

**FEBRUARY 2026**

# **Bow River Strategy**

***It is Our River... to Steward...  
to Share... to Explore... to Belong.***



**PREPARED BY:**



101 - 134 11 Avenue SE, Calgary,  
AB T2G 0X5 | T: 403.291.1193

Lee Giddens  
lgiddens@urbansystems.ca

**PREPARED FOR:**

Michelle Ambrose  
Director, Parks and Active Living  
Town of Cochrane

This report is prepared for the sole use of Town of Cochrane. No representations of any kind are made by Urban Systems Ltd. or its employees to any party with whom Urban Systems Ltd. does not have a contract. © 2026 URBANSYSTEMS®.



# Contents

## Land Acknowledgement..... 4

## Executive Summary..... 5

## Introduction ..... 9

Why a Strategy focusing on the Bow River?	9
What are the limitations of the Strategy?	10
What are we trying to achieve?	11
Who is the Strategy for?	12
What next steps are required for implementation?	13
What do we mean by 'The Corridor'?	14
What guided our approach?	15

## Understanding The Context ..... 16

Regional Context	16
Regional Connections	17
Current Conditions	18
Land Use Context	19
River Access Along the Corridor	21
Policy Review	22
Market Opportunity Scan	26
Environmental Insights	29
Key Takeaways	32
Protecting the River's Edge	35
Proposed River Access	36

## Engagement ..... 37

Approach	37
What We Learned:	41
How Input Informed The Strategy	42

## Shaping The Bow River Corridor..... 43

Vision For The Strategy	43
Guiding Principles	44

## Corridor Identity & Opportunities .... 46

Gateways to Cochrane	48
Rugged & Wild	54
Natural Discovery	61
Gather & Play	68
Energy & Activation	80

## Implementation Strategy ..... 88

Overview	88
Prioritization & Phasing	89
Key Indicators for Measuring Success	98
Monitoring and Reporting Progress	99

## Future Studies & Recommendations.. 100

Identified Needs for Further Research & Analysis	100
--	-----

## Appendix A

River Access Impact Study.....	102
--------------------------------	-----

## Appendix B

Market Opportunity Scan .....	103
-------------------------------	-----

## Appendix C

What We Learned Report .....	104
------------------------------	-----



# Land Acknowledgement

We recognize and acknowledge that, for time immemorial, long before European settlers arrived, Indigenous Peoples have lived on and cared for the lands and waters upon which we are situated. With deep knowledge and respect for the land, water, and all living beings, they have stewarded the Bow River, a vital waterway that has shaped their cultures, traditions, and way of life.

We recognize and acknowledge that when European settlers arrived, they were welcomed and supported by the Indigenous peoples to establish themselves. Eventually, a treaty was signed, now known as Treaty 7, between the Crown and the peoples of the Iyethka (Chiniki, Bearspaw, and Goodstoney Bands); the Tsuut'ina; the Niitsitapi (Blackfoot) peoples of Siksika, Piikani, and Kainai Bands; and the home to the North West Métis and the Otipemisiwak Métis Government.

We gratefully acknowledge that where we live, work, and play is within Treaty 7 lands. The Bow River continues to be a source of life, connection, culture, and stories for the Indigenous peoples of this region. We honor and respect all those who share, celebrate, and care for this land and its waters. We recognize the ongoing histories of the original caretakers of the land and water and affirm our shared responsibility to uphold and steward this land as we move forward on the journey of Truth and Reconciliation.





# Executive Summary

The Bow River Strategy is a comprehensive, forward-looking framework that guides both short- and long-term decisions and investments along Cochrane's riverfront corridor. It serves as a key resource for decision-makers, Town administration, local businesses, tourism operators, and community groups supporting a shared understanding of the river's significance as a vital natural and community corridor. The Strategy aims to align efforts toward creating and sustaining a healthy, vibrant, and accessible riverfront experience.

At its core, the Strategy emphasizes responsible land management and environmental stewardship, ensuring future development respects the ecological integrity of the Bow River Corridor while supporting recreational, cultural, and economic potential.

The planning process began with a Background Review and Opportunities & Constraints Mapping, which compiled existing policies, plans, land ownership, environmental data, and current site conditions. This foundational work informed a Market Opportunities Scan, which included an additional layer to identify potential economic,

housing, and recreational opportunities- highlighting where growth can occur while maintaining environmental sensitivity. A River Access Impact Assessment further deepened understanding of the riverfront's ecological value and informed sustainable planning decisions.

Community engagement was central to the development of the Strategy. Engagement activities included walking tours, staff workshops, key interest group interviews, a public survey, and pop-up events. Conducted in alignment with the *Parks, Culture, and Active Living Master Plan*, these efforts gathered insights into how people currently use the riverfront, the challenges they face, and their aspirations for future improvements and connections to the broader parks and recreation network.

The feedback collected helped shape a set of guiding principles, which underpin recommendations related to pathway alignment, design character, and connectivity. These recommendations aim to create a unified and sustainable vision for the Bow River Corridor, balancing conservation with community well-being and economic resilience.





The Strategy is designed to be a practical, go-to resource, something that can be picked up and referenced often. To support this, it was essential to incorporate clear and tangible actions. The Implementation Plan outlines a structured approach to prioritizing initiatives across short-, medium-, and long-term horizons. It also includes a monitoring framework to keep the Strategy central to Town decision-making and to promote ongoing accountability. In addition, the Plan identifies opportunities for collaboration, clarifies interest groups' roles in implementation, and points to areas where further study or input will be needed to inform future development.

By integrating research, environmental assessments, and community insights, the Bow River Strategy offers an actionable and adaptable roadmap. It ensures that future efforts are cohesive, collaborative, and aligned with a shared vision:

***it is our river... to steward... to share...to explore... to belong.***





## What the Strategy is...

- **A collaborative vision and roadmap**  
Guiding the future of Cochrane's Bow River Corridor, grounded in research, analysis, and community input.
- **A guide for decision-making**  
That integrates environmental, cultural, recreational, and economic perspectives to support a vibrant and resilient riverfront.
- **A framework for action**  
Provides clear direction, recommends interventions, and implementation steps to help stakeholders work toward common goals.
- **A tool for alignment**  
Brings together diverse voices and interests to ensure future development is thoughtful, inclusive, and sustainable.
- **A living document**  
Designed to evolve as new information, partnerships, and opportunities emerge over time.

## What the Strategy is not...

- **A detailed design or engineering plan**  
The Strategy sets out direction and intent, but not technical specifications or final construction details.
- **A prescriptive policy document**  
It provides guidance and recommendations, but does not replace statutory plans, bylaws, or legislative processes.
- **A final answer**  
This is not a fixed endpoint. It identifies areas where more exploration, engagement, and decision-making are still needed.
- **A one-size-fits-all solution**  
The Strategy recognizes the uniqueness of different areas along the river and does not apply uniform solutions.
- **An implementation commitment from all parties**  
While it outlines opportunities and roles, the Strategy does not assume resources or decisions beyond each organization's authority.









# Introduction

## Why a Strategy focusing on the Bow River?

The Bow River Strategy is the result of an initiative taken by the Town of Cochrane to comprehensively review current conditions, ongoing needs and future aspirations for areas adjacent to and including the Bow River Corridor - a critical natural asset supporting and sustaining the Town's livability, quality of life and service delivery. It reflects a timely response to ongoing and proposed projects, increasing development pressures, and growing interest in how the riverfront is accessed, used, and protected.

As Cochrane continues to grow, so too does the need for bold, thoughtful stewardship of the Bow River Corridor. The Strategy considers current conditions, evolving needs, and long-term aspirations to ensure this unique landscape continues to support livability, quality of life, and environmental health for generations to come.

The Strategy is intended to be a resource for decision makers to guide both short- and long-term investments along the Bow River Corridor, which extends across the Town's east-to-west boundaries, considering a 20 year horizon. The Strategy is grounded in technical research, community engagement, and environmental assessment. It complements and supports other planning initiatives, including the Parks, Culture, and Active Living Master Plan (launched in 2024) and draws from the River Access Impact Study (see **Appendix A**), which identifies priority areas for conservation and potential areas for appropriate development. Together, these efforts support a coordinated approach to preserving the Bow River Corridor's ecological integrity while enabling recreation, culture, tourism, and community connection.

Designed as a living document, the Bow River Strategy provides shared direction and tangible next steps for the Town, partners, and community members alike, reinforcing the idea that this is our river- to steward, to share, to explore, to belong.

The Bow River Corridor must become a central priority for decision-makers in the Town of Cochrane. Current efforts are falling short. This Strategy offers both a bold vision for what the corridor can become and a clear call to action to do more... starting now.





## What are the limitations of the Strategy?

This Strategy is not a detailed engineering or construction plan, nor does it replace statutory policies, bylaws, or municipal approval processes. It does not commit any party to funding or implementation beyond their authority and does not offer a one-size-fits-all solution for the entire corridor. Rather, it identifies opportunities, provides guidance, and signals areas where further work, engagement, and decisions will be necessary.



# What are we trying to achieve?

The **Bow River Strategy** (referred to as *the Strategy* in this report) articulates objectives for the Bow River Corridor to be a vibrant, inclusive, and sustainable lifeline of the community. The Corridor serves as a primary physical connection through Cochrane, a vital source of water, a sanctuary for wildlife, and a hub for activity. Beyond this, it is a keeper of historic and cultural stories and a setting to support community connection for generations to come.

