

# Economic Impacts of National Parks: Yukon Territory & Northern BC

With highlights from:

- A summary of the known economic impacts of Kluane National Park
- The projected economic impacts of a potential new national park in Natural Region #7 (northern BC & southern Yukon)



Kluane National Park, Yukon



Wolf River in Natural Region #7, Yukon

Summary report prepared by CPAWS-Yukon from 2 independent impact studies completed for CPAWS and their partners, by Peter Whiting of the Outspan Group, and Luigi Zanasi, Economist. All photos by J. Peepre. April, 2006.

# Economic Impacts of National Parks: Yukon & Northern BC

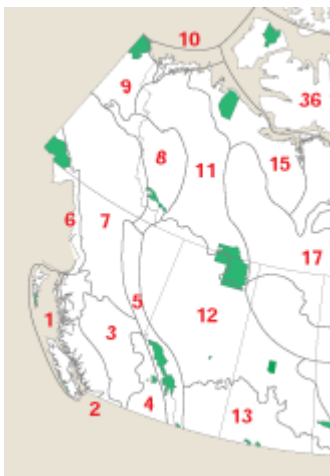
## Part I: Summary of Findings

### Introduction

#### Do National Parks Have a Positive Economic Impact?

Two recent independent studies commissioned by CPAWS-Yukon, in co-operation with supporting partners, concluded that a new national park in the southern Yukon or northern British Columbia would add to the significant positive economic impacts of existing national parks on adjacent communities, the region and the Yukon Territory as a whole.

The first CPAWS research project focussed on the economic impacts resulting from Kluane National Park during a 5-year period, 1999-2004. The second study projected potential economic impacts if a new national park is established in the southern Yukon and/or northern British Columbia, within Parks Canada's Natural Region #7. This region in northern British Columbia and southern Yukon is a leading candidate for a new park to help complete the national park system. In 2002 Parks Canada and the Government of Canada announced a long term action plan and schedule to complete and fund Canada's network of national parks.



Natural Regions Map

The total economic impact from Parks Canada and related visitor spending throughout the Yukon already includes a \$9.2 million contribution to the Gross Domestic Product, labour income of \$7.6 million, and about 284 full-time equivalent jobs (The Outspan Group, 2001). Across Canada, Parks Canada spends \$332 million annually, with visitors to national parks spending an additional \$1.5 billion per year, creating close to 30,000 full-time equivalent jobs.

#### How Were the Economic Impact Studies Done?

An economic impact assessment is a widely accepted economic tool designed to measure the total effect of an infusion of funds into a local or regional economy. The assessment is a snapshot, measuring the impact for a single year. Such assessments cannot measure costs and benefits over time, nor can they provide ways to judge whether an equivalent expenditure of government funds on something else would have generated more or less benefit. A comparison of the potential costs and benefits of resource extraction and of the economic development associated with conservation and park creation is another useful economic assessment tool, beyond the scope of these two studies.

In this report, a *direct economic impact* is the value-added increase in employment, local incomes and local Gross Domestic Product (GDP) retained in the area, and tax receipts to all governments from park and visitor spending. *Indirect economic impacts* are the value-added increase in employment, local incomes and local GDP retained in the area, and tax receipts to all governments from local suppliers of goods and services to the park. *Induced economic impacts* refer to the spending and re-spending of labour income generated by the original expenditure. This is sometimes called the "multiplier effect," but was not assessed in this analysis.

The two studies summarized here looked primarily at existing and projected direct and indirect economic impacts of national parks. The substantial economic value of ecosystem services and social benefits provided by national parks were beyond the scope of this work. Recent international studies show that long term economic and social benefits of national parks and other protected areas derived from ecosystem services such as fresh water and wildlife, are likely much greater than the sum of direct economic impacts measured in these two studies. Health and recreation benefits, and the existence value of national parks as ecological benchmarks and reservoirs of wilderness were not assessed in this work, but also have social and economic value.

