

The Bow River – A River Recreation Plan is Needed

The importance of recreation activity has been well documented in research papers, government surveys, and federal, provincial, and municipal development plans. As the dynamics of a population change, there is a need to revise recreation delivery models. The importance of river recreational use is driven by the proximity to rivers and lakes. The Bow River Basin has become a focal point for outdoor pursuits in Alberta. As Calgary's population grows the need for expanded river recreational infrastructure is paramount to meeting a younger generation's outdoor pursuits expectations.

Calgary's recreational needs have been captured in the "**Recreation Master Plan**". The relationship of recreation to wellness and the economic benefits derived from investing in recreation facilities has been documented in a paper "**A Pathway to Wellness**", presented by the Interprovincial Sport and Recreation Council. The Canadian Parks and Wilderness Association survey, "**Albertans' Values and Attitudes towards Recreation and the Wilderness, 2015**", gives an insight into the recreation activity chosen by location and proximity to home.

The Bow River water supply is managed under federal and provincial policies to meet hydropower generation upstream, urban water supply for Calgary and surrounding urban areas, and irrigation needs downstream to its confluence with the Oldman River. The Bow River Basin Council's "**Bow Basin Watershed Management Plan**" from 2012 gives an overview of the management practices that assure continued supply of water, its quality, and riparian protection. Unfortunately, the plan did not recognize the economic importance of river recreational use as it relates to the protection of the sports fishery and paddle sports.

[The Bow Basin Watershed Management Plan](#)

This document reviews the Calgary River Users' Alliance position as it relates to recreational river use. Our experience with the engagement process within government agencies has generally been good, but at times there is a common thread in a reluctance to engage on a multi-disciplined ministry and departmental basis to resolve issues. Therefore, we believe there is a need to establish a "**Bow River Basin Recreation Management Plan**" to address the more complicated issues.

The Economics of the Bow River Recreational Use:

The Calgary River Users' Alliance (CRUA) was formed in January 2016 to improve recreational boating access to the Bow and Elbow Rivers in Calgary. It later expanded the scope of engagement to the entire Bow River Basin and its water management policy. The CRUA consists of representatives of recreation and conservation groups and businesses in the city, including canoeing, kayaking, rafting, paddleboarding, river surfing, and fishing. The first objective was to improve recreation river use within Calgary. The reports, "**The Economic Importance of Recreational River Use to the City of Calgary**", and "**The Need for a River Recreation Management Plan**" paved the way for the Calgary River Access Strategy that was approved by Calgary City Council in February 2017.

The 2016 reports showed the direct economic contribution of the Bow River fishing community to City of Calgary businesses is more than \$24.5M and by regional fishing-related activities a total of \$114m annually. The total contribution that all river users make to Calgary's business sector was estimated at \$50M annually.

The CRUA 2019 update "**The Economic Importance of the Bow River Recreational Use – a \$50 Million Annual Contribution to the Local Economy**", discusses the Bow River Basin recreation needs and the contribution to the local economy. The report emphasizes that an in-depth assessment of river recreation use is paramount to

achieving much-needed financial resources to enhance infrastructure and develop strategies to protect a very valuable recreational resource and economic driver to the local business community.

[The Economic Importance of Recreational River Use to the City of Calgary](#)

[The Need for a River Recreation Management Plan](#)

[The Economic Importance of the Bow River Recreational Use – a \\$50 Million Annual Contribution to the Local Economy](#)

Bow River Recreation Access:

The **Calgary River Access Strategy (RAS)** was approved by City Council in February 2017 with a budget of \$1.69 million to develop new and improve existing priority river access sites on the Bow River. This has been completed, but the remainder of the \$7.60 million proposals to add further to river access sites within Calgary has not been approved. The new **Harvie Passage Whitewater Park** and safe passage through the Western Irrigation District Weir, built by the Government of Alberta, was completed in 2018. The facility is being under-resourced and is lacking the infrastructure that most whitewater parks around the world include, such as changerooms, boat drop off, and storage. Although a boat ramp was included in the final design, no vehicle access across the City-owned property to Harvie Passage was agreed to. Two aligned proposals, “**Harvie Passage Roadway Access Needs a Resolution**”, and “**Bow River Boathouse**” have not seen resolution due to conflicting interests on the part of the City of Calgary and Alberta Environment & Parks departments.

