

# The Bow River Fishery Economic Forecast

## Update July 2022

### Overview:

The Bow River sports fishery is recognized around the world as one of the best destinations for providing an opportunity to catch a “Once in a Lifetime” Brown or Rainbow Trout. The Bow River is home to three native fish, the endangered Bull Trout, West-Slope Cutthroat Trout, and Rocky Mountain Whitefish as well as self-sustaining populations of Brown Trout and Rainbow Trout introduced into the river in the last century.

Within and downstream of Calgary the fishery consists of predominately Brown Trout and Rainbow Trout. Fishing regulations have changed over the years with a single regulation now in place for the Bow River from Banff National Park down to the Bassano Dam with a year-round catch and release regulation for all fish species. The Calgary River Users Alliance (CRUA) 2019 economic review of the Bow River <sup>(1)</sup> addressed changes in fishery management and the impact a declining Bow River trout population could have on the future of the fishery. Restrictive angling regulations may be put in place in the future to curb the decline and hopefully enhance the sports fishery.

This report compiles the data from previous years and reviews changes that have taken place that could impact its future as a world-class fishery and driver of the local economy.

### River Access:

The entire city reach of the Bow River can be accessed by foot, while riverboat use on the river was by boat ramp access. The **Calgary River Access Strategy** has addressed the public access boat ramp issue with the addition of new boat ramps in 2020 at **Ogden Bridge, St. Patricks Island**, and an upgrade to **West Baker Park** that has expanded drift boat fishing to the upper reach of the Bow River above Harvie Passage. River access sites at the **Graves-Glenmore Bridge** and the **Fish Creek Provincial Park** allow the entire city reach of the Bow River to be accessible to both drift boat and bank fishing. Anglers are not the only users of boat ramps. The paddle community represents a very large user group of boat ramps. This use has been addressed in the redevelopment of **Harvie Passage** at the Western Irrigation District Weir site where more river recreation activities for Calgary residents and visitors have been facilitated. Vehicle access improvements proposed for Harvie Passage will allow the boat ramp that was constructed during the Harvie Passage development to be available to the drift boat fishing community.

Downstream of Calgary the Alberta Environment and Parks (AEP) has addressed river access needs with the release of the **Bow River Access Plan** in 2019. **Policeman’s Flats** has been upgraded since the 2013 flood by Bow River Trout Foundation, the custodian of the property. **McKinnon Flats** has seen road improvements, an expanded parking lot, and a designated river access site. **Legacy Island** has increased in importance as a river access site but has been neglected by Trout Unlimited -Bow River Chapter as the leaseholder of the property. **Johnson Island – Carseland Boat Ramp** will most likely be upgraded in 2022. Unfortunately, all four of these sites received some degree of damage from the 2022 high river flows.

*Comment: Although improved river access is considered by some to expand angling pressure on the Bow River, it is unlikely that that is the case. A decision to fish the Bow River is not governed by river access but the desire to fish the river, therefore, increasing river access sites will spread out the impact of angling effort over more of river. Government agencies need to recognize the importance of expansion and services to the river access network to meet an ever-increasing desire of the public for improved river recreation opportunities.*

## Where and How Many People Fish in Alberta and What is the Contribution to the Economy?

The 2019 report, *The Alberta Trout Fishery – A Vision for the Future* <sup>(2)</sup> reviews current trends in fishery management and the economic importance of Alberta’s east-slopes trout fishery. The *Sports Fishing in Alberta, 2010 Survey* <sup>(3)</sup> was used in this analysis. In 2010 there were 239,310 licensed adult anglers in Alberta, Table 1. A total of 85,436 (36%) of those identified in the survey lived in the Eastern Slopes Zones that encompass the east river streams of the Rocky Mountains. The East Slopes 1 Zone which includes Calgary and the Bow River downstream to Carseland, reported a total of 56,519 (23.5%) of Alberta’s licensed anglers. Alberta residents spent \$2,018 per year on their sport in 2010, fishing for 14.8 days for an average cost of \$137 per day. But unfortunately, a detailed expense analysis is not available for the 2015 survey, therefore an annual inflation rate of 1.7% was used to derive the 2015 angler expense data. Alberta anglers spent a total of \$482.93 million and their fishing activities in 2010 which increased to \$660.35 million in 2015. The largest expense was reported in the Parkland Prairie Zones which includes three of Alberta’s larger cities but may not represent fishing activity in the resident zones. A significant number of these residents fish in one of the four East Slopes Zones which would add to the economic importance of the East Slopes trout fishery.

