓇᒥᐅᑕᓄᑦ ᐱᕈᖅ ᑲᓐᓂᕈᓐᓇᓐᖏᑦᑐᓄᑦ ᐃᖏᕐᕋᑎᑦᑎᑎᐊᕙᓚᑕ. ᑮᓇᐅᔭᑦ ᐊᖏᓂᖏᑦ ᓇᒻᒥᓂᖅᑎᒍᑦ ᐊᖏᖅᑎᕆᔭᐅᓯᒪᑎᒍᑦ ᐋᖅᑭᒃᓯᒪᓂᖅᓂᐊᖅᐳᑦ.

ᑲᑎᒪᔨᕋᓛᒃᑯᑦ ᐃᓯᒪᔭᑦ ᑕᒪᓐᓇ ᐊᑐᓕᖅᑕᐅᔭᓐᓇᕐᓂᐊᖅᐸᑦ ᑎᑎᕋᑎᐊᖃᕋᔭᖅᐳᑦ ᑖᒃᑯᐊ ᐱᕙᓪᓕᐊᔪᑦ ᓄᓇᑦᓯᐊᒥ ᑮᓇᐅᔭᑎᒍᑦ ᐊᓯᐅᔨᑎᑦᑎᓗᐊᓕᕐᒪᑕ ᑮᓇᐅᔭᖃᑎᐊᖏᓗᐊᖅᑎᓗᒥᒃ ᓄᓇᑦᓯᐊᒥᐅᑦ.

ᑲᑎᒪᔨᕋᓛᑦ ᐃᑲᔪᖅᑎᑖᓚᐅᖅᐳᑦ Richard C. Hudson-ᒥᒃ, ᑖᓐᓇ ᐃᖅᑲᓇᐃᔭᖅᑐᖅ Manecon Ltd.-ᑯᓐᓄᑦ ᐊᒻᒪᓗ ᑖᓐᓇ ᖃᐅᔨᓴᕐᓂᐊᖅᑐᖅ ᐊᑭᒥᔭᐅᔪᓂᒃ (ᐊ) ᑐᕋᖅᓯᓂᕐᓂᒃ ᑕᒪᒃᑯᐊ ᐱᕙᓪᓕᐊᓂᐱᔪᓐᓇᕐᓗᒪᓗᐊᑦ ᓯᕗᓂᖓᐅᔨᑎᑦᑎᓚᔪᓂᒃ ᐊᒻᒪᓗ (ᐸ) ᓄᓇᑦᓯᐊᑉ ᒐᕙᒪᒃᑯᖏᑦ ᑮᓇᐅᔭᑦ ᐊᑐᕋᔭᖕᖑᐊᖅᑕᕆᓐᓂᑦ ᐱᒋᐊᖅᑎᑦᑎᓕᕐᓂᕈᑎᒃ ᐱᕙᓪᓕᐊᔪᓴᒥᒃ.

(C) ᑲᑎᒪᔨᕋᓛᑦ ᖃᐅᔨᓴᕋᓱᒍᒪᔪᑦ ᐅᑯᓂᖓ ᓄᓇᓕᓐᓂ;

1. Norman Wells-Imperial Oil- ᐅᖅᓱᐊᓗᐃᑦ/ᑳᓴᓛᑦ ᐱᒋᐊᓕᑕᐃᓐᓇᖅᑐᖅ
2. ᑐᒃ ᑑᔭᖅᑐ-Dome Petroleum ᐊᒻᒪᓗ Imperial Oil ᐅᖅᓱᐊᓗᐃᑦ/ᐳᓪᓚᖅ- ᖃᐅᔨᓴᖅᑕᐅᒋᐊᓕᓵᖅᑐᖅ.
3. ᖃᐅᓱᐃᑦᑐᖅ -Cominco Ltd. ᐊᑉ ᐱᒃ Project ᓴᐱᒃ ᓴᔭᖅ- ᐅᔭᕋᖕᓂᐊᖅᑎᑦ -ᐋᖅᑭᒃᓱᖅᑕᐅᓕᓵᖅᑐᖅ