## Summary: Economic Impacts of Kluane National Park



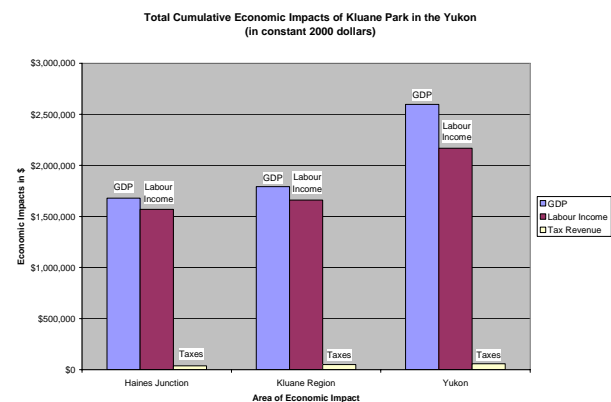
This study assessed the community and regional economic impacts of Kluane National Park, focussing on the period 1999-2004. Economic development factors in different Yukon communities were also compared to see if Kluane National Park had a significant role in the development of the Haines Junction economy. Key findings on the economic impacts of Kluane National Park Reserve (KNPR) include:

- Average annual expenditure by Parks Canada associated with KNPR is \$2.11 million.
- KNPR directly creates about 28.5 person-years of employment and had an average annual payroll of \$1.23 million annually during the 5 year period.
- Total annual visitor spending associated with Kluane National Park and Reserve is calculated at \$3.21 million, based on 75,478 non-resident

visitors spending an average of \$42.50 each.

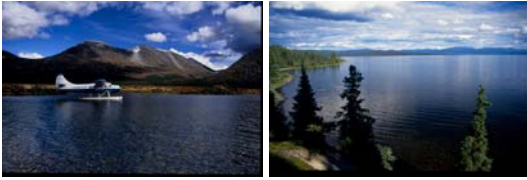
- Economic impacts from all spending associated with KNPR add \$2.5 million annually to the Yukon's Gross Domestic Product, labour income is enhanced by \$2.2 million. More than 57 person-years of employment are generated annually from this spending, and the Yukon government receives an additional \$57,000 in property and excise taxes.
- A thorough comparison of Haines Junction, located next to Kluane National, with five other comparable Yukon communities from the 1960s-on indicates that the establishment of Kluane National Park and Reserve played a large role in the enhanced growth and economic development of Haines Junction.
- KNPR and its related economic impacts account for approximately 7% of the Haines Junction economy, a significant percentage that compares favourably with other major economic activities in the region.

The Kluane National Park study was completed in the spring of 2005 by Yukon economist Luigi Zanasi, in collaboration with Outspan Ltd. of Ottawa, Ontario. A local committee participated in and reviewed the study, although the findings are those of the consultant. Visit [www.yukonomics.ca](http://www.yukonomics.ca) for the full series of reports.





## Summary: Projected Economic Impacts of a New National Park in Natural Region #7



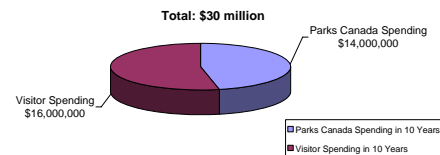
This study assessed the potential impacts of a new park in the Wolf Lake/upper Liard watersheds in the Yukon, and the Jennings Lake region in BC. Key projections of the economic impacts of a new national park in Natural Region #7 include:

- A new national park would have substantial local and regional economic impacts on communities such as Teslin, Watson Lake, or Good Hope Lake, depending on the location of a new park, if one were to be established.
- Comparison of economic impacts for the two study areas in Yukon and BC showed that the projected effects were quite similar, with Parks Canada forecast to spend \$14 million over the first 10 years.
- Visitors to a new national park in the region are forecast to spend more than \$16 million during the same 10-year period, for a total of \$30 million in combined Parks Canada and visitor spending.
- The impact on Gross Domestic Product in the local area would be about \$1 million annually, and close to 30 full-time equivalent (FTE) jobs would be created.

