Saskatchewan Environment

Final Report

Economic Evaluation of Saskatchewan's Outfitted Hunting and Fishing Industry

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Executive Summary

Study Purpose and Methodology

This economic impact evaluation was undertaken by the Department to provide a basis of information in ongoing policy and decision making processes. This study acknowledges the environmental and social externalities associated with the industry and provides some context and analysis on these impacts. The methodology utilized throughout this economic evaluation was discussed with Department of Finance staff in the Economic and Fiscal Policy Branch. This study will be used in conjunction with existing information as a performance measure and as a method of comparing the impacts of various activities on the economy.

This study focuses on the primary theme of economic impact and secondarily on the social and environmental impacts of outfitted hunting and fishing in the province. As well, analysis of long-term hunting trends, elasticity of demand regarding license fees, the potential impact of mandatory bird outfitting, and an inter-jurisdictional analysis were undertaken. Two populations were identified for study including:

- Canadian residents (including Saskatchewan residents) who used the services of an outfitter for hunting or fishing.
- Non-resident[1] hunters or fishers who used the services of an outfitter.

A survey was developed and administered to clients of outfitters in the province. The survey asked hunters to respond to questions regarding their hunting patterns, expenditure data, attitudinal data, demographic information, and travel patterns. As well, a series of stakeholder interviews were held with outfitters, regulatory bodies, tourism representatives, hunting and fishing industry organizations, and others.

Two other reports were commissioned by Saskatchewan Environment. These reports utilized the same methodology found in this report in evaluating the impacts of the non-outfitted hunting industry and sport and commercial fishing in the province. The results of these reports have been included in this report wherever relevant. Together, these reports provide a complete picture of the components of the hunting and fishing industry in the province. Each study includes an analysis of the marginal expenditure impact, GDP impact, and employment impact. The studies also identify relevant information such as regional and rural impacts, average trip expenditures, and total expenditures.

[1] Non-resident includes all non-Canadian hunters and fishers.

Economic Impacts

The total expenditures generated by outfitted hunting and fishing in Saskatchewan are $82,457,465. The total expenditures data was based on primary research in the form of surveys and stakeholder surveys, as well as licensing data.

These expenditures can be broken into three broad categories: payments to outfitters, tourism expenditures other than those paid to outfitters, and licensing costs. Based on these categories, an economic impact model was used to generate the total GDP created by the outfitted client expenditures. GDP calculations remove double counting and calculate only expenditures that have an impact within Saskatchewan. This is done by removing any of the imported goods or services, as well as only counting the primary impact of expenditures.

As well, the induced GDP impact was calculated separately. The induced impact was calculated separately for two reasons. First, it is useful to have both the direct/indirect GDP impact number calculated separately so the results can be easily compared to other studies in which only the direct/indirect impacts have been calculated. Second, induced impact analysis is not as widely accepted as part of an economic impact model.

This study also provides the induced GDP impact analysis. Where the direct/indirect GDP analysis is widely accepted in industry and all levels of government, the induced impacts have been open to a variety of interpretations in the past. The induced impact in this model was developed by Statistics Canada and as such has a high degree of credibility. Induced impacts calculate the impact of the labour expenditures paid through direct and indirect employment. Essentially, induced impacts calculate the impact of the employment generated in terms of their purchasing power in the local economy. These impacts have been calculated separately so the results can easily be compared to other economic impact analyses that are based on direct and indirect GDP impacts alone, or if they have included the induced impacts. Again, only expenditures made by individuals employed by the direct and indirect impact are calculated, to avoid any double counting of expenditures.

The following table shows the total economic and employment impacts of outfitting in Saskatchewan.

Total GDP Impact			
	Direct and Indirect Impacts	**Induced Impact**	**Total GDP Impact**
GDP Generated	**$ 58,022,373**	**$ 18,170,699**	**$ 76,193,072**
Total Labour Income	**$ 44,377,842**	**$ 10,013,543**	**$ 54,391,385**
Total Jobs (FTE)	**1,560.6**	**326.99**	**1,887.59**

Outfitting as an industry has grown 300% in total direct, indirect, and induced GDP. The total GDP generated in 1990 was $19.1 million compared to $76.2 million in 2005. Gross expenditures have increased by 229.83% from $25.0 million in 1990 to $82.5 million in 2005. The industry is now comparable with other operations such as the NFTC Air Force Base in Moose Jaw which creates 1,132 jobs (FTEs) in Saskatchewan and generates $52 million in direct and indirect GDP annually[2] (compared to $58.0 million for outfitting). Outfitting is also larger than the province's growing film industry. The film industry has average annual production valued at $45 million and employment of 651 full-time positions[3]. Outfitting is comparably larger with total expenditures at $85.5 million and employment of 1,561 direct and indirect full-time positions.

Combined Impacts of Outfitted and Non-Outfitted Trips

Non-outfitted hunting and fishing trigger far more expenditures in the province than outfitted trips. Outfitting, however, has a much greater marginal impact because all of the expenditures are considered a marginal impact to Saskatchewan. For non-outfitted expenditures only out-of-province and import substitution impacts are considered. Expenditures by outfitted clients have a higher GDP ratio because of the labour intensive nature of the outfitting operations and because the expenditures are being made directly to the operations. There is more Saskatchewan content in an outfitting product than other comparable tourism expenditures such as fuel, retail, or lodging expenditures.

Expenditures and Species Outfitted – Non-Outfitted				
Hunter Type	**Gross Expenditure**	**Marginal Expenditure**	**GDP Impact**	**FTE Employment**
Outfitted				
Hunting	$39,239,384	$39,239,384	$27,611,353	742.6
Fishing	$43,218,080	$43,218,080	$30,411,020	818.0
Total Outfitted	**$82,457,464**	**$82,457,464**	**$58,022,373**	**1,560.6**
Non-Outfitted				
Hunting	$68,339,991	$24,141,587	$8,914,139	269.2
Fishing	$156,662,588	$63,947,739	$23,256,150	698.6
Total Non-Outfitted	**$225,002,579**	**$88,089,326**	**$32,170,289**	**967.8**
Totals	**$307,460,043**	**$170,546,790**	**$90,192,662**	**2,528.4**

2 An Economic Assessment of the Economic Benefits Resulting from Operations of the NATO Flying Training in Canada (NFTC) Program at Moose Jaw Saskatchewan, DMCA, November 2002.

3 Economic Impact Statement for the Province's Film and Video Industry, DMCA, 2004.

Of the $170.5 million in marginal expenditures generated by hunting and fishing in the province slightly less than half will be made by outfitted clients. The relative GDP impacts are $58.0 million for outfitted expenditures and $32.2 million for non-outfitted expenditures.

Outfitted Hunting and Fishing Patterns

Hunting as a sport is decreasing in popularity throughout North America.[4] However, the types of hunting products offered in Saskatchewan (white tailed deer, migratory birds) are gaining in popularity.[5] Fishing, as a sport, and Saskatchewan license sales have declined slightly in recent years.

The hunting outfitter clients are comprised primarily (94.0%) of non-residents who are almost all American, with very little visitation from Saskatchewan or the other regions in Canada. Outfitted fishing clients are primarily (65.6%) comprised of American clients as well, but to a lesser extent than their hunting counterparts.

Non-resident outfitted fishers are extremely loyal customers with a 94.9% rate of next year repeat visitation. The species of fish most popular with outfitted clients are Northern Pike and Walleye. As might be expect given the high rate of return, the vast majority of comments made by outfitted clients were positive focusing on the quality of the outfitters and fish stock.

Hunting clients had a lesser rate of repeat visitation, but still quite high at 56.5%. Outfitted bird hunters were primarily seeking migratory birds. Outfitted big game hunters were primarily seeking white tailed deer.

Inter-Jurisdictional Comparisons

Fishing outfitting clients were asked to compare their outfitted fishing experience in other jurisdictions. Saskatchewan outfitters compared favourably to other Canadian outfitters, American outfitters, and international outfitters.

Comparative Survey Results for Fishing Outfitters

Compared to:	Better/Much Better	Worse/Much Worse
Canada	41.0%	5.5%
United States	64.8%	9.7%
International	57.1%	0.0%

4 U.S. Fish and Wildlife Service, Fishing and Hunting 1991-2000: Avid, Casual, and Intermediate Participation Trends.

5 U.S. Fish and Wildlife Service, Fishing and Hunting 1991-2000: Avid, Casual, and Intermediate Participation Trends.

Hunting also compared quite favourably to other jurisdictions. When compared to the jurisdictions in Canada the following observations[6] were made regarding Saskatchewan's white tailed deer population:

- Highest ratio of deer to hunters at 7.4 deer for every hunter
- World's largest typical buck
- Second highest deer success rate
- Second largest white tailed deer population

Mandatory Outfitting for Non-Resident Bird Hunters

The concept of mandatory outfitting was analyzed in two ways, both in terms of direct survey results on the attitudes of hunters towards mandatory outfitting, as well an analysis of the market preferences. There were two questions in the survey regarding the possibility of mandatory outfitting for non-resident bird hunters.

It was found that 99.7% of non-resident non-outfitted bird hunters disapproved of the concept of mandatory bird hunting and 93.4% indicated that they would not return if mandatory bird hunting was implemented. Some exaggeration is to be expected by respondents when faced with a perceived negative regulatory change, however, even given some level of exaggeration, this was a very decided response.

Another indicator of the level of opposition was the percentage of people making additional comments at the end of the survey. Of these 376 surveys, there were 263 comments; the majority (64%) were respondents wishing to reinforce their opposition to the possibility of mandatory outfitting.

Qualitative information based on interviews with non-outfitted hunters combined with comments made by survey respondents indicate that a significant number of non-outfitted bird hunters are not interested in an outfitted bird hunting experience. The outfitted bird hunting product and the non-outfitted bird hunting product appeal to separate markets. A number of the non-outfitted bird hunters indicated that activities such as asking landowners for permission to hunt on their lands, meeting local residents, discovering where the best hunting is, setting up their own decoys/spread, and other activities are just as much a part of the hunt as anything. It would appear that non-outfitted bird hunters are looking for a different type of hunting experience than outfitted bird hunters.

It is likely that the level of market decline based on the introduction of mandatory outfitting is somewhat exaggerated. However, given the level of negative response it is likely that such a regulatory change would lead to the erosion of a significant part of the current bird hunting visitation. The qualitative and quantitative research does not suggest that non-outfitted hunters would be the market for the outfitted hunting product. While it is difficult to assess, the exact impact of this type of regulatory change, the change would likely have an overall negative impact on the economy, even given the significantly[7] higher levels of expenditures

[6] Source: ESPN Outdoors White Tail Forecast. [Online].
[7] Outfitted bird hunter trip expenditures are twice that of non-outfitted hunting trips.

for outfitted hunters.

Environmental and Social Impacts

Environmental Impacts

While all consumptive behaviour has some negative impact on the environment, outfitting also has some positive impacts on the environment. Hunting and fishing interests coincide with environmental objectives and foster an attachment to the environment. Animal population maintenance, protection of lakes, and habitat preservation are critical to the outfitting industry.

Hunting and fishing are also important to resource management. Hunting is an effective method of animal population control and monitoring available to environmental management groups.

Fishers are also an effective monitoring force for resource managers as they are in the best position to monitor changes in fish stocks on a province-wide basis. The body of active fishers also indicated strong ties to the environment through survey data. Survey results indicated that 84.7% of respondents would be willing to pay additional fees if it went to fund fish and wildlife development. 73.5% of respondents rated habitat protection as a 7 or greater on a scale of 1 to 10 (with 10 being the most important) and 69.1% ranked barbless hooks a 7 or greater.

30% of hunting and fishing licence fees in Saskatchewan go into a Fish and Wildlife Development Fund (FWDF) which is used to secure, monitor and improve both fish and wildlife habitat throughout Saskatchewan. This money is then used directly, and through third party agencies, to secure the existence of natural wildlife habitats.

The fishing, hunting and trapping sector has slightly below average energy use and greenhouse gas emissions than other industries in Saskatchewan. However, fishing, hunting, and trapping relative to other leisure time activities (arts, entertainment and recreation; scenic and sightseeing transportation; and accommodation and food services) has far greater energy demands. It should be noted that outfitted fishing clients had much lower transportation costs as compared to outfitted hunting clients indicating that fishers may be less energy intensive than the hunting group.

Social Impacts

Hunters and fishers were also surveyed on their social and emotional attachment to hunting. In general, hunting clients ranked attributes higher than fishing clients indicating an overall greater attachment amongst hunters to their sport. The aspects of the sport that were the most important were similar with both groups' ranking outdoors, camaraderie with friends and/or relatives, and as a form of relaxation as the top attributes of their respective sports. While fishing respondents generally ranked the attributes slightly lower than did their hunting counterparts there were three areas in which there was a larger discrepancy. Hunting as a part of a lifestyle or tradition, the satisfaction of self-sustenance, and the opportunity for trophy opportunities all ranked much lower among outfitted fishing clients.

Survey respondents were also asked to rate hunting in terms of their other leisure time activities. There is a striking contrast between the relative importance in terms of other leisure time activities for hunting and fishing outfitted clients, particularly the number of individuals ranking the sport as the number one leisure time activity. Outfitted fishers ranked fishing at an average of 7.025 compared to 8.725 for hunting clients. As well, hunters rated hunting the number one leisure activity 44.7% of the time compared to only 14.2% of outfitted fishers. Clearly hunters are far more avid participants in their respective sport.

1.0 Introduction

This report has been prepared for Saskatchewan Environment (SE). It has been developed in response to SE's request for an independent assessment of the economic impact resulting from outfitted hunting and fishing within Saskatchewan. This report will primarily provide analysis of the economic impacts of outfitted hunting and fishing with some analysis of the social and environmental impacts. The analysis considers the impacts of the following populations:

- Canadian residents (including Saskatchewan residents) who used the services of an outfitter for hunting or fishing.
- Non-resident[8] hunters or fishers who used the services of an outfitter.

The sample population was drawn from provincial hunting and fishing license sales. As such the sample does not include Aboriginal or subsistence hunting and fishing. Aboriginal hunting and fishing rights and subsistence hunting and fishing are broad and complex areas of research that would warrant separate analysis.

1.1 Study Purpose and Objectives

This work was undertaken by the Department in order to inform the ongoing policy and decision making processes in conjunction with a broader evaluation of environmental and social impacts. The methodology utilized throughout this economic evaluation was discussed with Department of Finance staff in the Economic and Fiscal Policy Branch.

This study focuses primarily on the economic impacts of outfitted hunting and fishing. This report also contains some analysis of the social and environmental impacts of outfitted fishing and hunting in the province, but only to the extent to provide context for the economic impacts. Also included in this report is an analysis of long-term hunting and fishing trends, elasticity of demand regarding license fees, and an analysis of the impacts of regulatory changes surrounding mandatory outfitting for bird hunting.

The economic analysis will focus on the actual GDP generated by hunting and fishing activities, as well as other factors such as labour expenditures and employment created. The social aspects of hunting and fishing will focus on the level of emotional and cultural attachment to hunting and fishing. The environmental aspects of outfitted hunting and fishing will be analyzed in terms of both the positive and negative environmental impacts.

Two other reports were commissioned by Saskatchewan Environment. These reports utilized the same methodology found in this report in evaluating the impacts of the non-outfitted hunting industry and sport and commercial fishing in the province. The results of these

[8] Non-resident includes all non-Canadian hunters and fishers.

reports have been included in this report wherever relevant. Together, these reports provide a complete picture of the components of the hunting and fishing industry in the province. Each study includes an analysis of the marginal expenditure impact, GDP impact, and employment impact. The studies also identify relevant information such as regional and rural impacts, average trip expenditures, and total expenditures.

1.2 Methodology

Survey Methodology

To determine the economic and social impacts of outfitted hunting and fishing in Saskatchewan data on outfitted client expenditures was required. A survey of outfitter clients was determined to be the optimal methodology for data gathering.

A telephone survey was chosen as the optimal methodology for gathering data on social and economic impacts as it would yield the most statistically relevant data within a reasonable period of time. Internet surveys lack the response rate required for relevant data. Mail-in responses have a slow turnaround time and have the potential to be unrepresentative.

The survey itself gathered information on four main areas including: outfitted hunting and fishing patterns, expenditure data, attitudinal data, and demographic data. Additional information was also gathered through the survey of fishing clients on some regulatory issues. The complete surveys have been appended.

Standard survey methodology was utilized to determine the survey sample sizes. It was determined that there were two distinct populations, Canadian and non-resident outfitter clients with three subcomponents to each: fishing, bird, and big game outfitted clients. As such, six separate samples were required. To get a sample with a confidence level of 95% and a margin of error of 5% (for Canadian and Non-Resident outfitter clients), the samples required were as follows:

	Projected Sample Size	Completed Surveys
Canadian Game Bird	128	20
Canadian Big Game	132	10
Canadian Fish	137	137
Non-Resident Game Bird	137	138
Non-Resident Big Game	136	140
Non-Resident Fish	138	138
Total	**808 respondents**	**583 Respondents**

Because there is little in the way of data regarding the number of outfitted clients it was difficult to assess how easily each of these quotas was to be met. There is no existing data on the number of outfitted clients, let alone their origin. It was determined at the outset that some of these quotas may be very difficult to fill. However, a high level of difficulty in filling the survey quota would actually be a result in and of itself. The survey work would also be very helpful in determining the actual number of outfitted clients with the results indicating the total number of outfitted clients relative to the total licenses sold.

The Canadian survey of big game and bird hunting quota proved very difficult to fill with only 30 surveys being completed after an extensive telephone canvas. It was acknowledged at the beginning of the survey that these quotas may be difficult to fill, but that the level of difficulty would be an answer in and of itself as it would provide a clear picture of level of outfitter utilization amongst Canadian hunters. The surveys were difficult to fill leading to the conclusion that Canadian hunters do not use outfitters to the same extent as non-residents. Because the extensive survey only yielded 30 completed surveys after contacting 700 hunters, it was clear that Canadian hunters did not utilize the services of outfitters in very high numbers. This data was very useful in determining the level at which Canadian hunters used outfitters as the results were reliable and confident with over 700 Canadian respondents being surveyed on outfitter usage.

Stakeholder Interviews

Structured interviews were also utilized in gathering relevant background, regulatory, expenditure, and hunting and fishing pattern information. Some of the stakeholder interviews included Tourism Saskatchewan, Saskatchewan Wildlife Federation, Saskatchewan Outfitters Association, New Brunswick Outfitter Association, Manitoba Outfitter Association, Alberta Outfitter Association, Saskatchewan Environment, regulatory bodies for each of the provinces, regulatory bodies for each of the United States, outfitted and non-outfitted hunters (provincial and out-of-province), Ducks Unlimited, Nature Conservancy of Canada, Saskatchewan Learning, Northern Labour Market Committee, Keewatin Career Development Corporation, Saskatchewan Association of Rural Municipalities, Statistics Canada, Heritage Canada, Conference Board of Canada, Canadian Sport Tourism Alliance, Saskatchewan Association of Rural Municipalities, Nova Scotia Guiding Association, as well as over 70 Saskatchewan outfitter operators.

Economic Impact Model

Input-Output Tables – The economic impact model is based on Statistics Canada's input-output tables. These tables look at the inter-relationships between Canada's industries through the system of national accounts. The model projects the level of economic activity being stimulated in various parts of the economy based on the initial demand placed on the economy by the expenditures being analyzed. For instance, in the case of tourism expenditures, the model would produce an estimate of the related economic activity required to supply the demand created by $1 million in transportation related expenditures.

The model also estimates the level of economic activity actually occurring within Saskatchewan. Factors of production imported to Saskatchewan to meet the industrial demand within Saskatchewan are removed, as they are economic impacts associated with other jurisdictions. This is necessary because economic activity translates into economic impacts very differently based on the type of industry, as well as location. As an example, we can compare two businesses and their respective impacts on the economy, a car dealership and a hotel operation located in Saskatchewan. Both the car dealership and the hotel did $10.0 million in business last year, net of taxes. The car dealership has a 20% markup on the cars that they import from Ontario (Saskatchewan does not supply any of the cars). The 20% or $2.0 million markup is the gross profit over and above the cost of importing the cars. The $2.0 million is used to pay sales staff wages, operating costs, and amortization with the remainder as profit for the Saskatchewan-based owners. Of the operating expenditures, 50% ($1.0 million) will be labour expenditures. Because the employees are all Saskatchewan-based, the entire $1.0 million would remain in Saskatchewan.

A total of $400,000 will be spent on operational goods and services, half of which ($200,000) will be supplied within the province. $300,000 in amortization will also be allocated, 50% of which was originally paid to out-of-province suppliers. The remaining $300,000 is profit for the Saskatchewan-based owners. The input-output tables would calculate, from the total $10 million in economic activity, the actual economic impact in Saskatchewan. In this example, the actual economic impact is $1.65 million based on the level of car importation ($8.0 million) and $350,000 in other out-of-province imports.