4. <u>ᓄᓐᖁᑖ</u>

(A) <u>ᐃᓅᓯᕆᓐᓄᑦ ᐊᑲᐅᓯᕚᓕᕈᑕᐅᓂᖅ ᐊᒻᒪᓗ ᑮᓇᐅᔭᓕᐅᕈᑏᑕᐅᓗᓂ</u>

ᐅᑭᐅᓂᒃ ᐊᒥᓲᓕᖅᑐᓂᒃ ᑲᓇᑕᐅᑉ ᒐᕙᒪᒃᑯᖏᑦ, ᓄᓇᑦᓯᐊᑉ ᒐᕙᒪᒃᑯᖏᑦ, ᑲᑐᔾᔨᖃᑎᒌᖏᑦ, ᐊᒻᒪᓗ ᒪᓕᒐᓕᐅᖅᑎᓕᒫᑦ ᐃᓯᒪᒻᒪᑕ ᑕᒪᓐᓇ ᓄᓇᑦᓯᐊᖅ ᑮᓇᐅᔭᓕᐅᑎᐊᖃᕐᓂᖏᓐᓂᒃ ᑖᒃᑯᓂᖓ ᓄᓇᒥᖓᖅᑐᓂᒃ ᐱᕙᓪᓕᐊᔭᐅᓇᓱᒃᑐᓂᑦ.

ᑕᒪᑦᑕ ᖃᐅᔨᒪᑦᑎᐊᖅᐳᒍᑦ ᑕᒪᒃ ᑯᐊ ᐃᖅᑲᓇᐃᔮᒃᓴᑦ ᐊᒻᒪᓗ ᓈᒻᒥᓂᖅ ᐃᖅᑲᓇᐃᔮᓖᑦ ᐊᑯᓂᐅᑎᒃ ᑲᓐᓂᕈᓐᓇᑦᖏᓐᓇᑦᑎᒍᑦ ᓄᖅᑲᖁᑎᑕ ᐅᖃᐅᓯᖃᕐᓂᖁᑎᑕ ᐃᓅᓯᕐᓄᑦ ᐊᑲᐅᓯᕐᕖᓪᓕᐅᕈᑕᐅᓂᕐᒥᒃ ᐊᒻᒪᓗ ᕿᓇᐅᔭᓕᐅᕈᑕᐅᓂᕐᒥᑦ ᑕᒫᓂ ᓄᓇᑦᓯᐊᕐᒥ.

ᒐᐸᒪᒃ ᑯᑦ ᐃᖅᑲᓇᐃᔭᕐᕖᑦ ᐃᓄᐃᑦ ᓄᓇᑦᓯᐊᕐᒥ ᑕᒪᒃ ᑯᓂᖓ ᐅᖓᐅᓯᖅᑲᖏᓐᓂᐊᕐᒪᑕ ᐊᓯᒥᑎᒍᐊᖏᓗᒃᔪᒃ, ᐊᓯᒥᑎᒃ ᑲᓐᖏᕐᓗᒥᑦ ᐅᖃᐅᓯᑎᔭᑎᐊᖅᖁᓗᐊᕐ ᓗᑎᒃ.

ᕿᓇᐅᔭᓕᑎᐅᒃ ᑯᑦ ᑲᑎᒪᔨᕋᓛᖏᑦ ᐊᑐᑦᑎᐊᕐᔭᖅᑐᒥᒃ ᐅᑕᐅᓯᕐᒥᒃ ᖃᐅᔨᒪᓪᓚᓗᐊᖅᑐᑦ, ᑕᒪᒃ ᑯᐊ ᐱᓯᑦᑎᐊᑦᑕ ᐊᕐᕕᓯᐅᔪᑦ ᐊᑐᑎᐊᓕᕐᓂᒃ ᓴᓇᖃᑦᑕᕐᒪᑕ (ᐊᖅᑯᑎᓂᒃ, ᒥᑦᑕᕐᕖᓂ, ᐊᓯᖏᓐᓂᒃᓗ), ᑕᒪᓐᓇ ᐊᑐᖅᑕᐅᔪᓐᓇᖁᔭᖅᑐᖅ. ᑖᒃ ᑯᐊ ᐱᓯᑦᑎᐊᔪᕕᓃᑦ ᐋᓕᖁᓗᐊᖅᐸᑕ.