To realize these objectives, the Strategy addresses key focus areas, including utilization and demand, alignment with complementary initiatives, environmental considerations, design standards, connectivity, tourism opportunities, and implementation strategies. These focus areas are translated into the following overarching goals:

## 1. Environmental Stewardship

Protect environmentally sensitive areas and support the health of the Bow River ecosystem. Evaluate and enhance river access points to reduce environmental impacts.

## 2. Collaborative Planning and Phasing

Develop an actionable, phased implementation strategy with high-level cost estimates. Actively engage stakeholders, such as Town council, administration, residents, and tourism partners to ensure alignment with the community's long-term vision.

## 3. Community and Economic Integration

Strengthen connections to local amenities, services, and tourism opportunities. Explore economic growth potential through boutique retail, river-based recreation, and community hubs.

## 4. Enhanced Pathway Purpose and Functionality

Define the pathway's role in recreation, transportation, and community gathering, ensuring accessibility, safety, and alignment with user needs.

## 5. Thoughtful Design and Placemaking

Establish clear design standards for pathways, including materials, seating notes, signage, and wayfinding. Incorporate all ages and abilities design to ensure everyone feels welcome as they explore the Corridor. Enhance the Corridor with public art and interface zones to foster vibrant and engaging spaces.

With this direction, the Strategy goes beyond recommending connectivity and user experience improvements; it is a commitment to shaping a legacy where the Bow River Corridor serves as a unifying thread for community well-being, economic vitality, and environmental integrity.



## Who is the Strategy for?

The Strategy is a guiding document designed to inform Town policy, future investment decisions, and characterize potential interfaces along the Corridor. It provides a clear vision of the Town's aspirations for the Corridor, shaped by input from a diverse range of community members, user groups and stakeholders.

The Strategy serves multiple audiences within the Cochrane community and beyond, acting as a resource for:

- **Decision Makers (Council, Town Administration, Investors)**  
Providing a framework to guide decisions surrounding planning and investment to align with long-term goals and vision for the riverfront.
- **Local Businesses and Tourism Operators**  
Offering insights and information on opportunities to enhance operations and service offerings.
- **Community Design Professionals**  
Providing consideration and guidance for trail design, operations and maintenance, and recommendations for placemaking.

- **Outdoor Enthusiasts, Recreational Users, and Community Groups**

Addressing the needs of those who engage with the Corridor for leisure, sport, or adventure.

- **Residents and Visitors**

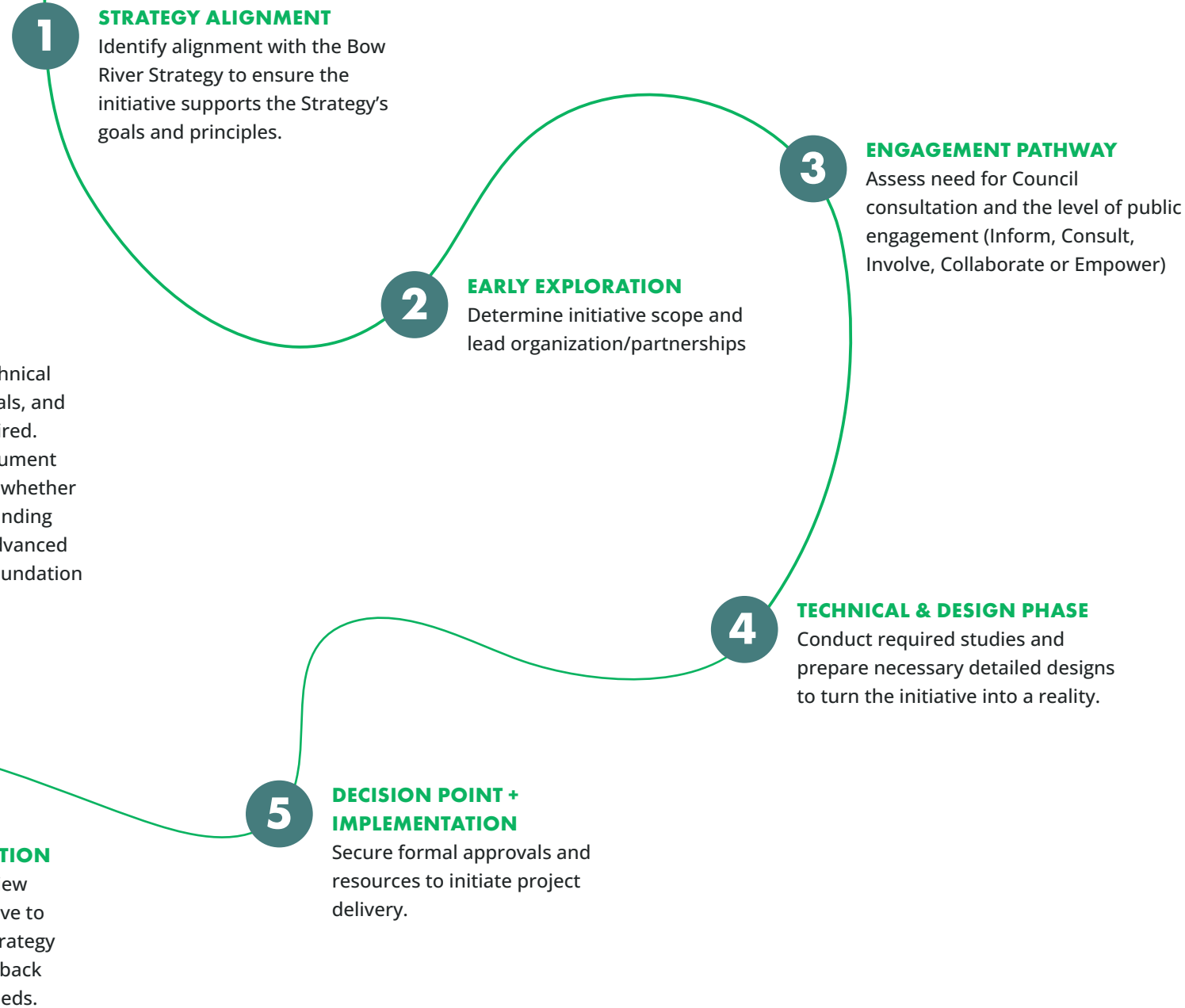
Highlighting the value of the Bow River Corridor as a space for recreation, community gathering, and economic opportunities in addition to being the Town's main water supply.

By fostering collaboration and aligning the aspirations of the community, the Strategy aims to support a vibrant, sustainable, and inclusive future for the Bow River Corridor.



## What next steps are required for implementation?

To move from Strategy to action, additional processes such as detailed design work, technical studies, public engagement, budget approvals, and interjurisdictional agreements may be required. Any initiative recommended within this document must go through the appropriate channels- whether Council approval, land use redesignation, funding allocation, or permitting- before it can be advanced or implemented. The Strategy serves as a foundation for these future steps.

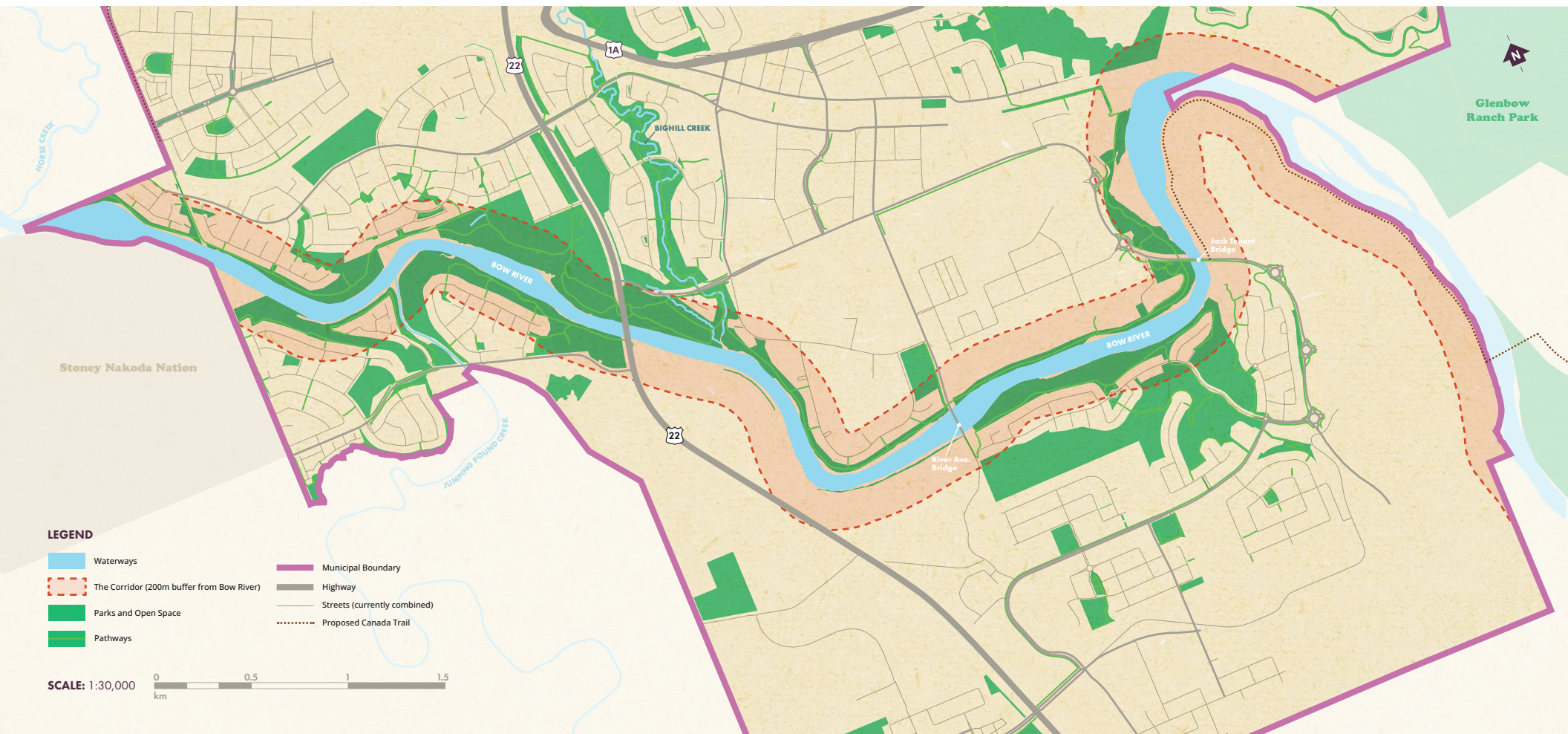




## What do we mean by 'The Corridor'?

The Bow River Corridor (referred to as the Corridor in this report) encompasses the Bow River and a transition zone that is complimentary with the river's functions. The Corridor also includes the interface on either side of the Bow River as it meanders through the Town of Cochrane from the Town's west to east boundary. For the purposes of the Strategy, a 200 metre offset has been defined for the purposes of study and review. This boundary includes not only the river itself but also the connected waterways,

