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***Economic Study Of The Proposed East Arm  
Of Great Slave Lake National Park  
Type of Study: Analysis/review  
Date of Report: 1989  
Catalogue Number: 11-8-47***

# ECONOMIC STUDY OF THE PROPOSED EAST ARM OF GREAT SLAVE LAKE NATIONAL PARK

11-8-47

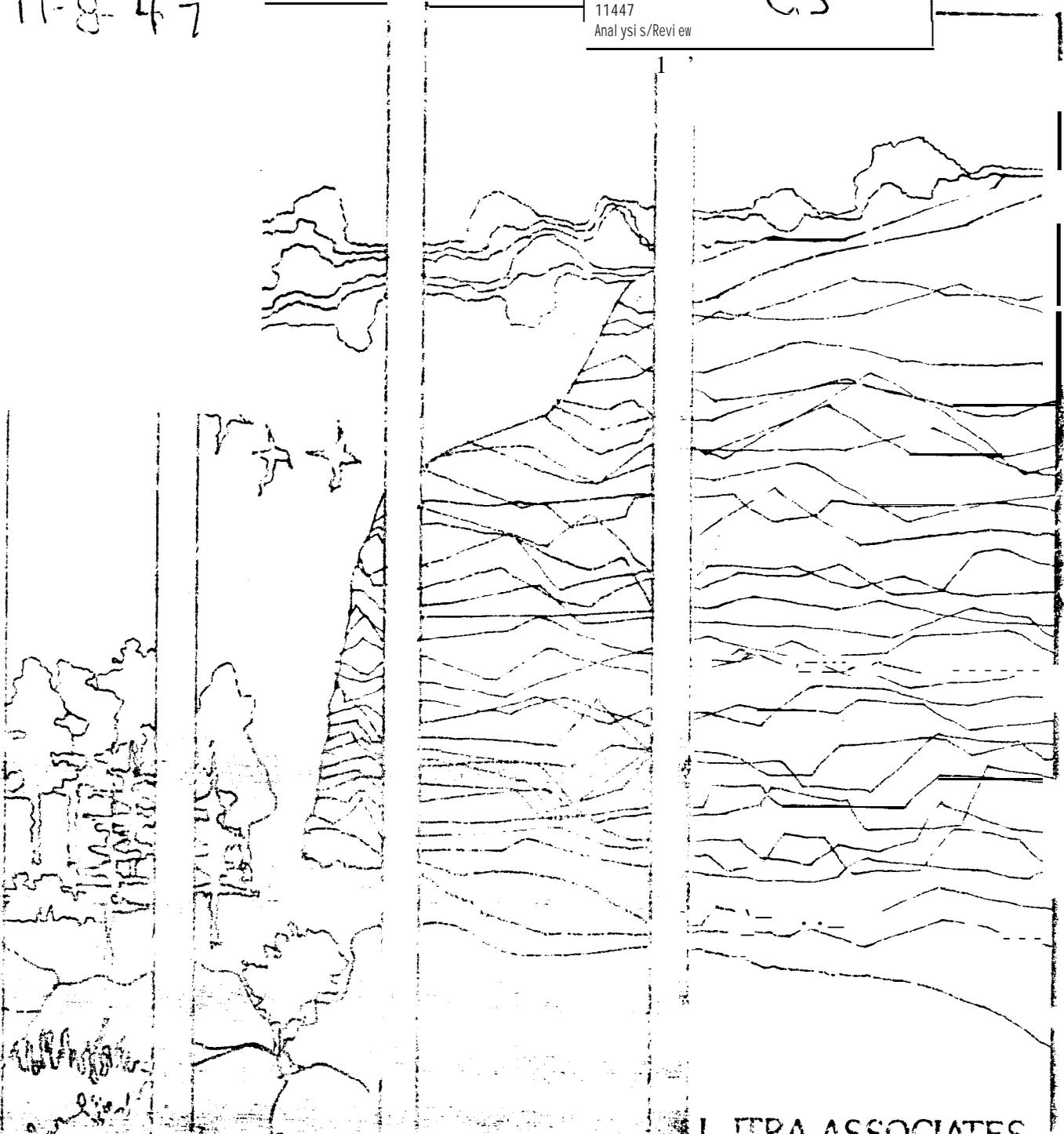
ECONOMIC STUDY OF THE PROPOSED EAST  
ARM OF GREAT SLAVE LAKE NATIONAL PARK

Sector: Tourism

11447

Analysis/Review

C.S



ITPA ASSOCIATES



## **Lutra Associates Ltd.**

Socio-Economic Research .Community and Economic Development

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January 26, 1987.

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Director,  
Socio-Economic Branch,  
Environment Canada, Parks,  
OTTAWA, Ontario  
K1A 1G2

Dear Sir:

Re : Economic Study of the Proposed East Arm of Great  
Slave Lake National Park

We are pleased to attach the final report assessing the economic impacts of the proposed national park on the study area and the N.W.'r.

This economic study provides: 1) an evaluation of the economic implications associated with the establishment, development and operation of the proposed park; 2) an identification of social considerations resulting from these economic impacts; and 3) recommendations for future strategies to maximize positive local benefits and minimize negative effects associated with the establishment of the proposed park. In addressing these three concerns, we have provided a fairly extensive review of available secondary source information on the study area's population, social structure, economy, and lifestyles. From this information and our knowledge of the area, we have been able to present a comprehensive assessment of how the proposed park will impact the area.

Although the following study is comprehensive, it should, for two reasons, be considered as a preliminary assessment only. First, the terms of reference restricted our research to secondary sources only. As such, there may be pertinent perspectives which are not included in this study. Secondly, the park development and operation scenario from which economic impacts were prepared, is a preliminary document only thus, more a precise impact assessment may be required once more detailed plans are in place.

In closing, we are hopeful that Parks and the general public will find this report useful both in terms of its contribution to the resolution of the long standing park establishment issue and to future plans for the area in question.

We thank you for involving Lutra in this interesting assignment.

Sincerely,  
LUTRA ASSOCIATES LTD.

  
Lois M. Little,  
Principal Partner.

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ECONOMIC STUDY OF THE PROPOSED EAST ARM OF GREAT  
SLAVE LAKE NATIONAL PARK

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EXECUTIVE SUMMARY

This economic study has three objectives. First, the study is to evaluate the economic implications associated with the establishment, development and operation of the proposed East Arm of Great Slave Lake National Park. Second, the study is to identify possible social considerations resulting from the economic impacts of establishing the park. Third, strategies are to be recommended, aimed at maximizing benefits and minimizing potential negative effects (if any) associated with the establishment of the proposed park. The geographic area established for this study includes the proposed lands set aside for this national park as well as six (6) communities located on the shores of Great Slave Lake: Snowdrift, Reliance, Fort Resolution, Detah, Yellowknife, and Hay River.

Generally speaking, the establishment of the proposed East Arm of Great Slave Lake National Park will have limited, positive economic impact on the study area. The proposed park will result in the generation of additional employment opportunities in the study area and will contribute to the growth and viability of businesses in the study area. It is not expected that any economic benefits will be lost to the study area as a result of the park's... establishment. Further, a cursory examination indicates that socio-cultural concerns related to economic impacts will be minimal and could be mitigated.

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1. Study Area Profile

The population of the study area is expected to grow at an average rate of about 1.4% over the next 10 years. A higher rate of growth (1.8%) is expected in the smaller study area communities. The population of the study area is currently 15,547 of which 29% is of native ancestry. The smaller study area communities vary with between 80-100% of the population being of native ancestry. The labour force of the study area makes up approximately 69% of the study area population. Participation in the wage economy is highest in the two urban communities in the study area - Hay River and Yellowknife, 75% and 84% of the labour force, respectively. In the smaller study area communities, wage economy participation rates are substantially lower: Snowdrift, 40%; Detah, 47%; and Fort Resolution, 50%.

The study area has a strong, diversified economy. The economy of the area has substantial impact on that of the whole N.W.T. due to the study area's business, transportation and communication infrastructure; the presence of Federal and Territorial Governments' headquarters; the wealth of human resources; and the range of natural resources. Primary industries in the study area are hunting, trapping and fishing, mining and forestry. Overall, the public sector and the service sector engage the greatest

percentage of the study area's labour force. Mining is also an important economic activity in the area while harvesting fish, fur and game continue to be the mainstay of the smaller communities in the study area. Transfer payments and government subsidies play a significant role in the economy of the study area, particularly in the smaller study area communities. Tourism is a well-established industry in the area and is continuing to grow and develop under the auspices of a variety of public and private sector initiatives.

The study area has a full complement of services and amenities. All communities in the study area with the exception of Reliance are accessed easily by either air or road; have a full complement of municipal services; have excellent communications systems; and at least a basic level of personal and business services.

## 2. Tourism Demand and Visitation

Visitation to the study area in general and to the east arm of Great Slave Lake would change both in terms of mix and volume of visitors. Table S1 presents comparative estimates of visitor volume forecasts for the study area and the east arm of Great Slave Lake area under conditions where no national park is established and under conditions where the proposed East Arm of Great Slave Lake National Park scenario is assumed to be in place.

### 2.1 Tourism Situation Without the Proposed Park

Visitation to and in the study area is impacted by a number of market considerations, however due to the nature of the infrastructure in the study area, it is estimated that almost 50% of all visitors to the N.W.T. do and will continue to come to the study area. In 1986, it is estimated that 63,434 non-study area resident person trips lasting an average of 10 days, will result in \$41.8 million (\$1986) being spent in the study area, while resident (17,957 person trips) expenditures are estimated in \$6.7 million. Assuming that the proposed national park is not established (ie. the "no park" development scenario), it is expected that by 1995, 78,579 non-resident person trips will be made to the study area and 20,577 resident trips will be made in the study area.

Under this same "no park development scenario", the east arm of Great Slave Lake will receive four main types of study area visitors: the sport fishing lodge visitor; the visitor arriving by chartered boat; the visitor arriving by chartered air visitor; and the visitor arriving by pleasure craft. In 1986, the number of person trips by these visitors are estimated at 1,144 while in 1995 this number will have risen to 1,231. Despite present declining trends in visitation to the area, this modest forecast increase is deemed reasonable in light of well developed tourism

TABLE S 1  
 COMPARATIVE SUMMARY OF THE FORECAST  
 STUDY AREA TOURISM SITUATION  
 WITH AND WITHOUT THE EXISTENCE OF THE  
 PROPOSED EAST ARM OF GREAT SLAVE  
 LANE NATIONAL PARK,  
 1986 TO 1995

AREA & MARKETS	VISITOR VOLUMES (IN PERSON TRIPS)								
	WITHOUT PARK			WITH PARK			INCREASE DUE TO PARK		
	1981b	1990	1995	1986	1990	1995	1986	1990	1995
<b>STUDY AREA</b>									
NON-RESIDENT ( 1 )	63434	69898	78579	43552	70071	78874	118	173	295
RESIDENTS (2)	17957	19259	20577	17978	19-U9	20579	21	30	52
TOTAL	81391	89157	99156	81530	89360	99503	139	203	347
<b>EAST ARM</b>									
NON-RESIDENT ( 1 )	692	700	710	810	873	1005	118	173	295
RESIDENTS (2)	452	481	521	473	511	573	21	30	52
TOTAL	1144	1181	1231	1283	1384	1578	139	203	347

(1) Refers to visitors who reside outside the study area.  
 (2) Refers to study area residents.

products in the study area, improved organization and increased efforts in marketing and the positive response to the N.W.T. generated by Expo '86.

Under the "no park" development scenario, the sport fishing lodge market will dominate this east arm market, making up almost 75% of this market. This segment is however a no-growth market due to current licensing restrictions regarding sport fishing in the east arm of Great Slave Lake. It is believed that approximately 15-25% of the current visitors to the east arm use the lands proposed for the national park. This trend would be expected to continue under current conditions.

## 2.2 Tourism Situation with the Proposed Park in Place

Assuming the development of the proposed park on the east arm of Great Slave Lake, it is expected that overall visitation to the study area will not be altered substantially. The four key types of visitors will not change but a new type of visitor market segment -- the adventure traveller -- will be attracted to the east arm and to the study area as a result of park's establishment. Adventure travelers are those participating in an outdoors trip occurring in a natural area. Major activities engaged by these travelers are camping, hiking, canoeing and naturalist-related interests. Adventure travelers would typically travel in groups of up to 12 people and stay an average of 10 days in the study area.

Incremental visitation to the study area and to the east arm area as a result of the proposed national park will therefore be from adventure travelers. It is estimated that these visitors will contribute 139 person trips to the area in 1986 and 347 person trips in 1995. The net growth in visitation (attributable to the proposed park) to the east arm and to the study area will be as a result of these adventure travelers. Total non-resident visitation to the study area would therefore have reached 63,552 person trips in 1986, while study area residents would have contributed 17,978 person trips to study area tourism during that same year. By 1995, non-resident and resident travel in the study area could be expected to reach 78,874 and 20,579 person trips respectively. Given the presence of the proposed national park, total east arm of Great Slave Lake visitor volumes would reach 1,283 and 1,578 person trips in 1986 and 1995 respectively.

Under the park development scenario, and assuming that no change occurs in the estimated proportion of visitors to the east arm who presently use lands proposed to be included in the park, it is estimated that 25% of the existing east arm lodge market and 15% of the other three existing markets will visit the proposed park. The total person trips to the east arm of Great Slave Lake

from these segments are 257 in 1986 and 270 in 1995. The increase is however not attributable to the proposed park.

Adding the above numbers to visitor volumes from the new adventure travel market segment, it is estimated that total attendance at the proposed national park would reach 396 and 617 person trips in 1986 and 1995 respectively.

### 3. Employment Impacts

The establishment of the proposed East Arm of Great Slave Lake National Park will generate expenditures from two main sources: first from the new visitors belonging to the adventure travel market segment, their expenditures being directly attributable to the existence of the proposed park; and secondly, from Environment Canada, Parks' capital, operation and maintenance investment in the park. The expenditures will in turn generate direct, indirect and induced impacts in the form of employment opportunities and income to workers, as well as business opportunities in the study area, the N.W.T. and elsewhere. Tables S2 and S3 summarize these estimated total impacts on the N.W.T. and the study area respectively, over a ten year period. It is however important to note that, for any one year included in this period, only a small portion of the total impact will occur. N.W.T. impact estimates include study area estimates. All figures are in constant 1986 dollars.

#### 3.1 Impacts From Visitor Expenditures

As a result of the establishment of the park, additional visitor spending in the study area over the ten year forecast period is expected to create 19 person years of employment and \$380,000. in labour income in the hospitality and service sectors of the economy. Further, visitor spending attributable to the proposed park will contribute close to \$448,000. over the ten Year forecast period to the N.W.T. GDP (all in the study area). For year 10 of the forecast, direct, indirect and induced impact from visitor expenditures attributable to the park are estimated at about 2.38 person years of employment and \$48,116. and \$56,716. in labour income and GDP respectively. This represents a small impact on the N.W.T. or study area economy when compared to Parks' expenditures .

#### 3.2 Impacts from Parks' Operation and Maintenance Expenditures

Environment Canada, Parks' spending will create the greatest level of positive economic impact to the study area. Over the first ten years of park establishment, direct, indirect and induced impacts from Parks' operation and maintenance expenditures will total an estimated 112 person years of

**TABLE 5 2**  
**TOTAL DIRECT , INDIRECT AND INDUCED IMPACTS OF**  
**SPENDING IN THE N.W.T. INCLUDING THE STUDY AREA**  
**ATTRIBUTABLE TO THE PROPOSED EAST ARM OF GREAT**  
**SLAVE LAKE NATIONAL PARK**

	Labour Income ( \$000 1986)	GDP	Employment Person-Years
<b>Direct Impacts</b>			
Parks Payrol 1	3077	3077	84
Parks Other Expenditures	1554	2210	67
Visitor Expenditures	251	320	15
<b>Total</b>	<b>4882</b>	<b>5615</b>	<b>166</b>
<b>Indirect and induced Impacts</b>			
Parks Payrol 1	517	615	28
Parks Other Expenditures	801	739	29
Visitor Expenditures	129	120	4
<b>Total</b>	<b>1447</b>	<b>1482</b>	<b>61</b>
<b>Total Impacts</b>	<b>6329</b>	<b>7097</b>	<b>227</b>

- Notes to table:**
1. Multipliers used to calculate Parks direct and indirect impacts are weighted in accordance to industry sector activity multipliers presented in 'Economic Performance of Four Northern National Parks'.
  - 2 Total presented are aggregate totals for the ten year forecast period.

TABLE 5.3  
 TOTAL DIRECT, INDIRECT AND INDUCED IMPACTS OF  
 SPENDING IN THE STUDY AREA ATTRIBUTABLE TO  
 THE PROPOSED EAST ARM OF GREAT SLAVE LAKE  
 NATIONAL PARK

	Labour Income ( \$000 1986)	GDP	Employment Person Years
<b>Direct Impacts</b>			
-----			
Parks Payroll	1407	1407	34
Parks Other Expenditures	1207	1723	52
Visitor Expenditures	251	320	15
Total	2865	3450	101
<b>Indirect and Induced Impacts</b>			
=====			
Parks Payroll	236	281	13
Parks Other Expenditures	622	574	23
Visitor Expenditure	129	128	4
Total	987	983	40
<b>Total Impacts</b>	<b>3852</b>	<b>4433</b>	<b>141</b>

- Notes to table:
1. Multipliers used to calculate Parks direct and indirect impacts for other expenditures are weighted proportions for industry sector activity multipliers as presented in the Economic Performance of Four Northern National Parks/Reserves
  2. Totals presented are aggregate totals for the ten year period.

from these segments are 257 in 1986 and 270 in 1995. The increase is however not attributable to the proposed park.

Adding the above numbers to visitor volumes from the new adventure travel market segment, it is estimated that total attendance at the proposed national park would reach 396 and 617 person trips in 1986 and 1995 respectively.

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#### 3.2 Impacts from Parks' Operation and Maintenance Expenditures

Environment Canada, Parks' spending will create the greatest level of positive economic impact to the study area. Over the first ten years of park establishment, direct, indirect and induced impacts from Parks' operation and maintenance expenditures will total an estimated 112 person years of

8. Summary of Recommendations for Future Economic and Socio-Cultural Strategies

a) Employment and Training

1. Given the history of preferential hiring in the north, it is recommended that regional hiring preferences as based on qualification be instituted for all staffing action related to the proposed East Arm of Great Slave Lake National Park. Regional preference should be accorded to the 84.25 person years of employment which are expected to be created over the ten year forecast period as a result of Environment Canada Parks' operations and maintenance spending.
2. Further, given that hiring preferences are stated in terms of employing qualified regional populations and training to qualify regional populations, it is recommended that hiring preference policies developed for the proposed park be extremely specific and include:
  - acceptable definitions (ie. to all interest groups) of "local", "regional" and "qualified" residents ;
  - flexibility in entry or basic qualifications requirements (ie. experience in lieu of formal education); and
  - a strategy for implementing preferred hiring policies.
3. It is recommended that an implementation strategy for preferred hiring policies detail recruitment procedures, training programs, trainee career paths and, support resources/mechanisms available to support hiring/training initiatives.
4. It is recommended that in order to successfully implement training programs that resources to fund such initiatives be in place prior to promoting training programs.
5. It is recommended that resources used to support training initiatives be identified from new monies. That is, funds commonly used to support community-based training initiatives should not be used for this purpose (ie. park training initiatives should not compete for funds used for local training efforts).
6. It is recommended that training programs specify the duration of training, job opportunities following training, relocation requirements and benefits associated with training programs.
7. It is recommended that in order to eliminate the loss of human resources from study area communities, to ensure a high level of study area participation and to mitigate any negative socio-cultural impacts to study area communities,

that every effort be made to ensure that: 1) training within the study area; 2) permanent positions for trainees be identified within the proposed East Arm of Great Slave Lake National Park; and 3) support structures and benefits such as housing available to trainees be on par with other staff.

b) Maximizing Local Business Opportunities

8. It is recommended that a regional business preference policy be applied to all contracts and business opportunities associated with the development and operation of the proposed East Arm of Great Slave Lake National Park. Every effort should be made to spend funds related to the development and operation of the proposed park firstly in the study area and secondly, in the NWT.
9. It is recommended that business preference policies clearly specify the responsibilities of Parks and/or their designates in securing labour, goods and services in the north. Such guidelines must ensure maximum access by preferred business to opportunities associated with the park's development and operation. Consideration should be accorded to:
  - providing acceptable definitions of "northern", "native", "local", and/or "regional" businesses;
  - preparing a detailed listing of development and operational requirements related to the park;
  - preparing an inventory of the infrastructure capabilities of the study area and of the NWT;
  - establishing a communications program with the business community in the study area and the NWT to include periodic visits to study area communities; northern opportunities newsletters; bidders meetings; etc.;
  - establishing a northern business support program which encourages and facilitates the participation of northern business in park-related business opportunities, including access to resource people to assist in feasibility assessments, joint venture liaison, tendering and bidding assistance, project fragmentation, etc.; and
  - establishing procedures/conditions which support a northern business preference policy to include preferred "northern only" tenders; preferred northern terms of payment; waiving of bid and performance bond requirements; etc.
10. It is recommended that guidelines be developed to assist the development of businesses which might be created or expanded as a result of the development and operation of the proposed park. For example if Snowdrift expresses an interest, assistance might be provided to undertake a viability/feasibility assessment of a ground transportation operation

in the community to offer services to park visitors accessing the park from that community. Similarly and given local interest., assessment. assistance might also be provided to examine the, feasibility of expanding accommodation services at. Snowdrift and providing community-based package tours in shoulder seasons.

c) Maximizing Economic Benefits for the Study Area

11. It is recommended that a re-assessment of the proposed Environment Canada 'Parks' expenditure of research and planning expenditures be undertaken and that consideration be accorded to ensuring expenditure of these funds primarily in the study area and secondly, in the NWT.
12. Given that there are few examples in Canada where two national parks are managed jointly by one management regime and that the proposed management regime for the East Arm of Great Slave Lake National Park is located outside the study area, it is recommended that consideration be accorded to: a) establishing a separate management regime for the proposed park in the study area within the ten year forecast. period or b) establishing a sub-office within the study area within the ten year forecast period.

d) Socio-Cultural Issues and Recommendations

- \* Protection of Harvesting Activities and Provision of Local Input into Park Decision Making

Given a potential for displacement of non-native harvester(s); a local concern regarding resource use and management; and in the event of visitor and traditional use conflicts:

13. It is recommended that in the event of the establishment of the proposed park, use policies must clearly specify the economic aspects of harvesting rights for non-native residents, non-native General Hunting Licence (GHL) holders and claims beneficiaries if this issue is not addressed in the land claims settlement.
14. It is recommended that a management board involving residents from directly impacted communities be established to enable mitigation of negative economic impacts and maximization of economic benefits to directly impacted community residents. Further, in light of a history in the north of local advisory councils which have had little real input, it is recommended that this management board be developed from the model recommended for the Northern Yukon National Park

that every effort be made to ensure that: 1) training within the study area; 2) permanent positions for trainees be identified within the proposed East Arm of Great Slave Lake National Park; and 3) support structures and benefits such as housing available to trainees be on par with other staff.

b) Maximizing Local Business Opportunities

8. It is recommended that a regional business preference policy be applied to all contracts and business opportunities associated with the development and operation of the proposed East Arm of Great Slave Lake National Park. Every effort should be made to spend funds related to the development and operation of the proposed park firstly in the study area and secondly, in the NWT.
9. It is recommended that business preference policies clearly specify the responsibilities of Parks and/or their designates in securing labour, goods and services in the north. Such guidelines must ensure maximum access by preferred business to opportunities associated with the park's development and operation. Consideration should be accorded to:
  - providing acceptable definitions of "northern", "native", "local", and/or "regional" businesses;
  - preparing a detailed listing of development and operational requirements related to the park;
  - preparing an inventory of the infrastructure capabilities of the study area and of the NWT;
  - establishing a communications program with the business community in the study area and the NWT to include periodic visits to study area communities; northern opportunities newsletters; bidders meetings; etc.;
  - establishing a northern business support program which encourages and facilitates the participation of northern business in park-related business opportunities, including access to resource people to assist in feasibility assessments, joint venture liaison, tendering and bidding assistance, project fragmentation, etc.; and
  - establishing procedures/conditions which support a northern business preference policy to include preferred "northern only" tenders; preferred northern terms of payment; waiving of bid and performance bond requirements; etc.
10. It is recommended that guidelines be developed to assist the development of businesses which might be created or expanded as a result of the development and operation of the proposed park. For example if Snowdrift expresses an interest, assistance might be provided to undertake a viability/feasibility assessment of a ground transportation operation

\* Socio-Cultural Concerns

15. Given the willingness of northern interest groups, it is recommended that Environment Canada Parks ensure that follow-up work is undertaken to fully identify resultant socio-cultural impacts and to integrate those findings with those of this economic study. It is expected that this integration will allow a more complete assessment of the potential positive and negative socio-economic implications of the proposed park

e) Regional Integration

"16. Strict application of regional preference policies outlined above will enhance economic benefits to various sectors of the study area and NWT economies. In addition however, it is recommended that strong communications links be established with each of the industry associations (ie. Travel Industry Association of the NWT, Construction Association, Chamber of Commerce, etc.) representing these sectors to ensure that the willingness and ability to respond to proposed park requirements is in place.

17. It is recommended that Environment Canada Parks accord specific attention to the marketing strategies currently being developed within the Travel Industry Association of the NWT as well as within the Northern Frontier Visitors' Association, the Big River Travel Association and the G.N.W.T.'s Dept. of Economic Development and Tourism. In this regard, it is further recommended that Environment Canada Parks establish ongoing communications with these agencies.

## 1. INTRODUCTION

A variety of processes(1) are currently underway to assist the Luts'elk'e Dene of Snowdrift, the Dene/Metis Negotiating Secretariat of the western N.W.T. and Environment Canada Parks, to determine if, when and how the proposed East Arm of Great Slave Lake National Park will be created. This economic study will contribute to these processes, providing additional information from which to make these decisions. The objectives of this study are: 1) to evaluate the economic implications associated with the establishment, development and operation of the proposed East Arm of Great Slave Lake National Park; 2) to identify possible social considerations resulting from the economic impacts of establishing this park; and 3) to make recommendations related to the identified impacts. The geographic area identified for this economic study includes the lands set aside for this proposed national park area as well as six communities located on the shores of Great Slave Lake: Snowdrift Reliance, Fort Resolution, Detah, Yellowknife and Hay River.

In April 1986 Parks commissioned Lutra Associates Ltd. to undertake this economic study. To fulfill the above objectives, Lutra was directed to draw from existing secondary data sources and to maintain close liaison with Parks' personnel. In addition and as appropriate, Lutra was directed to integrate the findings of the "Dene Consultation Study", as this information became available. The inability to include primary source data in this study has been a limiting factor as secondary data are not complete for the study area. Alterations in the timeframe and expected outputs from the "Dene Consultation Study" have also not allowed for total integration of these findings into this study. As such, it is recognized that there may be perspectives or pertinent data which have not been considered in this economic study.

### 1.1 The Decision Making Environment

The East Arm of Great Slave Lake National Park proposal was first discussed in the late 1960's. The timing for this national park proposal coincided with some of the most important political events in the history of the N.W.T. In particular, the park proposal was being introduced concurrent with the establishment of the Indian Brotherhood of the N.W.T. in 1970 (now known as the Dene Nation); with the development of the new Government of the Northwest Territories (established in the N.W.T. in 1967); with the incorporation of the Metis Association of the N.W.T. in 1972; and with the evolution of community-based administrative and political structures (ie. municipal councils).

(1) "The Dene Consultation Study" is providing information and assistance in decision making among study area Dene/Metis; Parks is continuing a public information program; and the land claims negotiations between the Dene/Metis and the Federal Government are continuing.

This park proposal also coincided with the Supreme Court. of the N.W.T.'s recognition of the Indian Brotherhood's caveat. (a declaration of prior interest in land) in 1973, to 450 000 square miles of land in the N.W.T. This ruling resulted in' an agreement from the Federal Government to negotiate aboriginal rights with the Dene/Metis of the Mackenzie Valley, a task which is now the responsibility of the Dene/Metis Negotiating Secretariat.

It is also important to recognize that the East Arm of Great Slave Lake National Park proposal was first considered before the 1974 National Parks Act amendment that recognizes the right of aboriginal people to continue traditional hunting, trapping and fishing activities in new national parks.

In 1970 in anticipation of establishing a national park, lands on the east arm of Great Slave Lake were withdrawn from disposition by an Order-in-Council under the Territorial Lands Act. Local Dene did not agree to the establishment of the proposed park. Their concerns were rooted in the political milieu of the early '70's and, in basic land and resources use/management issues.

The Luts'elk'e Dene were concerned that the establishment of a national park on their lands might erode their aboriginal right to use and control these lands or to harvest and manage natural resources on them. Experiences of neighboring Dene with respect to the Wood Buffalo National Park exacerbated this concern. From the perspective of the Dene/Metis of the Mackenzie Valley, there was a perceived conflict with the goals of the Dene/Metis land claims process. That is, a decision on the proposed park, at a time when the principles and specifics of a land claim had yet to be developed, had the potential of jeopardizing recognition of the collective ownership rights of the Dene/Metis to land and resources in the Mackenzie Valley.

The Federal Government requires fee simple title to lands designated for national park status. The land designated for parks must be transferred to the Federal Government without any encumbrance. Parks' policies state that the resources of park lands will be owned by the Federal Government and although there is allowance for the creation of joint management regimes for the planning and management of national parks, ultimate responsibility for policies and plans rests with the Minister responsible. Parks' requirements set the stage for possible conflict with the aboriginal people of the north who are seeking much of the same recognized authority in a Dene/Metis land settlement. This is the basis of the conflict which underlies the East Arm of Great Slave Lake National Park establishment issue.

Recognizing the implications of a decision on the park's establishment, the Luts'elk'e Dene and the Indian Brotherhood of the N.W.T. (Dene Nation) opted to defer a decision on the park's establishment until basic land and resource ownership and management matters could be resolved. As a result of Dene/Metis concerns, a Federal Government ministerial commitment was made in 1971 to impose a five year moratorium on the park proposal. This action was designed to allow both the Indian Brotherhood of the N.W.T. and the people of Snowdrift time to assess the potential impacts of the park's establishment.

The initial five year moratorium on pursuing the park proposal officially expired in 1976. The moratorium was however, maintained in practice to enable assessment of the proposal by the Dene/Metis. The proposal was not re-examined however until 1984 and was done so in the context of well-advanced land claims discussions. In the meantime, the lands in question remained withdrawn and will remain as such until a decision on the park's establishment is made.

The decision to establish the park can follow four possible courses :

1. If there is no support, the park will not be established and the lands set aside since 1970 will be released for disposition for other uses.
2. If there is support for the park's establishment, establishment will be pursued through the Dene/Metis land claims process.
3. If there is support and the Dene/Metis agree, a national park reserve may be established before a land claims settlement and final boundaries agreed to in the final settlement.
4. If there is public and Dene/Metis support and agreement, the park could be established following a final land claims settlement.

The Luts'elk'e Dene and the Dene/Metis of the Mackenzie Valley remain key players in directing which course of action is pursued. The Minister of the Environment has stated clearly that a park will not be established without the support of the Snowdrift Dene Band. (1)

In the last few years considerable progress has been made on the Dene/Metis land claim, bringing the Dene/Metis closer than ever

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(1) In accordance with a meeting with Dene/Metis leaders in Ottawa on May 16, 1986 and per a letter to Chief Felix Lockhart of the Snowdrift Dene Band. (Information provided by the National Parks Directorate).

before to a final land settlement. As has been demonstrated by the establishment of the North Yukon National Park(1) and ongoing discussions between Parks and the Dene/Metis, Parks wishes to establish new northern national parks within the context of native land claim negotiations processes. At this time, it is expected that precedents set in the Inuvialuit Final Agreement respecting the establishment and management of [he Northern Yukon National Park will significantly affect the decision on the East Arm of Great Slave Lake National Park. It is also expected that ongoing study and consultation with the general public, the Dene/Metis and particularly the Luts'elk'e Dene will ensure that the best decision is made.

## 1.2 Study Organization

The economic study of the proposed East Arm of Great Slave Lake National Park is made up of 11 components or sections. Sections 2 to 7 provide detailed information on the study area from an economic and demographic perspective. As well, a detailed analysis of the tourism industry in the study area is provided to include forecasts for this industry over the next 10 years. These sections provide baseline data from which the economic impact of the proposed park can be assessed.

Sections 8 to 10 detail the potential impact of the proposed national park in terms of visitor impacts and impacts resulting from anticipated Environment Canada Parks' expenditures. The final section offers recommendations for future strategies which may increase economic benefits from the proposed park to the study area.

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(1) The Northern Yukon National Park was established through the Inuvialuit Final Agreement. The Committee for Original Peoples' Entitlements (C.O.P.E.) opted for the creation of this park as this route offered a mechanism by which land which were not available for selection by the Inuvialuit, could be protected.

## 2. THE REGION IN PERSPECTIVE

This economic study concentrates on the geographic area shown as the study area in the inset on Figure 1. Delineated by Parks, this area consists of those areas of land and communities in the N.W.T. that are expected to be most affected by or concerned with the presence of visitors to, the proposed East Arm of Great Slave Lake National Park. It includes the proposed lands set aside for this national park as well as six communities located on the shores of Great Slave Lake: Snowdrift, Reliance, Fort Resolution, Detah, Yellowknife and Hay River. These six study area communities are situated within the Government of the Northwest Territories' (G.N.W.T.) Fort Smith administrative region (Fort Smith Region).

### 2.1 A Regional Overview

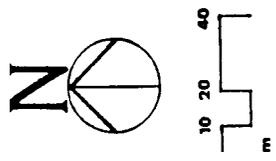
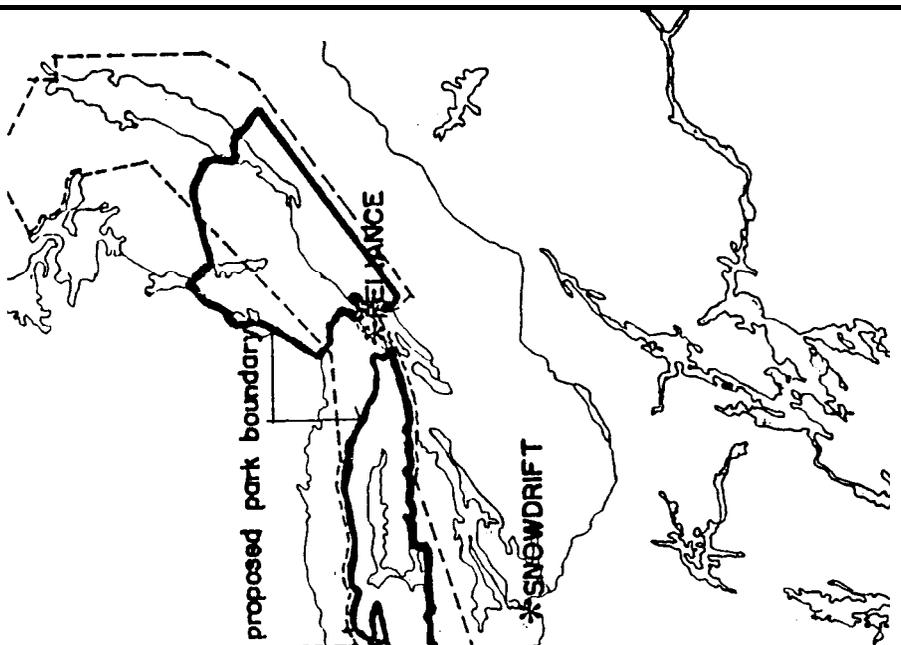
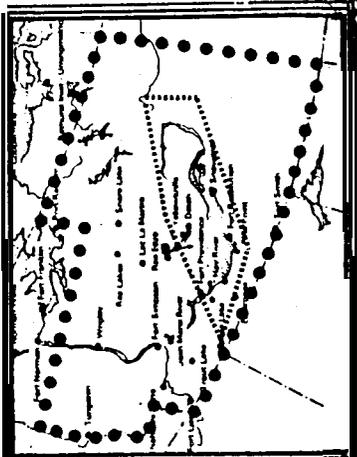
The historical settlement of study area communities varies, but generally can be seen to occur in phases. The fur trade generated initial settlement around or near trading posts in the late 1700's to mid-1800's. The discovery of gold deposits first on the north shore and lead-zinc later on the south shore of Great Slave Lake, gave way to further settlement and attendant commerce associate with mining communities. At still a later date (1967), the study area was impacted by the development of the Government of the Northwest Territories.