The hotel operation is operating at operational margins of 40% labour, 40% operating expenditures, 10% amortization, and 10% profit. The 40% labour expenditure, or $4 million, is paid entirely to Saskatchewan-based employees and, therefore, remains in Saskatchewan. Of the 50% operating expenditures (which include a wide assortment of goods and services ranging from plumbing to sheets) approximately 50% will be supplied by Saskatchewan businesses and therefore remain in Saskatchewan. Of the 10% amortization, half was originally paid to out-of-province suppliers with the other half remaining in the province as a provincial economic impact. $1.0 million is profit for the Saskatchewan-based owners.

As such, the total economic impact of $10.0 million in hotel expenditures is $7.5 million, compared to the $1.65 million for the car dealership. In general, the economic impact of service-based industries is much higher because they have a low cost of goods sold and higher labour expenditures. The following table shows the different levels of economic impacts.

Sample Economic Impacts for Car Dealership and Hotel Operation				
	Car Dealership		Hotel	
	Total Expenditure	Saskatchewan Economic Impact	Total Expenditure	Saskatchewan Economic Impact
Labour	$ 1,000,000	$ 1,000,000	$ 4,000,000	$ 4,000,000
Cost of Goods Sold[9]	$ 8,000,000			
Operational Expenditures	$ 400,000	$ 200,000	$ 4,000,000	$ 2,000,000
Amortization	$ 300,000	$ 150,000	$ 1,000,000	$ 500,000
Profit	$ 300,000	$ 300,000	$ 1,000,000	$ 1,000,000
Total	**$ 10,000,000**	**$ 1,650,000**	**$ 10,000,000**	**$ 7,500,000**

While this is a highly simplified assessment of the economic impacts, it does give a general overview of how differently expenditures can impact the economy. If the economic impact were being done on a Canada-wide basis, it would be much higher for the car dealership because it would include the economic activity spurred within the Ontario auto industry, as well as goods produced in other provinces.

Open Model – The model described here is termed an open model. The open model includes only the direct and indirect effects generated by a specific economic activity, excluding induced or spin-off effects. This model calculates only the value added within the economy being analyzed and does not include any induced or spin-off effects.

To run the Statistics Canada simulations, the Parks Economic Impact Model (PEIM), developed by Canadian Heritage and Statistics Canada, was used to assess the impact of the expenditures at a provincial level. Because PEIM utilizes Statistics Canada input output tables as the basis for calculating economic impacts, it is a very accurate and broadly accepted way of calculating economic impacts. PEIM generates the GDP, employment expenditures, and employment impacts.

Expenditure data, collected in the form of transportation, vehicle rentals, other vehicle, accommodation, food and beverage, recreation and entertainment, and retail/other expenditures, was input into the PEIM model to simulate impacts on the economy. A separate impact analysis was run for each of these categories. The resulting data was the direct and indirect impacts. This model yielded the direct and indirect gross domestic product (GDP), employment expenditures, employment positions, as well as identifying some federal tax revenues.

[9] Because the hotel is primarily selling a service, there are no costs of goods sold as in the case of the raw goods required for a manufacturing or sales company. While individual hotels would likely report the cost of goods sold in their profit and loss accounts, for the sake of simplicity we are assuming that the costs are all reported as operational expenditures such as marketing and administration.

This model is very beneficial as it is extremely accurate in terms of its assessment of the GDP and employment created. It also is consistent and comparable with the previous economic assessment of Saskatchewan's Provincial Parks. However, the model is lacking in two ways. First, the model only estimates some federal taxes. Second, the model does not calculate any of the induced impacts created by economic activity via labour expenditures.

Induced Impacts and the Closed Model – While economists, including Statistics Canada, have been reluctant in the past to include induced impacts, there has been some reconsideration on this front. Induced impacts, while being acknowledged, have long been regarded as somewhat inaccurate and misleading. However, Statistics Canada is now considering adding back into their calculations the induced impacts. A formula generated by Statistics Canada was utilized to calculate the induced impacts of outfitted hunting and fishing. A model calculating the induced or spin-off activities, as well as the direct and indirect impacts, is termed a closed or partially closed model (as opposed to the open model described earlier).

Determining the spin-off or induced impacts involves calculating the total labour expenditures generated through the direct and indirect expenditures and determining the impact the labour expenditures have. This is done by first determining the level of taxation and saving to determine the propensity to consume. Actual consumption is determined by the total propensity to consume times the typical basket of goods purchased by a wage earner. Once the actual expenditures have been assessed, the provincial expenditure model is run again based on the typical expenditures made by a wage earner in Saskatchewan.

Final Results – The direct and indirect impacts are reported separately from the induced impacts for two reasons. Firstly, it is important to identify the direct and indirect GDP impacts, as these impacts can easily be compared to other industries for which a similar model (the open model) has been applied. These results will compare easily with other economic impact assessments for which no induced impact was calculated.

Second, it will also be important to have the induced impacts reported separately as these results are not as generally accepted as the direct and indirect impacts. However, with growing acceptance, it may be important in the future to include the induced impacts in order to be comparable to other economic impact analyses.

Taxation Impacts - Additional work was done to assess the taxations impacts of outfitted hunting and fishing. The Conference Board of Canada has developed an economic impact model for the Canadian Sport Tourism Alliance based on Statistics Canada input output data. The taxation portion of this model calculates tax at the federal, provincial, and municipal levels. Because of the breadth of this model it was utilized to calculate the total tax impacts.

The Sports Tourism Economic Assessment Model (STEAM) assesses the impact of sport related tourism expenditures. The taxation portion of this model was adapted to identify the tax revenue generated by outfitted hunting and fishing related expenditures. The STEAM model was used because it has the reliability of being constructed by the Conference Board, and provides a level of detail in the taxation impact not provided in other economic impact models. To ensure consistency, the tax impacts were calculated based on the GDP impact calculated in the PEIM model, with the tax impact structure from the STEAM model.

Social and Environmental Analysis

The social and environmental impacts are far more difficult to assess as they are not typically quantifiable, as in the case of economic impacts. In terms of the social impact of outfitted hunting and fishing, survey questions were used to create a level of quantification of respondents' sentiments towards hunting and fishing. Respondents were asked to rate the importance of various factors related to hunting and fishing. Respondents were also asked to rate hunting and fishing in relation to other leisure sport activities. In terms of financial commitments, respondents were also asked to predict changes in hunting and fishing behaviour when faced with increased licensing costs.

The environmental impact of hunting and fishing was assessed through stakeholder interviews. Stakeholder groups such as the Saskatchewan Wildlife Federation, Nature Conservancy of Canada, Ducks Unlimited, and Saskatchewan Environment were interviewed with regard to the impact of hunting and fishing on the environment. The existing body of research looking at the relationship between hunting and fishing and the environment was also explored. This included an examination of the specific impacts of hunting and fishing in relation to other forms of tourism.

The analysis contained within this report, as indicated above, is based on responses from the survey questions and conversations with key stakeholders. A broader understanding of social and environmental factors associated with this resource management is required in order to give Government decision makers the fullest understanding of the impact of their decisions.

2.0 Background

2.1 Historic Licence Sales

Hunting

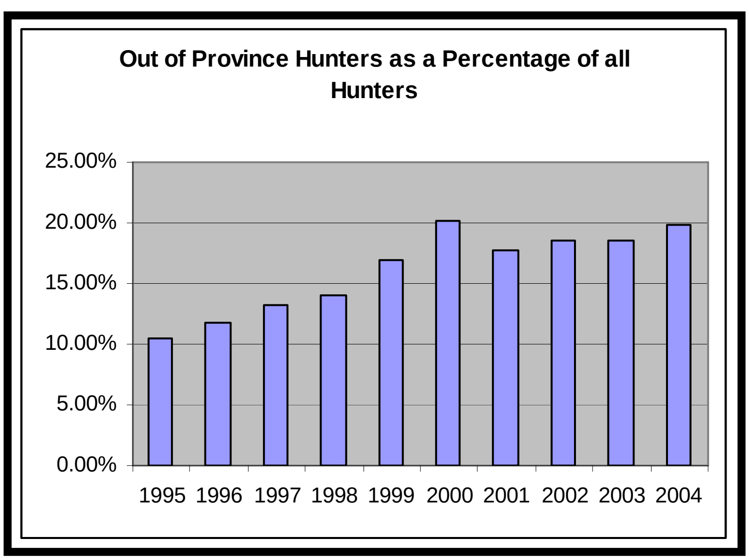
Hunting license sales have been declining in Saskatchewan and throughout North America for the last decade. At the same time there has been a steady increase in out of province hunting visitation to Saskatchewan. Saskatchewan resident license sales have declined in the last decade, but have remained relatively stable since 2000.

Table 1 – Saskatchewan License Sales

License Type	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Total SK Licenses	123,150	106,935	103,333	108,481	101,594	87,072	87,057	87,833	95,129	87,465
Total Canadian Licenses	3,252	3,242	3,586	3,982	4,239	4,489	3,651	4,120	4,491	4,296
Total Non-Resident Licenses	11,163	10,859	12,098	13,665	16,435	17,422	15,179	15,914	17,121	17,413
% Out of Province	10.5%	11.7%	13.2%	14.0%	16.9%	20.1%	17.8%	18.6%	18.5%	19.9%
Total License	137,565	121,036	119,017	126,128	122,268	108,983	105,887	107,867	116,741	109,174

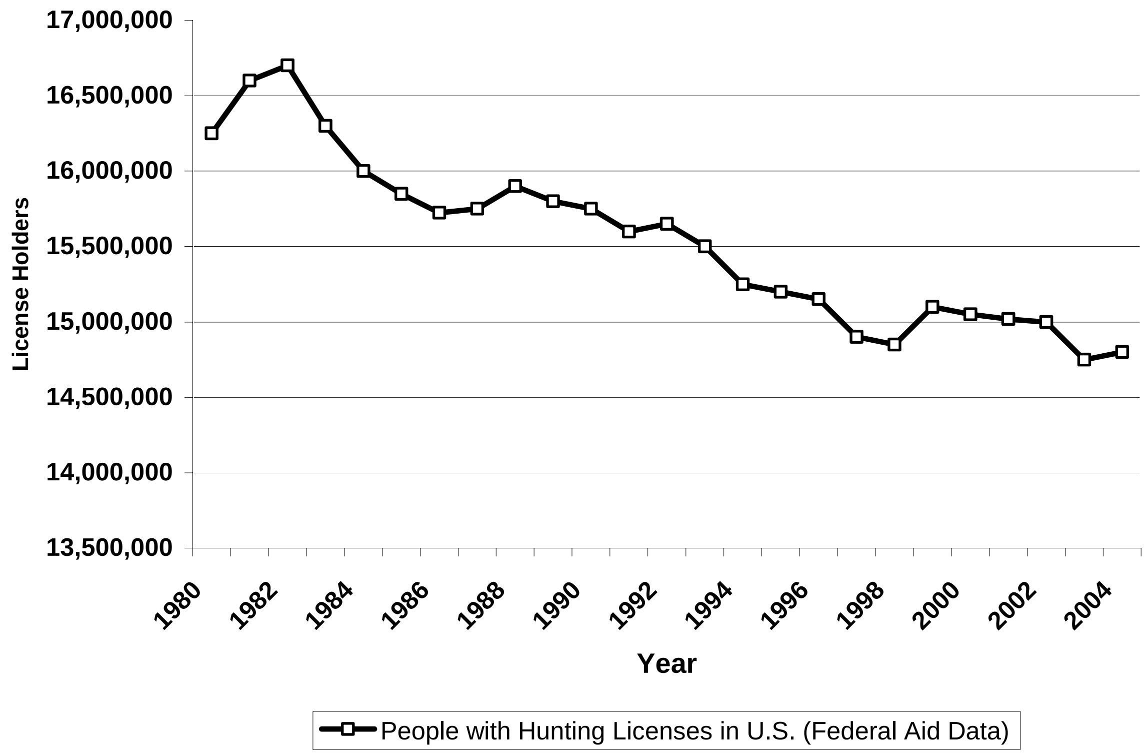
Regarding out-of-province hunter visitation Saskatchewan is bucking international trends that have seen declines in hunting populations. Saskatchewan appears to be attracting a growing percentage of a shrinking market. The following graph shows out-of-province hunter licensing as a percentage of total hunter licenses.

Figure 1



The following table shows the American hunting license sales for the past 24 years. Even given the growing US population, American hunting rates have been consistently falling for over 20 years. While clearly there has been a decline in hunters there has been some levelling off in recent years.

Figure 2: American Hunting License Holders[10]



[10] United States Fish and Wildlife Service Data.

The overall decline in hunting does not reflect the entire picture. For specific types of hunting, there has been growth in participation rates. The United States Fish and Wildlife Service performs a national survey of fishing, hunting, and wildlife associated recreation. The most recent survey in 2001 showed that hunting, while in decline, had shown growth in some areas, particularly in waterfowl hunting.

Table 2 – Selected American Hunting License Sales (1991 – 2001)[11]

	1991 (000's)	2001 (000's)	Percentage Change
Deer Hunters	10,277	10,911	6.2%
Duck Hunters	1,164	1,589	37%
Geese Hunters	882	1,000	13%
Other Small Game Hunters (pheasant, rabbit, and squirrel)	7,642	5,434	(29%)

Trends in the United States indicate that the type of hunting offered in Saskatchewan is growing in popularity within the US market. This in part suggests why Saskatchewan is bucking declining hunting trends and capturing a greater share of the American hunting market. Other market factors, such as increasing urbanization and loss of natural habitat in the United States, also likely play a role in the increasing hunter visitation. Out-of-province hunting visitation is likely to continue to grow, becoming an increasingly important part of the hunting population in Saskatchewan.

Fishing

Fishing has not shown the same market shift as hunting. The most significant change in the percentage of non-Saskatchewan fishing licenses being sold is actually based on a regulatory change. In 2000 a Canadian fishing license was introduced. Previous to 2000, Canadian residents purchased the same licenses as Saskatchewan residents. There has been a decline in the number of fishing licenses sold from 1995 to present, however, the decline has not been steady with the number of fishing licenses fluctuating largely within a specific range.

[11] United States Fish and Wildlife Service Data.

Table 3 – Saskatchewan Fishing License Sales										
License Type	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**
Total SK Licenses	**162,013**	**156,101**	**156,684**	**175,473**	**179,855**	**141,505**	**140,583**	**129,279**	**136,043**	**121,238**
Total Canadian Licenses						**21,561**	**23,537**	**24,565**	**25,981**	**20,358**
Total Non-Resident Licenses	**22,213**	**19,643**	**20,136**	**23,100**	**21,471**	**20,941**	**19,873**	**20,183**	**20,350**	**18,879**
% Out of Province	12.06%	11.16%	11.37%	11.62%	10.66%	23.10%	23.59%	25.71%	25.40%	24.45%
Total Licenses	184,226	175,744	176,820	198,573	201,326	184,007	183,993	174,027	182,374	160,475

The 8.3% drop in 2000 may have been impact by price hikes in that year. Saskatchewan residents saw their license fee increase from $15 to $25, Canadian residents saw a price increase from $15 to 40, and non-residents saw a price increase from $30 to $50.

The market for Saskatchewan's fishing product has declined slightly in recent years. American fishing trends have seen an 8% decline in fishing participation. In the United States in 1991 there were 31.9 million freshwater fish participants. This dropped to 29.7 million in 1996 and 28.4 million in 2001. The decline is greater when you consider the growing American population.

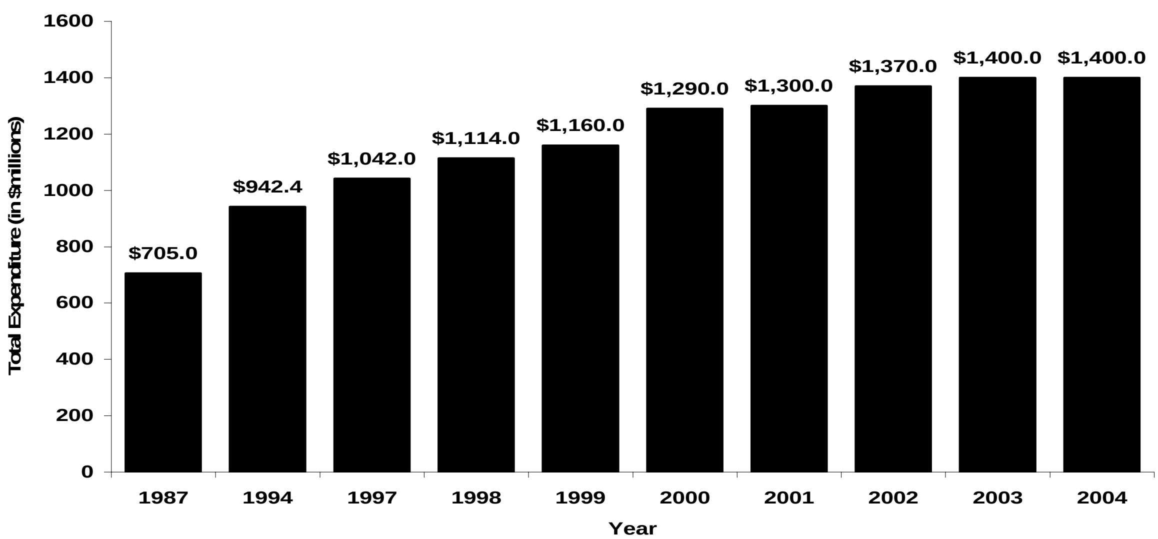
Saskatchewan appears to be attracting a growing percentage of a shrinking market. The following graph shows out-of-province angler licenses as a percentage of total angler licenses.

2.2 Tourism and the Saskatchewan Economy

The economic impact associated with outfitted hunting and fishing in the province is based on the tourism expenditures triggered by the out-of-province visitation. As such it is important to assess the impact tourism has on the Saskatchewan economy. Tourism is a significant and growing part of the Saskatchewan economy. Tourism has grown to become Saskatchewan's fourth largest export according to Saskatchewan Industry and Resources. The industry directly employs 22,000 people through 3,400 tourism-related businesses making it one of the largest employers in Saskatchewan.

Tourism in Saskatchewan generated $1.4 billion in expenditures in 2004, of which $1.177 billion were made by visitors to or within the province[12], and $225 million were made by Saskatchewan residents on departure fares. Tourism expenditures in Saskatchewan have doubled over the last 15 years as the following graph shows.

Figure 3 – Tourism Revenue in Saskatchewan – 1987 to 2004



Source: Tourism Saskatchewan and the Canadian Travel Survey.[13]

Visitor tourism expenditures are comprised of four broad market segments. Expenditures by Saskatchewan residents include only expenditures made by residents traveling over 80 kilometres[14].

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[12] Of the $1.77 billion, $0.664 billion was made by Saskatchewan residents. Saskatchewan residents are considered tourists if they have traveled over 80 kilometres.

[13] There have been significant changes in the way tourism expenditures are tallied over the years. While this is an excellent account of the general pattern of tourism expenditures in Saskatchewan, the year-to-year totals may not be entirely comparable.

[14] The 80 kilometre range set out in the Canadian Travel Survey is currently being revised and will likely be reduced to 40 kilometres, with some other qualifying variables.

Table 4 – Saskatchewan Tourism Expenditures	
Visitor Source	**Expenditures (millions)**
Saskatchewan	$ 664.4
Other Canada	$ 357.6
USA	$ 128.5
Overseas	$ 27.2
Total Visitor Expenditures	$ 1,177.7
Departure Expenditures	$ 225.0
Total Expenditures	**$ 1,402.7**

The bulk of total Saskatchewan tourist expenditures are generated by Saskatchewan residents. Expenditures by out-of-province visitors totaled $513 million in 2004. It is the $513 million that accounts for export revenues, and is also representative of the actual increase in revenues to the province.

In terms of non-Saskatchewan resident tourist expenditures, outfitted tourist expenditures comprised $14.3 million of the total $513.0 million[15] of all out-of-province tourist expenditures. Outfitted expenditures comprise 2.8% of total out-of-province tourist visitor expenditures.

While the tourism expenditures made by Saskatchewan residents traveling do not have incremental economic impacts for the province's GDP, they are important to the primarily rural communities in which the expenditures are made. While these expenditures fall outside the realm of a typical economic impact assessment, they are impacts regardless. This report will look at the type of impacts generated by intra-provincial tourism. For comparative purposes the following table shows the typical visitation levels to other major Saskatchewan tourism attractions.

[15] Includes other Canada, United States, and overseas visitation.