along with the surrounding infrastructure, trails, parks, and open spaces that are integral to the community's relationship with the river. These areas serve as key nodes for outdoor activities, recreation, and ecological interaction, providing spaces where people can directly connect with the natural environment. The Corridor is a dynamic landscape that supports both active and passive uses, enhancing the overall quality of life for Cochrane residents and visitors.





# What guided our approach?

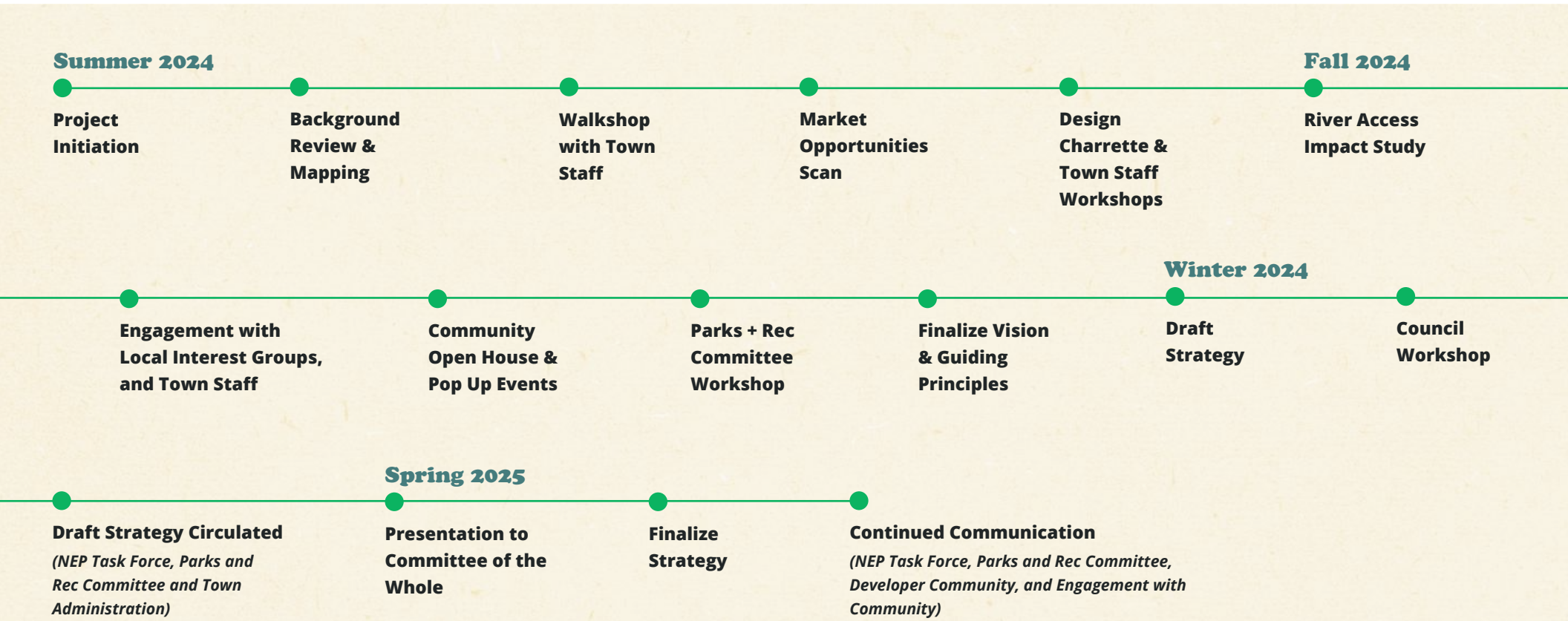
The Strategy was developed around a series of key inputs to ensure a comprehensive and inclusive understanding of the Corridor. The project began with a Background Review and Mapping phase to compile existing policies, plans, and environmental data to inform the subsequent activities. A Market Opportunities Scan was conducted to identify economic and recreational opportunities associated with the riverfront. The River Access Impact assessment as mentioned previously was developed to aid in our understanding of environmental significance of areas along the riverfront informally

used for river access and areas warranting additional measures of protection and conservation. Elaboration on the inputs above are explored in following sections and appendices.

Engagement was central to the Strategy, with walkshops, workshops with Town Staff, interviews with community partners and public engagement in partnership with the Parks, Culture and Active Living Master Plan to gather insights on current conditions, user experiences, challenges, goals and hopes along the Corridor. These inputs shaped guiding principles

and ultimately informed future engagement events, where refined scenarios and recommendations for pathway alignment, design character, and connections were developed. In addition, the Natural Environment Protection (NEP) Task Force, the Parks and Recreation Committee, private property owners, and the development community were engaged to ensure their involvement and alignment.

Together, these inputs ensure that the Strategy is well-informed, inspiring, and actionable.





# Understanding The Context

Developing a comprehensive and impactful Strategy requires a deep understanding of the factors influencing the current context and identifying gaps and opportunities. This section outlines the foundational research and supporting studies that informed the Strategy, including an analysis of current conditions, policy review, market context, and environmental assessment. These insights collectively form the basis for a balanced approach that integrates community, economic, and environmental perspectives.



## Regional Context

Cochrane's location within the Bow River Watershed places it in a uniquely sensitive and strategic position within the region. The Bow River originates from glacial meltwater in the Rocky Mountains, flowing through ecologically and culturally significant landscapes for approximately 645km. As part of the headwaters system for a major prairie watershed, the section of the Bow River flowing through Cochrane plays a critical role in downstream water quantity, quality, and ecological connectivity.

Regionally, the Bow River corridor serves as a vital natural infrastructure network supporting biodiversity, climate resilience, and regional livability. Environmental assessments including the River Access Impact Study (RAIS) highlight the presence of important habitat areas, movement corridors for

wildlife, and riparian zones that serve as buffers against erosion and flooding. The confluence with Jumpingpound Creek and Bighill Creek adds further ecological complexity and opportunity for restoration and stewardship.

Cochrane is also experiencing pressures associated with regional growth. As one of Alberta's fastest-growing communities, the Town faces increasing demand for recreational access, housing, and infrastructure near the river corridor. A market analysis of the surrounding area indicates strong interest in river-oriented development, tourism, and outdoor recreation opportunities- particularly those that capitalize on the natural beauty and proximity to the mountains. However, balancing this interest with environmental protection and public access is essential.

Cochrane's location between the mountains and the Calgary metropolitan area positions it as a key connector in both regional trail systems and tourism circuits. Existing partnerships with Tourism Alberta, the Town of Canmore, the City of Calgary, Rocky View County, Stoney Nakoda Nations and regional organizations underscore the need for coordinated planning to manage cumulative impacts on the river, support sustainable tourism, and maintain the Bow River as a shared regional asset.