ᖃᐅᔨᒪᓕᕋᑦ ᑕᒪᒃ ᑯᐊ ᓄᓇᓖᑦ ᐱᓯᑦᑎᐊᔪᓂᑦ ᐅᐸᒃ ᑕᐅᓯᒪᓕᕖᖅᑐᑦ ᐃᓄᖏᑦ ᓄᓇᓕᖃᑦᓕᑎᒃ ᑐᑦ ᐊᒥᓲᓂᖏᓗᐊᕐᓂᖏᓐᓄᑦ ᑕᒪᒃ ᑯᓂᖓ ᐊᖅᑯᑎᓄᑦ, ᒥᑦᑕᕐᕕᑦᓗ ᐊᓯᖏᓐᓄᑦᓗ ᐊᑭᓕᖃᑦᑕᕈᓐᓇᖁᔭᖏᑦᑐᑦ ᑖᒃ ᓯᑎᒍᑦ ᐃᓄᒥᐊᓐᖏᓗᐊᕐᓂᖏᓐᓄᑦ ᓄᓇᓖᑦ.

ᖃᐅᔨᒪᓕᕋᑦ, ᑖᒃ ᑯᐊ ᐃᓄᐃᑦ ᕿᓇᐅᔭᓕᐅᖅᐸᓪᓕᐊᓕᕐᓂᖏᓐᓄᑦ ᐊᒻᒪᓗ ᐃᓄᐃᑦ ᓄᓇᓕᕐᓃᑦᑐᑦ ᐊᒥᓱᖏᖅᐸᓪᓕᐊᓂᖏᓐᓄᑦ, ᐱᔪᑎᒥᓗᐊᕐ ᓗᒥᑦ ᓄᓇᓯᐊᕐᒦᓕᐅᑲᖃᑦᑕᐅᓇᖅᑐᑦ ᐊᖅᑯᓯᐅᓇᓗᐊᑦ ᐱᔪᒪᐃᓐᓇᕐᔪᖏᓐᓄᑦ ᑕᐃᒪᓕ ᐊᖅᑯᑏᑦ, ᒥᑦᑕᕐᕕᓪᓗ ᐊᓯᖏᓪᓗ ᓄᓇᓕᓐᓂ ᐊᑐᖅᑕᐅᔪᑎᐊᓖᑦ ᐃᓕᐅᖅᑲᖅᑕᐅᒥᐊᖅᓕᕐᔪᔪᑦ ᓄᓇᖃᓕᑦᑐᑦ ᐊᒥᓲᓂᖏᑦ 150-ᒥᒃ ᐱᒋᐊᕐᓗᑎᒃ 2,000-ᒧᑦ ᑎᑭᓪᓗᑎᒃ ᐊᒥᓲᓂᖅᓴᐅᒃᐸᑕᖑᓐᓃᑦ.

ᑲᑎᒪᔨᕋᓛᑦ ᐃᓯᒫᓗᑎᖃᖅᐳᑦ ᑕᒪᑦ ᑯᐊ ᐊᖅᑯᑏᑦ, ᒥᑦᑕᕐᕖᑦ ᐊᓯᖏᓪᓗ ᓄᓇᓕᓐᓂ ᐊᑐᖅᑕᐅᔪᑎᐊᓖᑦ ᐃᓕᐅᖅᑲᖅᑕᓕᐅᖃᕐᓗᑎᒃ ᓯᕗᓂᑎᒥᔭᐅᔪᓐᓃᕈᐊᓐᓂᓕᑎᐊᖁᔨᒥᔭᐅᓪᓗᑎᒃ ᑕᒪᓐᓇ ᐱᓕᑎᐊᑎᔭᖅ ᓯᒃ ᑳᐃᒃ ᓕᒥᐊᑐᐊᖅᐸᑦ.