Table 5 – Attractor Levels – Comparative Visitation Between Hunting and Fishing and Other Saskatchewan Attractions			
	Total Visitation	**Local Visitation**	**Tourist Visitation**
Gaming (SIGA and SGC)	4,000,000	2,716,000	1,284,000
Saskatchewan Fishing	**1,100,000**[16]	**623,000**	**477,000**[17]
Regina Exhibition Park	1,000,000	790,000	210,000
Prairieland Exhibition Park	1,000,000	700,000	300,000
Saskatchewan Hunting	**535,000**[18]	**355,000**	**180,000**[19]
Saskatchewan Roughriders	264,000	185,000	79,000
National Parks[20]	191,000	10,000	181,000
Mendel Art Gallery	178,000	142,400	35,600
McKenzie Art Gallery	88,000	n/a	n/a

Saskatchewan's hunting and fishing products are a significant part of Saskatchewan's tourism economy. 15% of Canadian visits and 19% of American visits to the province will involve a fishing activity while 2% of Canadian visits and 6% of American visits will involve hunting activity[21]. Clearly, hunting and fishing are some of the primary reasons people visit the province. While outfitting only accounts for 28,000 tourist visits the impact of these visits is much higher when you consider the average expenditure for an outfitted fishing trip. As an example, the average outfitted fishing trip expenditure is $3,250 compared with $145 for a non-outfitted fishing trip.

As the following graph shows, northern expenditures by Americans are far greater than those for the remainder of the population and other jurisdictions. The average per trip expenditure for American travelers to northern Saskatchewan is $1,680.56 per trip compared to the average expenditure for a northern trip of $281.57. The above average northern expenditures for American visitation are primarily driven by hunting and fishing expenditures.

16 Total sport fishing trips generated, including outfitting (17,000 trips).

17 Includes out-of-province visitation as well as Saskatchewan residents that have traveled over 80 kilometres.

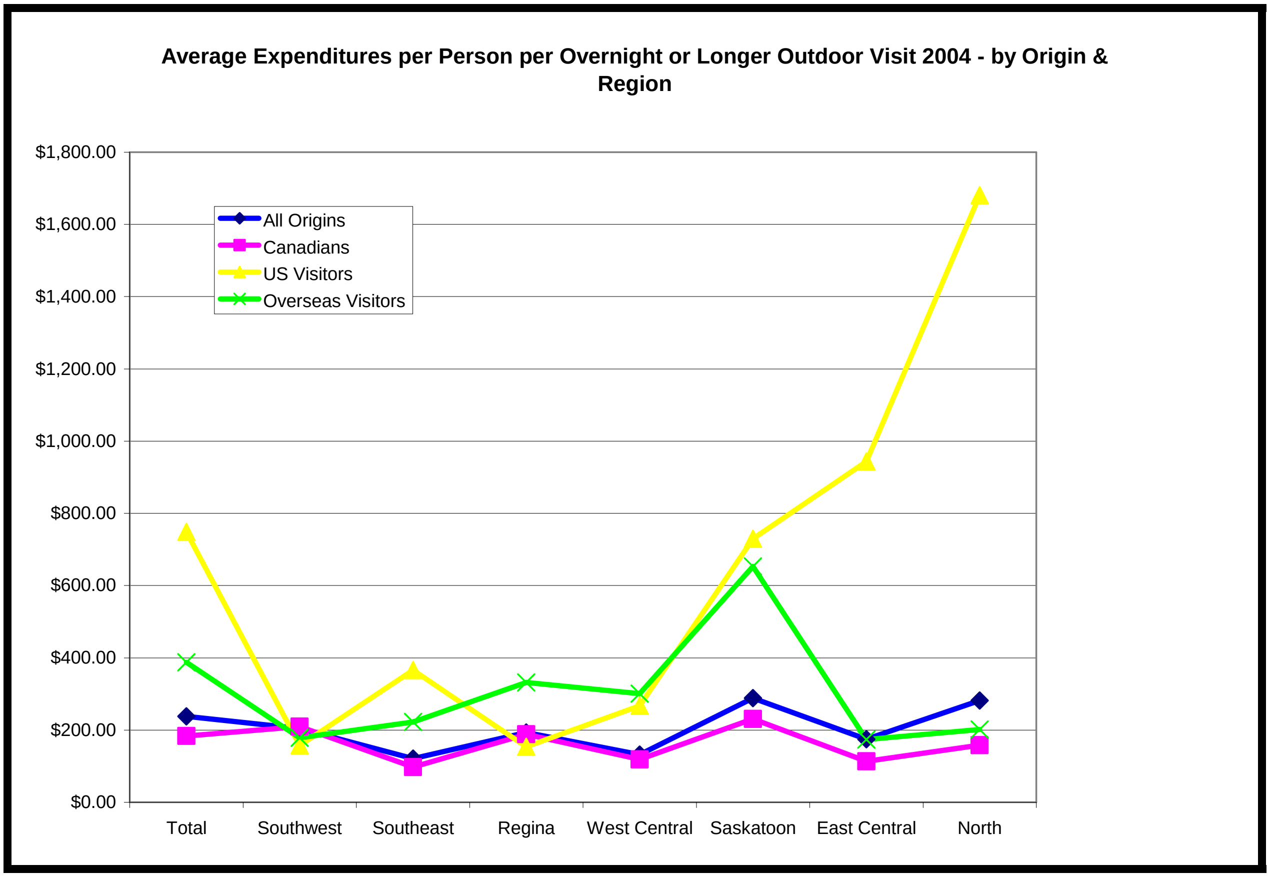
18 Total hunting trips generated, including outfitting (11,000 trips).

19 Includes out-of-province visitation as well as Saskatchewan residents that have traveled over 80 kilometres.

20 Includes averages for Prince Albert National Park and Grasslands National Park.

21 2004 Canadian Travel Survey Data – Tourism Saskatchewan

Figure 4: Average Expenditures by Region[22]



When you compare overnight activities including and excluding hunting and fishing activity, the contrast is even greater. The following table contrasts the average expenditures by origin for both provincial expenditures, as well as northern expenditures. The average American visitor to Northern Saskatchewan will spend $1,680.56; however, if visitors who are engaged in fishing or hunting activities are removed the average Northern expenditure by a US resident falls to $254.76. On a province-wide basis there is a 23.6% rise in expenditures if persons reporting hunting or fishing expenditures are included in the total. For American visitors to Northern Saskatchewan, there is a 560% increase in expenditures if the trip involves hunting.

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[22] Canadian Travel Survey Data – 2004.

Table 6 – Average Expenditures per Person per Visit – Overnight (or longer) Outdoor Trips						
	Provincial			Northern		
	Expenditures Excluding Hunting and Fishing Activity	Expenditures Including Hunting and Fishing Activity	% Increase	Expenditures Excluding Hunting and Fishing Activity	Expenditures Including Hunting an Fishing Activity	% Increase
All Origins	$ 193	$ 238	**23.6%**	$ 184	$ 282	**53.4%**
Canadians	$ 182	$ 184	**0.74%**	$ 184	$ 158	**-14.2%**
US Visitors	$ 238	$ 749	**214.5%**	$ 255	$ 1,681	**559.7%**
Overseas Visitors	$ 387	$ 387	**0.00%**	$ 202	$ 202	**0.00%**

3.0 Survey Overview and Results

Each respondent was asked to respond to a series of questions relating to their hunting and fishing habits, expenditures, attachment to hunting and fishing, and some comparative situational questions. The following is an overview of the findings of the surveys.

3.1 Hunting and Fishing Patterns

3.1.1 – Repeat Visitation

Survey sample data was available for 2004. As such, respondents were asked if they hunted again in 2005. This data is valuable in terms of determining both customer loyalty and market size. Just over half of the Canadian and non-resident hunters that hunted in 2004 hunted again in 2005. This would indicate that the size of the market is significantly greater than the number of clients as there is nearly a 50% change year over year in terms of visitation.

Both Canadian and non-resident outfitted fishing clients have extremely high repeat visitation rates. This indicates that there may be a capacity issue and that the market would likely support additional fishing camps. It appears that the existing clientele is tying up the existing capacity with no room for additional visitation. It would also appear that gaining new fishing clients through additional marketing would be highly rewarding as they would likely be long-term customers.

Table 7 – Hunting and Fishing – Repeat Visitation

	Hunted or Fished Again in 2005
	%
Canadian Residents Hunters	56.7%
Canadian Residents Fishers	94.2%
Non-Residents Hunters	56.6%
Non-Residents Fishers	94.9%

3.1.2 – Species Preference

The types of animals hunted varied greatly based on origin. Two significant patterns emerged from the responses regarding the types of animals hunted.

(1) Outfitted hunting is dominated by big game hunting.

(2) Outfitted fishing is dominated by walleye and northern pike fishing.

Outfitted Hunters

Outfitted hunting is dominated by big game hunting. However, this is not an accurate reflection of market preferences as it is mandatory for all non-resident hunters hunting in Saskatchewan to acquire the services of an outfitter. If outfitting were not mandatory for hunting big game it is likely that not all big game hunters would utilize the services of an outfitter and the market would adjust accordingly. Saskatchewan's reputation for big game hunting is very good, driving demand for the product regardless of mandatory outfitting.

While it is not mandatory for bird hunters to acquire the services of an outfitter, there remains a significant number of hunters who utilize an outfitter.

It should also be noted that bird hunting is primarily dominated by migratory bird hunting. Upland bird hunting is done, for the most part, as a secondary activity to migratory bird hunting. Only 6.2% of outfitted bird hunting is for upland birds only. The remainder of the hunting trips are either for migratory birds alone, or migratory birds in combination with either big game or upland birds.

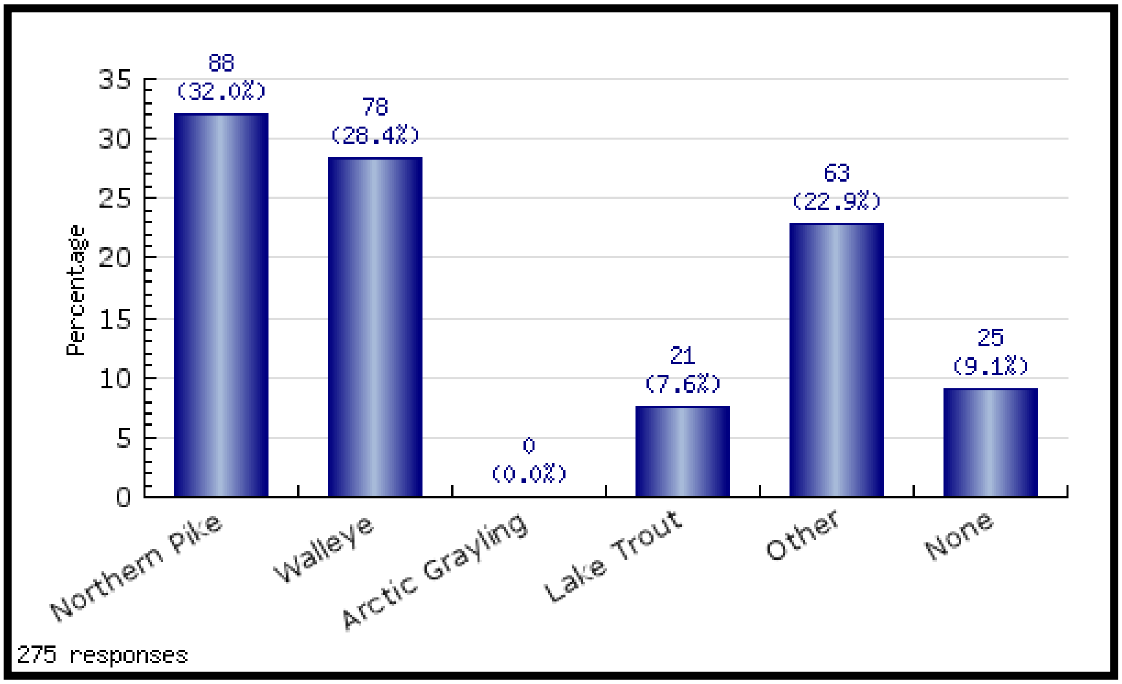
Table 8 – Total Annual Expenditures Triggered

Hunter Type	Number of Outfitted Hunting Trips
Canadian Resident	
Canadian Resident Game Bird Only	569
Canadian Big Game Only	86
Total Canadian	**655**
Non-Resident	
Non-Resident Game Bird Only	3,565
Non-Resident Big Game Only	6,683
Non-Resident Total	**10,248**
Totals	**10,903**

Outfitted Fishers

The survey also asked respondents if there was a particular species of fish that they were attracted to Saskatchewan to fish for. The most popular species of fish for the outfitted clients was overwhelmingly Northern Pike and Walleye. The majority of the *"other"* responses were also filled with respondents who indicated that they were attracted to Saskatchewan for the Northern Pike and Walleye as a combination.

Figure 5: Species Preference by Outfitted Fishers in Saskatchewan



3.2 Survey Comments

As part of the survey, respondents were asked if they had any additional comments on hunting and fishing in Saskatchewan. There was a high response rate on this question indicating a very strong interest in the topic on the part of those surveyed. Hunting client respondents made additional comments 43.6% (137) of the time and fishing client respondents 54.2% (149) of the time. Overall the comments were very positive with most people making positive comments about the habitat, animals/fish, and people.

Outfitted Hunter Survey Comments

Hunter respondents made comments 43.6% of the time for a total of 137 comments. The comment most often made by respondents was to express their satisfaction with their outfitted hunting trip. 57 respondents (41.6%) of comments were complimentary to the services they received and their overall hunting experience. This is compared with only one complaint about the outfitter.

Negative comments focused on two issues: gun regulations and border crossing. Of respondents, 12.4% felt gun regulations were either too restrictive or too costly. As well, 8.8% of respondents had had a negative experience with crossing the border, sometimes triggered by trying to get their guns across the border.

Some respondents also felt that outfitter prices were getting too high. Of hunter respondents, 5.8% felt that outfitter prices had gone up significantly in recent years.

Outfitted Fishing Survey Comments

Outfitted fishing respondents made additional comments 54.2% of the time or 149 comments. Of fishing respondents, 41.6% made positive comments on their outfitted fishing trip to Saskatchewan. Comments included enjoyment of the environment, excellent fishing, friendly people, and excellent service.

There were no broadly based comments other than that clients enjoyed their visit to the province. The next most mentioned topic was on environmental management, where 6.7% of respondents were complimentary of Saskatchewan environmental management.

Border crossing was an issue for three individuals, not nearly the level to which it was an issue for hunters.

There were also a few (10) comments on Aboriginal fishing rights and particularly net fishing (6). This was viewed as a threat to fishing stocks by the respondents.

Again there were surprisingly few comments on the pricing of licenses. Less than 3% of mentions focused on license fees being too high or objecting to further increases.

3.3 Outfitting Industry Interviews

An extensive interview process was undertaken with outfitting operators, as well as industry representatives. The interviews were structured to yield comparable results. The following is a brief description of the operators.

As of 2005 there were 670 outfitting operator licenses issued, of which an estimated 550 operated in 2005. As such the 70 interviews have a statistical confidence of plus or minus 11%. As well, a number of the conclusions were also confirmed through stakeholder interviews and research to further increase the validity of the findings.

The 670 operators have a total of 1,048 endorsements for bird, big game, and fish. The breakdown is as follows.

Table 9 – Outfitter Breakdown of Endorsements for Bird, Big Game and Fish

	1st Endorsement	2nd Endorsement	3rd Endorsement	Total
Big Game	284	115	2	410
Bird	130	100	258	258
Fish	256	91	389	389
Total	**670**	**306**	**649**	**1,048**

Typically, the second and third endorsements are not the primary focus of the outfitter. While there are exceptions, the number of clients taken by outfitters based on their second and third endorsements is small, if they take any clients at all in those categories.

Big game operators are the most common operations; however, they take fewer clients on average as compared to fishing operations. As such fishing camps comprise 38.2% of the primary allocations, but 61.0% of the total clients.

Table 10 – Average Number of Clients

Fishing Outfitter	Big Game Outfitter	Bird Outfitter
87.5	30.2	26.8

Employment

According to stakeholder interviews the average operation employs 0.29 full-time persons and 3.6 part-time persons who work on average 18.3 weeks. As such, employment at each operation generates the equivalent of 1.7 person years of direct employment. The average weekly wage, without gratuities, was $862.13.

Of the employment positions an estimated 15.8% of employees are of Aboriginal descent. As well, an estimated 8.6% of operations are wholly or partly Aboriginal-owned. In 1999 SOA estimated the Aboriginal labour force content at between 5% and 10%. Also in 1999 the SOA undertook a Professional Outfitting Standards project in which Aboriginal recruitment was identified as a priority. To this end they have assisted with Aboriginal outfitter start-ups, encouraged the recruitment of Aboriginal employees, and actively recruited Aboriginal people for outfitter training programs. At 15.6% Aboriginal employment in the industry exceeds the provincial Aboriginal representation at 13.3%.

Based on the interviews conducted, the majority of guides hired are from Saskatchewan. While 5.7% of outfitters surveyed reported hiring some of their guides from outside the province this only amounted to 2.2% of guides actually coming from outside the province.

Operational Budget and Expenditures

The profile of an average outfitting operation is as follows.

Table 11 – Outfitter Expenditures[23]	
	Total Expenditures on Outfitters
Labour	25.00%
Cost of Goods	15.00%
Food	**10.37%**
Hunt/Fish Goods	**4.63%**
Occupation Costs	6.00%
Advertising	4.00%
Depreciation/Interest	7.00%
Other Expenses	34.00%
Utilities	**6.35%**
Fuel	**19.54%**
Other	**8.11%**
Profit[24]	9.00%
	100.0%

According to outfitter surveys, 30% of outfitters will make the majority of their purchases in urban locations such as Prince Albert and Saskatoon. As well, 88.6% of outfitters had on-site accommodations while the remaining 11.4% housed their clients in off-site accommodations such as motels and hotels.

[23] The outfitter expenditure profile is based on raw data generated by outfitter interviews, as well as Statistics Canada data from the Analytical Paper Series entitled Profile of Campgrounds and Outfitters, December 2003. (Catalogue No. 63F0002XIE – No. 47)

[24] 88% of Saskatchewan outfitting companies are Saskatchewan-owned and as such only 88% of profits directly impact Saskatchewan.

4.0 The Economic Impact of Outfitted Hunting

The first step in determining the economic impact is to perform an expenditure analysis. The expenditure profiles can be generated from raw or existing data. To determine the average expenditures for outfitted trips primary research was undertaken in the form of a survey in order to assess the actual expenditures associated with hunting expenditures in the province. From the survey data a detailed expenditure profile was developed for both hunting and fishing populations with breakdowns by species.

The actual number of hunting trips was also determined based on license sales and survey data. Utilizing the survey data again the total number of outfitted hunting trips was determined relative to the total number of fishing trips. The total trips generated, combined with the per trip expenditure levels render the gross expenditures. The total number of outfitted fishing trips was determined using a combination of survey data, licenses sold, and outfitter interviews. The total number was also confirmed with industry representatives.

The gross expenditure is the basis for forming the economic impact. The gross expenditures in various sectors of the economy have various impacts on the economy and, as such, are analyzed separately. From the gross expenditures the GDP, labour expenditures, and employment are generated. GDP is used as the measure of economic activity because it is the most precise measure of economic activity specific to Saskatchewan.

4.1 Key Assumptions

Several key assumptions were made in the generation of the economic impact as outlined below:

- ***New Money –*** With the exception of the import substitution impact, the economic impact of hunting in Saskatchewan has been calculated on the basis of new money being injected into the economy. It is the new monies brought into the province by other Canadian and non-resident visitors that provides a true net addition to the province's wealth. Surveys were designed to solicit information on expenditures made within the province of Saskatchewan.
- ***GDP Impact Calculation –*** The economic impact analysis is being calculated based on the GDP generated by the gross economic activity. The GDP analyzes the value added within Saskatchewan and provides a precise measure of the economic activity stimulated within Saskatchewan. The employment positions and expenditures were also calculated relative to only new positions created within Saskatchewan.
- ***Regional Analysis –*** The calculation of the economic impact of outfitted hunting and fishing on the province of Saskatchewan does not include regional expenditure impacts stimulated by Saskatchewan residents within the province.
- ***"With versus Without" Framework –*** This economic impact analysis (and economic impact analyses in general) utilizes a "with versus without" framework. Essentially, what is the economic impact of having hunting in Saskatchewan versus not having hunting within Saskatchewan? If a hunting product was not available in Saskatchewan, would

there be a significant outflow of expenditures to other regions where a hunting product was available.

4.2 Gross Economic Activity

Gross economic activity triggered by outfitted hunting and fishing is a factor of average trip expenditures and the total number of outfitted hunters and fishers. This will determine the amount and type of expenditures made within Saskatchewan.

4.2.1 – Average Trip Expenditures

Average trip expenditures were identified through survey data. Removed from the expenditure profile are any costs associated with transportation to and from Saskatchewan as only expenditures within Saskatchewan are included in the economic impact. The following table shows the respective expenditure profiles. Non-resident big game hunters have the highest level of expenditures while Canadian fishing trips generate the lowest trip expenditures.