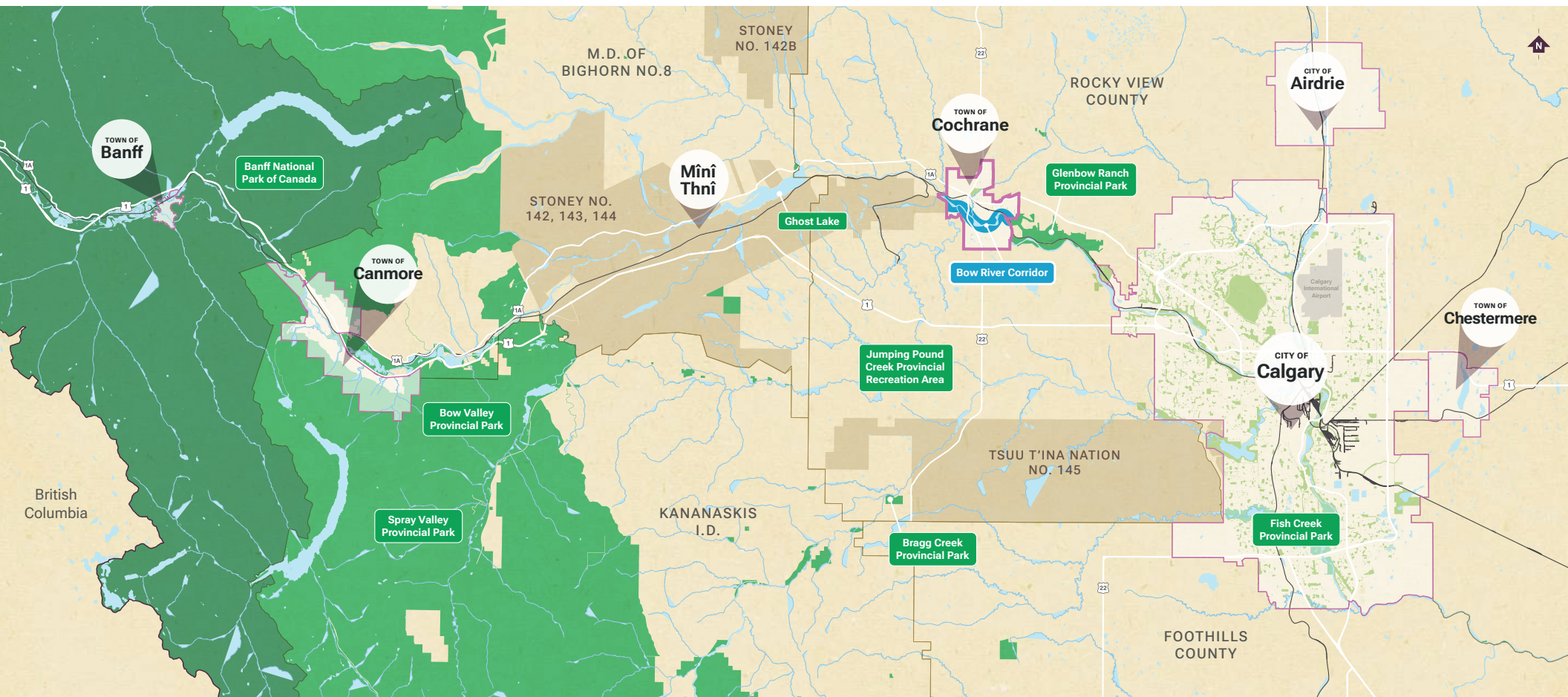
As Cochrane continues to grow and evolve, this Strategy recognizes the importance of planning within a regional context, one that acknowledges upstream and downstream relationships, cross-jurisdictional responsibilities, and the role of the Bow River corridor.



## Regional Connections

Cochrane's Bow River corridor is part of a larger natural network linking the Rocky Mountains to the prairies. As the river flows through town, it connects key ecological features like Jumpingpound and Bighill Creeks, while supporting wildlife movement, water quality and quantity.

The corridor also links people and places- connecting neighborhoods, parks, and regional destinations through a growing trail system. As Cochrane expands, coordinated planning with regional partners ensures the Bow River remains a shared asset for recreation, conservation, and community life.





# Current Conditions

The Bow River winds through the Town of Cochrane, nestled in the foothills east of the Rocky Mountains. Originating from the Bow Glacier in Banff National Park, the river flows through the Iyethka lands of the Chiniki, Bearspaw, and Goodstoney Nations before reaching Cochrane, then continues eastward past Glenbow Ranch Provincial Park and through Rocky View County toward Calgary.

Within Cochrane, the river is crossed by three roads, two with designated pedestrian routes and interfaces

with eight neighbourhoods, with future development planned downstream. Five developed municipal reserve parks and several natural areas, including the confluence with Jumpingpound Creek, provide green space along the corridor. However, formal river access is limited, with one designated emergency access point under the Highway 22 bridge, also used informally as a watercraft take-out and shallow entry point. Additional access occurs via informal trails, ranging from open, well-used paths to secluded routes screened by vegetation.

The riparian zone offers ecological and recreational value, serving as a vital transition between land and

water that supports both human activity and wildlife. Nonetheless, access and travel along the corridor present some challenges, including steep slopes, obstructed sightlines, and occasional user conflicts.

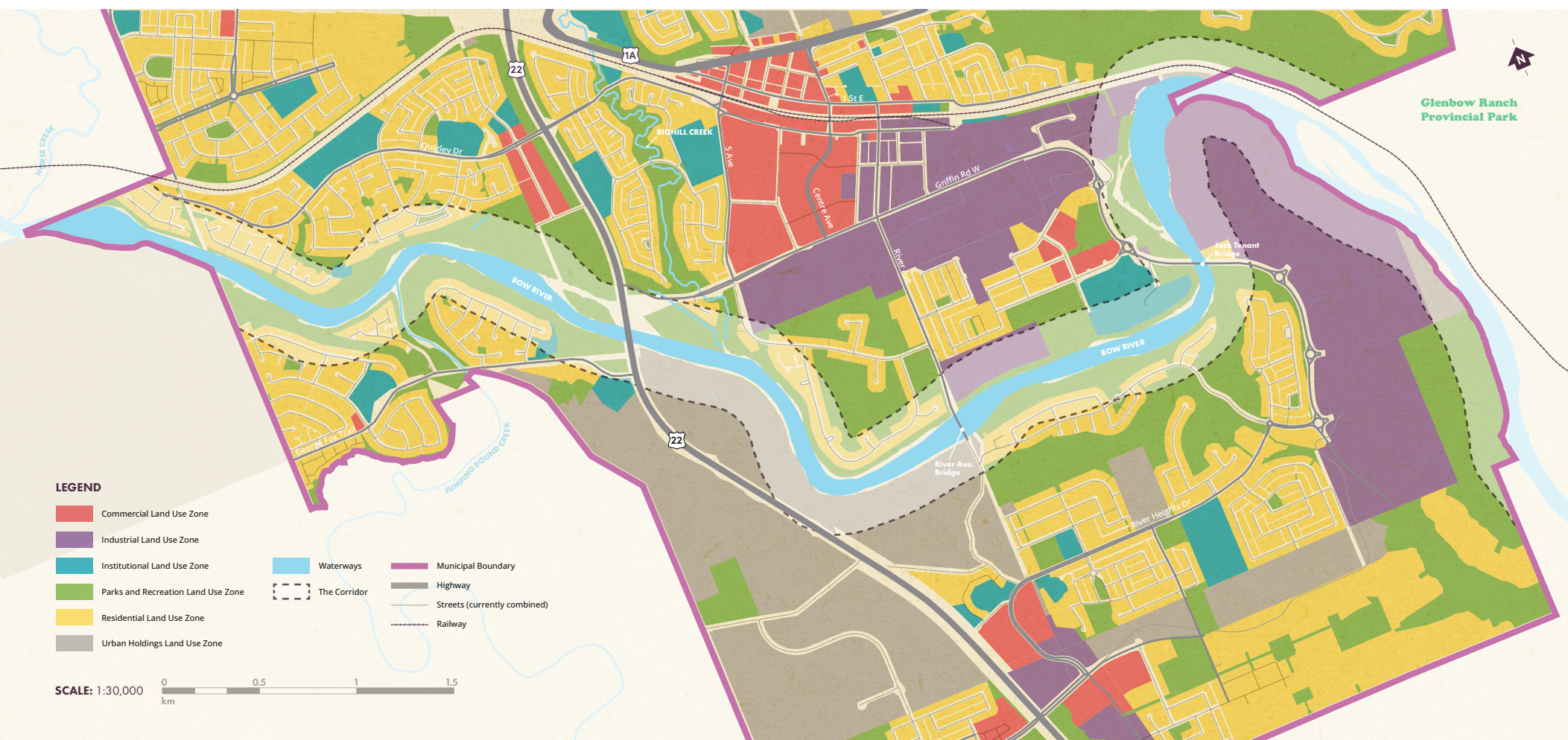
Cochrane's Bow River Corridor is supported by a network of roads, trails, and pathways connecting residents and visitors to key destinations for commuting and recreation. A number of proposed trail connections aim to enhance this system by improving accessibility, linking surrounding communities, and strengthening the corridor's role as a vital and integrated part of the local landscape.





# Land Use Context

The Bow River Corridor in Cochrane is shaped by a diverse and evolving mix of surrounding land uses. This simplified map illustrates how residential neighbourhoods, commercial and mixed-use areas, community facilities, parks, and natural spaces interface with the river, influencing how people access, experience, and care for the corridor.





## RESIDENTIAL & URBAN HOLDINGS

Eight established neighbourhoods currently border the Bow River, each contributing differently to the corridor's connectivity and character. Some areas feature informal trails and natural access points, while others include structured pathways, integrated park spaces, and formal riverfront amenities. As new residential developments emerge, there is an opportunity to strengthen these connections, ensuring that all communities - existing and future - can access and benefit from the corridor in a safe, inclusive, and sustainable way. Several lots adjacent to the corridor are designated as Urban Holdings, intended for future development. This Strategy will help facilitate connections to these areas once they are ready to proceed.

## COMMUNITY AND INSTITUTIONAL SPACES

Community and institutional spaces such as schools, cultural centres, and recreational facilities, play a vital role in shaping daily life along the Bow River Corridor. These spaces can help foster a sense of belonging and stewardship, especially when designed to be accessible, inclusive, and well-connected to the river. Their role in supporting health, well-being, and lifelong learning makes them important partners in the long-term success of the Corridor.

## COMMERCIAL AND MIXED-USE AREAS

Established commercial and mixed-use zones near the river serve as active community hubs, offering services, amenities, and gathering spaces that attract both residents and visitors. Their proximity to the corridor presents opportunities to enhance public access, connectivity, and visibility, but also may introduce challenges such as increased traffic, noise, and potential impacts on the natural environment. Strategic planning is needed to ensure these areas support the Corridor's broader goals - by incorporating green buffers, designing for walkability, and aligning with Cochrane's identity and values. Future commercial development also holds potential to support tourism and act as welcoming gateways to the river, particularly through businesses like cafés, outfitters, or cultural venues that encourage exploration and stewardship.