ᑲᑎᒪᔨᕋᓛᑦ ᐋᖅᑭᒃ ᓯᓚᒪᕋᑦ ᑲᓇᑕᐅᓪᓗ ᓄᓇᑦᓯᐊᓪᓗ ᒐᐸᒪᒃ ᑯᖏᑦ ᑲᑐᒃ ᐆᖃᑎᒋᓂᐊᓪᓗᓂᑦ ᑕᒪᒃ ᑯᐊ ᓄᓇᓖᑦ ᐃᑦᓯᓇᖅᑕᐅᔭᖅᑯᐱᐊᑦ ᐃᑲᔪᖃᑦᑕᓗᓂᑦ ᕿᓇᐅᔭᖃᑎᒋᐊᖏᓐ ᑳᖓᑕ ᐊᒻᒪᓗ ᑕᒪᒃ ᑯᐊ ᐊᖅᑯᑏᑦ ᒥᑦᑕᕐᕖᑦᓗ ᐊᓯᖏᑦ ᐱᒪᔭᐅᔪᓐᓇᖅᑯᐳᖓᖏᑦ ᑳᖓᑕ.

ᑲᑎᒪᔨᕋᓚᐅᖅᐳᖓᓐᓇᖅᑐᑦ ᓈᒻᒥᓂᖅ ᐱᓕᕆᓂᖅᑖᖅᑎᑦᑎᓪᓗᑦ ᒪᑯᓂᖓ ᐃᓅᓯᖏᓐᓄᑦ ᐊᑲᐅᓯᕐᕖᓪᓕᐅᕈᑕᐅᓂᕐᒥᒃ ᐊᒻᒪᓗ ᕿᓇᐅᔭᓕᐅᕈᑕᐅᓂᕐᒥᒃ ᐱᑎᑦᑎᓇᓯᐊᕋᑦᑕᓂᐊᖅᓗᑎᒃ ᑕᒪᒃ ᑯᐊ ᐱᓯᑦᑎᐊᔭᐅᔪᑦ ᐃᓯᒪᒥᑦᓗᓂᒃᔪᒃ; ᒪᓕᒐᓕᐅᖅᑎᒃ ᑯᑦ ᖃᓄᐃᓕᓂᐊᕐ ᒫᖑᖏᓐᓂᒃ ᐅᑕᖅᑭᑐᐃᓐᓇᓯᔪᑦ.

(B) ᖃᐅᔨᓴᖅᑕᐅᕙᓂᒃ ᑎᑦᑐᒍ ᐊᑭᓕᔭᐅᔪᒃ ᓴᑦ ᖃᐅᔨᔭᐅᕗᑦ

ᑖᒃ ᑯᐊ ᖃᐅᔨᓴᖅᑕᓕᐅᖅᑐᑦ, GResponding to Non-Renewable Development Impact on the Government of the Northwest Territories)ᖃᐅᔨᑎᑕᓕᐅᖅᐳᑦ ᒐᐸᒪᒃ ᑯᑦ $6.25 ᒥᓕᐊᓐᓂᒃ ᐊᑐᑎᐊᖅᑐᑦ ᒫᓐᓇᑲᐅᑎᒥ ᑕᒪᒃ ᑯᐊ ᓄᓇᓕᓐᓂ ᐊᐅᓚᔾᔭᑕᐅᕙᒃᑐᑦ ᐃᓱᕐ ᖁᑎᐊᕐ ᓂᐊᖅᐸᑕ ᑖᒃ ᑯᓇᓂ ᓄᓇᓖᓂ ᐱᕙᓪᓕᐅᖃᐅᓯᑎᔭᐅᖅᑲᐅᔪᓂ.