In keeping with traditional values, the smaller Dene communities in the study area, namely Snowdrift, Reliance, Fort Resolution and Detah, have maintained, as an important part of community life, land-based renewable resource harvesting activities of hunting, fishing and trapping, seasonal tourism and logging. In recent years (post-Berger Inquiry, 1975), a collective philosophy and a desire for community autonomy have resulted in the growth of community-based economic development corporations and community councils which conduct business, economic and political activities on behalf of community residents. It is noteworthy that native owned economic development corporations serving Territorial interests are located in the study area (Metis Development Corporation (MDC) and Denendeh Development Corporation (DDC)). Their presence is felt in at least one of the study communities as the MDC holds shares in the Slave River Sawmill in Fort Resolution.

The larger urban centres of Hay River and Yellowknife feature well-established non-native communities, strong municipal governments, a full complement of social and recreational infrastructure and a wide range of private sector economic

# STUDY AREA

- See Inset  Fort Smith Region
-  Study Area
-  Proposed Park Boundary
-  Withdrawn Lands (1970)



## Economic Study of the Proposed East Arm of Great Slave Lake National Park

Lultra Associates Ltd.

figure 1

activities. A 1984(1) inventory of businesses in Hay River enumerated some 200 businesses of which almost half were secondary support service enterprises. A similar case exists in Yellowknife where one half of the city's 475 businesses provide secondary support services to government, industry and the individual.

There is a well-developed physical and business infrastructure in the larger study area communities. This infrastructure meets the needs of local residents and organizations as well as those of surrounding communities. Business and resource development groups have established associations to promote their specific interests within the context of the northern economy. For example, the Chamber of Mines, The Bar Association of the N.W.T., The Northwest Territories Chamber of Commerce, and the Travel Industry Association of the Northwest Territories are located in Yellowknife, and the N.W.T. Fishermen's Federation is in Hay River.

The evolution of community and regional governments has for the most part occurred over the past decade, evolving from the centralized Government of the Northwest Territories which was itself, first established in the N.W.T. in 1967. Today the headquarters of the Government of the Northwest Territories, the Dene Nation, the Metis Association of the Northwest Territories, the Dene/Metis Negotiating Secretariat, the regional headquarters of Federal Government Departments and the South Slave Regional Council are located in study area communities. Yellowknife, as the capital of the N.W.T., is home of the Legislative Assembly of the N.W.T.

The economy of the study area is mixed. It is an economy which significantly impacts the economy of the total N.W.T. Commodity exports from study area communities include fish, lumber, base and precious metals, furs, and arts and crafts, while imports include food, fuel, lumber, vehicles, heavy machinery and general merchandise.

## 2.2 The Communities

This economic study considers six communities which are more likely to be affected by the proposed East Arm of Great Slave Lake National Park. The smaller communities in the study area are: Snowdrift, Reliance, Fort Resolution and Detah. The larger urban centres in the study area are: Yellowknife and Hay River.

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(1) "Fort Smith Region Economic Base Study", 1985 Lutra Associates Ltd./H.J. Ruitenbeek Resource Consulting Ltd.

## 2.2.1 Small Study Area Communities

### a) Snowdrift (Lut s'elk'e)

Located approximately 20 km southeast of the proposed park boundary at Redcliffe island, Snowdrift is likely to be the community most directly impacted by the proposed park. It is the most northerly of the Chipewyan settlements and has been a centre of trading activity since 1925 when the Hudson's Bay established a post at the site.

Today, the community has settlement status and is administered by a coalition of the Band Council (Federal Government structure) and the Settlement Council (Government of the N.W.T. structure). The community has representation at the Northwest Territories Legislative Assembly, in the Dene National Assembly and more recently, at the South Slave Regional Council.

With a population of 274 (1986), Snowdrift has very little business and service infrastructure. A confectionary store, a Co-Op retail facility, a craft shop, a motel (currently not licenced) and a nearby fishing lodge make up the community's business services. The community receives mail twice weekly; direct dial long distance telephone service via Anik; and CBC radio and T.V service. A local school with five teachers provide education services from kindergarten to grade nine. Adult education courses are also available from time to time. Two nurses provide local health and medical services while all other medical needs are addressed through Yellowknife. The community has an alcohol and drug program and one church. The community is policed by a R.C.M.P. corporal and a constable.

The community is not accessible by road. It has twice weekly scheduled air service from Yellowknife. The community has a 683 m gravel airstrip. Snowdrift is resupplied annually during open water season by barge service from Hay River.

Hunting, trapping and fishing remain the most important economic activities of the Luts'elk'e Dene. Seasonal construction, fire suppression and guiding activities at the nearby fishing lodge account for much of the wage employment. Government transfer payments also play a significant role in the local economy. Lands hunted, trapped and fished by local hunters and trappers extend north and east to the barrenlands, to the north shores of McLeod Bay and the Hearne Channel on Great Slave Lake, and south and west toward the Taltson River and Fort Resolution.

### b) Reliance

Reliance is located adjacent to the proposed national park

boundaries. Reliance is generally regarded as an outpost camp, an Atmospheric Environment Service (A.E.S.) station and a staging point to the barrenlands.

In 1833, the Hudson's Bay Company established a trading post at the site but the location never developed beyond that point. Today, there are approximately 15 persons residing here of which only the A.E.S. staff may be present in the community year-round. The remaining residents are either involved in seasonal activities at the nearby fishing lodge or in hunting and trapping activities. Permanent establishments in the community include the A.E.S. station, the Trophy Lodge and trappers' residences. The A.E.S. station is located on Crown land; Trophy Lodge is located on leased land and one lot is privately owned having been purchased prior to the 1970 Land withdrawal. Local resource harvesters hunt, trap and fish in areas within the proposed park, adjacent to it., and in areas near Whitefish Lake and the Thelon River.

Reliance has mobile and VHF radio communications while all other services are provided through Snowdrift or Yellowknife. Reliance does not have status as a municipality (ie. is known as an unorganized settlement). As such, it has no administrative or municipal services of its own. The Snowdrift Band and Settlement Councils provide representation to residents of the Reliance area. Reliance is some 275 air km east of Yellowknife and is accessible year-round by air (float or ski) and by water in summer.

#### c) Fort Resolution (Deninoo)

A sister Chipewyan community, Fort Resolution maintains close land use, economic and political ties with Snowdrift. Fort Resolution is located on the south shore of Great Slave Lake, 166 km by road east of Hay River and 153 km by air southeast of Yellowknife. In relation to the proposed East Arm of Great Slave Lake National Park, the community is approximately 200 km to the southwest of the proposed park boundary.

One of the oldest settlements in the Mackenzie Valley, Fort Resolution has a history as a major transportation, trading, medical and educational centre. The historic importance of this community to the development of the N.W.T. was linked to its strategic location in the Slave River delta. In the 1550's, Fort Resolution began to decline as a major trade and service centre. Mining activity at nearby Pine Point. began to replace the fur trade in economic importance and transportation by water was replaced by road, air and rail transport.

Today, Fort Resolution maintains a 1265 m gravel airstrip and is

served by scheduled air service. The community is also accessible by all weather road from Hay River. Fort Resolution has modern day communication systems. Three R.C.M.P. officers, two nurses, and educational services from kindergarten to grade nine are available in the community. Local business infrastructure includes a sawmill operation, logging and construction businesses, a cafe and retail services. Hunting, trapping, fishing and services to government complete local commerce activities. A five year community economic development plan is currently being implemented, focusing on the construction, tourism, manufacturing and traditional/renewable resource sectors of the economy. Fort Resolution is administered by a joint Community/Band Council and is currently the home of the South Slave Regional Council. Fort Resolution and Snowdrift share common representation on the N.W.T. Legislative Assembly.

Land use by local people for hunting and trapping, logging and commercial fishing extends from the Taltson River and Simpson Islands in the east, and south on the Slave and Little Buffalo Rivers towards Fort Smith.

d) Detah (T' E?ehda)  
(includes Rainbow Valley)

The Yellowknife "B" Band is divided into two communities: Lot 500 adjacent to Yellowknife in "Rainbow Valley" and Detah some 27 km from Yellowknife. The lands hunted and trapped by local residents extend east to the Hearne Channel on Great Slave Lake, and north to the barrenlands and west to the Yellowknife River system.

An all-weather road and a winter ice-road connect Detah to Yellowknife while residents of Rainbow Valley are within Yellowknife city boundaries. Both communities access all goods and services from Yellowknife. Detah being located on Crown/Dene lands, all municipal and administrative services are provided through the Federal Government via a Band Council and administrative structure. Primary education services are also available in Detah. There are no business services available in either Detah or Rainbow Valley.

Detah is situated within an area traditionally hunted and trapped by the Dogrib. A series of altercations with the now extinct Yellowknife Chipewyan tribe saw the hunting areas shift between tribes. In more recent times and prior to the establishment of Yellowknife as a gold-mining centre, Detah was a seasonal fish camp. With the development of Yellowknife, the Dogrib located in camps along the east shore of the north arm of Great Slave Lake, gradually moved to Detah. Other members of the band chose to remain within the developing community of Yellowknife only to find themselves forced to relocate in the 1950's to Rainbow Valley to make room for the influx of residents to the rapidly developing gold-mining centre.

The economy of both Detah and Rainbow Valley is a mixture of traditional hunting and trapping activities and short-term, sporadic wage employment. An emerging interest in community and economic development is beginning in Detah and Rainbow Valley. It is anticipated that residents will in the future, take greater advantage of the economic opportunities associated with their proximity to Yellowknife.

## 2.2.2 The Urban Centres

### a) Yellowknife (Somba 'Ke)

Accessible by air from Edmonton and Winnipeg and by road from Alberta and British Columbia, Yellowknife is approximately 140 air km west of the proposed park boundary.

Yellowknife is the largest population centre and the only city in the N.W.T. It is also the capital of the N.W.T. As early as 1789, a trading post was established at the mouth of Yellowknife Bay near the present city site. The site of the present day community was formerly the traditional hunting area of both the Yellowknife Chipewyan and the Dogrib.

The recent history of Yellowknife describes a community originating from mining exploration in the late 19th and early 20th centuries. Mining development began in 1936 and by 1938 gold was being produced. Six gold mines were operating within and near the community until 1942 but gold production ceased entirely in 1944 due to WW II. Gold production resumed at Yellowknife gold mines in 1947. Today, there are two active gold mines (The 'Con' Mine and Giant Yellowknife) within the city limits.

In the summer of 1953, Yellowknife became a municipal district and its first mayor was elected. The Government of the N.W.T. began its move to Yellowknife in 1967. In 1970, Yellowknife was declared the first city in the N.W.T. Today the city continues to grow as a major mining, transportation/communications and administrative centre. Yellowknife is home to the Legislative Assembly of the N.W.T., the Dene Nation, the Metis Association of the N.W.T. and a variety of other territorial agencies.

Yellowknife has a full complement of business and service infrastructure: A modern airport with asphalt run-way and control tower provide excellent air transportation services. Communication services are competitive with any southern Canadian city and educational services and training facilities range from pre-school to adult education. Post secondary and 'on-campus' training are now largely provided in Fort Smith or southern Canada. Medical services are provided through the Stanton

Yellowknife Hospital which is currently expanding its facilities to some 135 beds. Specialist and surgical services are also available. This facility is scheduled to open in the summer of 1988. A new 30 bed senior's facility is also being completed to be open in 1987.

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Yellowknife's main economic activities are mining, government services and secondary service industries. Yellowknife has a well-developed physical infrastructure with air transportation linkages to Edmonton, to each of the surrounding communities and to each regional centre in the N.W.T. It is the radio and telephone center for the Upper Mackenzie District and has a television production center which transmits to communities throughout the N.W.T. (via Anik satellite). Yellowknife has a comprehensive range of business, financial and government support services as well as a full complement of social, recreation, tourism and retail infrastructure.

With the exception of short periods each spring and fall, Yellowknife is accessible year-round from southern Canada by road. (The Mackenzie Highway crosses the Mackenzie River near Fort Providence. Road access is interrupted by the freeze-up and break-up of the river.) The city is situated 960 air km and 1525 road km north of Edmonton.

#### b) Hay River (Xahtko'dene)

Hay River is located on the south shore of Great Slave Lake in the Hay River delta. The community is 200 air km southwest of Yellowknife and is accessible by road, rail, air, and water. Hay River lies approximately 280 km to the southwest of the proposed park boundary.

Hay River began to develop circa 1850-70. The Hudson's Bay, Roman Catholic Church, Anglican Church and R.C.M.P. established posts at the present site between 1869 and 1925. An airstrip on Vale Island, the completion of the Mackenzie Highway from Hay River to Grimshaw, development of Great Slave Lake commercial fisheries infrastructure, completion of the CNR Great Slave Lake Railway and the construction boom associated with oil exploration and the anticipated Mackenzie Valley pipeline, were major contributors to Hay River becoming a major transportation/communications centre in the north.

Hay River currently has town status and enjoys a well developed physical infrastructure. Hay River has modern communications and air transport facilities, educational services from kindergarten to adult education, a fully staffed 50 bed hospital, some 18 R.C.M.P. staff, and a wide range of retail, tourism and recreational services.

Across the Hay River lies the Hay River Reserve. This Slavey Dene village is the only Indian Reserve in the N. W. T. The Dene of the area participate in hunting, trapping, crafts and domestic fishing activities. The Band is also engaged seasonally in the transportation]] sector of the Hay River economy. Small scale economic activities are undertaken on the reserve by a Band Council operated economic development corporation. The Hay River Reserve is accessible by road.

### 2.3 Tourism Overview

The study area has a well developed and established tourism infrastructure. A variety of visitor services and facilities as well as park and conservation areas have been developed in study area communities to serve the demands of the resident and non-resident travel markets. The current bed capacity of the study area is estimated at more than 1150 among 16 hotels, motels and bed/breakfast facilities. The estimated seating capacity of study area restaurants is 2456.

The travel industry has been established in the study area since the 1960's. Today there are four lodges operating in the east arm of Great Slave Lake area. A range of community tourism services are also available in the study area including outfitting services, community tours, community campgrounds and picnic areas, and a host of transportation services from charter and scheduled aircraft to buses. All communities in the study area with the exception of Snowdrift, are accessible by road.

The tourism industry in the study area continues to develop. Popular visitor activities include hiking, canoeing, sport fishing and sightseeing. Visitation to the study area is difficult to discern although there are indications that in recent years, it is declining. Visitation from Canadian residents is however increasing or remaining steady. (1) The tourism industry in the study area is discussed in detail in section 5 of this study.

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(1) Gov't of the N.W.T., "Visitors to the Northwest Territories, 1982, 1984", Dept. of Economic Development and Tourism  
Canadian Facts, "N.W.T. Summer Travel", 1983, Dept. of Economic Development and Tourism

### 3. REGIONAL DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

The study area is economically one of the most diverse regions in the Northwest Territories. Operating mines, substantial agricultural potential, commercial use of area forest resources, a well-established travel industry and an active hunting and trapping economy, are examples of this diversity. The economy of the area is enhanced by its broad population base; its accessibility year-round via the Liard and Mackenzie Highways; and its fine complement of support services and infrastructure.

#### 3.1 Regional Demographic Characteristics and Trends

Table 1 displays population trends in the study area from 1971 to 1995. As illustrated, the 1986 population of the study area is 15,547. Growth rates to 1995 are calculated at 1.5% per annum. Population projections provided to 1995 have been developed from 1981 Census data which are adjusted semi-annually. The projection model utilized is based on adjustments to fertility and mortality rates only. Net migration as a factor of community or regional economic activity, is not included. In view of the regional economy described below, these projections are deemed reasonably accurate.

##### 3.1.1 Population Growth Trends

The study area experienced rapid growth between the Canadian Census years of 1971 and 1976. Population growth then stabilized between 1976 and 1981. Between 1971 and 1976, Yellowknife and Hay River experienced a population increase of over 30% while Fort Resolution saw a sharp decline in population during the same period. During the period 1976 to 1981, population growth in the study area was marginal (2%), due largely to smaller increases in the Yellowknife population (7.3%) and a decline of population in Hay River (-14.6%) and of Fort Resolution (-5.2%). Almost 94% of the study area population is located in Yellowknife and Hay River.

##### 3.1.2 Age and Sex Distribution

Table 2A suggests a youthful population in each of the study area communities. In the smaller communities, the heaviest population concentrations are under 25 years of age. In Detah and Snowdrift, 64% of the population is under 25 years while in Fort Resolution 50% of the population falls into this category. In the urban centres of Yellowknife and Hay River, 48% and 50% of the population respectively, are under 25 years of age. The population over 65 years makes up approximately 3% of the population of the study area, ranging from 2-4% in the urban centres to 5-10% in the smaller communities.

TABLE I  
POPULATION PROFILE 1971, 1976, 1981, 1982-95

LOCATION	1971	1976	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Detah	-	-	140	44	46	50	52	56	159	163	67	172	74	75	170	81	85
Fort Resolution	623	501	475	473	488	498	505	519	531	542	553	565	577	587	598	609	628
Hay River/Paradise Gardens	2537	3388	2895	3105	3164	3256	3330	3403	3470	354	3611	3677	3751	3788	3835	3871	3910
Reliance	-	-	5	5	5	5	5	5	5	5	14	4	5	5	5	5	5
Snowdrift	221	224	250	249	258	264	270	274	281	287	292	300	307	312	320	325	333
Yellowknife/Rainbow Valley	6156	8774	9415	10394	10504	10751	10981	11180	11373	11593	11781	11945	12120	12285	12444	12589	12752
STUDY AREA	9547	12887	13190	14380	14595	14934	15253	15547	5846	64	649	6574	924	7174	39	7591	7815
FOR SMITH REGION	16889	21561	21950	23428	23781	24313	24735	26229	25671	26145	26586	27044	27494	27910	28354	28745	29158
NHT	34807	42609	45741	48851	49138	50374	51465	52515	53705	54841	55957	57099	58218	59308	60422	61468	62558

SOURCES: Bureau of Statistics, G.N.M.T. 1971 Census, 1976 Census, 1981 Census, 1982-88 Projections, 1991 Census, 1993-95 Projections

NOTE: The regional growth rate is calculated at some 5%

TABLE 25  
AGE AND SEX DISTRIBUTION 1981, 1985, 1995

LOCATION	0-4		5-9		10-15		15-19		20-25		25-29		30-34		35-39		40-45		45-49		50-54		55-59		60-64		65+		TOTAL		
	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	
Estah	'81	5	5	10	10	10	10	10	10	10	5	-	5	5	-	5	5	5	5	5	5	-	5	-	5	-	5	15	70	70	
	'86	9	8	17	11	5	20	21	10	13	4	6	1	4	6	1	4	5	-	-	1	1	-	1	4	8	9	81	75		
	'95	10	10	10	10	8	7	5	11	5	10	10	9	11	3	6	2	3	6	2	3	5	2	4	5	-	10	10	95	89	
Font	'81	15	25	15	20	25	30	40	25	20	25	20	25	10	15	10	5	5	10	15	20	5	15	10	10	5	20	15	255	215	
Resolution	'86	31	30	15	19	21	23	32	41	28	28	28	25	21	15	13	16	6	5	10	10	8	14	2	14	9	22	22	278	241	
	'95	35	35	34	32	27	28	15	19	19	24	29	31	37	28	20	23	20	16	10	13	8	6	10	11	6	35	23	329	292	
Hay River	'81	140	150	135	135	110	140	150	165	160	170	190	145	120	85	90	90	55	65	75	55	50	50	35	40	30	65	40	1470	1430	
Reserve	'86	193	192	141	163	138	149	23	50	157	164	176	173	175	144	142	122	94	90	66	64	69	63	46	54	31	87	57	1620	1653	
	'95	186	182	91	88	173	178	139	155	130	142	126	147	152	158	167	173	166	165	125	117	94	87	83	64	64	147	97	1643	1519	
Reliance	'81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	5	-	-	-	-	-	-	-	10	5	
	'86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	5	
	'95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	5	
Snowdrift	'81	20	20	15	15	20	15	20	15	5	15	10	5	15	5	-	5	10	5	5	5	5	5	5	-	5	5	5	140	115	
	'86	17	17	16	18	11	13	20	15	17	15	6	16	15	6	9	2	2	5	9	5	5	2	4	5	5	5	9	5	143	131
	'95	20	19	18	15	18	18	13	17	14	13	20	15	14	16	8	13	14	6	7	2	4	5	8	3	5	12	10	174	159	
Yellowknife	'81	475	540	440	370	410	390	445	440	585	555	650	645	560	510	390	355	265	225	235	180	285	140	130	110	65	45	85	60	4940	4475
Rainbow	'86	595	597	505	471	405	405	446	440	508	505	644	613	683	672	571	521	399	366	287	237	249	198	201	147	129	108	142	92	5828	5352
Valley	'95	524	418	583	581	562	545	485	438	448	398	441	433	525	512	645	621	650	630	525	479	368	327	274	233	236	174	346	257	6612	6140

Study Area

1981

1986

1995

SOURCES: Bureau of Statistics, G.N.M.T. 1981 Census

NOTES: M = male F = female Nat. = native Oth = other or non-native

Statistics Canada figures are randomly rounded therefore there is a certain error factor.  
Projections do not include growth due to migration.

6900 6310

8023 7467

9163 8684

in consideration of fairly constant birth rates in 1982 at 27.1, in 1983 of 29.6 and in 1984 of 28.6 per 1000 population (1), it is expected that the youthful trend in the study area's population will continue. Trends in long-term residency of non-natives in the north, improved medical services and other services to the aged, suggest that the number of persons of a non-working age may increase. It is suggested that the 65+ age group may reach 5% of the study area population within the next 10 years.

### 3.1.3 Ethnicity

As illustrated in Table 2B, 29% of the study area population is of native ancestry. This overall figure is misleading however since native populations dominate the smaller communities while in the urban centres of Yellowknife and Hay River populations are predominantly non-native. 15% of the Yellowknife population and 30% of Hay River's population is of native ancestry. In the communities of Snowdrift, Resolution and Detah, the native population accounts for 93%, 78% and 100% respectively, of the total community population.

TABLE 2B  
ETHNIC DISTRIBUTION, 1981,  
1985, 1995

COMMUNITY		TOTAL		*TOTAL	
		m	f	NATIVE	OTHER
Detail	'81	70	70	140	-
	'86	81	75	156	-
	'95	96	89	185	-
Fort Resolution	'81	265	215	370	105
	'86	278	241	413	112
	'75	328	292	474	126
Hay River and Reserve	'81	1475	1430	840	2060
	'86	1692	1663	1009	2346
	'95	1943	1919	1226	2636
Reliance	'81	10	5	10	5
	'8A	10	5		
	'95	10	5		
Snowdrift	'81	140	115	230	20
	'13b	143	131	253	21
	'95	174	159	313	20
Yellowknife/Rainbow Valley	'81	4940	4475	1320	8095
	'86	5828	5352	1651	9529
	'95	6612	6140	2040	10712
Study Area	'al	6900	6310	2910	10285
	'85	8023	7467	3486	12013
	'95	9163	8604	4268	13499

SOURCE: Bureau of Statistics, GNWT, 1981 Census

(1) Health and Welfare Canada "Report on Health Conditions in the Northwest Territories", 1984

### 3.1.4 Family and Household Structure

The family and household structure in the study area is displayed in Table 3. The average family size and average number of persons per private household in the study area is consistent with regional and territorial averages. No change in the structure of study area households is expected in the next 10 years.

TABLE 3  
STATISTICS CANADA, FAMILY SIZE/  
COMPOSITION & AVG. HOUSEHOLD SIZE, 1981

LOCATION	TOTAL NO. OF FAMILIES	HUSBAND & WIFE	LONE PARENT	AVERAGE FAMILY SIZE	TOTAL PRIVATE HOUSEHOLDS	AVG. NO. OF PERSONS/PRIVATE HOUSEHOLDS
Detah	25	15	5	4.92	30	5.34
Fort Resolution	95	85	15	3.99	125	3.87
Hay River/ Reserve	685	600	85	3.42	890	3.06
Snowdrift	50	35	10	4.57	45	5.39
Yellowknife/ Rainbow Valley	2305	2055	245	3.33	3185	2.88
Reliance	5			4	5	2.79
Study Area	3165	2790	360	4	4280	3.8
Fort Smith Region	5005	4415	590	3.63	6420	3.33
NWT	9480	8215	1265	4.02	11520	3.8

SOURCES: Bureau of Statistics, GNWT, 1981

NOTE: All numbers independently rounded. Totals may not sum.

### 3.1.5 Mobility

study area populations are quite stable. In the smaller communities, much of the population are "non-movers". This phenomena is related to strong cultural and family ties which exist among residents of small communities. "Movers" travel or relocate within the study area (ie. to the larger urban centres) on a temporary basis for economic or educational reasons. Movement out of the study area is largely for economic reasons which was the case over the period 1982-85 during the Norman Wells pipeline construction project. Seasonal movement relating to traditional activities or seasonal wage employment opportunities (ie. fire suppression) are not considered in mobility patterns as the community remains "the home base".

In the urban study communities, greater mobility is estimated due to transience among civil servants, mining and transportation sector employees. It is suggested that there is less mobility among study area urban populations in recent years due to the lack of economic opportunity in other parts of the country. The southern Canadian economy is considered a major factor in the movements of northern non-native, urban populations-

### 3.1.6 Education

Table 4 describes formal education levels in the study area for the 1981 Census year and as of December 1984. Formal educational levels are quite low in the smaller study area communities. In Snowdrift and Fort Resolution, 55% and 61% respectively, of the population over 15 years has less than grade 9 education, compared to some 10% of the Yellowknife population of that age group and 19% of the same segment of the Hay River population. Low education levels in the smaller study area communities typify the educational status in most smaller Territorial communities. Low educational levels can for the most part be attributed to the lack of access to grade 10+ education and employment opportunities at the community level.

A paucity of detailed data on the human resources of the study area preclude analysis of the relationship of education to employment. For many study area residents there is a general disillusionment with northern educational systems, in that people who attain grade 12 do not necessarily get jobs. That is, there are high unemployment levels among those who have formal educational experience. This 'track record' causes dilemma for parents who are reluctant to encourage formal education of their children, parents who believe that land skills may be more important to the future well being of their children. As such, there is no change anticipated in the educational levels in the study area until such time when educational and training opportunities are more accessible and relevant to study area communities.

TABLE 4  
EDUCATION LEVELS, 15+ YEARS

Location	1991 Population 15+ yrs.		1984 Population 15-64 Yrs. Total	HIGHEST LE		
	Native	Other		< Gr. 9	Gr. 9-12 < certif.	Gr. 9-12 ) certif.
Detah	110	-	93	90/65	10/13	-/4
Fort Resolution	255	80	378	205/143	80/91	10/40
Hay River/Hay River Reserve	535	1550	2143	390/142	645/647	185/791
Reliance	5	5		-	-	-
Snowdrift	150	15	156	90/67	35/56	-/5
Yellowknife	805	6095	7645	680/160	1715/1442	765/467
Fort Smith* Region	4900	10660	16180	3675/	3840/	1305/
N.W. T.*	15380	14285	31163	10635	6620	1920

20

SOURCE: Statistics Canada, 1981 Census  
1984 Labour Force Survey, Gov't of the N.W. T.

NOTE: 1981 Census data are based on a 20% sample. Data are weighted to provide estimates for the entire population.

1984 Labour Force data are prepared from a representative sample of community interviews.

\*Native includes all Dene, Metis, Inuit and Inuvialuit.

Other refers to non-native.

\*Totals not available for 1984 data.

## 3.2 Regional Economy

The following is a sectoral overview of the economic activities occurring in the study area.

### 3.2.1 Hunting, Fishing and Trapping

Hunting, fishing and trapping in the smaller study area communities are pursuits which can occupy, on a seasonal basis, 90% of the Snowdrift labour force and 52% of the Fort Resolution labour force. In Reliance about 50% of the population is engaged in these pursuits. Although Detah participation in the traditional economy is aggregated with YeI'LowKnife, local informants suggest that approximately 75% of the Detah adult population participates in land-based activities. Due to the availability of alternate economic opportunities and a higher ratio of non-native to native residents, less than an estimated 1% of the urban community populations participate in these activities.

A 1984 G.N.W.T. labour force survey (1) indicates that 28% of the native population in the Fort Smith Region participate in hunting, trapping or fishing activities compared to 2% of the region's non-native population. Older persons tend to spend more time on the land. Younger native persons do participate however in on-the-land activities at a high rate (43% overall for those 15-24 year olds not in school full-time). This survey also reports that most on-the-land activity is for about 3 months a year. The survey notes that for the Dene, overall participation in on-the-land activity is most prevalent in the autumn, between October and December. Data presented for the Fort Smith Region is assumed to be accurate for the study area.

The best information available on renewable resource harvesting relates to trapping activity. Appendix A shows that fur income has declined in recent years. It is estimated that today the industry contributes less than 1% (approx. \$200,000. in 1984) to the study area economy. In the smaller predominantly Dene/Metis communities (Snowdrift/ Reliance, Fort Resolution and Detah) trapping contributes 3-7% of the total personal income of these communities.

It is difficult to accurately quantify the value of domestic hunting and fishing activities in the study area as harvest data are not well maintained. Information presented in Appendix A suggests that hunting and fishing combined with trapping can contribute up to 7-9% of the total personal income of smaller study area communities.

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(1)Gov't of the N.W.T., "N.W.T. Labour Force Survey, Draft Report", 1985

Although the financial return from hunting, trapping and fishing is not great, participation continues to be high. This confirms that participation is not solely economically motivated. Participation in traditional pursuits is also an expression of a culture and a life-style. It is suggested that the current level of participation in hunting, trapping and fishing will remain stable, fluctuating slightly with market values of fur and retail food prices (ie. extent of wild game and fish substitution), the anti-trapping movement and the availability of alternate economic opportunities.

On-the-land activities are promoted by both the Federal and Territorial Governments in the form of loans and grants to trappers. The G.N.W.T. is actively promoting the development of the renewable resource economy in the N.W.T. through pilot projects, the development of inter-settlement trade, country food stores and the development of leather and other by-products. With this high level of public support and the high level of local participation in the industry, it is not expected that the study area will see any decline in on-the-land activities in the future.

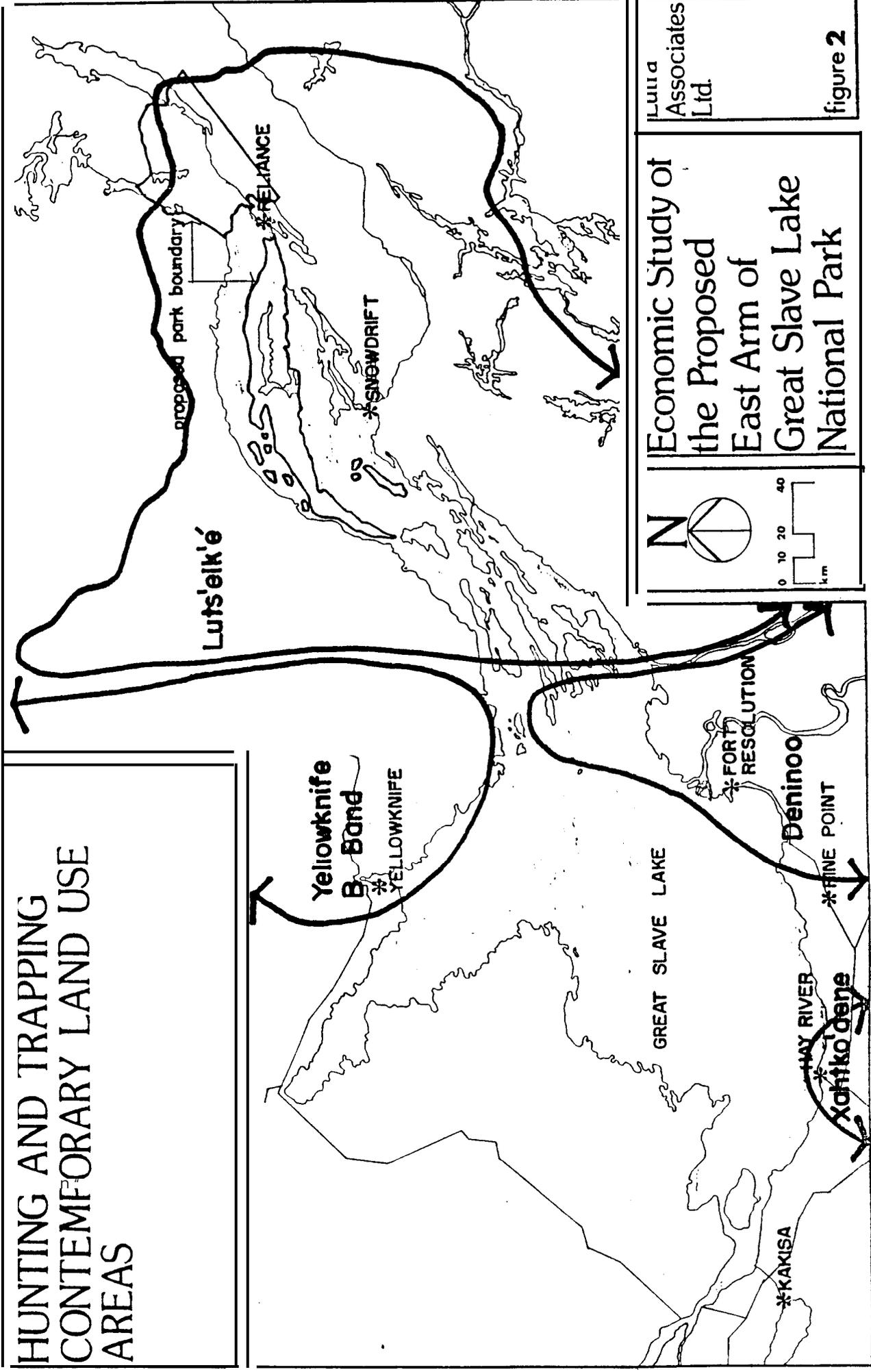
Contemporary hunting, trapping and domestic fishing areas of study area communities are displayed in Figure 2. The creation of the proposed East Arm of Great Slave Lake National Park is within the traditional land use area of the Luts'elk'e Dene. Local discussions suggest that there has been concern expressed by these people as well as by a non-native trapper/hunter from Reliance regarding possible land use conflicts in the event of the park's establishment. It is estimated that about three families may hunt, trap and fish in the area proposed for or immediately adjacent to the East Arm of Great Slave Lake National Park.

### 3.2.2 Commercial and Sport Fishing

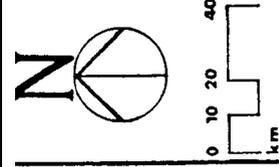
Commercial fishing on Great Slave Lake is an important economic activity in Hay River and to a lesser extent, in Yellowknife. From time to time, Fort Resolution and Snowdrift contribute seasonal labour to the industry. The Freshwater Fish Marketing Corporation is located in Hay River and is a marketing agency for all fish sold outside the N.W.T. The main freshwater fish packing plant is located in Hay River. Seasonal fish plants are located at Wool Bay, Moraine Bay and Simpson Island.

In recent years, the high cost of operating has negatively impacted the growth of the Great Slave Lake commercial fishing industry. Today there are less than 50 licenced operators on the lake. The town of Hay River, local fishermen and the N.W.T. Fishermen's Federation are currently pursuing a study to secure new markets for Great Slave Lake resources. Continued efforts to promote the industry suggests a strong interest in maintaining and expanding fisheries on the lake.

HUNTING AND TRAPPING  
CONTEMPORARY LAND USE  
AREAS



Economic Study of  
the Proposed  
East Arm of  
Great Slave Lake  
National Park



Lulla  
Associates  
Ltd.

figure 2

Management of commercial fishing activities on Great Slave Lake is a responsibility of Fisheries and Oceans Canada. This agency is responsible for establishing quotas and regulating commercial fishing activity. Great Slave Lake is divided into six management areas (see Figure 3). Commercial fish quotas are set for each management area. The estimated export value of the Great Slave commercial fisheries is \$800,000. (1986).