The Natural Region #7 study was undertaken by Peter Whiting of Outspan Ltd., a Canadian authority on the economic impacts of protected areas. The study was completed in the spring of 2005. Visit [www.cpawsyukon.org](http://www.cpawsyukon.org) to download a copy of the Summary Report.



Projected Combined Spending by Parks Canada and Visitors Over 10 Years if New National Park Established in Region #7



## Summary: Potential Combined Economic Impact of Two National Parks in the Region

The existing Kluane National Park and the potential new park in Natural Region #7 would together result in about 87 full-time equivalent jobs from both Parks Canada employment and businesses dependent on visitor spending. The combined annual Parks Canada payroll would be approximately \$2.2 million. The projected economic impact of both parks on the local area GDP would be approximately \$3.9 million. Combined annual visitor spending related to both parks would be approximately \$4.81 million annually. The additional regional economic impacts of park spending and visitors to the nearby Chilkoot National Historic Site are not included in this total.

## Part II: Background & Detailed Findings

### Potential Economic Impact of a New National Park in the Yukon-Northern BC Region

This report, prepared by the independent economic consulting firm Outspan Ltd., estimates the potential economic impacts associated with a proposed new National Park in Natural Region #7. This Parks Canada planning region in northern British Columbia and south-central Yukon is a leading candidate for a new park to help complete the system of national parks in Canada. See [www.parkscanada.ca](http://www.parkscanada.ca) for a summary of national park policies and plans.

CPAWS (Yukon and BC Chapters), in cooperation with the Kaska Dena, initiated this technical background study to assess the impacts of new public investment on communities, economic development, and the potential for new jobs in the region. Commissioned to inform the discussion on a possible new National Park, the report is for information only; it is without prejudice to existing land claim agreements, future negotiations, or other interests in land or resources.

Consideration of a new National Park in Natural Region #7 has been reinforced by a Government of Canada commitment to fund park establishment where gaps occur in the system. According to Parks Canada studies, southern Yukon and northern British Columbia provide the best potential for a park to ensure this natural region is included within the network of national parks.

While this is a large complex region, there are currently two areas under consideration to represent the region - Wolf Lake/Upper Liard Watershed in Yukon and Jennings Lake in British Columbia. These areas fall mainly within the traditional territories of the Teslin Tlingit First Nation and the Kaska Dena. Parks Canada would only advance national park discussions if First Nations and communities are interested in exploring the possibilities associated with a national park designation.

The report includes an inventory of tourism facilities and services in the area, and forecasts levels of park and visitor spending for the Wolf Lake and Jennings Lake areas. Over-all economic impacts are calculated.

This study did not assess the socioeconomic costs and benefits of park establishment relative to other potential land uses, such as resource extraction or maintaining the status quo. Such a study would be an essential part of subsequent work on potential park establishment, should the regional governments, communities and First Nations choose to participate in further discussions. The current study outlines the substantial positive economic impacts of spending associated with a new national park.

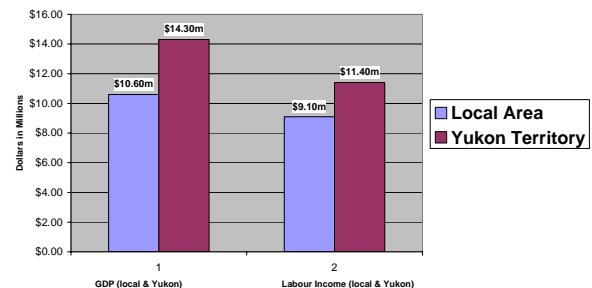
### Forecast Economic Impacts

The model used to calculate economic impacts - Economic Impact Model for Parks and Protected Areas (EIMPA) - produces very conservative economic impact estimates. Economic impacts were measured using gross domestic product (GDP), labour income, employment and tax revenues. For more detailed information on measuring the economic benefits of parks and protected areas visit the Federal Provincial Parks Council website