ᐊᒻᒪᓗᑦ ᑕᐅᖅ $575,000-ᑲᓐᓂᕐᓂᒃ ᐊᕐᕌᒍᑕᒫᑦ ᐊᑐᖃᑦᑕᕐᓂᐊᖅᑲᖅᐳᑦ ᑖᒃ ᑯᐊᓴᐃᓐᓇᕐ ᓄ ᓯᓕ ᐱᕙᓪᓕᐅᓄᑦ ᓄᓇᓖᓄᑦ ᐊᑐᖅᑕᐅᔪᒃ ᓴᐅᑕᐅᓗᑎᒃ ᐃᓱᕐ ᖁᔭ ᔪᑕᐅᓇᔭᖅᓗᑎᒡᓗ ᐋᖅᑭᒃ ᓯᓯᒪᔭ ᔪᑕᐅᓇᔭᖅᓗᑎᒡᓗ

ᑖᒃ ᑯᐊ ᑮᓇᐅᔭᑦ.

ᑖᒃ ᑯᐊᓴᐃᓐᓇᐃᑦ ᓱᓕ ᐃᓕᒥᐊᒃ ᑲᓐᓂᕐᓗᒥᑦ $5.6 ᒥᓕᐊᓐᓂᒃ ᐊᑭᑐᔪᓄᑦ ᓂᐅᕕᕈᑕᐅᖃᑦᑕᕋᔭᖅᑐᓄᑦ ᐊᒻᒪᓗ $2.5 ᒥᓕᐊᓂᒃ ᐊᑐᖃᑦᑕᕐᓗᑎᒃ ᐊᕐᕌᒍᑕᒫᒍᑦ ᐱᔪᒪᔭᐅᒐᔭᖕᖑᖅᑐᓄᑦ ᐊᑐᖅᑕᐅᖃᑦᑕᕋᔭᖅᑐᓄᑦ ᐊᒻᒪᓗ ᓄᓇᓖᑦ ᑖᒃ ᑯᐊ ᐱᖓᓱᑦ ᐱᔪᒪᔭᖏᓐᓂᒃ ᑎᑎᕋᖃᑦᑕᕋᔭᖅᑐᑎᒃ, ᐱᔪᒪᔭᖏᓪᓗ ᑖᒃ ᑯᓇᖕᖓᑦ ᑮᓇᐅᔭᓂᑦ ᐊᑭᓕᖅᓱᖅᑕᐅᔭᖅᑐᑎᒃ.

> ᑕᑯᔭᒃᓴᖅ: ᖃᐅᔨᒪᒥᑦᓯ ᐱᖓᓱᐃᓐᓇᐃᑦ ᓄᓇᓖᑦ ᖃᐅᔨᓴᖅᑕᐅᓚᐅᖅᑐᑦ ᐱᕙᓪᓕᐊᓂᐅᑉ ᒥᒃ ᓴᓈᖓᔪᑎᒍᑦ. ᑕᒪᓐᓇ ᖃᐅᔨᓴᖅᑕᐅᓚᐅᖅᑎᓪᓗᒍ ᑲᑎᒪᔨᕋᓖᑦ ᐃᓱᒪᓕᓕᐅᖅᐳᑦ ᐱᕙᓪᓕᐊᔪᖅᑕᖃᕐᓂᐊᓕᖓᑦ ᓄᓇᑦᓯᐊᕐᒥ, ᒐᕙᒪᒃ ᑯᑦ ᑮᓇᐅᔭᖁᑎᖏᑦ ᓱᕐ ᕋᒃ ᑕᐅᑲᓐᓂᖃᑦᑕᕋᔭᕐᓂᖏᑕ ᖃᐅᔨᒪᓐᓇᖅᓯᑎᑕᐅᓗᓂ.