Table 12 – Average Per Trip Expenditures

	Canadian Clients			Non-Resident Clients		
	Bird	**Big Game**	**Fish**	**Bird**	**Big Game**	**Fish**
Total Cost of the Outfitter	$ 967.05	$ 1,472.73	$ 587.54	$ 1,888.78	$ 3,530.50	$ 2,689.74
Transportation within Saskatchewan	$355.73	$290.91	$133.93	$255.96	233.50	59.15
Food/Beverage	$131.41	$243.64	$86.69	$111.38	102.92	11.70
Recreation and Entertainment	$68.18	$95.45	$28.79	$21.66	18.73	20.94
Lodging and Accommodation	$62.32	$131.82	$153.01	$104.39	83.44	8.16
License Fees	$84.18	$157.36	$152.13	$92.04	154.62	42.27
Retail Expenditures	$40.91	$58.64	$40.83	$67.99	62.36	28.82
Other hunting related expenses	$42.04	$34.54	$44.49	$54.18	119.30	63.98
Gratuities/Tips			$31.80			164.99
Guiding Services			$20.96			100.65
Boat Rental			$5.88			59.19
Total	**$ 1,751.82**	**$ 2,485.09**	**$ 1,286.05**	**$ 2,596.38**	**$4,305.37**	**$ 3,249.59**

It should be noted that Canadian fish outfitting clients did not, in many cases, report purchasing their outfitted trip as a package. Rather they purchased boats, rented cabins, and hired guides separately. If only package expenditures are included, the actual price per outfitted package is $1,092.33.

4.2.2 – Determination of the Number of Trips Generated

Determining the number of trips generated is a critical step in determining the economic impact of outfitted clients. Working from Saskatchewan Environment licence sales, combined with the survey results, the total number of hunters was determined.

The total number of outfitted fishing trips generated was calculated based on surveys, stakeholder interviews, and interviews with outfitter operators as well as being confirmed with industry representatives. Over 70 outfitter companies were surveyed and interviewed to assist in determining the number of clients taken by outfitters. The following table shows the number of hunting trips relative to the licenses sold.

Table 13 – Total Hunters and Anglers

Hunter Type	Total Licenses Sold[25]	Total Outfitted Clients[26]
Saskatchewan Resident		
Saskatchewan Resident Game Bird	13,096	217
Saskatchewan Resident Big Game	68,090	
Saskatchewan Fishing	121,238	434
Total Saskatchewan	**202,424**	**651**
Canadian Resident		
Canadian Resident Game Bird	1,648	352
Canadian Resident Big Game	2,648	86
Canadian Fishing	25,981	5,801
Total Canadian	**30,277**	**6,239**
Non-Resident		
Non-Resident Game Bird	10,058	3,565
Non-Resident Big Game	7,328	6,683[27]
Non-Resident Fishing	20,350	10,832
Non-Resident Total	**37,736**	**21,080**
Total Hunters and Anglers	**270,437**	**27,970**

25 Based on Saskatchewan Environment Data.

26 Actual hunter numbers were generated based on survey data regarding average number of licenses purchased per population correlated with the total habitat licenses sold.

27 While 100% of American big game hunters are outfitted, some hunters hold more than one license thus reducing the actual number of trips in relation to licenses.

The major market for outfitters is the non-resident market, primarily the United States. The non-resident market accounts for more than three times the trip visitation as compared to the Canadian market.

In terms of trip type, fishing trips dominate the total visitation. There were a total of 17,067 outfitted fishing trips to Saskatchewan compared to 10,903 trips for both big game and bird hunting trips.

Non-resident travellers, primarily composed of Americans, dominate the outfitting market comprising 75.4% of the market. In general outfitting is a major source of overnight American visitation comprising 11.0% of 192,000[28] overnight American visits to Saskatchewan. Northern Saskatchewan will attract 23,000[29] overnight visits from the United States, approximately half of these will be for an outfitted hunting or fishing trip.

4.2.3 – Total Expenditure Generated

Table 14 – Total Annual Expenditures Triggered

Hunter Type	Number of Outfitted Hunting Trips	Expenditure Per Trip	Gross Annual Expenditures
Canadian Resident[30]			
Canadian Resident Game Bird Only	569	$ 1,751.82	$ 996,784.55
Canadian Big Game Only	86	$ 2,485.09	$ 213,717.74
Canadian Fishing	6,235	$ 1,286.05	$ 8,018,521.75
Total Canadian	**6,890**		**$ 9,229,024.04**
Non-Resident			
Non-Resident Game Bird Only	3,565	$ 2,596.38	$ 9,256,094.70
Non-Resident Big Game Only	6,683	$ 4,305.37	$ 28,772,787.71
Non-Resident Fishing	10,832	$ 3,249.59	$ 35,199,558.88
Non-Resident Total	**21,080**		**$ 73,228,441.29**
Totals	**27,970**	**$ 2,948.07**	**$ 82,457,465.33**

28 Tourism Saskatchewan.
29 Tourism Saskatchewan.
30 Includes Saskatchewan outfitted hunters. The sample was too small to derive an accurate expenditure profile.

Outfitted hunting and fishing in the province generated $82.5 million in expenditures. This is on top of the $68.3 million in non-outfitted hunting expenditures in the province with non-outfitted fishing yet to be calculated.

Historically speaking, expenditures by outfitted clients have been increasing dramatically in recent years. The following table shows the market growth over the past 25 years.

Table 15 – Historic Outfitter Revenues

	1981	1990	2005
Gross Expenditures	$ 19,735,000[31]	$ 25,000,000[32]	$ 82,457,465.33
Percentage Increase in Sales		26.68%	229.83%

Since 1990 the bulk of the growth has been in the area of hunting outfitting. In 1990 hunting accounted for only 25.0% of outfitting trips. Today game bird and big game hunting account for 39.0% of all outfitted trips and 47.6% of the total outfitter revenues. Since 1990 outfitter revenues have gone up 229.83%. The number of outfitters has also expanded, growing from 180 operations in 1990 to 670 in 2005.

4.3 Economic Impact Analysis

Outfitted hunting and fishing in the province of Saskatchewan generated $82.5 million in expenditures, of which 100% is considered new money to the province. While just over 1% of these expenditures are from Saskatchewan residents, it can be reasonably assumed that given the distance travelled and the expenditures made, that these clients would just as easily travel outside the province to consume a comparable product in a neighbouring jurisdiction.

The $82.5 million in expenditures generated would actually generate three separate types of expenditures including license revenue to the government, tourist expenditures on top of the expense of the outfitter, and expenditures on the outfitted package itself. These out-of-province visitor expenditures, which are essentially exports of Saskatchewan products, add to the total level of wealth or GDP creation for the province.

[31] KPMG, A Plan to Make the Saskatchewan Outfitting Industry More Competitive, 1991.

Table 16 – Expenditures by Impact Category	
Category	**Expenditures (millions)**
Tourist Expenditures	$11.94
Outfitter Revenues	$66.55
Licenses Fees Paid	$3.97
Total	**$82.46**

Tourism Expenditures

The total expenditures on tourism related goods and services were $11.9 million. These included expenditures that were neither paid to outfitters nor licensing fees. Expenditures would include time spent in the province previous to or after the outfitted trip, or other lodging, meal, and transportation expenses incurred during the outfitted trip that were not paid directly to the outfitter. The following table has amalgamated the expenditure data for outfitted clients into six categories. For each of these expenditures a separate analysis was run to determine the precise impact on the respective sectors of the economy.

Table 17 – Expenditures by Impact Category[33]	
Category	**Expenditures**
Transportation	$4,176,178.94
Lodging and Accommodation	$2,018,995.42
Food/Beverage	$1,847,828.67
Recreation and Entertainment	$655,695.50
Other Hunt/Fish Related Expenses	$1,254,238.66
Retail and Other Expenditures	$1,987,894.81
Total	**$11,940,832.00**

[33] Expenditures other than those paid to an outfitter.

Expenditures by Outfitters

The following table shows the expenditures made by outfitters based on their total revenues. The expenditure ratios were developed utilizing Statistics Canada data on outfitters combined with outfitter interviews. Each of these expenditures has a unique impact on the economy. As such the expenditures were analyzed as separate expenditure types in the economic impact model.

Table 18 – Outfitter Expenditures[34]		
	Total Expenditures on Outfitters	
Labour	25.00%	$ 16,637,791.52
Cost of Goods	15.00%	
Food	**10.37%**	**$ 6,903,290.67**
Hunt/Fish Goods	**4.63%**	**$ 3,079,384.24**
Occupation Costs	6.00%	$ 3,993,069.96
Advertising	4.00%	$ 2,662,046.64
Depreciation/Interest	7.00%	$ 4,658,581.62
Other Expenses	34.00%	
Utilities	**6.35%**	**$ 4,225,999.05**
Fuel	**19.54%**	**$ 13,004,097.85**
Other	**8.11%**	**$ 5,397,299.57**
Profit[35]	9.00%	$ 5,989,604.95
	100.00%	$ 66,551,166.07

Licence Revenue

License revenue was removed from the tourist and outfitter expenditures and analyzed separately. License fees were paid by both the outfitters, on behalf of their clients, as well as by hunters and fishers directly. These license fees have been removed from the previous expenditure assessments.

License revenue goes into the General Revenue Fund, however, there are specific government departments that are most closely associated with fish and wildlife management.

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[34] The outfitter expenditure profile is based on raw data generated by outfitter interviews, as well as Statistics Canada data from the Analytical Paper Series entitled Profile of Campgrounds and Outfitters, December 2003. (Catalogue No. 63F0002XIE – No. 47)

[35] 88% of Saskatchewan outfitting companies are Saskatchewan owned, as such only 88% of profits directly impact Saskatchewan.

As such, the government revenues will be analyzed relative to the expenditures of those departments.

Table 19 – Total Expenditures on License Fees	
License Fees Paid by Hunter/Fishers	**$ 2,829,234.43**
License Fees Paid by Outfitters	**$ 1,136,277.96**
Total license Fees	**$ 3,965,512.39**

4.3.1 – Determination of Direct and Indirect GDP and Employment Impact

The determination of the direct and indirect GDP impact was based on the Parks Economic Impact Model (PEIM). The model, created by Heritage Canada, utilizes Statistics Canada Input/Output Data to simulate the impact of tourist and operational expenditures on the Saskatchewan economy. Because the model uses Statistics Canada Input/Output Data it is highly accurate in terms of GDP and employment generation. As GDP is the most comparable assessment of economic impacts, this model was the most appropriate for assessing the economic impact of hunting. Through this analysis, the direct GDP, indirect GDP, and employment impacts can be determined.

GDP measures the actual value added by Saskatchewan companies within the province. The value added is the sum of all economic activity less the inputs required that were supplied extra-provincially. The total direct and indirect GDP generated by $82.5 million in expenditures is $58.0 million.

Table 20 – GDP Impact				
	Direct Expenditure	**Direct GDP[36] Impact**	**Indirect GDP Impact**	**Total GDP Impact**
Impacts	**$ 82,457,465**	**$ 38,574,470**	**$ 19,447,903**	**$ 58,022,373**

The direct and indirect employment generated by tourist expenditures associated with outfitted hunting and fishing generated 1,561 full-time equivalent positions in the province with $44.4 million in labour income. It should also be noted that these are full-time equivalent jobs, while in reality the majority of the workers directly employed in the outfitting industry are seasonal workers. As such, the actual number of jobs created is higher than the 1,561 full-time equivalent positions indicated. Similar to the economic impact,

[36] Gross Domestic Product (GDP) is the measure of the value of the total outputs of an industry less the total inputs.

employment impacts are based only on out-of-province hunting expenditures.

Table 21 – Employment Impact			
	Direct Employment Impact	Indirect Employment Impact	Total Employment Impact
Total Expenditure	**$ 33,939,532**	**$ 10,438,310**	**$ 44,377,842**
Total Jobs	**1,132.5**	**428.1**	**1,560.6**

This model is very beneficial as it is extremely accurate in terms of its assessment of the GDP and employment created. It also is consistent and comparable with the previous economic assessment of Saskatchewan's Provincial Parks. However, the model is lacking in two ways. First, the model only estimates federal taxes. Second, the model does not calculate any of the induced impacts created by economic activity.

4.3.2 – Combined Impacts of Outfitted and Non-Outfitted Hunting and Fishing

Non-outfitted hunting and fishing trigger far more expenditures in the province than outfitted trips. Outfitting, however, has a much greater marginal impact because, as discussed previously, all of the expenditures are considered a marginal impact to Saskatchewan. For non-outfitted expenditures only out of province and import substitution impacts are considered. Expenditures by outfitted clients also have a higher GDP ratio because of the labour intensive nature of the outfitting operations and because the expenditures are being made directly to the operations. There is far more Saskatchewan content in an outfitting product than other comparable tourism expenditures such as fuel, retail, or lodging expenditures.

Table 22 – Expenditures and Species Outfitted – Non-Outfitted				
Hunter Type	**Gross Expenditure**	**Marginal Expenditure**	**GDP Impact**	**FTE Employment**
Outfitted				
Hunting	$39,239,384	$39,239,384	$27,611,353	742.6
Fishing	$43,218,080	$43,218,080	$30,411,020	818.0
Total Outfitted	**$82,457,464**	**$82,457,464**	**$58,022,373**	**1,560.6**
Non-Outfitted				
Hunting	$68,339,991	$24,141,587	$8,914,139	269.2
Fishing	$156,662,588	$63,947,739	$23,256,150	698.6
Total Non-Outfitted	**$225,002,579**	**$88,089,326**	**$32,170,289**	**967.8**
Totals	**$307,460,043**	**$170,546,790**	**$90,192,662**	**2,528.4**

Of the $170.5 million in marginal expenditures generated by hunting and fishing in the province slightly less than half will be made by outfitted clients. The relative GDP impacts are $58.0 million for outfitted expenditures and $32.2 million for non-outfitted expenditures.

The impact of having a non-resident come to Saskatchewan, particularly rural or Northern Saskatchewan, is significant. This is new money to the province that is being directed to rural and northern areas. Strength in the rural economy also leads to greater expenditures in urban areas.

It should be noted that non-outfitted hunting has a greater impact on the rural and northern economies than is indicated in this table. Non-outfitted expenditures made by Saskatchewan residents are only partially counted in the marginal impact to the extent that they are deemed an import substitution. While these expenditures are not new money to the province they are having an impact on the northern and rural areas in which they are being made. Essentially, non-outfitted hunting triggers a transfer of expenditures from urban to rural Saskatchewan. Considering the $225.0 million in expenditures being made by non-outfitted hunters, the impacts on northern and rural Saskatchewan are significant. Non-outfitted hunting expenditures do not contribute to the overall Saskatchewan economy in the same way as outfitted hunting expenditures, however, there is a significant impact being felt by the communities in which these expenditures are being made.

4.3.3 – Determination of Induced GDP and Employment Impact

While widely acknowledged, economists have been reluctant in the past to include induced impacts in calculations as they are open to interpretation, as well as inflation. Induced impacts have long been regarded as somewhat inaccurate and misleading, as well as open to exaggeration. Increasingly, however, induced impacts are gaining acceptance, provided they are calculated based on reliable modeling.

Statistics Canada is considering adding back into their calculations the induced impacts of economic activity. A formula generated by Statistics Canada was utilized to calculate the induced impacts of non-outfitted hunting. The formula essentially assesses the impact labour expenditures have on the economy. The previous analysis shows that the total labour expenditure generated is $44.4 million. After accounting for taxes and savings, the $44.4 million in labour expenditures generates $38.4 million in induced expenditures. These expenditures are run through the economic impact model again, based on the typical basket of goods purchased by a wage earner in Saskatchewan.

These induced expenditures create an additional $18.2 million in GDP. The following tables show the total induced GDP impact generated from the induced labour expenditures.

Table 23 – Induced GDP Impact				
	Direct Expenditure	Direct GDP Impact	Indirect GDP Impact	Total GDP Impact
Induced Impacts	**$ 38,386,833**	**$ 14,653,790**	**$ 3,516,909**	**$ 18,170,699**

The following table totals the direct, indirect, and induced impacts of outfitting in Saskatchewan. The direct and indirect impacts have been calculated separately so the impacts can easily be compared to other economic impact assessments that have been done, whether they have included an induced impact or not.

Table 24 – Total GDP Impact			
	Direct and Indirect Impacts	Induced Impact	Total GDP Impact
GDP Generated	**$ 58,022,373**	**$ 18,170,699**	**$ 76,193,072**
Total Employment	**$ 44,377,842**	**$ 10,013,543**	**$ 54,391,385**
Total Jobs (FTE)	**1,560.6**	**326.99**	**1,887.59**

The total direct, indirect, and induced impact of non-outfitted hunting in Saskatchewan is $76,193,072 million generating 1,888 full-time equivalent positions. The total labour income generated is $54.4 million or $28,815 per position.

4.3.4 – Employment Created

There are four primary areas in which outfitting creates employment: the tourism service industry, outfitting camps, suppliers to outfitting camps (retail primarily), and government. The tourism service positions are created in restaurants, accommodations, and retail operations servicing the outfitter clients when they are not making expenditures directly to the outfitter operation.

Employment positions are created within the outfitter camps. With an average of 1.7 employees per camp plus the livelihood created for the owners, outfitters directly employ over 1,000 people. As well, the $23.0 million outfitters spend on retail goods will stimulate employment in that sector.

Lastly, the $4.0 million in licensing revenue will create employment within government. Some branches within Saskatchewan Environment that support the fishing and hunting industry are Resource Stewardship, Compliance and Field Services, as well as the Fish and Wildlife Development Fund.

4.3.5 – Determination of Tax Impacts

The Parks model also lacks the type of tax information that would be useful at the provincial level. As such, a separate tax model was utilized. The Sport Tourism Economic Assessment Model (STEAM), developed by Statistics Canada, the Conference Board of Canada, and the Canadian Sport Tourism Alliance provides more detailed analysis of the tax modeling. To ensure that the tax analysis was consistent with the previous findings the tax impact was generated relative to the direct and indirect GDP activity already calculated. Outfitted hunting and fishing creates the following marginal tax impacts, based on the previous GDP impact estimates.

Table 25 – Total Tax Impact			
	Federal	**Provincial**	**Municipal**
Impacts	**$ 11,135,857**	**$ 10,374,348**	**$ 2,527,304**

4.4 Historic and Comparative Economic Impacts of Outfitting

Calculating the actual GDP created within the province of Saskatchewan is the most accurate way to calculate economic impacts. As well, it is the most acceptable in terms of comparing the results to other economic impact assessments such as the one recently completed for Saskatchewan Parks or the previous economic impact assessment done in 1991 for the outfitting industry by KPMG. The following table compares the GDP impacts.

Table 26 – Historic GDP Comparison		
	1990 (KPMG)	**2005 (DMCA)**
Gross expenditure	$ 25,000,000	$ 82,457,465
Direct and Indirect GDP	$ 15,208,000	$ 58,022,373
Induced GDP	$ 3,853,000	$ 18,170,699
Total	**$ 19,061,000**	**$ 76,193,072**

Growth in the tourism industry, combined with more advanced ways of calculating economic impacts, has meant that the effective GDP ratio has grown from 1990 to 2006 whereby increasing the level of impact for each dollar in expenditures.

The economic impact of outfitting has increased fourfold since 1990. The industry is now comparable with other operations such as the NFTC Air Force Base in Moose Jaw which creates 1,132 jobs (FTEs) in Saskatchewan and generates $52 million in direct and indirect GDP annually[37].

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[37] An Economic Assessment of the Economic Benefits Resulting from Operations of the NATO Flying Training in Canada (NFTC) Program at Moose Jaw Saskatchewan, DMCA, November 2002.

Outfitting is also larger than the province's growing film industry. The film industry has average annual production valued at $45 million and employment of 651 full-time positions[38]. Outfitting is comparably larger with total expenditures at $82.5 million and employment of 1,561 direct and indirect full-time positions.

4.5 Import Substitution

Import substitution is a concept that looks at the extent to which supplying goods or services within a jurisdiction prevents individuals from importing those goods or services from other jurisdictions. In other words, if there were no hunting in Saskatchewan, would there be a significant increase in out-of-province expenditures by Saskatchewan residents on hunting?

Expenditures made by Saskatchewan residents while travelling in the province do not typically count as part of the economic impact unless it can be shown that those consumers of tourism products would go outside the province to consume a comparable product in another jurisdiction if that product were not available here. In other words, would Saskatchewan-based outfitters' clients go to another region, such as Manitoba or Alberta, to consume a similar outfitting package if one were not available in Saskatchewan? While the number of Saskatchewan outfitted clients is quite small, it is a question that should be considered.

Given the cost of the outfitting packages, and the distance travelled on average to consume them, it would not be a marginally greater effort or expense to consume a similar product in another jurisdiction. If can reasonably be assumed that these outfitting clients would consume similar products in other jurisdictions if they were not available here. As such, the Saskatchewan resident expenditures on outfitting were not excluded.

