

**Sport Fishing in Alberta in 2005:
Performance, Value and Economic Impact
Volume I**

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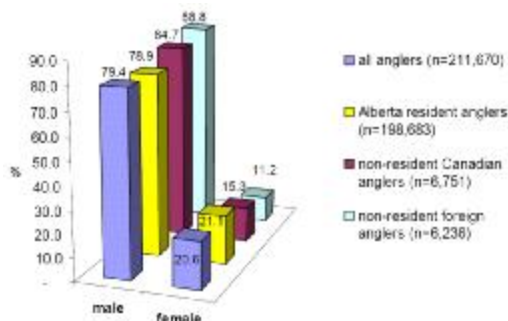
Executive Summary

Sport fishing in Alberta has long been recognized as a viable resource with social and economic significance to the residents of this province. Although valued mainly for its recreational worth and food fishing activities, there is, however, little appreciation for the actual magnitude of its total economic impacts and value on the provincial and regional economies.

The Hunting for Tomorrow Foundation has retained Econometric Research Limited to undertake a major study of Sport Fishing and Hunting in Alberta. This report is the first part of this undertaking.

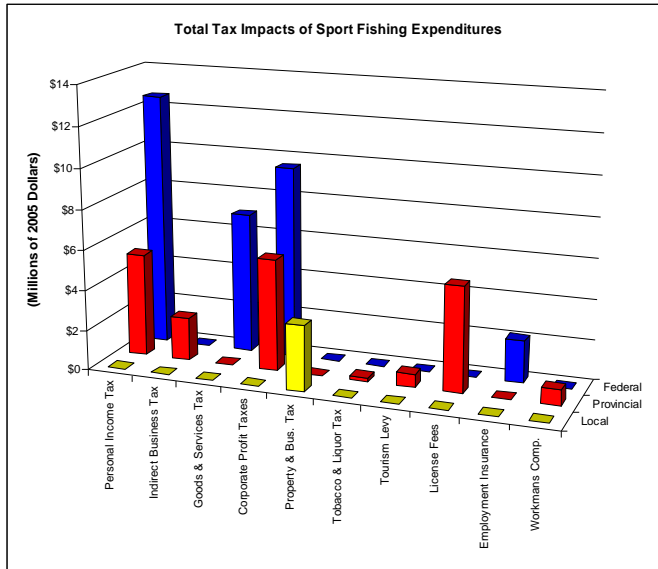
Econometric Research Limited reviewed the Sport Fishing Survey conducted by ASRD in the province in 2005 and used the results of the survey and its estimates to calculate the economic value and impacts of sport fishing in Alberta. Below is a summary of the salient results. They include the following:

- A total of 211,666 adult anglers were identified to have held fishing licenses in Alberta in 2005. Of these, 93.9% were Alberta residents, 3.2% were from other parts of Canada and 2.9% from outside Canada.
- Only 90.3% of the licensed Alberta anglers and 95.5% of visiting licensed anglers actively fished in 2005 (ASRD 2007).
- If unlicensed youth anglers (age less than 16 years) and senior anglers (age over 64 years) were extrapolated and added to those who actively fished in 2005, the total anglers in Alberta in 2005 would rise to 287,511.
- Licensed anglers (excluding youth and senior anglers) fished an estimated 2,668,834 days in 2005. The average number of days per angler was put at 13.9 days. Alberta residents appear to have fished 2-3 times the number of days than visitors.
- Anglers residing in neighbouring British Columbia and Saskatchewan were the largest group of other Canadian anglers in Alberta in 2005 and the majority of foreign anglers were from the United States.



- The majority of Alberta anglers were in the 35-54 years old cohort, with relatively larger representation of older anglers in the non-resident licensed categories.

- Parkland-Prairie 2 (PP2) management zone hosted most of the angling days with about 21% of the total.
- Licensed anglers visiting Alberta in 2005 made 82,451 trips of which 24.4% were for fishing purposes. On average, non-resident Canadian anglers spent roughly 3 times more days in Alberta fishing than did foreign anglers.
- Foreign anglers consider fishing a major incentive to visiting Alberta.
- By far, the main source of information about angling opportunities for visiting anglers came from friends and family.
- Foreign anglers tended to rely more extensively on the Internet than Canadian anglers for fishing information.
- Recreational fishing experience was rated as “good” to “excellent” by 69.3% of resident anglers, by 71.2% of non-resident Canadian anglers and by 78.6% of non-resident foreign anglers.
- Anglers fishing in Alberta (excluding seniors and youth) in 2005 were estimated to have spent \$417.3 million on major equipment, property and other fishing related expenditures.
- In 2005, a total of \$124.6 million was spent by Alberta resident anglers on food, lodging, access fees, transportation, fishing services and fishing supplies. Non-resident Canadian anglers spent \$2.7 million directly on fishing, while foreign anglers spent \$6.6 million during the same year.
- The total direct expenditures in Alberta in 2005 add up to about \$134 million.
- Estimated major purchases in Alberta in 2005 are put at \$282.4 million. Most of these purchases were made by resident Alberta anglers with \$281.4 million of this total.
- Camping equipment and boats accounted for \$158.3 million or 56% of the total. Special vehicles are the third largest item of major purchases associated with fishing in Alberta with \$61 million in 2005.
- The direct fishing expenditures of Alberta resident anglers supported a permanent increase of Alberta Gross Provincial Income of \$123.5 million and an increase in wages and salaries of \$68.3 million.
- Over 2,130 Albertans owe their jobs to the direct fishing expenditures in 2005.



- The three levels of government collected more than \$50 million in 2005, with the federal government deriving the largest share of about \$29 million, followed by the provincial government with more than \$18 million and the local governments collectively collecting \$3 million.

- The total direct expenditures supported a provincial income impact of \$133 million, \$74 million in wages and salaries, 2,325 full-time equivalent permanent jobs for Albertans and the three levels of governments collectively collected a total of \$54 million in taxes and fees.
- More than \$642 million of total gross output (sales) result from the original \$282.4 million spent on capital items associated with fishing.
- The large volume of vehicles, boats, camping equipment and other fishing equipment sustained an income (value added) impact of \$241 million and over \$143 million in wages and salaries in Alberta in 2005.
- A total of 5,576 person year of employment was attributed to these expenditures in Alberta in 2005.
- Total taxes generated by the capital expenditures to all three levels of government exceeded \$92 million in 2005.
- About 69.3% of Alberta resident anglers rated their fishing experience as “good” or “excellent” and more than 71.2% of non-resident Canadian anglers in Alberta rated it at the same level of satisfaction. Foreign anglers rated “good” to “excellent” their fishing experience in Alberta in 2005 by a majority of 78.6%.
- A large majority of resident and non-resident anglers (90%) in Alberta in 2005 considered a healthy aquatic ecosystem, habitat conservation and protection, enforcement of fisheries regulation and the monitoring of fish populations as “important” or “very important.”

- Greater than 80% of all anglers considered a science-based approach to fisheries management as “important” or “very important.”
- Anglers were not particularly enthusiastic about increasing participation in fishing activities. Alberta is perceived to have reached the upper limits of its angling capacity.
- There is a general preference for greater participatory management and public consultation in the management of the Alberta sport fishery.
- An increasing proportion of anglers are older than 45 years and a decreasing proportion of anglers are less than 35 years of age.

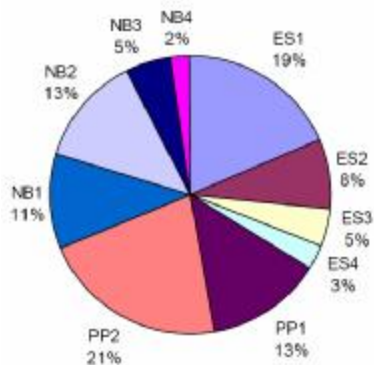
Introduction

Alberta has a low number of aquatic habitats, albeit diverse and rich. In all, only 2.5% of Alberta's area is covered with water (ASRD 2007). Surveys of water have shown that the province has only 800 lakes with natural sport fish-producing capacities. Another 300 lakes are stocked annually with trout (ASRD 2007). The limited supply in Alberta is exacerbated by strong demand pressures for sport fishing. Alberta has a ratio of nearly 400 anglers per lake (ASRD 2007). Ontario, by way of contrast has 250,000 lakes and thousands of kilometres of streams and rivers (Kubursi 2003).

A recent survey of sport fishing in Canada was conducted in 2005 by Canada's federal, provincial and territorial fisheries agencies. The survey was coordinated by the Survey Unit, Economic Analysis and Statistics Division of Canada Fisheries and Oceans (DFO) and conducted by Alberta Sustainable Resource Development (ASRD), who surveyed licensed residents and non-resident anglers, and gathered information throughout the 2005 calendar year. A total of 211,666 adult anglers were identified to have held fishing licenses in Alberta in 2005. Of these, 93.9% were Alberta residents, 3.2% were from other parts of Canada and 2.9% from outside Canada. Only 90.3% (179,461/198,685) of the licensed Alberta anglers and 95.5% (12,397/12,981) of visiting licensed anglers actively fished in 2005 (ASRD 2007). Unlicensed youth anglers (age <16 years) and senior anglers (age >64) were extrapolated. A total of 70,524 were estimated to be the number of youth who actively fished in 2005, whereas active senior anglers were put at 25,129 (ASRD 2007). This brings the total anglers in Alberta in 2005 to 287,511.

Licensed anglers (excluding youth and senior anglers) fished an estimated 2,668,834 days in 2005. The average number of days per angler was put at 13.9 days. Alberta residents appear to have fished 2-3 times the number of days of visiting anglers. Overall fishing days in Alberta, including seniors and youth, exceeds 3,063,648 days.

Figure 1 Percentage of reported sport fishing effort (days fished)



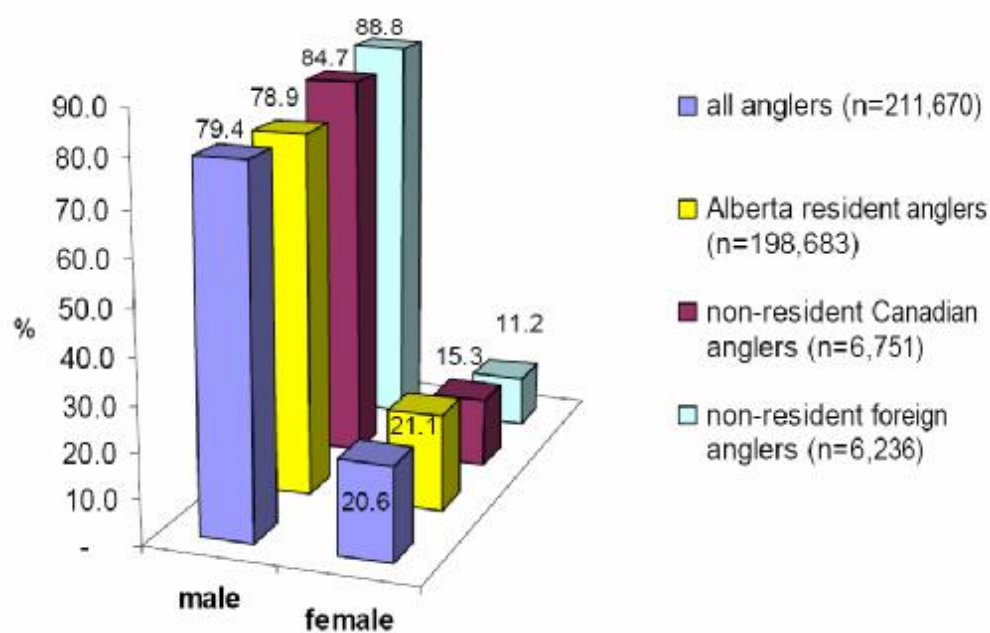
Source: ASRD 2007

Parkland-Prairie 2 (PP2) management zone hosted most of the angling days with 21% of the total (see Figure 1). The least angling days were spent in Northern-Boreal (NBA) with only 2.3% of the total angling days. About 50.6% of Alberta anglers resided in the Parkland-Prairie Zone which is the area of residence of the majority of Alberta's population. The eastern Slopes Zone was home to one third of Alberta anglers, while the largest zone Northern-Boreal held the fewest.

More than half of the non-resident anglers (52.1%) lived in other provinces of Canada in 2005. Anglers residing in neighbouring British Columbia and Saskatchewan were the largest group of other Canadian anglers and the majority of foreign anglers were from the United States.

Males represent the overwhelming majority of Alberta anglers and even make up a larger proportion of non-Alberta anglers (see Figure 2).