Due largely to the prevalence of sport fishing activity, commercial fishing is closed in the east arm waters of Great Slave Lake (Zone 6). Great Slave Lake waters adjacent to study area communities are also closed to commercial fishing. No change in management areas is expected.

The location of area sport fishing lodges are also displayed on Figure 3. It is expected that current levels of sport fishing in the east arm of Great Slave Lake will be maintained as no further licencing of the lodge or sport fishing/charter boat outfitting industries is expected. As such, there is no imminent conflict between the sport and commercial fisheries near the areas proposed for the East Arm of Great Slave Lake National Park.

### 3.2.3 Tourism

The travel industry has been established in the study area since the early 1960's. It is a growing industry. As discussed in section six [6] of this study, it is estimated that travel expenditures in the study area by study area residents and non-resident visitors may be some \$48 million in 1986. Compared with other regions in the N.W.T., the Northern Frontier and Big River travel zones have high visitation levels. The urban study area communities of Hay River and Yellowknife are important destinations. It is estimated that in 1984 the study area received 47.5% (or 14,700 visitors) of all non-N.W.T. visitors.

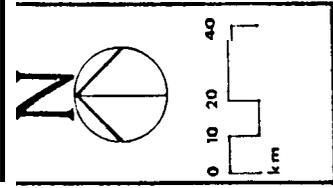
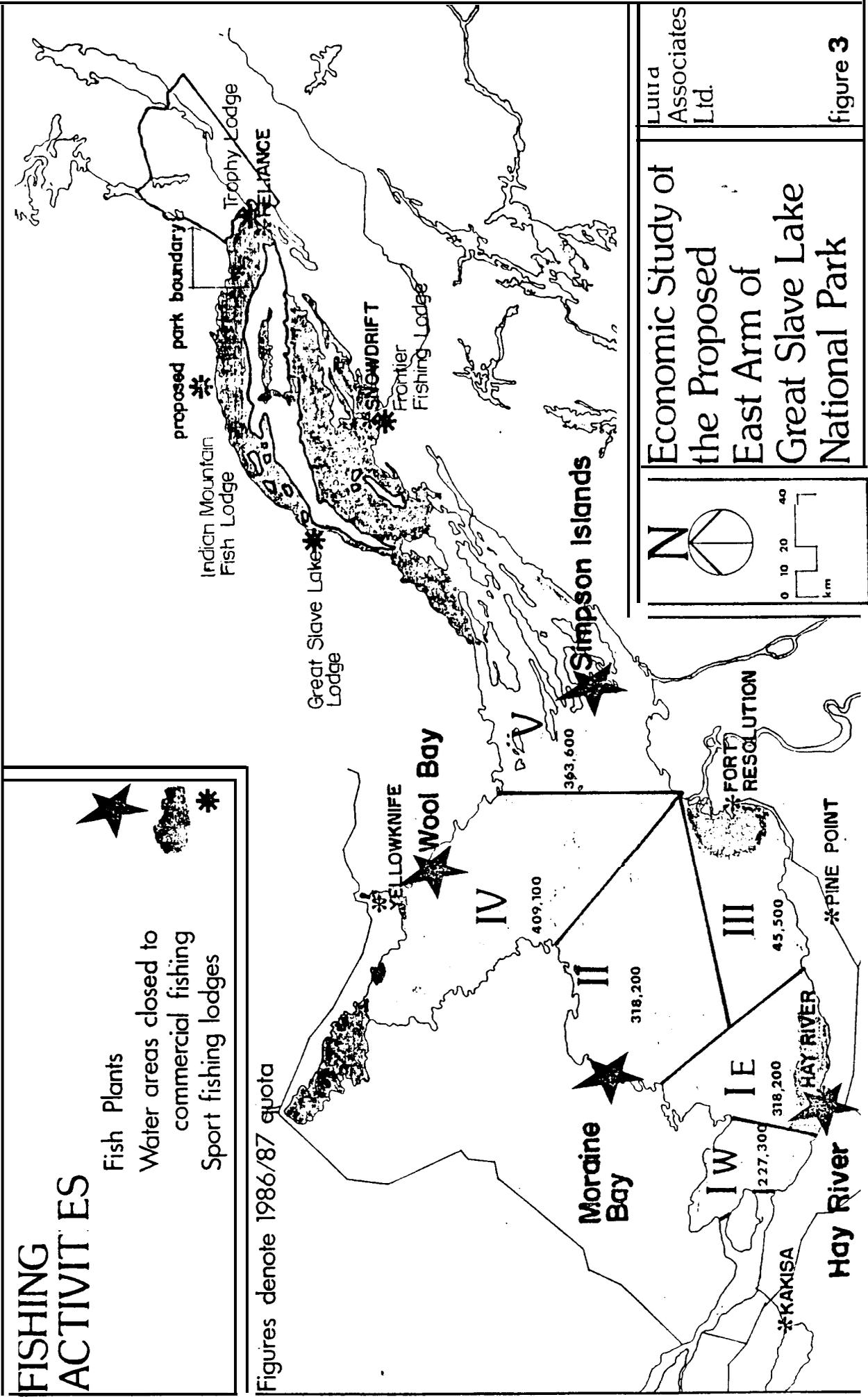
Within the last year, two new accommodation facilities have been opened in Yellowknife while other study area residents have pursued the development of local tour services, a tour agency and charter boat and sightseeing services. The communities of Snowdrift, Fort Resolution and Hay River are examining the potential of tourism development through economic planning processes and Detah has begun to address potential tourism infrastructure requirements.

For a number of years, the travel industry was developed and promoted solely through the resources of the private sector. Today, the travel industry in the study area is developed and promoted through assistance from Tourism Canada, the Dept. of Economic Development and Tourism of the Gov't of the N.W.T. and, by the Travel Industry Association (T. I.A.) of the Northwest Territories. The T.I.A. and its member zone associations are actively promoting tourism development.

# FISHING ACTIVITIES

- ★ Fish Plants
- Water areas closed to commercial fishing
- \* Sport fishing lodges

Figures denote 1986/87 quota



Economic Study of  
the Proposed  
East Arm of  
Great Slave Lake  
National Park

Lluit  
Associates  
Ltd.

figure 3

Source: Department of Fisheries and Oceans

The study area falls within two travel zones: Yellow knife, Detah, Snowdrift and Reliance are part of the Northern Frontier Visitors' Association based in Yellowknife and Fort Resolution and nay River are part of the Big River Travel Association, based in nay River. Although a tourism development strategy has been prepared for part of the Big River travel zone, development and marketing strategies are not in place for the study area. The Northern Frontier travel zone and the T.I.A. are however currently preparing a marketing strategy to promote tne products and services available in the study area.

The impact of the proposed East Arm of Great Slave Lake National Park on the travel industry in the study area will be determined in large part by the extent to which the park is integrated into touri Sm development strategies and various business development plans .

#### 3.2.4 Hydro-electric Development

The Fort Smith Region of which the study area is a part of, has great potential for hydro-electric development. Of particular significance to this study is the potential of the Lockhart River and Snowdrift. River. Few studies into this hydro-electric development. potential have been undertaken in the past 15 years due to low load demand.

A study (1) conducted in 1969 by T. Ingledow and Associates Ltd. examined the potential of river basins in the study area. Ingledow and Associates assumed the development of minerals in the Contwoyto, Artillery Lake and Pine Point areas would produce a load demand for hydro-electric power. The study examined seven possible dam sites on the Lockhart River: Tyrell Falls, Parry Falls, Mosquito Canyon, Vee Canyon, Anderson Falls, Dead Moose and Burr Lakes. An alternate route through Pike's Portage with a series of dams through the lake chain to Great Slave Lake was also examined. on the Snowdrift. River, a dam site was investigated near the mouth of the river. The latter site was examined largely for domestic use in Snowdrift. The study concludes that in the event of major mining development in the central and south-east regions of the western N.W.T., hydro would be the most economical source of power. Should load requirements continue at current levels, fossil fuel or thermal power is more economical .

Hydro-electric development in the study area is managed either by the Northern Canada Power Commission or by operating mines. Most

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(1) "Power Study of the Central Mackenzie District", T. Ingledow & Assoc. Ltd., 1969, Vancouver

electricity requirements (ie. for communities or industry) in the study area is supplied by diesel plants. In the study area, Fort Resolution's electric power is supplied through a dam on the Taltson River system in conjunction with a diesel plant. Yellowknife and Detah also receive combined hydro/diesel generated power through the Snare/Yellowknife River system. All other communities receive electric power through diesel generators.

Detailed environmental and economic feasibility studies of the Lockhart and Snowdrift River have not been completed. Therefore, the environmental, social and economic assessment of impacts of potential developments cannot be articulated. In light of anticipated developments in the mining industry (see below), it is expected that additional demand for hydro-electric power from study area rivers will not be realized within the next ten years.

### 3.2.5 Mining

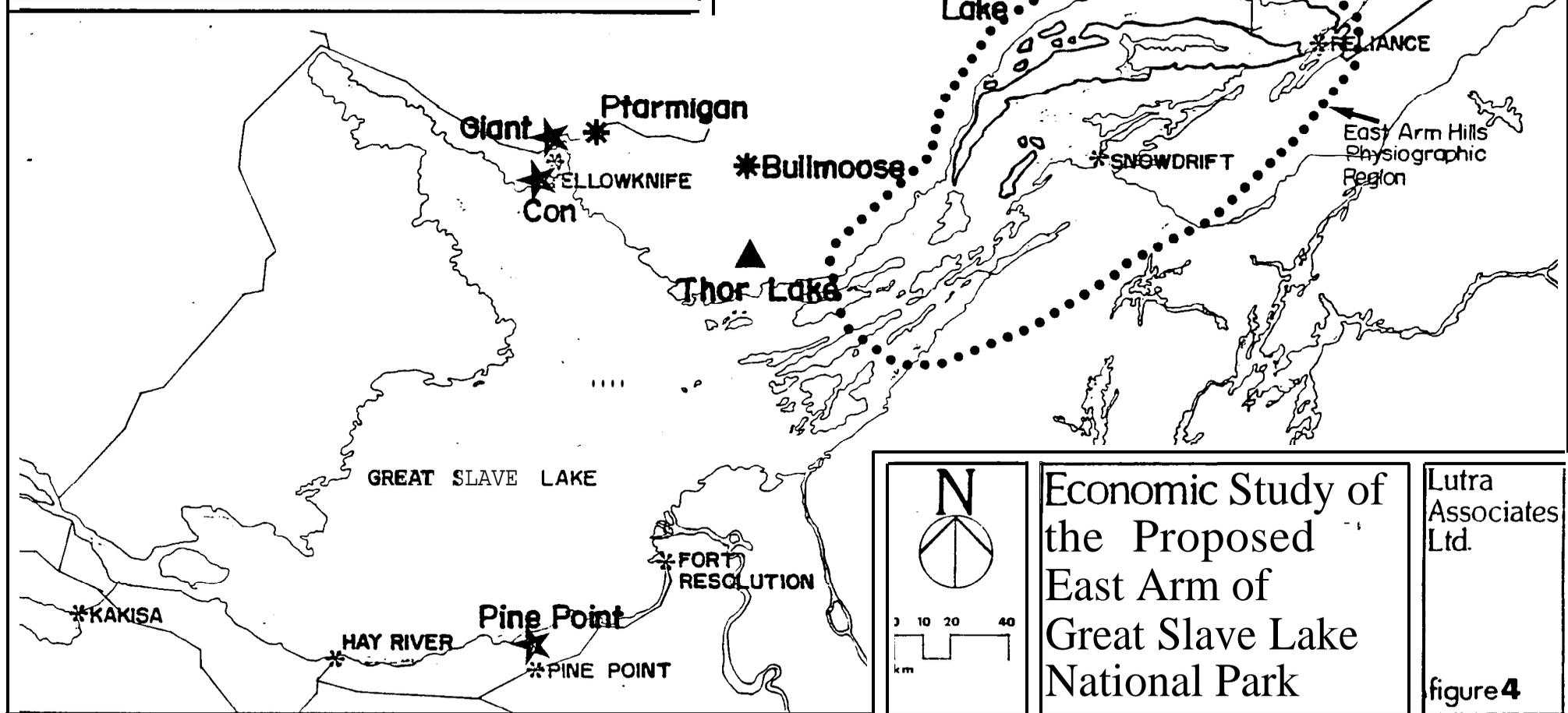
The Fort Smith Region is underlain by four geological provinces: the Slave, Churchill, Interior Platform and Western Cordillera. The Churchill province underlies much of the study area, lying north and east of Fort Smith to include the East Arm Fold Belt.

As illustrated on Figure 4, there are two producing gold mines in the study area, both in Yellowknife, Giant Yellowknife and Cominco Mines Ltd. There are two gold deposits and a beryllium prospect east of Yellowknife showing production potential:

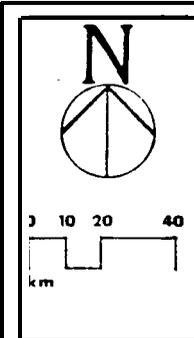
- a) Ptarmigan gold deposit is located 8 km east of Yellowknife on the Ingraham Trail. The potential of the deposit is set at 110,000 tons with grade at .43 oz/ton. The property is owned by Cominco Mines Ltd. Treminco Resources and Goldrich Resources are currently negotiating to purchase this property with the hope of bringing the site into production within the next few years.
- b) The Bullmoose property is located approximately 7.5 km east of Yellowknife. The potential of the deposit is set at 695,000 tons, with grade at .31 oz/ton. The Bullmoose property is owned by Terra Mines.
- c) Highwood Resources of Calgary has stepped up exploration of beryllium and rare earths prospects at Thor Lake, 100 km south-east of Yellowknife. The company has a target of 1987 to bring the property into production. The site has the potential of being Canada's first open-pit beryllium mine. The life span of the property is put at 23 years.

Mineral prospects in the study area are numerous. There are only

★ PRODUCING MINES  
 \* DEPOSITS  
 MINERAL PROSPECTS



Best Bet  
A



Economic Study of  
 the Proposed  
 East Arm of  
 Great Slave Lake  
 National Park

Lutra  
 Associates  
 Ltd.  
 figure 4

two prospects however in proximity to the proposed national park:

a) Kennedy Lake owned by Indian Mountain Metal Mines Ltd.

63 deg. 2 min., 110 deg. 51 min.

970,000 ton at 9.7% zinc

b) Best Bet. owned by Highwood Resources Ltd.

63 deg. 14 min., 112 deg. 18 min.

250,000 ton at an unspecified lithium grade

At the time of writing, industry representatives had not released any development plans for these two properties.

Numerous occurrences of copper, lead-zinc and uranium have been found within the boundaries of the proposed park and in areas immediately adjacent to it. The level of prospecting activity on these lands are inadequate however to provide an accurate reflection of the mineral potential of the area. The following occurrences have been located [1]:

a) A mineral assessment of the proposed national park location identifies a sub-economic copper deposit on Douglas Peninsula. Some diamond drilling has occurred in the area but the N.W.'l' Chamber of Mines has not reported any further interest in this area.

b) Uranium concentrations found in and adjacent to the proposed park underlie a substantial part of the area particularly near Lac la Prise, Cook Lake, Walmsley Lake, Kahochella Peninsula and Reliance. A 1985 report (1) found that these uranium concentrations were of little economic significance.

c) Lead and zinc concentrations at Artillery Lake are extensive but are discontinuous and low in silver content. It is noted that some economically significant concentrations may be exposed in the future pending further exploration.

d) Areas between Artillery Lake and Walmsley Lake and north of McLeod Bay show some economic potential (gold and base metals). Most of these areas are adjacent to the proposed park, although these occurrences do overlap the north boundary of the proposed park at Artillery Lake and into McLeod Bay. Accessibility and the requirement for power generation sites within the area are limiting factors to development.

e) Redcliff Island has some uranium occurrences which might be considered economic due to the relative accessibility of the island and the assumption that much of the island's mineral potential has not been eroded.

f) Taltheilei Narrows and Pethei Peninsula are typical of environments which harbour important base metal deposits. This area may, due to ease of access, and subject to copper and cobalt markets, see further exploration activity.

Mining has played a significant role in the economies of the N.W.T. and the study area. The N.W.T. Chamber of Mines reported in 1984 that mining was the largest private employer in the N.W.T. with more than 1,600 full-time N.W.T. resident workers, contributing more than \$70 million to the Territorial payroll. In 1985 and 1986, the mining industry prospered less in the face of depressed lead and zinc markets, falling gold prices and consistently higher production costs.

The gold deposits at Terra Mine's Bullmoose operation east of Yellowknife (see Figure 4) look promising. Over the 1985/86 winter season, the company moved a mill to the site and production could begin during the winter of 1987 pending gold prices. 140 new jobs could be generated as a result of the Bullmoose operation. Should the Ptarmigan property be developed as a mine, 40-50 new jobs could be created. It is not expected that the above developments will affect or be impacted by the proposed East Arm of Great Slave Lake National Park.

In the absence of specific exploration data, it is not worthwhile to postulate further on the economic implications of mining targets within the proposed park area.

While recognizing insufficient study, industry personnel are of the opinion (1) that the geological environment of the east arm of Great Slave Lake suggests important economic mineral deposits.

~~It is further noted that there may be a requirement for these~~  
resources in the future. As such, industry representatives believe that it would be unwise to proceed with the proposed park thereby unduly removing these lands from mineral exploration and potential development activities.

### 3.2.6 Other Renewable Resources

#### a) Forest Resources

and domestically. There are no data available on the extent of forest resources in the region or the value of this resource to the regional economy. There is general industry opinion however that the forest resources of the region are underdeveloped. Marketing problems, depressed southern markets and the inability to produce kiln-dried lumber in the north have all contributed to the general lack of development of the forestry industry.

Fort Resolution and Hay River are the only communities in the study area to have commercial sawmill operations. These operations log in the Slave Timber Management Unit in the Jean River-Ring Lake area of the Slave River and the Hay Timber Management Unit, south of Hay River. All communities in the study area do utilize local forest resources for log building or for fuel. It is estimated (1) that the retail value of wood fuel used in the six study area communities in 1982 was \$270,400. (based on \$80. per cord).

Continued harvesting of forest resources for commercial use is expected to continue at current levels with no impact to lands within or in proximity to the proposed national park. Fort Resolution and Hay River do however have economic plans which indicate expansion to their current outputs. Expanded commercial logging in these communities will not impact the proposed park.

Domestic use of wood for fuel is a common practice in both Snowdrift and Reliance. It is assumed that use of trees for fuel and building materials to sustain traditional fishing, hunting and trapping activities would continue if the proposed park is established.

#### b) Agriculture

Agriculture has substantial potential in the southern portions of the study area due to favourable soil and climatic conditions. There has been no change in the level of agricultural activities over the past 10 years largely due to an agricultural land freeze on crown lands. The sale or leasing of agricultural land was suspended in 1975 pending the resolution of aboriginal land claims.

It is not expected that the level of agricultural activity will change in the study area over the coming years. It is expected however that in the absence of land claim settlements in the near future, that municipalities and specific interest groups will

lobby for a "relaxation" in grazing leases and non-municipal acreage minimums to enable the pursuit of market gardening (these efforts are currently occurring in Hay River), poultry farming [currently proposed by the Hay River Reserve), dairy farming (an operation is starting in Yellowknife) and domestic game ranching (a silver fox ranch has begun in Hay River). It is noted however that even if agricultural land becomes available a northern agricultural industry will face a variety of other constraints which will influence the viability of the industry, namely, predators, diseases, national marketing quotas, production costs, transportation restraints and restrictive climatic conditions.

### 3.2.7 Other Non-Renewable Resources

#### a) Coal

There are minimal coal resources in the Fort. Smith Region. Coal resources have not been found within the study area.

#### b) Oil and Gas

Oil and gas resources are found in the extreme western and south-western regions of the Fort Smith Region. No oil and gas activity is occurring or anticipated for the study area.

### 3.2.8 Government

The public sector plays a significant role in the economy of the study area. Regional district offices of the Federal Government are located in Yellowknife along with the headquarters of the Government of the N.W.T. District offices of the Government of the N.W.T. are also maintained in Hay River. Key responsibility areas of the Government of the N.W.T. include support and resources to the development of municipal councils, educational and social services, housing, support to the tourism industry and traditional economies.

The Federal Government plays a significant role in the study area. For example, Fisheries and Oceans Canada regulate commercial fishing on Great Slave Lake; Indian and Northern Affairs regulate land and water use as well as provide financial and human resources to Dene Band Councils and their memberships; Health and Welfare Canada maintains community-based medical services; and the Canada Employment and Immigration Commission plays a major role in developing local human resources.

direct and indirect employment opportunities as well as local subsidies (ie. job creation, social assistance, housing, trappers grants). It is estimated that 22% of the study area labour force holds government positions. (1)

The Federal Government is currently devolving authority for many of its responsibilities to the Government of the N.W-T. In the foreseeable future, Federal responsibilities for the provision of health care and responsibilities for forest resources will be devolved. In an attempt to stimulate the local economies of small study area communities, many of the regional offices of the Government of the N.W.T. in Fort Smith are to be relocated to smaller communities in the region. Undoubtedly, some will be relocated to smaller study area communities such as Snowdrift and Fort Resolution. The effect of these initiatives will in the short term increase the need for additional government personnel to facilitate devolution and relocation, as well as the need for additional service and municipal infrastructure. The extent to which these government initiatives will impact the economy of the study area have not yet been fully assessed.

### 3.3 Regional Labour Force, Employment and Income Trends

#### 3.3.1 Labour Force and Employment

Tables 5, 6, and 7 display information on labour force activity in the study area. For all intents and purposes labour force activity refers to activity in the wage economy. 1981 Census data illustrated in Table 5, demonstrate a notably higher rate of participation in the labour force in the urban communities of Hay River and Yellowknife than in the smaller communities of Detah, Snowdrift and Fort Resolution. Access to wage opportunities is greater in the larger centres.

1984 participation rates illustrated in Table 5 remained fairly consistent with 1981 data. Participation in the local labour force however did increase in those smaller study area communities of Detah, Snowdrift and Fort Resolution between 1981 and 1984. Increased labour force participation may be attributed to economic activities occurring in the Mackenzie Valley (ie. the Norman Wells pipeline project) and to local development projects. For example, Snowdrift saw the construction of a school and community complex in 1984/85, a project which undoubtedly increased wage employment opportunities in that community.

There are inherent problems in recorded participation and unemployment rates largely due to the definitions which are applied to, and unclear distinctions between, wage and non-wage work. The difficulty in these data are particularly applicable when examining labour force activity in communities where the traditional economy dominates, as is reflected in Table 6 which displays no unemployment rate for Snowdrift in 1981.

**TABLE 5**  
WAGE LABOUR FORCE PARTICIPATION  
(1984/81)

	1984/81 Pop. 15-54 Years	1984/81 Labour Force (No. )	1984/81 Participation Rate (%)
DETAH	93/105	44/15	47/15
FORT RESOLUTION	378/340	189/145	50/40
HAY RIVER/HAY RIVER RESERVE/PARADISE GARDENS	2189/ 2080	1651/ 1580	75/75
SNOWDRIFT	156/155	63/40	40/25
YELLOWKNIFE	7645/ 6095	6393/ 5705	84/82
STUDY AREA	10461/ 9575	8340/ 7485	59/47

SOURCE: Labour Force Survey, Gov' t of the N. W. T., 1984  
Statistics Canada., 1981 Census  
Statistics Canada's method of random, rounding  
results in some error.

Overall unemployment rates in the smaller study area communities are substantially higher than in the urban communities. Snowdrift and Detah record the highest unemployment rates at 54% and 48% respectively. It is suggested that the presence of private sector industries in Fort Resolution keeps this community's unemployment rate to 26%.

TABLE b  
UNEMPLOYMENT SITUATION  
(19134/81)

	1984/81 Labour Force (No. )	1984/81 Employed (No. )	1984/81 Unemployed (No. )	1984/81 Unemployment Rate (%)	In 1984 Worked in 1984 (No. )	In 1984 Job Wanted (No. )
DETAH	44/15	23/10	21/5	48/50	51	44
FORT RESOLUTION	189/145	141/125	48/20	26/18	241	112
HAY RIVER/HAY RIVER RESERVE/ PARADISE GARDENS	1651/ 1580	1246/ 1510	405/85	21/6	1782	536
SNOWDRIFT	63/40	29/35	34/-	54/-	97	86
YELLOWKNIFE	6393/ 5705	6055/ 5490	338/215	5/4	6591	631
STUDY AREA	8340/ 7485	7494/ 7170	846/325	31/21	8752	1409

SOURCE: Labour Force Survey, Gov' t of the N. W. T., 1984

Statistics Canada, 1981 Census

NOTES: Labour force data were collected as a systematic sample in

larger NWT centres (Yellowknife 1 dwelling in 10; Hay River 1 dwelling in 5). For all other communities an attempt was made to interview Persons in every dwelling to ensure sample sizes sufficiently large for reliable community-level statistics.

Statistics Canada's method of random rounding results in some error.

Table 7 provides information on participation in some of the key economic sectors in the study area. Data provided in this table clearly demonstrate the nature of the study area economy as well as community participation in it. In the smaller study area communities, few full time jobs exist. Seasonal participation in trapping activities dominates economic participation. In the larger urban centres the availability of public and private sector opportunities demonstrate the important role that these sectors have in their respective economies.

It is significant to note that approximately 40% of the study area's labour force activity is in part time or seasonal activities. In smaller centres such as Resolution and Snowdrift, seasonal and part-time labour force activities account for some 69% and 86%, respectively, of labour force activities. Part time and seasonal activity accounts for 24% of labour force activity in Yellowknife.

The nature of sectoral labour force activity and the seasonal or part time nature of northern employment displayed in Table 7 was verified in the Government of the N.W.T.'s 1984 Labour Force Survey.<sup>(1)</sup> This survey revealed that in 1984, 25% of native residents were employed in all 12 months compared to 66% of non-natives. This same survey provides interesting data on persons not working (ie. not working at time of survey or as of December 1984). 80% of native people not working wanted a job while only 57% of non-native people not working wanted a job. 3/4 of all those persons wanting a job were interested in full-time employment.

The G.N.W.T. Labour Force Survey also provides some interesting data on employment search patterns. A reason cited most frequently by native persons in the N.W.T. (58%) for not looking for work was 'no jobs available' or 'being out on the land' (15%).

It is difficult to quantify specific skills levels available in each study area community due to the nature of information available. However in light of both formal education levels (see Table 4) and limited access to work/training opportunities, it is not unreasonable to assume that a trained labour pool is not readily available in the study area, particularly in the smaller communities within the study area.

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1) "1984 N.W.T. Labour Force Survey", Draft Report 1985

TABLE 7  
BUSINESS & GOVERNMENT PARTICIPATION RATES, 1984.

Community	Construction # Empl.	Secondary Services # Empl.	Tourism # Empl.	Transportation # Empl.	Renewable Resources # Empl.	Trappers # Empl.	Non Renewable Resources # Empl.	Realty & Insurance # Empl.	Other # Exp.	Total # Empl.	Municipal Gov. # Empl.	Territorial Gov. # Empl.	Federal Gov. # Empl.	Dene Band # Empl.
Detah/Rainbow Valley	DATA NOT AVAILABLE										0	5	0	3
Fort Resolution+	1F 1P 10S	7F 6P	3F 6P	1F 1P	25F 4S	98S	0	0	0	37F 14P 112s	0	16	0	3
Hay River**	83F 41P 79S 347F	129P 81S 94F 51P 43S		139F 39P 309S 1 1F 20P 55S		79s	1P	47F 8P 3S 53F 19P 28S		774F 308P 667S	19F	158	103	18
Hay River Reserve	0	0	0	0	0	0	0	0	0	0	0	4	0	3
Reliance	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Snowdrift	0	6F 6P	2F	0	0	57s	0	0	0	SF 6P 57S	0	4	0	3
Yellowknife**	272F 161P 285S	961F 650P 101S 370F	193P 80S 458F	67P 73S	12F 13P 9S	101S	1734F 7P 28S 184F 25P 8S 168F 93P 11S			4151F 1209P 695S	100F	1360	555	0
FORT SMITH REGION	489F 270P 441S 1664F 1228P 353S 641F 337P 219S 706F 145P 424S 50F 54P 104S					1055S 2433F 15P 29S 273F 53 P 13S 236F 132P 40S				6412F 2234P 2678S	171F 7P	2092F	939F	38++

SOURCE : FORT SMITH ECONOMIC BASE STUDY, 1985  
Lutra Associates Ltd. /H. J. Ruitenbeek Resource Consulting Ltd.

NOTES:  
 \*\*Part time figures include selfemployed individuals working either full time, part time or seasonally.  
 +Some businesses are widely diversified and therefore may be included in more than one sector. As such,  
 the number of employees in some business classes may be inflated.  
 Notes: F=full time P=part time S=seasonally  
 ++ Dene Band- estimate of 3 workers per community.

### 3.3.2 Income

Table 8 provides study area income data by source. Transfer payments play a significant role in the economy of the study area. Transfer payments are community subsidies and assistance offered through both the Federal and Territorial Governments in the areas of social assistance, trapper's assistance, Old age pensions, unemployment insurance, etc. 20-28% of the total community income in the smaller study area communities is attributed to transfer payments compared to 1-4% in the larger urban communities and 2% in the total study area. Appendix B displays the nature of Government of the N.W.T. social assistance expenditures in study area communities, demonstrating little change in payment patterns over a five year period between 1980-81 and 1984-85.

TABLE 8  
ESTIMATED PERSONAL INCOME FROM ALL SOURCES, 1984.

	INCOME (\$ '000)					Total Income (\$ '000)	Country Food (\$ '000) (1)	Income Per Capita (\$ '000) (2)	1980 Income Per Household (\$ '000) (3)
	Private	Gov't	Resource	Federal	N. W. T. Transfer				
Dehah/Rainbow Valley	-	224.3			60.6	284.9		1.9	n/a
Fort Resolution	799.0	564.5	54.2*	289.8	78.0	1785.5	74.7	3.8	17.09
Hay River	19601.4	6773.1	18.6	1056.4	77.2	29767.4	178.8	9.2	28.93
Hay River Reserve		238.3			9.6	247.9		n/a	n/a
Snowdrift	168.5	350.2	44.1*	163.6	74.2	800.6	30.2	3.2	9.8
Yellowknife	127764.3	365530.8	78.4	1644.3	356.5	195574.3		19.0	33.13
Fort Smith Region Total	193196.5	104854.9	842.7	5678.7	2351.5	306924.3	953.1	12.6	29.26

SOURCE: 'Fort Smith Region Economic Base Study', Lutra Associates Ltd. / H.J. Ruitenbeek Resource Consulting Ltd., 1985

NOTES :

- 1) Mean of Bodden and Ulu estimates, see Appendix A.
- 2) Includes country foods. Based on 1984 population estimate.
- 3) Statistics Canada, 1981 Census, based on 20% data.
- \* Fort Resolution and Pine Point Resource Income totals are combined
- \* Snowdrift and Reliance Resource Income totals are combined.
- \* Resource income refers to income earned from trapping.

Government expenditures in study area communities also account for a significant portion of local economies. Government expenditures relate to full, part-time and seasonal employment at the community level. Personal income generated from government sources accounts for 30-42% of total community personal income in both the urban centres of Hay River and Yellowknife and the smaller communities of Snowdrift and Fort Resolution. Due to the absence of private sector industry in Detah and Hay River, a higher amount of community income is attributed to government-related employment.

In the smaller study area communities trapping and country food harvesting activities can account for 7-9% of total community personal income. Income from these sources in the larger urban centres is negligible.

The remaining sources of personal income in study area communities is attributed to the private sector. In the urban study area communities, the private sector contributes 65-66% of personal income while in the smaller communities of Snowdrift and Fort Resolution 20% and 43% respectively are generated from this source.

Table 8 also displays disparity in per capita income between the smaller study area communities and larger urban centres, personal income which ranges from a low of \$1,900. per annum in Detah to \$18,000. in Yellowknife. per capita income in Snowdrift and Fort Resolution is between \$3-4,000.

### 3.3.3 Forecasts

#### a) Labour Forecasts

Table 9 displays labour force forecasts for the period 1986-1995. Labour force participation rates are based on the low and optimum employment scenario demonstrated in 1984 (see Table 6). It may be expected that within the context of a 'government dependent' economy (ie. government support to community and overall northern development), participation over the coming years may be limited to keep pace with current government fiscal constraints. It is also suggested that, with the decline in the trapping activity, oil and gas and mining industries, slow economic growth may indeed be the pattern for development in the study area over the coming years. This pattern of slow growth is evidenced in the population projections displayed in Table 1.

#### b) Income

It is not expected that there will be significant change in income levels within the study area in the ensuing ten year period. It is expected that transfer payments and government expenditures will continue to play significant roles in smaller study area communities while the private sector will continue to contribute substantially to personal income levels in the larger urban centres.

**TABLE 9**  
**LABOUR FORCE FORECASTS, 1985-1995**

COMMUNITY	No. of Persons 15-64 Years of Age									
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
DETAH (participation rate: 47-55%)	94	97	99	101	103	105	107	107	109	109
FORT RESOLUTION (participation rate: 50-64%)	340	346	349	351	354	357	359	364	360	371
HAY RIVER/ RESERVE (participation rate: 75-81%)	2229	2268	2308	2347	2388	2422	2457	2481	2503	2522
RELIANCE	NO CHANGE IS ANTICIPATED IN SUBSEQUENT YEARS									
SNOWDRIFT (participation rate: 40-56%)	168	173	175	170	180	182	186	193	199	203
YELLOWKNIFE/ RAINBOW VALLEY (participation rate: 84-86%)	7914	8039	8155	8252	8339	8433	8545	8637	8719	8832

SOURCE: Table 2 and Table 5

NOTE: Participation rates are based on the actual and optimum employment rates displayed in Table 5 (ie. % of persons who worked in 1984 and 1984 participation rates).

#### 4. STUDY AREA COMMUNITIES ECONOMIC AND DEMOGRAPHIC CHARACTERISTICS AND OUTLOOK

The following section discusses the salient economic and demographic features of study area communities. Business infrastructure associated with each community is discussed in this section and is summarized in Table 10.

TABLE 10  
SUMMARY OF BUSINESS INFRASTRUCTURE, 1984

	Construct ion	Secondary Serv.	Tour ism	Transport at ion	Renewable Resources	Non Renewable Resources	Real ty & Other Insurance	Total
	#Bus.	# Bus.	#Bus.	#Bus	#Bus.	# Bus.	#Bus .	#Bus.
Detah/								
Ra i nbow Va I l e y	0	0	0	0	0	0	0	0
Fort Resol u t i o n	2	3	2	2	2	0	0	11
I l a y R i v e r	34	92	21	17	0	0	10	197
H a y R i v e r R e s e r v e	0	0	0	0	0	0	0	0
R e l i a n c e	0	0	0	0	0	0	0	0
S n o w d r i f t	0	3	1	0	0	0	0	4
Y e l l o w k n i f e	75	230	45	28	7	10	31	473

Notes: #Bus. = The number of businesses in each business class.

SOURCE: Fort Smith Region Economic Base Study, 1985  
Lutra Associates Ltd. / Ill. J. Rui tenbeek Resource Consulting Ltd.

#### 4.1 The Smaller Study Area Communities

##### 4.1.1 Snowdrift

This community is likely to be most directly impacted by the proposed park on the east arm of Great Slave Lake. It will also direct much of the decision making on the park's establishment. The 274 residents of this community pursue a traditional life-style. The community's traditional land use area is occupied in part, by the proposed park.

A typical small northern community, 64% of Snowdrift's population is under 25 years of age, 34% under 15 years and 5% over the age of 65 years. It is expected that this ratio of youth to elderly population will continue. 93% of the population is of native ancestry. While 55% of the population is between the ages of 15-64 years, 43% of this population has less than 9 years of formal education. The demographic situation of Snowdrift is not expected to change over the next 10 years.

Participation rates are estimated at 40% of the labour force while unemployment is placed at about 54% (see Tables 5 and 6). Seasonal and part-time activity make up 86% of total labour force activities (see Table 7). Seasonal hunting, trapping, fishing draw the highest levels of seasonal participation. The actual income earned from these pursuits however may only make up approximately 9% of the total community personal income. 28% of community personal income is derived from Federal and Territorial Government transfer payments; 42% from government services and some 20% from private sector activities.