River access improvements between Calgary and Carseland were approved by the Government of Alberta in 2019 with the **Bow River Access Plan (BRAP)**. New road access to McKinnon Flats was built for \$2 million in 2020, and river access and parking lot improvement will be completed in the fall of 2021. The five river access sites within the BRAP are all managed under different protocols with varying degrees of community support. Two of the properties, Legacy Island and Johnson Island access site improvements are addresses in the CRUA document, “**Bow River Access Upgrades Needed**” A new river access below the Carseland Weir at the Wyndham-Carseland Provincial Park is also proposed in the document. Upstream of Calgary, the CRUA document “**Bow River Recreational Access Ghost Dam to Bearspaw Reservoirs**” explores new public access sites that would expand both the paddle and fishing community recreational use on the Bow River. But as expresses previously, competing interests will hinder development.

CRUA believes that the development of river access sites along the Bow River corridor are polarized as individual projects, rather than managed under a central agency, such as a **Bow River Basin Recreation Management Plan**.

[Calgary River Access Strategy](#)

[Harvie Passage Roadway Access Needs A Resolution](#)

[Bow River Boathouse](#)

[Bow River Access Plan](#)

[Bow River Access Upgrades Needed.](#)

[Bow River Recreational Access Ghost Dam to Bearspaw Reservoirs](#)

Bow River Water Management Policy:

Following the devastating impact of the 2013 Bow River Flood on the City of Calgary and surrounding communities, the Government of Alberta commissioned the Bow River Water Management Project in 2015 to review existing water management policy and deliver proposals for enhancement of flood and drought control within the Bow River Basin. The Bow River Water Management Project recommendations were presented to AEP 2017. A review of the report **“The Impact of Water Management Policy and Proposed Mitigation Initiatives on the Bow River Basin Fishery”** prepared by Bow River Trout Foundation was sent to the minister at that time. The report suggested the short-term recommendations of the report could to some degree mitigate floods and water shortage within the Bow River Basin under drought conditions such as experienced in 2017. But what was the long-term impact of new dams within the Bow River Basin on an economically important sports fishery? These questions were not addressed in any of the referenced documents and needed to be answered before any dam was built. A subsequent review of the three dam options is discussed in the CRUA document, **“Bow River Reservoir Options – A Rethink is Needed”**. Once social economics are considered, it will become evident that alternative flood mitigation solutions need to be considered. The **Bow River Report** from 2010 investigated the potential for changes to water management to the Kananaskis and Spray River drainage that could benefit flood and drought mitigation within the Bow River Basin. These options should be considered as alternatives to a new reservoir on the Bow River. In addition, the CRUA document **“The Kananaskis Valley – It is Time for Water Management Change”** discusses the benefits to change the current peak-hydro protocol for TransAlta’s Pocaterra Electrical Power Plant to more of a “run-of-the-river” power generating protocol to support the reintroduction of a Cutthroat Trout into 40 Km of the Kananaskis River. When combined there would be a subsequential economic benefit to the region, increase river fishing opportunities, potentially less environmental damage, and social acceptance.