## PARKS AND NATURAL AREAS

Parks and natural spaces are among the most prominent land uses along the Bow River Corridor. These areas provide essential ecological functions - such as habitat protection and flood mitigation - while also serving as key destinations for recreation, relaxation, and gathering. Maintaining and enhancing these spaces is critical to preserving the corridor's integrity, supporting biodiversity, and ensuring that the river remains a place of shared value for all.

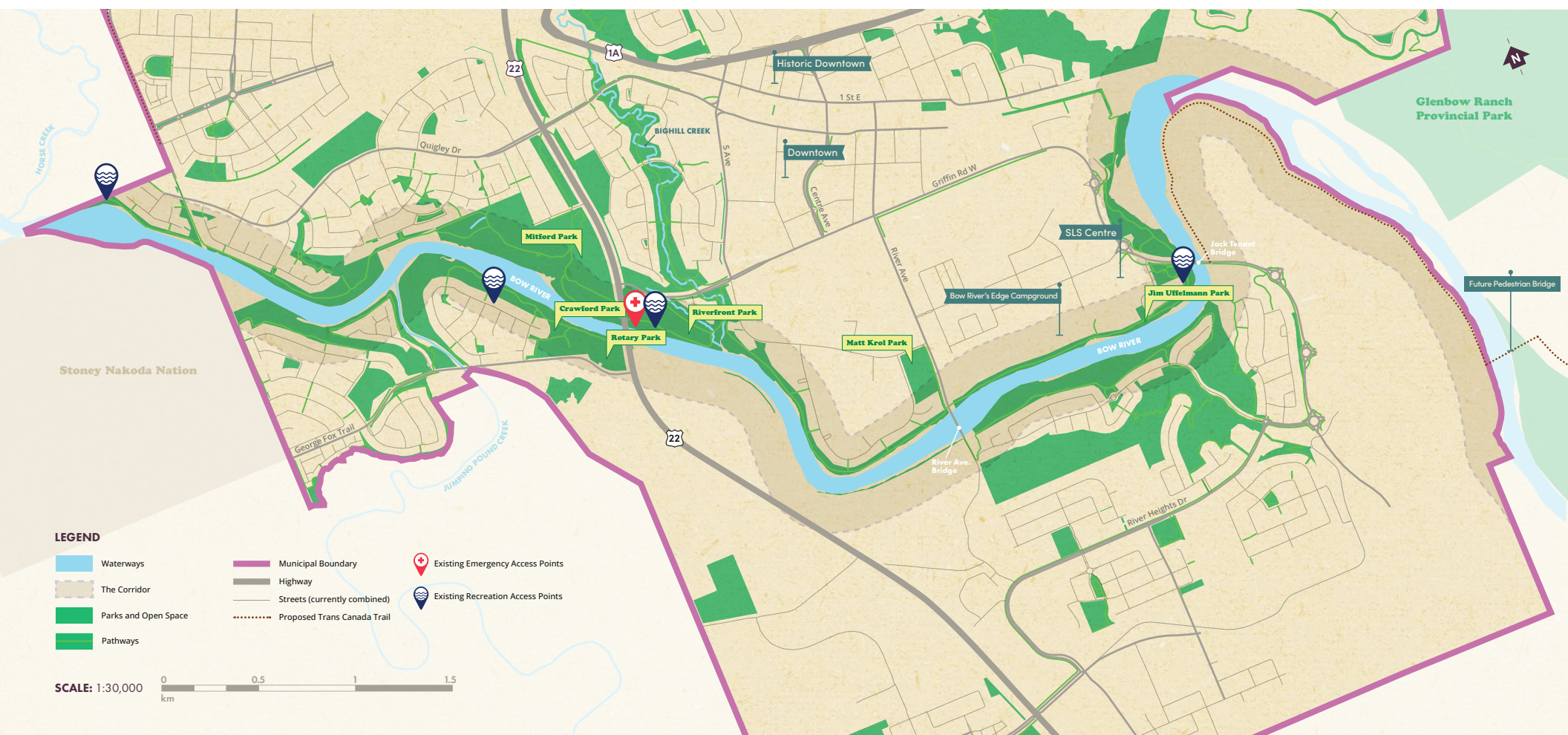
As Cochrane continues to grow, thoughtful integration of land use planning and policy with river corridor management will be essential to protect ecological integrity, enhance public access, and ensure the Bow River remains a central and celebrated feature of the town's landscape.



# River Access Along the Corridor

The Bow River corridor in Cochrane supports a range of recreational and emergency needs, with access points playing a key role in connecting people to the water. Currently, formal access is limited, with one main designated emergency access point located beneath the Highway 22 bridge. This site also serves as an informal launch and take-out for watercraft. Additional access occurs through a network of informal trails, varying in visibility and condition.

To enhance safety and recreational opportunities, a number of existing access points have been identified along the corridor. These include both emergency access locations and recreational entry points, aimed at improving connectivity, supporting emergency response, and encouraging responsible river use. As Cochrane continues to grow, access improvements will help ensure the Bow River remains a safe, accessible, and valued natural asset for all.





# Policy Review

To inform the Strategy, a Background Review was conducted, involving a comprehensive analysis of relevant documents, associated plans, policies, and agreements. This review, detailed in **Appendix B**, serves as a central reference, offering essential historical and contextual information to support the development of the Strategy. The documents reviewed provided valuable context for shaping the Strategy and helped identify several key stakeholders.

While the Background Review was a dynamic tool during the development phase of the Strategy, it is now a static document and may not reflect the inclusion of new plans, policies, and agreements as they are created in the future.

The documents included in the Background Review were categorized into three groups: Municipal/Provincially Led, Developer-Led, and Third-Party Led as detailed below.

The Strategy builds upon the findings from the Background Review, through recommendations to policy. Potential policy updates adopted by Cochrane’s Town Council can foster change as it relates to the Corridor. These are provided in recommendations for consideration and actioning beyond the scope of this Strategy.

Category of Document	Title of Document (Year)
Municipal/Provincially Led	<ul style="list-style-type: none"><li>Envision Cochrane 2050 (2024)</li><li>Cochrane Strategic Plan (2022-2025)</li><li>Town of Cochrane MDP (2008)</li><li>Cochrane Open Space Master Plan (2012)</li><li>Cochrane Growth Strategy (2024)</li><li>Connecting Cochrane (2017)</li><li>Jim Uffelmann Report, Including Level 1 ESA and Geotechnical Desktop Study (2023)</li><li>Provincial Flood, Current Mapping</li><li>Bow River Basin East Dam Potential Impacts (2024)</li><li>Review of Capital Projects Impacting the Bow River/Adjacent Lands (2024)</li><li>Government of Alberta, Stepping Back from the Water (2012)</li><li>River Access Impact Study (2025)</li><li>Jumpingpound Creek- Integrated Watershed Management Plan (2014)</li></ul>
Developer-Led	<ul style="list-style-type: none"><li>John Robinson lands and South Ridge Area Structure Plan (2011)</li><li>Southbow Landing Neighbourhood Plan (2015)</li><li>Greystone Development Area C Neighbourhood Plan (2023)</li></ul>
Third Party-Led	<ul style="list-style-type: none"><li>The Trail- Stage 1 (2024)</li><li>City of Calgary Development Guidelines and Standard Specifications: Landscape Construction, Current</li><li>Alberta River Recreation Management (2023)</li><li>Alberta’s Crown Land Outdoor Recreation Economy-Six Action Items (2021)</li><li>Bow Basin Recreation Management (2021)</li><li>Bow River Basin Council- State of the Watershed (2024)</li></ul>



## KEY TAKEAWAYS

### Municipal and Provincial-Led Policy Insights

The first section of the Policy Review underscores provincial and town-led initiatives that directly inform the Bow River Strategy. Cochrane has demonstrated through relevant long-term policy and strategies that there is a strong commitment to protecting, nurturing, and enjoying the Town's landscape. Further, the Town has prioritized investments in multi-modal transportation and pathway infrastructure to enhance connectivity across the community.

The Bow River is recognized in the Cochrane Open Space Master Plan as the backbone of the town's open space system and a defining feature of the Town's character. However, gaps in the trail network currently limit access between the river and key destinations, highlighting the need for improved connectivity. Insights from the Master Plan indicate that residents prefer walking trips of 2 km or less, suggesting opportunities to design intuitive trail loops, future connections, and wayfinding signage that align with these preferences.

Environmental challenges identified through the Jim Uffelmann Report and provincial flood mapping are also relevant challenges to be considered in the Strategy. These include risks of continued slope erosion, potential contamination from adjacent land uses, and flood hazards along the Bow River, Big Hill Creek, and Jumping Pound Creek. All of these bodies of water necessitate proactive flood protection and on-going maintenance measures. High-use areas, such as the informal river access point under the Jack Tennant Memorial Bridge, and the overuse of parks reflect growing recreational demand, specifically for additional off-leash dog spaces and watercraft users.

Furthermore, planned capital projects, such as pathway upgrades and a multi-sport court near the Spray Lake Sawmills Family Sports Centre (SLS), present opportunities for alignment with the Corridor's development. These findings collectively emphasize the importance of Corridor management, strategic investment, and thoughtful design to ensure the Corridor continues to support the community's needs and Town's vision.





### Developer-Led Insights

Privately led initiatives that are planned to occur within proximity to the Corridor were also considered to offer insights that may complement municipal efforts and provide context for future population growth along the Corridor.