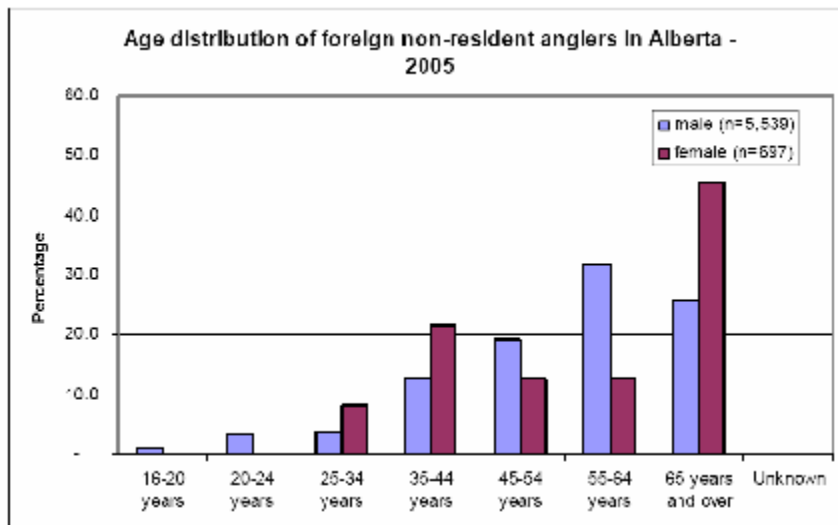
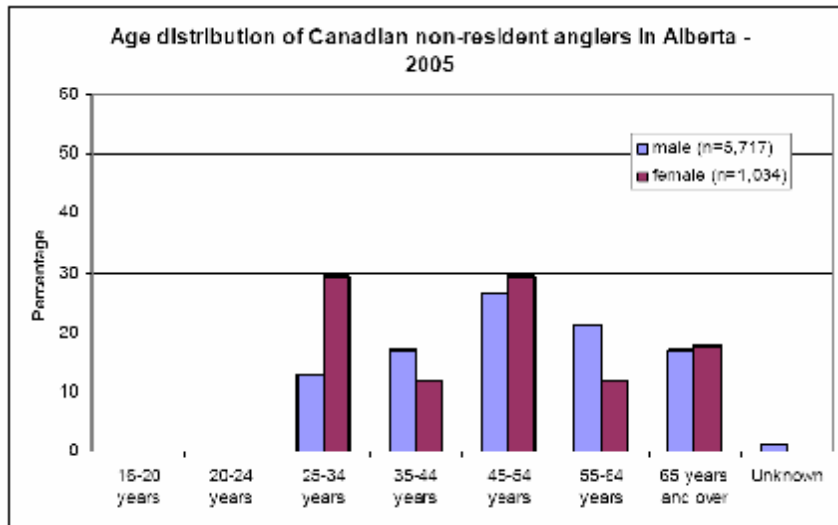
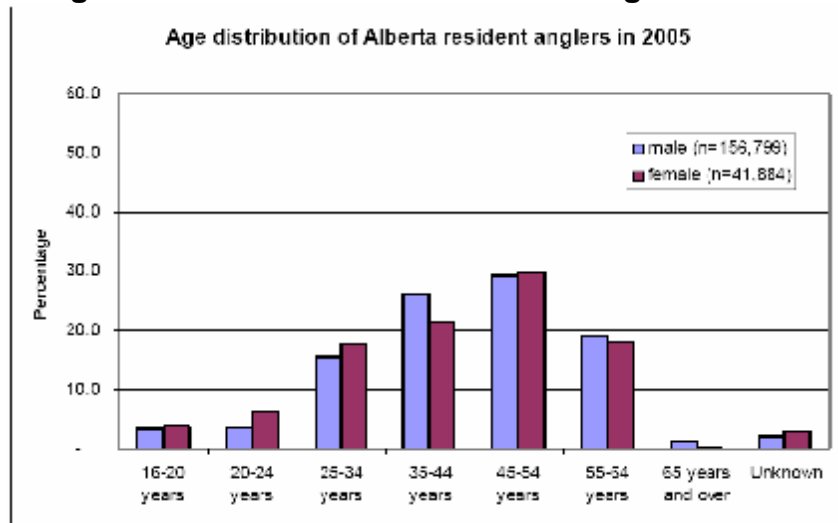
Figure 2 - Percentages of licensed anglers by gender – Alberta 2005



Source: ASRD 2007

The majority of Alberta anglers were in the 35-54 years old cohort, with relatively larger representation of older anglers in the non-resident licensed categories (see Figure 3). The average age of male Alberta-licensed anglers was 44 years old and for female licensed anglers, 42 years old. The overall average age of all anglers was 43 for Alberta residents, 53 for non-resident Canadian anglers and 55 for foreign anglers.

Figure 3 - Age-class distributions of licensed anglers in Alberta – 2005



Source: ASRD 2007

Licensed anglers visiting Alberta in 2005 made 82,451 trips of which, 24.4% were for fishing purposes. On average, non-resident Canadian anglers spent roughly 3 times more days in Alberta fishing than did foreign anglers.

When non-resident anglers were asked to select from options regarding what they would have done had no fishing opportunities existed in Alberta in 2005, roughly more than half (56.7%) indicated they would have substituted for other activities. Foreign anglers consider fishing a major incentive to visiting Alberta, more so than non-resident Canadians. Over one third (37.8%) of foreign anglers indicated that they would not have come to Alberta at all in the absence of angling opportunities.

Information from friends and family was, by far, the dominant source of information about angling opportunities for visiting anglers. The Internet, bait and tackle shops, regulations guides/brochures/pamphlets, newspapers and magazines made up the balance of occasionally used information sources. Foreign anglers tended to rely more extensively on the Internet than Canadian anglers.

Recreational fishing experience was rated as “good” to “excellent” by 69.3% of resident anglers, by 71.2% of non-resident Canadian anglers and by 78.6% of non-resident foreign anglers.

Resident and non-resident anglers were asked to rate the importance of certain aspects of the management of Alberta fisheries. A very large majority of anglers (>90%) rated healthy aquatic ecosystems, habitat protection and conservation, enforcement of fisheries regulations and the monitoring of fish populations as “important” to “very important.” About 80% of the anglers rated a scientific based approach to fisheries management as “important” or “very important.” Of significant importance to anglers is the development and expansion of the public consultation approach to the development of fisheries management policies.

The most cited reason for not fishing was due to time restrictions (54%). The fast pace of urban life presents both opportunities and constraints. With more leisure time, fishing activities will pick up.

It has long been recognized that the resource is socially and economically important because it supports recreational and food fishing activities throughout the province. Less appreciated, perhaps, are the actual magnitudes of the total economic impacts of this activity on the provincial and regional economies.

Anglers Expenditures in Alberta

Angling involves substantial expenditures on gear, bait, transport and food. It also involves large investments in equipment, boats and even land. Anglers fishing in Alberta (excluding seniors) in 2005 were estimated to have spent \$417.3 million on major

equipment, property and other fishing related expenditures (see Table 1). The Survey did not assign an expenditure amount to these seniors. David Park (2007) reports that when a reasonably conservative amount of \$1,000 dollar is assigned per senior angler, a total of \$25.1 million could be added to the above figure, thereby raising the total spent in Alberta on fishing investments and regular expenditures to \$441.5 million in 2005. Alberta resident anglers spent considerably more per person (\$2,262) than non-resident Canadian anglers. The latter spent almost two third more than Alberta resident anglers did for the same period. On the other hand, foreign anglers spent twice as much per day as Alberta residents.

Table 1
Estimated economic value of sport fishing in Alberta in 2005 (CDN\$)

	Alberta resident	Non-resident Canadian	Non-resident Foreign	Total
Direct Expenditures	\$124,581,570	\$2,729,060	\$6,628,447	\$133,939,077
Percentage	93.0%	2.0%	4.9%	100.0%
Average per active angler	\$694	\$432	\$1,091	\$698
Average per angler day	\$48	\$82	\$288	\$50
Purchases and Investments attributed to sport fishing	\$281,347,894	\$591,411	\$471,526	\$282,410,831
Percentage	99.6%	0.2%	0.2%	100.0%
Average per active angler	\$1,568	\$94	\$78	\$1,472
Average per angler day	\$108	\$18	\$21	\$106
Value of sport fishing (excluding Alberta seniors)	\$405,929,464	\$3,320,471	\$7,694,212	\$417,239,065
Percentage	97.3%	0.8%	1.8%	100.0%
Average per active angler	\$2,262	\$525	\$1,169	\$2,170
Average per angler day	\$155	\$100	\$309	\$156
Estimated value of sport fishing by Alberta seniors ¹	\$25,129,000	(included as licensed anglers)	(included as licensed anglers)	\$25,129,000
Total value of sport fishing (including Alberta seniors)	\$431,058,464	\$3,320,471	\$7,099,973	\$441,478,908

Source: Alberta Sustainable Resource Development. 2007 Sport Fishing In Alberta 2005

Note: 1 -number of senior anglers in 2005 (25,129) multiplied by estimated average cost per senior angler (\$1000)

A total of \$124.6 million was spent by Alberta resident anglers on food, lodging, access fees, transportation, fishing services and fishing supplies in 2005. Non-resident Canadian anglers spent \$2.7 million on these items in Alberta in 2005; while foreign anglers spent \$6.6 million during the same year (see Table 2). Alberta residents spent most on transportation, followed by food and lodging. Non-resident Canadian anglers spent mainly on food and lodging followed by transportation, whereas foreign anglers spent mostly on food and lodging followed by prepaid fishing packages. The total direct

expenditures in Alberta in 2005 add up to about \$134 million (excluding seniors' expenditures).

Table 2
Estimated expenditures directly attributable to sport fishing in Alberta
in 2005, by expenditure category (CDN\$)

Expenditure Category		Alberta resident	Non-resident Canadian	Non-resident Foreign	Total
Food and Lodging	Food	\$32,626,549	\$613,702	\$904,509	\$34,144,761
	Accommodation	\$4,253,756	\$337,613	\$1,513,707	\$6,105,076
	Camping Fees	\$9,870,177	\$159,092	\$84,572	\$10,113,840
	Access Fees (parking fees, etc.)	\$1,238,427	\$15,999	\$29,666	\$1,284,092
	Subtotal	\$47,988,909	\$1,126,406	\$2,532,454	\$51,647,769
Transportation	Travel Costs	\$41,462,037	\$630,350	\$1,030,602	\$43,122,989
	Boating Expenses	\$12,945,542	\$172,155	\$14,940	\$13,132,627
	Subtotal	\$54,407,579	\$802,495	\$1,045,542	\$56,255,616
Fishing Services	Boat Rentals	\$978,425	\$40,326	\$21,073	\$1,039,824
	Guide Services	\$577,731	\$60,793	\$570,401	\$1,208,925
	Licence Fees	\$4,783,341	\$159,775	\$274,682	\$5,217,798
	Subtotal	\$6,339,497	\$260,894	\$866,156	\$7,466,547
	Fishing supplies (bait, tackle, etc.)	\$12,157,669	\$209,890	\$234,454	\$12,602,014
	Fishing packages purchased	\$3,349,364	\$302,748	\$1,696,758	\$5,348,870
	Other	\$338,552	\$26,627	\$253,083	\$618,262
Total		\$124,581,570	\$2,729,059	\$6,628,447	\$133,939,077

Source: Alberta Sustainable Resource Development. 2007 Sport Fishing In Alberta 2005

Major purchases in Alberta in 2005 are estimated at \$282.4 million. The bulk of these purchases were made by resident Alberta anglers to the tune of \$281.4 million. Camping equipment and boats accounted for \$158.3 million or 56% of the total. Special vehicles are the third largest item of major purchase associated with fishing in Alberta with \$61 million in 2005 (see Table 3).

It is interesting to note that while foreign anglers outspent non-resident Canadians in terms of direct expenditures, they spent less on major purchases than non-resident anglers. Together they spent slightly more than \$1 million on these items in Alberta in 2005.

Nearly half (46%) of the Alberta resident anglers reported making major purchases in 2005. Only 14% of non-resident anglers and 17% of foreign anglers reported major purchases in 2005.

These large direct investment expenditures are poor estimates of the total impact and value of fishing in Alberta in 2005. Far more representative of the true impact and value are the indirect and induced effects that result from other sectors and businesses coming on stream to sustain the direct and investment expenditures. In the following, the methodology, terminology and the impact model used to estimate the total impact of fishing in Alberta in 2005 are explained, followed by a presentation of the impact results and future trends.

