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Wood Buffalo National Park

Socio-Economic Statement on the Recommended Management Plan

Prepared by: Socio-Economic Division, Prairie Region

April 1983



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EXECUTIVE SUMMARY

This study evaluates the socio-economic effects of the presence and management of Wood Buffalo National Park (WBNP) on the visitor public, local communities and the regional economy. Assessment of the present impact of WBNP, in terms of expenditures, visitation and resource use, provides an overview of the character of the park's contribution to the area. Based on this background, the recommendations of the management plan are examined for their potential socio-economic impacts on the park, park users and the region.

1.0 REGIONAL IMPACT OF WBNP

Based on fiscal year expenditures, WBNP infused \$3.38 million into the region in non-capital budget spending in 1981-2. Capital projects worth a further \$465,000 have also been constructed in 1981-2. Local respending of park related expenditures is estimated to create a further \$496,000 in indirect income effects in Fort Smith alone.

Breakdown by type of expenditure indicates that firefighting expenditures have accounted for 54% of total budgetary spending for the period 1977-81. Salaries and goods and services categories comprise the remaining 46% of budget expenditures.

Approximately 50% of WBNP's overall budget was spent in the NWT in 1981-82. Purchase of 82% of normal goods and services occurred in the NWT and an estimated 67% of total salaries paid by the Park was expended in Fort Smith. This was offset by the expenditure of 70% of total firefighting costs outside of the

(ii)

NWT due to relative advantages in supply and availability of specialized equipment and goods from Edmonton and other southern locations.

Staffing of the Park provides direct permanent jobs for 27 individuals and seasonal, term or firefighter employment for an additional 127 individuals locally. A total of 47.2 person years of employment were required at the park in 1981. Park-related expenditures and indirect income effects are estimated to indirectly provide full-time employment, or its equivalent, for some 19 individuals in Fort Smith.

Tourist and visitor use of WBNP are non-intensive, relative to levels of use at southern National Parks, but significant to the area. By extrapolation from preliminary tourist information generated by the Fort Smith Economic Development Study and Parks Canada visitor statistics, it is estimated that \$560,000 was spent by park-destination tourists in the NWT in 1982, of which some \$370,000 was spent directly in Fort Smith. Park-related visitor expenditures represent 55% of total estimated pleasure-oriented tourism expenditures in Fort Smith.

Resource harvesting activities in WBNP, i.e. trapping and logging, provide local employment and income in the area. In 1980-1, the most recent year for which figures are available, furs worth \$605,000 were trapped within the park. Major recipients of income from this activity were residents of Garden Creek, Peace Point, Fort Chipewyan and Fort Smith.

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Timber harvesting by Swanson Lumber Company in WBNP represents the single largest timber operation on the western side of the park, consisting of the park and Alberta Forestry Management Units F4, F5, F6 and F7, and accounts for 72% of average annual production occurring in the area. The logging operation has generated production with gross local value of \$2.47 million per year and provides local employment opportunities during the winter logging season for an average of five individuals annually.

WBNP's visitor services and facilities provide a variety of recreation experiences and focus on a range of park features and resources. Use is estimated, on the basis of partial statistics, to have been approximately 6350 person trips in 1981-2 and significant in terms of recreation in the region. Small outfitting and guiding firms have provided additional opportunities for wilderness use of the park and income for local operators.

2.0 SOCIO ECONOMIC IMPACT OF WBNP MANAGEMENT PLAN

The draft management plan has been examined and potential socio-economic impacts identified for various issues. Where possible, magnitude, type and nature of probable impacts are summarized below:

2.1 Proposed Visitor Facilities

Proposed new facilities would increase the range and type of recreation experiences and lead to increased visitor capacities at the Park. The staging and

construction of these projects is not directly correlated with projected visitor use, which is expected to show "marginal" to "no" growth in the short-term future. Increased visitor winter use has potential to create conflicts with resource harvesting activities currently authorized within the park, such as hunting and trapping, unless appropriate steps are taken to manage access and control the park activities.

2.2 Proposed Road Upgrading

The proposed improvements to existing roads will improve internal park access, visitor use and access to new facilities but are not justifiable on the basis of traffic volume, increases in visitor use, or on a benefit cost basis. Potential exists for negative impacts on animal populations and existing resource harvesting activities in WBNP, caused by "non-park related" traffic and illegal trespass.

2.3 Peace River Road

Acceptance of the road in principle by Parks Canada, has positive regional transportation, cost of goods and services, and employment implications and generally favourable impacts on visitor use development of the park. Significant negative socio-economic effects are likely to be experienced by native communities along the alignment and by the park through exploitation of WBNP's resources (i.e. wildlife poaching and logging access).

(v)

The road would have further dramatic effects on the nature and location of park facilities and the deployment of park's staff. An improved road could facilitate access to WBNP's timber berth and thereby create pressure to allow increased timber harvesting during the life of the timber lease. Similarly, an access route through the park would be a significant positive factor in proposed major resource development north or east of WBNP. The presence of a Peace River Road however, would be unlikely to unilaterally determine the feasibility of these projects.

2.4 Garden Creek Excisement

This management plan recommendation has long term operational and administrative advantages for WBNP. Potential exists to generate marginal or negative impacts on the park's resources since change in status of lands about Garden Creek, depending on acreages involved, would remove current Parks Canada regulations of their use and protection. Although the local community probably faces the prospect of social and economic transition in the near future, the process may be speeded up and potentially more disruptive under the excisement scenario. Protection of the community by regulations or controls similar to those currently in effect under Parks Canada's Game Regulations could mitigate some of these potentially adverse impacts.

2.5 Resource Harvesting

Greater environmental management and control of wildlife and timber harvesting would be beneficial to the protection of park's resources but would require increased monitoring, evaluation and risk of conflict with harvesters. Attempts to tailor Swanson Lumber Company operations to better reflect conservation and resource protection objectives of WBNP have the potential to result in non-compliance. In the extreme scenario, shut-down could occur if required corrective measures were to significantly impair the profitability of the operation. Loss of employment opportunities would also occur. Complete withdrawal of the logging operation from WBNP would have significant offsetting positive ramifications related to Parks Canada's mandate to protect National Park resources.

The potential gross value of timber operations to the regional economy is \$2.47 million annually and \$22 to 32.5 million in 1982 dollars (at 10% and 5% discount rates, respectively) over the life of the lease. Direct total stumpage fees payable to the Crown, in 1982 dollars, represents \$2.8 million in potential revenues from the berth over the lease period.

Trapping activity in WBNP represents a resource industry with a present value of between \$6 and \$12 million in 1982 dollars (at 10% and 5% discount rates, respectively), based on an average gross revenue of

\$605,000 annually. The management plan to manage animal populations and habitat in the park has the long term potential to prevent depletion of economically valuable species and to stabilize the industry by determining the sustainable yield of WBNP. In the short term, the implementation mechanisms of protection areas and/or revised quotas could have negative implications for harvesting and economic ramifications which could be significant to local communities. Resource use conflicts in trapping zones could also occur if the management rationale were to include objectives unrelated to resource harvesting.

2.6 Cree Land Claims

Parks Canada's position is balanced in terms of its mandate to protect significant natural resources and its obligation to provide outstanding treaty entitlements lands from within the park. Acceptance of Indian reserves within the boundaries of WBNP, however, has the likelihood to create resource use and management conflicts as well as the potential for incompatible land uses on lands adjacent to or enclaves within the park.

The park's indicated flexibility to negotiate alternate park areas for entitlement purposes could delay finalization of the land claim if the Cree band chose to evaluate a great number of potential areas. On the other hand, if particular alternate areas are already

identifiable, the process of final selection could be accelerated. Continued inconclusive status of lands within WBNP has the effect of complicating overall management plan objectives, selection of location of visitor use facilities and development options for the park.

2.7 Administration and Operation

The management plan's proposed development of services and facilities does not indicate qualitative changes in the park's relationship to the region. Local purchasing and employment opportunities will continue to be emphasized and the park will attempt to improve its functional firefighting and monitoring role in the region. The plan's public feedback mechanisms are positive for achieving regional input but their impact on park management will be contingent upon the park's priorities within the context of its broader national mandate.

2.8 Boundary Alterations

Major proposed boundary alterations to WBNP would enhance the national value and significance of the park. With proper sensitivity to the needs of the local population at Garden Creek, socio economic impacts would be negligible. Land transfers causing competing resource uses in released areas could be particularly

disruptive for the Garden Creek community if hunting and trapping incomes and lifestyles were to be negatively affected.

2.9 Slave River Hydro Project

The management plan's recommendation that flooding of WBNP lands is not to be allowed precludes any project or development which would affect the west bank of the Slave River. Parks Canada's submission of the project to EARP, in addition, asks that the project be shown to provide net benefits to Canada before National Park lands be alienated. If a project should nevertheless proceed, some increased visitation to the Park could be expected from the influx of workers. Potential pressures to develop facilities would be counteracted by risks of overcapacity once the project will have been completed. WBNP, in the long term, provides a smaller but more sustained contribution to the local resource-based economy of the region.

Overall Fiscal Impact of WBNP Management Plan

It is estimated that Parks Canada will expend \$1.7 million (1983 \$) in the future to implement capital projects proposed in the Management Plan. A further \$234,000 is expected to be spent on direct operational expenditures while four additional person-years maybe required to implement the plan's development proposals.

(x)

It should be noted that most of the other plan provisions are anticipated to be carried out by existing park staff in cooperation with appropriate territorial, provincial and federal agencies as well as the private sector.

The above estimates do not include spending estimates identified in the WBNP Management Plan which would require financial outlays by agencies other than Parks Canada (eg. Peace River Road estimated at \$35 million or the Government of Canada Building in Ft. Smith by Public Works Canada estimated at \$3.5 million). In addition to increasing normal Parks Canada capital outlays forecast for WBNP, these expenditures are expected to generate substantial positive impacts on the regional economy. The Fort Smith area, in particular, is anticipated to benefit from direct local purchases of supplies and services and induced employment and income effects.

1.0 INTRODUCTION

1.1 Setting

Wood Buffalo National Park (WBNP), Canada's largest, is situated in a semi-remote region straddling the Alberta-North West Territories boundary. The existence and management of the park have contributed to the character of the region and the lifestyle of its regional population. Additional factors, such as the park's geographical features and location, limited accessibility and history of resource harvesting have further emphasized the park's role and impact in the area.

1.2 Study Purpose

The purpose of this statement is to portray the Park's presence and operation within the overall context of the region. First, historical patterns of use of resources, visitation and WBNP expenditures have created social impacts on individuals and communities and influenced the nature of economic development in the region. Second, future use of WBNP is subject to decisions and directions in the management plan which will also have implications for the local economy, recreation and lifestyles. This study examines the socio-economic role the park has played in the past as well as the types of impacts which its future management and development are likely to generate in the future.

1.3 Report Organization

This report is organized into four sections. Section One defines the content, purpose and data sources of the study. Sections Two and Three detail the socio-economic background data on WBNP's present impact on the region. Section Four, based on the analysis of specific park issues, identifies the socio-economic implications of proposed management plan recommendations. The executive summary at the front of this report, recapitulates the present situation and potential impacts of the management plan as discussed in the text.

1.4 Data Sources

For the most part, Parks Canada itself is the only systematic collector of visitor use, expenditures and resource use information on WBNP. As such, the park and Prairie Regional office are the major sources for most of the statistical material used in this statement.

Information on regional tourism and local economy has been gathered by consultants working on the Fort Smith Economic Development Study and the Slave River Hydro Feasibility Study. Conclusions and preliminary findings of those studies have been interpolated to provide an overview of the park's role in the region. The specific comments and discussion of socio-economic impacts in this statement have relied heavily on the series of public meetings, presentations and issue analyses conducted by Parks Canada in the formulation of management plan recommendations.

Finally, important statistical and economic information has been solicited from local resource industries and the Governments of NWT and Alberta.

1.5 Limitations and Constraints

Comprehensive studies of the impact and/or relationship of WBNP to the local area have not been undertaken in the past. As a result, much of the information necessary to evaluate the present contribution of the park to the regional economy and potential impact from its management plan does not exist. It was deemed beyond the scope of this socio-economic statement to generate new information which might clarify the park's socio-economic role in the region.

While estimates of direct park-related expenditures and employment are relatively straightforward, in terms of the park's contribution to the regional economy, direct and indirect income and employment effects are subject to gross assumptions regarding responding and multipliers in local communities. The Fort Smith Economic Development Strategy 1982-92 by Stanley and Associates, Edmonton represents virtually the only assessment of householder and business characteristics in the vicinity of the park, but is restricted to Fort Smith. Moreover, because of the small numbers of businesses in the community, much of the background socio-economic material collected by Stanley & Associates is confidential and unavailable to Parks Canada. Data for other communities impacted by WBNP is even less comprehensive.

The applicability of general formulae and average socio-economic characteristics to portray the Fort Smith economy has been assumed in the estimation of indirect income and employment effects in this statement. These assumptions are not fully reflective of Fort Smith or, for that matter, other communities in the area and should be interpreted with caution. Estimates of WBNP's contribution to the local economy of Fort Chipewyan have been extrapolated from the park's relationship to Fort Smith.

2.0 IMPACT OF THE PARK ON THE REGIONAL ECONOMY

In an immediate area with a total population of some 20,000, Wood Buffalo National Park makes a significant and substantial contribution to the local and regional economies. The park spends its annual budget in Fort Smith, which serves as the administrative headquarters, as well as in other centers in the NWT, Fort Chipewyan, and southerly points in Alberta. In 1981-82, the park infused some \$3.88 million into the region, of which roughly 50% was spent in the NWT. (Table 1).