Southbow Landing, a master-planned complete community in River Heights, demonstrates how integrated parks, pathways, and streetscapes can foster active transportation and outdoor lifestyles. Guided by the Open Space Master Plan, Southbow Landing incorporates linkages within the broader pathway network while planning local pathways and nature trails that will provide connections to the Corridor. The inclusion of a riverside park and additional amenities (e.g. washroom facilities, rest areas, future bridge connection) in the development plans has the potential to alleviate pressure on existing open spaces within the Corridor. As the community grows, these future linkages and the increased population should be factored into Corridor planning.

The South Ridge Area Structure Plan further emphasizes the importance of integrating open spaces and pathways that connect future residential zones to the Bow River. This plan considers environmental factors such as the floodway, sloping, and preserving natural areas, proposing a future pathway network that links future residential areas to the river while preserving the Corridor's ecological integrity.

Similarly, the Greystone Development, which will interface directly with the Corridor, incorporates additional commercial, parks and open spaces designed to support local recreation and community needs. Enhanced pedestrian and cycling circulation within the development is strategically planned to connect to the Corridor and nearby recreational amenities. Together, these developer-led projects reflect a commitment to creating vibrant, connected communities while addressing the environmental, recreational, and connectivity goals central to the Bow River Strategy.

### Third Party-Led Initiatives & Insights

Initiatives led by community organizations, recreation and environmental groups provide valuable context for enhancing the Corridor by contributing to connectivity, policy development, recreation and economic growth.

The Trail Plan is a transformative project aimed at connecting Calgary to Canmore via a multi-use pathway. Currently, the Trans Canada Trail faces challenges such as steep grades and trail breaks, but the proposed Bow River Valley alignment aims to address these issues by creating improved grades, shorter routes, and connections to existing trails. A key feature of the plan is the addition of a new pedestrian bridge across the Bow River at its eastern boundary, significantly enhancing trail connectivity within Cochrane and linking its trail network to neighbouring communities. Beyond improved access, this initiative promises broader economic, environmental, and public health benefits, catering to residents and attracting visitors seeking recreation opportunities along the Trail.

Additional initiatives such as the Alberta River Recreation Management framework and other recreation and tourism-focused studies emphasize the importance of river-specific policies and strategies. These resources provide additional direction to maximize the river's potential while prioritizing sustainability. They also highlight the role policy can play in empowering the Town and community organizations to secure necessary resources, attract business investment, and bolster local tourism.

In addition to river recreation initiatives reviewed, the Bow River Basin Council completed a State of the Watershed report, to highlight key regional trends that directly inform this Strategy. The report identifies declining riparian health and municipal wastewater as key stressors to water quality, emphasizing the need for stronger protection and restoration efforts along the river corridor. Further, they highlight that climate change is altering snowmelt and precipitation patterns, increasing flood risks and challenging water availability, calling for adaptive, nature-based solutions. The report also identifies rapid population growth and expanding urban development across the basin as placing added pressure on ecological systems, reinforcing the importance of integrated watershed and land use planning. As a living, interactive resource, the report underscores the value of responsive, data-driven decision-making to sustain the Bow River's environmental and community benefits over the long term. Together, these third-party initiatives highlight the policy gaps and align with the vision and intent of the Bow River Strategy.



## GAPS & OPPORTUNITIES

The Policy Review was conducted to provide a clearer understanding of how current frameworks interact with the Corridor and to identify gaps that may hinder its effective management and development.

One of the most significant findings from the review is the absence of a dedicated guiding document that specifically addresses the Bow River and its unique needs. While various policies and plans may touch on aspects of the Corridor, there is no cohesive framework that integrates the environmental, cultural, recreational, and economic priorities associated with the river.

Having a specific guiding document is critical for several reasons:

### **Balancing Growth and Conservation**

The Bow River serves as a vital natural and cultural resource, and a guiding document would help balance the need for economic growth with the imperative to protect its ecological health and cultural significance.

### **Unified Vision**

A dedicated plan ensures that all stakeholders from municipal governments to local businesses, Indigenous communities, and environmental organizations are aligned on a shared vision for the river's future.

### **Informed Decision-Making**

With a comprehensive framework in place, decisions regarding development, conservation, and tourism can be made with a clearer understanding of their long-term impacts on the river and the surrounding areas.

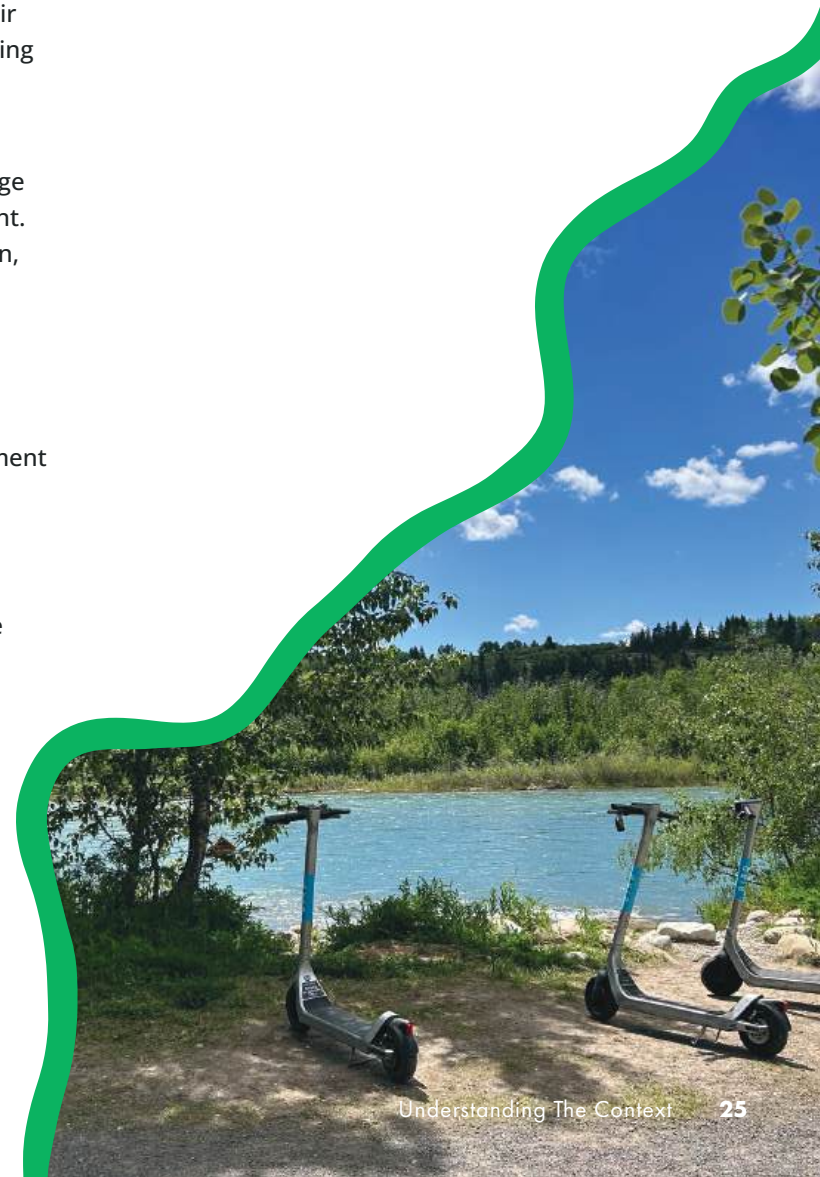
### **Clarity and Coordination**

In the absence of a specific plan, efforts to manage the Corridor risk being fragmented or inconsistent. A guiding document provides clarity and direction, ensuring that policies and actions are well-coordinated across jurisdictions and sectors.

### **Adaptability to Future Challenges**

With pressures from climate change, population growth, and recreational trends, a guiding document can establish adaptable strategies to address emerging challenges while preserving the river's integrity.

The lack of a specific framework underscores the importance of creating this Strategy, a targeted guiding document for the Bow River Corridor.





# Market Opportunity Scan

A Market Opportunity Scan conducted in August 2024 supports the Strategy by identifying economic development opportunities and gaps within the Corridor study area based on a broader view of Cochrane as a whole. This high-level review, based on secondary research and in-person fieldwork from July 2024, outlines potential land uses best suited to the context, including multi-family residential, retail-commercial, arts, cultural, and recreational spaces.

Key findings from the analysis are included below, and the complete report can be found in **Appendix B**.

## RESIDENTIAL MARKET ACTIVITY

From a residential perspective, the Town of Cochrane continues to experience strong market demand, with a notable rise in multi-family housing over the past decade. This growth has primarily focused on lower-density options, such as row homes, and reflects a market shift toward incorporating green spaces, energy-efficient designs, and diverse unit sizes that appeal to families, professionals, and investors.

Currently, the housing along the Corridor consists predominantly of single-family homes that back onto the river pathway, with little direct interaction or integration with the Corridor itself. However, future residential development may take a different approach, influenced by emerging trends and the

opportunity to introduce multi-family housing in select areas near the Corridor. These changes could foster a more dynamic relationship between residential areas and the river.

## RETAIL MARKET

The analysis identified that the Corridor is unsuitable for large retail clusters due to planned developments in the nearby Greystone neighborhood and downtown Cochrane. However, it holds potential for specialty amenity retail, such as restaurants, cafes, and seasonal vendors, to complement the waterfront trail and enhance visitor experiences.

## HOTEL & ACCOMMODATIONS MARKET

Cochrane's short-stay accommodations and lodging options are leveraging the scenic views or recreational opportunities of the Bow River. The main hotel cluster near Highway 22 and Quigley Drive feature two-star properties, while the downtown historic hotel offers a unique western charm but remains a niche option.

Beyond traditional hotels, RV parks and camping sites provide alternative accommodations, yet there is a notable gap in boutique hotel offerings. This

presents a significant opportunity for development, particularly near the riverfront. As tourism in Cochrane grows, driven by improved river access and recreational infrastructure, the demand for unique, experience-focused accommodations continues to rise.