The community maintains a basic level of community, business and service infrastructure and is accessible by water and air. The business infrastructure in Snowdrift is made up of a local store, craft shop, transient centre, seasonal forestry operation, a seasonal canoe tripping/sport fishing operation and- a nearby fishing lodge. As illustrated in Table 10, local businesses render 8 full time and 6 part time positions to a potential labour force of 63. Seasonal and casual employment opportunities include trapping, arts and crafts, guiding, fire fighting and special project construction/maintenance work. It is worth noting that the nearby fishing lodge, the local canoe-tripping operation and seasonal forestry operation are not included in this business inventory due to the unavailability of data and the fluctuating nature of these activities. The fishing lodges which are located at Taltheilei Narrows and Fort Reliance are also not included as local operators are not required to report hiring practices. It is estimated however that some 30-50 local residents may be involved in seasonal guiding, forestry and construction activities.

Those businesses which do exist in the community are either owned locally or owned by a northern co-operative entity. These types of ownership structures are seen as desirable by the community. The local craft shop is operated by a Local resident who markets to tourist fishermen, community visitors and exports to the Native Women's Association in Yellowknife. Approximately \$13,700. (see Appendix C) is earned from arts and crafts exports from the community. The value of local arts and craft sales is not known.

The community is currently undertaking an economic planning process to identify economic development priorities for the coming five years. Opportunities which have been discussed include: community purchase of the nearby fishing Lodge, expansion of the current renewable resource development activities, and upgrading of local retail services. To date, sectoral priorities, development objectives and implementation strategies have not been released to the public.

In the past Snowdrift, like many other northern communities, has relied heavily on government funding to initiate business ventures and community projects. In light of current government fiscal restraints, the development of Snowdrift may be more difficult in the future.

#### 4.1.2 Fort Resolution

Almost twice the size of Snowdrift, Fort Resolution maintains close socio-economic and political ties with that community. The land use among local residents also brings the people of Resolution in close proximity to the people of Snowdrift.

Approximately 50% of the 519 Fort Resolution residents are under the age of 25 years and of these about half are under 15 years old. 8% of the population is over the age of 65. 78% of the community's population is of native ancestry.

The population of the community is fairly stable, relocating only to access further education or economic opportunities. 61% of the population between the ages of 15 and 64 has less than 9 years of formal education, indicating that a large number of people chose not to go outside of the community for education. Kindergarten to grade 9 level education is offered at the community level.

As indicated in Table 7 renewable resource industries (logging, sawmill work) and government services provide the greatest number of full time wage employment opportunities while trapping draws the highest number of seasonal participation. 69% of the local labour force activities are in part time and seasonal work. Labour force participation rates are estimated at 50% while employment is approximately 26% (see Tables 5 and 6). Some 7% of the total community personal income is derived from hunting, trapping and fishing activities compared to 43% from private sector activities and 30% from government expenditures. 20% of the total community personal income is derived from Federal and Territorial transfer payments.

Fort Resolution is accessible by road, by air and by water and has a good local service infrastructure. The business infrastructure of the community includes retail facilities, logging and construction businesses, a local sawmill, and a cafe.

The community of Fort Resolution has prepared a five year economic development plan which identifies development priorities and opportunities for the community on a sectoral basis. The following sectors and opportunities have been identified:

- \*construction sector: highway maintenance program
- \*manu-facturing sector:
  - expansion of sawmill and logging operations to include core box, pallet, press board and pre-fabricated log house manufacturing
  - arts and crafts
- \*traditional sector: wilderness survival camp and traditional skills training program
- \*agriculture : market gardening
- \*tourism:
  - community/package tour (no other details available)
  - coffee shop and motel
- \*forestry: forest fire suppression
- \*transportation: support services for Hay River commercial fishery

Currently, the community is pursuing work in the construction sector. Specific details of other opportunities have yet to be

fully developed. The Community Council is pursuing these development opportunities and is currently developing a complementary human resource development plan. The community expects that some 17 full time and 41 part time jobs will be created as a result of the plan's implementation.

#### 4.1.3 Detah and Rainbow Valley

Demographic data is not disaggregated for Rainbow Valley, however characteristics described for Detah may also be applied to its sister community. 39% of Detah's 156 residents are under 15 years of age. 10% are over 65 years. Less than 1% of the residents are non-native. Despite close proximity to secondary school education services in Yellowknife 70% of the population between 15 and 64 years of age has less than grade 9 education.

At the present time, there are no businesses located within Detah or Rainbow Valley. A recent interest among community residents in developing a more self sufficient economy in which wage employment plays a major role, is currently a number one Band Council priority. An economic planning process is scheduled to begin shortly. According to local people, further investigation will be made into the development of a marina, an outfitting business, a country food/confectionery store, a bus service and a firewood service.

#### 4.2 The Urban Centres

##### 4.2.1 Yellowknife

As the capital of the N.W.T. and the largest population centre in the north, Yellowknife's population and economic activity have a significant impact on the whole N.W.T. and dominate the study area. With a population of 11,180, Yellowknife's population makes up 72% of the total study area population. 27% of the population is 15 years of age or under while 2% is over 65 years of age. It is a population which is 85% non-native. The population of this urban centre is more mobile and better educated than that of other study area communities. Less than 3% of its 15-64 year old population has less than grade 9 education.

Yellowknife, with its active economy, has a high labour force participation rate. Participation rates are estimated at 85% while unemployment is some 5%. Participation rates are more than twice those of Snowdrift (see Table 5). Full time participation in government and non-renewable resource (mining) activities dominate labour force activity. Secondary services also generate considerable labour force activity. Income generated from the private sector makes up 65% of the total community personal income while government provides 33%. Transfer payments and renewable resource activities play a minor role in the community's economy.

The economy of **Yellowknife** is the most buoyant in the region and is reflected in the level of business activity undertaken in the community in recent years. For example, in 1984 building permits were issued for \$16 million worth of construction projects. In 1985, \$58 million worth of construction activity was undertaken, a figure which includes the \$40 million hospital construction project. 1986 levels are expected to level out at \$15-\$20 million. The current construction boom can be attributed to an overall optimism about the local economy.

Current direction in the public service to devolve Federal Government responsibilities to the G.N.W.T. and the privatization of many public sector agencies is also anticipated to stimulate the Yellowknife economy. Encouragement is also being provided by public sector agencies to the development of light manufacturing industry. The ever expanding service sector is optimistic, providing increasingly more services to city residents and those of surrounding communities. Although the non-renewable resource sector is experiencing slow growth, it is anticipated that a trend toward smaller scale operations will enable the survival of this important sector of the city's economy.

Higher than average personal incomes, a low level of unemployment, steady population growth and a high level of entrepreneurial optimism appear to be the trend which will continue in the Territories' capital.

#### 4.2.2 Hay River

Hay River has almost **22%** of the total study area population. Approximately 30% of the community's population is of native ancestry. About 4% of Hay River's population is over 65 years while 29% is under 15. Of the 15-64 year old segment of the Hay River population about 6% has less than grade 9 education.

Some 21% of the community's labour force is unemployed, however overall participation rates are estimated at 75% (see Tables 5 and 6). Secondary services, government, and transportation sectors of the economy draw the highest level of local participation. 65% of Hay River's community personal income is generated by the private sector and 30% from government.

Hay River prides itself on being the transportation hub of the north. The community attributes **45%** (1) of the total community

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(1) News/North, March 14, 1986

economy to this sector. The commercial fishing industry which in the 1970's was some 40% of the community's income now contributes about 5% to the town's economy. The public sector makes up about 25% of the economy.

Due to declining oil and gas activities and a possible shut. down in the nearby Pine Point mine, the town is concerned about the spin-off impacts to its transportation industry. The town has currently hired an economic planner and is investigating methods to stimulate the local economy. Revamping the commercial fishery, promoting Hay River as a tourism and conference centre, expansion of the forestry and agricultural industries, are just a few ideas which are currently being investigated.

#### 4.3 Reliance

The future of Reliance is unknown. There is conjecture that the A.E.S. station may close in the future due to the high Costs associated with maintaining this service. Expansion of Trophy Lodge has recently been completed indicating continuance of this operation. It is assumed that the three local trappers and their families will continue their land based activities.

There has been some local discussion that in the event of an A.E.S. shut-down that these facilities would be appropriate to support the proposed park operation. At the same time, local discussions indicate that there is concern by a non-native trapper in Reliance that the development of the park would impact his use of the park lands for hunting purposes.

## 5. TOURISM INFRASTRUCTURE

The study area has a well developed and established tourism infrastructure relative to other regions in the Northwest Territories. A variety of visitor services and facilities, as well as park and conservation areas have been developed in the study communities and region to meet the demands of the vacationing, business and regional travel markets. The travel industry has been established in the study area since the 1960's. Growth during the period since the 60's has occurred in most sectors of the economy and particularly transportation, secondary service and tourism oriented service sectors. Subsequently, an infrastructure has emerged capable of handling visitor needs and their participation in the activities offered by the area.

Three distinct components of the tourism infrastructure are described for the study area. They are essential visitor services (food and accommodation), transportation and tourism oriented services.

### 5.1 Essential Visitor Services

#### 5.1.1 Hotels and Motels

The current commercial bed capacity of the study area is estimated at more than 1150. Sixteen hotels, motels and bed/breakfast facilities are available to travellers to Snowdrift, Yellowknife and Hay River. Table 11 demonstrates that the distribution of hotel and motel beds is primarily in the major urban centres of Yellowknife and Hay River. The smaller communities of Fort Resolution, Detah and Reliance are not capable of providing commercial accommodation to travelers and Snowdrift has a small accommodation facility which provides meals on a request basis. The cost of fixed accommodation (hotel, motel) is up to \$100. per day.

#### 5.1.2 Restaurants

The study area has 28 restaurants and coffee shops with all but two located in Yellowknife and Hay River. The estimated seating capacity of study area restaurants is 2456. Regional restaurant distribution is illustrated in Table 11. The ratio of restaurant seats to hotel/motel bed capacity is 2.2 to 1. The majority of Hay River and Yellowknife restaurants have liquor licences. Although Fort Resolution does not have an operating motel, there is a coffee shop which services a local market. The food service/restaurant industry is steadily increasing and has suffered few if any closures during the past 10 years.

**TABLE 11**  
**LODGING, FOOD AND BEVERAGE SERVICES, 1986**

LOCATION	LODGING Name	Cap.	Beds	Operating Restaurants/ Coffee Shops	Estimate of Seat Capacity*
Yellowknife/ Rainbow Valley	Explorer	210	2/room	20	1801
	Gold Range	72	1+/room		
	Twin Pine Motel	100	2+/room		
	Yellowknife Inn	300	2/room		
	YWCA	66	2/room		
	Discovery Inn	80	2/room		
	Northern Lites Motel	31	Dbl./S.		
	Bed & Breakfast	b	1/room		
	Sub. -Tot. Y.K.	655			
Detah	Nil			Nil	Nil
Reliance	Nil			Nil	Nil
Ft. Resolution	Nil*			1	
Hay River	Caribou Motor Inn	70	3/room	10	655
	Hay River Hotel	60	2/room		
	Migrator Motel	96	4/room		
	Ptarmigan Inn	126	2/room		
	Mackenzie Place	44	1+/room		
	Cedar Rest	78	2/room		
	Harbour House	12	2/room		
	Sub-Total Hay River	494			
Snowdrift	Snowdrift Ent. Ltd.	b	2/room	1	
TOTAL		1155		28	2456

SOURCE: G. N.W. T. Official Explorer's Guide, 1986  
 Northwest Territories Business Directory, GNWT, 1985  
 Town of Hay River Tourism Data Base Report, 1985

- NOTES: 1. The total includes 1 seasonal facility and 2 bars that serve a cafeteria style hot dinner meal.
2. Complete records of seating capacities are not maintained for eating establishments. Partial data was gathered and factored to reflect the ratio between licenced and unlicenced premises in the community. The estimates do not include take-out/fast food services.
3. The b room hotel in Ft. Resolution is currently not operating.

### 5 .1.3 Campgrounds and Day Use Areas

Along the road system leading to various study area communities, there are 10 campgrounds, 10 picnic sites, and visitor information centres in Hay River, Yellowknife and at the 60th parallel border crossing. In addition to the day use areas and campgrounds located along the highway systems, the Ingraham Trail (Highway #4), extending 40 miles from Yellowknife has boat launch, day use and camping areas located at selected lakes (Prosperous, Madeline, Pontoon, Prelude, powder Point, Reid, and Tibbit) and at the Yellowknife River. A recently completed study(1) outlines an implementation plan for the phased development of 13 packages for improvements to existing Ingraham Trail sites. The implementation of this plan amounts to an estimated \$.25 million expenditure during the next five years.

Although the smaller communities of Snowdrift and Fort Resolution do not have a developed commercial accommodation and food service infrastructure, they have demonstrated the capacity and capability to host major regional and territorial events. The Dene National Assembly was held in Fort Resolution in 1983 and Snowdrift in 1986. Billeting, tent camps, and catering was provided by the Dene Nation and the community hosting the event. As many as 300-500 visitors and delegates might be expected to attend one of these major meetings during a one week period.

## 5.2 Transportation

### 5.2.1 Road and Air

Transportation to the study area is either by road or air. Although all communities are on Great Slave Lake, commercial water transportation is restricted primarily to freight hauling. There are five highways (1, 2, 3, 4 & 6) joining study area communities except Reliance and Snowdrift. As displayed in Table 12, Snowdrift is connected to Yellowknife twice weekly by scheduled air service, while Reliance is serviced by charter flights.

Table 13 describes airport facilities and navigational aids available in each of the communities. The major urban centres, Hay River and Yellowknife have airstrips capable of landing scheduled jet service from Edmonton and Calgary, while the smaller communities of Snowdrift, and Fort Resolution have airstrips with Twin Otter (up to 18 persons) and DC 3 (up to 28 persons) landing capability.

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(1)EDA Collaborative Inc., "The Ingraham Trail Master Plan", 1985,

TABLE 12  
SCHEDULED AIR SERVICE, 1985

ORIGINS	(A)	(E.)	(C)	(D)	(E)	(F)	(G)	(H)
Fort Resolution (A)								
Hay River (B)			1 23456	123456	1 2345			25
Snowdrift (C)								
Yellowknife (D)	357	12:436	257		1234567	123457	1234567	245
Edmonton (E)				1234567		1234567	1234567	24
Winnipeg (F)				123457				24
Norman Wells (G)		26		1234557	1234567			
Rain Inlet/Frob. Bay (H)				25	24	24		25

NOTES: 1= Monday, 2=Tuesday, 3=Wednesday, 4= Thursday, 5= Friday, 6=Saturday and 7= Sunday effective the second week of March 1985.

SOURCES: 1) Pacific Western Airlines 3) Ptarmigan Airways Ltd.  
2) Northwest Territorial Airways

TABLE 13  
AIRPORT FACILITIES, 1984

Location	Length (ft.)	Width (ft.)	Operator	Type	Fuel Avail.	Term. Bldg.	Nav. Aids	Sea- plane Facil.	Other Services
Detah/Rainbow Valley								N	
Enterprise						-		N	
Fort Resolution	[ 265	30	G.N.W.T.	Gravel	N	Y	NDB	Y**	CARS(W/C), SAN, CF
Hay River	1829/1219	46/46	T/Canada	Asphalt	Y	Y	NDB, VOR/DME, VDF	Y*	FSS(W/C/FP), SAN, CF
Hay River Reserve								N	
Reliance					N	N		Y*	
Snowdrift	603	24	S. Council	Gravel	N	N	-	Y**	LAM
Yellowknife	22 85/1524	46/46	T/Canada	Asphalt	Y	Y	NDB, VOR/DME, VDF	Y**	FSS(W/C/FP), SAN, CF Storage & Servicing

SOURCES: 1) Outcrop, N.W.T. Data Book 1984/85

NOTES: OTHER SERVICES

AP=aircraft parking APP=aircraft parking plugs C= communications  
CARS= community airport radio station CFR= Crash, Fire Fighting & Rescue  
FSS=flight service station FP= flight planning  
FV=food concession or vending machines  
LAM= limited airfield maintenance PAS=private advisory station  
PF= public facilities SAN= scheduled airfield maintenance  
W= weather

Y=yes Y\*=licenced private float plane access  
Y\*\*=unlicenced float plane access with dock N=no

The availability of scheduled and charter service is described in each of Tables 12 and 14. Table 14 provides comments regarding the capacity and capability of aircraft for charter in the study area. The frequency of service between destinations within the study area and major southern communities ie. Edmonton, Winnipeg and Calgary is on a daily basis, while in most cases smaller communities can connect same day to the South. For those travelling within the study area, there are 5 travel agencies capable of booking flights and hotel rooms. The travel agencies are computer equipped for national and International booking service convenience.

TABLE 14  
AVAILABILITY OF CHARTER AIRCRAFT, 1986

CHARTER COMPANY	EQUIPMENT/COMMENTS
<b>Yellowknife:</b>	
Aero Arctic	up to 7 passengers in helicopters
Bathurst Inlet	small aircraft-single, wheels, floats, skis
La Ronge	up to 18 passenger, single, twin, ski/float equipped
Latham Island	UP to 7 passengers, single ski/float equipped, twin/
RaeCom	UP to 10 passengers single, skis, floats, wheels
Adlair	up to 10 passengers, single ski/float equipped, twin
Spur	UP to 9 passengers, singles/twins, wheels, skis, flo
Ptarmigan	up to 18 passengers, singles, twins, wheels, skis, fl
NWT Air	UP to 28 passengers, wheels, twins
Great Slave Helicopters	up to 7 passengers in helicopters
<b>Fort Resolution:</b>	
Fort Resolution Air Service Ltd	up to 4 passengers, single, wheels, skis, floats, se the Fort Resolution, Snowdrift area.
<b>Hay River:</b>	
Landa Aviation	less than 10 passengers, wheels, skis, floats, singl
Hay River Air	less than 7 passengers, wheels, twin
Buffalo Airways	UP to 28 passengers, wheels, twin
Carter Air	up to 18 passengers, single & twin, skis, floats

SOURCES : Canada's Northwest Territories 1986 Explorer's Guide  
Northwestel Telephone Directory, 1986

Scheduled bus service connects Hay River and Yellowknife three times weekly. This service is normally interrupted during the spring break-up and winter freeze-up periods, when the Mackenzie River crossing at Fort Providence is closed. Scheduled community bus service is available in Yellowknife, while Taxi service is provided in Hay River and Yellowknife.

### 5.3 Tourism Oriented Services

Tourism oriented services are those services that relate to the major activities a visitor may participate in while in the study area. These activities include boating, fishing, cross country skiing, canoeing, hiking, sightseeing and recreation (hockey, curling and baseball). A range of outfitting, fishing lodge, and package tour services may be purchased either directly from study area communities or in the hinterland surrounding the communities.

#### 5.3.1 Sport. Fishing Lodges

The fishing lodge industry has been established in the study area

TABLE 15  
FISHING LODGES IN CLOSE PROXIMITY TO THE PROPOSED NATIONAL PARK, 1986

LODGE	OPERATING SEASON	LICENCED CAPACITY	BED AIRSTRIP	COMMENTS
Frontier (Pricker's) Lodge	June 15- Sept. 15 82 days	24	683 m at Snowdrift Float plane access.	7 day pkg. tours/ \$1740 U.S. per person, return Y.K. Summer season.
Great Slave Lake (Plummer's)	June-Sept. 62-67 days	44	1585 M	5 day pkg./\$1195 U.S. 8 day pkg./\$1795 U.S. Wpg. return. Float aircraft available for day use at lodge. Summer season.
Indian Mountain	July 1 to Sept. 1 62 days		Floatplane access.	Light housekeeping. Transportation from Y.K. Summer season.
Trophy Lodge	June 25- Sept. 1 67 days	16	Floatplane access.	Light house keeping. Transportation from Y.K. Summer season. \$100/day & \$300/air

SOURCES: Canada's Northwest Territories 1986 Explorers' Guide, GNWT  
Fort Smith Region Economic Base Study, Lutra/Ruitenbeek 1985  
1986 selected lodge brochures

since the early 1960's. As many as five lodges have operated during the past 20 years in the East Arm area with up to a licenced 126 bed capacity. Currently 4 commercial lodges are operating in the East Arm with a capacity of 94 guest beds (see Figure 3). Lodges in the East Arm are accessible by float plane, however Great Slave Lodge has its own airstrip capable of landing a Boeing 737 aircraft.. Table 15 describes the four major lodges operating adjacent to the proposed East Arm of Great Slave Lake National Park boundary.

Aswell as the fishing lodges described in Table 15, there are an additional 9 licenced lodges with 143 bed capacity within the study area. These lodges range in capacity from 10 to 36 and are mainly serviced by float plane. The lodges offer full service packages and light housekeeping services. Due to their distance from the proposed boundary, little impact from park establishment is expected for these 9 lodges.

#### 5.3.2 Outfitting

In recent years outfitting businesses have developed to take advantage of a growing range of tourism activities in the study area. Outfitters now offer adventure travel tours, trophy fishing tours, traditional learn, observe and experience tours and sightseeing in both the busy summer tourist season, and winter and spring shoulder seasons. Table 16 describes current tour operators, their facilities and services, season, package arrangements and capacity. Trophy sport hunting is not conducted in the study area, however there are outfitters (2-4 licenced and active) located in Yellowknife offering fall trophy caribou hunts on the barrenlands north of Yellowknife.

#### 5.3.3 Community Tours

Community tours are offered in Yellowknife and Hay River. In Yellowknife Frontier Tours, Yellowknife Traders and Raven Tours market community sightseeing to groups ranging to maximums of 20 and 40 visitors on charter boats, or motorcoach. Similar cruises are operated in Hay River by Tucho Tours and Great Slave Lake Cruises. The average tour length is two hours with some longer duration tours combined with a fish fry or barbecue.

#### 5.3.4 Recreation Infrastructure

Although recreation is considered to be a community service, it is dealt with as a tourism travel generator for regional travel markets. The region is equipped to handle major Northwest Territories sport and recreation events involving regional travel. Both Yellowknife and Hay River have hosted the Arctic

TABLE 16  
OUTFITTING/NATURALIST PACKAGE TOURS AND SERVICES, 1986

OUTFITTER	SERVICE	CAPACITY	TRANSPORTATION MODE	SEASON	COMMENTS
<b>OUTFITTING/NATURALIST</b>					
Bluefish Services Yellowknife,	guided fishing & outfitting on GSL	small groups families min. 3 on extended tour 2-5 passengers	charter boat	open water late June-Sept.	packages include 1/2 day, day, overnight & extended trips from YK to Hearne Channel, North Shore, Y. K. Bay East Arm of GSL
Snowcraft Cruises Yellowknife,	guided fishing boat charter on GSL	minimum 4 4-6 passengers	charter boat	open water late June-Sept.	packages include 1/2 day, day and 7 day with destinations in the Hearne Channel /East Arm
N.W. T. Wilderness Cruises/East Arm Freighting Yellowknife	charter boat tours on GSL	2-4 passengers	charter boat	open water season	package trips to points on GSL can be arranged
East Wind Outfitters, Yellowknife	trophy fishing, wildlife photo safaris, canoe and hiking, expeditions - guided	12 at Lynx Tundra Lodge	floatplane	July-Sept.	14 packages 4 to 28 days duration from Y.K. with destinations east of Ft. Reliance/Artillery Lk. in Thelon Game Sanctuary area.
Great Slave Lake Sledging Co. Ltd. Yellowknife	guided dogteam expeditions, viewing		dogteam	Dec. - May	packages from one week to one month, day trips from Y.K. to destinations on GSL/summer fishing, bird and animal viewing, kayaking
DeDet'Ancho Adventures? Snowdrift	Heritage guided outfitting - canoeing, fishing, and hiking in traditional Dene setting	up to 10 guests	charter flights	June-Sept.	3,4,7, and 10 days from Y.K. to destinations on Snowdrift River, Austin, Siltaza, Norman, Know, Murphy Gagnon, & Beaver Lakes
Canoe Arctic, Fort Smith	guided outfitting canoeing, biological interpretation	6-8 guests	floatplane/canoe	June 1-Sept. 15	7, 12, 19 day packages from Y.K. & Fort Smith to destinations on Thelon, Hanbury Mary Frances, Taitson, Thos, Elk, Sled, Eileen, Back & Coppermine

SOURCES: G. N. W.T. Explorer's Guide, 1986  
Northwest Territories Business Directory, GNWT, 1985  
Selected promotional brochures  
Visitor Market Study for the Proposed East Arm National Park Reserve, Parks Canada, 1984

Winter Games, major curling bonspiels, and hockey tournaments. Table 17 summarizes municipal recreation facilities for each of the study area communities.

TABLE 17  
RECREATION FACILITIES, 1986

LOCATION	INDOOR						OUTDOOR				
	Arena	Multi-Purpose/ Community Hall	Gym	Curling Rink	Pool	Other	Play field	Play ground	Rink	Pool	Ski Trails
Deer/Rainbow Valley	N	Y	N	N	N	N	Y	N	Y	N	N
Fort Resolution	N	Y	Y	N	N	N	Y	Y	Y	Y	N
Hag River	Y	Y	Y	Y	Y	L	Y	Y	N	N	N
Hay River Reserve	N	Y	N	N	N	N	Y	Y	Y	N	N
Reliance	N	N	N	N	N	N	N	N	N	N	N
Snowdrift	N	Y	N	N	N	N	Y	Y	Y	N	N
Yellowknife	Y	YIP	Y	Y	Y	B, AC, R, L, M	Y	Y	N	N	

SOURCES: 1) G. N.W. T. Dept. of Local Gov't, Recreation Division  
2) N.W. T. Data Book, 1984/85,

NOTES: Y=yes N=no P= Privately owned and operated  
Indoor Other - L= Library M=Museum B= Bowling R= Raquet Ball AC=Arts Centre  
Outdoor Other - TC=Tennis Courts G=Golf B=Beach C=Camping SC= Stock Car Oval

6. VISITOR MARKET TRENDS AND CHARACTERISTICS  
ASSUMING NO NATIONAL PARK DEVELOPMENT ON  
THE EAST ARM OF GREAT SLAVE LAKE

A series of visitor surveys were initiated by the Dept. of Economic Development and Tourism, G.N.W.T. in 1978 and continued until 1984 (1). These surveys were aimed at developing and supplying a data base for the tourism industry in the N.W.T. and its five administrative regions. Of relevance to this study is the data collected for the Fort Smith Region, of which the study area is a part. These surveys provide clues to the characteristics and volumes of visitors traveling to destinations in the N.W.T. in general and to the study area in particular.

Although broadly based data have been collected, there is some degree of difficulty in achieving long range trends and visitor forecasts for the study area. These difficulties arise from the inconsistencies in data classifications between reporting years and, sampling between regions. Survey data are more consistent for the reporting years 1982 to 1984 and provide a more comprehensive review of visitation to the Fort Smith Region, which in turn allows determination of visitor trends for the study area.

6.1 Summary of Characteristics of Non-N.W.T. Resident  
Visitors to the Study Area in 1984

It is estimated that 67% of all visitors who are non-residents of the N.W.T., arriving in the Fort Smith Region, do arrive at destinations in the study area.(2) As such, it is assumed that non-N.W.T. resident visitor trends and characteristics established here for the study area are similar to those which have been documented for the Fort Smith Region.

Characteristics provided for the study area and displayed below in Table 18 have been drawn from Fort Smith Region travel data as recorded in G.N.W.T. travel surveys (1). In keeping with the definitions utilized in G.N.W.T. travel surveys and for the purpose of profiling visitor characteristics, non-N.W.T. resident visitors are travelers visiting the N.W.T. from destinations outside of the N.W.T. In accordance with the study terms of reference however, forecasting (see section 6.4) "non-resident visitors" will apply to all visitors who do not reside in the study area and thus, will include all other N.W.T. residents as well as non-N.W.T. residents.

(1) Dept. Of Economic Development and Tourism, G.N.W.T. ,  
"Visitors to the Northwest Territories", 1984;  
"Visitors to the Northwest Territories", 1982,  
"Northwest Territories Travel Surveys", 1981-82

(2) Study area travel destination percentages are calculated from the averaging of the three most recent travel surveys, noted above .

TABLE 18  
 CHARACTERISTICS OF NON-N.W.T. RESIDENT  
 VISITORS TO THE STUDY AREA  
 in 1984

TRIPS :	
Trips to Study Area:	14,718
Seasonality of Trips:	65% of total trips made in summer
Mode of Transport:	55% air 45% road
Average Party Size:	1.8 persons
Average Duration of Stay :	10.1 nights
TRIP EXPENDITURES:	
Total expenditures:	\$16 million (in the study area)
Average Per Visitor Expenditure Per Day:	\$109.00
Expenditures Per Travel Dollar:	\$ .43 (transportation) \$.21 (guides and outfitters) \$.25 (food and accommodation) \$.11 (souvenirs, crafts, recreation and entertainment)
VISITOR ORIGIN & TRIP DESTINATION	
Visitor Origin:	80% (Western Canada) 10% (United States) 10% (Other Canadian & International)
Principal Regional destinations :	48% (Yellowknife) 17% (Hay River)
TRIP PURPOSE:	58% (business) 31% (vacation)
PRINCIPAL LEISURE ACTIVITIES:	
	1. Shopping 2. Fishing 3. Water/land recreation 4. Visiting friends/relatives 5. Visiting museums and historic sites
DEMOGRAPHICS:	
Between 25 and 54 years of age	54%
Average per capita income range (\$1984)	up to \$15,000.

SOURCE: G.N.W.T. Travel Surveys 1982 to 1984

### 6.1.1 Visitor Trends: Non-N.W.T. Residents

The following information was derived from G.N.W.T. visitor surveys for 1982 to 1984 and other available secondary source data.

- a) Overall, non-N.W.T. resident visitation has declined in the N.W.T. and Fort Smith Region by 7% and 25% respectively. Similarly, visitor records kept by GNWT's Travel Arctic (Visitors' Desk), the Tourist Cabin in Yellowknife, and the Mackenzie Highway Border Crossing demonstrate that visitor declines were significant during the same period and have continued through 1985.
- b) Before inflation is considered, non-N.W.T. resident visitor expenditures between 1982 and 1984 increased by 7.5% per annum for the N.W.T. and 9% for the Fort Smith Region and the study area.
- c) Over the survey period, the average party size of non-N.W.T. resident visitors to the Fort Smith Region and thus the study area, has become smaller, averaging 1.8 persons per party in 1984. This indicates a shift to more single party trips. Business trips increased by 10% during the same period.
- d) Between 1982 and 1984, travel from the United States to the N.W.T. has declined from 13% to 9%, while trips from Ontario and other parts of Canada has increased. Travel by western Canadian residents remained steady and continue to be the principal source of visitors to the Fort Smith Region and thus, the study area.
- e) In 1984, more non-N.W.T. resident visitors chose to stay at hotels while traveling in the N.W.T. (up from 29% in 1982 to 35% of these visitors in 1984). Visitation to lodges was up from 8% in 1982 to 17% of these visitors in 1984. Campgrounds, on the other hand, have shown modest declines in the number of camping parties. Although lodge accommodation increased, interest in sport fishing declined by 15% over the same period. The duration of stay remained fairly constant with the majority of visitors staying and average 10 days.

### 6.2 Summary of Characteristics of N.W.T. Resident Travel in the Study Area

Resident travel is defined in G.N.W.T. visitor surveys as NWT residents traveling to destinations in the Northwest Territories. This definition is used for the purposes of describing travel characteristics. However for the purposes of forecasting and in keeping with the study terms of reference, the definition applied to "resident visitors" will be restricted to residents of the study area traveling in the study area.

Evidence of resident travel was found in 1981/82 and 1983 G.N.W.T. visitor surveys. Treatment of resident travel data in visitor surveys has not been thorough. It is assumed that resident visitor characteristics documented in secondary source materials for the Fort Smith Region will apply to the study area.

Resident travel data displayed a propensity by N.W.T. residents (75%+) to travel in the Fort Smith Region. Due to the location of two major urban transportation and service centres in the study area, an estimated 70% of travel to/in the Fort Smith Region is assumed to take place in the study area. From available data, a factor of 52% (70% of 75%) of NWT residential travel is computed for the study area.

#### 6.2.1 Trip Duration, Purpose and Destination

N.W.T. resident travelers are usually on short duration trips which average slightly over 3 days. N.W.T. resident travelers take an average of 2.2 trips annually to destinations in the N.W.T.

Among resident travelers a shift in trip purpose was noted from 1981 to 1983 with vacation travel declining in importance from 67% to 50% of all NWT resident travel. Business travel increased accordingly during the same period. During that period, construction of the Norman Wells pipeline began and oil and gas exploration escalated in the Mackenzie Valley and Beaufort Sea regions of the N.W.T. These activities have since been completed or temporarily "moth-balled".

Among N.W.T. resident travelers, trip destinations were primarily to urban centres with major activities listed as camping and fishing.

#### 6.3 Existing Visitor Market Segments and Estimates in the Study Area

Although definitive travel characteristics and trends are difficult to ascertain from surveys, some specific travel market segment characteristic and trend data are evident from other secondary source documentation. For study purposes, travel markets are segmented by activity/product. Our review of secondary source data provided the following market segments:

- \*Sport Fishing Lodge Visitor Market
- \*Chartered Boat - Sightseeing/Adventure Travel/Sport Fishing Visitor Market

- \*Chartered Plane - Sightseeing/Adventure Travel/Sport Fishing Visitor Market.
- \*Canoe/1-liking/Adventure Travel Visitor Market
- \*Pleasure Craft Market for Sport Fishing and Sightseeing

Data provided for each of these segments have been prepared for 1986. Forecasts for each of these segments are provided in section 6.4.

### 6.3.1 Sport Fishing Lodge Visitor Market

The sport fishing Lodge industry has been attracting visitors to the study area for the past 25 years. As such, there has been some attempt made to evaluate the performance of that sector of the N.W.T. tourism economy. A major study in 1982(1) focussed on an examination of the dimensions of the sport fishing lodge industry including size, capacity, utilization of lodges, financial performance, and attitudes and perceptions of lodge operators. These data further supplemented (2) the approach taken to determining market segment characteristics for those visitors to sport fishing lodges in the east arm area of Great Slave Lake.

The lodge sport fishery encompasses a total of 15 licenced, commercial lodges within the study area. Four of the six lodges located on Great Slave Lake are in close proximity to the proposed boundary of the east arm of Great Slave Lake National Park. Because of their close proximity and perceived importance to future visitation to the proposed park, baseline visitor forecasts and characteristics focus on these lodges. Table 15 presents a description of services and infrastructure provided by each of the lodges.

The development of baseline characteristics and trends of the sport fishery at east arm of Great Slave Lake lodges is computed from an analysis of vendor sport fishing licence sales. Table 19 describes fishing licence sales by vendors for the selected lodges. In the six year period since 1979/80, there has been a 17% decline in licence sales, however at the end of the fishing

(1) D. Topolniski, "A Regional Income Analysis of Northwest Territory Fishing Lodges, 1982"

(2) Fisheries and Oceans, "Review of Great Bear Lake Fishery Management Goals," Vol. 1 and Vol. 2, 1985

TABLE 19  
FISHING LICENCES SOLD

LODGE	1979/1980		1790/1991		1981/82		1 982/83		1983/84		1984/85	
	RES.	NON	RES.	NON	RES.	NON	RES.	NON	RES.	NON	RES.	NON
East Arm Totals	249	724	237	750	245	718	217	548	181	593	242	564
Yellowknife Area							4428	699	4705	1527	5264	1360
Fort Smith Area							4300	1669	3262	1022	4004	1093

Resident: NWT residents including study area residents

Non-Resident: Non-N, W.T. residents

Source : Dept. of Renewable Resources  
Dept. of Fisheries and Oceans

season in 1982 Arctic Star Lodge was destroyed by fire. Examining the period directly following the fire, licence sales indicate a modest 5 % growth. This growth demonstrates the overall strength of the east arm of Great Slave Lake sport fishing product despite previous comments regarding declines in visitation to the Fort Smith Region/study area and a declining interest in sport fishing.

a) Number of Angling Trips Sold at Sport Fishing Lodges

The number of angling trips sold at sport fishing lodges in the east arm of Great Slave Lake is 852, computed from adjusted vendor sport fishing licence sales. (1)

The G.N.W.T., Department of Economic Development and Tourism has received requests to expand the east arm of Great Slave Lake lodge areas and capacities. No actual proposals have however been received to date. The Department of Economic Development and Tourism and the Department of Fisheries and Oceans is deferring decisions on these requests until the results of a DFO sponsored east arm of Great Slave Lake creel census completed in the summer of 1986 are available. There will be no structural change

(1) The weighted average of sport fishing licences sold at east arm lodges for the three years commencing 1982 was 792. A factor of 1.076 was applied to sport fishing licence sales as an indicator of angling trips sold at sport fishing lodges in the east arm. The factor is used to adjust licence sales to account for client purchases from other vendors, and a differentiation between sales to staff and clients. Verification of this factor and the aggregate number of lodge guests was sought and confirmed by the G.N.W.T., Dept. of Economic Development and Tourism.

in the composition of the lodge sport fishery in this area of Great Slave Lake through 1986 and 1986 base year estimates will be consistent with the adjusted value of 852 guests.