(C) ᑕᒪᓐᓇ ᖃᐅᔨᔭᐅᓚᐅᓪᓚᒥᕐᓂᖅᐸᑦ, ᑲᑎᒪᔨᕋᓖᑦ ᐃᒪᓐᓇ ᐱᒥᐊᒃ ᑲᓐᓂᕈᒪᒥᕗᑦ:

(1) ᐃᖏᕐ ᕋᒃ ᔪᑕᐅᓇᔭᖅᑐᒥᒃ ᐋᖅᑭᒃ ᓱᓗᑎᒃ ᑕᒪᒃ ᑯᐊ ᐱᕙᓪᓕᐊᓂᑎᔨᐅᔪᑦ ᑮᓇᐅᔭᖅᑖᒃ ᑳᓐᓂᕈᓐᓇᖃᑦᑕᕐᓂᐊᕐᒪᑕ ᐊᒻᒪᓗ ᐃᑲᔪᖅᑎᑖᒃ ᑳᓐᓂᕈᓐᓇᖃᑦᑕᕐᓂᐊᕐᒪᑕ.

(2) ᐋᖅᑭᒃ ᓱᓗᑎᒃ ᒪᓕᒐᐅᓇᔭᖅᑐᒥᒃ ᑮᓇᐅᔭᖅᑖᕈᓐᓇᖃᑦᑕᕐᓂᐊᕐᒪᑕ.

(3) ᐋᖅᑭᒃ ᓱᓗᑎᒃ ᑮᓇᐅᔭᑦ ᐊᑐᖅᑕᐅᓂᑎᖃᑦᑕᕋᔭᖅᑕᖏᓐᓂᒃ ᑕᒪᒃ ᑯᐊ ᒪᓕᒐᐅᔪᑦ ᐊᑐᖅᑕᐅᑎᓪᓗᒋᑦ.

(4) ᓇᑭᑦ ᑮᓇᐅᔭᑦ ᖃᐃᕙᓪᓕᐊᓂᐊᕐᓂᖏᑦ ᖃᐅᔨᒪᔭᐅᓗᑎᒃ.

ᐱᒻ ᓚᑎᐅᕐ ᒥᔪᑦᑕᐅᖅ ᑕᒪᒃ ᑯᐊ ᓄᑖᑦ ᐱᕙᓪᓕᐊᔭᐅᔪᑦ ᓱᕋᕐ ᓴᐃᔨᐅᓐᖏᑲᓗᐊᕐᒫᖏᑦ ᓄᓇᓕᕐᓂ ᐊᒻᒪᓗ ᐊᐅᓚᓂᑎᔭᖏᓐᓂᒃ ᐊᔪᓐᖏᓐᓃᑎᔭᖏᓐᓂᒃᓗ.

ᑲᑎᒪᔨᕋᓖᑦ ᐅᒃ ᐲᖅᓯᕐ ᐋᒥᕐᑯᔨᕗᑦ ᒐᕙᒪᒃ ᑳᓐᓂᕐᓂᒃ ᐊᐅᓚᑦᓯᔨᓂᕐ ᔫᓂ ᐊᒥᓱᙳᓗᐊᕐᑯᔨᓇᑎᒃ ᐊᒻᒪᓗ ᑕᒪᒃ ᑯᐊ ᐊᑐᓕᖁᔭᐅᔪᑦ ᐱᐅᒐᓗᐊᕐᒫᖏᓐᓂᒃ ᖃᐅᔨᓴᕐᓂᐊᖅᓯᑎᒃ ᑕᒪᒃ ᑯᐊ ᐊᑐᓕᖁᔨᖏᑦ ᐱᒋᐊᖅᓯᒪᔪᑐᖃᐅᓚᖅᐸᑕ. ᐱᒋᐊᖅᑎᑦ ᑎᔭᑎᐊᖃᕈᑎᒃ ᐱᒋᐊᖅᑎᑦ ᑎᒃ ᑳᓃᖅᓯᔪᓐᓇᕋᔭᖅᑐᑦ.