Over the last five years, expenditures have increased nominally in salaries and goods and services, not keeping pace with inflation. In contrast, firefighting expenditures have increased dramatically, in real terms, over the last three years. (Table 2). In terms of overall growth over the 1977-81 period, expenditures in all categories have increased and this is reflected in the steady increases in park purchasing in and outside the NWT. (Table 3). Specific breakdowns of WBNP expenditures by categories are detailed below.

2.1 Purchase of Goods and Services (excluding firefighting)

The proportion of goods and services bought by WBNP in the normal operation of the park has changed dramatically in favour of the NWT since 1977. As shown in Table 4, local purchasing comprises 82% of total goods and services bought in 1981-82.

**TABLE 1: LOCATION OF TOTAL WBNP EXPENDITURES
1977 - 1981 (percentage)**

Fiscal Year	NWT (%) \$'000	OUTSIDE NWT (%)* \$'000	TOTAL \$'000
1977-78	964.1 (66.0)	497.7 (34.0)	1461.8
78-79	1084.9 (66.0)	558.2 (34.0)	1643.1
79-80	1244.9 (50.0)	1227.5 (50.0)	2472.4
80-81	1765.6 (54.4)	1270.5 (45.6)	3036.0
81-82	1962.7 (50.6)	1917.5 (49.4)	3880.2 (100.0)

* "Outside NWT" mainly indicates expenditures in Alberta but also includes goods purchased from B.C. (fire retardent) and other Canadian points.

**TABLE 2: BREAKDOWN OF TOTAL PARK EXPENDITURES
1977-81 BY CATEGORY (percentage)**

Fiscal Year	Salaries \$'000	Goods & Services \$'000	Firefighting \$'000	Total \$'000
1977-78	594.0 (40.6)	378.2 (25.9)	489.6 (33.5)	1461.8
1978-79	783.5 (47.7)	375.8 (22.9)	483.8 (29.4)	1643.1
1979-80	717.6 (29.0)	372.4 (15.1)	1382.4 (55.9)	2472.4
1980-81	800.1 (26.4)	408.4 (13.5)	1827.6 (60.1)	3036.0
1981-82	874.6 (22.5)	485.8 (12.5)	2519.8 (65.0)	3880.2

TABLE 3: ANNUAL GROWTH IN WBNP EXPENDITURES BY CATEGORY, 1977-81

Fiscal Year to Fiscal Year	Salaries	Goods and Services	Fire fighting	NWT expenditures	"Outside NWT"* expenditures
1977-78	31.9%	-0.6%	-1.2%	12.5%	12.2%
78-79	-8.4	-0.9	185.7	14.7	119.8
79-80	11.5	9.7	32.2	32.6	12.8
80-81	9.3	19.0	37.9	18.9	38.5

* See footnote, Table 1.

**TABLE 4: LOCATION OF EXPENDITURES ON GOODS AND SERVICES
(EXCLUDING FIREFIGHTING) AT WBNP, 1977-81.**

Fiscal Year	NWT (%) '000	OUTSIDE NWT (%)* '000	TOTAL* '000
1977-78	170.2 (45.0)	208.0 (55.0)	378.2
78-79	169.1 (45.0)	206.7 (55.0)	375.8
79-80	169.2 (45.0)	203.2 (55.0)	372.4
80-81	334.89 (82.0)	73.51 (18.0)	408.4
81-82	398.36 (82.0)	87.44 (18.0)	485.8

* See footnote, Table 1.

2.2 Firefighting Expenditures

Firefighting costs amounted to over 65% of total WBNP expenditures in 1981-82. Due to the fact that the majority of these expenditures were incurred outside of the local communities, there is a dramatic effect on the percentages of expenditures attributable to the NWT, particularly from 1979-81. The five year average indicates that roughly 53% of total budget has been spent on firefighting annually over the period 1977-81.

A breakdown of location of firefighting expenditures is presented in Table 5. It may be noted that, although the NWT has captured a decreasing overall share of these expenditures, revenues to local NWT communities from sales of firefighting supplies, services and labour has increased steadily over the historical period. There is the likelihood however, that firefighting costs will diminish considerably in the future, as evidenced in the 1982-83 season, due to recent extensive burns and less fire-prone weather than in previous years.

In general, firefighting requires specialized equipment, aircraft and services which may not be readily available from communities in proximity to the park. This is the case particularly with respect to airtankers, large helicopters, fuel and fire retardant. Other goods and services such as vehicles, groceries, fixed wing and small rotary wing aircraft are obtained locally to the benefit of nearby population centers.

TABLE 5: BREAKDOWN OF FIREFIGHTING EXPENDITURES, WBNP, 1977-81 BY LOCATION. (PERCENTAGE)

Fiscal Year	NWT '000	Outside NWT* '000	Total '000
1977-78	247.5 (50.6)	242.1 (49.4)	489.6
78-79	195.0 (40.3)	288.8 (59.7)	483.8
79-80	421.9 (30.5)	960.5 (69.5)	1382.4
80-81	579.9 (31.7)	1247.5 (68.3)	1827.5
81-82	759.4 (30.1)	1760.4 (69.9)	2519.8

* See footnote, Table 1.

2.3 Staff Salaries and Expenditures

WBNP employed 47.2 man years consisting of 154 persons in 1981-82. As Table 6 illustrates, the majority were seasonal firefighters from both the Fort Smith and Fort Chipewyan areas. Permanent staff are maintained at both locations.

It is estimated that 92% of the park's payroll is paid to staff residing in Fort Smith with the remaining 8% paid to staff at Fort Chipewyan. Of the Fort Smith salaries, 67% is expended directly into the local economy of Fort Smith with the residual spent outside of NWT for special goods, vacations, and luxury items. Table 7 presents the estimated breakdown of staff expenditures at WBNP by general location over the last five years.

2.4 Parks Visitor Expenditure

In addition to Parks Canada actual budgetary expenditures at WBNP, additional revenue is generated in local communities from the spending by visitors which the park attracts. Visitation to the park, discussed in a later section, represents a continuing source of tourist expenditure comprised of vehicular excursions into WBNP and guided outfitters tours. The latter type of activity involves staging from Fort Smith and Fort Chipewyan. Data on tourist revenue is not available for Fort Chipewyan and the size of outfitters operation is relatively small at this time. For this reason, these visitor expenditures are not considered any further in this statement although it is recognized that

TABLE 6: STAFF REQUIREMENTS OF WBNP, 1981

	Fort Smith	Fort Chipewyan	PY (Person Years)
Fulltime	24	3	27
Seasonal	20	1	6.1
Term	7	1	2.3
Firefighters	49	49	11.76
Totals	100	54	47.2

TABLE 7: ESTIMATED STAFF EXPENDITURES INTO THE LOCAL ECONOMY. (PERCENTAGE).

Fiscal Year	Total Parks Payroll	Total NWT Payroll (92%)	Total "Outside NWT"* Payroll (8%)	estimated** Fort Smith Staff expenditures NWT	estimated Fort Smith Staff expenditures "Outside NWT"
1977-78	594.0	546.48	47.52	378.26	189.56
78-79	783.5	720.82	62.68	499.61	250.09
79-80	717.7	660.28	57.42	456.14	228.99
80-81	800.1	736.09	64.01	507.90	255.39
81-82	874.6	804.61	70.0	555.19	279.06

* See footnotes, table 1.

** This estimate subtracts amounts for living accommodation paid directly to Parks Canada by Parks Staff which does not enter the local economy and expenditures by PRO staff when in the NWT. Approximately 26% of NWT staff salaries is spent outside the NWT in the form of accommodation and purchase of goods. Some \$29,000 is estimated to have been spent by PRO in Fort Smith in 1981-2.

potential exists for entrepreneurial activity to be developed.

Tourist expenditures data for the area is scant. Visitation to facilities both inside and outside the park has not been consistently recorded while the different types of recreational use of WBNP have wide ranging implications for amounts spent locally and regionally. Historically, identifiable tourist traffic related to park visitation has been estimated to be insignificant overall although the park has, nevertheless, been largely responsible for the majority of tourist expenditures that have been generated. This situation is not expected to change drastically in the short term future since visitation rates over the last five years do not indicate appreciable increases in visitor use.

Revenues attributable to the tourist/visitor use of WBNP are related to the unique positioning of the park and Fort Smith in the overall transportation network of the area. All ground traffic must travel through the northern sector of the park and all traffic destined for the park as a terminus passes through Fort Smith via NWT Highway #5. Under these circumstances, non-resident tourists can be expected to spend at least 2 days enroute to the park in the NWT and Fort Smith can be expected to capture most of the expenditures related to actual visitation of the park. Outfitting tours of the park offered by local entrepreneurs involve drive-ins to Fort Smith, or fly-ins to Fort Smith and Fort Chipewyan and represent virtually 100% capture of possible tourist dollars by those communities.

Estimates of tourist expenditures by type of park use are not reliable, based on available information. As a result, while at least three distinct types of visitor use occur, i.e. vehicular day use, self-contained unit overnight use and outfitting, it is not possible to determine the approximate contributions of each to either park visitation or regional expenditures. It is possible, however, to obtain some general estimates of the value of tourism to the Fort Smith economy, in particular, from original visitor data collected in the Fort Smith Economic Development Study, 1982.

The visitor exit survey, conducted by Stanley & Assoc. for the town of Fort Smith as part of the above noted study, estimated that total resident and non-resident, business and pleasure, visitor expenditures amount to \$2.669 million annually in the community. Of that total, approximately 25% of visitors days are attributed to pleasure travellers, which might be assumed to be the prime candidate sub-population that would use the park. Total visitor expenditures of this group are estimated to be \$667,000 in 1982 in Fort Smith of which however, all would not have been park visitors.

Some detail on the characteristics of WBNP's visitors is provided in a study undertaken by the Socio-Economic Division, Parks Canada Headquarters, Ottawa, 1981. In that paper, it is indicated that 78% of all individuals recorded as visiting the park were NWT residents. Applied to 1981-82 visitation, NWT resident visitor use

of the park would have been 4975 persons¹ and non-resident use would have amounted to 1380 persons (22%) in that year. (Table 8). In relation to pleasure oriented resident and non-resident tourist activity in Fort Smith, it is roughly estimated that WBNP attracts 83% of total NWT resident pleasure visitation to Fort Smith and 26% of total non-resident pleasure visitation to that community. Although data for different years has been used to compile the estimate, it should be noted that visitation has remained relatively static at WBNP in recent years and the character of the tourist population is not likely to have changed substantially. Applying residency characteristics of WBNP visitation to the Fort Smith visitor expenditure survey indicates that over \$370,000 in park-generated expenditures occurs in Fort Smith annually.

An examination of the characteristics of the visitor traffic to Fort Smith suggests that 81% of pleasure visitors make use of campgrounds or recreational vehicle parks and a further 8% board with friends or relatives while in the Fort Smith area². These factors indicate that visitors to WBNP spend the greater proportion of their recreation budget on food and gasoline in Fort Smith while reducing overall per person per night costs

¹ Assuming 2.4 persons per overnight campground party at Pine Lake and 10 persons per group campground party at Kettle Point. This estimate also includes levels of day-use and outfitter tours based on 1980 figures.

² A mini-survey conducted by Nova Corp., Vancouver, for Stanley & Assoc., 1982.

TABLE 8: WBNP VISITOR CHARACTERISTICS

	Park Day Use	Pine Lake Overnight	Kettle Point Overnight	Outfitting	Estimated Total Visitor Composition
NWT resident	100%	60%	90%	20%	78%
Non-resident	0	40%	10%	80%	22%

by supplying their own accommodation. This is understandable, since WBNP facilities cater to parties with self-contained units within the park.

In addition to actual tourist expenditures in Fort Smith, visitors using vehicles as transportation account for some 85% of pleasure visitors to Fort Smith. These individuals, many of whom have WBNP as their destination, spend additional monies in the NWT enroute in order to reach the park, roughly estimated at \$18.00 daily per person for food and gasoline. Based on an annual visitation to the park of 6350 person trips, 2 days per individual enroute, and 98%³ of whom may be non-local, it is estimated that an additional \$190,000 in direct tourist expenditures is generated regionally north of the 60th parallel as a result of the park's existence. It should be noted that airline tourist traffic and the cost of ticket purchase, in contrast, do not generate comparable benefits within the local economy.

In summary, total direct visitor expenditures of users of WBNP are estimated at some \$560,000 regionally, of which \$370,000 is spent in Fort Smith. These benefits, moreover, originate from what amounts to relatively insignificant annual flows of visitor traffic to WBNP.

³ Nova Corp estimates that only 11% of pleasure visitors were from the NWT in the 1982 survey. It is assumed here that 20% of these visitors may have been local resident users, mainly associated with the Pine Lake cottages.

2.5 Direct and Indirect Income and Employment Effects

WBNP's expenditures create respending effects which generate income and employment in the area. As indicated by Table 9, direct⁴ park-related expenditures are estimated at \$2.27 million in the NWT in 1981-2. Total value added income effects⁵, assuming a regional income multiplier of 1.3⁶, are \$682,000 (total = \$2.95 million).

Direct and indirect income effects at Fort Chipewyan, using the same multiplier, amount to \$23,500 annually. It should be noted that the respending effects of fur harvest incomes derived from WBNP by residents of Fort Smith, Fort Chipewyan and Peace Point have been assumed

⁴ "Direct park-related expenditures" represents only those monies expended by the park in capital projects, operation and maintenance and expenditures by tourists in visiting/using WBNP. The income effect of direct expenditures by industries supplying the park through the purchase of primary and intermediate inputs, i.e., the value added, is not identified due to a lack of data but is estimated and included within total income effects (Footnote 5).

⁵ Total income effects are defined as those direct and indirect economic impacts, in addition to direct park-related expenditures, on industries which supply goods and services to the direct suppliers of the park and induced effects on household savings, taxes, consumption through greater economic activity.