## REGIONAL MARKET LANDSCAPE

From a regional standpoint, Cochrane is uniquely positioned within a rapidly growing and diversifying corridor between Calgary, the Rocky Mountains, and major recreational destinations like Banff, Kanaskis, and Canmore. The region's expanding population, increasing tourism demand, and proximity to the Bow River place Cochrane at the intersection of urban and natural amenity. This creates significant opportunity for Cochrane to capture a share of the tourism, hospitality, and recreation markets, particularly through experience-driven offerings that are distinct from its neighbours.

Regionally, there is a growing appetite for boutique accommodations, cultural tourism, and river-based recreation that is currently under-served, suggesting potential for the Corridor to function as a distinct destination.



## TOURISM OPPORTUNITIES

The Bow River is central to Cochrane's tourism potential, offering opportunities for both infrastructure development and recreational activities. Past and current proposals, such as a wave park, Trans Canada Trail upgrades, and redevelopment of underutilized sites along the Corridor, highlight the untapped potential of this natural asset.

Beyond infrastructure, the river presents significant possibilities for water-based activities like rafting, kayaking, fishing, and stand-up paddleboarding (SUP). These experiences could be further enhanced by local rental services and safety education programs, creating a well-rounded recreational offering. By improving river access and collaborating with local businesses,

Cochrane can elevate the visitor experience and solidify the Corridor's reputation as a premier destination for outdoor enthusiasts.

In addition to river-based activities there is significant opportunity to develop arts, culture, and recreation amenities along the Corridor. Creating vibrant community hubs would not only improve the local experience but contribute to Cochrane's unique cultural identity, sense of belonging and connection to community. These hubs could serve as gathering places that celebrate the Town's creativity, heritage and connection to nature, attracting both residents and visitors.

At the same time, tourism strategies must prioritize preserving Cochrane's small-town feel and western character while celebrating Indigenous history and culture. Collaborations with Indigenous entrepreneurs can play a pivotal role in enriching cultural tourism and building deeper community connections. Local engagement should remain at the heart of these efforts, demonstrating the value of fostering a sense of belonging and community pride.

## Did you Know?

Travel Alberta has identified “Curious Adventurers” and “Hotspot Hunters” as the travellers likely to spend more per visit.



**For the Curious Adventurer,** travel is about spontaneity, fresh perspectives, and discovering a destination's unique identity. They learn through the landscape, culture, and people they encounter. While spontaneous, they also plan thoughtfully to foster deeper connections to place.

### Interests:

All season travellers, summer enthusiasts, birdwatching, camping, hiking, motorcycles, ATVs, RVing



**For the Hotspot Hunter,** travel is about checking off iconic sights and diving into unforgettable experiences. They're driven to pack their trip with stories, memories, and must-see moments.

### Interests:

All season travellers, winter enthusiasts, golf, live concerts, sporting events, luxury goods, photography



## RECOMMENDATIONS & FINDINGS

The Market Analysis revealed several key opportunities that could support economic development in the Corridor while enhancing interactions between the community and the river. These opportunities include a diverse range of residential, retail, recreational, and hospitality offerings.

### Diversify Residential Options

There is considerable potential for multi-family residential development along the Corridor, with a focus on housing that serves a variety of demographic needs (ex: family-friendly townhomes, condominium and rental apartments).

### Retail and Dining Opportunities

Given the planned retail development in the nearby Greystone neighborhood, the Corridor is well-positioned to support specialty commercial uses that complement and enhance the area's recreational and cultural attributes (ex: food trucks, signature restaurant, and café).

### Boutique Hotel

This type of hotel would cater to active tourists and those seeking a unique, experience-driven stay. A detailed market and feasibility analysis would be needed to assess the viability of such a project, ensuring it meets the demand for both peak-season and off-peak occupancy.

### Arts, Culture, and Recreation Uses

Strategic enhancements to arts, cultural, and recreational infrastructure would greatly increase the Corridor's appeal as a year-round destination (ex: functional and fine arts programming, disc golf, pump track, amphitheatre, market, ski-tracks, rentals).

These combined opportunities position the Bow River Corridor as a dynamic, multi-use destination that balances economic growth with environmental sustainability. They aim to create a vibrant community that appeals to residents and visitors alike, enriching the quality of life while preserving the Town's unique character and natural beauty.





# Environmental Insights

To support the Strategy, the Bow River Access Impact Study (RAIS) was developed to evaluate current conditions, conduct site assessments, and offer recommendations for the future management of the Bow River Corridor (see **Appendix A**). Further, the information gathered within the RAIS supports the Strategy and informs the Parks, Culture, and Active Living Master Plan, ensuring a comprehensive approach to sustainable management and planning.

## METHODOLOGY

The RAIS employed a structured methodology to assess ecological and heritage conditions within the Project Area, consisting of desktop data reviews, site assessments, and ranking of environmental parameters to determine ecological sensitivity.

### Desktop Review of Existing Data

Key provincial and federal datasets were reviewed, including:

- Alberta Merged Wetland Inventory (AMWI), Fish and Wildlife Information Systems (FWMIS), and Environmentally Significant Areas reports.
- Historical Resources Act guidelines were referenced to determine heritage resource values (HRV).
- In addition to provincial and federal datasets, findings from the Bow River Basin Council's State of the Bow River Watershed Report (2024) were referenced to determine the current

state of Jumpingpound Creek, Bighill Creek and Ghost River Sub-Watersheds. While the Strategy is not reporting specifically on water quality, the Strategy intends to incorporate environmental considerations into recommendations.

### Site Assessments

A Rapid Site Assessment was conducted during field visits in the 2024 growing season, focusing on nine areas selected for their common topography and characteristics. The assessment combined data on soils, vegetation, topography, and historical records. During site visits, each area was evaluated for vegetation composition, soil conditions, erosion potential, slopes, signs of human disturbance, and wildlife habitat potential. These findings were further analyzed using ranking parameters to classify and understand the ecological health and characteristics of each site.

**Did you Know** conservation and preservation are two different ways of caring for nature. Conservation is about using natural resources responsibly, making sure they are available for future generations while keeping ecosystems healthy. On the other hand, Preservation aims to protect nature by limiting or preventing any human activity that could change it.

When making decisions about these areas, it's important to understand the differences. For example, in conservation areas, some activities like passive/active recreation might be allowed, while in preservation areas, the goal is to keep things as natural as possible. Both approaches require rules and monitoring to ensure the land is cared for in the best way.



### Identification and Ranking Parameters

Valued Ecological Components (VEC's) are important features that benefit the community in many ways. They help support biodiversity, clean and store water, and add recreational and visual value to the area. Measuring the value of these features can be challenging because many factors need to be considered. This includes looking at the physical and ecological characteristics of the area, its social and visual importance, and how rare or common these features are compared to other parts of the region.

Utilizing these parameters, each site was then assigned a score per parameter (low to high sensitivity), totalled to determine overall ecological sensitivity. This methodological approach provides a comprehensive, data-driven ranking of ecological and heritage sensitivity for each area, supporting informed decision-making for future development and conservation efforts.

**Did you Know** the entire Corridor is recognized as a "Key Wildlife and Biodiversity Zone." This means the area is important for wildlife, especially as a winter habitat for animals like deer and elk (known as ungulates). It also has a rich variety of plants and animals, particularly in areas where land meets water, known as riparian zones.

Parameter	Description
Slopes	Slopes along the Bow River were assessed for their impact on erosion, construction challenges, and ecological value. Steeper slopes are more prone to erosion and sediment runoff but often support unique native vegetation and wildlife.
Erosion	Soil erodibility indicates how easily soil can erode and how runoff occurs. Erosion potential varies with soil type, slope, vegetation, precipitation, and river activity.
Native Vegetation	Examining native vegetation helps assess the ecological health of the area, as native vegetation plays a crucial role in stabilizing soil, supporting local wildlife, and maintaining biodiversity.
Habitat Complexity/ Debris/Disturbance	<p>The complexity of habitats at each site is assessed based on land use and vegetation structure from simple (mostly disturbed land) to complex (dense trees).</p> <p>Sites are checked for human impacts, such as trails, litter, rock piles, or moved branches. Less disturbance generally indicates a healthier ecosystem. This assessment helps understand the site's environmental condition.</p>
Wildlife/Fish Habitat	Wildlife presence is noted at each site, including observations of animals, nests, dens, and tree cavities. These signs provide insight into the area's potential to support wildlife- including observations of wildlife, nesting, tree cavities, denning, and fish habitats.
Historic Resource Value (HRV)	The site's historical significance is evaluated using Alberta's Listing of Historical Resources. Sites with assigned HRV rankings indicate cultural or historical importance.