<http://www.cd.gov.ab.ca/preserving/parks/fppc/>, or download background document:

[http://www.cd.gov.ab.ca/preserving/parks/fppc/benefits\\_eng.pdf](http://www.cd.gov.ab.ca/preserving/parks/fppc/benefits_eng.pdf)

Comparison of 10 Year Economic Impact:  
GDP & Labour Income in Local Area & Yukon with  
New National Park in Region #7



## Potential Impacts of a New National Park in the Wolf Lake/Upper Liard Region

### *Local Area (Teslin-Watson Lake) Impacts*

Although total visitor spending is forecast to exceed potential Parks Canada spending in the Teslin-Watson Lake area by about \$2 million, the economic impacts of these two types of spending are substantially different. Parks Canada spending has a much higher impact. For example, if a visitor spends money on gas, much of the revenue flows out of the territory, whereas when governments pay salaries, more of the money is retained in the region. However, of the combined spending of \$30 million over 10 years, the average annual GDP impact in the local area is forecast to be over \$1 million. This represents value added that is expected to be retained in the area. Labour income should be approximately \$900,000 per year on average and employment should be over 28 full-time equivalents (FTE) per year during this ten-year period. This could mean approximately 85 jobs per year in the local area, where most economic impacts would be felt.

### *Yukon Territory Impacts*

The average annual GDP impact is forecast to be approximately \$1.4 million in the territory and the labour income impact should exceed \$1.1 million annually. Employment impacts are forecast to vary between a low of 18 FTE in the first year of park establishment to a high of 43 FTE in the tenth year. Tax revenue (not including income tax) to all levels of government is forecast to average over \$55,000 each year.

## Potential Impacts of a New National Park in the Jennings Lake Region

### *Local Area Impacts*

#### *(Good Hope Lake-Watson Lake)*

Similar to the Wolf Lake scenario, Parks Canada spending would have a much higher impact than visitor spending. However, of the combined spending of \$30 million over 10 years, the average annual GDP impact in the local area is forecast to be over \$1 million; value added that will be retained in the area. Labour income should be approximately \$900,000 per year on average and employment should be just under 28 FTE per year

during this ten-year period: approximately 85 jobs per year in the local area.

### *British Columbia Impacts*

The average annual GDP impact is forecast to be approximately \$1.6 million in the province and the labour income impact should exceed \$1.2 million annually. Employment impacts are forecast to vary between a low of 21 FTE in the first year of park establishment to a high of 48 FTE in the third year, when construction activities are expected to peak. Tax revenue to all levels of government is forecast to average just under \$78,000 each year, not including income tax.

## Background: Wolf Lake/Upper Liard Watershed Scenario, Yukon

The Wolf Lake/upper Liard scenario included forecasts of Parks Canada spending and new visitor spending attributed to a new national park. The forecast of Parks Canada spending was based on similar northern parks set up by Parks Canada: likely about \$14 million over ten years for park planning and establishment. Based on a hypothetical park development scenario prepared by the consultants, a ten-year forecast of spending on capital, operations and wages/salaries was prepared. This spending forecast was converted to an annual spending summary.

Visitor numbers and spending were forecast. Over the first ten years of park establishment, an estimated total of 97,500 "Drive-By" visitors would visit Parks Canada facilities related to a new National Park, with the number of visitors averaging about 14,500 each year in the last five years. The estimated number of destination visitors over this same period was 11,150, with the number growing steadily. The estimated total number of visitors for the 10-year period was 108,650.