⁶ An overall multiplier of 1.3 was applied by Stanley and Associates in their Fort Smith Economic Development Strategy 1982-92. This value is assumed to be representative of northern communities in general and applicable to WBNP - generated expenditure analysis.

TABLE 9: ESTIMATED DIRECT AND INDIRECT INCOME EFFECTS GENERATED BY WBNP, 1981-2
 (\$'000)

	Fort Smith	Other NWT	Total ¹ NWT	Fort Chipewyan	Total Outside ¹ NWT	TOTAL
Direct Park Expenditures	1284.4	428.15	1712.59	78.5	2196.9	3909.5
Direct Visitor Expenditures	370.0	190.0	560.0	N.A.	N.A.	560.0
Value Added Income Effects ²	496.3	185.5	681.8	23.5	N.C.	705.3
TOTAL INCOME EFFECTS	2150.7	803.7	2954.4	102.0	2196.9	5174.8

¹ Adjusted to reflect Fort Smith salary expenditures outside of the NWT (see (see Table 7)).

² Value added = gross expenditures made in the area less the cost of goods and services purchased by retailers making sales to the park and park users.

N.A. = not available

N.C. = not calculated

to be included within the local economies of Fort Smith and Fort Chipewyan. The income effects in the region associated with Garden Creek fur harvesting and logging in WBNP by Swanson Lumber Company are not included in the above estimates.

The indirect employment created by park and park-related expenditures is significant for the regional labour force. Applying the available data to the generalized employment multiplier formula⁷, it is estimated that approximately 22 full-time industry jobs, or their equivalent, are created by park and visitor consumption of goods and services at Fort Smith. This number represents roughly 6.5% of the private sector employment in the community.

Indirect employment effects in other local communities and the region have not been estimated. The effects may be similar to those indicated at Fort Smith but more widely dispersed and correspondingly more difficult to identify.

⁷ The indirect employment effect has been crudely estimated as follows:

$$\frac{\text{total park-related expenditures}}{\text{total commercial retail sales}} = \frac{\text{indirect park-related employment}}{\text{private sector employment}}$$

where:

- total park related expenditures in Fort Smith = \$ 1.7M
 - total commercial retail sale in Fort Smith = \$26.4M
 - private sector employment in Fort Smith = 299 persons*
- (*Source: Stanley & Assoc., Fort Smith Economic Development Study, 1982)

In relation to the local economies of communities in the vicinity of the park, WBNP contributes significantly. At Fort Smith in 1981-2, where 75% of all park monies expended in the NWT occurs (i.e. \$1.28 million), it is estimated that park-related direct spending accounts for 5% of the community's \$26.4 million local economy⁸. When direct and indirect park-induced income effects are combined, WBNP accounts for approximately \$2.15 million or 8% of the Fort Smith economy and an estimated 19 full-time jobs in the private sector. In addition, park and park related expenditures contribute an estimated \$620,000 in direct spending and \$185,000 "value added" in other parts of the NWT, totalling some \$805,000 per annum.

In Fort Chipewyan, WBNP direct expenditures of \$78,500 account for about 1.5% of the community's \$5.2 million economy⁹, primarily through purchase of goods, services and firefighting labour requirements. Park spending creates an additional income effect of \$23,500 annually in the community.

Direct and indirect income effects in the NWT and Fort Chipewyan are calculated at roughly \$3 million annually. Direct park expenditures outside of these

⁸ This value, which includes Parks Canada expenditures, is obtained from the Fort Smith Economic Development Study, 1982 by Stanley & Assoc. It is regarded as an educated guess and does not include economic activity generated by construction in the area. A 1.3 income multiplier was applied by the consultant.

⁹ See Bahnuik and Wright, Slave River Hydro Feasibility Study, Vol. 2, Edmonton, Alberta. March, 1982.

areas, for which respending effects have not been estimated, represents a further \$2.12 million per annum infused into the regional economy. Total annual income effects in all areas from WBNP use and operation is conservatively estimated at \$5.17 million.

2.6 Resource Harvesting in the Park

2.6.1 Trapping

One of WBNP's most significant economic resources is its wildlife populations. Since its establishment in 1922, the park has been used for traditional hunting and trapping activities to the benefit of the regional economy. Resource harvesting in the park has been governed by various sets of Game Regulations since 1949.

A quota on the number of persons eligible to hunt and trap in WBNP is presently set at 370, determined primarily by levels of historical usage. This quota limit has not been reached since it was put into effect in 1978 (Table 10). Indications are that existing permit holders (2/3 of whom are engaged in trapping) are also spending less time and effort in this activity, preferring to use trapping revenue to supplement other incomes. In 1980-1, park records indicate a total of \$605,000 was generated from trapping within the park. The longer term trend suggested is small annual decreases in the economic value of the harvested resource to the present (Table 11).

Revenues generated from trapping in WBNP have been significant, particularly to the local economies of Fort Smith and Fort Chipewyan. Some trapping income derived

**TABLE 10: NUMBERS OF GENERAL HUNTING LICENCES ISSUED IN WBNP
1971 - 1981**

Year	Total No. of permits issued
1971-2	403
72-3	465
73-4	380
74-5	298
75-6	319
76-7	345
77-8	368
78-9	352
79-80	316
80-1	322
81-2	325

Source: WBNP Records of Trapping

**TABLE 11: VALUE OF WBNP'S HARVESTED TRAPPING RESOURCES
1977-81.**

Year	Value*	Change from previous year
1977-8		
78-9	672,000	
79-80	628,000	-6.5%
80-1	605,000	-3.7%
81-2		

* Based on average fur prices, Edmonton and Fort Smith in current dollars.

Source: Numbers of pelts taken by species based on WBNP records; Alberta Department of Energy and Natural Resources; Alberta Fish and Wildlife Division, Edmonton; Fur Dealer Returns - Annual Reports.

Actual species returns have been presented in drafts of the Management plan and are not reproduced here.

from WBNP accrues to other NWT residents, for example at Hay River and Fort Resolution, and to residents of Garden Creek and Peace Point.

In the 1981-2 season, an estimated 110 individuals were engaged in trapping from Fort Smith, representing 11.5% of the total male and female labour force. Of this number, approximately one-quarter are regarded as full-time trappers with the remainder relying on trapping to supplement their incomes from other sources. Earnings greater than \$600 were made by 46 trappers or 42% of the total trapper population.¹⁰

Trappers in the Fort Smith area generate less than 1/3 the per trapper income indicated by the territorial average. One of the major reasons for this low per capita income is related to the inability of the resource to sustain the trapping pressure to which it has been subjected. It has been estimated that total trappers in Fort Smith may be only one half of present numbers by 1992¹¹. In this respect, the trapping control exercised in WBNP under the Game Regulations would appear to have contributed to preserving whatever stability exists in the industry today.

¹⁰ Government of NWT, Trapper Incentive Program, Records for 1981-2.

¹¹ Stanley & Assoc. Fort Smith Economic Development Strategy Draft Report, Sept. 1982.

In spite of the above factors, Fort Smith's average annual trapping income has, nevertheless, increased over the period 1971-81, although substantial fluctuations have occurred in season-to-season harvest (Table 12) and species mix (Table 13).

Gross revenue from trapping to residents of Fort Smith was \$110,700 in 1981-2 of which an estimated 50%¹² was harvested on the east side of the Slave River. Of the remaining 50%, some significant portion of the Ft. Smith harvest was obtained from WBNP.

In Fort Chipewyan (Peace Point trappers are included in Fort Chipewyan trapping returns), trapping is the most important industry in terms of employment and follows only public administration/health service in annual earnings. The relative importance of trapping has declined to the present but still employs 170-225 person (representing approximately 25% of the labour force) and generates an estimated \$1.0 million annually¹³. Individual trapper income in Fort Chipewyan averages between \$5,000 and \$10,000 yearly.

Approximately \$97,200 of Fort Chipewyan trapper income, or one-tenth of total trapper income, was harvested on the east side of the Slave River in 1979-80. The predominant species taken were water-based, such as beaver and muskrat. The percentage of Fort Chipewyan

¹² This value is extrapolated from data presented in Bahnuik and Wright, Vol. 2 Local Economic Assessment, Slave River Hydro Feasibility Study, June 1982.

¹³ Ibid. Based on 1979-80 figures.

**TABLE 12: ANNUAL INCOME GENERATED BY FORT SMITH TRAPPERS
1971-81.**

Year	Annual Value (\$000)	% change from previous year
1971-2	33.7	
72-3	42.6	26%
73-4	41.8	-2
74-5	87.2	109
75-6	97.2	11
76-7	186.7	92
77-8	345.1	85
78-9	665.5	93
79-80	200.3	-70
80-1	155.8	-22
81-2	110.7	-29
Annual Average	178.8	+29.3%

Source: Government of NWT, Trapper Incentive Program.
Historical records of harvest.

TABLE 13: SPECIES MIX OF FORT SMITH TRAPPER HARVEST 1971-81 (PERCENT BY VALUE \$'000)

Y E A R	Species											T O T A L V A L U E			
	B E A R	B E A V E R	F O X	L Y N X	F I S H E R	M A R T E N	M I N K	M U S K R A T	O T T E R	S Q U I R R E L	W E A S E L		W O L F	W O L V E R I N E	C O Y O T E
1971-2	0.6	51.5	0.8	21.7	0.2	0.7	6.9	4.4	1.6	0.4	0.2	10.6	0.5		33.7
72-3	5.9	34.6	1.0	18.8	1.1	1.7	5.2	15.2	1.4	1.2	0.3	12.5	1.1		42.6
73-4	1.1	36.1	3.3	11.4	2.1	1.3	6.9	26.4	1.0	1.2	0.6	8.6	0		41.8
74-5	1.6	8.1	2.1	7.5	0.3	0.4	1.5	24.9	2.6	2.2	0.2	50.1	0.7		87.2
75-6	3.8	6.8	3.3	19.3	0.6	0.3	3.2	51.2	0.5	0.6	0.2	9.6	0.7		97.2
76-7	3.0	7.1	3.3	55.9	0.6	0.7	7.2	15.5	0.7	1.3	0.2	3.3	1.2		186.7
77-8	0.9	2.9	4.3	77.2	0.6	1.5	4.6	4.5	0.1	0.4	0.1	2.3	0.6		345.1
78-9	0.8	1.9	2.7	84.2	1.5	0.4	3.9	1.6	0.2	0.9	0	1.3	0.4		665.5
79-80	0.3	11.9	5.2	58.7	2.4	7.3	7.4	1.6	0.4	2.6	0.1	0.5	0.5		200.3
80-1	0.3	4.9	5.7	71.6	3.1	1.5	5.3	2.4	0.5	3.1	0.1	0.8	0.6		155.8
81-2	0.1	3.6	10.0	64.8	3.4	3.2	3.1	5.0	0.2	2.7	0.1	0.5	1.4	1.9	110.7

harvest (including Peace Point residents) taken from WBNP in 1979-80 was 28% of total trapping revenue in that community or \$284,000 (Table 14).

2.6.2 Timber Harvesting

Timber berth #408 in WBNP is 216 sq. miles in size and contains about 850MM.f.b.m. of merchantable spruce. Swanson Lumber Co., holder of a 21 year lease to the Berth, possesses cutting rights until 2002. The Company at one time employed Garden Creek residents in local sawmill operations. In 1981-2, this is no longer the case as timber is removed from the park to High Level for milling. Current logging operations could employ approximately 5 persons from Garden Creek annually but averages less because traditional hunting and trapping activities overlap the prime employment period¹⁴.

Forestry operations in northern Alberta immediately west of and excluding WBNP have generated average annual production of 25,300m³ = 5,900 M.f.b.m. over the last five years. At the current mill net lumber price of \$171/M.f.b.m., gross local product value has been \$1.009 million per year¹⁵. In relation to annual allowable cut (A.A.C.) for the area, present harvesting represents less than 10% of potential.

¹⁴ Personal Communication, Brian Carnell, Forestry Superintendent, Swanson Lumber Co., Edmonton Alberta, November 1982.

¹⁵ Communication with E. Gillespie, Manager, Operations Group, Timber Management Branch, Alberta Dept. of Energy and Natural Resources. Aug. 23, 1982.

TABLE 14: ESTIMATED VALUE OF WBNP RESOURCES HARVESTED BY TRAPPERS FROM GARDEN CREEK, FORT SMITH, AND FORT CHIPEWYAN, 1977-81.

Year	Garden Creek	Fort Smith	Fort Chipewyan (Peace Pt.)	Total \$ WoodBuffalo*
1977-8	-	-	154,000	
78-9	177,000	110,900	289,000	672,000
79-80	168,000	91,800	284,000	628,000
80-1	229,000	52,500	245,000	605,000
81-2				

Source: Records of pelts taken, WBNP. Approximate values were obtained using average prices received for pelts for various years.

* Includes fur harvesting by residents of Hay River, Fort Resolution.

Swanson Lumber Co.¹⁶ or its predecessors have held lease rights to several timber berths in WBNP since 1960. In 1966, production from their sawmill at Sweetgrass Landing was 11.4MM f.b.m. from a mill with a rated capacity of 15MM f.b.m. That operation provided 19% of male employment and 22.5% of resident income of Fort Chipewyan until its closure in 1974, at which time the park exchanged timber areas with the company to consolidate operations in the park.

In 1980-1, Swanson harvested 15MM f.b.m. of timber in WBNP, all from Timber Berth #408. In comparison with harvesting in northern Alberta west of WBNP, Swanson Lumber Company's operations in the park accounted for 72% of actual production in the area, consisting of the park and Alberta Forestry Management Units F4, F5, F6 and F7, with a current 1982 product value of \$2.56 million¹⁷. From the period 1977-82, Swanson Lumber Co. averaged 14.6MM.f.b.m. annually with a gross value of \$2.47 million per year. In 1980-1, the company paid the Crown \$50,000 in stumpage fees and contributed a further \$3,500 in fireguarding fees.