Topolniski estimated that guests stayed an average of 5.95 days at fishing lodges on Great Slave and Great Bear Lake in 1980. Through a review of sport fishing packages described in current lodge (on the east arm of Great Slave Lake) brochures, it is reasonable to assume that the average 5.95 days per guest still exists. Angling trips to these sport fishing lodges therefore yielded an estimated 5,093 guest days for the 1986 base year. Base year occupancy rates then are estimated at 76%.<sup>(1)</sup>

#### b) Angler Expenditures

Aggregate guest expenditure estimates for lodges on the east arm of Great Slave Lake are presented in order to compute the level of gross sales and subsequent contribution to the tourism industry in the study area. Guest expenditures are estimated to average the package price of \$300 per day for goods and services offered at these lodges. Goods and services are comprised of transportation, accommodation, guiding, and food. There are however, other expenditures made by guests while at lodges which include but are not restricted to, guide gratuities, licences, liquor, groceries and fishing tackle. 10% is estimated for this expense category.<sup>(2)</sup>

The occasional overnight accommodation and meal, expense may occur in a study area community (ie. Yellowknife or Hay River) which would be extra to the amounts spent at the particular lodge on the east arm of Great Slave Lake. It is in the competitive best interest of these lodge operators to minimize extra expenses, thus we have not attempted to provide aggregate estimates of extra expenses.

Aggregate gross sales of sport fishing lodges on the east arm of Great Slave Lake is computed from average daily expenditures and total guest days. \$1.528 million is estimated to be spent primarily for lodge packages in the East Arm (study area) for the base year 1986. A further \$152,790. is expended in the East Arm (study area) for other goods and services offered at lodge facilities. The impact of east arm of Great Slave Lake lodges is summarized in Appendix D.

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<sup>(1)</sup>An estimated average season of 71 days was derived from lodge promotional brochures.

<sup>(2)</sup> Confirmation for the above aggregate estimates of lodge package and other expenditures was provided by the Dept. of Economic Development and Tourism, G.N.W.T.

c) Angler Origin

There appears to be little difference between angler origin at the N.W.T. and east arm of Great Slave Lake levels. 3 non-N.W.T. resident anglers are accommodated at east arm of Great Slave Lake lodges to every 1 resident (N.W.T.) angler. Further, the principal origin of the non-resident angler is the United States (74"6). (1)

6.3.2 Chartered Boat - Sightseeing and Sport Fishing Visitor Market

Current outfitting operations are recent and small. Published data is limited thus the level of analysis for this product market segment is restricted.

The following (Table 20) is a scenario for the 1986 base year describing existing charter boat market segment characteristics as based on our professional judgement and personal experience in the tourism industry in the study area. The development of the scenario was aided by discussions with the Department of Economic Development and Tourism, G.N.W.T. and a review of packaged product offerings. The geographic focus of the scenario is trip destinations in proximity to the proposed boundary for the East Arm of Great Slave Lake National Park.

Currently there are three licenced outfitters using charter boats to service the sport fishing and sightseeing markets in the East Arm. Given a 60 day operating season corresponding to ice-off and fair weather in July and August and, an estimated 15 spaces per day (as based on our knowledge of these operations), the capacity of the segment is 900 guest days.

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(1) D. Topolniski, "A Regional Income Analysis of Northwest Territories Fishing Lodges", 1982

TABLE 20  
ESTIMATES OF CHARTERED BOAT MARKETS  
EAST ARM OF GREAT SLAVE LAKE  
(Estimates for Base Year 1986)

	East Arm Destinations	
Total # of Guests	65	
-N.W.T. Residents	16	(including study area)
-Non-N.W.T. Residents	49	
 Average Trip Length (days)	3	
 Total Guest Days	195	
 Average Daily Expenditure	\$110	
 Annual Expenditure	\$21,450	

An expenditure breakdown has not been prepared due to the small amount of annual expenditures.

#### 6.3.3 Chartered Aircraft- Sightseeing/Photographic and Sport Fishing Visitor Markets

Chartered aircraft companies are required to maintain extensive records of aircraft movement from their bases. Flight information is collected and filed on a flight ticket at the time of the flight. Trip purpose is not required on the flight ticket. Thus, it is difficult to determine accurate visitor characteristics, expenditures and volumes to destinations in the area of the proposed East Arm of Great Slave Lake National Park without surveying charter air companies.

Discussions with transportation and tourism industry representatives revealed that traffic to the east arm of Great Slave Lake area is primarily resident travel from the study area. The main

trip purpose is a combination of camping/sport. fishing. Periodically but infrequently, canoe parties are dropped at. Reliance. Most resident sport fishing air charters occurs on a Friday to Sunday arrangement or long weekend. The high season is July through September and low season during the spring.

Air charter is not considered a popular means of travelling to destinations in close proximity to the proposed East Arm of Great Slave Lake National Park boundary. The reason is high cost. The cost per person can range upwards from \$200 depending on total distance, size of party and type of aircraft used. For example, typical charter costs from Yellowknife could be \$300 for destinations close to or in the proposed national park, such as Wildbread Bay. A charter service began June 1, 1986 from bases in Snowdrift and Fort Resolution and will have the potential of reducing charter rates.

Based on charter rates, information derived from transportation and tourism industry representatives and our personal experience in the area, the following scenario (see Table 21) is developed for existing charter air visitor movements to destinations in close proximity to the proposed park boundary.

TABLE 21  
ESTIMATE OF CHARTERED AIRCRAFT MARKET  
(Estimates for Base Year 1986)

	East Arm Destinations -----
# of Visitors (primarily study area residents)	100
Average Trip Duration [days)	2
Annual Person Days	200
Average Daily Expenditure	\$200
Trip Costs/Person	\$400
Annual Expenditure	\$40,000

Table 21 has been developed to illustrate the current level and value of the charter aircraft market for tourism activities in the east arm of Great Slave Lake. These data should be used with caution. More accurate estimates may be derived by conducting direct interviews/surveys with all charter air companies servicing the area. Given primarily a resident market, it is assumed that expenditures would occur in the study area.

#### 6.3.4 Adventure Travel/Canoeing Market

Three operators offer package tours catering primarily to the canoeing/adventure travel market. These are: Det'Ancho Heritage Adventures based in Snowdrift, Canoe Arctic in Fort Smith and East Wind Outfitters of Yellowknife. Det'Ancho Heritage Adventures is the only operation which conducts its tours in close proximity to the boundary of the proposed East Arm of Great Slave Lake National Park.

The current capacity of the market is small and reported to be in a developmental stage. Packages are offered as outlined in Table 16 (see page 54). For the 1986 base year, no licenced canoeing/adventure travel package tours were operated in close proximity to the park boundary or in the study area.

RCMP detachments in Snowdrift and Yellowknife indicated a small number of canoe/hiking/camping parties registered annually for destinations in the east arm of Great Slave Lake area.

#### 6.3.5 Pleasure Craft/Sport Fishing/Sightseeing Market

It is evident from discussions with contacts in study area communities close (Yellowknife and Snowdrift) to the proposed park boundary that there is considerable local and regional pleasure craft movement to destinations in the East Arm/Christie Bay area of Great Slave Lake. To a lesser degree, residents from Fort Resolution travel via the Simpson Islands/Hornby Channel to the Snowdrift area. Again, there is no published secondary data providing market characteristics and trends for this segment.

An assessment of itinerant travel/sport fishing in the east arm of Great Slave Lake was completed in September 1986 by the Department of Fisheries and Oceans. The survey check point was at Narrow Island and respondents were using the area east of Gros Cap in the East Arm/Christie/McLeod Bay Area. Data publication is anticipated in early 1987. This creel census should provide valuable information in determining accurate visitor

characteristics in the east arm of Great Slave Lake. This is the first creel census completed to estimate itinerant fishing pressure in the east arm of Great Slave Lake. Preliminary estimates were provided by the Department of Fisheries and Oceans as based on the initial batches of questionnaires.. -Department officials stated that these are minimum estimates only and results will likely go higher.

The following scenario (see Table 22) is a preliminary estimate of characteristics of itinerant sport fishing and sightseeing by pleasure craft operators in the east arm of Great Slave Lake. We reiterate that these data are preliminary and at best provide a minimum picture of travel for this market segment.

TABLE 22  
ESTIMATE OF ITINERANT SPORT  
FISHING AND SIGHTSEEING BY  
PLEASURE CRAFT IN THE EAST  
ARM OF GREAT SLAVE LAKE  
(Estimated for Base Year, 1986)

Itinerant Sport Fishing - East Arm -----	
# of Visitors:	
Study Area Residents	100
Non-Study Area Resident	27
Visitor Days	435
Estimated Expenditure Per Day	\$ 32.
Total Annual Expenditure	\$14,000.

SOURCE: Department of Fisheries and Oceans

NOTE TO TABLE:

It is noted that data presented in this table is preliminary as based on initial batches of questionnaires received from the 1986 Creel Census in the east arm of Great Slave Lake. 127 of 600 questionnaires have been collected to date. Each visitor was reported to spend an average 3.43 days in the census area. Because of limited data at this point, extrapolation would be misleading .

All pleasure craft travel expenditures are for goods and services and occur within the study area. The ratio of study area visitors to non-resident visitors is estimated at. 4:1 with most departing from Yellowknife.

Information regarding pleasure craft trips was gathered through informal discussions with members of the Great Slave Cruising Club, the Great Slave Yacht Club, the RCMP in Snowdrift and Department of Fisheries and Oceans. Direct study area expenditures are primarily for fuels and food. It is assumed that visitors spend an estimated average \$32(1) per visitor day while at destinations in the east arm of Great Slave Lake. This figure will vary with the style of craft used, duration of trip and distance travelled. Total expenditures in 1986 are estimated at \$14,000. for the itinerant sport fishing/pleasurecraft market segment. With 10% arriving from outside the study area, the actual contribution to study area economy is therefore estimated at \$1,400.

#### 6.4 Travel and Expenditure Estimates: 1986 Base year

The adjustment of survey data and specific market segment data to the 1986 base year for the study area is summarized in Tables 23 and 24. These data are based on market information presented above. It is also recognized that G.N.W.T. visitor surveys report data for the high visitor summer season. Shoulder season visitation is provided at 55% of the total summer visitation.

It is reiterated at this time that in accordance with the study terms of reference, the definitions applied to and utilized in the following forecasts for resident and non-resident travelers are as follows:

- a) resident travelers are residents of the study area; and
- b) non-resident travelers are all those persons residing outside the study area, including residents of the N.W.T. and non-N.W.T. residents.

(1) Expenditures are derived from the following:

Fuels: ~~Average~~ Average Trip Distance/Total Trip = 320 km./10240 km.  
No. of Pleasurecraft Trips = 32  
Total Expenditure (\$.30/km) = \$3072  
Expenditure per Visitor Day = \$7  
Food and Miscellaneous: \$25 per Visitor Day

6.4.1 Considerations

6.4.1.1 Non-Resident Travel Markets to the Study Area

\*Visitation to the study area will decline at the N.W.T. 3 year (1982-1984) annual rate of 5% to the 1986 base year.

\*Non-resident expenditures will increase at the N.W.T. 3 year (1982-1984) annual rate of 8% to the 1986 base year equivalent to \$125 per trip day.

\*Non-resident trips will last an average 10 days and trip party size will be 1.8.

\*Non-resident travel to the Fort Smith Region and study area depends largely on domestic Canadian markets primarily Alberta and Ontario. U.S. travelers on the other hand represent an estimated 10% of visitors to the region. Non-resident visitation to the study area will be impacted by product marketing by industry and government to develop an image and target programs at key travel market segments. Industry and government efforts are currently underway to improve marketing in the N.W.T. These

TABLE 23  
NO PARK DEVELOPMENT SCENARIO  
ESTIMATES OF VISITOR TRAVEL  
(for base year 1986)

STUDY AREA	EAST ARM MARKET SEGMENTS					TOTAL
	FISHING LODGE	CHARTER BOAT	CHARTER AIR	PLEASURE CRAFT	ADVENTURE/CANOE	
Non-Resident Trips to the Study Area (1)	63434	639	26		27	692
Trip Days	334642	3802	39		93	3934
Resident Trips in the Study Area (2)	17957	213	65(3)	100	100	
Trip Days	53871	1267	195	200	343	2005
Total Trip Days	388513	5069	195	200	436	5900

Note: A trip day is one person traveling for one day.  
 (1) Non-residents reside outside the study area.  
 (2) Residents reside in the study area.  
 (3) Resident:Non-resident distribution is calculated at 60%:40%.

Sources: Arctic Coast Destination Zone, Tourism Development and Marketing Strategy, 1985, Outcrop Ltd, DPA, MacLaren Plans earch Visitor Surveys 1991-1984, Prepared for G. N.W. T.

**TABLE 24**  
**NO PARK DEVELOPMENT SCENARIO**  
**ESTIMATES OF TRAVEL EXPENDITURES\***  
 (for base year 1986)  
 (\$000)

STUDY AREA	EAST ARM MARKET SEGMENTS					TOTAL
	FISHING LODGE	CHARTER BOAT	CHARTER AIR	PLEASURE CRAFT	ADVENTURE / CANOE	
Non-Resident Visitor Expenditures	41,830	1,275	8.6	-	3	1286.6
Resident Expenditures	6,740	425	12.9	40	11	488.9
Total	48,570	1,700	21.5	40	14	1775.5

\*Expenditures are computed from trip days at the rates indicated in the text.

efforts include:

- a) the preparation of comprehensive marketing plans and implementation programs for both the travel zones and the N.W.T. A joint proposal for 3 year funding is currently being processed. The success of the marketing effort will depend on industry support and delivery. The study area is an integral part of the Northern Frontier Visitors Association. The zone currently lacks a comprehensive tourism strategy for industry, product and market development, however efforts are currently underway to correct this;
- b) the staging of such travel influencers as Expo '86; and
- c) addressing the impact of Tourism Canada's focus away from domestic markets to offshore and U.S. markets.

\*The recent and historical ability of the study area travel industry to deliver to target markets a range of competitive, quality products as compared to other northern travel destinations, and the study area's capacity to maintain its market share will further impact non-resident travel.

\*Economic conditions will influence non-resident travel and will include:

- a) The level of discretionary income available to key non-resident travel markets in Canada and the U.S. Currently tied into this factor is the low value of the Canadian dollar relative to the U.S. dollar. Although the current poor image of Canadian products, U.S. focus on Canadian urban centres and the fact that most U.S. travel is by vehicle and within 500 miles from home(1) does however detract from the positive aspects of the currency advantage.
- b) The current slump in the oil and gas industry in Canada and particularly in Alberta are creating employment lay-offs and

(1) Longwoods Research Group Inc., "U.S. pleasure Travel Market, Canadian Potential: Highlights Report", Tourism Canada, 1986

reducing the level of discretionary income available to the study area's key vacation market. The phenomenon is cyclical and directly affected by world supply and demand factors thus the boom situation enjoyed during the early 1980's may also occur in the forecast period. The possible effect of less discretionary income will be high quality, budget conscious vacations closer to home. The study area is distant from non-resident markets and expensive to travel to.

c) Canada's domestic markets are expected to display lower growth in population while the gross national product will increase by 2-4%. The net effect in domestic and international travel in and to Canada is an anticipated 3 - 6% annual increase for the balance of the 1980s. (1)

\*N.W.T. residents who live outside the study area, will travel to or in the study area at a rate equivalent to 52.5% of the total number of trips taken by N.W.T. residents. N.W.T. residents will continue to take 6.6 trip days per capita per annum equivalent to levels noted to 1984 in the survey data.

\*N.W.T. residents traveling in the study area will spend an average of \$125 per trip day equivalent to the amount spent by non-resident visitors.

Based on G.N.W.T. survey data the ratio of expenditures for transportation, guides and outfitters, and food/meals and accommodation will remain the same for the study area as is currently experienced in the Fort Smith Region in the base year 1986. That is, for each travel dollar expended the following break down occurs: transportation \$.43, guides and outfitters \$.21 and food and accommodation \$.25. These ratios are assumed to apply to both resident and non-resident travel expenditures in the study area. It is assumed that direct labour expenditures are for guides and outfitters, while goods and services expenditures are for food/meals, accommodation and transportation.

In consideration of the above key factors, we assume that long term growth will occur in non-resident travel markets to the study area. Although poor economic conditions in the oil and gas sector are currently impacting discretionary income in the study area's major geographic market in Alberta, indications are that this condition may be temporary. The travel industry in the study area has well developed products and is currently striving

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(1) D.P.A. and Outcrop, "Arctic Coast Destination Zone, Tourism Development and Marketing Strategy", Vol. 1, 1985

to improve its organization and marketing approach. Due to the positive response to the N.W.T. pavillion at Expo '86, there will undoubtedly be a long term spin-off effect. which will improve the image of the study area to new geographic market. segments. The effect. of Expo may be the creation of a more diversified geographic market base.

With travel expected to increase by 3 - 6% in Canada (1) by domestic and foreign markets, we assume tnat the spin-off of non-resident visitors to the study area will correspond to the low end of the range. We conclude that a 3% annual increase can be applied to non-resident markets traveling to t.he study area during the ten year forecast period. These increases are reflected in summary Table 25.

#### 6.4.1.2 Resident Travel Markets in the Study Area

\*Modest increases in population forecasted at 1.8% for the period to 1995 for N.W.T., Fort Smith and study area regions will impact the level of resident visitation to thestudyarea.

\*The recent and historical resident travel performance in the study area will remain fairly constant providing a realistic bases for future forecasts.

\*Economic conditions in the study area, the Fort Smith Region and the N.W.T affecting the level of discretionary income for travel to and in the study area will result in study area residents continuing to exhibit the same characteristics of 2.2 trips of 3 days each per annum as well as study area resident travel within the study area at the same rate as per the 1986 base year.

#### 6.4.2 Selected Market Segment Considerations: East Arm Lodge, Chartered Boat, Chartered Aircraft, Canoe/Adventure, and Pleasure Craft

Specific lodge and outfitting operations will undoubtedly change hands during the next 10 years resulting in market adjustments. It should be noted that ownership of lodges in the east arm has been stable for three of the four lodges for more than 10 years. The effect of longevity of lodge ownership is increased client goodwill and repeat visitation. Based on the current licencing policy of the G.N.W.T. and D.F.O., expansion to the capacity of tne lodge industry is not expected during the next 10 year period. It is expected that the industry will experience increases and declines around a median occupancy level of 75% during the next 10 years. For forecast purposes, stability is assumed in this market segment.

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(1) D.P.A and Outcrop, "Arctic Coast Destination Zone, Touris Development and Marketing Strategy", Vol. 1, 1985

The other markets are considered as secondary markets in an industry context. Main operators have other primary income earning activities which will limit the growth of the charter boat/aircraft markets. The canoe/adventure travel market. is very small and a relative unknown quantity and will only expand as marketing efforts improve and new products are offered.

Although there has been recent growth in the number of pleasure craft capable of reaching east arm destinations and an apparent increase in the number of visitor trips to that area, it is felt that the expansion of this market during the 10 year forecast period will be tied to the level of discretionary income available in study area communities. The large gross domestic product increases experienced in the N.W.T. during the early 1980's are not expected to continue as the large capital investments of the construction, mining and oil and gas sectors have currently ceased. The increase in the purchase of expensive boating equipment and the expense of traveling the long distances to the east arm for a relatively short season will level off from the high activity of the past three years.

The following are assumptions in the determination of 10 year market forecasts for the selected market segments.

\*It is expected that competition for the tourist dollar will be high amongst operators of similar tourist facilities in the study area, N.W.T. and other geographic locations.

\*Annual increases in charter boat and aircraft markets will remain modest ranging to 3% corresponding to resident population increases and anticipated increases in study area non-resident visitation.

\*Although difficult to assess, the use of pleasure craft to reach destinations in the east arm area should continue to expand at a moderate rate. An estimate of 3% per annum is applied to itinerant travel by pleasure boaters which will account for an increase in study area population and a slight increase in the level of discretionary income available to residents for travel.

\*It is expected that non-resident dominance will continue in the sport fishing market while resident travel will dominate other market segments.

\*Under existing conditions, it is expected that the canoe/adventure travel market will remain very small.

#### 6.5 Ten Year Visitor and Expenditure Forecasts

Table 25 summarizes forecasts of visitors to and in the study area and selected market segments from the 1986 base year to 1995. Study area resident expenditures and non-study area visitor expenditures are identified in Appendix E.

The estimated expenditure (\$1986) of non-resident visitors in the study area is \$41.83 million, while a further resident expenditure of \$6.74 million is spent in the study area. Direct labour payments generated by these expenditures are computed at \$10 million, while goods and services are estimated at \$31.7 million (see Appendix E).

**TABLE 25**  
**1986 TO 1995 VISITOR FORECASTS**  
**STUDY AREA AND EAST ARM OF GREAT**  
**LAKE MARKETS: NO PARI; SCENARIO**

		EAST ARM MARKET SEGMENTS						
STUDY AREA		LODGE MARKET	CHARTER BOAT	CHARTER AIR	PLEASURE CRAFT	ADVENTURE/ CANOE	TOTAL	-
PERSON TRIPS		PERSON TRIPS	PERSON TRIPS	PERSON TRIPS	PERSON TRIPS	PERSON TRIPS	PERSON TRIPS	
<b>1986</b>								
Non-Resident (1)	<b>63434</b>	639	26		27		<b>692</b>	
Resident (2)	17957	213	39	<b>100</b>	100		452	
TOTAL	<b>81391</b>	<b>852</b>	65	<b>100</b>	127		1144	
<b>1987</b>								
Non-Resident	<b>64985</b>	639	27		28		694	
Resident	<b>18283</b>	<b>213</b>	40	103	103		459	
TOTAL	<b>83268</b>	<b>852</b>	67	103	131		1153	
<b>1988</b>								
Non-Resident	66574	639	<b>28</b>		<b>29</b>		<b>696</b>	
Resident	<b>18643</b>	213	<b>41</b>	105	106		<b>466</b>	
TOTAL	<b>85217</b>	852	69	106	135		<b>1162</b>	
<b>1989</b>								
Non-Resident	<b>68197</b>	639	29		<b>30</b>		698	
Resident	18964	213	<b>42</b>	109	<b>109</b>		473	
TOTAL	<b>87161</b>	852	71	109	<b>139</b>		1171	
<b>1990</b>								
Non-Resident	<b>69898</b>	639	30		<b>31</b>		700	
Resident	19259	213	43	113	<b>112</b>		481	
TOTAL	<b>89157</b>	<b>852</b>	73	113	143		1181	
<b>1991</b>								
Non-Resident	<b>71600</b>	<b>639</b>	31		<b>32</b>		702	
Resident	<b>19547</b>	213	44	116	115		488	
TOTAL	91147	<b>852</b>	<b>75</b>	<b>116</b>	147		<b>1190</b>	
<b>1992</b>								
Non-Resident	73287	639	32		33		<b>704</b>	
Resident	<b>19835</b>	213	45	119	<b>119</b>		496	
TOTAL	93122	<b>852</b>	<b>77</b>	119	152		1200	
<b>1993</b>								
Non-Resident	75062	639	33		34		706	
Resident	<b>20086</b>	<b>213</b>	<b>46</b>	<b>123</b>	123		<b>505</b>	
TOTAL	95148	852	79	<b>123</b>	<b>157</b>		<b>1211</b>	
<b>1994</b>								
Non-Resident	<b>76800</b>	639	34		35		<b>708</b>	
Resident	20317	<b>213</b>	<b>47</b>	<b>127</b>	<b>126</b>		513	
TOTAL	97117	852	81	<b>127</b>	<b>161</b>		<b>1221</b>	
<b>1995</b>								
Non-Resident	78579	639	35		36		710	
Resident	<b>20577</b>	213	<b>48</b>	130	130		52..!	
TOTAL	99156	852	<b>83</b>	130	<b>166</b>		1231	

(1) Non-residents reside outside the study area.  
(2) Residents reside in the study area.

## 7. ECONOMIC IMPLICATIONS OF THE PRELIMINARY PARK DEVELOPMENT AND OPERATIONAL SCENARIO

### 7.1 Introduction

Sections 1 to 6 of this study inventoried infrastructure and resources and examined the current and forecasted level of tourism activity in the study area in the absence of a national park development on the east arm of Great Slave Lake. The remaining portions of this study respond directly to the preliminary development and operational scenario prepared by Environment Canada Parks for the proposed East Arm of Great Slave Lake National Park. That is, within the context of this scenario, this section of the study assesses the economic impact of park visitation and anticipated Environment Canada Parks' expenditures on the study area and on the N.W.T. This section of the study also endeavors to identify those socio-cultural impacts which might result from the park's establishment.

The general approach to assessing the economic impact of the park's establishment is through a detailed analysis of the preliminary park development and operational scenario. The full extent of economic impact is governed by policies in place for such considerations as employment, training and business participation. As such, the final section of this report examines and recommends policies necessary to ensure maximum benefit of the proposed park to the study area and the N.W.T.

There are limitations attached to the following economic impact assessment. The preliminary and general nature of the development and operational scenario for the proposed park permitted only a general economic estimates to be prepared. As such, this economic impact assessment should be viewed as a preliminary assessment only. Detailed plans, developed from extensive public consultation, will be prepared after the park is established.

The East Arm of Great Slave Lake National Park development and operational scenario assumes:

- 1) a relatively small amount of development in order to emphasize the protection of the natural and cultural resources of the area; and
- 2) limited financial and manpower resources are available to establish and operate new national parks.

These two conditions have substantially influenced the approach to developing and managing the proposed East Arm of Great Slave

Lake National Park as described in the preliminary park development and operational scenario.

## 7.2 Visitor Orientation

The overall objective of the park would be "to protect for all time in a natural state, a natural area of Canadian significance representing the Northwestern Boreal Uplands natural region and the transition from boreal forest to tundra landscape." The park would primarily attract visitors seeking a wilderness experience. Visitor use themes would emphasize wilderness, traditional native use and culture, historic trading and portage routes and the northern environment. Visitor activities appropriate to the proposed park include:

camping	fishing
boating	hiking
canoeing	photography
wildlife viewing	learn/observe/experience
cross country skiing	dog sledding

The primary focus of visitor activities in the area is water-based. The proposed park is however, land-based except for portions of Artillery Lake as well as the Hoarfrost and Lockhart Rivers.

Visitor services developed within the park will be limited. The proposed park will not have a fixed wing aircraft landing strip; there will be no roads; and Parks will not provide fixed roof accommodation. In lieu of fixed roof accommodation, Parks will provide primitive, wilderness style campsites located in clusters throughout the proposed park, accessible by water and by a proposed hiking trail. Parks will provide a power boat/docking facility outside the proposed park boundary. This facility will likely be constructed at the east end of Great Slave Lake at Fairchild Point.

It is suggested in the park development scenario that business opportunities be the responsibility of the private sector. Examples provided in the scenario refer to the provision of passenger service and boat tours to the national park. It is also suggested that existing fishing lodges could provide the service of roofed accommodation to those visitors desiring such accommodation.

## 7.3 Park Development and Operational Expenditures

Parks has provided expenditure estimates for 10 years for the proposed East Arm of Great Slave Lake National Park. It is estimated that almost \$11.5 million in constant \$1986 will be

spent developing and operating the park during the ten year forecast period. Expenditures will occur in three major areas: capital development, research and planning and operations and maintenance .

Capital Development : covers development of facilities and structures required for resource protection, resource management and visitor services. Capital development costs will be quite modest as the proposed park will remain in essentially an undeveloped state. Facilities and structures to be developed include two warden cabins with equipment storage and visitor service facilities, two remote warden cabins for patrols and storage, two houses and a warden/information office in the vicinity of the park, 40 primitive campsites, 100 km of hiking trails, a docking facility, patrol vessels, patrol vehicles, and signage. Housing requirements for training positions have not been clearly delineated. All of these facilities would be constructed under contract. Totalling \$3.3 million, these expenditures are heaviest during years 2,3,6, and 7, with a peak of \$1 million in year 2.

Research and Planning: covers research, input for understanding and interpreting the park, and management. planning to develop park activities. This includes basic resource inventory and analysis, archaeological research, socio-economic research, public participation, planning processes and developing interim management guidelines. Most of these expenditures are initiated and made in the regional office and not at the park site. Some contracting out might be done for various items such as archaeological work, oral history, research and public participation. Totalling \$1.8 million, these expenditures are highest in years 3 and 4 when they reach a peak of approximately \$580,000.

Operation and Maintenance : covers actual operations and maintenance of the park. These expenditures include provision for 8-9 full time, part time and seasonal Parks' employees as well as funds for fuel, food, aircraft rental, etc. Expenditures for fire suppression have not been included in the park development scenario. An addendum to the scenario (1) notes however that no resources beyond those already outlined in the scenario will be added for firefighting. Totalling \$6.4 million, O&M expenditures increase gradually after year 1 to peak at \$725,000 in years 8,9 and 10.

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(1) Information provided by Environment Canada Parks, Sept. 16,1986

A year by year summary of these categories of expenditures is displayed in Table 26. Annual expenditures for all three areas range from approximately \$641,000. to \$1,700,000. Peak expenditures occur in year 2 and year 3 at nearly \$1.7 million.

TABLE 26  
 PROPOSED EAST ARM OF GREAT SLAVE  
 LAKE NATIONAL PARK: ENVIRONMENT  
 CANADA PARKS EXPENDITURE ESTIMATES  
 (\$'000's)

YEAR	CAPITAL DEVELOPMENT	RESEARCH PLANNING	& O&M	TOTAL
1	64.0	155.1	422.0	641.1
2	1002.0	153.7	524.9	1678.8
3	548.0	582.0	569.9	1699.9
4	178.0	583.0	603.6	1364.6
5	198.0	169.5	665.0	1032.5
6	573.0	130.5	700.0	1403.5
7	359.0	20.0	710.0	1089.0
8	105.0		725.0	830.0
9	110.0		725.0	835.0
10	197.0		725.0	922.0
TOTAL	3334.0	1793.8	6370.4	11496.4

SOURCE: Environment Canada Parks

#### 7.4 Park Development and Operational Policies

The development of the proposed East Arm of Great Slave Lake National Park is guided by the National Parks Act, by Parks' activity policies and by precedents established for new national parks established through land claims processes such as the Northern Yukon National Park. These documents/legislation provide the necessary framework to deal with such important northern socio-cultural and economic issues as resource harvesting, training, business opportunities and jobs.

National Park policies which impact the creation of the proposed park are:

- a) A variety of mechanisms will be used to ensure the maximum possible opportunities for local residents to find employment and business opportunities related to the management of national parks.

b) National parks created in conjunction with aboriginal land claims will be subject to a joint management regime for planning and management of the park.

c) Zoning systems and plans will be developed to accommodate visitors and traditional uses.

d) Guarantees will be provided so certain traditional subsistence harvesting activities by local people will be permitted to continue in parts of national parks. Treaty rights of native people and rights recognized in native land claims settlement will be honoured in new northern national parks.

Parks wants to establish the proposed East Arm of Great Slave Lake National Park within the Dene/Metis Land Claim Settlement. As is alluded to in the proposed development and operational scenario, this may cause additional considerations and policies to be imposed for this park. For example, the scenario notes that if the proposed park is created through the Dene/Metis land claims settlement, joint planning efforts will "determine the nature of the park development and how it will be managed". As such and in addition to the following general policy guidelines noted above, the scenario infers that the following conditions may be imposed to increase economic benefits to claims beneficiaries:

- \* native involvement in managing wildlife (ie. possible establishment of a Dene/Metis Wildlife Management Board);
- \* training to qualify local people for employment and business opportunities ;
- \* provision of over 50% of permanent park employment opportunities to qualified regional populations;
- \* recognition of native employment provisions specified in the Dene/Metis claim;
- \* contracting out regionally for construction projects, facility cleaning, maintenance and garbage pick-up and recognition of possible land settlement provisions for preferential hiring of northern native businesses; and
- \* local input and monitoring into interim park management guidelines and the final park management plan.

8. ECONOMIC IMPACT OF VISITOR EXPENDITURES  
ASSUMING THE ESTABLISHMENT OF THE PROPOSED  
EAST ARM OF GREAT SLAVE LAKE NATIONAL PARK.

The following assessment of the economic impact of visitation resulting from the establishment of the proposed national park has been developed from the information base provided on visitation to the study area and to the proposed national park area under the "no national park development scenario" (see Table 25) and, by examining the experience of other northern national parks.

8.1 Environmental Characteristics for Travel to the  
Proposed East Arm of Great Slave Lake National Park

Visitation to the study area and to the East Arm of Great Slave Lake will be based on a number of variables, of which none is mutually exclusive. The proposed East Arm of Great Slave Lake National Park in itself is assumed not to be a travel generator and the physical presence of the national park alone will not significantly alter existing and anticipated visitation forecasted under the no national park development scenario (see Table 25). The extent to which visitation is altered will be based on recognition of the following considerations :

a)The capacity of the existing tourism infrastructure, both within the study area and in close proximity to the proposed park boundary, to expand beyond the forecasted growth potential;

b)The timely interest and willingness to develop new tourism and service oriented businesses to meet new demands generated by the proposed national park;

c)Advantages and limitations associated with the timing/phasing of park facility developments, visitor use themes and activities proposed for the park;

d)Co-operative marketing efforts involving the Government of the N.W.T., the Travel Industry Association of the N.W.T, private operators and Parks in the development of new markets for the proposed East Arm of Great Slave Lake National Park; and

e)The experience of other northern national parks/reserves.

With respect to these considerations, it is worth reiterating some salient features of the regional environment discussed in sections 2 to 6 of this report.

If permitted by the community, some park activities will originate in Snowdrift because of the community's fixed wing landing strip and ease of access to the east arm of Great Slave Lake. Existing tourism oriented and service business" -is limited in Snowdrift. There is one licenced tourism operator in Snowdrift who could provide guided group tours oriented to the natural environment, traditional and cultural Luts'elk'e ways and historic routes once travelled to the proposed park area. Snowdrift does not have a recognized territorial or municipal park, nor does it have a licenced accommodation facility. The accommodation facility retains the status of a transient centre and is not licenced as a commercial establishment. A fishing lodge is located adjacent to the community. Primary target markets for the fishing lodge are lake trout anglers. A licenced ground transportation operator is not currently available to receive and assist travelers once they arrive in Snowdrift. Snowdrift has fuel available for power craft.

Fairchild Point and Pethei Peninsula would also be park entry points. Licenced fishing lodges are located in proximity to both entry points. None of the 4 fishing lodges located in the east arm of Great Slave Lake area currently offer more than sport fishing packages. According to the licensing agency, the Department of Economic Development and Tourism, G.N.W.T., there will be no further expansion to the number of licenced outfitters operating in the east arm area until such time that more complete information is available on fish stock in the area. As such, it is expected that there will be no further expansion to fishing lodge operations.

The Northern Frontier Visitors' Association and Big River Travel Association are currently in the initial stages of developing tourism development and marketing strategies. Further, the Travel Industry Association of the N.W.T. and the G.N.W.T. are proposing to develop a comprehensive marketing program for the entire N.W.T. Although Parks has no apparent promotional budget designated in the proposed park development scenario, the agency intends to market its own park system more aggressively in future years.(1)

As displayed in Appendix F, the proposed East Arm of Great Slave Lake National Park bears considerable similarity to both the Nahanni National Park Reserve and the Auyuittuq National Park Reserve. To some extent, the proposed park is more similar to Nahanni in that it is about the same size; is remote and operated

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(1) Information provided by National Parks Directorate, Ottawa

as a wilderness area; is subject to similar weather conditions; and has a comparable visitor season. On the other hand, the proposed park bears a close resemblance to Auyuittuq as the activities proposed for the park are similar to those which occur in Auyuittuq (ie. camping, hiking, photography");

Further, the proposed East Arm of Great Slave Lake National Park would be quite accessible due to its location on Great Slave Lake, a popular navigation route and, its proximity to major northern transportation centres. Accessibility is a factor which makes the proposed park more similar to Nahanni. Nahanni is accessible from southern Canada via the Liard Highway. Auyuittuq is accessible from southern Canada by air only.