Table 3
Estimated values of major purchases or investments attributed to sport fishing
in Alberta in 2005 (CDN\$)

Expenditure Category		Alberta resident	Non-resident Canadian	Non-resident foreign	Total
Fishing Equipment	Amount ¹	\$19,269,492	\$147,929	\$254,592	\$19,672,013
(Rods, Reels, Fish Finders)	% of total amount spent ²	100%	100%	100%	100%
Boating Equipment	Amount	\$73,169,452	\$410,351	\$365	\$73,580,169
(Boats, Motors, Trailers)	% of total expenditures	82%	75%	10%	82%
Camping Equipment	Amount	\$84,654,157	\$3,040	\$42,907	\$84,700,103
(Tents, Trailers)	% of total expenditures	55%	50%	10%	55%
Special Vehicles	Amount	\$61,079,133	-	-	\$61,079,133
(4x4's, Campers, ATVs)	% of total expenditures	33%	-	-	33%
Land - Buildings	Amount	\$34,550,795	-	\$88,750	\$34,369,545
(Cabins, Cottages, Land)	% of total expenditures	59%	-	25%	59%
Other	Amount	\$8,624,866	\$30,091	\$84,911	\$8,739,868
(Special Clothing, Waders)	% of total expenditures	87%	100%	99%	87%
Combined Categories	Amount	\$281,347,894	\$591,411	\$471,526	\$282,410,831
	% of total expenditures	55%	81%	64%	55%

Source: Alberta Sustainable Resource Development. 2007 Sport Fishing In Alberta 2005

Notes

1- expenditure directly attributable to sport fishing

2- proportion of total amount spent by an angler in 2005 on that category of expenditure that is attributable to sport fishing

Economic Impact Analysis and Methodology

Each dollar spent on bait, fishing gear and other fishing supplies circulates and re-circulates within the economy, multiplying the effects of the original expenditures on overall economic activity. This process is referred to as the economic *multiplier effect*. It operates at several levels:

- The initial expenditures of the anglers on fishing supplies and equipment are generally referred to as the direct costs of fishing, and their effects are referred to as the *initial (direct) effects*.
- Subsequent purchases by suppliers of materials and services to sustain the original and derivative expenditures are called the *indirect effects*.
- The *induced effects* emerge when workers in the sectors stimulated by initial and indirect expenditures spend their additional incomes on consumer goods and services.

Some of the key terms and definitions are presented below to assist the reader in interpreting the results of the economic impact analysis:

Initial expenditures – This figure indicates the amount of expenditures directly made by the anglers. It is these expenditures that drive the results.

Value Added (Gross Provincial Income) – This figure represents net output generated by the initial expenditures in the province. It is typically the sum of wages, rent, interest and profits, in addition to indirect business taxes and depreciation minus subsidies.

Employment – This refers to the total person years (full-time equivalent jobs) generated by the fishing expenditures and investments and their sustaining activities.

Taxes – The impact system generates a higher amount of taxes from multiple sources (income taxes, GST, liquor and tobacco taxes, room tax, etc.) each of which is related to the level of government receiving it. For example, the Federal government receives the proceeds from the GST tax, the Provincial government receives its share of personal and corporate income taxes, and the Local government receives both property and business taxes.

Imports – These represent the goods and services acquired from outside the province to sustain the activities of anglers. They essentially represent leakages from the province.

Multipliers – These are summary measures that represent the division of the total impacts (direct, indirect and induced) by the initial expenditures. For example, the income multiplier associated with direct fishing expenditures is calculated by dividing the total income (value added) impact by the initial expenditures. The only exception is that of the employment multiplier where total employment is divided by direct employment in order to preserve the common units.

If the economy is operating at full employment, additional expenditures will most likely reflect themselves in higher prices and wages as additional workers attracted to the site are drawn from other employment. Only if the economy is operating with excess capacity with some unemployment and slack in critical sectors, and there exists no apparent bottlenecks anywhere in the economy, is it possible to claim that the person-years associated with the activity expenditures represent additional or incremental employment. These are precisely the conditions that have prevailed in the study areas which allow us to claim that the economic impacts in this study are incremental impacts.

There is a general but unacceptable tendency on the part of economists when generating impact measures to suspend any concern about alternative uses of funds or about the negative (substitution) effects associated with crowding out other expenditures. The input data were derived from the survey of anglers carried out by ASRD and were deemed to be net expenditures that would otherwise be made in the economy.

Economic impact analysis is a useful mathematical tool capable of quantifying the patterns and magnitudes of interdependence among sectors and activities. It is predicated on two fundamental propositions.

- First, regardless of the inherent value of primary activities such as recreation or tourism, to the extent that the activities involve the use of scarce resources, they generate economic consequences that can be measured and compared.

- Second, economic impacts are only partially captured by assessing direct expenditures. In as much as the economy is a complex whole of interdependent and interacting activities, there are some significant indirect and induced impacts associated with these direct expenditures. Invariably most of the indirect and induced impacts are larger than the direct impacts.

The Economic Impact Model

The impact model used here is a special application of the most recent (DEIM: Alberta) model developed by Econometric Research Limited. DEIM is a unique model that captures the economic impact of tourism expenditures at the local level (counties or economic regions), the provincial level (Alberta) and the national level. The model is based on a novel technology that integrates input-output analysis and location theory. The system has already been applied to the study of The Economic Impact of Tourism in Banff, The Economic Impact of West Edmonton Mall and several tourism projects identified by the Government of Alberta.

The model utilizes a large set of economic and technical databases that are regularly published by Statistics Canada. A short list includes the inter-provincial input-output tables, employment by sector, taxes by type of tax and the level of government collecting it, prices of products, energy used in physical and energy units, and other relevant data.

Impact of Sport Fishing Expenditures

Direct anglers expenditures in Alberta exceeded \$133.4 million in 2005 on fishing related activities. Investment expenditures exceeded \$282.4 million in Alberta in the same year. It is true that investment expenditures related to recreational fishing exceed those directly made in 2005, but they do not represent recurrent expenditures. They tend to be made infrequently and in large amounts. It is difficult to believe that the investment figures in 2005 are representative of expenditures in different years. In this respect their impacts are not sustainable impacts. By way of contrast, regular expenditures on lodging, travel and fishing supplies are made each year and, while they vary from year to year, the magnitudes of variation are small. These expenditures are truly recurrent and their impacts are considered, for all practical purposes, sustainable impacts.

Resident Albertan anglers spent directly over \$124.5 million on fishing supplies and recurrent items. This volume of expenditures is credited with supporting a permanent increase in Alberta Gross Provincial Income of \$123.5 million leading to an increase in wages and salaries of \$68.3 million, to which more than 2,130 Albertans owe their jobs. All levels of government derive revenues on these impacts. Together the three levels of government collected over \$50 million in 2005, with the federal government deriving the

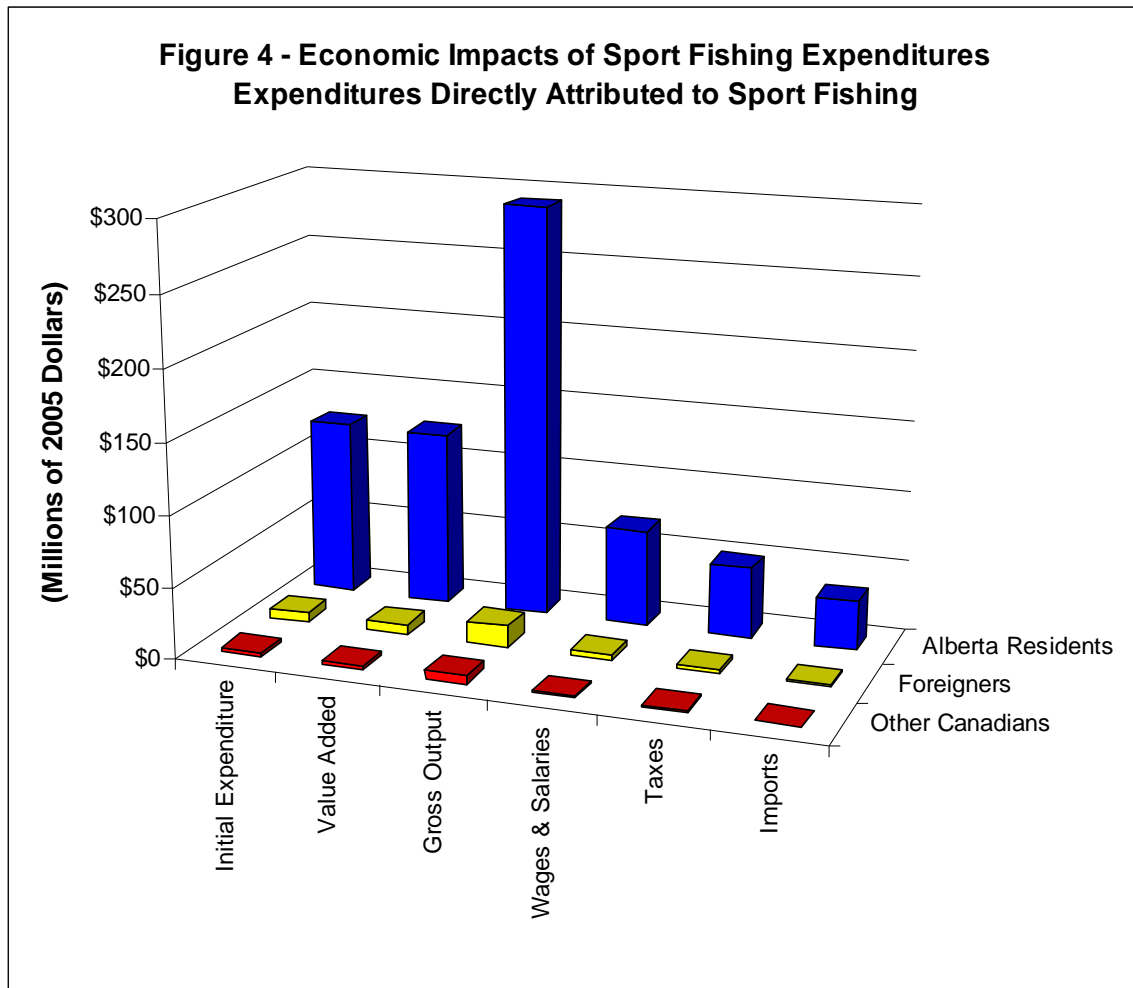
largest share of about \$29 million, followed by the provincial government with over \$18 million and the local governments collectively collecting \$3 million (Table 4). New money was certainly spent by other Canadians and foreign anglers in Alberta. Other Canadians spent \$2.7 million and this volume sustained an equivalent increase in Alberta's GPI and added about \$1.6 million in wages and salaries. More than 51 Albertans owe their permanent full-time equivalent jobs to these expenditures and the three levels of government collectively collected about \$1.2 million on these impacts.

Table 4
Economic Impacts of Sport Fishing in Alberta
Expenditures Directly Attributed to Sport Fishing
(2005 Dollars)

	Alberta Residents	Other Canadians	Foreigners	Total
Initial Expenditure	\$124,581,570	\$2,729,070	\$6,628,447	\$133,939,087
Value Added				
Direct	\$42,083,174	\$948,905	\$2,648,378	\$45,680,457
Indirect & Induced	\$81,459,906	\$1,751,794	\$4,340,182	\$87,551,882
Total	\$123,543,080	\$2,700,699	\$6,988,560	\$133,232,339
Multiplier	0.99	0.99	1.05	0.99
Gross Output				
Direct	\$119,798,229	\$2,569,295	\$6,353,765	\$128,721,289
Indirect & Induced	\$171,319,886	\$3,675,641	\$8,880,998	\$183,876,525
Total	\$291,118,115	\$6,244,936	\$15,234,763	\$312,597,814
Multiplier	2.34	2.29	2.30	2.33
Wages & Salaries				
Direct	\$25,675,736	\$608,167	\$1,780,499	\$28,064,402
Indirect & Induced	\$42,664,473	\$943,452	\$2,443,903	\$46,051,828
Total	\$68,340,209	\$1,551,619	\$4,224,402	\$74,116,230
Employment				
Direct	836	22	68	926
Indirect & Induced	1,294	29	76	1,399
Total	2,130	51	144	2,325
Multiplier	2.55	2.32	2.11	2.51
Taxes				
Federal	\$28,943,163	\$635,255	\$1,658,140	\$31,236,558
Provincial	\$18,083,753	\$461,468	\$1,085,725	\$19,630,946
Local	\$3,010,916	\$68,297	\$183,602	\$3,262,815
Total	\$50,037,832	\$1,165,020	\$2,927,467	\$54,130,319
Imports				
From Other Provinces	\$14,687,630	\$322,985	\$817,828	\$15,828,443
From Other Countries	\$19,999,530	\$437,877	\$1,073,574	\$21,510,981
Total	\$34,687,160	\$760,862	\$1,891,402	\$37,339,424

Source: Econometric Research Limited and Alberta Sustainable Resource Development

Foreign anglers' expenditures in Alberta in 2005 sustained larger economic impacts in the province than other Canadian anglers' expenditures during the same year. Indeed, the impacts are almost three times as large. The income impacts of foreign anglers' expenditures in Alberta in 2005 are almost \$7 million. The impact results in Table 4 also show a high income multiplier of 1.05 associated with these expenditures and this is the result of a high local content. Wages and salaries are permanently increased by \$4.2 million and 144 Albertans owe their jobs to these expenditures (Table 4 and Figure 4). Again, all three levels of government in Alberta benefit from these impacts. A total of about \$3 million is collectively received by the three levels of government on the total economic impacts of foreign anglers' expenditures in Alberta in 2005.



The total direct expenditures on fishing supplies and materials add up to about \$134 million. This figure does not include the expenditures of non-licensed anglers (mostly seniors and youth), which can underestimate the total impacts of anglers in Alberta in 2005. But be as it may, the total expenditures supported a provincial income impact of \$133 million, \$74 million in wages and salaries, 2,325 full-time equivalent permanent jobs for Albertans, and governments collectively collected a total of \$54 million in taxes and fees (Table 4). Tables 5 to 8 and figures 5 to 8 present the detailed tax revenues for

each level of government by type of tax. Invariably personal income taxes are the largest source of tax revenues for both the provincial and federal government. Property taxes are the dominant, if not the only source of revenues for the local government.