In terms of total resource inventory, WBNP timber berth represents 36% of lumbering potential in and immediately west of the park as represented by Alberta Forestry Management Units F4, F5, F6 and F7. As such, the

¹⁶ Swanson Lumber Co. has recently been acquired by Canadian Forest Products (CANFOR).

¹⁷ Personal Communication, Brian Carnell, Forestry Superintendent, Swanson Lumber Co., Edmonton, Alberta, November 1982.

Swanson operation stands to be a major source of construction materials should any mega-project be initiated in the vicinity of WBNP. In comparison, two small sawmills in the Fort Smith area produced annual sales of \$96,000 (1980 prices) with mills rated to handle 500M b.f.m. annually at capacity. In Fort Chipewyan, a sawmill was opened in 1980 by Pine Creek Construction and Sawmill Co. Actual production is estimated to have been in the range of 350M b.f.m. annually, representing an approximate gross local value of \$60,000 in 1982¹⁸. None of these sawmill operations harvests timber from WBNP.

¹⁸ Personal Communication, Bjorne Thompson, Alberta Forestry Service, Fort McMurray, Alberta. November 1982.

3.0 PARK FACILITIES, VISITOR USE AND TRENDS

3.1 "Inside the Park" Services and Facilities

Wood Buffalo National Park provides a variety of outdoor recreation opportunities which permit park visitors to use, enjoy and understand the park's natural environment. In keeping with the park character, most facilities are not highly developed and are designed to promote an understanding of the resources and nature of the park.

Public facilities are concentrated primarily along the west side of the loop road, southwest of Fort Smith. Located in this corridor is a picnic area at the Salt River, the trail head for the Salt River/Grosbeak Lake trail which extends on either side of the roadway, and the trail head for the Rainbow Lakes trail. The Parson's Lake road, formerly the sole access road to the park, meets the loop road approximately 40 km south west of Fort Smith.

Lying approximately 60 km from Fort Smith is Pine Lake, the focal point for visitor activities in the park. Located on the west side of the lake is a 36 site campground which was constructed in 1979. Associated with the campground is an interpretive theatre, used for evening interpretive programs and a display building, presently under development, which will provide information on the park and facilities and services available to the visitor. A nearby day use area which is in the process of being upgraded, can accommodate 10 groups. At the south end of the lake, is a group camp

accessible from the loop road which can accommodate 50 people.

Located at the north end of the lake is a warden and maintenance station with public parking area, boat launch facility, warden's residence and cabin for the attendant who manages the campground during the visitor season. Various trails have been developed around Pine Lake, linking facilities, and a trail has been developed to provide access to Lane Lake, 16 kilometers away from Pine Lake.

Other facilities at Pine Lake include sixteen private cottages situated on the west shore of the lake on land leased from Parks Canada in the early 1960's. The cottages are owned primarily by residents of Fort Smith.

Several wayside stops are located along roads through the park. They include those at Klewi Lake, off Highway #5 northwest of Fort Smith, Cherry Mountain on the loop road and Hornaday Creek on the east side of the loop road, which is only accessible in fair weather.

On-site interpretive activities are also offered to park users include "Bison creeps", conducted by the interpretive staff, and guided hikes and walks.

The river system provides individuals or parties in canoes, kayaks and motorized craft with access to the park. In many cases, these users are river travellers on their way through the park to other destinations. Parks Canada has constructed an on-site interpretive exhibit at Garden Creek settlement on the western

boundary of WBNP to orient and familiarize visitors travelling on the Peace River.

3.2 "Outside the Park" Services and Facilities

A number of facilities outside the park provide services to park visitors. Most noteworthy of these is the park interpretative/visitor services office in Fort Smith which provides material and information to visitors.

In Fort Smith, the interpretive service provides information in the form of pamphlets, publications and audio-visual programs. As well, a junior naturalist program and weekly evening programs on the park and its resources are provided in the community.

The naturalist service, through an extension program that visits schools in the South Mackenzie, and northern Alberta, presents information on the park and the system of national parks.

Although Parks Canada provides the majority of visitor use facilities and services, several small outfitting and guiding firms, based in Fort Chipewyan and Fort Smith, also provide opportunities for visitors to make use of the park. Services offered to the public include equipment rental, livery service to the park, boat, cross country skiing, hiking and winter dog team tours.

3.3 Access to and within the Park

No through roads extend across the park area or immediately adjacent to the park boundary. This road pattern results in the park functioning as a destination

area for visitors. Use occurring by vacationers travelling through the park, which makes up a large percentage of total use in many parks, is not a factor in Wood Buffalo National Park due to the road system.

Air service in the region consists of scheduled and charter operations. Fort Smith, Hay River, High Level, Uranium City and Fort McMurray receive scheduled service six days a week while Fort Chipewyan and Fort Resolution have less frequent scheduled service. An increasing number of visitors utilize air service to reach the park either by flying directly to Fort Chipewyan or Fort Smith or by flying to Edmonton and then driving north to the park via rental vehicle. Highway #5, an all weather gravel road, traverses the northern part of the park and links Fort Smith to Hay River and Highway #2, the route that extends north from the junction of Highway #1 at Enterprise. Highway #6 provides access to Pine Point and Fort Resolution, north of the park. Access to the park is via a loop road which extends south from Fort Smith. This road connects with a winter road to Fort Chipewyan that provides seasonal access to Fort Smith. The bulk of this winter road lies within the park and is constructed and maintained by the park. No year round road access is provided to Fort Chipewyan, however a number of studies have been undertaken to assess potential road corridors to this community.

Other roads in the region include Highway #35, the Mackenzie Highway and Highway #58 which extends east from High Level and which ultimately terminates inside the park boundary at Garden Creek settlement. Highway #63, a paved road connects Fort McMurray to the provincial highway grid. A gravel road extends from

Fort McMurray to Fort McKay. A number of winter roads throughout the region provide seasonal access to remote communities.

Water transport has played a significant role in the region's historical development, particularly in the movement of bulk goods from the rail head or road terminus to northern destinations or transfer points. Water transport has now declined in significance but the rivers of the region still provide access to the park for a small number of visitors.

Road conditions in the park reflect the park's wilderness character. The roads are not primarily scenic routes and many of the most interesting park landscapes are not visible from them, as landscape values were not considered in choosing the routes. Northwest Territories Highway #5 is an all weather gravel road through the northern portion of the park, as is a portion of the loop road between Pine Lake and Fort Smith. The section of the loop road south from Pine Lake to Peace Point on the Peace River, the section east to Carlson's Landing and from Fort Smith to Hay Camp, are all open for public access. The section of the loop road from Hay Camp southward is only open during dry weather.

3.4 Visitor Use Trends and Projections

Statistics on park visitor use have not been kept consistently or systematically in recent years at WBNP with the result that significant gaps are present in the data base. Visitor use information exists on overnight

campground use, interpretive presentations and exhibits, and outside the park contacts, for example, while no reliable data is available on day use, trail use, outfitting, river traffic, winter recreation or length of visitation. Consequently, many park users are not included in overall visitation estimates. In other cases, guesses at visitation rates commonly do not allow for possible double counting, employ unsuitable sampling techniques and do not assess the geographical or temporal distribution of park use.

Based on those statistics available, WBNP is a non-intensive use park providing for a low level of dispersed recreational excursions into sensitive environmental areas. The exceptions to this general situation are cottaging and campground development at Pine Lake which nevertheless, still qualify as low intensity areas compared to similar facilities in National Parks in the south.

Total recorded park attendance has declined over the historical period 1976-81 at WBNP. All types of facilities experienced a substantial cutback in use between 1978 and 1979 which has only slightly been regained to 1981-82.

Party and group campgrounds at Pine Lake suffered the largest decrease in visitor use during this period.

Prior to 1979, campground use averaged less than 50% of capacity. In 1979, with the construction of a new campground facility at Pine Lake, occupancy has been less than 20% in any one season indicating no appreciable increase in day use-over the period.

Numbers of campers dropped off significantly from 1978 to 1979 to one half of former levels; thereafter there have been only slight increases in visitation. (Table 15).

The group campground at Kettle Point also experienced a drop off in use between 1978 and 1979. After 1979, use has been approximately one-half of pre-1979 levels.

Forest fire activity in the park in the last 3 seasons may have had a substantial influence on historical trends as reflected in visitor use. All programs, facilities and activities have shown declines in attendance since 1978 concurrent with increasing expenditures in the park on fire control. On the other hand, relatively expensive programs such as guided walks and tours, theatre, school and public presentations, would appear to have been trimmed in recent years and this fact may account for some reductions in attendance figures as well.

Total "inside-in-the-park" visitor attendance at facilities other than campsites or campgrounds in 1979-81 was approximately one-half ($\frac{1}{2}$) of attendance from 1976-79. Park services and facilities outside the park have also experienced drops in visitor use to similar levels. In recent years, the park has shifted its emphasis to attracting visitors primarily with special events and exhibits. (Table 16).

TABLE 15: VISITOR CAMPGROUND USE - WOOD BUFFALO NATIONAL PARK

	<u>1975-6</u>	<u>1976-7</u>	<u>1977-8</u>	<u>1978-9</u>	<u>1979-0</u>	<u>1980-1</u>	<u>1981-2</u>
Pine Lake party nights	948	724	1406	973	416	449	485
Nights open	139	104	110	135	136	145	129
% Occupancy weekday/weekends		13/36	29/58	9/42	4/17	6/22	5/18
Kettle Point party nights	479	945	872	980	473	406	499
Nights open	109	104	110	135	135	176	88

TABLE 16: USE OF VISITOR SERVICES - WOOD BUFFALO NATIONAL PARK

	<u>1976-7</u>	<u>1977-8</u>	<u>1978-9</u>	<u>1979-0</u>	<u>1980-1</u>	<u>1981-2</u>
Inside Park						
Garden Creek	-	-	-	-	122	-
theatre pres.	1266	820	821	588	594	431
guided walks	86	99	-	-	-	-
other guided tours	66	347	-	-	-	-
roving naturalist	861	1646	1610	1012	525	261
skill instructor	-	135	-	-	-	-
other	<u>379</u>	<u>407</u>	<u>617</u>	<u>789</u>	<u>575</u>	<u>845</u>
TOTALS	2658	3574	3048	2389	1816	1537
Outside Park						
exhibits	-	-	-	-	-	1504
public presentations	791	1043	244	152	90	79
school presentations	<u>6053</u>	<u>4816</u>	<u>6840</u>	<u>3467</u>	<u>4577</u>	<u>1927</u>
TOTALS	6844	5904	7084	3619	4667	3510

Any expectation of substantial increased visitation in the future is somewhat dubious. The regional population is small - 10,000 people between the park and Great Slave Lake, 5,000 adjacent to the western park boundary, and 1400 at Fort Chipewyan to the east. Projected population growth, without major resource development in the region, is estimated at 1% per decade for the Fort Smith area¹⁹. Despite periodic fluctuations due to migration in and out of Fort Chipewyan, generally similar projections would appear warranted for the population of that community.

As noted in Section 2, it is estimated that some 6,350 visitors entered WBNP in 1981-82. Of these, 78% were residents of the NWT and the remaining 22% non-residents. This would indicate that, although there is the possibility of growth in non-resident visitor demand, the overwhelming majority of WBNP's clientele is local and regional NWT, whose attendance best rationalizes existing services and facilities offered in the park. Based on historical visitation trends over the period 1977-81, it is unrealistic to anticipate dramatic increases in annual visitation rates in the short-term future. A more likely scenario is "marginal" or "no" growth in demand for WBNP facilities in the status quo situation.

¹⁹ NWT Bureau of Statistics, Population projections 1980-86.

4.0 SOCIO-ECONOMIC IMPACT OF WBNP MANAGEMENT PLAN

A management plan is a guide, approved by the Minister, by which Parks Canada administers the resources and uses of a particular national park. Each plan is an expression of Parks Canada's policies for a national park within its regional context.

As part of the management planning process, plan components should be identified and analysed from a socio-economic perspective. Each of the plan proposals has socio-economic ramifications for WBNP and the region but vary significantly in terms of magnitude, type and nature of impacts. The following section discusses the socio-economic implications of the recommended management plan.

4.1 Proposed Visitor Facilities

Parks Canada's overall strategy is to upgrade and develop recreational facilities in WBNP relying on the loop road access configuration and promoting Pine Lake as the park's major recreation center. Planned hiking, trail and backcountry camping experiences will be controlled to minimize risk of overuse and/or guided to protect sensitive park resources. Pine Lake is anticipated to be the most heavily used recreational area of the park, the focus of highway visitation in the future, but not necessarily a staging point for excursions to other areas of the park.

The plan proposals would, when implemented, cater to a fairly diversified range of park users representing different sectors of the visitor population. These

visitors use, or would use, the park in markedly different ways although all would be staged or originate independently from the adjacent communities of Fort Smith and Fort Chipewyan. Demand for visitor facilities is expected to comprise the following:

- scenic day trips by vehicle along the loop road
- hiking or skiing trips originating at trail heads along the loop road
- non-scheduled guided naturalist tours.
- round (overnight) trips via the loop road.
- traffic to Pine Lake as a destination with varying stay periods (cottage, campground, interpretive events).
- scheduled land and water outfitting tours within the park originating from local communities.