**Table 1: The Number of Fishing Licenses and Angler Expense by Fish Management Zones in Alberta.**

Fish Management Zones	Anglers		Expenses	
	2010	2015	2010	2015
East Slopes 1 - (ES1)	56,519	71,214	\$ 114,055,342	\$ 155,958,529
East Slopes 2 - (ES2)	9,280	11,693	\$ 18,727,040	\$ 25,607,232
East Slopes 3 - (ES3)	7,205	9,078	\$ 14,539,690	\$ 19,881,477
East Slopes 4 - (ES4)	12,432	15,664	\$ 25,087,776	\$ 34,304,861
<b>Subtotal</b>	<b>85,436</b>	<b>107,649</b>	<b>\$ 172,409,848</b>	<b>\$ 235,752,098</b>
ParklandPrairies Zone	<b>112,190</b>	<b>141,359</b>	<b>\$ 226,399,420</b>	<b>\$ 309,577,086</b>
<b>Subtotal</b>	<b>41,684</b>	<b>52,522</b>	<b>\$ 84,118,312</b>	<b>\$ 115,022,830</b>
<b>TOTAL ALBERTA RESIDENTS</b>	<b>239,310</b>	<b>301,531</b>	<b>\$ 482,927,580</b>	<b>\$ 660,352,014</b>
Non-Resident Canadian	8,887	9,065	\$ 8,247,136	\$ 9,128,193
Non-Resident Foreigners	4,354	4,441	\$ 5,708,094	\$ 6,315,216
<b>TOTAL NON-RESIDENT</b>	<b>13,241</b>	<b>13,506</b>	<b>\$ 13,955,230</b>	<b>\$ 15,443,409</b>

**Table 2: The Estimated Economic Value (\$) of Alberta Sportfishing – 2010**

	Alberta Residents	Non-resident Canadians	Non-resident foreigners	Total
Average/ active angler per year (\$)	2018	925	1311	1967
Average / angling day (\$)	137	156	273	138
Average days fished / active angler	14.8	5.9	4.8	14.3

*Comment: There continues to be a great amount of emphasis within government circles that tourist anglers contribute significantly to the Alberta Economy, but that is not the case. Non-resident Canadian and foreign anglers contribute only \$15.43 million, only 2.2% of the total Alberta sports fishing economy of \$660.35 million.*

## The Contribution of Recreational Fishing to the Local Economy:

The 2016 report, *The Economic Importance of Recreational River Use to the City of Calgary* <sup>(4)</sup> prepared for Calgary’s River Access Strategy documents the economic importance of recreational fishing to the City of Calgary. A 2006 Alberta Sports Fishing Survey <sup>(5)</sup> sheds light on just how many anglers use the Bow River. An estimated 24,675 angling trips were made over the entire survey area of Bearspaw Dam to Carseland Dam from May to September 2006. Of these, 17.6% of the angler’s time was spent within the City of Calgary. Anglers fishing the Bow River were primarily from the City of Calgary (74%) with the second largest number of anglers from out of Alberta but within North America (13%). AEP conducted a creel survey in 2018 <sup>(6)</sup> that focused on the distribution of angling pressure by guided boat anglers, recreation boat anglers, and shore anglers. The ground-based survey reported approximately 15% higher angling trips than in 2006 for the same months and sections of the river. During the 2018 angler survey angling effort was mainly from shore anglers (49%), followed by non-guided boat anglers (31%), and last, guided boat anglers (20%).

The growth of the Bow River fishery and the contribution it makes to the Calgary regional economy is presented in Table 3. From \$25.90 million in 2016, it has increased each year to a forecast of \$38.92 million in 2024, a growth of \$13.01 million (50%). Certainly, there was an increase in outdoor pursuits during the Covid-19 pandemic from 2019 -22, which increased the purchase of fishing licenses and fishing gear, but only time will tell if the increase in license holders observed will continue.

**Table 3: Revised Forecast of the Growth of Calgary and Region Recreational Fishing Activities.**

<u>Year</u>	<u>2016</u>	<u>2018</u>	<u>2020</u>	<u>2022</u>	<u>2024</u>
Bow River Anglers	12,000	13,000	14,000	15,000	16,000
Expenses / Year	\$2,165	\$2230	\$2297	\$2366	\$2,437
<b>Rec. Fishing Revenue</b>	<b>\$25,980,000</b>	<b>\$28,990,000</b>	<b>\$32,158,000</b>	<b>\$35,490,000</b>	<b>\$38,992,000</b>
Increase over 2016 (\$)		<u>\$3,010,000</u>	<u>\$6,178,000</u>	<u>\$9,510,000</u>	<u>\$13,012,000</u>

*Comment: The importance of the local angler fishing the Bow River needs to be recognized as a priority in fishery and recreation management policy. The vast majority of Bow River anglers are from Calgary, fishing from shore or using their fishing boats. The use of guide services is limited.*

## The Bow River Guided Fishing Contribution to the Local Economy:

The Bow River was recognized 40 years ago as a world-class trout fishing by several leading North American flyfishing journalists who had the opportunity to fish the river with local anglers that later became the pioneers in the Bow River guiding industry. The attraction at that time was the dry-fly fishing and the opportunity to catch a once-in-a-lifetime world-class trout. The Bow River’s proximity to Calgary and the tourist facilities it offered made Calgary a preferred destination for the angling tourist. In 1986 there were 10 fishing outfitters and guides<sup>(7)</sup> operating on the Bow River taking 1480 guided trips of which 83% were U.S. or overseas clients and 12% were from other parts of Canada. At \$350 per trip, \$518,000 was generated by the guiding industry. When transportation, food, and accommodation are included, a total of \$1.90 million was added to the local economy.