4.6 Regional Impacts

Outfitted Hunting

Outfitted hunting in the province is largely centred in the southern half of the province (more specifically South Central and South West), below the tree line and the Northern Administrative District line. As the following table shows, outfitted hunting was not highly concentrated in any particular zone. The impacts of the $10.3 million in bird outfitted client expenditures and $29.0 million in big game outfitted client expenditures are primarily felt in the southern half of Saskatchewan.

[38] Economic Impact Statement for the Province's Film and Video Industry, DMCA, 2004.

Table 27 – Saskatchewan Hunting by Most Visited Zones			
Zone	% of All Visitation	Zone	% of All Visitation
Zone 6	**4.13%**	**Zone 43**	**2.36%**
Zone 13	**2.76%**	**Zone 45**	**9.84%**
Zone 14	**4.72%**	**Zone 47**	**5.12%**
Zone 25	**2.56%**	**Zone 48**	**2.17%**
Zone 30	**1.97%**	**Zone 49**	**6.69%**
Zone 37	**3.15%**	**Zone 50**	**2.36%**
Zone 40	**5.31%**	**Zone 54**	**2.56%**
Zone 41	**3.54%**	**Zone 55**	**3.94%**

Outfitted Fishing

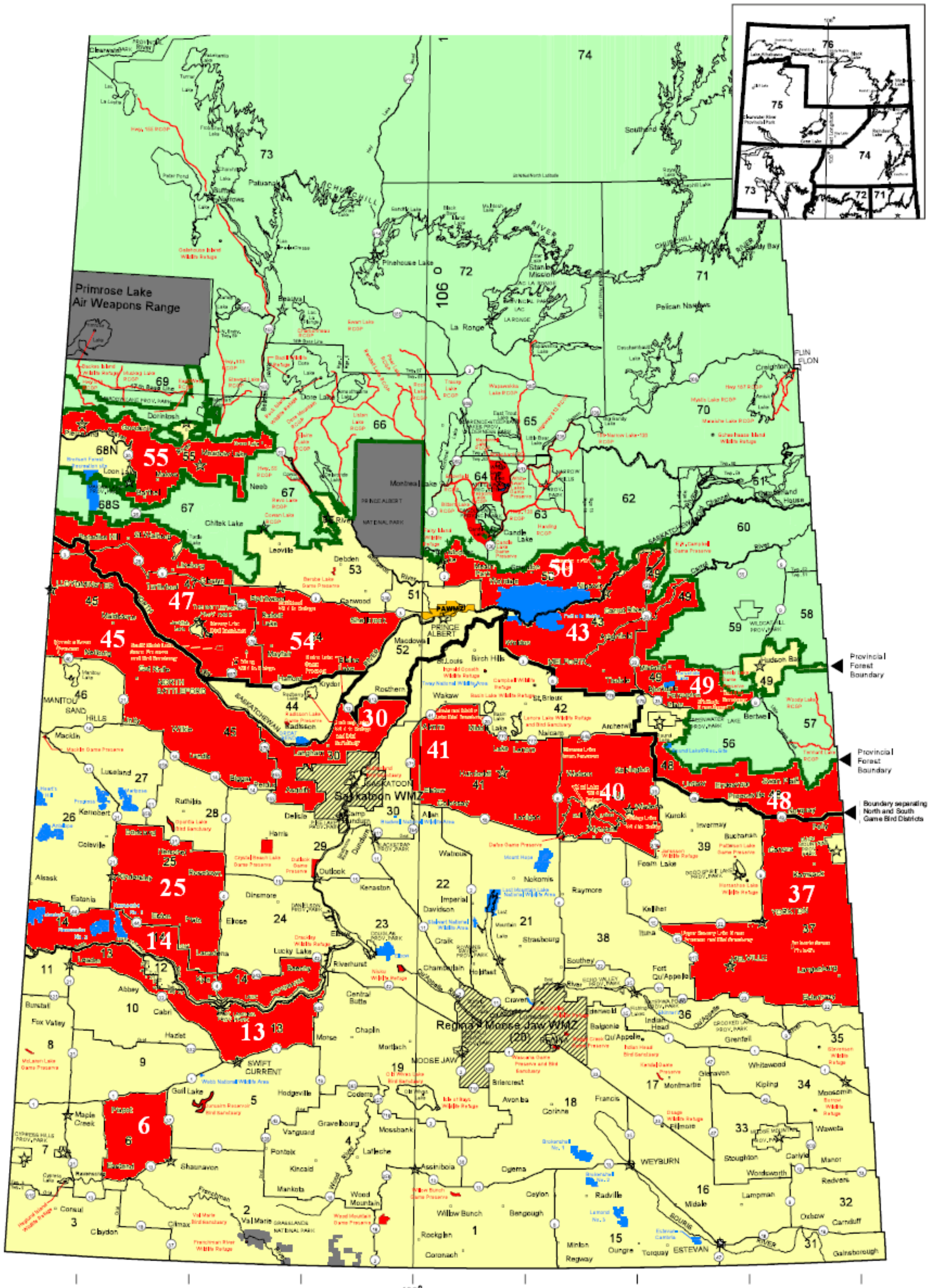
Outfitted fishing client visitation is highly concentrated in Northern Saskatchewan with the following northern zones representing 83.1% of all visitation to the province.

Table 28– Saskatchewan Hunting by Most Visited Zones			
Zone	% of All Visitation	Zone	% of All Visitation
Zone 69	**4.93%**	**Zone 73**	**3.87%**
Zone 70	**8.80%**	**Zone 74**	**0.35%**
Zone 71	**3.87%**	**Zone 76**	**32.75%**
Zone 72	**20.77%**		

Outfitted fishing in the province generates $43.2 million in expenditures primarily in the Northern Administrative District (NAD). This expenditure has a particularly high impact in the NAD as the region is marked by low levels of educational attainment and low levels of labour force participation. Participation rates for Northern Saskatchewan are 53% (compared to 66% for the province as a whole) combined with a 24% unemployment rate. Twenty-five percent of NAD residents over 19 have less than a Grade 9 education and half have less than a Grade 12 education.

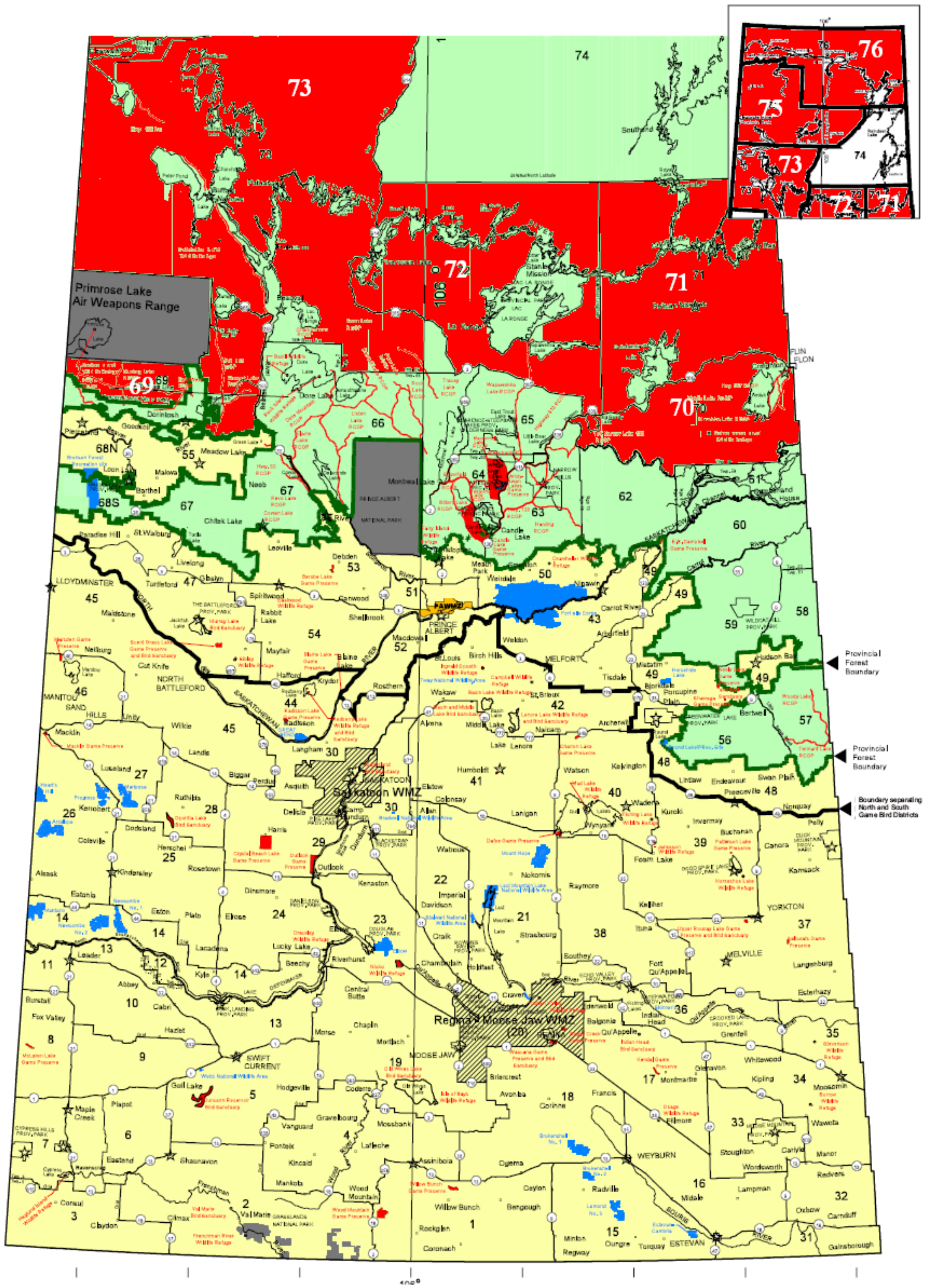
The following map highlights the most zones most visited by outfitted hunting clients.

Map 1 – Outfitted Hunter Visitation



The following map highlights the most zones most visited by outfitted fishing clients:

Map 2 – Outfitted Fisher Visitation



Of the 37,000 Northern Saskatchewan residents 86.3% are Aboriginal[39]. This compares to a provincial average of 13.3%. This is important as birth rates in the Aboriginal community are 1.5[40] times that of the non-Aboriginal community. With rapid population growth expected it is critical to have the economic activity to employ the growing population.

The population of Northern Saskatchewan is 37,000 with 57% being of working age. The effective workforce is 21,090. Given the participation rate of 53% and unemployment rate of 24% the actual working population is 8,500.

Map 3 – Northern Administrative District

As the vast majority of outfitting operations in Northern Saskatchewan are fishing operations it is useful to analyze the employment created by fishing outfitters alone. Using the economic impact model the total employment generated by fishing outfitting alone is 873 jobs[41] with labour income of $25.3 million. The majority (at least 80%) of these jobs would be either directly employed by the outfitters, or within the local region of the outfitters. Given that 80% of the positions created are within the direct vicinity of the northern outfitters, fishing outfitting directly or indirectly creates 698 jobs in the NAD, or 8.2% of all northern employment.

If we assume that 90% of all $43.2 million in outfitted fishing expenditures are made in Northern Saskatchewan, the direct tourism fishing related expenditures are $38.9 million. This is 24.5% of the $161.9 [42]million in tourism expenditures for Northern Saskatchewan. If only overnight pleasure (excludes business and visiting friends and relatives travel) travellers are considered fishing outfitting accounts for 60.4% of the $64.2 million in pleasure traveller expenditures.

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[39] Saskatchewan Health Covered Population 2005.

[40] Northern Saskatchewan Regional Training Needs Assessment – 2006/2007.

[41] These are full-time equivalent positions. The majority of outfitting positions are seasonal, as such the actual jobs created would be higher than the 873 calculated.

[42] Tourism Saskatchewan.

5.0 Environmental and Social Impacts

5.1 Environmental Impact of Outfitting

Outfitting in Saskatchewan creates both positive and negative externalities. While it is not an actual public good[43], hunting does create non-market benefits to society such as providing natural habitat and protecting lakes. Outfitting is largely a symbiotic relationship with both the environment and lakes. While all consumptive activities have a negative impact on the environment, they also have positive impacts. Hunting and fishing have a positive impact on the environment because these sports foster a vested interest in the environment such as animal population maintenance, protection of fisheries, and habitat preservation.

Animal Population Control and the Potential for Stock Depletion

One of the strongest environmental benefits of hunting is animal population control and monitoring. Hunters are frequently used as an animal population control mechanism. Animal population control is essential to minimize harm to the species itself from starvation, as well as mitigating impacts to other species, environments, livestock, and crops.

Hunting is considered by wildlife experts to be one of the most humane methods of wildlife control. Increasing hunting pressure is often the simplest, most cost effective and humane way of controlling animal populations. Some comparative methods for controlling animal populations are listed below.

Animal Population Control Methods[44]	
Predator Reintroduction	The mobility of the predators, the close proximity to humans, and the potential for predators to kill non-target species make this method unsuitable in most situations.
Sharpshooting Program	Sharpshooting has a similar impact on animal populations when compared to hunting, however, it is at a financial cost to the wildlife management body as opposed to a benefit.
Trap-and-Kill Programs	Animals are trapped and subsequently killed. Trap-and-kill methods generally are considered less humane than sharpshooting because the animals endure a greater level of stress prior to being killed.
Fertility Control	Most fertility control methods are still experimental and unproven at the population level for use in deer control.
Live Capture and Relocate	This method is stressful to the animals, and actually has a high rate of mortality for the relocated animals. Often it is difficult to find locations to which large populations of deer can be directed. The cost is also very high, ranging from $261 to $567 per deer.

[43] Public goods are goods or services that are non-excludable and non-rival in consumption. They are said to have positive externalities that benefit society.

[44] Policy Center, Deer Management – Maryland, US.

In general, herd density and herd health are negatively correlated. Over-population has negative impacts on the herd's overall health and reproductive capacity.

Herd health is not the only concern. Another aim of animal population control is to maintain animal levels at what is termed the cultural carrying capacity (CCC)[45]. The CCC is defined as the maximum number of animals that can coexist compatibly with humans in a given area. CCC must be maintained if crop destruction, animal-vehicle accidents, and wildlife encroachment on urban areas are to be kept at a minimum. If the animal population grows beyond acceptable levels, there will be pressure from the public to reduce the animal population.

Strong environmental and regulatory stewardship is required to ensure hunting does not have a negative impact on animal populations. Several North American jurisdictions have had animal populations negatively impacted by over harvesting. The Maritimes, for example, has drastically reduced its big game population through over hunting. While declines in animal populations are generally caused by a combination of factors, the environmental stewardship of the hunting regulatory body must be quick to react to changes in animal populations.

Environmentally Focussed Reference Group and Natural Habitat Preservation

Hunting and fishing interests coincide with environmental objectives and foster an attachment to the environment. Thirty percent of fishing and hunting license fees in Saskatchewan go into a Fish and Wildlife Development Fund (FWDF) which is used to secure, monitor and improve both fish and wildlife habitat throughout Saskatchewan. This money is then used directly, and through third party agencies, to secure the existence of natural wildlife habitats.

The larger formal organizations are primarily hunting organizations. Groups such as the Saskatchewan Wildlife Federation and Ducks Unlimited own land that they maintain as natural habitat. The Nature Conservancy of Canada, while not primarily a hunting centred organization, also owns land in the province which they maintain as natural habitat and allow hunting. Together the Saskatchewan Wildlife Federation, Ducks Unlimited, and the Nature Conservancy of Canada own or manage 180,000 acres of land. These groups also receive funding from the FWDF.

The body of active fishers also has strong ties to the environment. As part of the survey, some regulatory questions were asked regarding fishers' attitudes towards specific regulatory changes. Three of these questions elicited data relative to the outfitted fishers' attitudes towards the environment. Respondents were asked if they would be willing to pay more for a fishing license if 100% went to the Fish and Wildlife Development Fund. Of respondents, 84.7% indicated that they would be willing to pay additional fees if it went to the fund. Some (12.7%) indicated they would pay up to $100.00 in additional fees while the majority indicated that $20 would be the amount they would be willing to pay.

[45] Virginia Department of Game and Inland Fisheries

As well, 73.5% of respondents rated the importance of habitat protection a 7 or better on a scale of 1 to 10. This compares to only 4.7% who rated habitat protection less than 5 on the scale.

For fishers there was also a high level of support for barbless hooks indicating an overall concern for the fish stocks. 61.9% of survey respondents rated the importance of having barbless hooks being mandatory on lakes a 7 or better on a scale of 1 to 10.

Fish stock monitoring is also a beneficial function performed by fishers in the province. Anecdotal information from fishers can alert wildlife managers to potential problems.

While fishing can act as a form of first response, there remains the potential for over-fishing. Similar to hunting, strong environmental stewardship is required to ensure that over-fishing does not lead to depletion. For example, Alberta has lost a significant portion of its fish stocks in recent years.

Consumption Impacts of Hunting and Fishing on the Environment

Virtually all human activity has some impact on the environment. It is important to understand the impact activities have relative to other potential activities. Statistics Canada rates the environmental impacts of various sectors of the economy. While the analysis does not go to the level of hunting itself, it is broken down to the level of fishing, hunting, and trapping.

The activities of hunting and fishing do not have significant energy demands, however, there are energy demands associated with the travel required for these activities. Interestingly, the transportation costs for fishing clients is much lower than it is for bird or hunting clients. Non-resident transportation costs are $255.96 for bird hunters, $233.50 for big game hunters, and $59.15 for fishers. Fishers likely have a lesser impact on the environment, in terms of energy use, than their hunting counter parts.

It must also be noted that because Saskatchewan hunters travel very short distances (75% of hunting trips are less than 80 kilometres) they likely have a slightly lower than average impact on the environment than the average hunter.

The following table rates the relative emissions and energy usage by industry. Energy use is measured in gigajoules with the intensity of production measured as direct plus indirect energy use per thousand dollars of production (in current dollars). Direct energy use is that associated with the industry's own production; indirect use is that associated with the production of the goods and services that are used by the industry.

The greenhouse gas emissions are measured as direct plus indirect emissions per thousand dollars of production (in current dollars). Direct emissions are those associated with the industry's own production; indirect emissions are those associated with the production of the goods and services that are used by the industry.

Table 29 – Canadian Environmental Sustainability Indicators: Socioeconomic Information – 2005[46]		
	Energy Use Intensity/$1,000 in Production	Greenhouse Gas Emissions/$1.000 in Production
Fishing, hunting and trapping	14.2	1.0
Scenic and sightseeing transportation and support activities for transport	**6.5**	**0.4**
Arts, entertainment and recreation	**5.1**	**0.3**
Accommodation and food services	**6.5**	**0.5**
Travel and entertainment	**14.6**	**1.1**
Crop and animal production	**15.5**	**3.0**
Forestry and logging	**10.8**	**0.8**
Support activities for agriculture and forestry	**11.7**	**0.8**
Oil and gas extraction	**17.6**	**1.6**
Coal mining	**17.2**	**1.8**
Meat product manufacturing	**12.5**	**2.0**
Wood product manufacturing	**9.4**	**0.6**
Pulp, paper and paperboard mills	**24.9**	**1.1**
Pesticides, fertilizer and other agricultural chemical manufacturing	**36.3**	**5.2**
Primary metal manufacturing	**27.5**	**1.5**
Retail trade	**6.8**	**0.4**
Air transportation	**23.1**	**1.6**
Truck transportation	**14.8**	**1.3**
Transit and ground passenger transportation	**13.1**	**0.9**
Average	14.41	1.30

The fishing, hunting and trapping sector has slightly below average energy use and greenhouse gas emissions than other industries located in Saskatchewan. However, Fishing, hunting, and trapping relative to other leisure time activities (arts, entertainment and recreation; scenic and sightseeing transportation; and accommodation and food services) has far greater energy demands. The travel and entertainment sector is more comparable in terms of environmental impacts.

[46] Statistics Canada, http://www.statcan.ca/english/freepub/16-253-XIE/2005000/bfront2.htm.

Environmental Impacts to Non-Hunters

Hunting clearly has direct impacts on the hunting population; however, hunters are not the only population impacted by hunting activity. Hunting has both positive and negative externalities for the remainder of the population.