Although the level of visitor activity in the park at present does not cause congestion at any of the existing recreation areas, it is possible that concentration of recreational activities off the west side of the loop road could create denser traffic flow patterns in the future. First, self-contained units predominate as the visitor mode of travel in WBNP. These vehicles could congregate at Pine Lake creating a potential constraint to achieving the carrying capacities of various other facilities planned in the park. Second, some proportion of anticipated increases in visitation is predicated upon visitors taking in more than one recreation experience while in the park; implying possible use of Pine Lake as a staging point or the creation of demand for overnight facilities at other points in the park. Finally, the variety and location of visitor attractions offered in the park and their proximity to each other

TABLE 17: PARK FACILITIES & SERVICES PROPOSED IN THE MANAGEMENT PLAN

<u>Park Area</u>	<u>Existing Facilities</u>	<u>Current Use</u>	<u>Planned Facilities</u>	<u>Comments</u>
1. Rainbow Lakes	none	- 5-10 grps/summer	- 3-5 Site primitive campgrd. - canoe concession	To service existing demand Based on substantial increase in demand
2. North End Developments Klewi Lake Nyarling R. Saas R. Needle Lake	day use area	- very low (est.)	- interpretation at Angus Tower - day use facilities - interpretation - whooping crane habitat	Based on 1974 vehicle counts and assumptions about draw-off
3. Salt Plains Parson's Lake Road	none trail	- low (est.) - very low (est.)	- public access to Salt Plains - interpretive facilities - short trails - upgrade Mission Farm Rd. - bridge over Salt Plains - public canoe launch - guided hikes - local tourist outfitters - upgrade Parson's Lake Rd.	Anticipated to create demand
4. Peace-Athabasa Delta	none	- very low (est.)	- tourist outfitting - motorized and non-motorized watercraft tours - campground at Sweetgrass Station - boat launch and campground at Moose Island	Anticipated to create demand
5. Pine Lake	16 cottages day use boat launch interpretive facilities	- regular - low (see Tables 12 & 13)	- cottage leases continued - expanded facilities on east of lake - add walk in tenting campsite on south side of lake - upgrade grade campground - upgrade interpretive trail's facilities - redevelop campsites	Facilities at 20% of capacity annually Never close to capacity
6. Various outfitting & Aerial sight-seeing visits to Peace Point	minimal	- none to low (est.)	- active promotion and development - promote and develop - develop	Presently, 100 individuals per year

will create a traffic pattern which could affect the quality of wilderness experience for visitors of the park.

The types of developments proposed in the management plan represent, first, a blend of medium intensity facilities (such as campgrounds or interpretative facilities at Pine Lake and Salt Plains) and low impact activities with minimal site development (i.e. hiking, canoeing, backcountry camping, guided tours). The plan proposes to increase the type and variety of park experiences significantly. The overall carrying capacity may be considered low in view of the park's size but is consistent with the overall objectives of preserving the park's wilderness character.

The size and number of proposed park developments is not reflected by observed visitor demand for recreation at WBNP in 1982. The historical data and projected use in the short-term future indicate that visitor use will show "little" or "no" increase. This suggests that construction of new facilities in the immediate future would create an oversupply of park services and facilities.

As Table 17 illustrates, the variety of planned facilities would modify the composition or type of visitor recreation currently experienced in the Park as well as require substantially increased visitation to achieve reasonable levels of use. It would have to be assumed therefore, that use of proposed visitor developments would materialize from latent demand for new experiences at WBNP or from increased attractiveness

of more diversified and novel park activities to its existing clientele.

Neither demand may be significant to overall visitation at WBNP in view of the remoteness of the park, cost of visitation, and the length of time visitors might wish to spend in the area.

Even very low levels of winter wilderness activities, however, could create conflicts with licensed hunters and trappers in the Park. Basically, winter recreational use is incompatible with the remoteness required for maintaining many furbearing populations. Since the whole park is used for resource harvesting, it is evident that the potential for user conflicts exists wherever winter visitor use is allowed.

While winter recreational use levels continue to be low in WBNP, only sporadic resource harvesting - recreation conflict incidents may be reported. A desire to establish recreation priority zones along certain trails or in certain areas could require removal of the areas from hunting/trapping zones but such action would pre-empt existing harvesting rights held by local residents. In the longer term, resolution of the problem requires hard decisions to be made in the interests of safety, traditional economic activity or increased recreation opportunities.

The second thrust of the management plan's development of recreation opportunities is the expanded use of outfitting tours to interpret park resources. This service, land and water based, has the potential to generate income and employment locally as well as

publicity for the park which could lead to increased visitation. Greater local economic benefits from outfitting would be expected to accrue to Fort Smith due to its greater accessibility by road and air than Fort Chipewyan, the other staging point for park outfitter tours. Proposed air tours of the park would also create tourist expenditures locally for Fort Smith as would delta boat tours for Fort Chipewyan. Increased visitation of WBNP would also imply greater air and highway travel into the area with associated regional and local economic benefits.

The management plan's active promotion of outfitting by local entrepreneurs is expected to increase tourism expenditure in the area and visitation to the park, although the probable extent of that demand cannot be ascertained. It is conceivable that, with the organization of outfitter routes and provision of rudimentary facilities by the park, tour operators could promote park visitation more effectively than the park itself. Substantial increases in visitor use through outfitters tours, however, are dependent upon a number of other factors, such as comparative cost, quality of wilderness experience, and demand for this type of recreation, which cannot be assessed at the present time.

The management plan's outfitting proposals are of a type which is compatible with the wilderness character of the park and seeks to minimize the possibility of conflict arising between wilderness excursions and traditional resource harvesting in the park. Through the use of licensing, registration of guides, designation of areas and timing of outfitting activities so as not to

coincide with hunting and trapping seasons or areas, it is anticipated that conflicts will be the exception rather than the rule, particularly for summer season outfitting.

Proposed winter dog-sledding tours, on the other hand, run the risk of conflicting with traditional hunting and trapping activities which generate incomes for local residents. Although the management plan proposes to allow local residents to provide visitors with winter backcountry experiences, it may not be realistic to expect trappers and hunters to also have time to provide outfitting tours in their trapping areas in their most active season. It is possible therefore, that the effects created would be indistinguishable from allowing non-resident outfitters to provide tour services, since both outfitting expeditions would trespass allocated hunting and trapping areas. This situation could lead to animosity and discord in local communities unless appropriate steps were to be taken to manage access and control the park activities.

Extensive visitor facilities are not planned in the vicinity of the "in park" communities of Peace Point or Garden Creek. Any incremental social impact on these communities as a result of proposed visitor facilities indicated by the management plan would be negligible. Similarly, park-related economic opportunities for residents of these settlements would appear restricted to existing possibilities of employment in conventional park roles as firefighters, wardens, etc. The logistics of outfitting organized out of these communities is more complicated than for outfitter tour operations based out of Fort Smith or Fort Chipewyan. Realistically, the

capital investment required to set up outfitting operations at Peace Point or Garden Creek may well be beyond the capabilities of most residents, as well, without government grants or programs.

The park's own capital expenditures required to implement the visitor facilities of the management plan are estimated to be significant in relation to park spending in the region. In 1982, capital expenditures, at \$464,200, are estimated to account for roughly 25% of WBNP's annual budget (excluding firefighting). In the five year forecast, total capital project outlay at WBNP is currently projected at \$3.37 million in 1982 dollars and will contribute primarily to the Fort Smith economy through local purchase of supplies and services.

4.2 Proposed Development of Existing Road Network

The transportation system within WBNP is a limiting factor to increased use of the park in at least two respects:

1. - the existing road layout does not provide convenient access to or scenic viewing of many of the park's attractions.
2. - the condition of existing grades is variable with segments unsuitable for all-weather, year-round access or general park access.

In regard to the first point, the management plan does not propose to extend road access to park resources or to increase visitation by constructing new road networks. These types of developments would deteriorate the wilderness character of the park as well as be

extremely costly. Instead, the preferred visitation plan emphasizes wilderness excursions of guided and unguided variety to park attractions off the loop road. The existing road network is intended to provide access to new facilities at presently accessible locations within the park.

With respect to the quality of the existing road network, the management plan identifies road upgrading as an important component of proposed park development. A major portion of the projected capital requirements to be expended by the park (discussed in the previous section) is designated for the upgrading of existing roads. Specifically, the following developments have been proposed in the WBNP management plan:

Loop Road - upgraded to all weather status on all portions

Hwy #5 - hardsurface

Winter road from Fort Smith to Fort Chipewyan - minor improvements

Parsons Lake Road - upgrade from Highway #5 to Salt Plains overview road. Explore feasibility of upgrading the whole Parson's Lake loop

4.2.1 Loop Road Upgrading

The existing road provides all-weather access between Peace Point and Fort Smith on the west side and from Fort Smith to Hay Camp on the East. The remainder of the east portion and the south link are fair-weather routes.

Current use of the road, based on 1974 figures, is low. (Table 18). Summer traffic volumes (one-way) in 1982 are expected to be unchanged from 1974 with the exception of some additional non-park related traffic between Fort Smith and Peace Point, the latter being settled as part of an outstanding land claim in 1977.

As Table 18 illustrates, the west side of the loop carries substantially more summer traffic than the east side. This situation is clearly related to the differential quality of the two road segments but also reflects the location of visitor facilities and regional and seasonal travel patterns.

Overall winter use of the loop road is characterized by a steady trickle of traffic between the Peace Point settlement, Fort Chipewyan and Fort Smith. Winter use on the west side is primarily by vehicles from Peace Point to Fort Smith. Minor traffic flow is also generated by winter park visitation from Fort Smith.

Winter use on the east and south sides of the loop road is somewhat greater than that suggested by summer use figures. The road serves as an access route between Fort Chipewyan and the communities of Peace Point and Fort Smith. Virtually all of the winter traffic is not "park related" per se, but for the purposes of business, freighting, visitation, trapping and hunting, and purchase of provisions and supplies.

Although the costs of upgrading the loop road are not justifiable on a visitor demand basis to Parks Canada, even when "non-park oriented" traffic is included in overall traffic volumes, the route is of undisputed

TABLE 18: SUMMER TRAFFIC VOLUMES ON PARK ROADS, WBNP 1974
(ONE WAY TRAFFIC FLOWS)

<u>Segment of route</u>	<u>No. vehicles</u>	<u>Distances (Kms)</u>
Fort Smith - Salt R.	811	
Salt R. - Pine L.	772	112
Pine L. - Peace Pt.	274	
Peace Pt. - Hay Camp.	52	173
Hay Camp. - Fort Smith	216	
Fort Smith - Fort Smith	TOTAL	285 Kms

Source: WBNP Summer traffic survey, 1974

regional significance. Segments of the road are vital to Peace Point's link with the outside while the east side of the loop represents the major regional transportation corridor between Fort Smith and Fort Chipewyan. These regional benefits are acknowledged in existing O & M arrangements with Indian Affairs and G.N.W.T. From the park's perspective, an upgraded road would serve as the infrastructure for future recreational development of WBNP. The all weather road would, moreover, improve access to existing recreation areas and provide opportunities for extended use of the Park.

The upgrading project would require \$438,500 (1981 dollars) for construction with an annual O & M budget, proportioned between the park, and Indian Affairs of \$100,000 annually. This compares with a current O & M expenditure on the road of \$48,000 per year. A significant portion of additional capital and O & M spending would enter the economy of Ft. Smith.

Upgrading of the loop road will create different impacts for the various users of roads within the park. Since mobility would be improved for parks staff, park visitors, "in park" residents and travellers between communities in the region, a variety of both favourable and unfavourable potential impacts could occur.

Park benefits from an upgraded loop road would be related to the improved access to various areas for operational purposes. Monitoring and management of wildlife populations could be improved with all-weather access to habitat areas. Similarly, improved roads would ameliorate conditions for the transport of

firefighting supplies and manpower within the park and improve the ability of the park to react to emergencies. From a visitor services viewpoint, an increase in all-weather access routes in WBNP would permit better dispersion of visitor activities and increase the overall traffic carrying capacity of the park road system.

Some less positive impacts could also occur from improved access to WBNP. Since an all-weather road would provide for more extended use, it would also increase opportunities for unauthorized or illegal hunting and the need for additional surveillance by parks staff.

Park visitors would benefit primarily in terms of gaining a circular scenic route through the park. This would eliminate the necessity of retracing roads when leaving the park which, for many, makes the park experience less enjoyable.

Impacts to the "in-park" community of Peace Point would result from the better quality of access to points within and outside the park. The all-weather road could improve the summer connection between Peace Point and Moose Island Landing, but offer improved access to Ft. Smith only during periods of extremely unfavourable weather. Greater hunting pressure may be exerted on park resources if the road provides or creates better access by residents to big game populations.

The regional benefits of loop road upgrading emanate from the improved quality of the regional transportation corridor from Fort Chipewyan to Fort Smith in the

winter. Summer traffic volumes would not be significantly affected since the loop road is only a segment of the Fort Chipewyan - Fort Smith connection. There is the possibility for more traffic during the resource harvesting season which may be beneficial, in terms of access, or detrimental to park-licensed hunters and trappers because of animal disturbance from heavier traffic. The upkeep of the road is also likely to increase by \$52,000 annually over present costs.

4.2.2 Hardsurfacing of NWT Highway #5

The management plan favours the upgrading of N.W.T. Highway #5 as it is anticipated to increase driving pleasure and visitor enjoyment of the park. In co-ordination with upgrading, WBNP would provide improved visitor and interpretive facilities along the route. Since the highway is a significant territorial traffic artery and part of the regional transportation network, Parks Canada would provide design and technical assistance but not contribute to the capital cost of the project. Hardsurfacing of Highway #5 by G.N.W.T is anticipated over the life of the management plan and would require upgrading of 123 Km through the northeast portion of the park. All O & M costs are currently paid by G.N.W.T.

The socio-economic impact of Highway #5 hardsurfacing is expected to be beneficial to the park and the region. Better quality access could increase the level of park use by existing visitors to WBNP and attract new park users from Hay River, Pine Point and Fort Smith. The upgrading would also be compatible with the park's aim

of increasing its presence in the northern portion by building facilities or providing services attracting travellers to the southern portion of WBNP. In the regional context, project implementation would infuse some proportion of capital construction spending into the local economies of Fort Smith and Hay River.