Many things have changed since that time, not only on the Bow River but across the entire fishing industry. Many fishing destinations have opened up for tourist anglers across the Americas. Montana, our neighbor to the south has seen a dramatic increase in recreational fishing opportunities that compare favorably to what can be achieved on the Bow River. There has also been a rapid increase in fishing boat ownership and river access at the same time reducing the need for guiding services. This can be seen in the 2018 Bow River creel survey<sup>(6)</sup> where the shift from guided boat anglers (20%) to shore angling (49%) and non-guided boat anglers (31%) was reported. As the dropoff in tourist anglers took place, the Bow River, became an attractive alternative for a corporate-sponsored guided fishing trip that has more than compensated for the loss of tourist traffic on the river. These shifts in the dynamics of the guiding industry are accounted for in the following data analysis.

The Bow River guide's contribution to the local economy (Table 4) is based on modest growth in Calgary’s business sector. The guided trips showed an increase from 1400 guided trips in 2016 to 2440 in 2018. A drop-off of 600 trips in 2020 was attributed to the Covid-19 pandemic. But an expected increase to 2000 trips in 2022 trips, and 2500 in 2024 is comparable to 2018. The guiding industry’s income from Bow River fishing trips has more than doubled since 2016. By 2024 the guiding industry will generate annual revenues of \$1.81 million. The contribution to the local economy by way of additional hotel stays in the city and traveling to our local tourist spots could well contribute an additional \$1.00 million to the local economy.

**Table 4: Bow River Guiding Industry Revenue Forecasts – 2022**

<u>Year</u>	<u>2016</u>	<u>2018</u>	<u>2020</u>	<u>2022</u>	<u>2024</u>
Guided Fishing Trips	1,400	2,440	600	2,000	2,500
Float Trip Cost/day	\$600	\$636	\$675	\$700	\$725
<b>Guide Revenue</b>	<b>\$840,000</b>	<b>\$1,551,840</b>	<b>\$405,000</b>	<b>\$1,400,000</b>	<b>\$1,812,500</b>
Increase over 2016 (\$)		\$711,840	(\$435,000)	\$560,000	\$840,000

The Bow River guiding industry is not without its challenges. Although the river can be fished for most of the year, the consistency of a quality fishing experience is limited to the summer and early fall months, concentrated into July, August, and September makes it very difficult to guide on the Bow River for a sufficient number of days each year to be considered as a principal source of income. Consequently, there are very few full-time guides on the Bow River. Although there are between 75 and 100 guides available in the Calgary market, very few can command enough trips to gain the experience needed to optimize the fishing experience for the more experienced angler.

Therefore there is anecdotal evidence to suggest that 10 local guides secure 50% of the 2000 trips in 2022. In addition, the costs to operate a guiding service on the Bow River can be expensive. Distances traveled to and from the river can exceed 150Km per day and the cost of accessories to service clients is high in Calgary. There is certainly an argument that the price of guided fishing trips should increase to meet expense inflation. But where is the tipping point where the number of trips starts to decrease? More investigation into the cost-benefit analysis and unexplored opportunities for the Bow River guiding industry would allow for informed decisions to be made for the future development of the industry.

*Comment: A short guiding season and high expenses limit the viability of entering into the guiding profession without a supplemental income source. But once established there is a good likelihood that with associated income from within the fishing industry an adequate annual income can be realized as a professional guide. The guiding industry would benefit from market research to investigate unexplored business opportunities.*

### Summary:

This economic update of the Bow River fishery is heavily weighted from reports dating back to 2012. A precise economic forecast is therefore difficult to make. Nevertheless, the 50% increase in the economic contribution to the local economy over eight years from 2016 to 2024 warrants further investment in river access infrastructure and services available to river recreation users.

The number of guides operating on the Bow River, and the contribution they, and their clients make to the local economy is extrapolated from various sources that include Statistic Canada and Alberta survey analysis, coupled with the discussion within the guiding community. Therefore it is wise to interpret this document as a way to predict trends and make one's assumptions and interpretation of the contribution this sector of the fishing community makes to the local economy.

It is important to recognize that the Bow River fishery together with all river recreational use has changed considerably since 2016 when CRUA made the first economic forecast to support Calgary's investment in the River Access Strategy. The paddling community in particular has grown as an important component of recreation river use. When combined the economic importance of outdoor pursuits across the Bow Basin's rivers could well exceed \$100 million per year.

## References:

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3. **Sports Fishing in Alberta, 2010.** Zwickel, H. 2012. Summary Report from the Eighth Survey of Recreational Fishing in Canada. Alberta Sustainable Resource Development, Fisheries Management Branch, Edmonton Alberta. <https://www.calgaryriverusers.org/wp-content/uploads/2022/06/sportfishinginalberta-2010survey-mar2012-1.pdf>
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