[The Impact of Water Management Policy and Proposed Mitigation Initiatives on the Bow River Basin Fishery](#)

[Bow River Reservoir Options – A Rethink is Needed](#)

[The Bow River Report.](#)

[The Kananaskis Valley It is Time for Water Management Policy Change](#)

Bow River Fishery Management:

The Alberta recreational trout fishery has come under pressure in recent years with reports of declining Westslope Cutthroat Trout and bull trout populations across all four of the foothills fishing zones. In 2018, a retrospective data analysis of the Bow River rainbow trout population reported a decline of 40 – 50% over 10 years of 2003 to 2013. Although the cause/effect for the decline was not determined, it was suggested that angling effort could well be the major contributor to the decline. Alberta Environment & Parks Fishery Management Branch followed this report with a detailed Bow River fish population survey in 2018 and again in 2019 and 2020 that indicate rainbow trout, brown trout, and mountain whitefish populations continue to decline. This would suggest the Bow River trout fishery is under serious threat and needs a change in management policy to recover the fish population. Angling effort is not the only possible cause for Alberta trout population decline. Habitat degradation, water management policies, climate change that impacts food source and environmental temperatures, industrial and human encroachment into the watershed, wastewater treatment, invasive species, and disease are suggested to be the principal causes from an even larger list of threats. Many of these threats have been present for some time, but the cumulative effect of multiple threats will certainly compound, and possibly expedite trout population declines. The CRUA report, **“The Alberta Trout**

Fishery – A Vision for the Future” discusses the problem facing fishery managers, recreational anglers, and businesses in what has become an important debate on the future of the Bow River trout fishery. What is evident is that the Bow River fishery is influenced by a multitude of management practices, many of which are beyond the control of AEP fishery biologists. But the combination of creel surveys, three years of fish population analysis, and recent Cumulative Effect Modelling has given the background needed to make a regulation change to the Bow River fishery. The challenge will be to present management practices that most anglers can accept and allow the Bow River fishery to recover.

The CRUA review, **“The Impact of Bow River Water Management Policy on Fish Populations”** discusses the Cumulative Effect Modeling in the context of the scope of the **AEP-CRUA Joint Technical Liaison Group** objectives:

1. **Scientific Assessment of Fish Population Declines:** The Bow River Fish Population Survey from 2018-20 and the Angling Effort Survey from 2018 are important steps that have been taken to update the knowledge database of fish population dynamics. And when combined into a cumulative effect modeling framework will hopefully guide fishery management directives. Specifically, the relationship between phosphorous, dissolved oxygen, sediment biomass content, and invertebrate populations. All of which have impacts on the fishery, but not all can be managed by fishery biologists.
2. **Short-Term Water Flow Management Change:** The modified Bow River water management policy that had been in place since 2014 and renewed for a further five years in 2021 has created some degree of frustration within the fishing community. Certainly, flood protection for the City of Calgary is important, but rapid change in daily flows needs to be eliminated outside of emergency intervention to protect infrastructure. The daily flow discharge forecasts being made available to river user groups in recent years have been useful. But there is a need for more public consultation in advance of daily water operations directives being issued by the water regulators. Changes made to the TransAlta operating protocols in 2021 have been well received.
3. **Bow Basin Future Water Management Policy:** The Bow Basin Water Management Options to improve flood and drought protection will no doubt be controversial, especially any new dam additions in the future. Although there is a need for an environmental assessment, the scope of what has been completed to date has not taken into the impact on the wild-non-native trout population in the Bow River. The cumulative effect modeling of the lower Bow River, in and downstream of Calgary needs to be expanded to include the proposed new dam sites on the Bow River.

[The Alberta Trout Fishery A Vision for The Future](#)

[The Impact of Bow River Water Management Policy on Fish Populations – Update April 2021](#)

The Way Forward:

The four discussion points; the economic contribution to the local economy, the river access, the water management, and fishery management policies are each important within themselves. But are dependent on each other for a successful rollout of policy and implementation. It is with this in mind that CRUA believes that a **Bow River Basin Recreation Management Plan** is needed to integrate resources from all levels of government into a central agency that can better identify needs, policy, and directives to meet the challenges to enhance

recreational use of the Bow River Basin. Within itself a river recreational plan would address many of our concerns, but to implement its finding within the larger scope of the Bow River Basin watershed management policy could well be a challenge.