Positive Externalities	
Animal Population Control	**Farmers and the general population benefit through reduction in animal populations that have grown to the point where they are deemed pests.**
Animal Monitoring	**Hunters in the field can act as a valuable monitoring tool for disease (Chronic Wasting Disease, Avian Bird Flu and others) as well as changes in animal populations. The general public benefits from the environmental stewardship provided by hunters.**
Environmentally Focused Reference Group	**Because hunters are so reliant on the environment for their activity, they are very active in terms of natural habitat maintenance. A significant number of residents (64,000 in Saskatchewan) have a vested interest in the environment that they may not otherwise have.**
Natural Habitat Preservation	**Natural habitats are preserved through ownership or conservation easements which will provide utility for future generations.**

Negative Externalities	
Possible Over Hunting of Animals	**While there are safeguards in place, the possibility remains that over-hunting could negatively impact the animal populations.**
Impact of Hunters on the Habitat	**During hunting seasons, natural habitats open to hunting are not easily shared with other leisure time activities.**
Energy Consumption	**The activities of fishing, hunting, and trapping have far greater energy demands and greenhouse gas emissions than other leisure time and travel activities outlined in the Environmental Sustainability Factor table.**

5.2 Social Impacts of Outfitting

The value of the economic impacts of a product can be measured with some certainty. Market forces determine the value of the product within the economy and the subsequent economic impact is determined based on that value. Social impacts are somewhat more difficult to quantify. Through the survey analysis, attitudes and personal attachment was quantified to some extent. This section evaluates the responses to survey questions that were designed to elicit outfitted clients' attachment to their respective sports and their attributes.

Importance of Hunting and Fishing Attributes

To assess the social and personal attachment aspects to hunting and fishing, survey respondents were asked to rate, on a scale of 1 to 10 (with 10 being the most important), the level of importance for various hunting and fishing related attributes. Through this rating system it is possible to quantify the level of personal attachment to various aspects of the respective sports. Each variable was ranked independently, not relatively (i.e., all the variables could be ranked as 10, or all could be ranked as 1).

Table 30 – Importance of Hunting Attributes

	Outfitted Fishing		Outfitted Hunting	
	Average	Rank	Average	Rank
Being outdoors	9.612	**1**	9.131	**2**
Camaraderie with friends and/or relatives	9.201	**2**	9.182	**1**
As form of relaxation	8.994	**3**	8.785	**3**
Hunting/Fishing is part of culture, lifestyle or tradition	8.984	**4**	6.422	**5**
For recreation value and to challenge yourself	8.942	**5**		
The satisfaction of self sustenance	7.026	**6**	4.949	**7**
The value of meat/fish	6.492	**7**	6.895	**4**
The preference of wild game, meats/fish	6.560	**8**	6.105	**6**
Hunting/Fishing is a competitive activity to allow for trophy opportunities	5.583	**9**	3.789	**8**

In general, hunting clients ranked attributes higher than fishing clients indicating an overall greater attachment amongst hunters to their sport. The aspects of the sport that were the most important were similar with both groups ranking being outdoors, camaraderie with friends and/or relatives, and as a form of relaxation as the top attributes of their respective sports. The primary motivations for both hunting and fishing trips appear to be that the sports are social activities that allow for interaction with nature and the ability to relax.

While fishing respondents generally ranked the attributes slightly lower than did their hunting counterparts there were three areas in which there was a larger discrepancy. Hunting is a part of a lifestyle or tradition, the satisfaction of self-sustenance, and the opportunity for trophy opportunities all ranked much lower among outfitted fishing clients. Overall, fishing participants' attachment to their respective sport appears to be lower.

Two additional attributes unique to the fishing respondents were assessed. Respondents were asked to rate the importance (1 being not important and 10 being very important) of fishing success and the value of privacy and solitude. Both attributes ranked well but not overly high. In respect to the remainder of the attributes these qualities of fishing would have ranked fourth and fifth respectively.

Table 31 – Relative Importance of Fishing	
The importance of a high likelihood of catching large numbers of fish on a given lake	**7.745**
To experience privacy and solitude	**7.149**

Importance of Hunting and Fishing Relative to Other Leisure Activities

Respondents were asked to rate the importance of their respective sport in terms of other leisure time activities (sports, cultural, or social activities) that they participate in. Respondents were told that one meant the sport was the least important activity, while 10 meant it was the most important. The following table shows the results.

Table 32– Relative Importance of Respective Sports		
	Outfitted Hunters	Outfitted Fishers
Importance of Hunting (average)	**8.725**	**7.025**
Percentage that ranked hunting number one	**44.7%**	**14.2%**

There is a striking contrast between the relative importance of the respective sports for each population, particularly the number of individuals ranking the sport as the number one leisure time activity. Clearly hunters are far more avid participants in their sport as 44.7% ranked hunting as the number one leisure time activity in their life as compared to only 14.2% of outfitted fishers.

Social Significance of Hunting and Fishing

One of the most important attributes for both hunting and fishing was the social aspect. For hunters it was the second most important aspect and it was number one for fishers. However, the two groups had quite different opinions when it came to comparing their respective sports to other leisure time activities. Overall, hunters were far more avid participants ranking hunting very high in terms of other leisure time activities.

6.0 Mandatory Outfitting for Bird Hunting

6.1 Approval Level of Mandatory Outfitting for Bird Hunting

There was an overwhelmingly negative response to the concept of mandatory outfitting for bird hunting in Saskatchewan. Overall, 99.7% of non-outfitted respondents disapproved of the idea of having mandatory outfitting for bird hunting and 93.4% said they would not return if they were required to use the services of an outfitter. The following figures show the respective responses for the populations surveyed.

Figure 6 – Non-Outfitted Hunters

Do you feel bird hunters should be required to obtain the services of an outfitter in order to hunt for upland game birds or waterfowl in Saskatchewan?

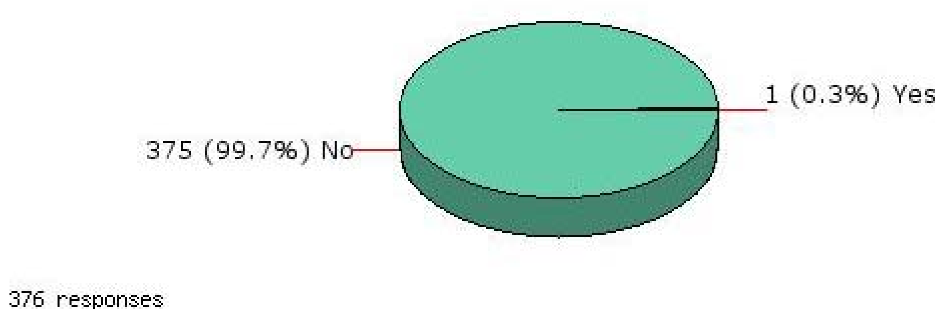
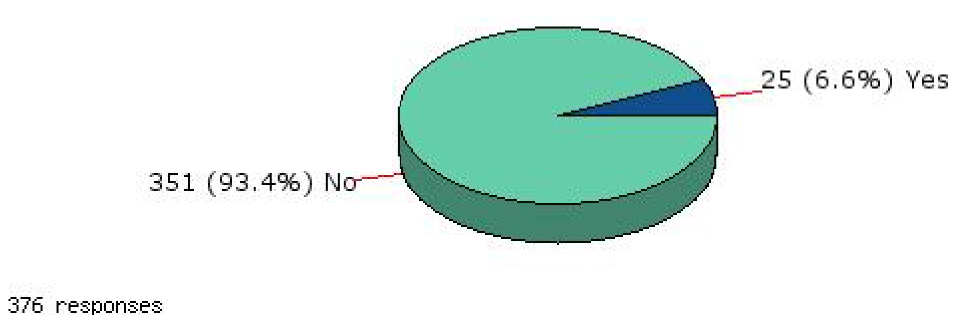


Figure 7 – Non-Outfitted Hunters

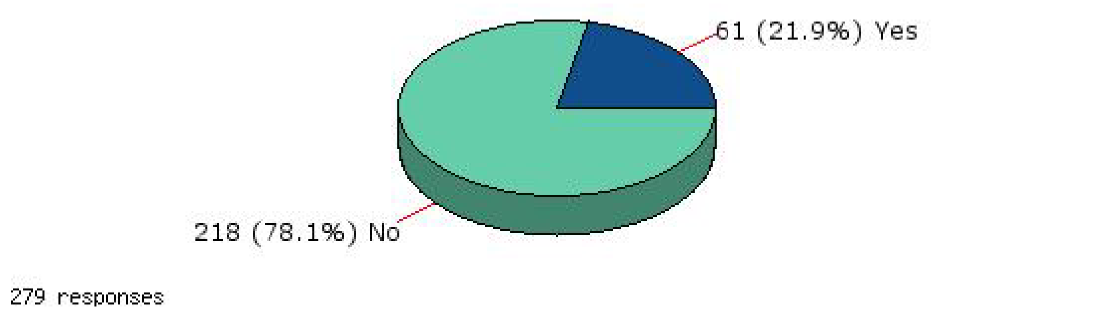
Would you continue to hunt game birds in Saskatchewan if you were required to utilize the services of an outfitter to do so?



Hunters already utilizing the services of an outfitter did not feel mandatory outfitting was necessary and 78.1% of outfitted hunters objected to the concept of mandatory outfitting.

Figure 8 – Outfitted Hunters

Do you feel bird hunters should be required to obtain the services of an outfitter in order to hunt for upland game birds or waterfowl in Saskatchewan?



Currently there are 11,064 non-resident[47] bird hunter trips to the province of which 3,565 (32.2%) currently use outfitters. According to the survey, of the 7,499 non-outfitted non-resident hunters only 495 would return if mandatory outfitting was introduced. There was also an unusually high number (74%) of people making additional comments at the end of the survey. Of these 263 comments, the majority (64%) were respondents wishing to reinforce their opposition to mandatory outfitting.

The survey results must, however, be taken in context. Responses may have been exaggerated in the face of perceived negative regulatory changes. Survey questions are the best way to directly poll the market on prospective changes such as this, but there are limitations. As an example, in the survey, respondents were asked what their reaction would be if faced with specific license fee increases. 5.3% of respondents said they would quit or significantly alter their hunting activity if there was a 10% fee increase. However, in 1996 when faced with an actual 8.6% increase in fees, sales only declined by 0.31%[48]. As such, it is safe to assume that the projected 93.4% decrease in bird hunting activity may be exaggerated. Even given some level of exaggeration, the level of negative responses is still very telling in terms of projecting the market reaction to a mandatory outfitting regulation for non-resident bird hunters. Clearly, mandatory outfitting would have a negative impact on the number of bird hunters coming to the province.

The question of how mandatory hunting may impact hunting activity was asked again later in the survey, with some qualifications aimed at getting a more accurate representation of forecasted hunting activity. Respondents were asked what percentage increase in trip costs they would expect to incur if mandatory outfitting for bird hunting were introduced. On average hunters felt that their per trip costs would go up by 117.62%. The actual difference

47 Proposed mandatory outfitting would only impact non-residents of Canada.

48 It should also be noted that this was during a period of long-term growth for non-resident licenses. As such, the decline may be understated.

between an outfitted bird hunting trip and a non-outfitted hunting trip is 102.00%. The projected level of increased expenditures was high, but not overly exaggerated.

To get respondents thinking about the additional benefits that would come with an outfitted hunting trip, as opposed to just the costs, the following question was asked"

> *Given the estimated [Responses from previous question here] increase in your hunting trip cost, and given the additional services of an outfitter, which of the following best describes how your hunting activities in Saskatchewan would change if outfitter usage was mandatory for bird hunting?*

Again the response was negative with 93.6% of respondents indicating that they would cutback or significantly reduce their hunting activity in Saskatchewan in the face of mandatory outfitting.

6.2 Contrasting Outfitted and Non-Outfitted Hunting Products

Beyond the high number of respondents that indicated that they would not return if mandatory outfitting was introduced, it is helpful to look at the market motivators and demand for the outfitted and non-outfitted products in the existing market. Qualitative information based on interviews with non-outfitted hunters combined with comments made by survey respondents indicate that a significant number of non-outfitted bird hunters are not interested in an outfitted bird hunting experience. The outfitted bird hunting product and the non-outfitted bird hunting product appeal to separate markets.

Non-outfitted bird hunters indicated that the parts of bird hunting that they enjoy the most are not something that an outfitter could offer. 20.2% of the comments indicated that outfitting simply would not add value to their hunt and would in fact detract from their experience. A number of the non-outfitted bird hunters indicated that activities such as asking land owners for permission to hunt on their lands, meeting local residents, discovering where the best hunting is, setting up their own decoys/spread, and other activities are just as much a part of the hunt as anything. For these hunters outfitted hunting was not a style of hunting they are interested in, regardless of cost. Some examples of non-outfitted hunting comments include;

> *"A big part of our trip consists of making new relationships with the farmers who give us the rights and privileges of hunting for birds on their land. This relates to the outfitter questions in the survey, because I feel that if it became mandatory to use the services of an outfitter, it would take away a lot of our fun and experience of coming to Saskatchewan."*

> *"I am actually a wildlife ecologist at … and that is what I do for a living. I would not use the services of an outfitter but I would be happy to give the provincial government more support in terms of license fees. In other words, I would rather pay a higher license fee than to pay for the mandatory usage of an outfitter."*

> *"I am strongly against the mandatory use of an outfitter and I feel it would take the fun out of finding and hunting the birds on your own. If guides were made necessary I would not come back."*

Further reinforcing the notion that the non-outfitted hunters are not the target market for outfitted hunting trips is the percentage that have used outfitters for bird hunting in other jurisdictions. Only 16.5% of respondents had ever used the services of an outfitter for bird hunting in any jurisdiction. If 83.5% of non-outfitted hunters have not had an outfitted bird hunting trip in any jurisdiction it is realistic that the majority of these hunters would continue to hunt without an outfitter in other jurisdictions that do not require an outfitter.

Mandatory outfitting could also build on Saskatchewan's image as a premier destination for bird hunting in North America. While the existing non-outfitted clientele would not likely make a large scale transition to become outfitted clients, there could be growth in the number of outfitted clients based on the exclusive image generated by the mandatory outfitting regulation.

6.3 Expenditure Patterns

Expenditure Levels

It is also important to factor in the different expenditure levels between outfitted and non-outfitted hunters. Outfitted hunting expenditures are twice that of non-outfitted hunters. To compare the expenditure levels it is helpful to make some assumptions based on the existing information and compare the projected impacts on total expenditures.

There are currently 11,064[49] non-outfitted non-resident bird hunting trips to Saskatchewan of which 3,565 are outfitted. Of the remaining 7,499 trips only 6.6% said they would return if mandatory outfitting were introduced. It can be assumed that there is some level of exaggeration in terms of the hunter's reaction. As an estimate perhaps twice as many current non-outfitted hunters would return for an outfitted hunting trip as said they would. This would amount to 13.2% of the non-outfitted bird hunters. The increase of outfitted clients would be 990.

If we also assume that there is a market increase of 10% for the existing outfitted market base, given the increased attraction of the Saskatchewan hunting product, there would be an additional 357 outfitted clients.

The outfitted hunting base would increase by 1,347 to 4,912, an increase of 37.8% for the outfitting industry. However, the total bird hunting visitation would decline by 55.6% from 11,064 to 4,912. The 55.6% decrease in visitation does not translate into a 55.6% drop in expenditures as outfitted bird hunters have average expenditures that are twice that of non-outfitted bird hunters. The following table shows how that change in the market would impact expenditures after the different expenditure levels are considered.

[49] Economic Evaluation of Non-Outfitted Hunting, 2006.

Table 33 – Impact of Mandatory Outfitting – Comparing Expenditures			
Segment	**Per-Trip Expenditures**	**Total Visitation and Projected Visitation**	**Total Expenditures and Projected Expenditures**
Non-Resident Outfitted	$ 2,596.38	3,565	$9,256,095
Non-Resident Non-Outfitted	$ 1,285.61	7,499	$9,640,789
Total			**$ 18,896,884**
Non-Resident Outfitted	**$ 2,596.38**	**4,912**	**$12,753,419**
Market Revenue Change			**– $ 6,143,465**

While there would be a 55.6% reduction in visitation, there would only be a 32.5% reduction in total expenditures in the province. While there remains a net negative impact on the economy, the impact is somewhat mitigated by the fact that outfitted expenditures are much higher than non-outfitted expenditures.

Expenditure Impacts

Non-outfitted and outfitted hunting expenditures impact the economy in somewhat different ways. The bulk (73%) of outfitted hunting trip expenditures will be directed towards the outfitters themselves. According to outfitter surveys, 30% of outfitters will make the majority of their purchases in urban locations such as Prince Albert and Saskatoon.

Non-outfitted bird hunters will make the majority of their expenditures in the rural communities in which they are hunting. As such, non-outfitted hunting has a marginally greater impact on the rural economy than does outfitted hunting.

6.4 Conclusions

It is likely that the level of market decline based on the introduction of mandatory outfitting is somewhat exaggerated. However, given the level of negative response it is likely that such a regulatory change would lead to the erosion of a significant reduction in the number of non-resident bird hunters. It is not realistic to expect that this market segment would largely be interested in an outfitted hunting experience, given their market preferences, options in other jurisdictions and past behaviour. The qualitative and quantitative research does not suggest that non-outfitted hunters would be the market for the outfitted hunting product. While it is difficult to assess, the exact impact of this type of regulatory change, the change would likely have an overall negative impact on the economy, even given the significantly higher levels of expenditures for outfitted hunters.

7.0 Inter-Jurisdictional Comparisons

7.1 Regulatory Environment

Hunting and fishing in Canada is primarily regulated at the provincial level, with the exception of migratory birds. Migratory bird hunting requires both a provincial hunting license as well as a federal migratory bird licence.

The following table provides an overview of Canada's regulatory environment, at the provincial level.

Canadian Regulatory Environment

Table 34 – Provincial Hunting Regulations

Province	Mandatory Outfitting for Bird Hunting	Mandatory Outfitting for Big Game Hunting	Hunter Host Program
British Columbia	No	Yes	Yes
Alberta	No	Yes	Yes
Saskatchewan	No	Yes	No
Manitoba	No	Yes	No
Ontario	No	Bear Only	Yes
Quebec	No, except for Woodcocks	Bear Only	No
New Brunswick	Guide only	Guide only	Yes
Nova Scotia	Guide only	Guide only	Yes
Prince Edward Island	Guide only	N/A	Yes
Newfoundland and Labrador	No	Yes	Yes
Northwest Territories	No	Yes	No
Yukon	No	Yes	Yes
Nunavut	No	Yes	No

Guide Versus Outfitter

Several jurisdictions in Canada have restrictions for non-residents in terms of mandatory outfitting and guiding. Mandatory guiding, as opposed to mandatory outfitting, has a much different application as explained by the following descriptions:

- **Guiding –** In general terms guiding is the act of accompanying hunters in the field for the purposes of assisting with hunting.
- **Outfitting –** An outfitted hunting trip is defined as having a single operator providing at least two services including lodging or accommodations, guiding services, access to a hunting area, or hunting equipment.

Mandatory outfitting is primarily found in Western Canada while mandatory guiding is a policy more commonly found in Eastern Canada. It should also be noted that migratory bird hunting in Eastern Canada is, in some cases, a more technical form of hunting. A higher percentage of bird hunting in Eastern Canada is done from boats. Hunting in Eastern Canada necessitates guiding arguably more than hunting in the Prairie Provinces.

Mandatory Outfitting for Bird Hunting

Migratory (Waterfowl) Bird Product	Upland Bird Product
Spring Snow Goose	**Hungarian Partridge**
Canada Geese	**Sharp Tailed Grouse**
White Geese	**Spruce Grouse**
Sandhill Cranes	**Ruffed Grouse**
White Fronted Geese	**Pheasant**
Dark Geese	**Ptarmigan**
Ducks	
Coots/Snipe	

The only jurisdiction in North America that requires outfitting for bird hunting is Quebec. Quebec requires hunters of the American Woodcock to have the services of an outfitter.

Prince Edward Island (PEI), Nova Scotia, and New Brunswick require mandatory guiding for bird hunting. PEI has recently introduced mandatory outfitting for their bird hunting. While it is too early to report the impact mandatory guiding has had on non-resident hunting in PEI, the jurisdiction may be able to provide some information on the impacts a regulatory change such as this has on hunting in the province.

Recently, Alberta, Manitoba, and Saskatchewan have all considered implementing mandatory outfitting for bird hunting. Manitoba has since ruled this option out. Alberta and Saskatchewan continue to debate the concept.

Mandatory Outfitting for Big Game Hunting

The following table shows the animals for which an outfitting product is offered in Saskatchewan. The vast majority of outfitting trips are for white-tailed deer.

Big Game Product
White-tailed Deer
Moose
Black Bear

The majority of Canadian provinces have mandatory outfitting or guiding for big game, in some form. Ontario and Quebec have mandatory outfitting for bear only, while Nova Scotia and New Brunswick have mandatory guiding only. All other jurisdictions have mandatory outfitting for big game.

In the United States the only state that has mandatory outfitting for big game is Alaska. In some regions access is such an issue that outfitters are essentially mandatory to gain access to land, however, there are no regulations to this effect.

Hunter Host Program

Many jurisdictions with mandatory outfitting or guiding will also make an allowance for provincial residents to allow them to act as outfitters for the sake of meeting regulatory requirements. The licensing fees and requirements for hunter host programs vary from province to province, but they all have the same aim, to make allowances for people with a special attachment to the region either through a relationship or through living in the region previously. In practice, it allows friends and family to “host” an out-of-province guest for a hunting experience without having to engage the services of an outfitter or guide.