Table 5
Tax Impacts of Sport Fishing in Alberta
Of Residents' Expenditures
(2005 Dollars)

	Federal	Provincial	Local	Total
Personal Income Tax	\$11,621,511	\$4,719,783		\$16,341,294
Indirect Business Tax		\$1,943,637		\$1,943,637
Goods & Services Tax	\$6,471,079			\$6,471,079
Corporate Profit Taxes	\$8,906,946	\$5,206,090		\$14,113,036
Property & Bus. Tax			\$3,010,916	\$3,010,916
Tobacco & Liquor Tax		\$160,520		\$160,520
Tourism Levy		\$564,957		\$564,957
License Fees		\$4,783,341		\$4,783,341
Employment Insurance	\$1,943,627			\$1,943,627
Workmans Comp.		\$705,425		\$705,425
Total	\$28,943,163	\$18,083,753	\$3,010,916	\$50,037,832

Source: Econometric Research Limited and Alberta Sustainable Resource Development

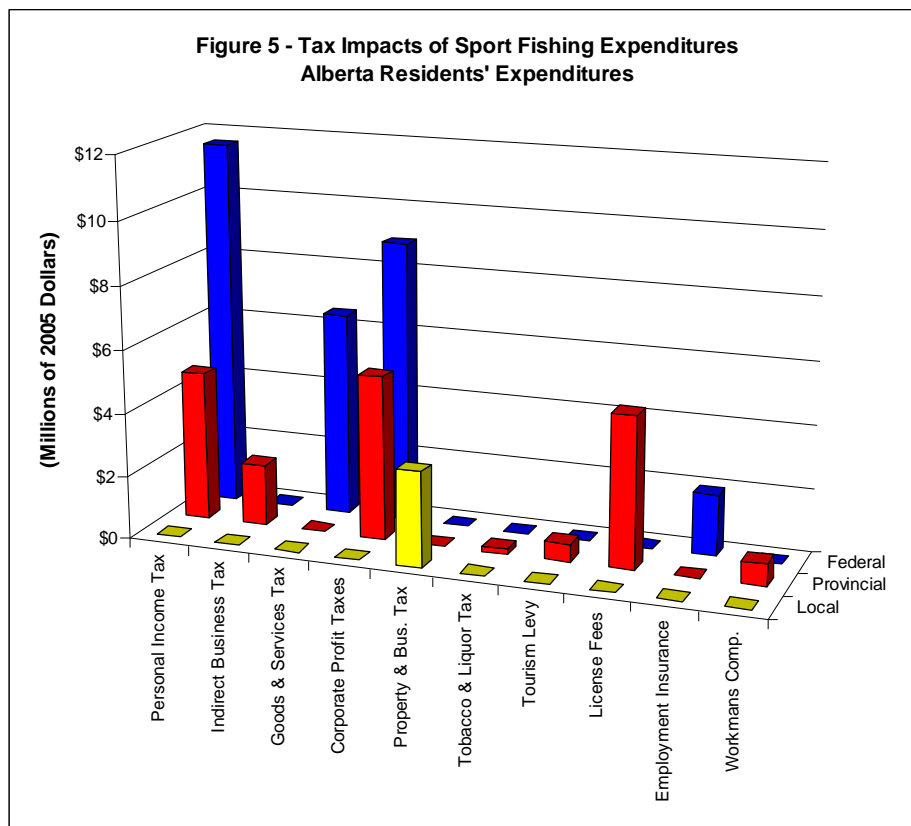


Table 6
Tax Impacts of Sport Fishing in Alberta
Of Other Canadians' Expenditures
(2005 Dollars)

	Federal	Provincial	Local	Total
Personal Income Tax	\$263,859	\$107,159		\$371,018
Indirect Business Tax		\$46,446		\$46,446
Goods & Services Tax	\$141,864			\$141,864
Corporate Profit Taxes	\$185,403	\$108,368		\$293,771
Property & Bus. Tax			\$68,297	\$68,297
Tobacco & Liquor Tax		\$3,836		\$3,836
Tourism Levy		\$19,868		\$19,868
License Fees		\$159,775		\$159,775
Employment Insurance	\$44,129			\$44,129
Workmans Comp.		\$16,016		\$16,016
Total	\$635,255	\$461,468	\$68,297	\$1,165,020

Source: Econometric Research Limited and Alberta Sustainable Resource Development

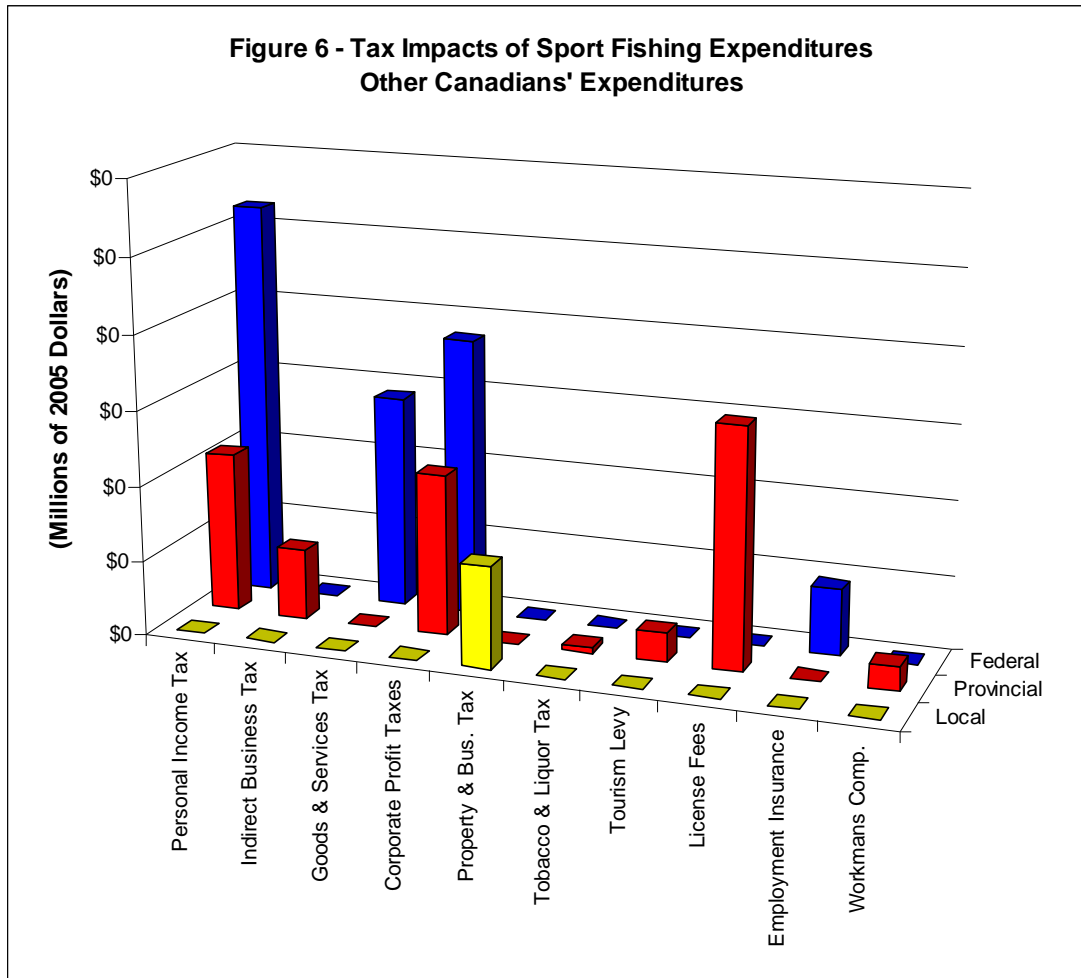


Table 7
Tax Impacts of Sport Fishing in Alberta
Of Foreigners' Expenditures
(2005 Dollars)

	Federal	Provincial	Local	Total
Personal Income Tax	\$718,377	\$291,750		\$1,010,127
Indirect Business Tax		\$139,549		\$139,549
Goods & Services Tax	\$373,624			\$373,624
Corporate Profit Taxes	\$445,995	\$260,683		\$706,678
Property & Bus. Tax			\$183,602	\$183,602
Tobacco & Liquor Tax		\$11,525		\$11,525
Tourism Levy		\$63,931		\$63,931
License Fees		\$274,682		\$274,682
Employment Insurance	\$120,144			\$120,144
Workmans Comp.		\$43,605		\$43,605
Total	\$1,658,140	\$1,085,725	\$183,602	\$2,927,467

Source: Econometric Research Limited and Alberta Sustainable Resource Development

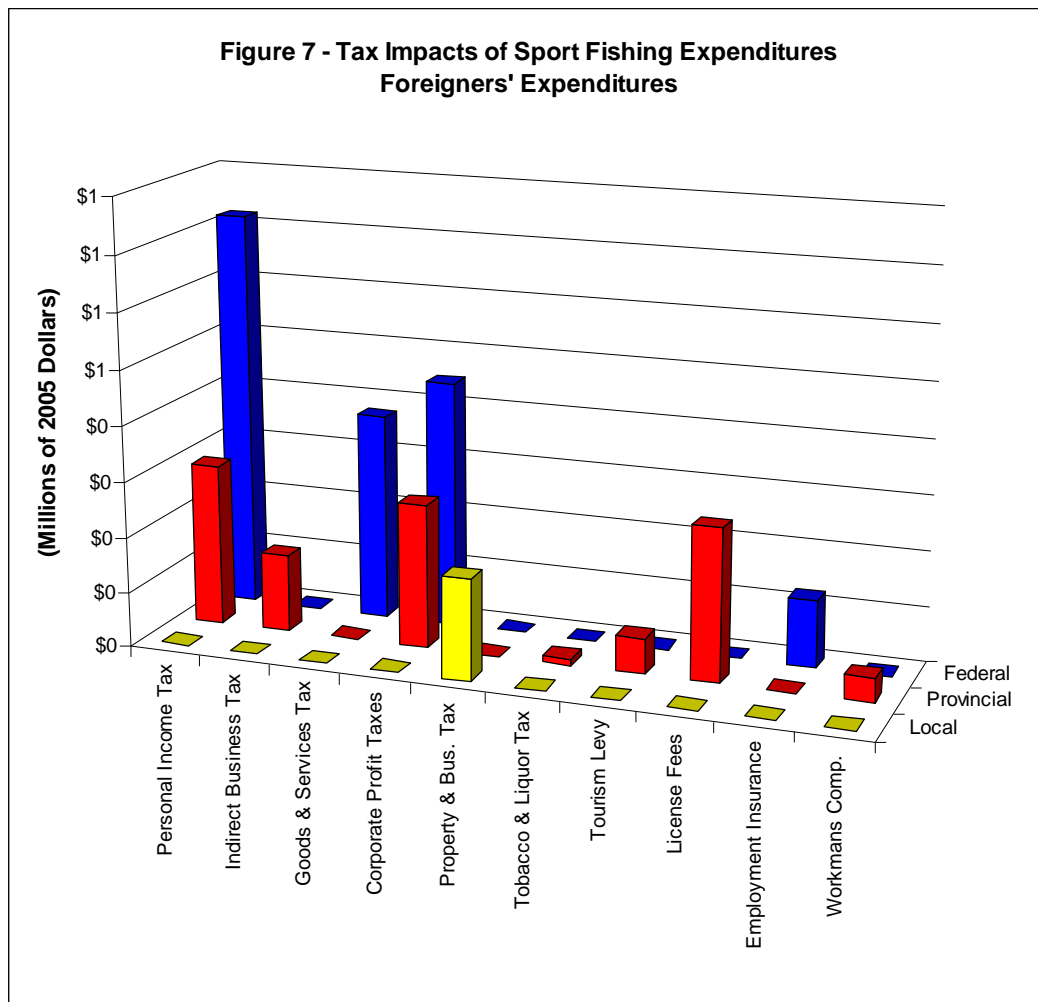
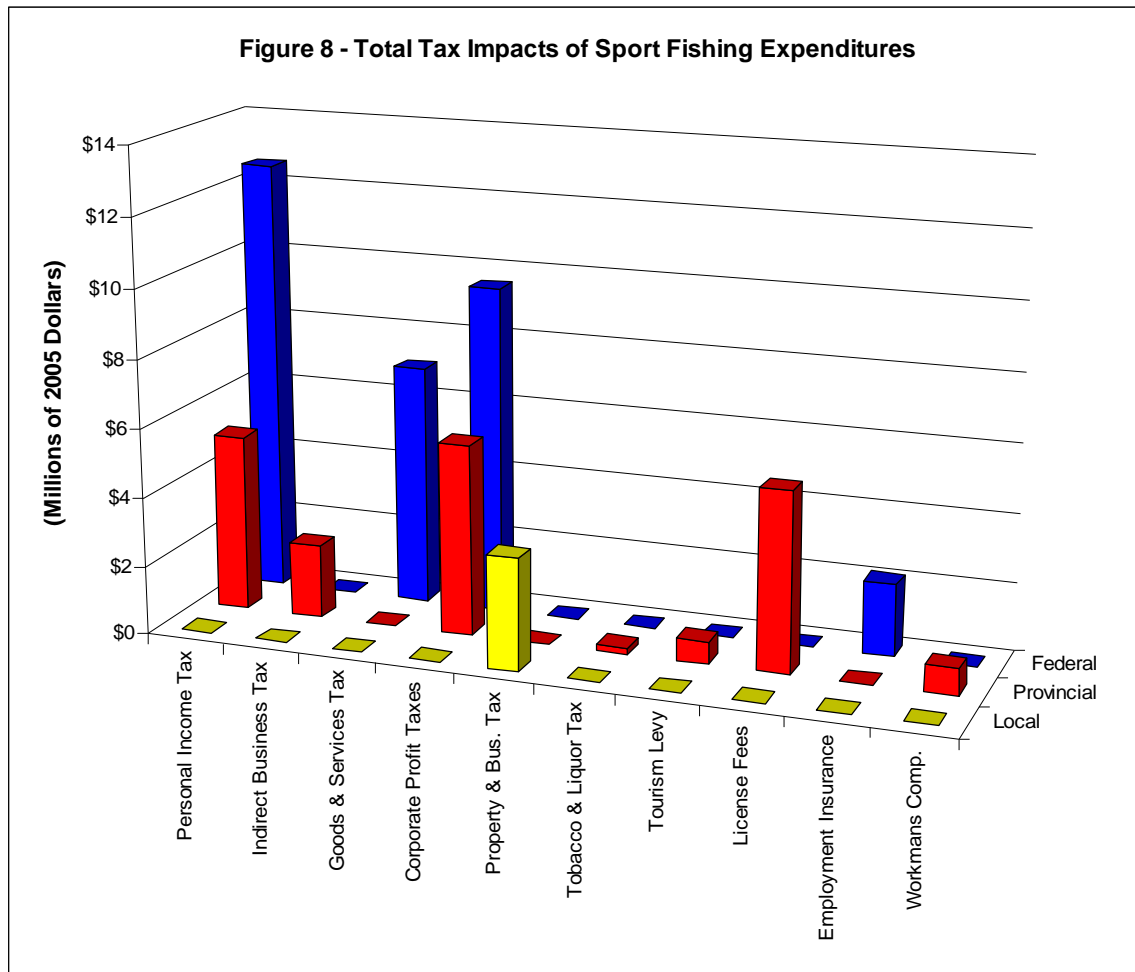