4.2.3 Surface Access - Fort Smith to Fort Chipewyan

Parks Canada currently constructs and maintains two ice bridge crossings one on the Peace River at Moose Island Landing and a second at the Quatre Fourches, and the road from the crossing at Peace River to Fort Chipewyan. The ice bridge across the Rocher River is constructed and maintained by Parks Canada but funded by Alberta Department of Transportation. The winter road does not deviate from the east side of the loop road from the Peace River to Fort Smith. Total O & M costs for maintaining the route in 1981 were \$36,500.

Although the road's approximate traffic flow is 10 vehicles per day from December 1 to the first week in April each year, it is the only surface transportation route for the residents of Fort Chipewyan. Peak use well above the seasonal average occurs at holiday periods and during special events at Fort Smith or Fort Chipewyan. The road also provides the most inexpensive route to the outside communities for business, visitation, provisions and freighting.

The management plan does not propose to perform major improvements or alterations to the winter road from where the east loop road ends (Moose Island Landing) to

Fort Chipewyan. In recognition that the route south of the Peace River is not suitable for all-season use or construction, the favoured park option is road relocation at Alberta's expense to the east side of the Slave River. Parks Canada proposes to construct and maintain a connecting link from the existing loop road to the Slave River but would only consider minor improvements to the existing route and would not pay for ferry service across the Slave River in the event the road is relocated.

The socio-economic impacts of the park's position vis-a-vis the Fort Chipewyan - Fort Smith winter road will be negligible from the status quo situation. Fort Chipewyan will continue to have winter-only surface access to the community of Fort Smith. A change in this situation would require significant expenditures by the Alberta government to relocate the road, which would appear unlikely unless a major resource project were to be initiated in the area.

Construction of a connector from the east loop road to the Slave River is estimated at \$25,000 (10-15 kms) in 1981 dollars. In comparison with existing O & M costs on the present winter road, small savings would be realized by the park in the medium and long term if the road were relocated. However, the relocation is not required for park purposes, and would not serve the park in any significantly beneficial way.

4.2.4 Parson's Lake Road

Improvement of the Parson's Lake road is considered in the management plan primarily for the purposes of increasing access to the Salt Plains in WBNP. The area

is regarded as significant in terms of park resources, readily accessible from Fort Smith and Highway #5, and capable of sustaining moderate levels of use.

Existing use of the road is low and does not economically justify extensive expenditures in upgrading. There is some indication that the low level of use however, is related to the fair-weather standard of the route, absence of park promotion and the road's obscurity to most park visitors. As a result, the management plan anticipates that visitor use of the area could be substantially increased by development of facilities and promotion of local attractions. Actual road upgrading is planned to be coordinated with a public canoe launch, hiking trails, interpretive facilities and local tourist outfitting. The attractiveness of the area is anticipated to be enhanced by creating a scenic loop drive via the Mission Farm Road, in cooperation with the governments of NWT and Alberta.

Total capital costs of Parson's Lake Road full-scale development have been estimated at \$90,000, with O & M amounting to \$9,500 annually (1981 dollars). It is premature to anticipate what portion of costs, if any, might be shared with NWT or Alberta. In terms of development costs versus visitation capacity, the proposed facilities have the potential to generate relatively more visitor use per dollar expenditure than most other facilities in WBNP. This should not be viewed, however, as rationalizing facilities or road construction in the Parsons Lake Road - Salt Plains area on an economic basis.

The Parsons Lake Road upgrading would create small scale impacts on construction activity in the area. More significant impacts of a social nature could be created by better access to the area in view of its proximity to Fort Smith and Highway #5. There is the potential for increased hunting pressure on game animal populations, trapper disturbance and conflicts between resource harvesters and tourists. Since portions of the immediate area are on the fringe of the park, there may be unintentional trespass or illegal hunting within WBNP. Possible uncontrolled use/overuse of historical sites outside the Park along these improved roads could be of concern to G.N.W.T.

4.2.5 Summary

The general intent of improved access along existing roadways in and through WBNP is to increase the potential for visitation of various areas of the park. This is based on an intent to provide a range of visitor experiences which adequately present and interpret the park to the public.

Improvement of roadways in WBNP also creates potential conflicts between wilderness protection, visitation, and resource harvesting activities. On the one hand, visitation and traffic may not be compatible with existing trapping and hunting. On the other hand, improved access increases the danger that resource harvesting might jeopardize the conservation and preservation goals of the park. Finally, since much of the regional traffic in WBNP is "non-park related", the improved road network is used by individuals who have no interest in the park's resources or visitor attractions.

4.3 Peace River Road

4.3.1 Rationale for the project

In recognition of WBNP's strategic location in the region, Park's Canada realizes the importance of the regional road network to local communities in and around the park. The WBNP management plan accepts in principle the possible future necessity for constructing a road through WBNP using an alignment from Garden Creek and Peace Point to Fort Smith. Since the road is not required or economically justified for Park purposes alone however, Parks Canada will not participate financially in construction or future maintenance of the access route. Funds may be provided for design assistance and visitor use requirements in the travel corridor, should a decision to pursue the project occur in the future.

The proposed Peace River road would extend west from Peace Point for 191.8 kilometers to connect with Alberta Highway #58 at Jean D'or Prairie. Total road length within the park is 115.8 kilometers. The road would reduce the approximate distance from Fort Smith to Edmonton by 315 kilometers. Total cost, estimated at \$350,000 per kilometer, would be \$40 million (1981 dollars) while maintenance costs would amount to \$80,000 annually.

One of the reasons that the Peace River Road has been discussed for several decades but no action taken is the

taken is the magnitude of the project expense related to anticipated benefits. From a traffic flow viewpoint, the total volume does not come near the threshold required to justify construction on a user basis alone. In 1981, it was tentatively estimated that traffic consisting of local and diverted Highway #35 could range between 250-500 A.A.D.T. on the new route. With major development in the area, such as the Slave River Hydro Project, volume could reach the upper end of the range (i.e. 500 A.A.D.T.) or possibly slightly exceed it²⁰.

Parks Canada's approval-in-principle of the Peace River Road has significant potential impacts for the region. While the park's position does not make the actual construction of the route any more of a reality than before, it is also clear that, if any momentum were generated in favour of the proposal, there would be little obstacle tousing WBNP for road purposes.

4.3.2 Regional socio-economic benefits

The general advantages created by a Peace River Road through WBNP are related to the direct benefits of approved access of Fort Smith residents to the south. The new route would provide less circuitous access to Fort Smith, thereby decreasing travel costs, times and

²⁰ Reid, Crowthers Partners Ltd. with Thurber Consultants Ltd. Initial investigation: Peace River Road, Wood Buffalo National Park 1982. pp 4.13ff.

distances. As a result of being less remote, Fort Smith and surrounding area is expected to experience lower food, supplies and transportation costs, increased tourism and spin-off benefits to the regional economy. Some of these benefits to the Fort Smith area could be offset by losses of revenue from transportation traffic and related expenditures to businesses on the old route.

In the event that a major development project were to proceed along the Slave River or East of the Slave River, the road would generate substantial transportation savings to the Province of Alberta and the project proponent. These reduced costs would ultimately be reflected to the general public through lower energy or products costs.

Communities of Garden Creek and Peace Point along the proposed road corridor, would be impacted by the Peace River Road. Garden Creek, which is not presently connected by an all-weather surface route to the Alberta Highway system, would gain all-season access to neighboring communities and points south. During the construction phase of the project, opportunities would be created for employment and business endeavours. The traffic flow itself is anticipated to create economic opportunities for automotive, visitor and travel services and supplies.

Residents of Peace Point who presently have access to Fort Smith, would have opportunities for employment and

business similar to Garden Creek. Since Fort Smith would still be the closest major supply community however, changes in the traffic pattern to the south would be expected to be minimal. The actual alignment of the road would also create potential benefits of access to hunting and trapping areas of residents of these two communities.

4.3.3 Regional socio-economic costs

Negative socio-economic impacts, primarily of a social nature, are anticipated to be significant in both settlements within WBNP. It is possible, in fact, that social impacts to Garden Creek and Peace Point may be sufficient so as to outweigh potential positive impacts from the project.

The prime social impact recognized by the residents themselves is the probable negative influence of improved access and visitor or traveller populations on the two settlements. This is likely to be manifested, in Garden Creek, in the alteration of what is now a stable and productive community based on hunting and trapping lifestyles. At Peace Point the impact of a Peace River Road is likely to be less dramatic since the community already experiences road access to Fort Smith.

Negative impacts are also anticipated to occur in economic subsistence related to influences of travellers, traffic and tourists. Greater movement in the area may disrupt animal populations where the road

acts as a barrier between habitat areas. Unauthorized hunters may cause conflicts with registered "in-park" hunters and trappers or lead to increased hunting pressures on game populations due to poaching.

Finally, rapid changes brought about by sudden improvements in access to previously isolated communities may cause disruption of the social fabric of these communities. This could be evidenced, for example by alcoholism, fragmented families, loss of community identity, and other factors that commonly accompany forced cultural and social transition in remote settlements. Native inhabitants of Jean D'or Prairie and Fox Lake also feel that the Peace River Road could create predominantly negative social impacts and only minimal economic benefits in their communities.

4.3.4 Parks Canada impacts

From the perspective of WBNP, the road would create a major new access route with corresponding opportunities for more and different uses of the park. This is anticipated to increase visitor use and demand for facilities, although the magnitude of these changes is open to speculation.

The road route itself opens new interpretive and visitor use areas to the public since access would be available to resources and features not currently accessible. Access by parks staff to the southwestern corner of the

park would be considerably improved and costs of commuting to Garden Creek would be substantially reduced.

In many respects, Parks Canada's position is an attempt to resolve the uncertainty surrounding the status of the Peace River Road. Access from the south into the park would radically alter the role of the park in the region and qualitatively change the type and number of visitor facilities that could be required. In fact, potential park development stemming from Peace River Road construction could modify concepts put forward in the management plan.

Increased access to WBNP from the south could create opportunities for unauthorized use of the park by hunters, travellers and recreationists. The greater access to the park as a function of a road would make the potential for overuse along fringe areas more likely. As a consequence, increased surveillance and manpower would be required by the park to protect its resources. A southern entrance would also create a need for maintaining parks staff in the Garden Creek area year round to monitor visitor and itinerant users of WBNP.

A Peace River Road would also pass directly through Timber Berth #408 and greatly facilitate logging and hauling operations in the area. Potential spinoff benefits to the timber company from all-season highway access to the area would be improved product marketability and reduced economic costs of procuring

resources. One possible consequence is that pressure could be exerted on the park to moderate its environmental protection criteria to allow faster and/or greater extraction of timber resources. These effects would have negative impacts on the resources and management plans of WBNP with corresponding deterioration of aesthetic qualities and wilderness character.

Conversely, access to the area would also increase people's awareness of the non-conforming use in WBNP and could create public support to maintain strict environmental controls or to purchase the lease.

4.3.5 Summary

The proposed Peace River Road is a positive regional transportation project but with potential to create significant negative socio-economic impacts on local native communities along its alignment. The perceived business benefits of access to destination communities such as Fort Smith and Edmonton are a function of the degree to which sectors of the local population identify and contribute to the regional economy. Determination of the net regional benefits or costs of the proposed project requires weighing of tangible economic costs and values against largely intangible values as represented by "traditional" lifestyles, community cohesion, and socio-cultural factors.

The potential socio-economic impacts of the road to WBNP are generally favourable and related to benefits of access shared with local communities. The probable increase in park traffic, if not visitor use, would have significant implications for the planning of parks facilities, protection of resources, and administrative requirements of WBNP. Within Parks Canada, such developments are consistent with its mandate to protect natural resources of national significance while providing for enjoyment and use by the public.

4.4 Garden Creek Settlement Excisement

4.4.1 Background

Garden Creek is a Cree community of 150 people located 11 kilometers inside the west boundary of WBNP on the north shore of the Peace River. Up to the mid-1960's, the settlement was a seasonal hunting, trapping and fishing camp for a splinter group of the Little Red River Band at Fox Lake and Jean D'or Prairie. Since then, Garden Creek has taken on a more permanent character with a school, community vendors and improved level of services.

Garden Creek residents have traditionally earned their livelihood from pursuit of trapping activities and subsistence hunting and fishing. With timber operations occurring in WBNP, incomes have been supplemented by employment of Swanson Lumber Company which until recent years, employed several individuals annually. Seasonal

employment has also been obtained from the Alberta Forest Service and Parks Canada in firefighting in the area on a continuing ad-hoc basis.

Because Garden Creek is not an official Indian Reserve or land entitlement area, the status of the settlement has not been clearcut over the years. Occupation was regarded as temporary when the park was created and no particular significance was attached to park residency existing at that time. The implications of Garden Creek for Parks Canada have become more critical since the settlement has become permanent and sought to obtain modern amenities of life.

Community demands for services have led to expenditures and developments by DIAND on Parks Canada lands at Garden Creek at the time in which continuing uncertainty exists over the implications of continued growth of the community. In addition to the longer term issue of whether Garden Creek should exist within a National Park at all, concern is generated by the complicated jurisdictional responsibilities for community administration, services and management shared by different departments of government.

4.4.2 Management Plan Position

The WBNP management plan recognizes the problems associated with the existence of communities or townsites within National Parks. Invariably, the

development of in-park settlements leads to aspirations by local residents that conflict with and must be constrained by the legislation, policy and mandate of Parks Canada. In anticipation of these types of problems, the management plan seeks to resolve the current uncertain and poorly defined status of the community within an overall context that provides for desires of the community and the policies of Parks Canada.