Resident verses Non-Resident

One of the biggest regulatory differences between Saskatchewan and the other provinces is the regulatory term non-resident. For Saskatchewan, the term non-resident refers to a non-Canadian resident. Generally speaking, the remainder of the provinces consider non-resident to be a person who is not a resident of that province. Subsequently, non-Canadians are referred to as non-resident aliens. As such, Saskatchewan’s policies regarding non-residents affect only non-Canadian residents, where other provinces’ regulations regarding non-residents affect other Canadians.

Provinces such as Manitoba give non-resident hunters the same rights as resident hunters, even allowing access to big game draws. Saskatchewan allows Canadian residents the right to hunt for white-tailed deer and bear without the services of an outfitter. British Columbia and New Brunswick afford Canadians additional rights over non-Canadians regarding their ability to participate in the Hunter Host Program.

Alberta, Nova Scotia, Ontario, Quebec, Nova Scotia, Newfoundland and Labrador and the Territories do not afford Canadian residents any additional rights over non-Canadian residents regarding mandatory outfitting or guiding.

8.0 Inter-Jurisdictional Quality Comparison

As part of the survey, respondents were asked questions regarding the quality of Saskatchewan's hunting and fishing product. The survey responses combined with other research indicates Saskatchewan is one of the premiere destinations in the world for migratory bird hunting, big game hunting, and fishing.

8.1 Saskatchewan Fishing Product

Fishing respondents were asked if they had utilized the services of an outfitter in other jurisdictions. Respondents that had used the services of an outfitter in other jurisdictions were asked to compare their outfitted fishing experience with other experiences in Canada, the United States, and other international locations. Saskatchewan's outfitted fishing experiences compared very well to all other jurisdictions.

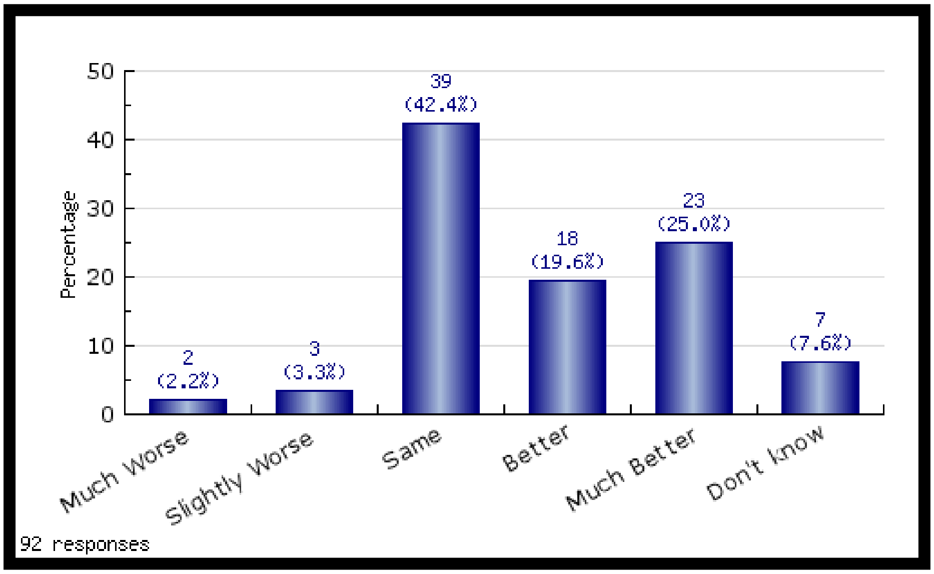
Comparison to Canadian Outfitters

Of fishing respondents, 41% felt that their Saskatchewan outfitted experience was better or much better than a similar experience elsewhere. This compares to only 5.5% who felt that their experience elsewhere was better.

Respondents were also asked an open-ended question as to how their Saskatchewan outfitted experience compared relative to other outfitting experiences they had had. Their comments by those who felt that they had a better experience elsewhere were not because they had a poor experience in Saskatchewan, rather they simply had an exceptional experience somewhere else. Similarly, the respondents that felt that their experiences were the same largely felt that both experiences were excellent.

Those who felt Saskatchewan was a better or much better experience did so for two primary reasons: the quality of the fish and services received. Regarding the outfitting services received respondents felt that their Saskatchewan outfitted experience was better because of the people (13), accommodations (10), guiding skills (10), and food (5). The quality of the fishing was mentioned 11 times as the deciding factor.

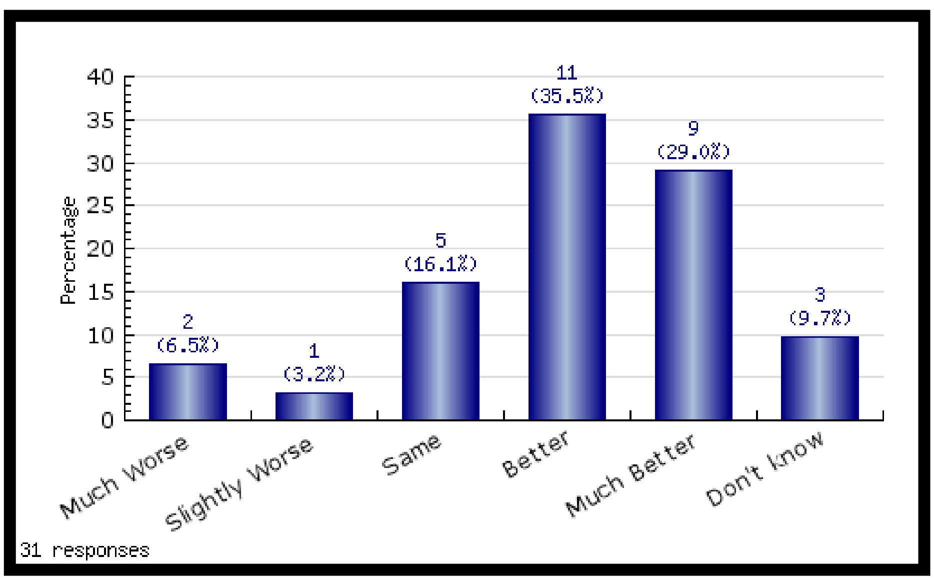
Figure 9 – Saskatchewan Outfitted Experiences Compared to Other Canadian Experiences



Comparison to American Outfitters

Respondents also favoured their Saskatchewan outfitted experience over outfitted fishing trips in the United States. Of fishing respondents surveyed, 64.5% felt their Saskatchewan experience was better or much better than their American experience, compared with 9.7% that favoured their American trip. Respondent comments again indicate that services and better fishing were what made the Saskatchewan experience better.

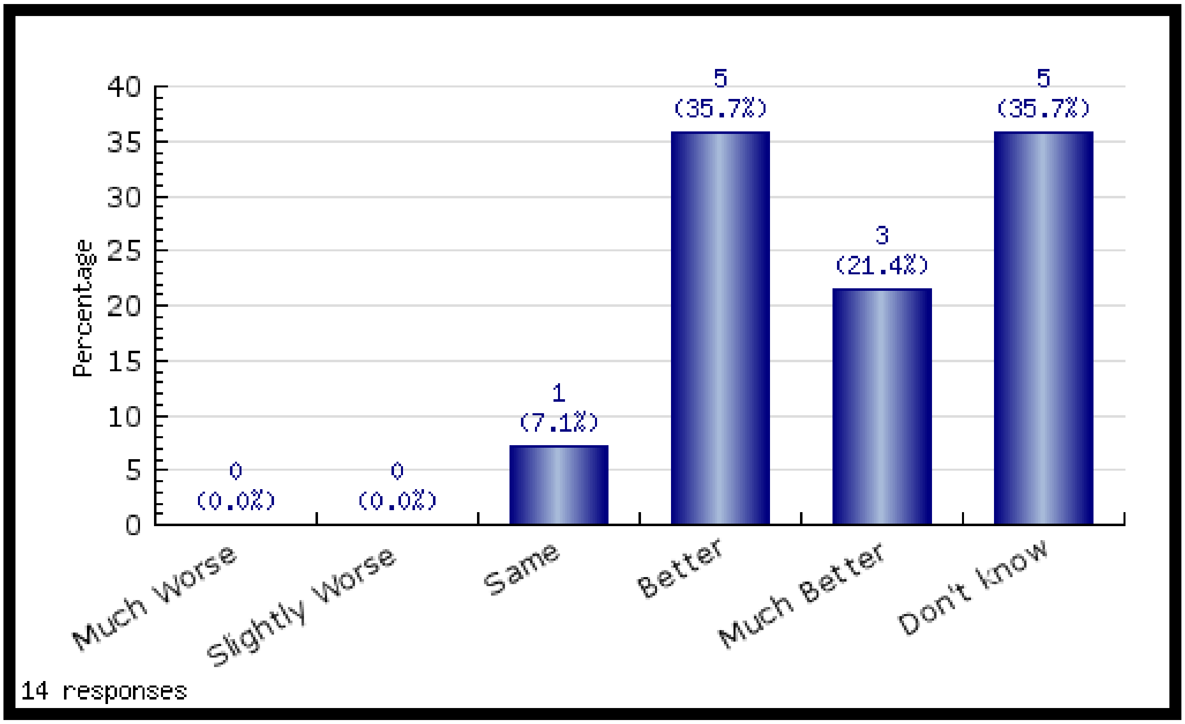
Figure 10 – Saskatchewan Outfitted Experiences Compared to Other American Experiences



Comparison to other International Destinations

While few respondents had an international trip experience to compare, those that did favoured their experience in Canada. Of fishing respondents, 57.1% felt that their Saskatchewan outfitted fishing experience exceeded their international outfitted fishing experience. Better fishing, accommodations, professionalism, and services were mentioned as reasons for the Saskatchewan preference.

Figure 11 – Saskatchewan Outfitted Experiences Compared to Other International Experiences



Reasons for Fishing in Saskatchewan

Respondents were also asked why they chose to come to Saskatchewan to fish. The open-ended question solicited a variety of responses, however, they can be categorized as follows. Ninety respondents (32.6%) indicated that the primary reason why they came to Saskatchewan to fish was because of the fish quality and quantity and 84 respondents (30.4%) indicated that the outfitters and environment were the primary reason for visitation.

Outfitted fishing was also a way to spend time with friends and relatives for 42 (15.2%) respondents with an additional 1.8% spending time with business associates. Other primary motivations for the outfitted fishing trip in Saskatchewan were: vacation/relaxation (5.4%), the ability to catch trophy fish (4.3%), marketing (3.2%), and ex-patriots returning to Saskatchewan to visit (2.5%).

8.2 Saskatchewan's Hunting Product

Respondents were asked to compare the quality of Saskatchewan's animal populations and habitat. The respondents largely found it difficult to compare the products with "don't know" comprising the majority of the responses. There is, however, statistical data available that compares Saskatchewan hunting product to other Canadian jurisdictions.

In terms of big game outfitting, white tailed deer hunting comprises the vast majority of big game trips. Saskatchewan's white tailed deer population ranks very well nationally. The following tables show the relevant data regarding the provinces' respective deer populations. Overall, Saskatchewan has extremely good white tailed deer hunting, ranking in either first or second in all categories.

- Highest ratio of deer to hunters at 7.4 deer for every hunter
- World's largest typical buck
- Second highest deer success rate
- Second largest white tailed deer population

Table 35 – White Tailed Deer Hunting Comparison[50]

	BC	AB	SK	MB	ON	QB	NB	NS
2004/05 Population	65,000-91,000	250,000	385,000	180,000 deer	350,000-400,000	385,000	90,000 deer	45,300 deer
2004 Harvest	5,569	38,000	31,220	26,000	93,000	155,500	6,878	7,814
Total Deer Hunters	28,500	58,000	52,014	40,000	163,000	150,000	50,000	39,343
Ratio Deer to Hunters	3.19	4.31	7.40	4.50	2.45	2.57	1.80	1.15
Success Rate	37 %	42 %	52 %	57 %	40 %	38 %	14 %	20 %
Record	191 4/8"	204 2/8"	213 5/8"[51]	197 7/8"	189 7/8"	173 0/8"	182 7/8"	196 6/8"

There is little data comparing migratory bird hunting in North America, however, what is clear is that Saskatchewan is a primary staging ground for waterfowl migration in North America. Saskatchewan's location in the flight path of migratory birds elevates the quality of migratory bird hunting over the majority of jurisdictions in North America. Because Saskatchewan is not facing urbanization issues such as those in the United States, Saskatchewan's access to public and private hunting grounds further elevates the status of migratory bird hunting. The large number (64,000) of resident hunters also assists with ensuring that there is the hunting infrastructure needed to support the industry.

[50] Source: ESPN Outdoors White Tail Forecast. [Online].

[51] World Record typical buck taken by Milo Hansen in 1993 near Biggar, Saskatchewan.

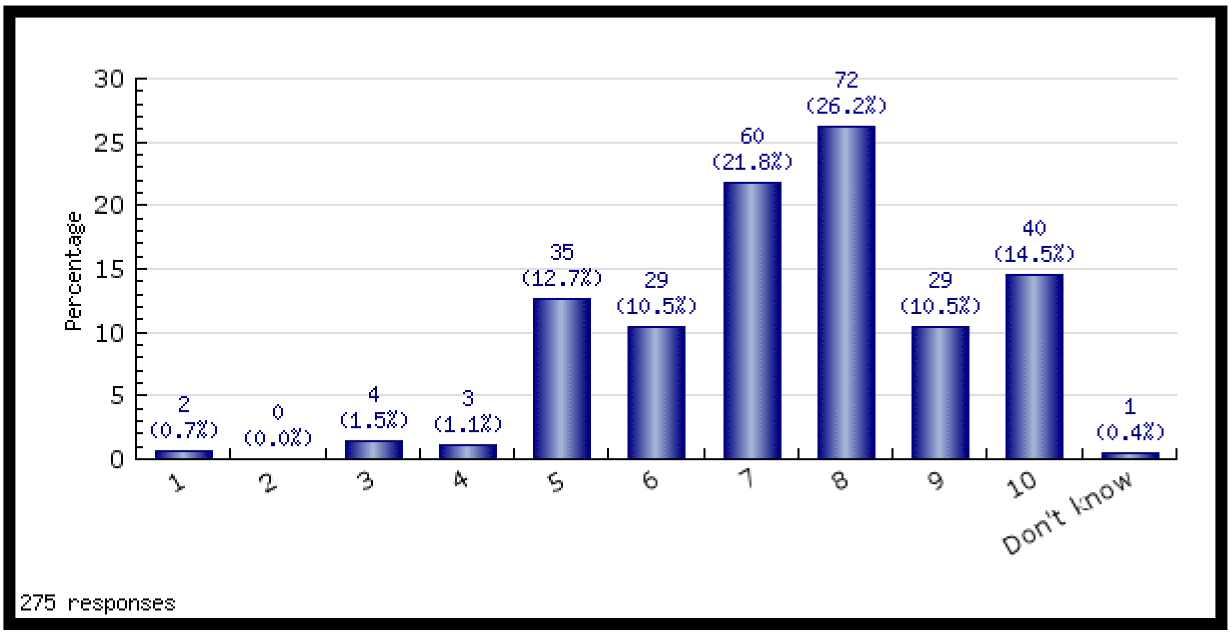
Appendix 1 – Other Survey Results

As part of the fishing survey several additional regulatory and policy questions were asked. The following is a summary of the results. The following breaks down the responses to those questions.

Importance of Fishing Success

The level of fishing success often varies from season to season and lake to lake. On a scale of 1 to 10, with "1" being not at all important and "10" being very important, how important is it to you to be at a location that has a high rate of success in terms of catching large amounts of fish?

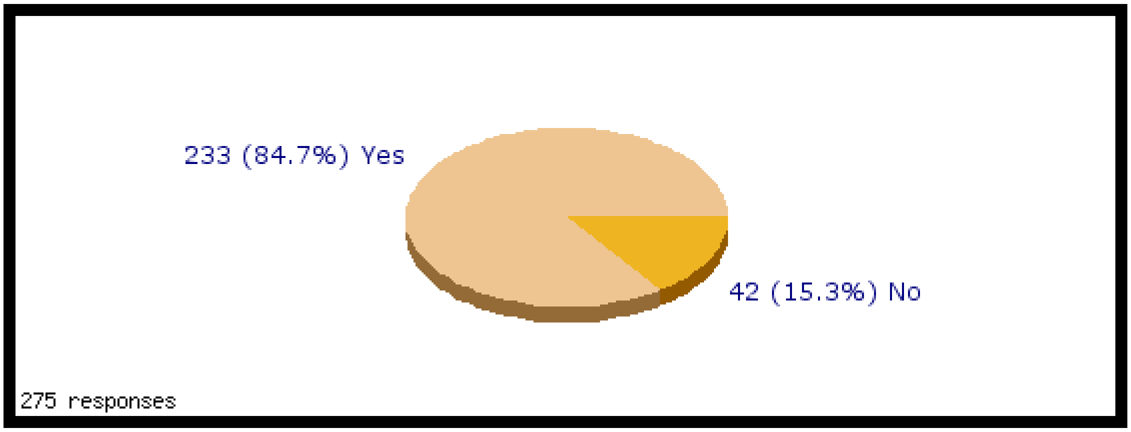
Figure 12 – Importance of Fishing Success



Fees for Fish and Wildlife Maintenance

Currently 30% of Saskatchewan fishing license fees goes to the province's Fish and Wildlife Development Fund to support fish habitat management and stocking. Would you be willing to pay more for your fishing license if 100% went to the Fish and Wildlife Development Fund?

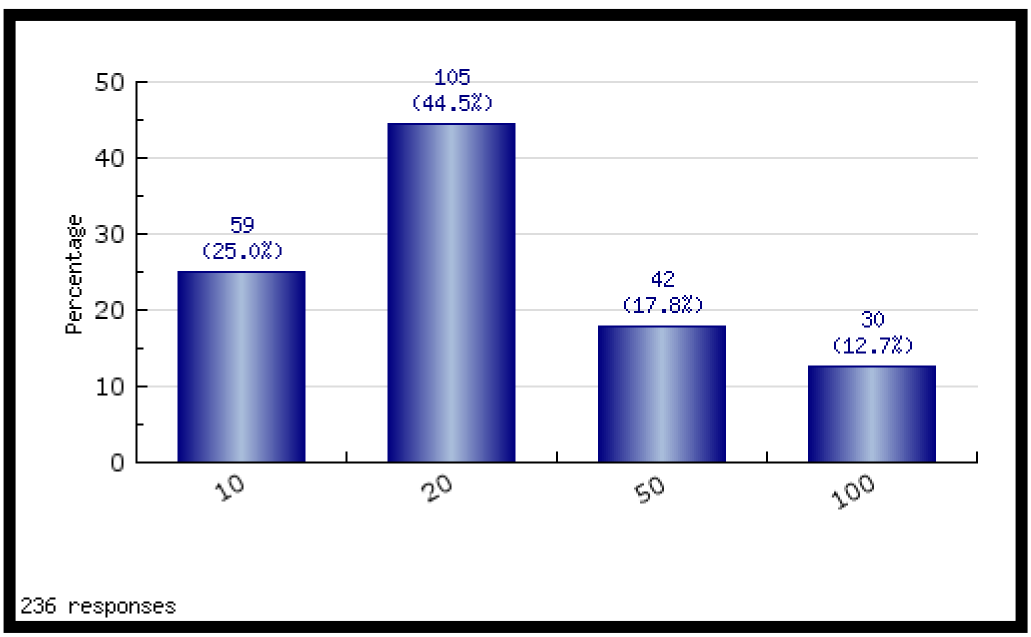
Figure 13 – Willingness to Pay More for Fishing Licences if 100% Went to the Fish and Wildlife Development Fund



Level of Additional Payment

If the province were to increase the cost of licenses while dedicating all of the extra revenue to this fund, how much would you be willing to pay?