Table 8
Total Tax Impacts of Sport Fishing in Alberta
Combined Expenditures
(2005 Dollars)

	Federal	Provincial	Local	Total
Personal Income Tax	\$12,603,747	\$5,118,692		\$17,722,439
Indirect Business Tax		\$2,129,632		\$2,129,632
Goods & Services Tax	\$6,986,567			\$6,986,567
Corporate Profit Taxes	\$9,538,344	\$5,575,141		\$15,113,485
Property & Bus. Tax			\$3,262,815	\$3,262,815
Tobacco & Liquor Tax		\$175,881		\$175,881
Tourism Levy		\$648,756		\$648,756
License Fees		\$5,217,798		\$5,217,798
Employment Insurance	\$2,107,900			\$2,107,900
Workmans Comp.		\$765,046		\$765,046
Total	\$31,236,558	\$19,630,946	\$3,262,815	\$54,130,319

Source: Econometric Research Limited and Alberta Sustainable Resource Development



Impact of Sport Fishing Capital Expenditures

Capital expenditures (investment) are large but not likely to be repeated on a yearly basis. The impacts are consequently large but not recurrent. This raises a question about whether or not they can be included with the direct expenditures. Typically, the two are not added together unless it can be shown that capital expenditures are made continuously and consistently each year. It is evidently unlikely that large ticket items such as special vehicles, boats and camping equipment—expenditures that account for the largest shares of capital expenditures associated with fishing, are to be made regularly every year.

In this report we present each impact separately and no attempt is made to add them together. Each impact stream is large on its own and provides significant economic benefits to the province at large and to the many remote and rural communities where sport fishing is practiced.

Alberta residents clearly account for most of the capital expenditures associated with sport fishing in Alberta in 2005. Out of the total of \$282.4 million that was estimated to reflect these capital expenditures on fishing equipment, special vehicles, boating equipment, camping equipment and other non-recurrent investment expenditures related to fishing in Alberta in 2005, almost \$281.4 were made by Alberta resident anglers. The remaining million was shared almost equally between non-resident Canadian and foreign anglers.

A large volume of sales are supported by the investment expenditures in 2005. Indeed, more than \$642 million of total gross output (sales) result from the original \$282.4 million (Table 9). This large volume of sales sustains an income (value added) impact of \$241 million and over \$143 million in wages and salaries. A total of 5,576 person year of employment is attributable to these expenditures in Alberta in 2005 (Table 9 and Figure 9). Total taxes generated by the capital expenditures to all three levels of government exceeded \$92 million. The federal government is again the major beneficiary, receiving about \$60 million of this total. The provincial government is estimated to claim over \$26.6 million, while the local regional governments' shares in Alberta totalled \$6 million. Capital expenditures involve large ticket purchases that are not typically produced in Alberta. It is not surprising to find that imports constitute a large share of the total output generated. A total of \$85 million is imported from other provinces and countries. The imports from other provinces were about \$42 million, whereas imports from other countries were slightly larger at \$43 million (Table 9).

Given that Alberta resident anglers' capital expenditures account for almost all of the capital expenditures in Alberta associated with sport fishing, it is not far fetched to claim that the total economic impacts of capital expenditures can be attributed to them. The results in Table 9 and Figure 9 show clearly the dominance of Alberta resident anglers' expenditures and their share in total impacts. Although there are various income and employment multipliers associated with the different anglers' capital expenditures, the

multipliers of the total expenditures are equal to those associated with the Alberta residents.

Table 9
Economic Impacts of Sport Fishing in Alberta
Capital Expenditures
(2005 Dollars)

	Alberta Residents	Other Canadians	Foreigners	Total
Initial Expenditure	\$281,347,895	\$591,411	\$471,525	\$282,410,831
Value Added				
Direct	\$59,014,632	\$121,568	\$86,270	\$59,222,470
Indirect & Induced	\$181,200,583	\$368,067	\$322,500	\$181,891,150
Total	\$240,215,215	\$489,635	\$408,770	\$241,113,620
Multiplier	0.85	0.83	0.87	0.85
Gross Output				
Direct	\$281,347,895	\$591,411	\$471,525	\$282,410,831
Indirect & Induced	\$358,249,105	\$736,722	\$627,254	\$359,613,081
Total	\$639,597,000	\$1,328,133	\$1,098,779	\$642,023,912
Multiplier	2.27	2.25	2.33	2.27
Wages & Salaries				
Direct	\$44,556,707	\$89,730	\$65,368	\$44,711,805
Indirect & Induced	\$97,968,426	\$203,695	\$161,309	\$98,333,430
Total	\$142,525,133	\$293,425	\$226,677	\$143,045,235
Employment				
Direct	3,011	8	2	3,021
Indirect & Induced	2,546	5	4	2,555
Total	5,556	13	6	5,576
Multiplier	1.85	1.68	2.67	1.85
Taxes				
Federal	\$59,304,904	\$121,010	\$100,174	\$59,526,088
Provincial	\$26,554,797	\$54,265	\$45,096	\$26,654,158
Local	\$6,011,412	\$12,284	\$10,209	\$6,033,905
Total	\$91,871,113	\$187,559	\$155,479	\$92,214,151
Imports				
From Other Provinces	\$41,838,835	\$88,955	\$67,006	\$41,994,796
From Other Countries	\$42,904,079	\$90,771	\$68,786	\$43,063,636
Total	\$84,742,914	\$179,726	\$135,792	\$85,058,432

Source: Econometric Research Limited and Alberta Sustainable Resource Development

Canadian anglers' capital expenditures in Alberta in 2005 are the main, if not exclusive, drivers of the economic impact results of these expenditures. Foreigners spent the least on capital items and therefore their impacts are small and limited (Table 9 and Figure 9).

Tables 10, 11 and 12 and figures 10, 11 and 12, present a detailed account of the tax impacts by level of government and type of tax.

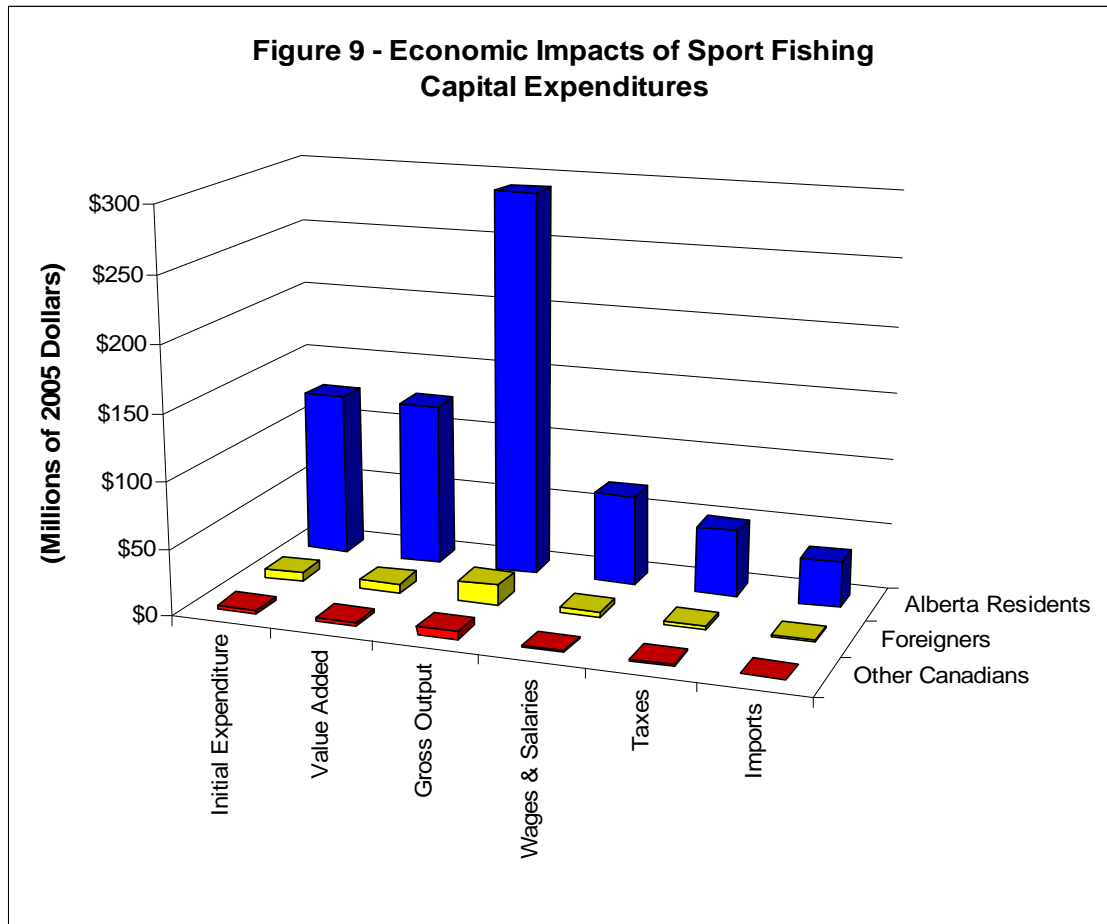
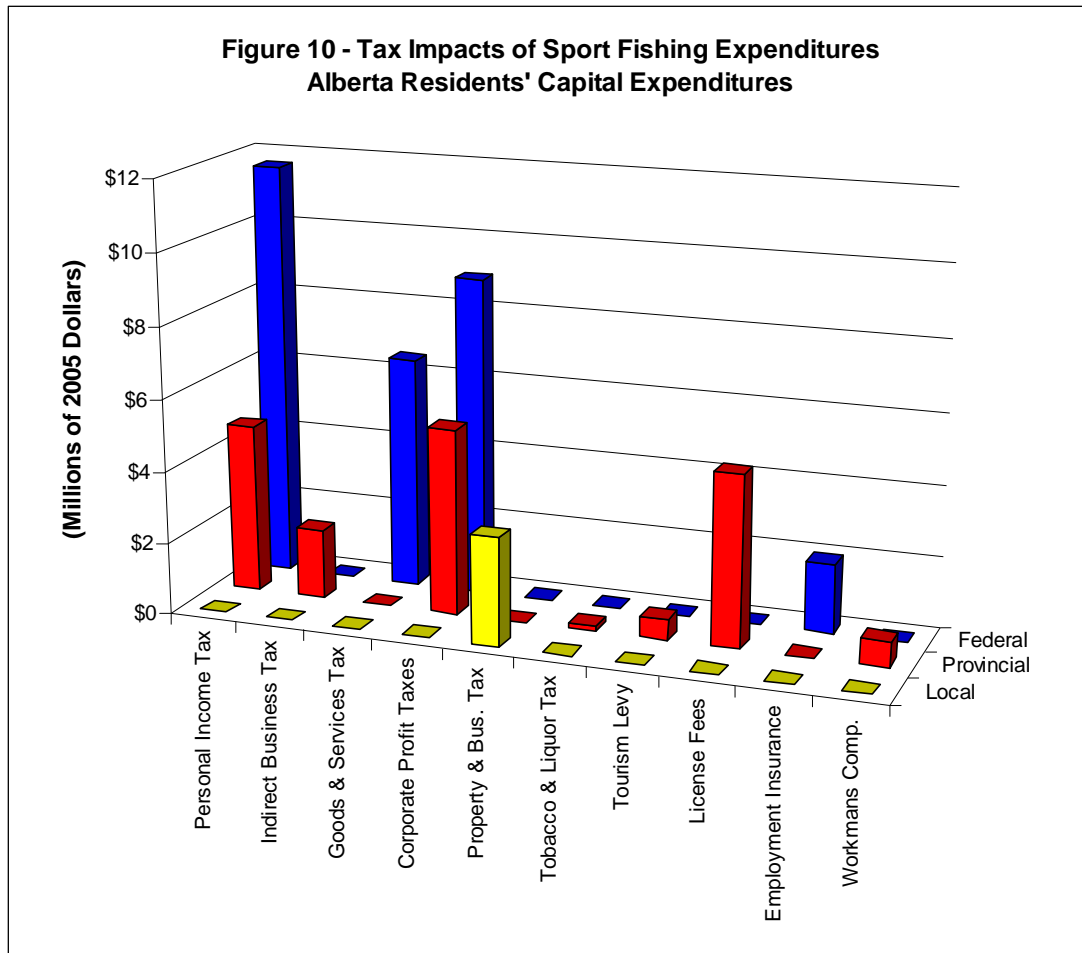