The recommended immediate course of action, in essence, postpones decisions about the future status of Garden Creek to 1988 when the management plan will reach its initial 5-year review. The intervening time will be spent to complete further study of the implications of community options, during which no park-related privileges currently enjoyed by Garden Creek residents will be affected. The period is also to be used to develop a formal agreement with Department of Indian Affairs and Northern Development (DIAND) to identify interim responsibility for the community. Parks Canada's long term policy objective however, is to excise the community from the Park, contrasted with less desirable options of maintaining the status quo or assigning Garden Creek townsite status within WBNP.

The socio-economic implications of Parks Canada's position respecting the status of Garden Creek may be viewed in terms of park and regional impacts. The former considers the proposed action from the strict

perspective of the park while the latter evaluates the preferred option from the broader perspective of benefits to the region as a whole. Both exercises are relevant to this assessment of socio-economic implications since Parks Canada's mandate includes protection of park resources and contribution to regional economy.

4.4.3 Parks Canada Impacts

From the perspective of Parks Canada, proposed excisement of the Garden Creek area from the park accepts the permanency of the community and the inevitable conflicts bound to arise when the park is seen as a constraint to the development of the community in the future. Although WBNP has spent only \$2000 in capital in the community to date for park-related purposes, increased pressure has mounted for services and facilities that would be provided in park-managed townsites and visitor centers. Being out of the townsite business in WBNP would represent substantial savings in future expenditures, which would be required in addition to current trips to issue hunting and trapping licenses in the community.

The fact that Garden Creek is within the park has allowed Parks Canada to limit the population of bona fide residents of the community and to regulate all resources harvesting in area in the park. The recommendations in the management plan could open up the excised area to recreational hunting and trapping pressure, possible increased human populations and

influences of competing resource uses and intrusions of incompatible uses into areas adjacent to WBNP. The excisement option does not propose to alter resource harvesting activities of Garden Creek residents either on excised land or parks lands. Given the potential for greater access to the area once residency restrictions would be lifted, it is conceivable that overall use could increase with greater difficulty in controlling 'in-park' activity.

These developments could lead to increased harvesting pressure on local resources, park trespass and the need for an increased park presence along the southwestern boundary.

The area that would be excised, in that eventuality, contains park resources of known national significance which include flood plain geomorphology and archaeological sites. It is possible that the excised area would lessen the attractivity value of WBNP if at such time in the future the southwestern area of the park should be developed with the construction of, foreexample, the Peace River Road or if the excised area were to include critical habitat areas.

While Garden Creek may be viewed as an anomaly in the present management plans for the park, there is the possibility that the community could be used to promote the traditional or contemporary resource harvesting theme of WBNP. This potential would have to be weighed

against management options for the area which do not promote wilderness interpretation of trapping and hunting in the park.

Finally, the postponement of decisions of the future status of Garden Creek to 1988 favours an opportunity to review management options and to permit implementation of an agreement with DIAND. If a satisfactory financial arrangement were to be agreed upon, the long-term excisement option may become a less critical factor in the park plan. The management advantages gained from the retention of Garden Creek as park-controlled lands deserve consideration in the long term management plans of WBNP.

4.4.4 Regional socio-economic impacts

The potential socio-economic implications to Garden Creek from the recommended management option, ie. official delegation of administrative responsibility to DIAND and eventual excisement of the community, is a combination of perceived impacts by the community and probable impacts from changes in jurisdiction in the area.

Garden Creek residents unanimously expressed a fear that lifting of park regulations from their community could lead to detrimental effects on their lifestyle and livelihood. These comments reflect that, while the National Parks Act and Regulations may be constraints to the development of communities in general, Garden Creek does not itself feel sufficiently organized or cohesive

to protect itself from outside influences. Under these perceptions, relatively minor resource conflicts, fears of intrusion by outsiders and lack of mechanisms to deal with new problems could lead to community and social fragmentation. A possible transition phase between regulation of trapping and hunting by the park to regulation on transferred lands by a new agency could be equally disruptive if different criteria were to be used to determine eligibility for resource harvesting areas. The magnitude of this however, would depend on the eventual size of the excisement area.

The fact that Garden Creek is growing emphasizes that the community will require additional services no matter which jurisdiction it eventually falls under. Since the community does not have the tax base to pay for its own services, whichever jurisdiction inherits it will bear the costs to provide municipal, roads, and social services. If the Little Red River Band with its minor outstanding entitlement were to acquire Garden Creek and a reserve, DIAND would be responsible for the majority of community development costs. Conversely, excisement leading to settlement status for the community in Alberta would imply some measure of provincial responsibility for municipal services. It is questionable whether the Garden Creek residents would opt for settlement status in view of their standing as status Indians (i.e. federal responsibility and

trusteeship), even if provincial funding were more readily available.

The economic impact of excisement to Garden Creek would not appear to be favourable to its residents. Even if land in the area were freed up for development because of Parks Canada's lifting of restrictions, it is doubtful if the area could support any economically viable projects such as timber operations, farming, ranching, etc. As such, it is difficult to identify economic benefits of excisement from WBNP.

Negative impacts are related to potential losses of fur and hunting resources created by eventual release of Parks Canada land and the lifting of Game Regulations. Depending on how much land is involved, deterioration of these resources would undermine traditional economic pursuits which generate income in the local economy or replace them with social assistance or welfare in the absence of new employment opportunities.

4.4.5 Summary

The socio-economic impacts of the excisement option for dealing with Garden Creek will be a function of how the protection currently offered to the area and residents by the National Parks Act will be transferred under new arrangements and jurisdictions. Excisement, leading to greater and more uncontrolled use of natural resources,

would have an unfavourable impact on the southwestern boundary area of WBNP and the residents of Garden Creek.

On the other hand, contemporary aspirations of Garden Creek residents may be leading the community on a course that will make it little different from other communities in the north. Demand for modern facilities, services and access suggests that traditional pursuits of its residents are waning in importance and that the community is acquiring socio-economic characteristics of southern-based settlements. Under these circumstances, excisement would provide Parks Canada with the best option for avoiding conflicts over use of WBNP in the future.

The transition of Garden Creek from a traditional resource harvesting community to a reserve or settlement with modern facilities will cause social and economic dislocation no matter which jurisdiction assumes ultimate responsibility for the community. The transition is probably inevitable but may be speeded up and potentially disruptive under the excisement scenario.

4.5 Resource Harvesting

4.5.1 Timber Berth Operations

In recognition of the legal agreement permitting Swanson Lumber Company a 21 year extension on timber Berth #408 to the year 2002, the WBNP management plan will allow

timber operations in the park to that date. As part of Parks Canada's effort to minimize the detrimental effects of logging on the park, the company will be obliged to submit 5-year forest management plans for environmental assessment and review to ensure that environmental implications are fully considered. The overall effort to manage and protect timber resources in WBNP will include the potential for removal of ecologically significant timber stands from the berth with the cooperation of the company. Parks Canada's proposed action vis-a-vis timber operations will not affect current arrangements for domestic use of logs for cabin or firewood in the park by trappers and religious, charitable and educational institutions.

The effect of the management plan's position on timber harvesting in WBNP would be generally beneficial to the park. Timber operations are fundamentally incompatible with wilderness preservation, protection of animal populations and habitat, and the park character of WBNP. Control of logging activities would lessen their environmental impact.

Protection of forestry resources however, would have negligible impacts on the present quality or level of WBNP visitor experience or use unless access were to be developed, for example, by construction of the Peace River Road to the timber berth area. The berth is not a candidate area for any of the proposed visitor facilities or services in the park.

Greater control and monitoring of Swanson Lumber Company operations would require additional park expenditures and allocation of manpower. The periodic assessment of the company's forest management plan under EARP, with input from both local and regional Parks Canada levels, would tax existing staff and budgetary resources. Attempts to take an aggressive stance in dealing with the timber operation could backfire if the Company were to test its lease against Parks Canada's mandate in court or to exercise non-compliance with stringent EARP guidelines. It should be noted however, that a draft lease agreement, which includes an environmental assessment and review process, has been entered into by the lumber company and Parks Canada. The manner in which the agreement is implemented will, in large measure, determine its effectiveness as an instrument in protecting National Park resources.

Proposals to purchase the timber company's lease of ecologically significant timber stands in the berth, should Parks Canada pursue the option, would require the expenditure of substantial sums for what would amount to wilderness preservation. The gross value of park timber resources under lease to Swanson Lumber Company could range up to \$32.5 million in 1982 dollars. Even with adjustments to limit compensation to stumpage fees obtainable from extraction of the resource, protection

of a minor portion of timber berth #408 today may be outside of Parks Canada's affordable range.

For example, at current stumpage rates, the value that would be received by the park for existing timber reserves is estimated at \$2.8 million in 1982 dollars for the whole of timber berth #408.

In contrast, the present gross value of WBNP's timber berth resources after the year 2002, based upon current levels of harvest, is estimated at between \$325,000 and \$5.7 million (at discount rates of 10% and 5%, respectively) in 1982 dollars. The mature timber forestry resources remaining in 2002, however, would be over 60% of the merchantable timber existing today (assuming current levels of harvest).

From the park's perspective, a decision to purchase mature stands of timber should be a weighted one. Mature stands (approximately 200 years old) with known economic value may be protected from year to year but always with the risk that the resource may be wiped out by forest fire, disease, old age or other factors. Therefore, forest protection of particularly significant stands, made more valuable because of their purchase, would reasonably require added precautions, manpower and expenditures in their protection. These considerations could put further strains on the park's budget.

The socio-economic effect of the park's management plan on the region may be characterized as negligible in the short term but with potential to create significant impacts in the long term. With average annual gross value of \$2.47 million over the last five years, the Swanson Lumber Company may be anticipated to extract timber from WBNP worth between \$22 - 32.5 million (1982 dollars) over the period of the lease (at 10% and 5% real discount rate, respectively). In addition, the company employs locally, on average, 5 individuals per year from Garden Creek²¹ and others in High River at its sawmill directly as a result of its timber lease in WBNP. These regional benefits may be assumed to continue at present under the management plan's preferred option.

Over the longer term, Parks Canada's intent to use EARP to evaluate the impact of the company's activities on the park may have negative effects on the operation. Possible park directives to reforest, selectively cut and other control measures could jeopardize the economic viability of logging in WBNP, or induce the company to shut down operations. These outcomes could have negative repercussions for WBNP in the region, local communities and among the general public, considering

²¹ Personal communication, Brian Carnell, Forestry Superintendent, Swanson Lumber Company, Edmonton, Alberta. Nov. 1982.

that the existing timber lease is silent about many contemporary environmental concerns relating to the industry.

Finally, any revenues received as compensation for the right to cut timber in WBNP need not be used by the company in the regional economy. In this respect, buying back leases to WBNP resources may generate negative impacts of varying degree on logging-dependent communities; such as, higher local costs for lumber, unemployment, weak real estate prices, out-migration and maintenance of oversized municipal services or facilities. Payments directly to the lumber company moreover, would not compensate loss of jobs and lost business experienced by secondary industries dependent on Swanson Lumber Company operations.

4.5.2 Hunting and Trapping

The management plan proposes to allow harvesting of park wildlife under the Game Regulations to continue provided wildlife populations are not caused to deteriorate in the future. To implement this objective, the park will create pilot protection zones in major habitat areas where no hunting or trapping would occur. The extent and location of these zones would be determined in consultation with affected resource harvesters.

From the viewpoint of the park, the management plan proposal is instrumental to putting resource quotas,

areas of harvest, and number of harvesters into a framework that reflects the sustainable yield capacities of the animal populations in question. Socio-economic impacts related to the concept are generally favourable, since maintenance of animal populations is basic to hunting and trapping activities. Minor dislocations will occur wherever the density or distribution of harvesters is found to be incompatible with resource conservation objectives of the park.

The socio-economic impacts from implementing the scheme would appear to hold greater potential for negative complications. Although zones may be designated, ensuring that "no hunting/trapping areas" are respected would require additional manpower and resources for surveillance and control. These requirements would follow more extensive study to delimit critical habitat areas, wildlife populations, and the distribution of harvesting pressure in the park. Determined levels of wildlife populations suitable for conservation purposes could vary considerably from hunter/trapper perceptions of populations for their requirements.

Problems would also be created if the park decided to use protection zones as outfitter areas, or winter wilderness trail routes from year to year. A particular scenic route could gradually be reserved from hunting/trapping not for resource conservation purposes, as intended, but rather for visitor uses that could conflict with harvesting activities. These types of

user conflicts would conceivably be outgrowths of changes in resource use priorities in the management plan in later stages.

The impacts to hunters and trappers in the area would be similarly related to the implementation of the protection zone idea rather than the concept itself. Since the quota of permit hunters/trappers allowed in the park has never been reached, possible disruption of activities due to zone designation would appear to be minimized, particularly if other areas were available.

The selection of zones may cause negative impacts on the harvesters if certain protection zones are designated for protection of species not trapped. Special zones may also be created for several habitat areas which could withdraw excessive non-overlapping territories from harvesting activities. If different zones are protected for different purposes, there is the additional potential for confusion among hunters and trappers in determining what is permitted in various sectors of the park.

In years of extensive forest fires, protection zones could place added restrictions and constraints on hunter/trapper activities by reducing the number or size of available resource harvesting areas. In this respect, the most critical effect on resource harvesting would be felt immediately after a burn since burnt-over

forest areas would subsequently regenerate and regain some of their former productivity. There is the likelihood therefore, that burn areas could also become wildlife protection zones which may minimize impacts or restrictions on resource harvesters.