## 8.2 Visitor Characteristics and Considerations for the Proposed East Arm of Great Slave Lake National Park

For comparative purposes, Appendix F provides historical data on visitors to Nahanni and Auyuittuq National Park/Reserves. Key visitor characteristics for these national parks are presented below and form the basis for determining visitor growth in the study area and proposed national park area as a result of the park's establishment.

It is assumed that existing travel market segments in the study area and the proposed park area will not be considerably altered by the existence of the proposed park. There will however be a new adventure travel market segment which will be drawn by the new park and the activities made available. This new market segment will represent the net growth in visitation resulting from the park's establishment and development.

### 8.2.1 Visitor Origin and Distribution

\*Nahanni and Auyuittuq receive visitors mostly from other parts of Canada, the United States and the NWT/Yukon in that order. The distribution of visitors is reasonably similar in both Nahanni and Auyuittuq. The largest portion of visitors (50-60%) came from other parts of Canada. American and European tourists accounted for 28-36% while residents of the N.W.T./Yukon accounted for 11-14%. The origin of park visitors to Auyuittuq and Nahanni is similar to the origin of visitors to the study area as outlined in section 6.

\*The findings of a recent report on U.S. pleasure travel (1) suggests that Canada's strength as a pleasure travel destination for Americans does not lie in its unspoiled wilderness but in its touring destinations. This suggests that the activities established for the proposed park may not impact the level of visitation by American travelers. It is worthy to note that domestic and international economic considerations, international terrorism and marketing efforts will probably provide a balance, thus maintaining the existing level of visitors from the United States.

\*As displayed in Table 23, non-resident trips to the study area currently make up 85% of total trip days while resident trips make up the remaining 15% of trip days. Due to the similarity of visitor origin and the distribution of visitors currently forecasted for the study area and, in light of visitation to the Nahanni and Auyuittuq National Parks/Reserves, it is expected that the origin and distribution of visitors to the study area and subsequently to the proposed national park will not change significantly.

#### 8.2.2 Visitor Party Size and Stay Duration

\*In 1982, the average length of stay of visitors to Nahanni National Park was 9-12 nights (56.7%) varying from 5.7 nights for powerboaters and 11-14 nights for canoeists/rafters. (2)

\*Nahanni park users in 1982 largely travelled in groups of 12 or less (85% of visitors) with rafters traveling largely in groups over 8; powerboaters in groups of 5 to 8, and canoeists in groups of 4 or less.(2)

\*In the absence of a national park development within the study area, it is expected that non-resident visitors to the study area will continue to travel largely in parties of 2 and stay for an average of 10 days. Residents will continue to take 6.6 trip days per annum in the study area. Further it is expected that trip duration of sport fishermen will continue to average 6 days; chartered boat markets 3 days; chartered aircraft markets 2 days; and pleasure craft travelers 3-4 days. From the Nahanni National Park experience it might be expected that the duration of adventure travellers/canoeists will be 12-13 days.

\*Assuming the development of the proposed park on the east arm of Great Slave Lake and the nature of activities proposed for the park, it is not expected that there will be any substantial change in the duration of visitor stays in the study area. The exception to this of course should be the adventure travel/canoe

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(1) Tourism Canada, "U.S. Pleasure Travel Market", 1986  
(2) Parks Canada, "Nahanni Visitor Survey", 1982

market. segment. It is noted however that the proposed park does not offer the same exceptional canoeing opportunities of Nahanni nor is the infrastructure currently in place in the area to draw other adventure travel visitors (ie. dog sledding package tours, etc. ). As such, it might be expected that overall, **there** may be no change to the duration of visitor stay in the study area. For the same reasons, it is not expected that the size of travel parties will increase except perhaps in the adventure travel market. The size of this party may reach up **to 12 people, again** depending on the extent to which group activities are encouraged and available in the park.

### 8.2.3 Visitor Activities

\*The main activities at a national park depend on its specific natural characteristics, and the infrastructure and visitor themes developed in the park to support activities. In Nahanni (as shown in Appendix F), canoeing (34.1% of all visitors), commercial outfitting (22.7%), day use (17.4%) and rafting (16.6%) are main visitor activities. In Auyuittuq, main visitor activities are photography (98.8% of all visitors) hiking/packing (95.4%), nature study (81.7%) and climbing (44.3%). Although the nature of the activities proposed for the East Arm of Great Slave Lake National Park are water-based, the park is however land-based except for portions of Artillery Lake and the largely unnavigable Lockhart and Hoarfrost Rivers. As such, it is expected that visitor activities in the proposed park will be similar to those occurring in Auyuittuq (ie. hiking, camping, photography).

\*Within the study area, it is expected that shopping, fishing, water/land recreation, visiting friends/relatives and visiting museums and historic sites are activities which will continue to be high priorities in the study area. The proposed national park will provide additional activity opportunities in historic sites viewing and water/land recreation.

### 8.2.4 Selected Market Segments

\*The primary activity of visitors from outside the N.W.T., in the east arm of Great Slave Lake is and will continue to be sport fishing (see Table 25). The majority of these anglers will continue to stay at one of the four lodges located in the area adjacent to the proposed national park. As such, the industry is expected to retain a median occupancy level of 75% during the next 10 years.

\*A second market segment anticipated for the coming ten year period in the absence of a national park, is expected to be chartered boat and chartered air trips into the area primarily for the purposes of sightseeing and sport fishing. Finally, there is a growing market among study area residents for boat trips to east arm of Great Slave Lake destinations.(1)-

\*The primary market segment likely to be attracted by the activities set out in the park development scenario is the adventure travel market. Adventure travelers are those participating in an outdoors trip occurring in a natural area. Major activities engaged by this market segment are camping, hiking, canoeing and fishing. It is suggested that this market segment will constitute additional non-resident visitation to the study area and to the east arm of Great Slave Lake.

#### 8.2.5 Visitor Levels

\*In the absence of national park development on the east arm of Great Slave Lake, it is expected that an annual increase of 3% can be expected in non-resident (non-study area residents including the N.W.T. and other locations) markets to the study area over the next ten years. This rate of increase is exclusive of the sport fishing lodge market.

\*Resident markets (study area residents only) are expected to increase in accordance with population increases, at a rate of some 1.8% per annum over the next ten years.

\*Based on the existing level of tourism development and infrastructure in the area, existing policies of the G.N.W.T. and DFO regarding licensing, the current state of co-operative marketing and the level of services proposed in the park development scenario, visitation levels to the proposed national park will be restricted and remain small during the initial ten year forecast period.

\*Existing markets visiting the east arm area of Great Slave Lake are currently traveling and will continue to travel to destinations within in the proposed park boundary. An estimated 25% of east arm of Great Slave Lake sport fishing lodge visitors will use the proposed park primarily for shore lunches. An estimated 15% of all other market segments traveling in the east arm will choose destinations within the park boundary. The close proximity of east arm lodges, and longer stay duration of anglers

(1)Additional Information on this market segment will be available upon the release of the DFO creel census data in January 1987.

increases the opportunity for day use of the park. In the case of charter boat, charter air, and pleasure craft visitors, the expense of longer travel combined with the shorter duration of trips reduces the possibility of visitation by these markets to destinations within the proposed park boundary. It is expected that these existing visitor markets to the east arm visiting destinations within the proposed park, will increase at the same rate for the forecast period.

\*It is assumed that the duration of stay by existing east arm market segments will not be extended due to the existence of the proposed national park.

\*The annual level of visitation will be quite low as based on the experience of Nahanni and Auyuittuq which indicate a range of 244-927 visitors over the same ten year period for both parks.

\*The pattern of visitation to both Nahanni and Auyuittuq is dissimilar. The Nahanni experience suggests an increasing visitation pattern over the first 10 years of operation, beginning to decline in its 11th year. Auyuittuq on the other hand, had a declining visitation pattern in its first six years of operation with an increase in the last four years. These experiences suggest that the proposed park might expect to deal with the lowest, highest or a combination of the two parks visitor levels presented in Appendix F.

#### 8.2.6 Visitor Expenditures

\*Although resident expenditures may be lower and given the ratio of non-resident to resident expenditures in the study area, it is anticipated that on average resident and non-resident visitors spend \$125.00 per day (\$1986) in the study area- Based on the experience of the Nahanni and Auyuittuq National Parks, visitor trip expenditures in the N.W.T. ranged from a low of \$63.00 in the latter 1970's to a high of \$260.00 in 1982/83 in Nahanni.

'categories of **estimated visitor** expenditures for goods and services purchased in the N.W.T. and study area are derived from an analysis of visitor expenditures in the Nahanni National Park Reserve in 1982.(1) Nahanni expenditure estimates indicate that on average for all activity types, accommodation and meals represented 15%, outfitter's fees represent 31%, transportation 33% and other secondary services 21%.

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(1)Parks Canada, "Nahanni Visitor Survey, 1982"

8.3 Visitor Impact on the Study Area from the Proposed East Arm of Great Slave Lake National Park

8.3.1. impact. Assumptions

Given the establishment of the proposed East Arm of Great Slave Lake National Park, high and low visitor forecasts for the ten year period 1986 to 1996 have been developed from the following key assumptions. These assumptions have been derived from an analysis of the dominant visitor characteristics for each of Nahanni and Auyuittuq, and the study area.

\*A new market segment will be attracted by the activities proposed for the East Arm of Great Slave Lake National Park. Adventure travelers to the study area and park will originate primarily from western Canada and the United States.

\*Visitors from this new market segment will seek activities in the proposed park similar to the activities undertaken by visitors to Auyuittuq and Nahanni parks such as camping, backpacking/hiking, canoeing, historical/archeological and natural interpretation, sightseeing/photography and possibly dog sledding and sport fishing.

\*The ratio of non-resident (non-study area residents) to resident (study area residents) to the proposed park will remain consistent with current visitor patterns in the study area. The ratio of this visitation will be 85% non-resident to 15% resident.

\*Activities and tour products will be provided by outfitters. Based on the current state of product and market development, it is suggested that the impact of package tour development will be moderate. One or two of the existing operators will probably offer adventure travel package tours targeting primarily at the non-resident visitor. Tour packages will occur primarily in the summer visitor season. There is however, potential for shoulder season dog sledding excursions. Based on the outfitter and guide expenditure category listed above for Nahanni National Park Reserve, it may be expected that package tours will represent as much as 31% of the total visitor expenditures made in the N.W.T.

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(1) Parks Canada, "Nahanni Visitor Survey," 1982

\*The potential resident park visitor will not participate in package tours, however will travel by pleasure craft and air charter to destinations within the proposed park boundary. The resident visitor will participate in self-directed activities such as sport fishing, camping, nature viewing, and hiking.

\*Proposed park adventure travel visitors will stay "an average ten days per trip in the study area which is consistent with existing visitation to the study area.

\*Adventure travel visitor expenditure levels for goods and services in the N.W.T may be expected to be more comparable with expenditures made by visitors to Nahanni National Park Reserve during the 1980's. Given a reported high N.W.T. level of expenditure at \$265 per trip in 1982/83, it is expected that in 1986 N.W.T. visitor expenditures will be closer to \$320 per trip (1) or a daily cost of \$32. This is a conservative estimate which is based on the assumptions that this market segment will generally travel into the study area by road; will travel in groups of 5-12; and will camp and not purchase prepared meals (ie. will generally not patronize study area commercial food/accommodation establishments).

\*Adventure travelers will spend in the study area and the N.W.T for accommodation and meals - 15%, outfitting - 31%, transportation - 33%, and other secondary services - 21%.

### 8.3.2 Visitor Forecasts 1986-1995 for the Proposed East Arm of Great Slave Lake National Park

Scenarios are presented in Tables 27 and 28 indicating ten year visitor forecasts for the proposed park, based on available historical data from Auyuittuq and Nahanni National Parks. Each scenario provides a specific ten year forecast of park attendance and the increase in visitation to the study area and subsequently the N.W.T. resulting from the establishment of the proposed park. The basis for each scenario is the similarity to either Auyuittuq or Nahanni National Parks.

A ten year forecast of net increases in visitation to the study area resulting from the establishment of the proposed park are presented for each of the scenarios. The net increase is expected to result from the development of the new adventure travel market segment outlined in the visitor characteristics (see section 8.3.1).

The development of ten year forecasts of proposed park attendance is presented in Appendix G.

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(1) InterGroup Consultants Ltd., "Economic Performance of Four Northern National Parks/Reserves", 1985  
The CPI Increase to 1986 is -1.21.

**TABLE 27**  
**1986 TO 1995 VISITOR FORECASTS (Person Trips)**  
**TO THE STUDY AREA AND PROPOSED PARK**  
HIGH ATTENDANCE SCENARIO

	EXISTING STUDY AREA VISITATION(1)	PARK VISITATION ADVENTURE TRAVEL MARKETS (4)	STUDY AREA VISITATION HIGH ATTENDANCE	TOTAL PARK ATTENDANCE
<b>1986</b>				
Non-Resident (2)	63434	118	63552	286
Resident (3)	17957	21	17978	110
<b>TOTAL</b>	81391	139	<b>81530</b>	<b>396</b>
<b>1987</b>				
Non-Resident (2)	64985	127	65112	295
Resident (3)	18283	22	18305	113
<b>TOTAL</b>	<b>83268</b>	149	83416	<b>407</b>
<b>1988</b>				
Non-Resident (2)	66574	99	66673	267
Resident (3)	18643	17	18660	109
<b>TOTAL</b>	85217	116	85333	376
<b>1989</b>				
Non-Resident (2)	68197	125	68322	294
Resident	18964	22	18986	114
<b>TOTAL</b>	87161	147	87308	400
<b>1990</b>				
Non-Resident (2)	69898	173	70071	341
Resident (3)	19259	30	19289	124
<b>TOTAL</b>	<b>89157</b>	<b>203</b>	89360	465
<b>1991</b>				
Non-Resident (2)	71600	167	71767	336
Resident (3)	19547	29	19576	124
<b>TOTAL</b>	91147	196	91343	460
<b>1992</b>				
Non-Resident (2)	73287	337	73624	506
Resident (3)	19835	59	19894	155
<b>TOTAL</b>	93122	397	93519	662
<b>1993</b>				
Non-Resident (2)	75062	441	75503	610
Resident (3)	<del>20086</del>	7a	20164	175
<b>TOTAL</b>	95148	519	95667	705
<b>1994</b>				
Non-Resident (2)	76800	448	77248	618
Resident (3)	20317	79	20396	178
<b>TOTAL</b>	97117	527	97644	796
<b>1995</b>				
Non-Resident (2)	78579	295	78874	465
Resident (3)	20577	52	20579	152
<b>TOTAL</b>	99156	347	99503	617

(1) Existing conditions do not include a park. See Table 25.

(2) Non-residents reside outside the study area.

(3) Residents reside in the study area.

(4) Adventure travel represents new visitors in the study area from the establishment of the park.

**TABLE 28**  
**1986 TO 1995 VISITOR FORECASTS**  
**TO STUDY AREA AND PROPOSED PARK**  
**LOW ATTENDANCE SCENARIO.**

	EXISTING STUDY AREA Visitation (1)	PARK VISITATION ADVENTURE TRAVEL MARKETS (4)	STUDY AREA VISITATION LOW ATTENDANCE	TOTAL PARK ATTENDANCE
	PERSON TRIPS	PERSON TRIPS	PERSON TRIPS	PERSON TRIPS
<b>1986</b>				
Non-Resident (2)	63434	131	63565	299
Resident(3)	17957	23	17980	112
TOTAL	81391	154	81545	411
<b>1987</b>				
Non-Resident	64985	221	65206	339
Resident	18283	39	18322	129
TOTAL	83268	260	83528	517
<b>1989</b>				
Non-Resident	66574	130	66704	299
Resident	18643	23	18666	114
TOTAL	85217	154	85371	413
<b>1989</b>				
Non-Resident	68197	106	68303	274
Resident	18964	19	18983	111
TOTAL	87161	124	87285	385
<b>1990</b>				
Non-Resident	69898	129	70027	298
Resident	19259	23	19282	116
TOTAL	89157	152	89309	415
<b>1991</b>				
Non-Resident	71600	91	71691	268
Resident	19547	16	19563	111
TOTAL	91147	197	91254	371
<b>1992</b>				
Non-Resident	73287	249	73536	418
Resident	19835	44	19879	140
TOTAL	93122	293	93415	558
<b>1993</b>				
Non-Resident	75062	353	75415	523
Resident	20086	62	20148	160
TOTAL	95148	416	95564	682
<b>1994</b>				
Non-Resident	76800	336	77136	506
Resident	20317	59	20376	159
TOTAL	97117	396	97513	664
<b>1995</b>				
Non-Resident	78579	245	78824	416
Resident	20577	43	20620	143
TOTAL	99156	289	99445	559

(1) Existing conditions do not include a park. Source Table 25.

(2) Non-residents reside outside the study area.

(3) Residents reside in the study area.

(4) Adventure travel represents new visitors in the study area resulting from the establishment of the park.

#### 8.4. Economic Impact of Visitor Expenditures in the Study Resulting from the Establishment of the Proposed East Arm of Great Slave Lake Park

The economic impacts of new visitor expenditures resulting from the establishment of the proposed park are illustrated in Tables 29a, 29b and 29c for operational years 1, 5 & 10 respectively for the proposed park. Impacts are based on the visitor scenario presented in Table 27 which forecasts that the park attendance pattern during the ten year forecast period will more closely resemble the pattern of Nahanni attendance rather than Auyuittuq attendance. The high visitor attendance scenario was chosen due to the proposed park's location and thus, its similarity with Nahanni National Park in terms of accessibility, length of visitor season and the nature of the environment.

The derivation of estimates of direct, indirect and induced expenditures in the study area and N.W.T. by visitors as a result of the creation of the proposed park and the incremental impacts is outlined in Appendix G. The approach to deriving visitor estimates assumes that the proposed park will combine visitor characteristics of both Auyuittuq and Nahanni National Parks and subsequently reach annual visitor levels achieved during the initial ten year developmental periods of these parks.

The economic impact illustrated in the following tables is calculated for additional monies spent by those new visitors who can be directly attributed to the proposed park. Calculations assume that all spending by these visitors in the N.W.T., will occur in the study area. Therefore, all expenditures made by these visitors outside the study area will in fact be expenditures made outside of the N.W.T. As such, it is assumed that there will be no leakage of visitor expenditures to elsewhere in the N.W.T.

It is significant to note that the total labour, GDP and employment impacts of visitor expenditures in the study area and N.W.T. resulting from the creation of the proposed park will be low in each of years one, five and ten. Impacts in year ten however are 2.5 times greater than in year one.

TABLE 29A  
 EAST ARM NATIONAL PARK VISITOR EXPENDITURES  
 ATTRIBUTABLE TO THE PROPOSED EAST ARM OF GREAT  
 SLAVE LAKE NATIONAL PARK MADE IN THE STUDY AREA  
 AND ECONOMIC IMPACTS  
 YEAR 1

TYPE OF EXPENDITURES	AMOUNT OF EXPENDITURES (constant \$1986)	LABOUR INCOME (\$1986)			6 D P (\$1986)			EMPLOYMENT- PERSON YEARS		
		Direct	Indirect/ Induced	Total	Direct	Indirect/ Induced	Total	Direct	Indirect/ Induced	Total
-----										
GOODS AND SERVICES										
93 Wholesale/Retail	7930	971	377	1348	1175	331	1507	.03	.01	.04
Transportation	12461	4635	2941	7476	6281	2566	8847	.20	.09	.29
Hospitality/ Accommodation	17370	7087	3335	10422	9249	3083	12332	.52	.10	.62
TOTAL	37760	12693	6553	19246	16705	5980	22686	.75	.20	.95

TABLE 29B  
 EAST ARM NATIONAL PARK VISITOR EXPENDITURES  
 ATTRIBUTABLE TO THE PROPOSED EAST ARM OF GREAT  
 SLAVE LAKE NATIONAL PARK MADE IN THE STUDY AREA  
 /NF ECONOMIC IMPACTS  
 YEAR 5

AMOUNT OF EXPENDITURES (constant \$1986)	ECONOMIC IMPACTS				EMPLOYMENT- PERSON YEARS	
	LABOUR INCOME (\$ 1986)		G D P \$ (1986)		Direct	Indirect Induced
	Direct	Indirect/ Induced	Direct	Indirect/ Induced	Total	Total
11626	1423	553	1723	486	2209	.04 .02 .06
18269	6796	4165	9209	3762	12971	.29 .14 .42
25466	10390	4889	13560	4520	18081	.77 .15 .91
55360	18669	9689	24493	8768	33260	1.10 .30 1.39

TABLE 29C  
 EAST ARM NATIONAL PARK VISITOR EXPENDITURES  
 ATTRIBUTABLE TO THE PROPOSED EAST ARM OF GREAT  
 SLAVE LAKE NATIONAL PARK MADE IN THE STUDY AREA  
 AND ECONOMIC IMPACTS  
 YEAR 19

TYPE OF EXPENDITURES	AMOUNT OF EXPENDITURES (constant \$1986)	LABOUR INCOME (\$ 1986 )			G D P (\$ 1986)			EMPLOYMENT- PERSON YEARS		
		Direct Induced	Indirect/	Total	Direct	Indirect/ Induced	Total	Direct	Indirect Induced	Total
95 GOODS AND SERVICES										
Wholesale/Retail	19824	2426	944	3370	2938	829	3767	.07	.03	.10
Transportation	31152	11589	7103	18691	15704	6414	22118	.49	.23	.72
Hospitality/ Accommodation	43424	17717	8337	26054	23123	7708	30831	1.31	.25	1.56
TOTAL	94400	31732	16384	48116	41765	14951	56716	1.87	.51	2.38

## 9. ECONOMIC IMPLICATIONS OF ENVIRONMENT CANADA PARKS' EXPENDITURES

A detailed 'line by line' analysis has been conducted to assess the impact of Parks' expenditures on the study area and the N.W.T. The extent of this analysis is included in Appendix H.

Economic impacts are generally classified into three categories:

- direct impacts: those employment and income impacts involved directly with the production of certain goods and services;
- indirect impacts: those employment and income impacts associated with the production of goods and services required as inputs to primary production; and
- induced impacts: those impacts associated with re-spending of consumer dollars which are earned through employment in those sectors generating direct and indirect impacts.

### 9.1 Anticipated Economic Impacts on the Study Area

The economic impacts generated from proposed Parks' expenditures in the study area for the proposed East Arm of Great Slave Lake National Park are contingent on:

- the level of Parks' capital development and operational funding and expenditures committed for the proposed park in the study area;
- the capacity of the existing economy to supply the resources required to meet the capital and operational demands generated from the proposed park in terms of labour, and goods and services;
- the capacity of the existing economy to support new economic opportunities capable of supplying labour and goods and services required by the proposed park; and
- the policies designed and implemented to ensure that study area economic resources are used to supply the generated demand implied in the East Arm of Great Slave Lake National Park development scenario.

Although the proposed 'park is distant from the major urban centres in the study area, the potential for economic impacts may be realized within the study area. As has been illustrated in earlier sections of this study, the economy of the study area is strong and does significantly shape the economy of the whole of the N.W.T. it is assumed for the purposes of this study

that the capacities of the economy of the study area and that of the N.W.T. are fairly similar.

#### 9.1.1 O&M Wages and Salaries Expenditures, Income and Employment Impacts

The proposed park development scenario allows for direct employment benefits to the study area from the initial capital development expenditures, and the ongoing operation and maintenance of the proposed park. Appendix H presents a detailed analysis of these anticipated expenditures.

As is the case with other parks situated in the Northwest and Yukon Territories, an anticipated joint administrative structure will result in the proposed East Arm of Great Slave Lake National Park being managed through the offices of Wood Buffalo National Park. It is assumed that for the first 10 years of the life of the park, the positions of park area manager and clerical support will be located outside the study area in Fort Smith. The relocation of these positions to within the study area depends on visitation levels and available Environment Canada Parks resources. The preliminary park development scenario provides no clear indication that a separate administration for the proposed park will be established in the study area within the 10 year forecast period.

Of the total 84.25 person years of operational employment generated by the proposed park over the next 10 years, an estimated 41% or 34.5 person years of employment will be generated in the study area. The remaining 50 person years of employment are allocated to the Wood Buffalo National Park offices in Fort Smith for training and joint administration. Although the training positions are designated for the proposed park, the actual employment expenditure benefit is outside the study area. There are no provisions for permanent positions for the trainees. It is expected however that when a permanent position becomes vacant that these positions would be filled by trainees. However the extent of this occurrence is unknown and is therefore not included in this assessment. It is worth noting that although the trainees are designated as local hires, their relocation and subsequent training in Fort Smith during the first ten years represents leakage from the study area. Expenditures by trainees should however remain in the N.W.T

A 50% increase in person years is experienced between Year 1 and Year 5 while between Years 5 and 10, the allocation levels off. The increase is due primarily to the staffing of up to 4 seasonal patrol positions. A balance of 2 permanent person years of employment each are created both in the study area and in Fort Smith.

As is illustrated in sections 2 to 4 of this report, the study area economy has the capacity to supply the skill levels and employment resources required by the park development scenario. It should be further noted that adult training programs are offered in each of the study area urban centres on an ongoing basis. It is assumed then that the staffing of designated positions (ie. patrolman, seasonal patrol, clerk and the training positions) will occur in the study area. It should be further noted that, with the current level of personnel competition and staffing in the public and industry sectors of the study area economy, there exists the potential for locally hiring for all designated permanent positions for the proposed park.

#### 9.1.2 Capital Development Expenditure: Income and Employment Impacts

The potential for significant economic impacts will result in the study area from Parks' capital expenditures anticipated for the proposed national park. It is assumed that a tendering policy which allows for maximum study area benefits and the opportunity of the study area economy to respond to the demands from the development and operation of the proposed park will be in place.

Appendix H outlines a ten year impact scenario resulting from capital construction development and goods and services supply. During the ten year timeframe outlined in the preliminary park development and operational scenario, Parks is expected to spend \$3,334,000. on capital development and fixed inventory supply. Of the \$3,334,000. , it is estimated that \$2,293,000. or 69% will be spent in the study area. Assuming that the tendering process will call for the fragmentation of supply, transportation and erection in the case of goods and services, two economic sectors will be directly impacted by Parks' expenditures . These are the wholesale/retail sector and the construction sector. The study area and the Northwest Territories construction sector will benefit the most by receiving 52% of all capital expenditures, while the wholesale/retail sector will receive 17% of capital expenditures. The balance or 31% will occur outside the N.W.T. It is expected that expenditures made outside the N.W.T. will be for specialty items (ie. patrol vessels, communications and marine equipment) which may be ordered from northern distributors. These items are however more economically and expeditiously purchased from manufacturers and their agents outside the N.W.T.

Resending by study area and N.W.T. companies will occur for labour, and goods and services supply. The commodity supply category includes where applicable, expenditures for transportation in the study area to assumed or designated locations in the proposed park or study area from the potential supply centres of Hay River or Yellowknife. Appendix H provides assumptions and guidelines for determining various expense disaggregations.

#### 9.1.3 Operational Goods and Services

Parks' expenditures for goods and services necessary for the efficient delivery of services to visitors and operation of the park are likely to directly benefit four main industry sectors. Of the total \$3.266 million anticipated expenditures, 3% will be spent outside the Northwest Territories while 38% will be spent outside the study area, resulting in a total of \$1.339 million in leakage from the study area. It is expected that almost 60% or \$1.96 million of these expenditures will occur in the study area. It is anticipated that the transportation, wholesale/retail and secondary service sectors will all benefit equally from these expenditures while the hospitality/accommodation sector will realize marginal gains from the supply of goods and services.

The resending by industry will be relatively small in comparison to primary spending, largely because of the lack of manufacturing and supply base for important commodities required in the operation and maintenance of the park. A further 15.48 person years of employment is anticipated during the initial ten years of operation.

#### 9.1.4 Research and Planning

Parks' expenditures for research and planning are expected to be initiated from the Prairie Regional office of Environment Canada Parks. According to the development scenario, these expenditures will have little impact on the study area and the Northwest Territories. It should be noted that data collection and liaison will represent an important component of the research and planning stage of the park's development and will require field trips and frequent visits either to the Wood Buffalo National Park office in Fort Smith or to the proposed park itself. The logistical support components of field trips (ie. air charters, expediting and camp supplies) will most probably be purchased in

the study area resulting in small benefits from these expenditures being accrued to study area residents. Due to data limitations associated with the preliminary park development scenario, it is assumed that research and planning expenditures will have no income implications for the study area. . .

Finally, it is suggested that the study area economy through existing G.N.W.T. departments and private professional services has the capacity to provide the necessary human resources to complete basic resource inventory, preliminary archeological research and historical research services.

## 9.2 Summary of Economic Impacts from Anticipated Environment Canada Parks' Expenditures for the Study Area and the N.W.T.

Economic impacts resulting from anticipated Environment Canada Parks' expenditures are displayed in Tables 30A, 30B, 31A, 31B, 32A and 32B for years one, five and ten. Further discussion is provided in section 10.

It is worthy of note that 32% of anticipated Parks' expenditures in the N.W.T. will be made in the study area in year one while in year 5, 63% of anticipated northern expenditures will occur in the study area. In year ten, the percentage of study area to total N.W.T. expenditures is almost 60%.

## 9.3 Leakage

From the detailed analysis of anticipated Environment Canada Parks' expenditures presented in Appendix H, over the ten year forecast period for the proposed park it is estimated that approximately 50% (\$5,807,000. ) of total anticipated Parks' expenditures will be spent outside the study area. Of this amount some 25% (\$2,903,500. ) will be spent outside of the N.W.T. Leakages are summarized below:

### \*Leakages from the N.W.T.

-O&M Goods & Services	\$ 83,000.
-Research and Planning	\$1,794,200.
-Capital Development	\$1,041,000.
% of TOTAL PARK EXPENDITURE	23%

### \*Leakages from the Study Area: (but in the N.W.T. )

-O&M Goods and Services	\$1,219,000.
-O&M Salaries	\$1,670,000.
% of TOTAL PARK EXPENDITURE	22%

TABLE 30A  
 EAST ARM OF GREAT SLAVE LAKE NATIONAL  
 PARK EXPENDITURES MADE IN THE N.W.T.  
 INCLUDING THE STUDY AREA AND  
 ECONOMIC IMPACTS: YEAR 1

TYPE OF EXPENDITURES	AMOUNT OF EXPENDITURES (constant \$1986)	ECONOMIC IMPACTS								
		LABOUR INCOME ('000)			G D P ('000)			EMPLOYMENT- PERSON YEARS		
		Direct	Indirect/ Induced	Total	Direct	Indirect/ Induced	Total	Direct	Indirect/ Induced	Total
=====										
OPERATIONS & MAINTENANCE EXPENDITURES										
Wages and Salaries	265	265	45	310	265	53	318	7.50	2.44	9.94
Goods and Services										
101 Wholesale/retail	46	6	2	8	7	2	9	.17	.07	.23
Transportation	34	13	7	20	17	7	24	.54	.25	.79
Secondary service/ Gov't	57	13	12	25	30	12	42	1.54	.41	2.05
Hospitality/ Accommodation	12	5	2	7	6	2	8	.36	.07	.43

NOTE: Addition errors are due to rounding.

TABLE 30B  
 EAST ARM OF GREAT SLAVE LAKE NATIONAL  
 PARK EXPENDITURES MADE IN STUDY AREA  
 AND ECONOMIC IMPACTS: YEAR 1

TYPE OF EXPENDITURES	AMOUNT OF EXPENDITURES (constant \$1986)	LABOUR INCOME ('000)			ECONOMIC IMPACTS			EMPLOYMENT- PERSON YEARS			
		Direct	Indirect/ Induced	Total	5 D P	Direct	Indirect/ Induced	Total	Direct	Indirect/ Induced	Total
<b>OPERATIONS &amp; MAINTENANCE EXPENDITURES</b>											
Wages and Salaries		98	6	4	98	20	20	2.50	.90	3.40	
Goods and Services											
Wholesale/retail	0	0	0	0	0	0	0	0	0	0	
Transportation	21	8	5	13	11	4	5	.33	.16	.49	
Secondary Services/ Gov't	11	2	2	5	6	2	8	.32	.08	.40	
Hospitality/ Accommodation	4	2	2	2	2	1	3	.2	.02	.22	

NOTE: Addition errors are due to rounding.

TABLE 31 A  
 EAST ARM OF GREAT SLAVE LAKE NATIONAL  
 PARK EXPENDITURES MADE IN THE N.W.T.  
 INCLUDING THE STUDY AREA AND ECONOMIC  
 IMPACTS: YEAR 5

TYPE OF EXPENDITURES	AMOUNT OF EXPENDITURES (constant \$1986)	ECONOMIC IMPACTS								
		LABOUR INCOME ('000)			G D P ('000)			EMPLOYMENT- PERSON YEARS		
		Direct	Indirect/ Induced	Total	Direct	Indirect/ Induced	Total	Direct	Indirect/ Induced	Total
OPERATIONS & MAINTENANCE EXPENDITURES										
Wages and Salaries	324	324	54	378	324	65	389	9	2.98	11.98
Goods and Services										
Wholesale/retail	126	15	6	21	19	5	24	.46	.18	.64
Transportation	54	20	12	32	27	11	38	.85	.40	1.25
Secondary service/ Gov't	137	30	29	59	72	29	101	3.94	.98	4.92
Hospitality/ Accommodation	12	5	2	7	6	2	9	.36	.07	.43
CAPITAL DEVELOPMENT EXPENDITURES										
Wages and Salaries										
Goods and Services										
Wholesale/retail	60	7	3	10	9	3	11	.22	.09	.30
Construction	62	16	13	29	19	18	37	.20	.28	.57

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TABLE 31 B  
 EAST ARM OF GREAT SLAVE LAKE NATIONAL  
 PARK EXPENDITURES MADE IN THE STUDY AREA  
 ECONOMIC IMPACTS: YEARS 5

TYPE OF EXPENDITURES	AMOUNT OF EXPENDITURES (constant \$1986)	LABOUR INCOME ('88)			G D P ('88)			EMPLOYMENT- PERSON YEARS		
		Direct	Indirect/ Induced	Total	Direct	Indirect/ Induced	Total	Direct	Indirect/ Induced	Total
OPERATIONS & MAINTENANCE EXPENDITURES										
Wages and Salaries	157	57	26	183	57	31	88	4	1.44	5.44
Goods and Services										
Wholesale/retail	80	10	4	14	12	3	15	.29	.11	.40
Transportation	35	13	8	21	18	7	25	.55	.26	.81
Secondary service/ Gov't	9	20	19	39	48	20	67	.12	3.15	3.27
Hospitality/ Accommodation	4	2	1	2	2	1	3	.12	.02	.4
CAPITAL DEVELOPMENT EXPENDITURES										
Wages and Salaries										
Goods and Services										
Wholesale/retail	60	7	3	10	9	3	11	1.44	.56	2
Construction	62	6	3	29	19	8	37	.27	.27	.55

NOTE: Addition errors are due to rounding.

TABLE 32A  
 EAST ARM OF GREAT SLAVE LAKE NATIONAL  
 PARK EXPENDITURES MADE IN THE N.H.L.I.  
 INCLUDING THE STUDY AREA AND ECONOMIC  
 IMPACTS: YEAR 10

TYPE OF EXPENDITURES	AMOUNT OF EXPENDITURES (constant \$1986)	LABOUR INCOME ('000)		ECONOMIC IMPACTS			EM PERSON YEARS			
		Direct	Indirect/ Induced	Total	6 D P Direct	Indirect/ Induced	Total	Direct	Indirect/ Induced	Total
=====										
OPERATIONS & MAINTENANCE EXPENDITURES										
Wages and Salaries	324	324	54	378	324	25	389	4	2.98	6.98
Goods and Services										
Wholesale/retail	136	17	6	23	20	6	26	0	.19	.59
Transportation	79	29	18	47	40	16	56	.24	.9	1.83
Secondary services/ Gov't	162	36	34	70	85	35	120	4.66	.6	5.82
Hospitality/ Accommodation	12	5	2	7	6	2	9	.36	.07	.43
CAPITAL DEVELOPMENT EXPENDITURES										
Wages and Salaries										
Goods and Services										
Wholesale/retail	5	2	1	3	2	2	3	.05	.02	.07
Construction	7	2	2	4	2	2	4	.03	.03	.06

NOTE: ADDITION ERRORS RESULT FROM ROUNDING.