Table 10
Tax Impacts of Sport Fishing in Alberta
Of Residents' Capital Expenditures
(2005 Dollars)

	Federal	Provincial	Local	Total
Personal Income Tax	\$25,720,435	\$10,445,703		\$36,166,138
Indirect Business Tax		\$4,927,896		\$4,927,896
Goods & Services Tax	\$13,520,654			\$13,520,654
Corporate Profit Taxes	\$15,762,229	\$9,212,988		\$24,975,217
Property & Bus. Tax			\$6,011,412	\$6,011,412
Tobacco & Liquor Tax		\$406,981		\$406,981
Tourism Levy		\$0		\$0
Employment Insurance	\$4,301,586			\$4,301,586
Workmans Comp.		\$1,561,229		\$1,561,229
CPP Contributions				
Total	\$59,304,904	\$26,554,797	\$6,011,412	\$91,871,113

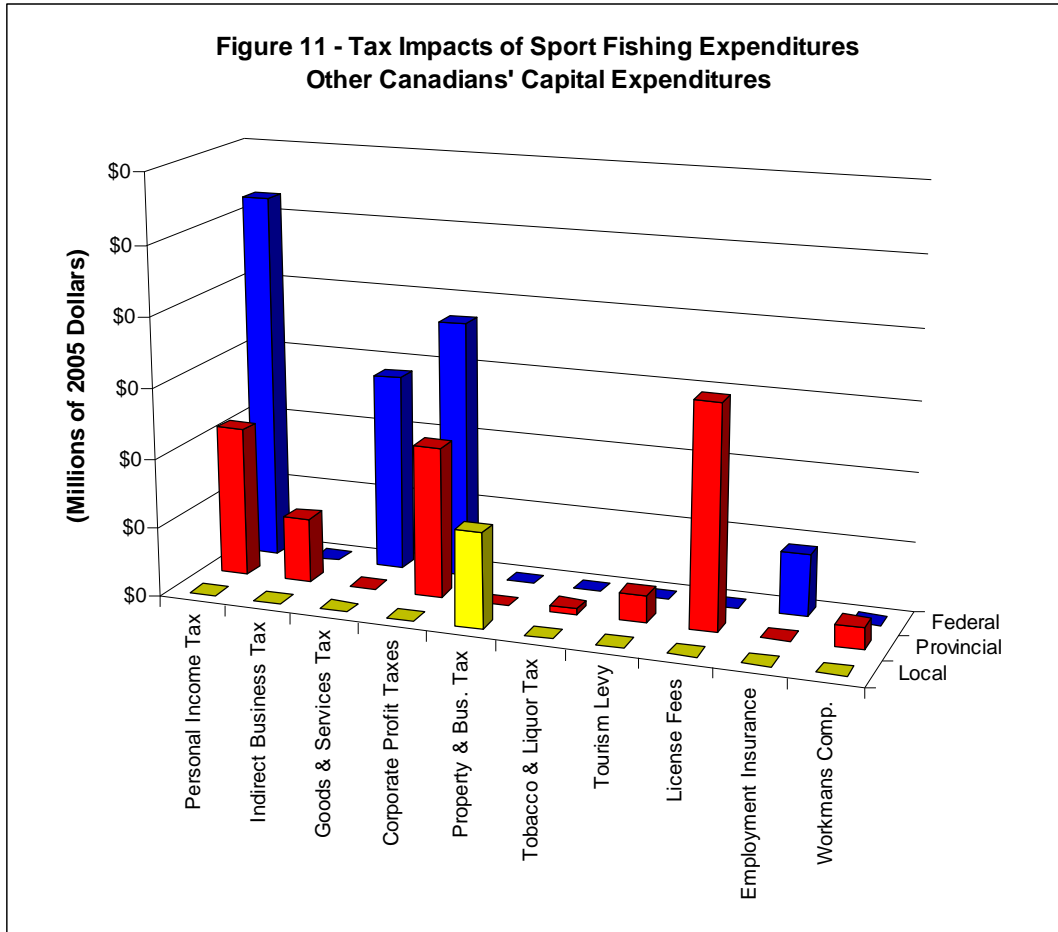
Source: Econometric Research Limited and Alberta Sustainable Resource Development



**Table 11
Tax Impacts of Sport Fishing in Alberta
Of Other Canadians' Capital Expenditures
(2005 Dollars)**

	Federal	Provincial	Local	Total
Personal Income Tax	\$52,952	\$21,505		\$74,457
Indirect Business Tax		\$10,200		\$10,200
Goods & Services Tax	\$27,543			\$27,543
Corporate Profit Taxes	\$31,659	\$18,504		\$50,163
Property & Bus. Tax			\$12,284	\$12,284
Tobacco & Liquor Tax		\$842		\$842
Tourism Levy		\$0		\$0
Employment Insurance	\$8,856			\$8,856
Workmans Comp.		\$3,214		\$3,214
CPP Contributions				
Total	\$121,010	\$54,265	\$12,284	\$187,559

Source: Econometric Research Limited and Alberta Sustainable Resource Development

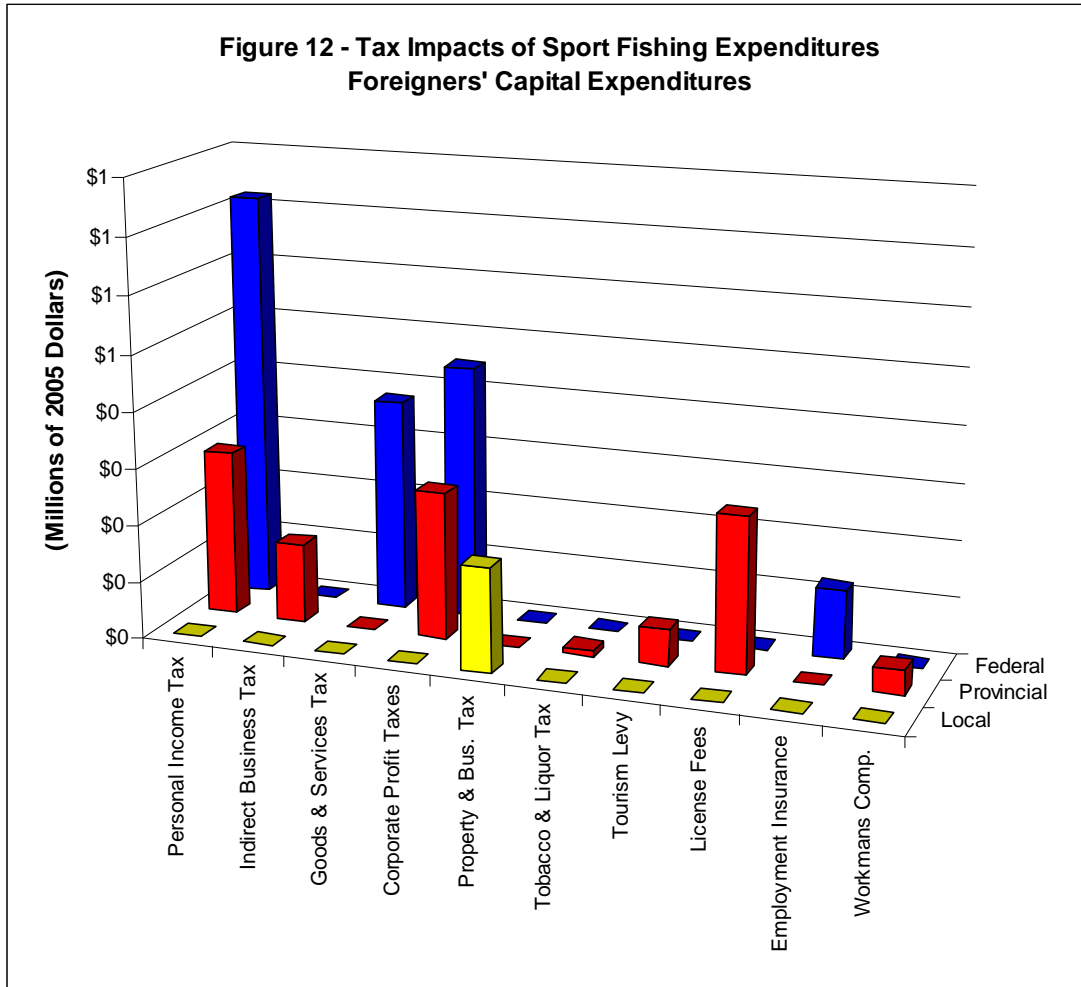


**Table 12
Tax Impacts of Sport Fishing in Alberta
Of Foreigners' Capital Expenditures
(2005 Dollars)**

	Federal	Provincial	Local	Total
Personal Income Tax	\$40,907	\$16,614		\$57,521
Indirect Business Tax		\$8,153		\$8,153
Goods & Services Tax	\$23,046			\$23,046
Corporate Profit Taxes	\$29,380	\$17,173		\$46,553
Property & Bus. Tax			\$10,209	\$10,209
Tobacco & Liquor Tax		\$673		\$673
Tourism Levy		\$0		\$0
Employment Insurance	\$6,841			\$6,841
Workmans Comp.		\$2,483		\$2,483
CPP Contributions				
Total	\$100,174	\$45,096	\$10,209	\$155,479

Source: Econometric Research Limited and Alberta Sustainable Resource Development

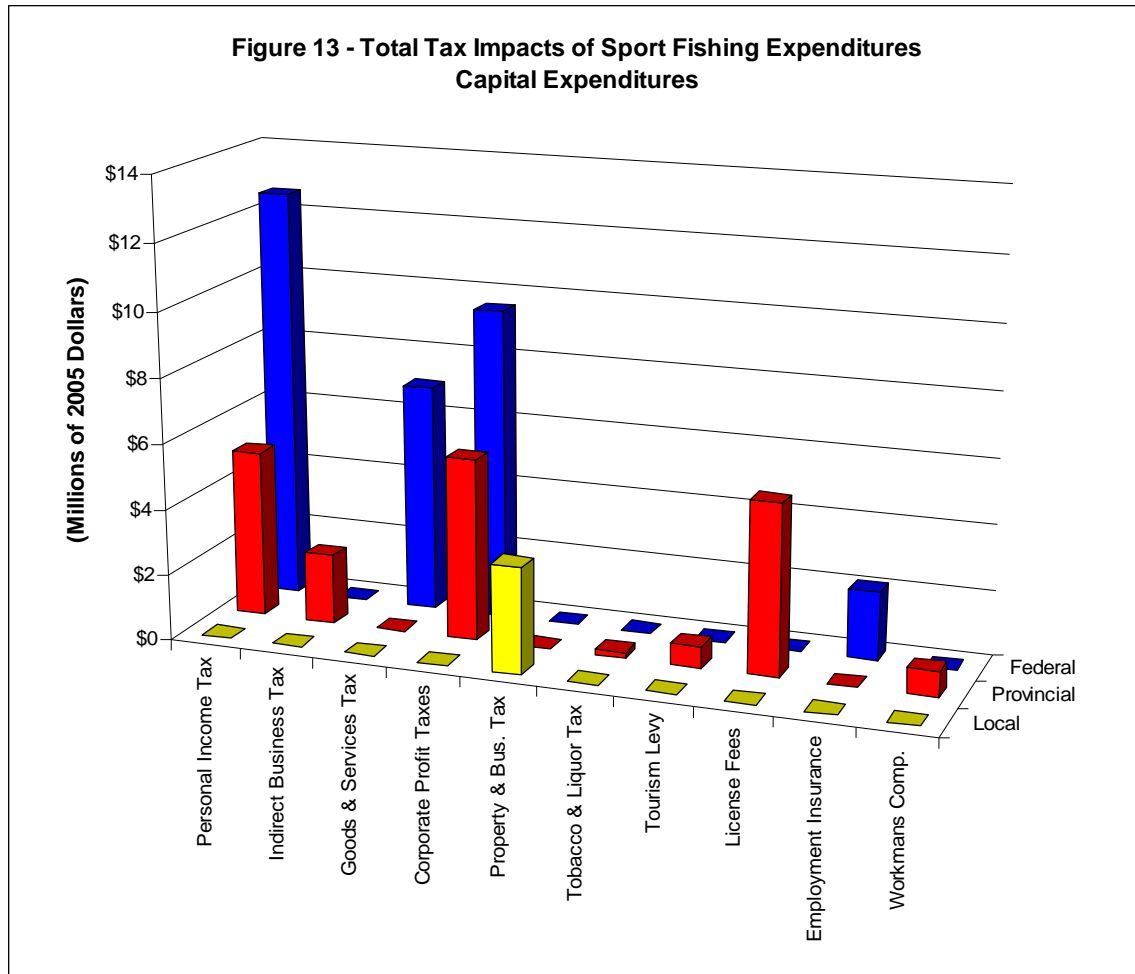
**Figure 12 - Tax Impacts of Sport Fishing Expenditures
Foreigners' Capital Expenditures**