Visitor spending for each visitor segment was forecast using several information sources. Using conservative estimates of visitor spending per person, the total forecast spending is still significant over 10 years:

Alaska Highway "Drive-By*":	\$750,750
"Destination Visitors**":	\$15,275,000
Total visitor spending:	\$16,025,750



\* “Drive-by” visitors are those on their way to another destination, who may stop at easily accessible park visitor facilities and other local services.

\*\* “Destination” visitors are those who plan to visit and spend time in the park as part of their holiday plans.



Community of Teslin, Yukon

## **Background: Jennings Lake Scenario, BC**

The same assessment process was followed for the Jennings Lake alternative. Virtually the same park development scenario was used and the same overall level of federal government expenditure was applied - \$14 million over 10 years.

The visitor numbers projected over the 10-year period were:

Cassiar Highway “Drive-By”:	41,300
“Destination Visitors”:	11,150.
Total number of visitors	52,450

for the first 10-year period.

Visitor spending was forecast for each travel segment. The spending by Destination Visitors was assumed to be the same as that derived for the Wolf Lake analysis - i.e. \$15,275,000 over 10 years. Forecast spending by the Drive-By visitor segment was \$725,400 based on tourist expenditure data for that area of B.C. Total estimated visitor spending was just over \$16 million for these first ten years.

## **Conclusion**

This study predicted that a new national park would have substantial local and regional economic impacts. Comparison of economic impacts for the two areas showed that the effects were quite similar, even though the number of visitors expected to visit a park at Jennings Lake would be less than the Wolf Lake area. Parks Canada is forecast to spend \$14 million over the first 10 years, and visitors are forecast to spend more than \$16 million during the same period, for a total of \$30 million. The impact on GDP in the local area would be about \$1 million annually, and close to 30 FTE (full-time equivalent) jobs would be created. The following table summarizes the economic results.



Jennings Lake, BC



Upper Rancheria watershed

**Table 1:  
Comparison of Total Ten Year Economic Impacts on the Local Area and Territory/Province  
for a New National Park in Natural Region #7**

Area	Economic Impact			
	GDP (millions)	Labour Income (millions)	Employment (FTE)	Tax Revenue (thousands)
<b>Yukon</b>				
Local Area ( <i>Teslin-Watson Lake</i> )	<b>\$10.6</b>	\$9.1	285	NA
Territory	<b>\$14.3</b>	\$11.4	348	\$557
<b>British Columbia</b>				
Local Area ( <i>Good Hope Lake</i> )	<b>\$10.6</b>	\$8.9	279	NA
Province	<b>\$16.5</b>	\$12.7	392	\$780

For a copy of the full report, please contact CPAWS-Yukon at [info@cpawsyukon.org](mailto:info@cpawsyukon.org), or call the CPAWS office at 867-393-8080. Also, visit [www.cpawsyukon.org](http://www.cpawsyukon.org) for more information on the economic benefits of protected areas.

## **Kluane National Park and Reserve Economic Impact Analysis**

The Kluane Park study determined the impact of the establishment of Kluane National Park and Reserve (KNPR) on the economy. The consultant applied a standard, rigorous economic impact assessment model to measure the current annual economic impact of KNPR on Haines Junction, the Kluane region, and the Yukon. (See Federal Provincial Parks Council at [http://www.cd.gov.ab.ca/preserving/parks/fppc/benefits\\_eng.pdf](http://www.cd.gov.ab.ca/preserving/parks/fppc/benefits_eng.pdf) for a general description of the methodology, or the consultant’s website for the Kluane study background reports, [www.yukonomics.ca](http://www.yukonomics.ca) ).

The consultant also developed a community comparison model based on a composite of five other Yukon communities to assess how much of the economic development of Haines Junction since the establishment of KNPR is attributable to the park, and how much is due to other factors. The report was designed to help draw useful lessons for

future development plans in Haines Junction, other communities and First Nations adjacent to existing and proposed parks and other types of protected areas.