The possible significance of trapping losses caused by restrictions to certain areas would be difficult to predict even if the probable locations of protection zones were known. If the value of furs harvested in WBNP in 1980 (\$605,000) is used as the yearly average, the 1982 gross present value of all future fur resources likely to be harvested in the park could range between \$6.1 - 12.1 million (10% and 5% discount rates, respectively). This gross value indicates that minor disruptions of trapping activities would be economically significant for the local communities involved. Losses in trapping income in these communities would generally be replaced by increased social assistance, welfare, etc., rather than alternative employment.

4.6 Cree Land Claims

4.6.1 Recommendations of Management Plan

In the management plan, Parks Canada accepts the original claim by the Fort Chipewyan Cree band under the terms of Treaty 8 for lands at Peace Point (19,000 acres, 30 square miles) and at Embarras River and the 27th Base Line (23,000 acres, 36 square miles). Any

further requirements are to be met outside the boundaries of Wood Buffalo National Park.

Parks Canada will consider requests for up to the total acreage identified above, to be taken in one or two other parcels in other areas of the park upon forfeit of the areas previously identified, based on the merits of the proposal and the nature of park resources to be lost. Under this provision there is no actual or implied assurance that requests for parcels of land other than those originally requested and identified above, will be granted.

Potential socio-economic impacts from Parks Canada's position may occur in several areas:

4.6.2 Affected Park Resources

The areas of primary interest to the Cree band are Peace Point, the Embarras River at the 27th Base Line and the Peace Athabasca Delta. Of these areas, the Peace Point location has received the most visitor use in the past. Elimination from the park would have significant impact on visitor services and interpretive programs relating to the geomorphology of river and valley, gypsum caves, archaeological sites, and boating launches on the Peace River.

The Athabasca Delta area is not used extensively for recreation but has significance in terms of its unique and sensitive resources. Delta losses could limit some aspects of potential tourist outfitting in the area,

probably originating out of Fort Smith, and directed toward visitation of prime summer bison habitat and delta wildfowl areas. Outfitting organized out of Fort Chipewyan by native entrepreneurs might not be affected.

4.6.3 Resource Use and Management Implications

The ministerial decision to permit Indian reserves to be selected within WBNP could have significant impacts on the management of resources in the area. Particularly where selected lands form enclaves in the park, it would be most essential for the park to have access to monitor wildlife populations for resource conservation purposes. This access could be viewed as unacceptable by the Cree band.

Land entitlement within the park would almost certainly lead to types of land and resource use that would not be compatible with WBNP management objectives and would require expenditures to control. Increased likelihood of trespass and illegal hunting on adjacent parks lands would require commitments of additional manpower for surveillance and regulation.

Where migratory wildlife populations are involved, some measure of protection for the resource would be compromised unless arrangements for protection or joint management were made as part of the selection process. The setting of conditions on the use of entitlement lands, which reflects park concerns and principles of

resource conservation, might not be desired or enforceable by the Cree band.

Pursuit of economic activities by the Cree band at Peace Point could also have adverse impacts on WBNP leading to conflicts between parks staff and native residents.

Concentration of band members at that settlement could lead to depletion of game and trapping resources in the immediate area. Should the band attempt to promote tourism on their lands, it could be in a form incompatible with the wilderness character of WBNP and the management plan. This could have an overall detrimental effect on the recreational attractiveness of Wood Buffalo National Park.

4.6.4 Land Availability

Parks Canada indicates a willingness to relocate band entitlement areas where initial selections are evidently neither to the advantage of the band or the park. At Peace Point, the Cree settlement is experiencing the disadvantages of isolation, cost of social services, expensive infrastructure, and unemployment.

From the park's perspective, replacement areas along the fringe of WBNP, or elsewhere, in exchange for Peace Point would return an area of recreational and natural resource significance to the park. Loss of fringe areas would generally have less likelihood of affecting the

integrity of the park and would permit area continuity in management of park resources.

If the Band accepts the limitation on the acreage which may be acquired from within WBNP, the opportunity for choice of new entitlement areas would seem quite flexible and to their advantage. The economic potential of initially selected areas was not comprehensively evaluated when Peace Point was identified as a preferred area. Similarly, resource development priorities and emphasis on selection of contiguous parcels have only recently been considered in the selection process. Other factors which may favour reselection, not identified to date, include infrastructural expenditures, cost of delivery of social services, employment, and access. The process of reselection however, would cause delays while evaluations of specific areas would be undertaken by the band and WBNP. Moreover, alternate selections might not be viewed favourably by the park and no progress would have been achieved in resolving the entitlement question.

4.6.5 Finalization of Land Selections

Although the management plan indicates the potential for reconsideration of selection areas, the overall thrust of Parks Canada's position is to settle the issue of entitlement within the park as quickly as possible. This view is conveyed in Parks Canada's stance that no

more than a maximum of 43,000 acres will be deleted from the park for entitlement purposes. Finalization of existing selections would ensure that surveying, administration and evaluations already completed would not be wasted.

A speedy resolution of the land entitlement issue would appear to be to the mutual advantage of the Cree band and Parks Canada. If area selections were finalized, the park would be able to initiate concrete plans knowing which areas would be available for parks purposes. Decisions on access routes, visitor facilities, and visitor use areas might also be reconsidered to reflect the changed status of parks lands with concurrent modifications to capital and O & M costs.

Protracted settlement of the land claim by the band, on the other hand, delays their opportunity to take economic advantage of newly acquired resources. Moreover, expenditures on social services, infrastructure, housing and development projects are not feasible when the underlying ownership of the land is in doubt. If changes in land selections are made, DIAND and Band expenditures may be wasted.

From the Cree band's perspective, Parks Canada's decision to permit a maximum of 43,000 acres to be taken for entitlement purposes from WBNP may be unacceptable. It may be held that the Government of Canada's obligation to fulfill treaty rights is paramount to any efforts to restrict selection of Federal Crown Lands,

even if they have National Park status. Continued confrontation in this area could lead to delays and uncertainty in planning for WBNP as well as ill will towards park staff and misuse of natural resources.

A desire to develop sub-surface mining or extraction on entitlement lands would represent a severe environmental impact in the area. Accompanying such projects would be the requirements for access, infrastructure, and service whose existence would negatively affect the park. Consideration of ranching, agriculture or forestry on selected lands would, similarly, conflict with the management objectives of WBNP but might create additional problems related to, for example, disease control, marketing, and erosion. Attempts by Parks Canada to place limitations on the development options for enclaves within WBNP could delay finalization of the entitlement issue or create legal confrontations.

4.7 Administration and Operation

Parks Canada proposes to expand and decentralize facilities within and adjacent to WBNP. The overall thrust of the management plan is to promote use of the park while maintaining sensitivity to effects on visitors, local communities and regional economy. Administratively, the park will promote increased visitation, more information and orientation facilities, use of more areas of WBNP and high standard of park

service. Operationally, emphasis will be placed on better monitoring of remote park areas, solicitation of public comment through meetings and surveys, and continued employment and purchasing practises favouring northern residents.

Potential socio-economic impacts of Parks Canada's administrative and operational plans for WBNP do not reflect new emphasis on the relationship of the park to the region. The proposed management plan indicates the possibility for greater benefits in the same areas as has occurred in the past.

In terms of local economy, expenditures on Park orientation facilities will provide a relatively minor demand for contract work in the area. Information centers, if constructed, would have a more substantial and favourable local economic impact. Increased expenditures on local manpower and supplies is not expected to be significant in view of the already high percentages spent locally and the limited scale of new developments.

The intent to emphasize the park presence in the area by providing orientation facilities at all park entrance points and a greater range of recreational experiences will have a positive effect on increased visitation, although the numbers involved may not be substantial. Attraction of more visitors into the area would create spinoff benefits for local tourist industries in the region.

Upgrading of operational facilities in the park, particularly warden's stations, would be expected to increase the capability of WBNP to identify forest fires and threats, monitor remote areas and respond to visitor emergencies. This would be a generally positive factor for local resource harvesting, the promotion of tourist outfitter activities and resource management.

Finally, the plan indicates a need to maintain liaison with the local public, all the more important in WBNP, because of the economic significance of park resources to the region. This interaction must be viewed as positive although various interest groups are not likely to be any more satisfied where recommendations conflict with Parks Canada's policy and mandate.

The management plan's proposed incorporation of periodic surveys of visitors to the park and public comment into park management considerations is also seen as positive. The specific types of information or input requested, however, will in large measure determine the effectiveness of this approach in identifying park priorities. The views presented, moreover, would have to be weighed within the context of the broader national public interest which Parks Canada also serves.

4.8 Boundary Alterations

Parks Canada has used two criteria to determine the desirability of park boundary changes to WBNP. These are:

- potential to overcome current operational problems
- potential to improve the park's representation of natural themes of the region

The operational boundary changes proposed relate to the elimination of potential conflict areas where park boundaries are not clearly identifiable or where the existing boundary creates administrative problems for the park. Those boundary alterations proposed on the basis of environmental or topographical features would be intended to consolidate valuable resource zones at the expense of less significant park lands elsewhere.

Presuming that the Governments of NWT and Alberta are willing to enter into negotiations with Parks Canada, socio-economic impacts from transfer of those territorial and provincial lands would be properly identified, addressed and compensated for by those governments. The general effect would be to place National Parks Act constraints on those affected areas in return for the removal of Parks jurisdiction in others. This would mean a loss of renewable and non-renewable resource potential on lands added to the park in exchange for acquisition of those same rights on lands alienated by WBNP. Those socio-economic impacts resulting from alienation of lands by WBNP would be of more concern to Parks Canada. The overall economic impact of the exchange on the region could be assumed to be negligible.

Basically, the holding of lands under the jurisdiction of Parks Canada in WBNP assures the local population of a protected wildlife resource for harvesting purposes. The effect of removing that jurisdiction would be to transfer lands to another government which may not have the same resource use priorities. There is little doubt

that fur-harvesting potential and timber resources in the two exchange areas the park is willing to offer, i.e. Buffalo River block and Garden Creek block, have been enhanced by the Game Regulations and their park designation.

Alienation of Park Lands could be accompanied by a transition to provincial or territorial status which would create little disruption of current economic activities. In this case, the resource harvesting zones, trap lines and hunter quotas could be maintained and no noticeable change in use or intensity of use would occur. A similar scenario might be expected if these alienated national park lands would be designated territorial or provincial parks and the residents given privileges not unlike those they held before.

On the other hand, the provincial government could view acquisition of park property, particularly Garden Creek, as an opportunity to extract resources other than wildlife populations from the area for the benefit of the regional economy. If conflicting resource uses (such as extensive forestry or mining) were to seriously undermine traditional activities in the area, the economic effects could be devastating upon the local resident population. Even if local employment were to be provided, the forced social and cultural change would, nevertheless, be significant.

In summary, major proposed boundary alterations to WBNP, would enhance the national value and significance of the park. With proper sensitivity to the needs of the local

population that would be affected by jurisdictional transfers, public socio-economic impacts would be negligible. In contrast, if land transfers result in result in relative lack of control over resource use in affected areas, the impact could be particularly detrimental for Garden Creek and disruptive for existing resource users generally.

4.9 Slave River Hydro Project

Parks Canada's position is that no Slave River Hydro project may proceed which floods park lands or has a negative effect on Park resources. The associated transmission line would not be allowed within the Park if significant negative impacts were to occur on the park environment. As an added precaution, the project has been referred to EARP by Parks Canada for a full review of impacts in order that the park position will be known and the full impact of the dam on Park resources understood.

The likelihood of a project being constructed that does not impact park resources is remote since any reservoir will affect the Slave River shoreline. As WBNP extends to the mid-point of the river bottom on the Slave River, this means that Parks Canada is fundamentally opposed to any size of the hydro project.

The effect of Parks Canada's position on the proposed Slave River Hydro dam is to ensure that the ultimate decision on the desirability of the project would include an identification of its net benefit to Canada.

This means that EARP is expected to evaluate the project from Canada's accounting stance which would assess, in particular, the potential trade off of National Park resources against the anticipated contribution of the project to the welfare of Canada.

The anticipated distribution of benefits from the Slave River Hydro dam produces the complicating aspects of the impact assessment and could lead to decisions which support or refute Parks Canada's position. At the local and regional levels, the project is expected to create greater benefits from employment opportunities, cheap power, and possible improved road access to the south, than socio-economic costs from mega-project impact. At the provincial level the overall economic impact is positive and would be felt throughout the Alberta economy through expenditures on goods and services, training and employment. The economic assessments do not, however, incorporate the cost of lost National Parks lands due to the project since these are costs only indirectly experienced, from the local and provincial perspectives, and borne by the federal government.

If Parks Canada's position should prevail after environmental assessments and feasibility studies have been completed, the conclusion would be that the project is not to the net benefit of Canada. The immediate short-term socio-economic effect would be a loss of potential employment, business opportunity and resource development for the region. Local communities would expect continuance of existing marginal rates of economic and population growth.

Parks Canada's position on the hydro dam has an indirect positive effect on WBNP with regard to visitation. It would be expected that influx of workers would lead to some increases in demand for recreation and possibly of the southern type, incompatible with the wilderness character of the park. If the project should be accompanied by the construction of improved access to the area more pressure could be exerted on park resources by trespass, illegal hunting, and through-traffic volume.

If WBNP were forced to deal with significantly increased visitation to the park, pressure would also be exerted for additional facilities. This would create additional capital and O & M demands on the park budget as well as risks of significant visitor overcapacity in the post-construction phase of the project. Offsetting these impacts however, there is the potential to expose more Canadians to WBNP, educate the public about wilderness values, and to increase the importance of the existence of the park to the region.

In the longer term, preservation of park lands contributes smaller but steady economic, recreational and aesthetic benefits to the region and the country as a whole. While a mega project would generate "boom" economies in the area followed by phasedown in the post-construction period, tourism and business opportunities created from the presence of WBNP may be viewed to make a more sustained contribution to a resource-based economy in the region.