TABLE J2B  
 EAST ARM OF GREAT SLAVE LAKE NATIONAL  
 PARK EXPENDITURES MADE IN THE STUDY AREA  
 AND ECONOMIC IMPACTS: YEAR 10

TYPE OF EXPENDITURES	AMOUNT OF EXPENDITURES (constant \$1986)	LABOUR INCOME ('000)			ECONOMIC IMPACTS			EMPLOYMENT- PERSON YEARS		
		Direct	Indirect/ Induced	Total	GDP ('000) Direct	Indirect/ Induced	Total	Direct	Indirect/ Induced	Total
=====										
OPERATIONS & MAINTENANCE EXPENDITURES										
Wages and Salaries	157	57	26	83	157	31	188	4	1.44	5.44
Goods and Services										
Wholesale/retail	90	11	4	15	13	4	17	.33	.3	.46
Transportation	51	19	12	31	26	1	36	.80	.39	.18
Secondary service/ Gov't	6	25	24	0	61	25	86	3.33	.83	4.7
Hospitality/ Accommodation	4	2	1	2	2	1	3	.12	.82	.4
CAPITAL DEVELOPMENT EXPENDITURES										
Wages and Salaries										
Goods and Services										
Wholesale/retail	15	2		3	2	1	3	.05	.82	.89
Construction	7	2	2	3	2	2	4	.83	.83	.86

NOTE: ADDITION ERRORS ARE DUE TO ROUNDING.

\*Expenditures in the Study Area:

-O&M Salaries	\$1,407,400.	
-O&M Goods and Services	\$1,963,000.	
-Capital Development	\$2,293,000.	
%, of TOTAL PARK EXPENDITURE	55%	- .

10. SOCIO-CULTURAL AND ECONOMIC IMPLICATIONS RESULTING FROM  
THE PROPOSED EAST ARM OF GREAT SLAVE LAKE NATIONAL PARK

The purpose of this section is to summarize economic and socio-cultural impacts which may arise from the establishment of the proposed park on the east arm of Great Slave Lake. Information for this section has been drawn from the economic assessment of impacts as well as from other processes which are occurring around the park's establishment (ie. the "Dene Consultation Study" and the Dene/Metis Negotiating Secretariat's ongoing land claims discussions).

This section provides the basis for recommendations for future strategies (see section 11) to maximize the economic benefits of the proposed park to the study area.

10.1 Findings on Impact

10.1.1 Impact Considerations

As has been discussed previously, the extent of socio-cultural and economic impacts arising from the parks' establishment are contingent on a number of factors such as:

- \*proximity of communities to the proposed park;
- \*visitor themes, phasing of park developments, promotional efforts and visitation levels;
- \*abilities and willingness of local infrastructure to respond to park-generated demands;
- \*the level of Environment Canada Parks' resources allocated to the proposed park;
- \*responding of park and visitor expenditures into the local economy; and
- \*policies pursued with respect to facilitating preferred northern access to jobs, training and business opportunities.

The following is a summary of impacts expected from the proposed East Arm of Great Slave Lake National Park. These impacts are summarized in Tables 33A and 33B.

**TABLE 33 A**  
**TOTAL DIRECT, INDIRECT AND INDUCED IMPACTS OF**  
**SPENDING IN THE N.W.T. INCLUDING THE STUDY AREA**  
**ATTRIBUTABLE TO THE PROPOSED EAST ARM OF GREAT**  
**SLAVE LAKE NATIONAL PARK**

	<b>Labour</b> Income ( \$000 1986 )	<b>GDP</b>	<b>Employment</b> Person-Years
<b>Direct Impacts</b> =====			
Parks Payrol 1	<b>3077</b>	<b>3077</b>	<b>84</b>
Parks Other Expenditures	1554	<b>2218</b>	<b>67</b>
Visitor Expenditures	<b>251</b>	<b>320</b>	15
<b>Total</b>	4882	5615	166
<b>Indirect and Induced Impacts</b> =====			
Parks Payrol 1	517	515	<b>28</b>
Parks Other Expenditures	<b>801</b>	739	<b>29</b>
Visitor Expenditures	129	<b>128</b>	4
	1447	<b>1482</b>	61
<b>Total Impacts</b>	<b>6329</b>	7097	227

- Notes to table:
1. Multipliers used to calculate Parks direct and indirect impacts are weighted in accordance to industry sector activity multipliers presented in 'Economic Performance of Four Northern National Parks'.
  - 2 Total presented are aggregate totals for the ten year forecast period.

**TABLE 33 B**  
**TOTAL DIRECT, INDIRECT AND INDUCED IMPACTS OF**  
**SPENDING IN THE STUDY AREA ATTRIBUTABLE TO**  
**THE PROPOSED EAST ARM OF GREAT SLAVE LAKE**  
**NATIONAL PARK**

	Labour Income (\$000 1986)	GDP	Employment Person Years
Direct Impacts =====			
Parks Payrol 1	1407	14a7	34
Parks Other Expenditures	1207	1723	52
Visitor Expenditures	251	320	15
<b>Total</b>	<b>2865</b>	<b>3450</b>	<b>101</b>
Indirect and Induced Impacts =====			
Parks Payrol 1	236	291	13
Parks Other Expenditures	622	574	23
Visitor Expenditures	129	128	4
<b>Total</b>	<b>987</b>	<b>993</b>	<b>40</b>
<b>Total Impacts</b>	<b>3852</b>	<b>4433</b>	<b>141</b>

- Notes to table:
1. Multipliers used to calculate Parks direct and indirect impacts for other expenditures are weighted proportions for industry sector activity multipliers as presented in the Economic Performance of Four Northern National Parks/Reserves
  2. Totals presented are aggregate totals for the ten Year period.

## 10. 1.2 Visitor and Parks' Expenditure Impacts

### a) Local Income and Employment Impacts

\*It is assumed that all incremental visitor spending in the N.W.T. resulting from the establishment of the proposed-park will occur in the study area. The total direct, indirect and induced impact of this incremental visitor spending, a total of 19 person years of employment are expected to be created in the study area over the ten year forecast period. The labour income generated from this spending is estimated at \$380,000. However in any given year only a small portion will be experienced. For example in year 10, some \$48,116. in labour income or 2.38 person years of employment will result from this spending.

\*Direct income generated by Environment Canada Parks' operational expenditures is estimated at \$3,000,000. (\$1986) of which \$1.407 million may be expended in the study area. The effect of these incremental expenditures is the creation of 84.25 person years of employment (or 8-9 full time, part time and seasonal Parks' positions) of which 34 person years (or up to 5 seasonal patrol, 2 full time and 1 part-time positions) may be available within the study area. The bulk of person years of employment created are of a seasonal or part-time nature. In year 10 alone, Parks operational expenditures will result in direct study area impacts of 4 person years of employment \$157,000. of labour income and GDP.

\*Direct income generated by other anticipated Parks' expenditures over the 10 year forecasted period amount to \$1.55 million of which \$1.2 million will be spent in the study area. The impact of this labour income will be the creation of 67 person years of employment of which 52 will occur in the study area. It is expected that the bulk of these labour resources will be expended in seasonal construction projects.

\*Anticipated Environment Canada Parks' expenditures are expected to generate indirect/induced labour income to the N.W.T. and study area. Over the ten year forecast period, 101 person years of indirect employment is expected in the N.W.T. adding \$2.43 million in labour income to the north. Of this amount 40 person years of employment and \$987,000 of labour income will flow to the study area. It is expected that a significant number of the person years created through Parks' procurement of goods and services will be seasonal in nature.

\*Parks expenditures for research and planning as they are presented in the park development scenario, are expected to have no income implications for the study area.

In the calculation of the above income impacts, there is the assumption that preference will be given to hiring locally.

b) Local Business Impacts

\*It is not anticipated that the creation of the park will have significant impact on the business community of the study area.

\*As is illustrated in Tables 33A and 33B, over a ten year period the study area business community might expect to see some \$448,000. spent in the local economy as a result of incremental visitor expenditures attributable to the proposed park. In year 10 alone these expenditures should reach an estimated \$41,765. Based on the experience of other northern national parks, these expenditures will probably occur in the hospitality (food, beverage and accommodations services at some 57 %), transportation (34%) and the retail/wholesale (9%) sectors of the economy.

\*Environment Canada Parks' expenditures over 10 years will be distributed among five key sectors of the study area economy, contributing in gross sales to the following sectors:

-construction	\$1.726 million
-wholesale/retail	\$1.258 million
-secondary services	\$818,000
-transportation	\$410,000
-hospitality	\$ 41,000

\*The impact of anticipated Environment Canada Parks' spending to the study area GDP is calculated at \$4.4 million over the ten year forecast period.

\*As discussed elsewhere (see section 3) in this study, it is expected that the current carrying capacity and the range of existing business infrastructure in the study area and in the N.W.T. is such that limited new business will be required as a result of the park's establishment. Further, the numbers of businesses in any given economic sector indicate that the impact of Parks' and visitor expenditures will probably not be concentrated and thus, will result in little or no expansion within the existing business community. It is expected however that Parks' and visitor expenditures in the study area will increase the viability of existing study area businesses.

\*However, within the transportation and hospitality sectors there may be potential for limited expansion of current services. Potential opportunities might lie in the areas of ground transportation operations in Snowdrift to offer services to park visitors accessing the park from that community. Consideration could be accorded to expansion of accommodation services at Snowdrift. Potential may also exist in the provision of community-based shoulder season packages. Pursuit of these potential new business opportunities should be based on detailed feasibility assessments.

## 10.2 Local Benefits Lost

\*Economic benefits lost. as a **result** of the establishment of the proposed park are expected to be insignificant.. That is, it is not anticipated that there will be loss/displacement of jobs, income, or business opportunities due to the establishment of the park. The one exception to this may be in the mining sector of the economy, a sector which has an interest in the lands proposed for the national park. As is discussed in section 3.2 of this study, the economic value of this activity is not known at this time. Hydro-electric development will also become impossible on park lands if the proposed park is established.

## 10.3 Leakage

It is assumed that all visitor spending in the N.W.T. will occur in the study area. On the other hand, Parks' expenditures will be spread over the study area, outside the study area in the N.W.T. and outside of the N.W.T. As discussed in section 9 of this study, some 50% of total anticipated Parks' expenditures are considered as leakage from the study area, while 23% are leakages from the N.W.T. Leakages from the study area are predominantly in the area of employment and leakage from the N.W.T. is largely in the area of research and planning. Section 11 of this report provides recommendations which aim to address leakage of economic benefits from the study area.

## 10.4 Other Impacts

### a) Impacts to Harvesting Activities

The creation of new northern national parks (within or in isolation of aboriginal land claims) allows for the continuance of traditional harvesting activities. As such, the proposed park development and operational scenario raises few concerns regarding possible impacts to existing traditional or land-based economies.

It is expected that due to expected low intensity of visitation, and a low level of park development infrastructure in or in proximity to the proposed park, that the establishment of the park will result in few if any, land and water use conflicts **between** traditional users, park visitors and park employees/contractors .

The proposed park lies within the traditional lands of the **Luts'elk'e** Dene of Snowdrift and Reliance. Although participation in land-based activities is high among the residents of these communities, it is estimated that perhaps only three families in

Reliance currently utilize the proposed park area for harvesting purposes. The head of one of these families is a non-native, General Hunting Licence (GHL) holder. There is no indication that the number of harvesters utilizing the lands proposed for the national park will increase. However this aspect has not been dealt with in detail in this study. Further research would be useful in addressing this issue.

#### b) Socio-Cultural Impact

The assessment of socio-cultural impacts resulting from the establishment of the proposed park is beyond the scope of this particular study. It is however within the study's mandate to identify some basic socio-cultural considerations resulting from the park's establishment.

Snowdrift and Reliance, as the communities most closely located to the proposed park and, with probably the strongest aboriginal socio-cultural identify/life-style in the study area, will potentially experience the greatest socio-cultural impact, both negative and positive. Issues of concern expressed by the residents of these communities in other park establishment processes (1) are:

\*Regulation of the use of water by tourists and involvement in land use regulation (1-Report #2) to prevent use conflicts, erosion of traditional uses and maintenance of traditional roles/perceptions of guardians/caretakers of the land and water.

\*Displacement of traditional rights in the face of capital development such as roads, campsites, etc. (1-Report #2)

\*Ongoing community consultation with respect to the park establishment decision making process (1-Report #2).

\*Ongoing efforts to address community alcohol and other social concerns and hesitancy about the impact of the park on these initiatives (1-Report #3).

\*Negotiation of management rights, harvesting rights, economic preference and boundary (1-Report #3).

It is suggested that the following issues may also be of concern to study area residents:

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(1) Fee Yee Consulting Ltd., "Dene Community Consultation Re: Proposed National Park on the East Arm", Reports #1,2,3, 1986

\*Management of the proposed park from the offices of the Wood Buffalo National Park in Fort Smith may cause some concern among study area residents due to Fort Smith Dene/Metis experiences with the Wood Buffalo National Park administration (1-Report #2).

That is, the native people of Fort Smith have been in a conflict situation with that park's administration for a number of years particularly with respect to harvesting rights and zoning. As such, there is the potential for confusion and perhaps some ill feelings as a result of the joint East Arm/Wood Buffalo management scenario. This potential problem may be further perpetuated by a lack of a local East Arm of Great Slave Lake presence, such as a National Park management team, in the study area.

\*In all regions and communities in the N.W.T., the involvement and development of human resources is a major concern. That is, human resources are the most valuable commodity available in the study area and must be viewed as such by Parks. It is therefore necessary to consider the impact of drawing trainees from the study area to Fort Smith, thus causing a loss of human resources to the study area as well as leakage in terms of direct and indirect expenditures from these positions to the study area. Further, there may be a negative impact of this action given that no positions for the trainees have been identified in the study area or in Fort Smith, suggesting that training may be a "token" action. It is cautioned that "training for no permanent positions" will not increase local support of the project.

In light of the anticipated economic impacts arising from the proposed park, it is not expected that there will be significant impact to community services, infrastructure and transportation systems in the study area. Impacts on local demographic and social structures will be contingent on the degree to which study area residents are involved in the management of and monitoring of the park's development and operation and, the level to which northern preference policies are implemented.

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(1) Fee Yee Consulting Ltd., "Dene Community Consultation Re: Proposed National Park on the East Arm", Reports #1,2,3, 1986

## 11. RECOMMENDATIONS FOR FUTURE ECONOMIC AND SOCIO-CULTURAL STRATEGIES

This section has been prepared from baseline information provided in sections 1 to 6 and, from the assessment of economic impacts and the identification of resultant social **considerations** provided in sections 8 to 10 of this study. The recommendations contained herein are designed to: 1) maximize park related economic benefits; 2) minimize or mitigate negative economic impacts resulting from the establishment of the park; and 3) **generally** enable interest groups to address economic and **socio-cultural** concerns related to the establishment of the park. Recommendations provided here reflect an understanding of the northern environment and current northern private and public sector employment, training and other socio-economic development policies.

### 11.1 Economic Policy Issues and Recommendations

#### 11.1.1 Employment and Training

##### ISSUES

Local hiring preferences are an assumed condition of all northern business, resource development and **public agency** activity. Local hiring preferences ensure that those people most directly impacted by these activities derive maximum benefit from them. Preferential hiring practices are encouraged in the NWT due to high rates of unemployment and limited access to employment opportunities and industry training.

Although preferential hiring is assumed in the north, the practice has not been employed universally nor has it been easily implemented. Most Federal Government agencies operating in the north do not have regional hiring preference policies. For those agencies with preferential hiring policies such as industry and the Government of the NWT, policies have not been specific enough to allow for easy implementation. Such policies have not provided clear definitions of eligibility for preferential hiring; have not had the resources at hand to support initiatives; have demonstrated employment benefit disparity with other hiring practices; and have not been implemented in a manner which enables preferentially hired employees to be easily integrated into existing human resource plans.

##### POTENTIALLY RELEVANT POLICY PRECEDENTS

There are a number of northern preference training and employment policy precedents which could be applied to the proposed East Arm

of Great Slave Lake National Park. However due to the concerns stated above, it may not be appropriate to implement these without some adjustment.

a) Current National Parks Policy:

A variety of mechanisms are used to ensure maximum possible opportunities for local residents to find employment and business opportunities related to the management of national parks. For example, local preference could be accorded to residents in proximity of the park for the provision of fire wood.

b) Northern Ellesmere National Park/Reserve

Preference for employment positions will be given to qualified candidate who reside in the area. The order of preference is:

1. persons residing in the communities of Grise Fiord and Resolute Bay
2. persons residing in the remainder of the Baffin Region
3. persons residing in the remainder of the N.W.T.
4. persons residing in the Yukon
5. persons resident of other parts of Canada. (1)

c) Northern Yukon National Park

The predominant number of persons employed in the operation and management of the park are to be Inuvialuit (claims beneficiaries). Further, the appropriate government is to provide training to assist the Inuvialuit in qualifying for such employment. (2)

d) Government of the N.W.T.

An affirmative action policy is applied to most if not all GNWT positions. Subject to appropriate qualifications, positions are staffed in the following priority:

- 1) Dene, Metis or Inuit indigenous to the NWT;
- 2) Employees of the GNWT
- 3) Other people born and raised in the NWT;
- 4) All others.

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(1) Parks Canada, "Social and Economic Action Plan of the Establishment of a National Park Reserve at Northern Ellesmere", 1983

(2) INAC, "The Western Arctic Claim: The Inuvialuit Final Agreement" (section 12 (42))

GNWT training positions are filled in the following order:

- 1) Persons born and raised in the NWT, having resided in the NWT all their lives;
- 2) Persons raised in, resident in and, who have taken at least 8 years of formal education in the NWT;
- 3) Residents who have lived the majority of their lives (ie. at least 50%) in the NWT and, have taken at least 5 years of formal education in the NWT;
- 4) Others who have lived for at least 10 years in the NWT;
- 5) Other NWT residents.

Preferential hiring policies apply to both managerial and operational positions in the Government of the NWT.

e) Industry

The Norman Wells Project established that preference would be accorded to hiring qualified northern residents whose principal place of residence was the NWT. The pipeline construction company established that preference would be accorded to qualified northern residents who had resided for one year in the NWT prior to construction.

Industry socio-economic action plans determined the number of positions which would be allocated to the north in both management and operations.

POLICY RECOMMENDATIONS

1. Given the history of preferential hiring in the north, it is recommended that regional hiring preferences as based on qualification be instituted for all staffing action related to the proposed East Arm of Great Slave Lake National Park. Regional preference should be accorded to the 84.25 person years of employment which are expected to be created over the ten year forecast period as a result of Environment Canada Parks ' operations and maintenance spending.
2. Further, given that hiring preferences are stated in terms of employing qualified regional populations and, training to qualify regional populations, it is recommended that hiring preference policies developed for the proposed park be extremely specific and include:
  - acceptable definitions (ie. to all interest groups) of "local", "regional" and "qualified" residents ;
  - flexibility in entry or basic qualifications requirements (ie. experience in lieu of formal education); and
  - a strategy for implementing preferred hiring policies.

3. It is recommended that an implementation strategy for preferred hiring policies detail recruitment procedures, training programs, trainee career paths and, support resources/mechanisms available to support hiring/training initiatives.
4. It is recommended that in order to successfully implement training programs that resources to fund such initiatives be in place prior to promoting training programs.
5. It is recommended that resources used to support training initiatives be identified from new monies. Funds commonly used to support community-based training initiatives should not be used for this purpose (ie. park training initiatives should not compete for funds used for local training efforts).
6. It is recommended that training programs specify the duration of training, job opportunities following training, relocation requirements and benefits associated with training programs.
7. It is recommended that in order to eliminate the loss of human resources from study area communities, to ensure a high level of study area participation and, to mitigate any negative socio-cultural impacts to study area communities that every effort be made to ensure that: 1) training within the study area; 2) permanent positions for trainees be identified within the proposed East Arm of Great Slave Lake National Park; and 3) support structures and benefits such as housing available to trainees be on par with other staff .

#### 11.1.2 Maximizing Local Business Opportunities

##### ISSUES

The park development and operation scenario assumes that "contracting" out will occur regionally. Despite the capacity of local business infrastructure to meet potential demands generated by the proposed park, regional contracting and other business opportunities cannot be assured in the absence of specific policies. Currently, most Federal Government agencies do not pursue a northern business incentive/preference policy.

Standards have been established by northern governments and industry operating in the north which ensure that northern business preferences are provided. These practices are employed in recognition of the higher costs of doing business in the north and the small-scale and specialized nature of most northern business. Northern business will expect Environment Canada, Parks to recognize and adhere to established northern business incentive precedents.

#### POTENTIALLY RELEVANT POLICY PRECEDENTS

There are a number of northern business incentive policy precedents which may serve as a model for those adopted for the proposed East Arm of Great Slave Lake National Park.

##### a) Government of the N.W.T.

A northern business incentive policy gives preference to registered northern business. A registered northern business meets the legal requirements of a northern company; is 51% owned by a northern resident(s) who has been a resident for at least 3 years; and maintains a bonafide office in the NWT. Non-residents may qualify as a northern business if the company has carried out business in the north for 10 consecutive years prior to December 1984 and maintains a bonafide office in the NWT. A registered

northern business is eligible for a 10-20% reduction of estimated costs or allowed an 'edge' on price bids over bids from southern Canadian firms; preferred terms of payment; and preferred government assistance.

##### b) Industry

The Norman Wells Project established an industry precedent for dealing with northern business. A northern business in this instance is defined as one that is registered to conduct business in the NWT or Yukon, has a bonafide office in either of the territories and is owned and managed by a northerner. Assuming competitive prices and demonstrated ability to provide necessary goods and services, contracts are awarded to northern business on a preferred basis.

##### c) Northern Ellesmere National Park/Reserve

In this case, Parks has established a zone of competition for the purchase of goods and services. The zone of competition follows the hiring preferences cited (see section 11.1.1 b) for employment and training (ie. with first preference being given to the communities of Grise Fiord and Resolute Bay). Further Parks, in consultation with the G.N.W.T., will provide the necessary orientation to local business to ensure the proper approach to contract tendering. Finally, Parks will provide the necessary information and support required by northern business to access the resources to undertake park related contracts.

## POLICY RECOMMENDATIONS

1. It is recommended that a regional business preference policy be applied to **all** contracts and **business opportunities** associated with the development and operation of **the** proposed East Arm of Great Slave Lake National Park. Every effort should be made to spend funds related to the development and operation of the proposed park firstly in the study area and secondly, in the NWT.
2. It is recommended that business preference policies clearly specify the responsibilities of Parks and/or their designates in securing **labour**, goods and services in the north. Such guidelines must ensure maximum access by preferred business to opportunities associated with the park's development and operation. Consideration should be accorded to:
  - providing acceptable definitions of "northern", "native"? "local", and/or "regional" businesses;
  - preparing a detailed listing of development and operational requirements related to the park;
  - preparing an inventory of the infrastructure capabilities of the study area and of the NWT;
  - establishing a communications program with the business community in the study area and the NWT to include periodic visits to study area communities; northern opportunities newsletters; bidders meetings; etc.;
  - establishing a northern business support program which encourages and facilitates the **participation of northern** business in park-related business opportunities, including access to resource people to assist in feasibility assessments, joint venture liaison, tendering and bidding assistance, project fragmentation, etc.; and
  - establishing procedures/conditions which support a northern business preference policy to include preferred "northern only" tenders; preferred northern terms of payment; waiving of bid and performance bond requirements; etc.
3. It is recommended that guidelines be developed to assist the development of businesses which might be created or expanded as a result of the development and operation of the proposed park. For example if Snowdrift expresses an interest, assistance might be provided to undertake a viability/feasibility assessment of a ground transportation operation in the community to offer services to park visitors accessing the park from that community. Similarly and given local interest, assessment assistance might also be provided to examine the feasibility of expanding accommodation services at Snowdrift and providing community-based package tours in shoulder seasons.

## 11. 1.3 Maximizing Economic Benefits for the Study Area

### ISSUES

There are potential concerns related to ensuring maximum economic benefit is accrued to the study area as a result of the establishment of the proposed park. It is recognized that although development projects may demonstrate a commitment to involving northern business and labour, specific effort is not always made to ensure maximum economic benefit to the communities closest to the development. Lack of preferential treatment for directly impacted communities may in part be attributed to limited knowledge or understanding of the capabilities of the local infrastructure; the absence within an agency of regionally specific policies; or a lack of political/administrative will to address community specific concerns. This situation is often aggravated by the fact that management or decision making bodies/processes related to the development, operate at a distance from the activity itself.

The proposed East Arm of Great Slave Lake National Park poses two concerns related to maximizing benefits to directly impacted communities :

- 1) for about the first 10 years of the park's life, a park superintendent will likely not reside in the park or in any directly impacted community. (Management will be provided from outside of the study area, from the offices of Wood Buffalo National Park in Fort Smith, NWT.); and
- 2) of the total anticipated Environment Canada Parks expenditures (\$11.5 m), an estimated 50% (\$5.7 m) of total park related expenditures will be spent outside of the study area, while 25% will be spent outside the NWT.

### POTENTIALLY RELEVANT POLICY PRECEDENTS

There are few good examples of community specific labour and business preference policy precedents. Probably the best example of geographically specific policies is in southern Canada. Another example is in the recently established Northern Ellesmere National Park/Reserve.

#### a) Industry

The Nelson-Burntwood Collective Agreement which governs hiring on the northern Manitoba Limestone Hydro-electric Project defines hiring preference in terms of geographic location (ie. preference

is accorded to two Census Divisions in northern Manitoba). Northern business preference is based on the same geographic designation.

Strict application of preferred northern procurement and hiring considerations outlined above, can however go a long way as a model for maximizing economic benefits to and participation in the proposed East Arm of Great Slave Lake National Park by residents of directly impacted communities.

#### b) Northern Ellesmere National Park/Reserve

The establishment of a zone of competition for both the hiring and procurement of goods and services accords preference to those communities most directly impacted by the park development.

#### POLICY RECOMMENDATIONS

1. It is recommended that a re-assessment of the proposed Environment Canada Parks' expenditure of research and planning expenditures be undertaken and that consideration be accorded to ensuring expenditure of these funds primarily in the study area and secondly, in the NWT.
2. Given that there are few examples in Canada where two national parks are managed jointly by one management regime and that the proposed management regime for the East Arm of Great Slave Lake National Park is located outside the study area, it is recommended that consideration be accorded to: a) establishing a separate management regime for the proposed park in the study area within the ten year forecast period or b) establishing a sub-office within the study area within the ten year forecast period.

#### 11.2 Socio-Cultural Issues and Recommendations

##### 11.2.1 Protection of Harvesting Activities and Provision of Local Input into Park Decision Making

#### ISSUES

The continuation of domestic or traditional harvesting activities within the proposed national park is not at issue here. Specific definitions applied to traditional harvesting rights and eligibility for these **rights** may however be of concern. Should the proposed park be established, there is potential impact to one non-native harvester who currently uses

the proposed park lands. As a result of the park being established through the land claims process, this harvester's activities may no longer be permitted as he is not a **claims** beneficiary. Similarly, if the park were established under current national park policies, continuation of these activities would be allowed for one or more generations. This **practice** may however be phased out over time. In the absence of face to face discussions with the harvester and access to information respecting the current value of this activity, the level of economic impact should displacement occur is unknown.

Some concern may be raised within directly impacted communities with respect to an increase in visitation to the area (ie. possible land use conflicts may occur). Although not within the scope of this study, some concern may also be expressed with respect to the fact that harvest levels in national parks are subject to national parks' conservation levels (ie. concerns may be raised regarding resource use, conservation and management regimes and the subsequent economic as well as social impact to traditional harvesting activities).

#### POTENTIALLY RELEVANT POLICIES

The right to harvest resources in **national** parks established through land claims helps ensure the economic well being of local residents. Effective planning and management regimes need to be developed to provide local input into decision affecting their economy. The success of such regimes in the north is often based on the level of local and user participation in the structures.

##### a) Current National Parks Policy

Although ongoing harvesting activities are permitted to continue in new northern national parks, this provision applies only to aboriginal harvesters. Non-native harvesters may be restricted from harvesting by the terms of land claims settlements.

With respect to planning and management, national parks created in conjunction with aboriginal land claims are subject to a joint management regime for planning and management of the park.

##### b) Northern Yukon National Park .

The Northern Yukon National Park **falls** under a special conservation regime whose dominant purpose is the conservation of wildlife, habitat and traditional native use. A Management Advisory Council made up of **Inuvialuit** screens all proposed

developments and uses. The Council makes recommendations to the appropriate minister who acts according to the recommendations or prepares a response to the Council if he/she does not agree with the Council's recommendations.

It is noted that in the case of the Northern Yukon National Park, the Inuvialuit Final Agreement land claims legislation provides for ultimate authority for resource use and conservation management, park planning, etc. to rest with the Minister of Environment Canada.

#### POLICY RECOMMENDATIONS

Given a potential for displacement of non-native harvester(s); a local concern regarding resource use and management; and in the event of visitor and traditional use conflicts:

1. It is recommended that in the event of the establishment of the proposed park, use policies must clearly specify the economic aspects of harvesting rights for non-native residents, non-native General Hunting Licence (GHL) holders and claims beneficiaries if this issue is not addressed in the land claims settlement.
2. It is recommended that a management board involving residents from directly impacted communities be established to enable mitigation of negative economic impacts and maximization of economic benefits to directly impacted community residents. Further, in light of a history in the north of local advisory councils which have had little real input, it is recommended that this management board be developed from the model recommended for the Northern Yukon National Park

#### 11.2.2 Socio-Cultural Concerns

This economic study has not considered in any detail the **socio-cultural** impacts which might result from the establishment of the proposed East Arm of Great Slave Lake National Park. The importance of a **socio-cultural** impact assessment should not be overlooked, especially in the communities directly impacted by this proposed development.

## RECOMMENDATIONS

1. Given the willingness of northern interest groups, it is recommended that Environment Canada Parks ensure that follow-up work is undertaken to fully identify resultant **socio-cultural** impacts and to integrate those findings with those of this economic study. It is expected that this integration will allow a more complete assessment of the potential positive and negative socio-economic implications of the proposed park

### 11.3 Regional Integration

#### ISSUES

The development and the operation of the proposed East Arm of Great Slave Lake National Park has the potential to impact a **number** of sectors of the northern economy - construction, wholesale/retail, hospitality, transportation and secondary service sectors. Impacts to each of these sectors will depend to a large degree on the level of communications between industry and Environment Canada Parks as well as the ability of each party to plan for and respond to requirements associated **with** the proposed park.

#### RECOMMENDATIONS

1. Strict application of regional preference policies outlined above will enhance economic benefits to various sectors of the study area and NWT economies. In addition however, it is recommended that strong communications links be established with each of the industry associations (ie. Travel Industry Association of the NWT, NWT Construction Association, Chamber of Commerce, etc.) representing these sectors to ensure that the willingness and ability to respond to proposed park requirements is in place.
2. It is recommended that Environment Canada Parks accord specific attention to the marketing strategies currently being developed within the Travel Industry Association of the NWT as well as within the Northern Frontier Visitors' **Association, the** Big River Travel Association and the G.N.W.T.'s Dept. of Economic Development and Tourism. In this regard, it is further recommended that Environment Canada Parks establish ongoing communications with these agencies.



A-

	Caribou Consumption		Moose Consumption	
	Est. Value (Bodden) (a)	Est. Value (Ulu) (b)	Est. Value (Bodden) (a)	Est. Value (Ulu) (b)
Ft. Resolution	n/r*	n/r	\$32,373	\$57,182
Hay River	\$11,748	\$13,288	\$51,136	\$57,839
Snowdrift	\$16,437	\$18,591	n/r	n/r
	\$28,185	\$31,879	\$84,239	395,221

A-2

SOURCE: Fort Smith Region Economic Base Study, 1995  
Lutra Associates Ltd/HJ Ruitenbeek Resource Consulting Ltd.

## NOTES:

\* n/r means no record or unknown

- (a) These figures assume 55kg of edible meat per caribou. 229kg of \$5.34/kg of edible meat is used to calculate dollar value. \$5.34/kg is equivalent to \$4/kg, inflated annually at 6% (Impact of a Northern Gas Pipeline, vol. 5, by DIAND/MPS, Ft. Resolution are from Bodden's work.
- (b) Assumes a 1984 price of \$6.82/kg (Ulu Foods, average price \$6.04/kg.
- (c) Domestic fish consumption figures come from the above mentioned from Bodden's work. A dollar value of \$1.88/kg has been assumed.
- (d) Assumes a 1984 price of \$2.89/kg (Ulu Foods, price of whole \$1.86/kg.
- (e) Snowdrift estimates have been estimated as 1/2 of Fort Resolution. It is assumed that caribou displaces moose consumption due to a lack of Snowdrift data should be used with caution.

APPENDIX B  
SOCIAL ASSISTANCE EXPENDITURES, 1980-85

Location	SA by Community 1980-85 (Calculated in 1980 dollars)	\$SA Expenditures (Actual \$'s)	Number of Recipients	Avg. \$ per Recipients	Total Cases	Avg. No. Case/Month	Avg. SA \$/0 00(Actual)	
Dettah	'80-81	29177	29177	18	1565	113	139	249
	'81-82	40811	44906	25	1796	154	13	292
	'82-83	45478	56077	33	1699	181	15	310
	'83-84	47292	61339	28	2191	178	15	345
	'84-85	45222	61028	24	2543	161	13	379
Fort Resolution/ Roche River	'80-81	73001	73001	98	745	386	32	189
	'81-82	40299	45229	47	962	224	19	202
	'82-83	69143	78572	75	1048	332	27	208
	'83-84	89018	89578	93	963	379	31	235
	'84-85	56076	75676	79	958	308	26	182
Hay River	'80-81	122008	122008	137	891	435	36	280
	'81-82	80436	90276	108	836	384	32	235
	'82-83	86142	106217	138	770	412	34	258
	'83-84	59560	77276	98	859	266	22	291
	'84-85	85138	114896	107	1139	325	27	354
Hay River Reserve	'80-81	15991	15991	24	666	114	10	140
	'81-82	8406	9434	18	524	80	7	118
	'82-83	11571	14267	23	628	82	7	150
	'83-84	7762	10067	17	592	68	6	148
	'84-85	9406	12694	15	846	65	5	195
Reliance	'80-81							
	'81-82			NO PAYMENTS MADE/RECORDED FOR PERIOD 1980-1985				
	'82-83							
	'83-84							
	'84-85							
Snowdrift	'80-81	31325	31325	30	1044	100	8	313
	'81-82	45876	51488	39	1320	158	13	326
	'82-83	72809	89777	45	1995	222	19	404
	'83-84	87529	113527	69	1645	291	24	390
	'84-85	60381	81486	43	1895	200	17	407
Yellowknife/ Rainbow Valley	'80-81	241855	241855	307	788	913	76	265
	'81-82	260600	292480	286	1023	914	76	320
	'82-83	302899	372488	290	1330	1047	87	356
	'83-84	341179	442515	308	1437	1195	100	370
	'84-85	386307	521332	338	1546	1351	113	386
FORT SMITH REGION	'80-81	2095760	2095760	1549	2326	7066	589	566
	'81-82	1799050	2019136	1456	2556	6796	565	610
	'82-83	2077145	2561215	1570	3066	8335	694	666
	'83-84	2129462	2761960	1629	3246	7746	645	721
	'84-85	2045405	2760330	1577	4406	7512	627	747

continued

APPENDIX B cont  
 SOCIAL ASSISTANCE EXPENDITURES, 1980-85

Location		SA by Community 1980-85 (Calculated in 1980 dollars)	\$ SA Expenditures (Actual) \$'s	Number of Recipients	Avg. \$ per Recipients	Total Cases	Avg. No. Case/Month	Avg. SA \$/C (Actual)
D. W. T.	'80-81	6962124	6962124	4896	1419	22150	1846	314
	'81-82	6608817	7417303	4932	1498	23270	1939	319
	'82-83	7089936	8742214	5022	1741	23807	1984	367
	'83-84	7156174	9281678	5120	1813	24571	2048	378
	'84-85	6889343	9297359	5031	1845	24386	2032	381

SOURCE: "Social Assistance Program, 1980-1985",  
 Dept. of Social Services, G.N.W.T.