In addition to the two economic analysis models, the project involved considerable supporting research:

- the economic history of the region,
- the construction of a baseline economic profile of the region,
- a series of interviews with Kluane region residents including the owner/operators of local businesses,
- a detailed discussion of economic and other benefits of KNPR that are difficult to capture using a traditional economic impact assessment model.

The results in this summary report are adapted from the consultant’s work – technical analysis and opinions on the findings are those of the consultant. The final consultant’s report was submitted to a local project Steering Committee consisting of the Village of Haines Junction, First Nations, Yukon Government and Parks Canada, but the findings of the report are those of the Consultant and do not necessarily reflect the views of all Steering Committee members.



## Key Economic Impact Findings:

- Average annual expenditure by Parks Canada associated with KNPR is \$2.11 million. The payroll accounts for about \$1.2 million annually, with about 29% of remaining spending on goods and services spent in Haines Junction, and 48% in the rest of the Yukon. About 1% went to other Kluane region businesses.
- KNPR directly creates about 28.5 person-years of employment and had an average annual payroll of \$1.23 million annually over the five-year study period.
- Total annual visitor spending associated with Kluane National Park and Reserve is about \$3.2 million based on 75,478 non-resident visitors spending an average of \$42.50 each. Visitor Exit Surveys support this conclusion by showing that natural attractions are the biggest draw for visitors, and that people stay in this region longer than in most other regions. They also spend more in the region than in most other Yukon regions.
- Economic impacts from all spending associated with KNPR add \$2.5 million annually to the Yukon's Gross Domestic Product, and labour income is enhanced by \$2.2 million. Employment generates more than 57 person-years of employment from this spending, and the Yukon government receives an additional \$57,000 in property and excise taxes.

Note that every dollar of expenditure *does not* necessarily create a dollar's worth of impact, and the same amount of different kinds of expenditures *does not* create an equal economic impact. That is, one dollar of KNPR payroll has a different impact than one dollar of visitor spending on gasoline. In some respects this is obvious; a much smaller fraction of the dollar spent on gas remains in the community than the dollar spent on wages because most of the price of the gas goes to the wholesaler and eventually to refineries and oil producers. Of

course, a portion of the dollar in wages also leaks out of the community.

In very small economies, total economic impacts are often smaller than the original expenditures because much of the original expenditure leaks out of the community immediately. Communities such as Haines Junction – because of their size and proximity to Whitehorse- have significant leakages for two reasons. First, they are too small to support some of the basic goods and service requirements of the residents. Second, even when the goods and services are available locally, they cannot compete with the multiple benefits of a “trip to town.”

## Cumulative Economic Impacts

The economic impacts shown in Table 2 below, are based on KNPR spending (divided into different types of spending) and all data on visitor spending (again divided into different categories). Table 2 summarizes the total economic impacts generated within each geographic area on a cumulative basis. The economic impacts reported in Table 1 show that the economy of the territory benefits significantly from the spending of Parks Canada on development and operations of the park, as well as from the spending of park visitors.



Many lakes and streams in the region attract residents and visitors alike for canoeing, fishing, wildlife viewing and nature appreciation.

**Table 2: Total Cumulative Economic Impacts of Kluane NPR (constant 2000 dollars)**

	<i>Within Yukon</i>			<i>Outside Yukon**</i>		
	<i>Haines Junction*</i>	<i>Kluane Region*</i>	<i>Yukon**</i>	<i>Haines Junction</i>	<i>Kluane Region</i>	<i>Yukon</i>
<b>Expenditure</b>	\$3,908,527	\$4,718,727	\$5,074,071		Not applicable	
<b>Impacts</b>						
GDP	\$1,679,000	\$1,791,000	\$2,597,000	\$988,400	\$1,305,200	\$1,422,500
Labour Income	\$1,569,000	\$1,660,000	\$2,168,000	\$612,000	\$809,000	\$885,000
Employment (person-years)	38.5	41.5	57.5	19.0	25.3	27.6
Tax Revenue	\$38,800	\$49,700	\$57,700	\$80,000	\$106,000	\$113,700

Note: Tax revenue includes only property and excise taxes, not income tax.