ᐊᑐᓕᖁᔨᐅᔪᑦ

ᑲᑎᒪᔨᕋᓖᖑᐃᓐᓇᖅᑐᑦ ᑮᓇᐅᔭᓕᕆᓂᕐ ᒧᑦ ᒪᓕᒐᓕᐅᖅᑎᒃ ᑯᓐ ᓄᑦ ᐃᒪᓐᓇ ᐱᒋᐊᖅᑎᑦᑎᖁᔨᐳᑦ:

(1) ᓴᓂᕐ ᕙᖅᑕᐅᓯᒪᓂᒃ ᓴᖓ ᐃᓚᑕᕆᔭᐅᓯᒪᓂᖅᐸᑦ ᓄᓇᑦᓯᐊᕐᒥᐅᑦ ᒪᓕᒐᓕᐅᖅᑎᑦ ᑯᖏᓐᓄᑦ ᐱᓕᕆᕝᕕᐅᓂᒃ ᓴᖓᑕ ᓴᓂᕐ ᕙᖅᑕᐅᓯᒪᓂᖏᑦ ᑕᒫᓂ ᓄᓇᑦᓯᐊᕐᒥ ᐊᒻᒪᓗ ᐊᐅᓚᑦᓯᔨᒃ ᑯᑦ ᑎᓕᐅᖅᑕᐅᓂᐊᖅᐳᑦ ᐋᖅᑭᒃ ᓱᖁᔭᐅᓗᑎᒃ ᐱᓕᕆᕝᕕᐅᓇᔭᖅᑐᑉ ᓇᓗᓇᐃᖅᑕᓯᒪᓂᖓᑕ ᐊᑐᐊᒐᒃ ᓴᖏᓐᓂ.

(2) ᐱᓕᕆᕝᕕᐅᓇᔭᖅᑐᑉ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓂᖓᑕ ᐃᒪᓐᓇ ᑐᑭᖃᖅᐳᖅ ᑕᒪᒃ ᑯᐊ ᓄᓇᐃᑦ ᓄᓇᒥᖕᖓᖅᑐᑦ ᐱᕈᒃ ᑲᓐᓂᕈᓐᓇᖕᖏᑦᑐᑦ ᐱᓕᕆᕝᕕᒥᔭᐅᔪᐊᕕᓂᑦ ᐅᕐᕙᒍᓐᓃᑦ ᐱᓕᕆᕝᕕᐅᓂᐊᖅᑐᒃ ᑯᑦ.

(3) ᑐᒃ ᓯᕋᐅᑎᑖᕈᓴᔪᑦ ᓄᓇᓖᑦ ᑕᒪᒃ ᑯᓂᖓ ᑎᑎᕋᖃᑦᑕᕈᓐᓇᖅᑐᑦ ᐱᕙᓪᓕᐊᔪᓕᕆᔨᒃ ᑯᑦ ᑲᑎᒪᔨᕋᓖᖏᓐᓄᑦ ᒐᕙᒪᒃ ᑯᓐ ᓄᑦ.

(4) ᓄᓇᓕᒃ ᓴᓂᕙᖅᑕᐅᓯᒪᓕᕐᓂᖅᐸᑦ ᑕᐃᒪᓕ ᑮᓇᐅᔭᓂᒃ ᑐᒃ ᓯᕋᕋᓱᒍᓐᓇᖅᓯᓇᔭᖅᐳᑦ ᑖᒃ ᑯᓄᖓ ᓱᓕ ᐱᕙᓪᓕᐊᔪᓕᕆᔨᒃ ᑯᑦ ᑲᑎᒪᔨᕋᓖᖏᓐᓄᑦ. (ᑎᑎᕋᖅᓯᒪᔪᑦ 6-ᒥ).