**Table 13
Total Tax Impacts of Sport Fishing in Alberta
Capital Expenditures
(2005 Dollars)**

	Federal	Provincial	Local	Total
Personal Income Tax	\$25,814,294	\$10,483,822		\$36,298,116
Indirect Business Tax		\$4,946,249		\$4,946,249
Goods & Services Tax	\$13,571,243			\$13,571,243
Corporate Profit Taxes	\$15,823,268	\$9,248,665		\$25,071,933
Property & Bus. Tax			\$6,033,905	\$6,033,905
Tobacco & Liquor Tax		\$408,496		\$408,496
Tourism Levy		\$0		\$0
Employment Insurance	\$4,317,283			\$4,317,283
Workmans Comp.		\$1,566,926		\$1,566,926
CPP Contributions				
Total	\$59,526,088	\$26,654,158	\$6,033,905	\$92,214,151

Source: Econometric Research Limited and Alberta Sustainable Resource Development

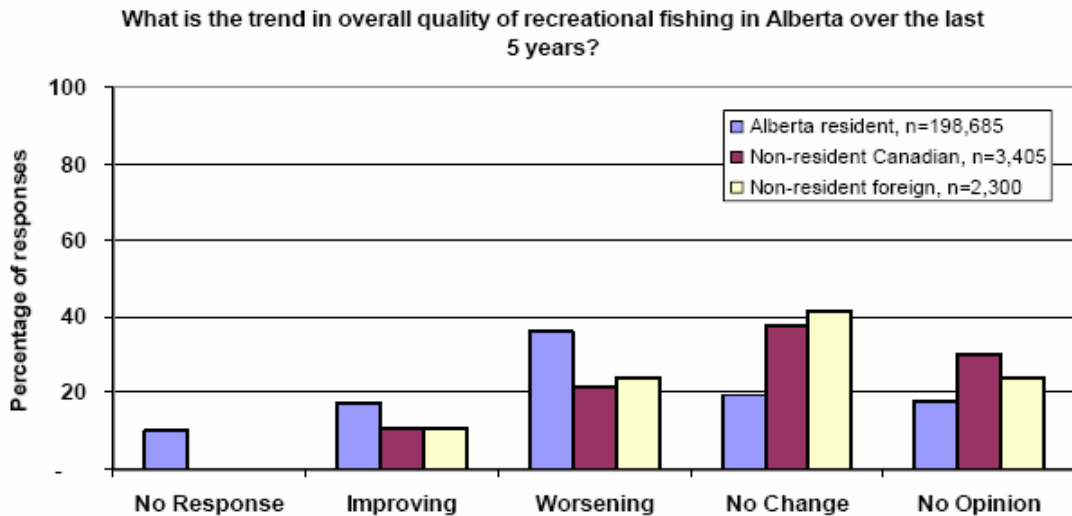
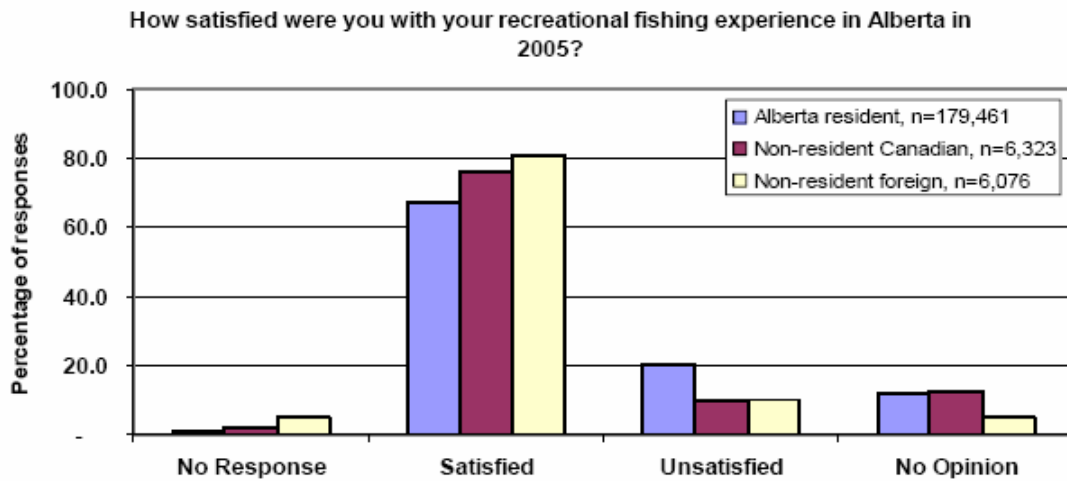
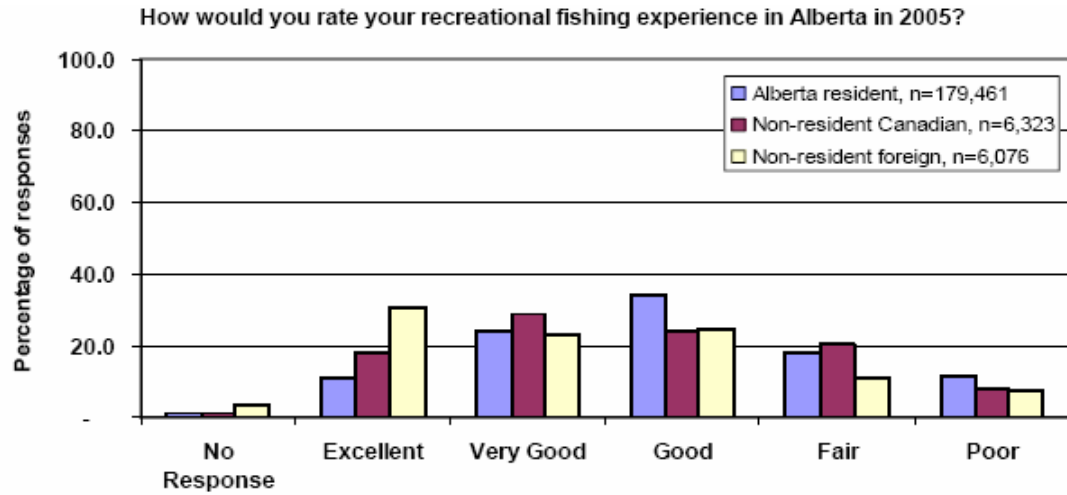


Recreational Fishing Experience and Environmental Fishing Issues in Alberta in 2005

In the 2005 Sport Fishing Survey conducted by ASRD, anglers rated their fishing experience and commented on the quality of Alberta's sport fishery. About 69.3% of Alberta resident anglers rated their fishing experience as "good" or "excellent" and more than 71.2% of non-resident Canadians rated it at the same level of satisfaction. Foreign anglers rated "good" to "excellent" their fishing experience in Alberta by a majority of 78.6% (Figure 14).

On the other hand, fewer anglers in Alberta indicated that their sport fishing experience had improved over the past five years. In fact, 36% of the resident Albertans stated that it was worsening, whereas 41% of non-resident anglers indicated no change. Residents seem to have held a more pessimistic view of the activity than non-resident anglers.

Figure 14 - Responses of Licensed Alberta Anglers to Inquiries About Their Perception of Angling Quality in 2005



Source: ASRD 2007

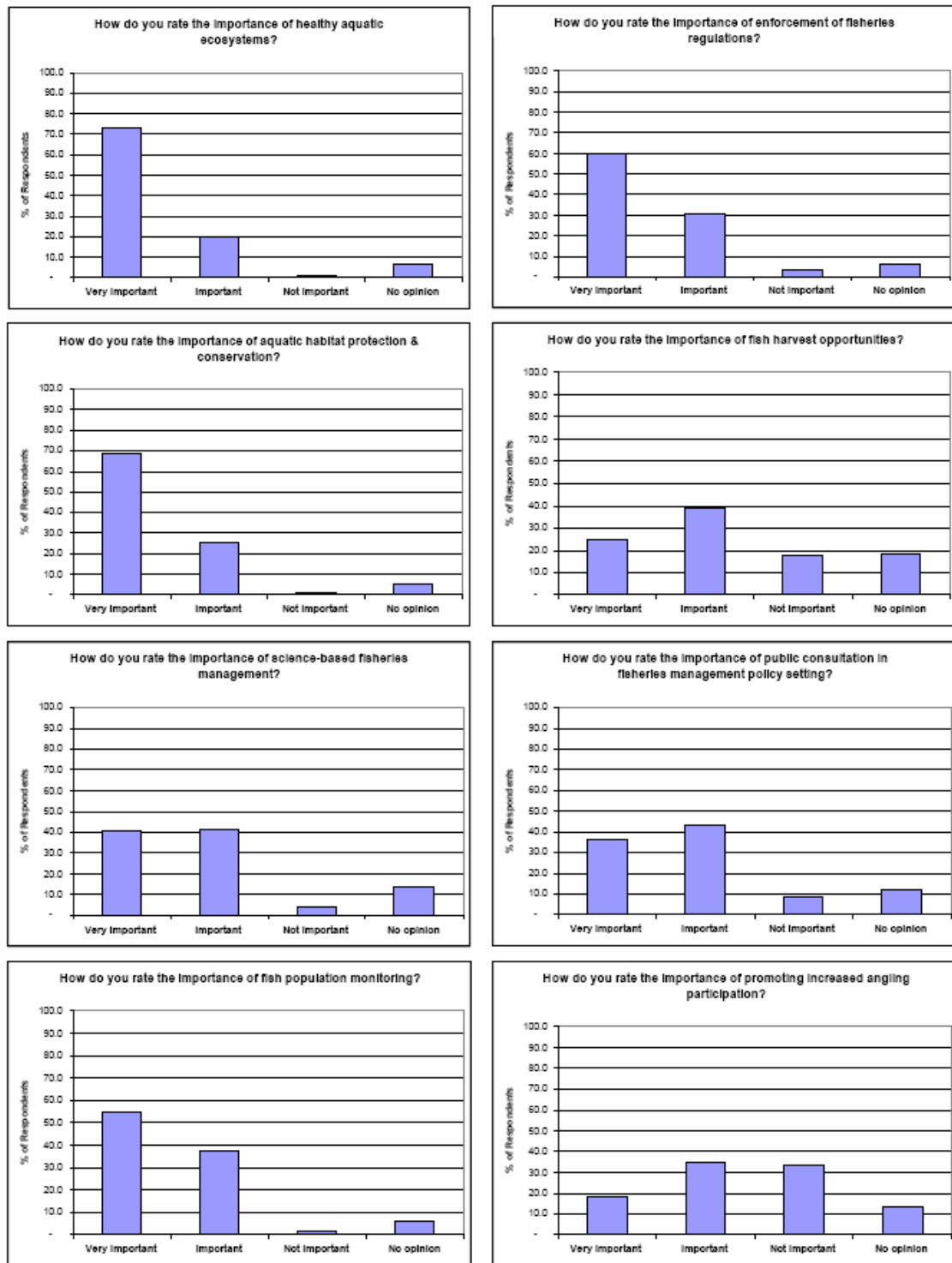
A large majority of resident and non-resident anglers (90%) in Alberta in 2005 considered a healthy aquatic ecosystem, habitat conservation and protection, enforcement of fisheries regulation and the monitoring of fish populations as “important” or “very important.” As well, greater than 80% of all anglers considered a science-based approach to fisheries management as “important” or “very important.” Anglers were not particularly enthusiastic about the increased participation in fishing activities. Alberta is perceived to have reached its upper limits of capacity. Anglers expressed a general preference for greater participatory management and public consultation. Both of these indicators are measures of a strong and loyal anglers’ base in the province.