\* Direct impacts only reported

\*\* Direct and Indirect impacts reported

## Role of the National Park in Gross Domestic Product

Table 3 below shows the role of the Gross Domestic Product (GDP) impacts of Kluane Park, as shown in Table 2 above, in relation to the size of the local, regional, and territorial economies.

As might be expected, the park has its greatest effect upon the local Haines Junction economy. As

the area of economic activity is broadened, the park's economic significance is reduced. Although the KNPR contribution of 5.7% to 7.0% to regional and local GDP may appear small, it is actually quite significant. In the context of the Yukon's economy, the construction sector, the retail trade sector, and the health care sector each contribute approximately 6% or 7% to the territory's GDP.

**Table 3 GDP Contribution of Kluane NPR to the economies of Haines Junction, Kluane region and the Yukon**

	<b>Haines Junction</b>	<b>Kluane Region</b>	<b>Yukon</b>
GDP related to KNPR	\$1,679,000	\$1,791,000	\$2,597,000
GDP of area economy	\$24,035,000	\$31,357,000	\$1,124,000,000
KNPR-related GDP as % of area GDP	7.0%	5.7%	0.2%

## Role of the National Park in Community Development

A thorough comparison of Haines Junction with five other comparable Yukon communities from the 1960s on provides evidence that the establishment of Kluane National Park and Reserve has played a large role in the growth and economic development of Haines Junction:

- Haines Junction's population was largely stagnant in the 1960s, going from 199 in 1961 to 183 in 1971, while the other communities grew relatively fast. The five-community average population grew from 220 to 331 over the 10 years. In the 1970s, coinciding with the establishment of the Park, the pattern was reversed and Haines Junction's population jumped to 366 by 1981, while the five-community average dropped to 294.
- In 1971, Haines Junction had fewer people employed (70 in total) than any of the other communities studied. By 1981, the number employed in Haines Junction had gone up to 190, more than any of the other communities. Overall, since the 1970s, Haines Junction has consistently employed a larger portion of its potential labour force than other comparable communities.
- In 1971, Haines Junction residents had a below-average employment income, with those employed earning about 6% less than people in the other communities. By 1981, Haines Junction was about 6% above the comparable community average; by 1986, the community's average income was nearly 30% higher than in other communities.

The KNPR gave Haines Junction a head-start in the 1970s, and the community has kept its lead since then. The Park seems to have served as a catalyst that not only improved economic conditions but also gave the community amenities and infrastructure that set the stage for future growth. A number of other factors as well as the KNPR have helped Haines Junction grow at the same pace as other communities since the early 1980s.

Factors not related to the Park — including the inherent natural attractiveness of the area for tourism, major construction projects such as the Shakwak project, decentralization of the territorial government, and the growth of the Champagne and

Aishihik First Nations and municipal governments — are not sufficient to explain why the Haines Junction economy has done considerably better than the five other comparable Yukon communities.

This study confirmed that establishment of Kluane National Park and Reserve has had, and continues to have, a positive impact on the Haines Junction and Yukon economy.

For the complete report visit : [www.yukonomics.ca/reports/kluane/index.html](http://www.yukonomics.ca/reports/kluane/index.html)

This summary report was prepared by CPAWS-Yukon. The content is adapted from the two independent studies described in the paper. For more information on the economics of conservation, visit [www.cpawsyukon.org](http://www.cpawsyukon.org)



Riparian areas in Natural Region #7, such as the Wolf River pictured here, are key ecosystem elements with important wildlife habitat. These areas also have high recreational value.



Kluane National Park, Mt. Steele area. Kluane is an internationally known destination for mountaineering, hiking, wildlife viewing, nature and culture appreciation.