APPENDIX C  
 VALUE OF NET IMPORTS BY COMMUNITY - 1984 SUMMARY  
 (\$'000)

	Exports					Imports					Net Imports
	Nat. Gas/ Minerals	Arts & Crafts	Lumber	Fish	Furs	Fuel	Food	Building Supplies	Vehicles/ Equipment	General Merch.	
Enterprise							22.2	4.6		796.0	822.8
Fort Liard		28.6		106.2		690.0	724.6	9.4		90.5	1379.7
Fort Providence				114.2			61.2	29.7	388.5	202.9	568.1
Fort Resolution		9.4		54.9			45.3	7.9	103.8	54.1	146.3
Fort Simpson		53.7		148.2		1255.1	1732.9	434.?	5725.7	3001.7	11948.4
Fort Smith				59a			3502. b	1521.2	20134.4	10563.0	35661.4
H. River			2000	750	47.7	1183.3	21411.1	10107.5	132,783.3	69329.2	232,014.6
J. Marie River				8.6		48.5		12.9			52.8
L. la Martre				35.9		244.6					289.7
Nahanni Butte				36.5		71.3	49.3				84.1
Fort Point	88,000						1330.6	63.4	830.5	432.9	(86542.6)
Fort Edzo		11.1		123.4			97.9	47.5	622.9	324.7	958.5
Ree Lakes				47.7		88.8					40.9
Finlay						70.4	3.3	2.8	4.7	0.7	89.9
Snare Lake				4.4							(4.4)
Sudrith		13.7		68.3		288.8	67.9		2968.3	58.1	3293.1
Tout Lake						71.2					71.2
Tungsten	4,217										(4217.0)
Ugley		0.7				331.7	73.4	35.8	42.5	7.1	481.8
Yellowknife	84,319	212.0				25518.3	38653.0	17460.8	229533.7	118594.1	345228.9
United Mountain	29,120										n/a
<b>Fort Smith Region</b>	<b>205,656.0</b>	<b>337.2</b>	<b>2000</b>	<b>750</b>	<b>103.4</b>	<b>29862.0</b>	<b>66575. b</b>	<b>29738.4</b>	<b>393138.2</b>	<b>203455.0</b>	<b>542287.2</b>

J. RCES: Fort Smith Region Economic Base Study, 1985  
 Lutra Associates Ltd. /H. J. Ruitenbeek Resource Consulting Ltd.

APPENDIX C continued  
 VALUE OF SERVICES - SUMMARY, 1984  
 (\$ '000)

	<u>Barge Freight Charges</u>	<u>Air Freight Charges</u>	<u>Air Passenger Fares</u>	<u>Truck Freight Charges</u>	<u>TOTAL</u>
Enterprise				43.9	43.9
<b>Ft. Liard</b>	22.5			<b>176.2</b>	<b>198.7</b>
Ft. Resolution			5.2	<b>8.2</b>	<b>13.4</b>
Ft. Simpson	<b>88.4</b>	<b>41.7</b>	<b>405.6</b>	<b>441.5</b>	<b>969.2</b>
Fort Smith		<b>215.8</b>	<b>3926.9</b>	<b>1329.6</b>	5472.3
Hay River	<b>99.8</b>	390.1	2435.2	<b>7331.7</b>	10256.6
Jean Marie River	<b>4.8</b>				<b>4.8</b>
Lac La Martre				13.4	13.4
<b>Nahanni Butte</b>				7.9	7.9
Pine Point				<b>49.0</b>	<b>49.0</b>
Rae Edzo				40.5	48.5
Rae Lakes	-			6.1	6.1
Reliance	<b>7.4</b>				7.4
Snowdrift	<b>51.3</b>				51.3
Trout Lake				<b>4.2</b>	<b>4.2</b>
Wrigley	32.8				32.8
<b>Yellowknife</b>	<b>1636.6</b>	<b>1013.0</b>	13791.4	17750.4	34199.4
<b>TOTAL</b>					
FORT SMITH REGION	1935.6	<b>1660.6</b>	20564.3	27459.1	51619.6

SOURCE: Fort Smith Region Economic Base Study, 1985  
 Lutra Associates Ltd. / H. J. Ruitenbeek Resource Consulting Ltd.

APPENDIX D

ESTIMATES OF DIRECT IMPACTS OF EAST ARM SPORT FISHING  
LODGES FOR THE BASE YEAR 1986 (\$000)

	Total	Study Area	Non-Study Area
Visitor Expenditure			
Lodge Packages:			
Resident	\$ 382	382	0
Non-Resident	1,146	1,146	0
Other:			
Resident	38	38	
Non-Resident	114	114	
Total	1,680	1,680	0
Direct Labour	286	113	173
Goods And Services	941	454	487

Note to Appendix:

Assuming that there are similarities between East Arm lodges and other lodges in the N.W.T. then the ratios derived in Topolniski's income analysis can be applied to the East Arm lodges. The total direct labour indicator is .17 and the payment for goods and services indicator is .56. Applying these indicators to East Arm lodge gross sales we are able to determine direct impacts for labour and goods and services within the lodge sector of the economy. Topolniski was able to determine those expenditures made in the N.W.T and for all areas and it is reasonable to assume that goods and services bought by East Arm lodges would occur in the study area. The N.W.T indicator for direct labour impacts then is .067 and payments for goods and services is .27.

Of the total of lodge package and other, it is estimated that 75% or \$1,260,000 is a direct contribution to the study area economy. This factor is derived from the distribution ratio 3:1 of non-resident and resident guest fishing licence registrations at the East Arm lodges. Leakage out of the study area is derived in Appendix D and is indicated for direct labour and goods and services expenditures at an estimated \$660,000.

1986 TO 1995 ESTIMATES OF VISITOR  
EXPENDITURES TO STUDY AREA AND EAST ARM OF  
GREAT SLAVE LAKE: NO PARK SCENAR10

	STUDY AREA	EAST ARM LODGE MARKET	EAST ARM CHARTER BOAT	EAST ARM CHARTER AIR	EAST ARM PLEASURE CRAFT
Constant \$1986	VALUE (\$000)	VALUE (\$000)	VALUE (\$000)	VALUE (\$000)	VALUE (\$000) --
<b>1986</b>					
Non-Resident ( 1 )	41830	1275	8.6		3.0
Resident(2)	6740	425	12.9	40.0	11.0
TOTAL	48570	1700	21.5	40.0	14.0
<b>1987</b>					
Non-Resident	42254.4	1260.4	8.8		3.0
Resident	6944.8	424.3	13.1	41.0	11.3
TOTAL	49099.2	1694.7	21.9	41.0	14.3
<b>1989</b>					
Non-Resident	45730.5	1311.4	9.6		3.3
Resident	7249	441.6	14.0	44.0	12.1
TOTAL	11778.5	1753	23.6		15.4
<b>1989</b>					
Non-Resident	49042.6	1353.2	10.4		3.5
Resident	7701.1	459.9	14.9	47.1	12.9
TOTAL	56743.7	1822.1	25.3	47.1	16.4
<b>1990</b>					
Non-Resident	52517.7	1417.9	11.1		3.7
Resident	8153.3	477.1	15.9	50.8	13.8
TOTAL	60671	1995	27	50.8	17.5
<b>1991</b>					
Non-Resident	56127.4	1474.5	12		4.1
Resident	8613.1	496.3	16.9	54.2	14.7
TOTAL	64740.5	1970.8	28.9	54.2	18.8
<b>1992</b>					
Non-Resident	59866.6	1534	12.9		4.4
Resident	9882.6	516.5	18	57.8	15.8
TOTAL	69749.2	2050.5	30.0	57.0	20.2
<b>1993</b>					
Non-Resident	63709.1	1595.5	13.9		4.7
Resident	9545.3	536.6	19.2	62.1	17
TOTAL	73334.4	2132.1	33	62.1	21.7
<b>1994</b>					
Non-Resident	68234.9	1659.7	14.9		5.1
Resident	10064.6	559.7	20.5	66.7	18.1
TOTAL	78299.5	2218.4	35.3	66.7	23.2
<b>1995</b>					
Non-Resident	72464.8	1726	15.8		5.4
Resident	10548.4	580.8	21.7	71	19.5
TOTAL	93013	2306.8	37.5	71	24.9

(1) Non-residents reside outside the study area.  
(2) Residents reside in the study area.

APPENDIX F:

TOTAL VISITORS TO AUYUITTUQ AND NAHANNI  
1973 to 1985

YEAR	AUYUITTUQ	NAHANNI
1973		
1974		394
1975		169
1976		227
1977	699	244
1978	627	297
1979	450	339
1980	362	431
1981	363	518
1982	282	549
1983	454	766
1984	579	888
1985	532	927
1986	500	676
Range	282-699	169-927
Range both Parks	169-927	

SOURCE: National Parks Directorate, Ottawa

ORIGIN OF VISITORS TO AUYUITTUQ AND NAHANNI  
1981/82

Country /Region of Origin	% Auyuittuq	% Nahanni
NWT/YUKON	13.0	11.2
(OTHER CANADA	50.4	60.8
USA	28.4	22.0
EUROPE	7.3	6.0
TOTAL	100.0	100.0

SOURCE: InterGroup Consultants Ltd., "Economic Performance of  
Four Northern National Parks/Reserves", 1995

MAIN ACTIVITIES IN NAHANNI AND AUVUITTUQ  
1977/78 TO 1982

Auvuttua	(% of total visitors)	
	1977/78	1982
photography	not available	98.8
hiking/backpacking	'	95.4
nature study	▪	81.7
climbing	▪	44.3
ski touring	▪	7.3
other	'	5.1
sport fishing	▪	4.6

Nahanni

canoeing	46.1	34.1
kayak	5.6	0.0
power boat	12.5	1.8
jet boat	9.1	8.3
hiking	5.2	0.0
rafting	4.7	16.6
aircraft	0.0	1.4
commercial	0.0	22.7
day use	1608	17.4
other overnight	0.0	0.0

SOURCE: InterGroup Consultant Ltd. , "Economic Performance of Four Northern National Parks/Reserves", 1985

APPENDIX G: DERIVATION OF TEN YEAR FORECAST OF PARK ATTENDANCE AND ESTIMATES OF DIRECT, INDIRECT AND INDUCED INCREMENTAL EXPENDITURES RESULTING FROM THE PARK DEVELOPMENT

PARK ATTENDANCE FORECAST

The approach to deriving visitor estimates for each scenario assumes that the proposed East Arm of Great Slave Lake National Park will combine visitor characteristics of both Auyuittuq and Nahanni National Parks and subsequently reach annual visitor levels achieved during the initial ten year developmental periods of these parks. This conclusion is based on an analysis of visitor characteristics in Auyuittuq and Nahanni, a comparison of Auyuittuq and Nahanni park activities with proposed park activities, and a comparison of existing study area and N.W.T. visitor characteristics with Auyuittuq and Nahanni visitor characteristics.

In deriving annual visitation forecasts for the low and high park attendance scenarios, ten year visitor levels for both parks were combined in ratios of 2:1 for Auyuittuq:Nahanni and 2:1 for Nahanni:Auyuittuq. An annual variance from the ten year mean was computed resulting in estimates of park attendance for each of the ten years. The effect of varying the ratios produces visitor forecasts more similar to Auyuittuq in one case and Nahanni in the other. The ten year mean park attendance figure in the low park attendance scenario is 497 while in the high park attendance scenario is 537. While there is little difference in the net attendance forecast for the ten Year forecast period, there are significant differences in annual attendance growth estimates for each scenario.

In deriving forecasts for both scenarios it is assumed that existing market segments visiting locations in the east arm of Great Slave Lake will continue to do so at the rates prescribed in Table 25. Each market segment will contribute to annual park attendance estimates by virtue of the location of activities and historical travel patterns. It is estimated that 25% of all sport fishing lodge guests will visit the proposed park for day use purposes while the other market segments, pleasure craft, charter boat and charter air will seek destinations in the park 15% of the time. These percentages are applied against values in Table 25.

ESTIMATES OF DIRECT, INDIRECT AND INDUCED INCREMENTAL VISITOR EXPENDITURES

The incremental impacts associated with visitor expenditures are calculated for each of years one, five and ten utilizing non-resident visitor estimates for the adventure travel market segment. Although the other market segments will contribute to the attendance of the proposed park, this visitation is not expected to result from the creation of the park. Visitor trip expenditures are estimated to coincide with the adjusted (1986) 1982-83 Nahanni per trip expenditure and will be \$320. Expenditures by sector are expected to correspond with expenditure categories for Nahanni during the same fiscal period 1982-83. Sector expenditures will be; transportation - 33%, accommodation and food - 46% and wholesale/retail trade - 21%.

A series of industry activity multipliers is used in computing the direct, indirect and induced incremental impacts on the study area and the N.W.T. These multipliers are listed below and have been derived from the analysis of four northern parks. (1)

INDUSTRY ACTIVITY MULTIPLIERS

	LABOUR	GDP	EMPLOYMENT PERSON YEARS PER \$10,000
	---	---	---
Wholesale/Retail	.17	.19	.0506
Direct Impact Portion	.72	.78	.72
Transportation	.60	.71	.2317
Direct Impact Portion	.62	.71	.68
Accommodation & Food	.60	.71	.3581
Direct Impact Portion	.68	.75	.84

(1) InterGroup Consultants Ltd., "Economic Performance of Four Northern National Parks/Reserves", 1985

APPENDIX G con't

1986 TO 1995 VISITOR FORECASTS  
 STUDY AREA AND EAST ARM OF GREAT SLAVE  
 LAKE MARKETS: PARK SCENARIO- HIGH VISITATION

	PARK VISITS EAST ARM LODGE MARKET	PARK VISITS EAST ARM CHARTER BOAT	PARK VISITS EAST ARM CHARTER AIR	PARK VISITS EAST ARM PLEASURE CRAFT	TOTAL EXISTING MARKETS	PARK VISITS ADVENTURE MARKET	TOTAL PARK VISITS TRAVEL	TOTAL PARK VISITS ATTENDANCE
	PERSON TRIPS	PERSON TRIPS	PERSON TRIPS	PERSON TRIPS	PERSON TRIPS	PERSON TRIPS	PERSON TRIPS	PERSON TRIPS
<b>1986</b>								
Non-Resident (1)	160	4		4	168	118		286
Resident (2)	53	6	15	15	89	21		110
<b>TOTAL</b>	<b>213</b>	<b>10</b>	<b>15</b>	<b>19</b>	<b>257</b>	<b>139</b>		<b>396</b>
<b>1987</b>								
Non-Resident	160	4		4	168	127		295
Resident	53	6	15	15	90	22		113
<b>TOTAL</b>	<b>213</b>	<b>10</b>	<b>15</b>	<b>19</b>	<b>257</b>	<b>150</b>		<b>407</b>
<b>1988</b>								
Non-Resident	160	4		4	168	99		267
Resident	53	6	16	16	91	17		109
<b>TOTAL</b>	<b>213</b>	<b>10</b>	<b>16</b>	<b>20</b>	<b>259</b>	<b>117</b>		<b>376</b>
<b>1989</b>								
Non-Resident	160	4		5	159	125		284
Resident	53	6	16	16	92	22		114
<b>TOTAL</b>	<b>213</b>	<b>11</b>	<b>16</b>	<b>21</b>	<b>261</b>	<b>147</b>		<b>400</b>
<b>1990</b>								
Non-Resident	160	4		5	169	173		341
Resident	53	7	17	17	94	30		124
<b>TOTAL</b>	<b>213</b>	<b>11</b>	<b>17</b>	<b>22</b>	<b>263</b>	<b>203</b>		<b>466</b>
<b>1991</b>								
Non-Resident	160	5		5	169	167		336
Resident	53	7	17	17	95	29		124
<b>TOTAL</b>	<b>213</b>	<b>11</b>	<b>17</b>	<b>22</b>	<b>264</b>	<b>194</b>		<b>460</b>
<b>1992</b>								
Non-Resident	160	5		5	169	337		506
Resident	53	7	18	19	96	59		155
<b>TOTAL</b>	<b>213</b>	<b>12</b>	<b>18</b>	<b>23</b>	<b>265</b>	<b>397</b>		<b>662</b>
<b>1993</b>								
Non-Resident	160	5		5	170	441		610
Resident	53	7	18	18	97	78		175
<b>TOTAL</b>	<b>213</b>	<b>12</b>	<b>18</b>	<b>23</b>	<b>267</b>	<b>519</b>		<b>785</b>
<b>1994</b>								
Non-Resident	160	5		5	170	448		618
Resident	53	7	19	19	99	79		178
<b>TOTAL</b>	<b>213</b>	<b>12</b>	<b>19</b>	<b>24</b>	<b>269</b>	<b>527</b>		<b>796</b>
<b>1995</b>								
Non-Resident	150	5		5	170	295		465
Resident	53	8	20	20	100	52		152
<b>TOTAL</b>	<b>213</b>	<b>13</b>	<b>20</b>	<b>25</b>	<b>270</b>	<b>347</b>		<b>617</b>

(1) Non-residents reside outside the study area.  
 (2) Residents reside in the study area.

APPENDIX G con't

1986 TO 1995 VISITOR FORECASTS  
STUDY AREA AND EAST ARM OF GREAT  
LAKE MARKETS : PARK SCENARIO - LOW VISITATION

	PARK VISITS EAST ARM LODGE MARKET	PARK VISITS EAST ARM CHARTER BOAT	PARK VISITS EAST ARM CHARTER AIR	PARK VISITS EAST ARM PLEASURE CRAFT	TOTAL EXISTING MARKETS	PARK VISITS ADVENTURE TRAVEL MARKET	TOTAL PARK ATTENTION
	PERSON TRIPS	PERSON TRIPS	PERSON TRIPS	PERSON TRIPS	PERSON TRIPS	PERSON TRIPS	PERSON TRIPS
1986							
Non-Resident (1)	160	4		4	168	131	299
Resident (2)	53	6	15	15	89	23	112
<b>TOTAL</b>	<b>213</b>	<b>10</b>	15	<b>19</b>	257	154	411
1987							
Non-Resident	160	4		4	168	131	389
Resident	53	6	15	15	90	39	129
<b>TOTAL</b>	<b>213</b>	<b>10</b>	15	19	257	260	517
1988							
Non-Resident	160	4		4	168	130	299
Resident	53	6	16	16	91	23	114
<b>TOTAL</b>	<b>213</b>	10	16	<b>20</b>	259	154	413
1989							
Non-Resident	160	4		5	169	106	274
Resident	53	6	16	16	92	19	111
<b>TOTAL</b>	<b>213</b>	11	16	<b>21</b>	261	124	385
1990							
Non-Resident	160	4		5	169	129	298
Resident	53	7	17	17	94	23	116
<b>TOTAL</b>	<b>213</b>	<b>11</b>	17	<b>22</b>	263	152	414
1991							
Non-Resident	160	5		5	169	91	260
Resident	53	7	17	17	95	16	111
<b>TOTAL</b>	<b>213</b>	11	17	<b>22</b>	264	107	371
1992							
Non-Resident	160	5		5	169	249	416
Resident	53	7	18	18	96	44	140
<b>TOTAL</b>	<b>213</b>	12	18	<b>23</b>	265	293	556
1993							
Non-Resident	140	5		5	170	353	523
Resident	53	7	18	18	97	62	160
<b>TOTAL</b>	<b>213</b>	<b>12</b>	18	<b>23</b>	266	416	683
1994							
Non-Resident	160	5		5	170	336	506
Resident	53	7	19	19	99	59	158
<b>TOTAL</b>	<b>213</b>	12	19	<b>24</b>	268	395	664
1995							
Non-Resident	160	5		5	170	245	415
Resident	53	8	20	20	100	43	143
<b>TOTAL</b>	<b>213</b>	13	20	<b>25</b>	270	289	558

(1) Non-residents reside outside the study area.  
(2) Residents reside in the study area.

APPENDIX H:

DERIVATION OF IMPACT ANALYSIS FACTORS AND ESTIMATES OF DIRECT, INDIRECT AND INDUCED INCREMENTAL EXPENDITURES RESULTING FROM PARKS EXPENDITURES FOR THE PROPOSED EAST ARM OF GREAT SLAVE LAKE PARK

The following information has been prepared from a 1985 study (1) on northern national parks/reserves . The study presents information and a methodology that can be used to assess the aggregate impact of Parks expenditures on the economies of the study area and N.W.T. It presents economic impacts in the main categories as:

- a) contribution to Gross Domestic Product (G.D.P. );
- b) contribution to labour income;
- c) level of income generated; and
- d) employment.

The approach used in this section has quite a high level of aggregation and hence tends to hide some of the potentially interesting insights into the economic impact such as specifics on the types and locations of businesses which might benefit from Parks ' expenditures . For this reason, while the contents of this analysis are useful in presenting some order of magnitude impact information, it is not well suited to development of opportunities enhancement strategies and policies. A detailed analysis of individual expenditure items , presented in this appendix is thus more appropriate to the development of policies and northern enhancement strategies.

1. Parks' Expenditures in the N.W.T.: A Comparison with Auyuittuq and Nahanni National Parks

To determine economic impacts , the proportion of total expenditure for the park that would occur in the N.W.T. needs to be determined. The experience of the Nahanni and Auyuittuq National Parks are the most relevant for this purpose. Over the three year period of 1977/78 to 1979/80, between 58% and 76% of the total expenditures for Nahanni National Park Reserve occurred in the N.W.T. while between 70%-73% of total expenditures for Auyuittuq National Park Reserve occurred in the N.W.T. The three year average was 65% for Nahanni and 72% for Auyuittuq. The mix of capital and operating costs in those years and Parks is sufficiently varied , but it would accommodate the mixes expected for the proposed East Arm of Great Slave Lake National Park. Unfortunately, similar data are not available for more recent years.

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(1) InterGroup Consultants Ltd., "Economic Performance of Four Northern National Parks/Reserves", 1985

In light of the above, it is reasonable to estimate that between 60%-75% (67% overall is suggested) total expenditures for the East Arm of Great Slave Lake National Park will occur in the N.W.T. The lower end of this range is likely to be more relevant during the years when research and planning expenditures are more prominent while the upper end of the range is possibly more appropriate when they are not. Hence for years 3 and 4, it may be more appropriate to use a range of 60%-70% while in other years a range of 65%-75% would be more reasonable.

The resulting levels of annual park expenditures in the N.W.T. are presented below. Over the ten year forecast period, between \$7.3 and \$8.5 million of expenditures in 1986 constant dollars are projected to occur in the N.W.T. Peak expenditures of between \$1.0 and \$1.2 million would occur in years 2 and 3 while the sustained expenditure level once the park has been developed, would be between \$.6 and \$.7 million. The detailed analysis of expenditures suggests that over the 10 year forecast period that some \$8.4 million will be spent in the N.W.T.

ANNUAL PARK EXPENDITURES IN THE N.W.T.  
 PROPOSED EAST ARM OF GREAT SLAVE LAKE  
 NATIONAL PARK.  
 (\$000 1986 constant)

YEAR	TOTAL EXPENDITURE	% in N.W.T.	SPENT IN N.W.T.
1	641.1	65-75	417-481
2	1678.8	65-75	1019-1259
3	1699.9	60-70	1020-1190
4	<b>1364.6</b>	60-70	819-955
5	1032.5	65-75	671-774
6	1403.5	65-75	912-1053
7	1089.0	65-75	708-817
8	830.0	65-75	540-623
9	835.0	65-75	543-626
10	922.0	65-75	599-692
TOTAL	11 ,496.4		7320-8470

2. Detailed Analysis of Parks Expenditures in the N.W.T. and the Study Area for the Proposed East Arm of Great Slave Lake Park

The following tables and notes represent the detailed analysis of Parks estimates of capital, operations and maintenance, and research and planning expenditures for the proposed East Arm of Great Slave Lake. The calculations are derived from existing economic conditions and are industry standards for each sector in the N.W.T. and study area economy. The distribution of each expenditure to N.W.T. and study area economic sectors forms the basis for deriving the labour income, GDP and employment impacts.

A. OPERATIONS AND MAINTENANCE EMPLOYMENT

The following display represents anticipated direct job creation and Parks' salary expenditures for operations.

IMPACT ANALYSIS FACTORS - YEARS 1, 5, AND 10  
OPERATION AND MAINTENANCE EMPLOYMENT (\$000 1986 )

Position	Year 1		Year 5		Year 10		10 Year Totals	
	(\$000)	PY	(\$000)	PY	(\$000)	PY	(\$000)	PY
TOTAL	265.00	7.50	323.50	8.75	323.50	8.75	3077.40	84.25
STUDY AREA								
Patrolman - PRCB	40.50	1.00	45.00	1.00	45.00	1.00	432.00	in. fl 0
Seasonal Patrol - PRCB			53.50	1.25	53.50	1.25	395.90	9.25
Warden - GT2	40.50	1.00	40.50	1.00	40.50	1.00	405.00	10.00
Clerk - CRJ	17.00	.50	17.50	.50	17.50	.50	174.50	5.00
Total Study Area	98.00	2.50	156.50	3.75	156.50	3.75	1407.40	34.25
OUTSIDE STUDY AREA								
Area Manager - GT4	47.00	1.00	47.00	1.00	47.00	1.00	470.00	10.00
Admin. - CR4*	30.70	1.00	30.70	1.00	30.70	1.00	307.00	10.00
Resource Tech. - EGESS4*	34.00	1.00	34.00	1.00	34.00	1.00	340.00	10.00
Warden - GT1*	28.90	1.00	28.90	1.00	28.90	1.00	289.00	10.00
Ft. Smith Salaries	26.40	1.00	26.40	1.00	26.40	1.00	264.00	10.00
Total Outside Study Area	167.00	5.00	167.00	5.00	167.00	5.00	1670.00	50.00

\*Each of these positions is noted as training positions and will remain constant for the ten year forecast period.  
Although the positions are all located to the Proposed park, the training will take place outside the study area in Fort Smith.  
\*PY = Person year

Source: Environment Canada, Parks

CATEGORIES OF CAPITAL EXPENDITURES	DISTRIBUTED DIRECT EXPENDITURES			TOTAL EXPENDITURE (1986 \$000) STUDY AREA
	FROM OUTSIDE EXPENDITURE (1986 \$000) STUDY AREA	RETAIL (1986 \$000) STUDY AREA	WHOLESALE/ CONSTRUCTION (1986 \$000) STUDY AREA	
<b>Labour Intensive</b>				
Design & Project Mgmt.	64	64		
Hiking Trails				
Signage, Publication, Interpretation & Extension				
<b>Mixed Purchase/Construction</b>				
Staff Housing (2 houses & furniture)				
Office and Storage				
Two Patrol Complexes				
Campsite and Docks				
<b>Equipment/Purchases Intensive</b>				
Vehicles (4 WD and oversnow)				
Patrol Vessels				
Communications & Marine Equipment				
<b>TOTAL</b>	<b>64</b>	<b>64</b>		
<b>% of TOTAL EXPENDITURE</b>	<b>100</b>	<b>100</b>		

Source: Environment Canada, Parks

\*For distribution rationale see Appendix D

\*\*All expenses have been rounded to the nearest dollar.

IMPACT ANALYSIS FACTORS - YEAR FIVE CAPITAL DEVELOPMENT EXPENDITURE SCENARIO

CATEGORIES OF CAPITAL EXPENDITURES	DISTRIBUTED DIRECT EXPENDITURES				TOTAL EXPENDITURE (1986 \$000) STUDY AREA
	FROM OUTSIDE EXPENDITURE (1986 \$000) STUDY AREA	RETAIL	WHOLESALE/ CONSTRUCTION		
<b>Labour Intensive</b>					
Design & Project Mgmt.	64	64			
Hiking Trails Signage, Publication, Interpretation & Extension	5		5		5
	55		55		55
<b>Mixed Purchase/Construction</b>					
Staff Housing (2 houses & furniture)	5		5		5
Office and Storage	2		2		2
Two Patrol Complexes	40		40		40
Campsite and Docks	10		10		10
<b>Equipment/Purchases Intensive</b>					
Vehicles (4 WD) and oversnow Patrol Vessels Communications & Marine Equipment	17	12	5		5
<b>TOTAL</b>	198	76	60	62	122
<b>% of TOTAL EXPENDITURE</b>	100	39	30	31	62

Source: Environment Canada, Parks  
 \*For distribution rationale see Appendix D  
 \*All expenses have been rounded to the nearest dollar.

IMPACT ANALYSIS FACTORS - YEAR TEN CAPITAL DEVELOPMENT EXPENDITURE SCENARIO

CATEGORIES OF CAPITAL EXPENDITURES	DISTRIBUTED DIRECT EXPENDITURES				TOTAL EXPENDITURE (1986 \$000) STUDY AREA
	FROM OUTSIDE EXPENDITURE (1986 \$000) STUDY AREA	WHOLESALE/ RETAIL (1986 \$000) STUDY AREA	CONSTRUCTION (1986 \$000) STUDY AREA		
<b>Labour Intensive</b>					
-----					
<b>Design &amp; Project Mgmt.</b>					
Hiking Trails					
Signage, Publication, Interpretation & Extension					
<b>Mixed Purchase/Construction</b>					
-----					
Staff Housing (2 houses & furniture)	5				
Office and Storage	>				
Two Patrol Complexes					
Campsite and Docks					
<b>Equipment/Purchases Intensive</b>					
-----					
Vehicles (4 WD and oversnow)	15		15		15
Patrol Vessels	175	175			
Communications & Marine Equipment					
TOTAL	197	175	15	7	22
% of TOTAL EXPENDITURE	100	89	8	4	11

Source: Environment Canada, Parks

\*For distribution rationale see Appendix D

\*All expenditures have been rounded to the nearest dollar.

IMPACT ANALYSIS FACTORS- YEAR ONE OPERATIONAL GOODS AND SERVICES

CATEGORIES OF CAPITAL EXPENDITURES	DISTRIBUTED DIRECT EXPENDITURE		
	EXPENDITURE (1986 \$000)	FROM OUTSIDE	WHOLESALE/RETAIL
		N.W.T. (1986 \$000)	(1986 \$000)
Aircraft	30		
Visitor			
<b>Infrastructure</b>			
<b>Travel</b>	25	8	
Training	11		
Fuel			
<b>Miscellaneous</b>			
Fort Smith Goods and Services	91		
TOTAL	157	8	0
% of TOTAL EXPENDITURE	100	5	0

Source: Environment Canada, Parks  
 \*For distribution rationale see Appendix D

\*The N. W.T. expense category refers to that portion of Parks' expenditure which occurs outside of the study area but in the N.W.T.

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Business Classification: (source: Northwest Territories Business Directory)  
 Wholesale/retail - business sector supplying merchandise such as food, clothing, etc.  
 Transportation - business sector supplying passenger and freight services by water, air and road.  
 Secondary Service - business sector supplying a variety of secondary services including services to business, government services, health, finance and insurance and other service industries.  
 Hospitality/Accommodation - accommodation and food and beverage services.

IMPACT ANALYSIS FACTORS - YEAR FIVE OPERATIONAL GOODS AND SERVICES EXPENDITURE SCENARIO

CATEGORIES OF CAPITAL EXPENDITURES	DISTRIBUTED DIRECT EXPENDITURES										
	FROM OUTSIDE EXPENDITURE N.W. T. (1986 \$000)(1996 \$000)	WHOLESALE/RETAIL (1986 \$000) STUDY AREA N.W.T.	TRANSPORTATION [1995 \$000] STUDY AREA N.W. T.	SECONDARY SERVICE /60V T (1986 \$000) STUDY AREA N.W. T.	HOSPITALITY/ACCOMMODATION (1986 \$000) STUDY AREA N.W. T.	TOTAL EXPENDITURE (1986 \$000) STUDY AREA					
Aircraft	50		33	17		33					
Visitor	30				30	30					
Infrastructure	20				20	20					
Travel	25	8	1	3	4	8					
Training	26				26	26					
Fuel	50		50			50					
Miscellaneous	45		30		15	45					
Fort Smith Goods and Services	91		46		46	91					
TOTAL	337	8	80	46	35	19	91	46	4	8	229
% of TOTAL EXPENDITURE	100	2	24	14	10	6	27	14	1	2	68

Source: Environment Canada, Parks

\*For distribution rationale see Appendix D

\*The N.W.T. expense category refers to that portion of Parks' expenditures which occurs outside of the study area but in the N.W. T.

\*All expenses have been rounded to the nearest dollar.

Business Classification: (source: Northwest Territories Business Directory, 1985)

Wholesale/retail - business sector supplying merchandise such as food, hardware etc.

Transportation-business sector supplying passenger and freight services by water, air and road,

Secondary Service - business sector supplying a variety of secondary including services to business, government services, finance and insurance and other service industries!

Hospitality/Accommodation - accommodation and food and beverage services.

IMPACT ANALYSIS FACTORS - YEAR TEN OPERATIONAL GOODS AND SERVICES EXPENDITURES SCENARIO

CATEGORIES OF CAPITAL EXPENDITURES	DISTRIBUTED DIRECT EXPENDITURES											
	EXPENDITURE (1985 \$000)	FROM OUTSIDE N.W.T. (1985 \$000)		WHOLESALE/RETAIL (1986 \$000) STUDY AREA N.W.T.		TRANSPORTATION (1985 \$000) STUDY AREA N.W.T.		SECONDARY SERVICE /GOV'T (1985 \$000) STUDY AREA N.W.T.		HOSPITALITY/ACCOMMODATION (1986 \$000) STUDY AREA N.W.T.		TOTAL EXPENDITURE (1985 \$000) STUDY AREA
Aircraft	75				50	25						5a
Visitor	40							40				40
Infrastructure	35							35				35
Travel	25	8			1	3				4	B	25
Training	26							26				26
Fuel	60			60								60
Miscellaneous	45			30				15				45
Fort Smith Goods and Services	91				46				46			
TOTAL	397	8		90	46	51	28	116	46	4	8	281
% of TOTAL EXPENDITURE	100	2		23	11	13	7	29	11	1	2	71

Source: Environment Canada, Parks

\*For distribution rationale see Appendix D

\*The N. W.T. expense category refers to that portion of Parks' expenditures which occurs outside of the study area but in the N.W.T.

\*All expenses have been rounded to the nearest dollar.

Business Classification: (source: 'Northwest Territories Business Directory', 1995)

Wholesale/retail - business sector supplying merchandise such as food, hardware etc.

Transportation - business sector supplying passenger and freight services by water, air and road.

Secondary Service - business sector supplying a variety of secondary including services to business, government services, finance and insurance and other service industries.

Hospitality/Accommodation - accommodation and food and beverages services.

Economic Impact Analysis Multipliers

The economic impact of park expenditures in the N.W.T. can be determined by using multipliers developed in the earlier InterGroup impact analysis of four northern national parks/reserves. The multipliers are taken from **Table 11.C.1, 11.C.2 and 11.C.3** of the Statistics Canada Input-Output Derived Multipliers and adjusted to reflect the current economic conditions in the N.W.T.

The multipliers are used to determine impacts of parks expenditures for operations and maintenance **labour**, and goods and services and capital development - goods and service. These multipliers are detailed below.

Industry Activity and Direct Impact Proportion Multipliers:

	Labour	GDP	Employment Per Years Per \$10,000
-----			
<b>O &amp; M</b>			
Direct : Total Income	1.168	1.2	.0092 (1)
<b>O &amp; M/CAPITAL EXPENDITURES</b>			
<b>GOODS AND SERVICES</b>			
Wholesale/retail trade	.17	.19	.0506
Direct Impact	.72	.78	.72
Transportation	.60	.71	.2317
Direct Impact	.62	.71	.68
Accommodation/ Hospitality	.60	.71	.3581
Direct Impact	.68	.75	.84
Construction	.47	.60	.0916
Direct Impact	.54	.52	.50
Secondary Service/ <b>Gov't</b>	.43	.74	.3592
Direct Impact	.51	.71	.80

The derivation of indirect and induced multipliers is the

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