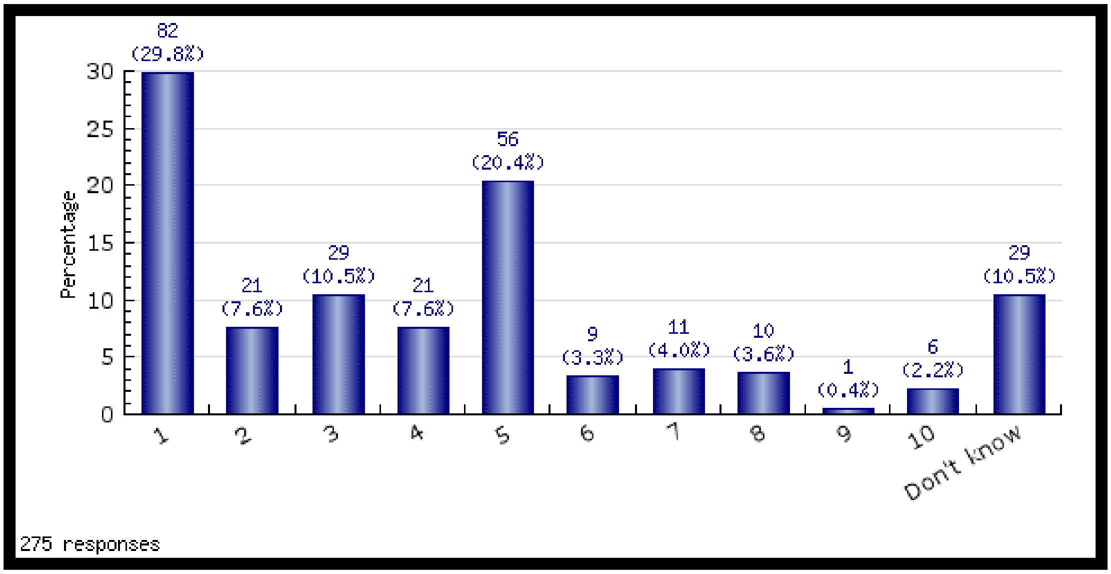
Figure 14 – If Province Increased Cost of Licenses Dedicating All the Extra Revenue to the Fish and Wildlife Development Fund, How Much Would You Be Willing to Pay?



Shorter Fishing Season with Higher Bag Limits

Where "1" is not at all important and "10" is very important how important is it to have shorter fishing seasons with higher bag limits?

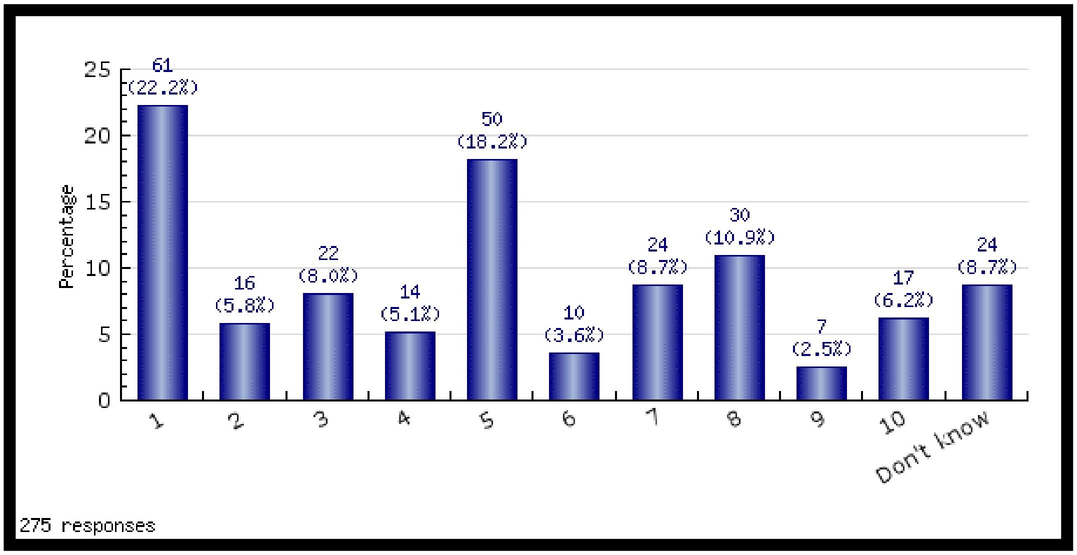
Figure 15 – Importance of Having Shorter Fishing Seasons with Higher Bag Limits



Longer Fishing Season with Lower Bag Limits

Where "1" is not at all important and "10" is very important how important is it to you to have longer fishing seasons with lower bag limits?

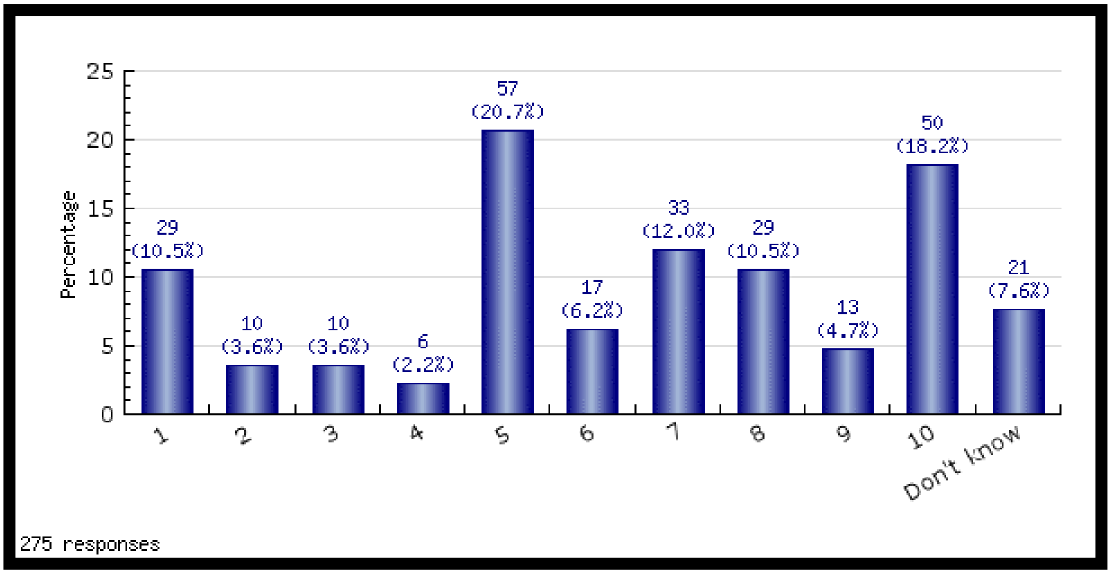
Figure 16 – Importance of Longer Fishing Seasons with Lower Bag Limits



Increase to Law Enforcement

Where "1" is not at all important and "10" is very important would you like to see an increase to enforcement?

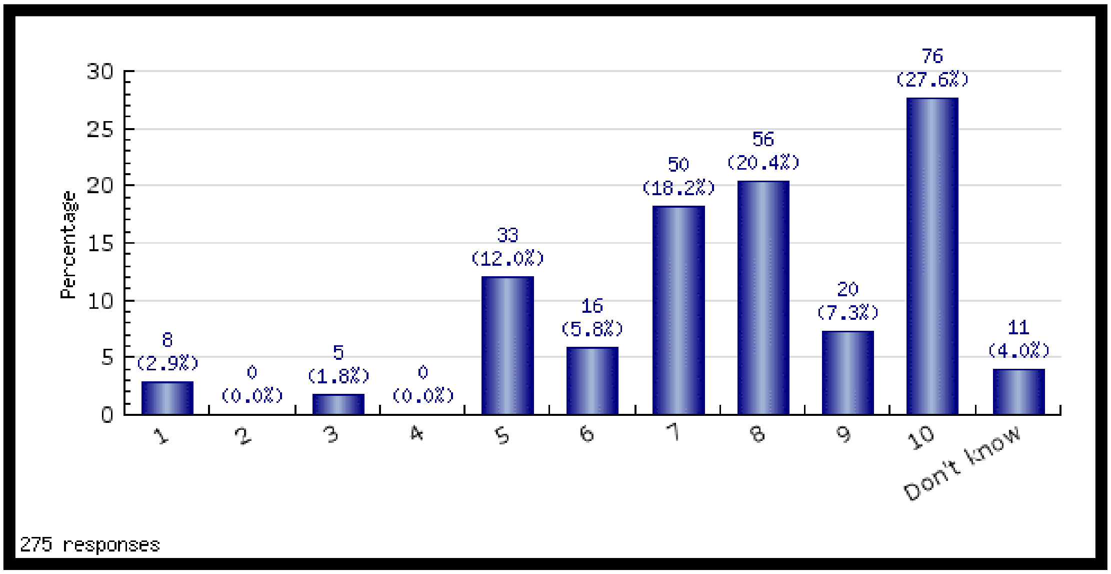
Figure 17 – Importance of Increased Enforcement



Enhanced Habitat Protection

Where "1" is not at all important and "10" is very important how important is it to have enhanced habitat protection?

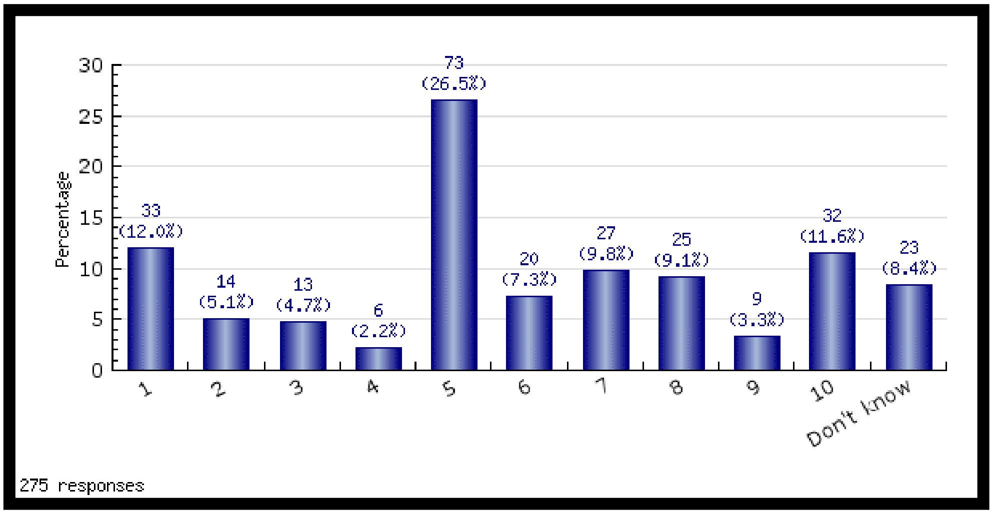
Figure 18 – Importance of Enhanced Habitat Protection



More Size Limits

Where "1" is not at all important and "10" is very important, how important is it to have more size limits?

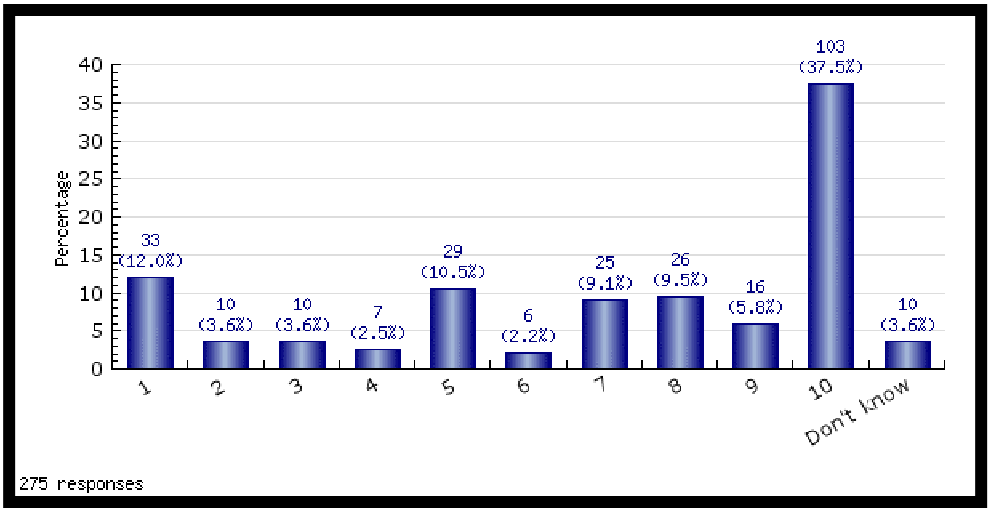
Figure 19 – Importance of More Size Limits



Importance of Barbless Hooks

Where "1" is not at all important and "10" is very important, how important is it to have barbless hooks mandatory on all lakes?

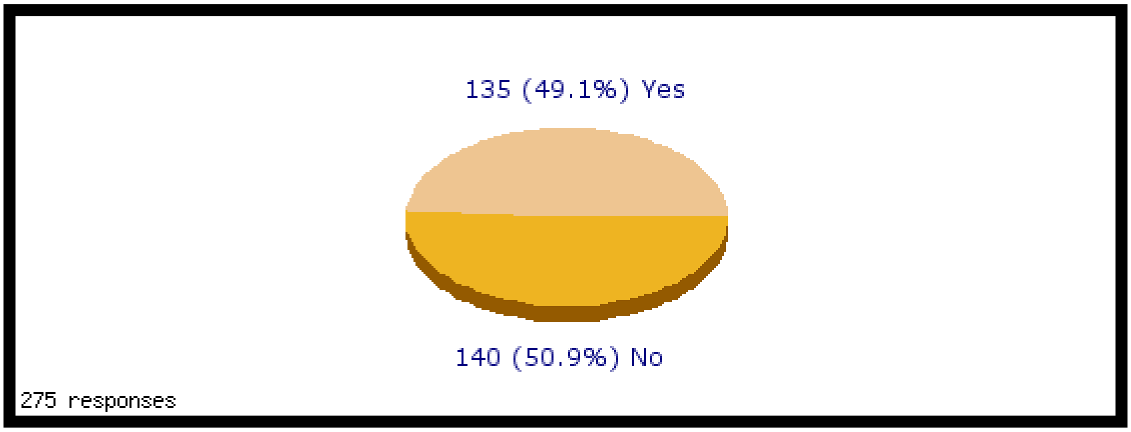
Figure 20 – Importance of Barbless Hooks



Importance of Naturally Occurring Fish Stocks

Is it important to you that the fish stock is naturally occurring for the region, as opposed to being artificially stocked?

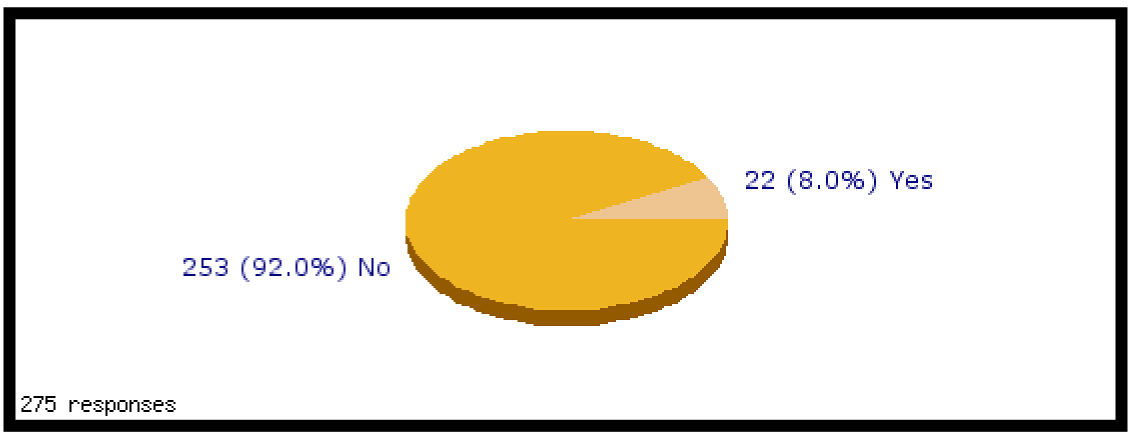
Figure 21 – Importance of Naturally Occurring Fish Stocks



Business Trip

Was your most recent fishing trip part of a business trip or conference?

Figure 22 – Was Most Recent Trip Part of Business Trip or Conference?



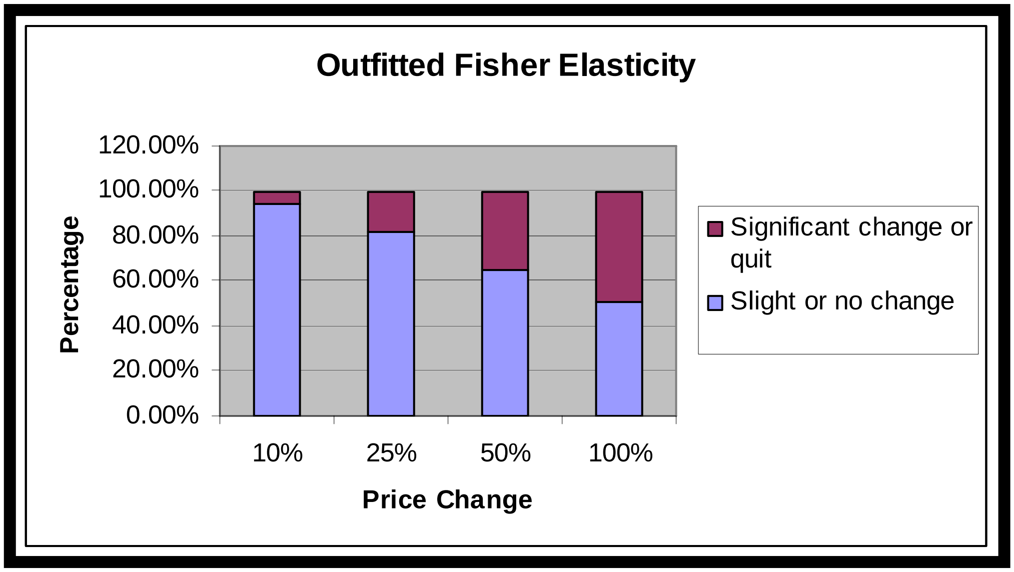
Appendix 2 – License Price Elasticity

Outfitted Hunters

5.3% of outfitted hunters indicated they would quit or significantly alter their hunting activities if faced with a 10% increase in license fees. If faced with a 100% increase in license fees, 70.0% of respondents said they would quit or significantly alter their hunting activities.

Outfitted Fishers

Non-resident hunters had the highest tolerance for price increases. If faced with a 10% license fee increase only 5.8% of respondents would quit or significantly alter their hunting activities. If license fees doubled 50.1% of respondents would quit or significantly alter their hunting activities. Outfitted fishers have a much greater tolerance for a license fee increase with only 50.1% of outfitted fishers indicating they would quit or significantly reduce their activity in the province compared to 70.0% of outfitted hunters.



Historic Impact of Fee Increases

While it is valuable to survey populations on their intended hunting patterns given a hypothetical rise in hunting fees, it is also valuable to assess the actual impact of historic price changes. The most significant change in hunting fees occurred in 1996 and 1997 when an $11.00 Big Game Damage Fund License was instituted. Because the additional expense was fixed, it represents a different percentage increase for Canadian and non-resident license fees. The following table shows the actual percentage increase by hunting group.

Hunting Fee Percentage Increase[52]		
	Canadian	Non-Resident
Average Licensing Expenditure	130.22	$128.36
Fee Increase	$11	$11
Percentage Increase	8.45%	8.57%

[52] Based on 2004 hunting patterns.

For Canadian non-resident hunters, the projected reaction to fee increases in the survey is greater than the reaction that took place when actual fee increases were implemented. Of the Canadian respondents, 9.1% felt they would quit or significantly alter their hunting activities, however, there was only a 0.31% decrease in sales based on an 8.45% increase. Of non-residents, 5.1%, when faced with a 10% increase in fees, felt they would quit or significantly alter their hunting activities, compared to an actual 2.72% reduction in hunting. As might be expected, the respondents have exaggerated their response to potential fee increases.

Change in Hunting Behavior – 1995 to 1999 Additional $11 Hunting Fee in Years 1996 and 1997					
	1995	1996	1997	1998	1999
Total Canadian Licenses	3252	3242	3586	3982	4239
Percentage Increase		-0.31%	10.61%	11.04%	6.45%
Total Non-Resident Licenses	11,163	10,859	12,098	13,665	16,435
Percentage Increase		-2.72%	11.41%	12.95%	20.27%
Fee Increase[53]		$11	$11		

It should be noted that there has been a trend towards increasing non-resident and Canadian license sales. As such, declines in annual license sales may by understated based on the growing market.

Similarly, fishing license rate increases have impacted license sales differently than would have been projected by survey data. License fees increased by 66.7% in 2000 from $15 to $25 for three-day non-resident licenses and from $30 to $50 for annual non-resident licenses.

Change in Fishing Behavior – 1998 to 2000 66.7% Fee Increase – 2000					
	1998	1999	2000	2001	2002
Total Non-Resident Licenses[54]	23,100	21,471	20,941	19,873	20,183
Percentage Increase		-7.05%	-2.47%	-5.10%	1.56%
Cost of Annual Fishing License	$30	$30	$50	$50	$50
Cost of Fishing Three Day License	$15	$15	$30	$30	$30

53 After a strong public reaction the Big Game Damage Fund charge was removed in 1998.
54 Three day and annual fishing licenses.

Respondents indicated that 34.9% would quit fishing or significantly reduce their fishing activity if they were faced with a 50% increase in licensing fees. In 2000 there was a 66.7% rate increase. Two years after the rate increase there was a cumulative 7.4% decrease in non-resident license sales.

It would appear, based on historical data, that the reactions to fee increases may be exaggerated. While the survey data is still valuable, it should not be used as an unqualified projection of the market elasticity.