Future Trends

There are a number of trends that have developed over the years, becoming defining characteristics or indicators of what may be expected in the future of sport fishing in Alberta. These trends are many but the most salient are the following:

- Angling participation and effort have declined consistently over the past two decades. This trend is not unique to Alberta and has been observed across Canada. A peak in the number of anglers in Alberta was reached in 1985 but it has since declined by almost 40%. The number of resident Alberta anglers has also declined in the same proportion over the same period.
- On a per capita basis, sport fishing has lost its lure and has become less significant in 2005 than it has ever been in the past 30 years.
- While Alberta’s population increased from 1.7 million in 1975 to almost 2.2 million in 2005, the number of anglers in Alberta declined from 196,000 in 1975 to 191,000 in 2005. In 1985, there were 305,000 active anglers in Alberta. As a percent of the population, Alberta resident anglers constituted 11.6% in 1975 but only 6% of the population in 2005.
- An aging population is considered to be a major reason for the decline in the number of anglers. It also denotes fewer active recruitments of younger anglers to replace the older ones.
- The data portrayed in Table 14 clearly show an increasing proportion of anglers that are older than 45 years of age and a decreasing proportion of anglers that are less than 35 between 2000 and 2005.

Figure 15 - Angler's Ratings of the Relative Importance of Certain Focal Aspects of Fisheries Management in Alberta, 2005



Source: ASRD 2007

Table 14 - Comparison of Key Trend Parameter Estimates Related to Sport Fishing by Licensed Anglers in Alberta: 1975 to 2005

	Year of Survey						
	1975	1980	1985	1990	1995	2000	2005
Number of anglers							
Total licensed anglers	218,460	308,444	343,310	249,978	246,113	216,623	211,666
Total active licensed anglers	196,397	263,471	305,749	229,035	232,465	195,959	191,859
Alberta resident licensed anglers	208,476	295,771	331,152	240,728	232,967	202,113	198,685
% of population	11.6	12.9	14.3	9.7	8.9	7.0	6.0
Alberta population*	1,758,260	2,294,212	2,318,408	2,469,069	2,615,873	2,879,743	3,306,000
Fishing effort							
Licensed angler days (millions)	2.3	4.5	5.4	3.3	3.7	2.9	2.7
Days per active angler	11.4	17.1	17.6	14.6	15.9	14.9	13.9
Fish catch							
Total fish caught (millions)	N/A	N/A	19.6	13.7	15.3	12.4	12.3
Average fish caught per active licensed angler	---	---	63	59	66	65	64
Fish harvest (kept)							
Total fish kept (millions)	4.6	10.6	11.2	5.1	4.6	2.0	1.7
Average fish kept per active licensed angler	24	40	37	22	20	10	9
Value of sport fishing							
Total spent (expenditures and investments) (millions CDN\$)	107.6	154.5	294.7	320.9	311.6	339.4	416.3
Average dollars per angler	493	587	530	1401	1340	1732	2,170
Average dollars per day	48	34	55	96	84	117	156
Direct expenditures (millions CDN\$)	37.5	62.6	132.5	134.2	125.3	115.9	133.9
Investments and major purchases attributable to sport fishing (millions CDN\$)	70.2	92.0	162.2	186.8	186.3	223.5	282.4
Value of fishing packages (millions CDN\$)	---	---	3.9	3.6	3.2	3.9	5.3
Value of ice fishing (millions CDN\$)	---	---	---	---	---	17.7	19.3

* data obtained from Statistics Canada

For data on surveys before 2000 we used Berry, D. K. and K. Bodden. 2004. For 2005 we used data from ASRD 2007.

Source: Berry, D. K. and K. Bodden. 2004. Sport Fishing in Alberta 2000: summary report from the sixth survey of recreational fishing in Canada. Alberta Sustainable Resource Development, Fish and Wildlife Division, Fisheries Management Branch. Edmonton, Alberta, Canada.

A booming and dynamic economy presents obstacles for recreational activities in general and fishing in particular. The value of time escalates and major increases in mobility of people and jobs are observed. A total of 55% of inactive anglers' license holders in Alberta in 2005 responded that lack of spare time is the main reason for their inactivity and about 10% of the surveys were returned because targeted residents had moved.

Unless large numbers of younger anglers are groomed and inducted into fishing, the declining trend observed since 1985 may continue in the future. Worth noting, however, that recent data is showing a major increase in Win Cards for anglers in 2008 to the tune of more than 249,000.

The expected economic impact and value of fishing in Alberta is the ultimate outcome of two forces. On the one hand, it is the number of active anglers which is still rising. On the other hand, it is the per capita propensity to spend on recreational fishing which has risen in the past and will most likely continue to rise in real term in the future. Economic impact is driven by total expenditures. This is the product of the total number of anglers multiplied by their per capita expenditures. The product had a positive trend so far and is likely to continue in the future.

Limitations

The following outlines salient limitations imposed on the approach and findings of this analysis:

- An effort has been made to ensure estimates in the Report are made in a conservative manner to avoid overstating the results. Expenditures of senior anglers and the youth were not included as they were not part of the survey.
- Benefits are not always easily expressed in monetary terms. For example, social and cultural benefits from recreational activities, or the preservation of the environment, habitat, and the protection of the aquatic ecosystem are not easily measured. This Report presents exclusively the quantitative estimates of economic impacts.
- Econometric Research Limited used the Sport Fishing Survey 2005 In Alberta results conducted by ASRD. We are confident that the accuracy of the Survey results is high and reliable, and conducted in the best tradition of highly professional surveys.
- The impact results are based on data compiled from a variety of sources including Statistics Canada, Alberta Sustainable Resource Development and other government departments. They may not be strictly statistically reliable and are therefore subject to a margin of error.
- The model used is a simulation model and, as such, it creates a theoretical picture of the future of the economy on the basis of a series of assumptions, which may or may not hold true over time. These assumptions are discussed in the Technical Manual of DEIM, housed in Alberta Tourism, Recreation and Parks.

Summary and Conclusions

The sport fishery in Alberta has long been recognized as a substantial resource that is socially and economically important to the people of Alberta because it supports recreational and food fishing activities throughout the province. But less appreciated or recognized, perhaps, are the actual levels of the total economic impacts of this activity on the provincial and regional economies.

This study reviewed the survey conducted by ASRD in the province in 2005 and used the results of the survey and its estimates to calculate the economic value and impacts of sport fishing in Alberta. Below is a summary of the salient results. They include the following:

- A total of 211,666 adult anglers were identified to have held fishing licenses in Alberta in 2005. Of these, 93.9% were Alberta residents, 3.2% were from other parts of Canada and 2.9% from outside Canada.
- Only 90.3% (179,461/198,685) of the licensed Alberta anglers and 95.5% (12,397/12,981) of visiting licensed anglers actively fished in 2005 (ASRD 2007).
- If unlicensed youth anglers (age less than 16 years) and senior anglers (age over 64 years) were extrapolated and added to those who actively fished in 2005, the total anglers in Alberta in 2005 would rise to 287,511.
- Licensed anglers (excluding youth and senior anglers) fished an estimated 2,668,834 days in 2005. The average number of days per angler was put at 13.9 days. Alberta residents appear to have fished 2-3 times more days than visiting anglers. Overall fishing days in Alberta including seniors and youth exceeded 3,063,648 days in 2005.
- Parkland-Prairie 2 (PP2) management zone hosted most of the angling days with over 21% of the total.
- Males represent the overwhelming majority of Alberta anglers and represent even a larger proportion of non-Alberta anglers.
- Anglers residing in neighbouring British Columbia and Saskatchewan were the largest group of other Canadian anglers in Alberta in 2005, while the majority of foreign anglers were from the United States.
- The majority of Alberta anglers were in the 35-54 years old cohort, with relatively larger representation of older anglers in the non-resident licensed categories.

- Licensed anglers visiting Alberta in 2005 made 82,451 trips of which 24.4% were for fishing purposes. On average, non-resident Canadian anglers spent roughly 3 times more days in Alberta fishing than did foreign anglers.
- When non-resident anglers were asked to select from several options regarding what they would have done had no fishing opportunities existed in Alberta in 2005, roughly more than half (56.7%) indicated they would have substituted for other activities.
- Foreign anglers consider fishing a major inducement to visit Alberta.
- Information from friends and family is, by far, the dominant source of information about angling opportunities for visiting anglers.
- Foreign anglers tended to rely more extensively on the Internet than Canadian anglers for fishing information.
- Recreational fishing experience was rated as “good” to “excellent” by 69.3% of resident anglers, by 71.2% of non-resident Canadian anglers and by 78.6% of non-resident foreign anglers.
- The most cited reason for not fishing was not enough time (54%).
- Anglers fishing in Alberta (excluding seniors and youth) in 2005 were estimated to have spent \$417.3 million on major equipment, property and other fishing related expenditures.
- A total of \$124.6 million was spent by Alberta resident anglers on food, lodging, access fees, transportation, fishing services and fishing supplies in 2005. Non-resident Canadian anglers spent \$2.7 million on direct fishing expenditures in Alberta in 2005, while foreign anglers spent \$6.6 million during the same year.
- The total direct expenditures in Alberta in 2005 add up to about \$134 million.
- Estimated major purchases in Alberta in 2005 are put at \$282.4 million. Most of these purchases were made by resident Alberta anglers with \$281.4 million of this total.
- Camping equipment and boats accounted for \$158.3 million or 56% of the total. Special vehicles are the third largest item of major purchases associated with fishing in Alberta with \$61 million in 2005.
- The direct fishing expenditures of Alberta resident anglers supported a permanent increase of Alberta Gross Provincial Income of \$123.5 million and an increase in wages and salaries of \$68.3 million.

- More than 2,130 Albertans owe their jobs in 2005 to direct fishing expenditures.
- All levels of government derived revenues on the impacts of direct fishing expenditures in 2005.
- The three levels of government collected over \$50 million in 2005, with the federal government deriving the largest share of about \$29 million, followed by the provincial government with over \$18 million and the local governments collectively collecting \$3 million.
- The total direct expenditures supported a provincial income impact of \$133 million, \$74 million in wages and salaries and 2,325 full-time equivalent permanent jobs for Albertans. The three levels of governments collectively collected a total of \$54 million in taxes and fees.
- A large volume of sales are supported by anglers' investment expenditures in Alberta in 2005.
- More than \$642 million of total gross output (sales) resulted from the original \$282.4 million spent on capital items associated with fishing.
- The large volume of vehicles, boats, camping equipment and other fishing equipment sustained an income (value added) impact of \$241 million and more than \$143 million in wages and salaries in Alberta in 2005.
- A total of 5,576 person year of employment was attributed to these expenditures in Alberta in 2005.
- Total taxes generated by the capital expenditures to all three levels of government exceeded \$92 million in 2005.
- The federal government was the major beneficiary with about \$60 million of this total.
- The provincial government claimed over \$26.6 million and the local governments in Alberta made up with \$6 million.
- About 69.3% of Alberta resident anglers rated their fishing experience as "good" or "excellent" and more than 71.2% of non-resident Canadian anglers in Alberta rated it at the same level of satisfaction. Foreign anglers rated "good" to "excellent" their fishing experience in Alberta in 2005 by a majority of 78.6%.
- Fewer anglers thought that sport fishing in Alberta had improved over the past five years. In fact, 36% of the resident Albertans stated that it was worsening, whereas 41% of non-resident anglers thought that there was no change. Residents

seem to have held a more pessimistic view of the activity than non-resident anglers.

- A large majority of resident and non-resident anglers (90%) in Alberta in 2005 considered a healthy aquatic ecosystem, habitat conservation and protection, enforcement of fisheries regulation and the monitoring of fish populations as “important” or “very important.”
- Greater than 80% of all anglers considered a science-based approach to fisheries management as “important” or “very important.”
- Anglers were not particularly enthusiastic about increasing participation in fishing activities. Alberta is perceived to have reached the upper limits of its angling capacity.
- There is a general preference for greater participatory management and public consultation in the managing of Alberta’s sport fishery.
- Angling participation and effort have declined consistently over the past two decades. This trend is not unique to Alberta but has been observed across Canada. A peak in the number of anglers in Alberta was reached in 1985. Since then, the number of active anglers in Alberta has declined by almost 40%. The number of resident Alberta anglers has also declined in the same proportion over the same period.
- On a per capita basis, sport fishing has lost its lure and has become less significant in 2005 than it has ever been in the past 30 years.
- While Alberta’s population increased from 1.7 million in 1975 to almost 2.2 million in 2005, the number of anglers in Alberta declined from 196 thousand in 1975 to 191 thousand in 2005 thousand.
- In 1985, there were about 305,000 active anglers in Alberta. In relative proportion to the population, Alberta resident anglers constituted 11.6% in 1975 but only 6% of the population in 2005.
- An increasing proportion of anglers are older than 45 years of age and a decreasing proportion of anglers are less than 35 years old.