(5) ᓄᓇᑦ ᓯᐊᑉ ᒐᐸᒪᒃ ᑯᕐᑦ ᐃᓕᑕᕐᓯᓇᔭᕐᐳᑦ ᐊᒻᒪᓗ ᐊᓯᐸᕐᓯᓕᕋᔭᕐᐳᑦ ᕿᓇᐅᔭᓂᒃ ᐱᓕᕆᑉᔪᑕᐅᓇᔭᕐᑐᓂᒃ ᐊᒻᒪᓗ ᑖᒃ ᑯᐊ ᕿᓇᐅᔭᑦ ᐱᐸᓪᓕᐊᓇᓯᓕᖅᑐᓄᑦ ᐋᕐᕿᒃ ᓯᐃᓇᓯᖅ ᓂᑦ ᒧᑦᓗ, ᕿᓇᐅᔭᓕᕐᑎᓂᑦ ᒧᑦᓗ, ᐊᑐᕐᑕᐅᓇᔭᕐᐳᑦ ᐱᕙᓪᓕᐊᓂᑦ ᒧᑦ ᑐᕋᖓᓂᖅᑐᐊᕐᐸᑕ.

(6) ᑕᒪᒃ ᑯᐊ ᕿᓇᐅᔭᑦ ᖁᐃᐸᓪᓕᐊᔪᑦ ᐋᕐᕿᒃ ᑕᐅᕙᓂᑐᐊᕐᐸᑕ, ᑲᓇᑕᐅᑉ ᒐᐸᒪᒃ ᑯᕐᑦ ᐱᔭᐅᓇᓯᒃ ᑐᑎᒧᑦ ᐅᐸᒃ ᑕᐅᓕᕋᔭᕐᐳᑦ ᕿᓇᐅᔭᕐᑖᕈᒪᑐᐊᕈᑎᒃ ᐊᒻᒪᓗ ᑖᒃ ᑯᐊ ᐱᐸᓪᓕᐊᔭᐅᓇᓯᒃ ᑐᒧᑦ ᐊᑐᕐᑕᐅᓇᔭᕐᓗᑎᒃ. ᕿᓇᐅᔭᑦ ᐊᕐᕿᓂᕐᕿᑦ ᐋᕐᕿᒃ ᓯᒪᓇᔭᕐᐳᑦ ᐋᕐᕿᒃ ᑕᐅᓇᓯᓚᐅᕐᑐᒃ ᑯᑦ ᐃᓯᒪᓕᐅᕈᑕᐅᓚᐅᕐᑐᒃ ᑯᑦ ᐊᒻᒪᓗ ᑕᒪᓐᓇ ᐱᓕᑎᐊᑎᔭᐅᓇᓯᒃ ᑐᕐ ᐊᕐᕿᓂᖅᓄᑦ ᖁᓄᐃᑦ ᑑᓂᖅᓄᑦᓗ ᐋᕐᕿᒃ ᓯᒪᔭᐅᓇᔭᕐᐳᕐ. ᓄᓇᑦ ᑭᐊᑦᓗ ᑲᓇᑕᐅᑦᓗ ᒐᐸᒪᕐᑦ ᒪᓕᒐᔭᕐᐳᑦ 1-ᒥᑦ 5-ᒧᑦ ᑎᑭᓯᒪᔪᓂᒃ ᒪᓕᒃᓗᑎᒃ.

ᐃᓕᓐᓈᑎᔭᐃᑦ,

Lynda Sorensen,ᐃᒃ ᓯᐸᐅᑕᑎᔭᐅᔪᕐ.

ᒥᓂ ᐅᐊᓂ ᑯᐃᐦᐁᐊᐃᐧᐣ, ᐃᒪᓯᐊᐅᑕᑦᑐᓂᓕ ᓄᓇᓕ

ᒥᓐᑕ ᐋᓂ ᔑᑎᓂ

ᒥᓐᑕ ᔑᓂ ᒪᐃᓭᓂᓴᓂᓐ

ᒥᓐᑕ ᔑᓂ ᓂᓐᓴᓂᓐ

ᒥᓐᑕ ᑲᓂᐧᑎ ᓯᔑᐊᓂ

ᒥᓐᑕ ᓂᓐ ᑭᐧᓴᓂᓐ

ᒥᓐᑕ ᑲᓂᐧᑎ ᓯᔑᐊᓂ