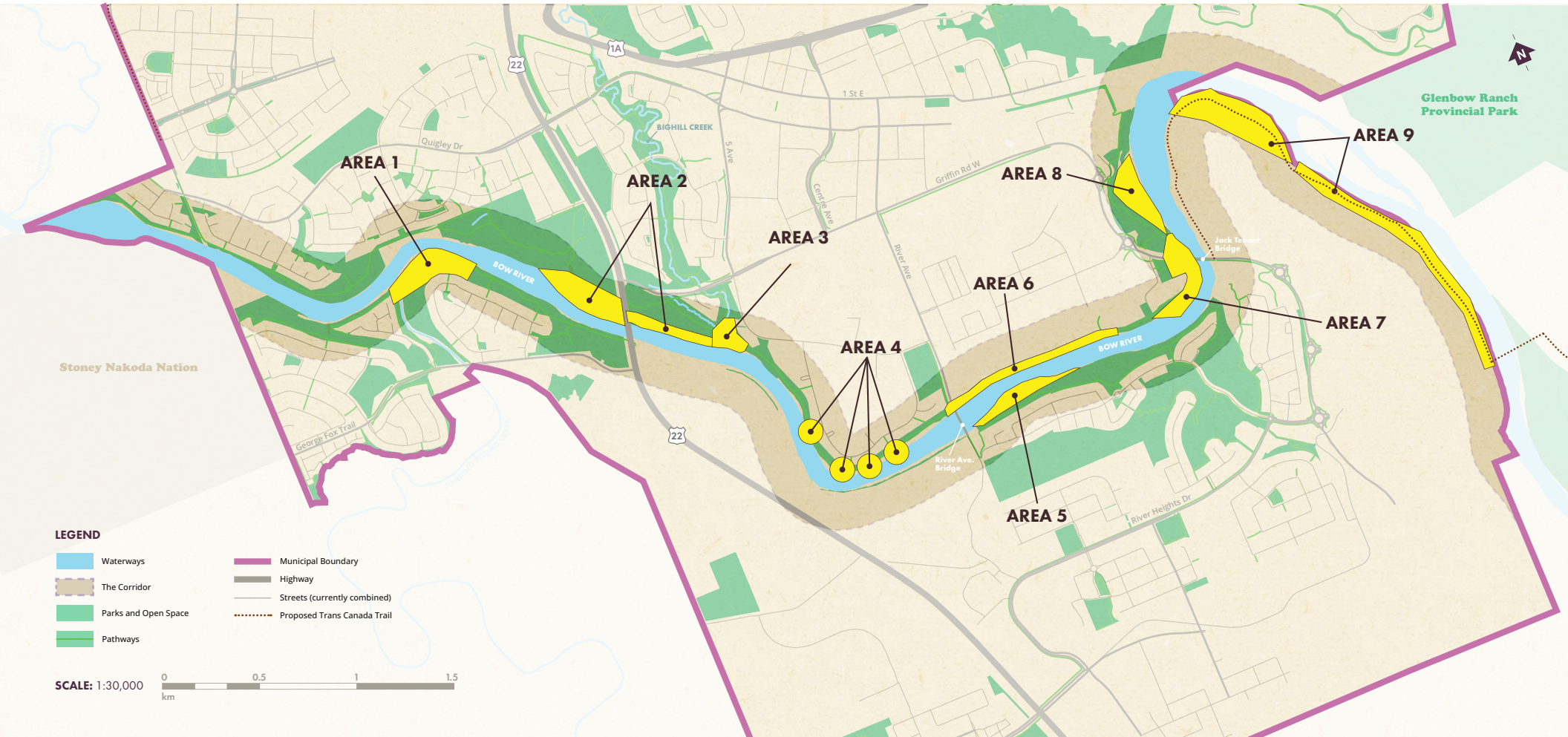
# **IDENTIFIED AREAS**

Using the methodology outlined in the Rapid Site Assessment, nine areas were selected for evaluation based on shared topography and characteristics. These areas were identified as representative of the site's diverse ecological and physical features and were assessed for vegetation composition, soil conditions, slopes, erosion potential, human disturbance, and wildlife habitat potential. The findings from these areas provide a comprehensive understanding of the site as part of the RAIS research.

- AREA 1**  
Jumpingpound Creek Confluence
- AREA 2**  
Riverfront Park
- AREA 3**  
Bighill Creek Confluence

- AREA 4**  
Community of Riverview
- AREA 5**  
Community of Riveria
- AREA 6**  
Jim Uffelmann Park

- AREA 7**  
Jim Uffelmann Park  
(under Jack Tenant bridge)
- AREA 8**  
Bow River Island
- AREA 9**  
South Ridge  
(future development area)





# Key Takeaways

*The findings included are just a summary for each area, for a detailed review of the findings see the full River Access Impact Study (RAIS) in Appendix A.*

Identified Area	Summary of Findings
<b>Jumpingpound Creek Confluence</b>	<p><b>Recreational Use</b> The site is a popular day use area, with a maintained pathway and informal footpaths.</p> <p><b>Ecological Significance</b> The area features high-value fish habitat, including natural side channels, undercut banks, and overhanging vegetation ideal for spawning. Dense vegetation also supports habitat for birds and mammals. Additionally, the Bow River is home to species listed under SARA (Species at Risk Act), including those that are extirpated (locally extinct in the region but still found elsewhere) along with endangered and threatened species.</p> <p>Species at Risk Species such as rainbow trout (<i>Oncorhynchus mykiss</i>), bull trout (<i>Salvelinus confluentus</i>), cutthroat trout (<i>Oncorhynchus clarki</i>), and mountain sucker (Threatened) are listed under both the Alberta Wildlife Act and Species at Risk Acts and species specific recovery strategies should be implemented and followed where possible.</p> <p>Site Characteristics Located in the Bow River flood fringe with flat topography</p> <p>Human Impact High human use is evident with pathways, benches, and bare areas along top banks from frequent activity.</p>
<b>Riverfront Park</b>	<p><b>Recreational Use</b> The site includes paved pathways, disc golf course, minibike park, picnic tables, public restrooms, and an upgraded boat launch.</p> <p><b>Ecological Significance</b> Vegetation includes a diverse riparian community NW of the boat launch with invasive species to the SE. There is limited habitat for small mammals and birds due to high park activity. Fish habitat is marginal, lacking stream cover, with substrates of large cobbles and small boulders. In general, within this area there was a higher observation of diverse vegetation with less disturbance and more wildlife habitat. The presence of several wetlands along the shore create a complex and unique habitat capable of supporting shorebird, dabbling ducks, amphibians, and a variety of fish life cycles.</p> <p>Site Characteristics The site is situated off Highway 22 and Griffin Road, with generally a flat topography with gentle slopes leading to cobble shores, gravel bars, and accessible beaches.</p> <p>Human Impact High levels of public use are present with established pathways, benches, and other structures. Bare areas near top banks result from frequent use.</p>



---

**Bighill Creek  
Confluence****Recreational Use**

This area is a population destination for day use due to its scenic beauty and accessible location.

**Ecological Significance**

This is a unique and environmentally significant site, where Millennium Creek drains into Bighill Creek, which then confluences with the Bow River. It serves as an important spawning location for multiple fish species, acting as an important fisheries resource.

**Site Characteristics**

Gentle to moderate slopes are observed with undercut banks along Bighill Creek. Vegetation includes blue spruce, large poplars, reed canary grass, Canada thistle and smooth brome.

**Human Impact**

There is a high level of activity in this area due to proximity to Glenbow trails and nearby day-use areas.

---

**Community  
of Riverview****Ecological Significance**

Provides habitat for birds and small mammals despite high human activity. Fish habitat is constrained due to the lack of instream cover and spawning gravel.

**Site Characteristics**

Shoreline features upland slopes and stretches of exposed cobble. The riparian vegetation includes willows, red-osier dogwood, reed canary grass, and Kentucky bluegrass.

**Human Impact**

There is a high level of pedestrian use with many unofficial trails created for river access.

---

**Community  
of Riveria****Ecological Significance**

This area presents a unique shorebird habitat, and there is a presence of woodpecker cavities in mature poplars on the upper bank. There is a limited fish habitat due to lack of instream cover.

**Site Characteristics**

The landscape features a 40% sloped bank, with mature poplars and dense understories on the upper bank. There is a gravel bar and wetland areas with willows, sedges, and grassland species at the base of the slope.

**Human Impact**

There was minimal human disturbance observed, supporting opportunities for diverse habitats.

---



---

**Jim Uffelmann  
Park**

**Recreational Use**

Multi-purpose area, primarily used as an off-leash dog park, bike path and walking path.

**Ecological Significance**

There is minimal habitat for fish and wildlife due to high activity levels. There are multiple steep pathways created by people and dogs to provide access to the river, resulting in erosion.

**Site Characteristics**

High, steep, exposed banks with slopes that are highly erodible. Vegetation on slopes includes shrubs, grass species and ground juniper. There is also an increased presence of weed species on the west end of the park.

**Human Impacts**

Erosion and slope instability were observed due to recreational uses on the site. Additional disturbances were recorded, including dog waste in the river, increased weed growth and reduced wildlife presence due to heavy foot and dog traffic.

---

**Bow River Island**

**Ecological Significance**

The presence of a side channel enhances wildlife habitat by limiting human access. Fish habitat is well-supported with suitable spawning gravels, undercut banks, and overhanging vegetation.

**Site Characteristics**

The area has flat terrain with low banks. Vegetation includes small trees and shrubs embedded in cobble substrate.

**Human Impacts**

In general, fish and wildlife benefit from the island's natural features and reduced human activity.

---

**South Ridge  
(future development)**

**Ecological Significance**

Diverse habitats are present including riparian, floodplain, and grasslands. Some areas remain undisturbed, accessibility for wildlife is limited due to adjacent gravel pit operations.

**Site Characteristics**

This area is identified for future residential, with a planned entry point for the Trans-Canada Trail expansion into the municipal boundary. Sections of this area are designated as an environmentally significant with some of the most diverse and native vegetation compared to other identified areas. Through the area investigation one endangered species was observed (Limber Pine). This species was listed under the Alberta Wildlife Act in 2008 due to a rapid decline in populations due to white pine blister rust and mountain pine beetle.

**Human Impacts**

The diversity of wildlife makes this area ecologically significant, future development and design that supports conservation could be an opportunity in this area.



# Protecting the River's Edge

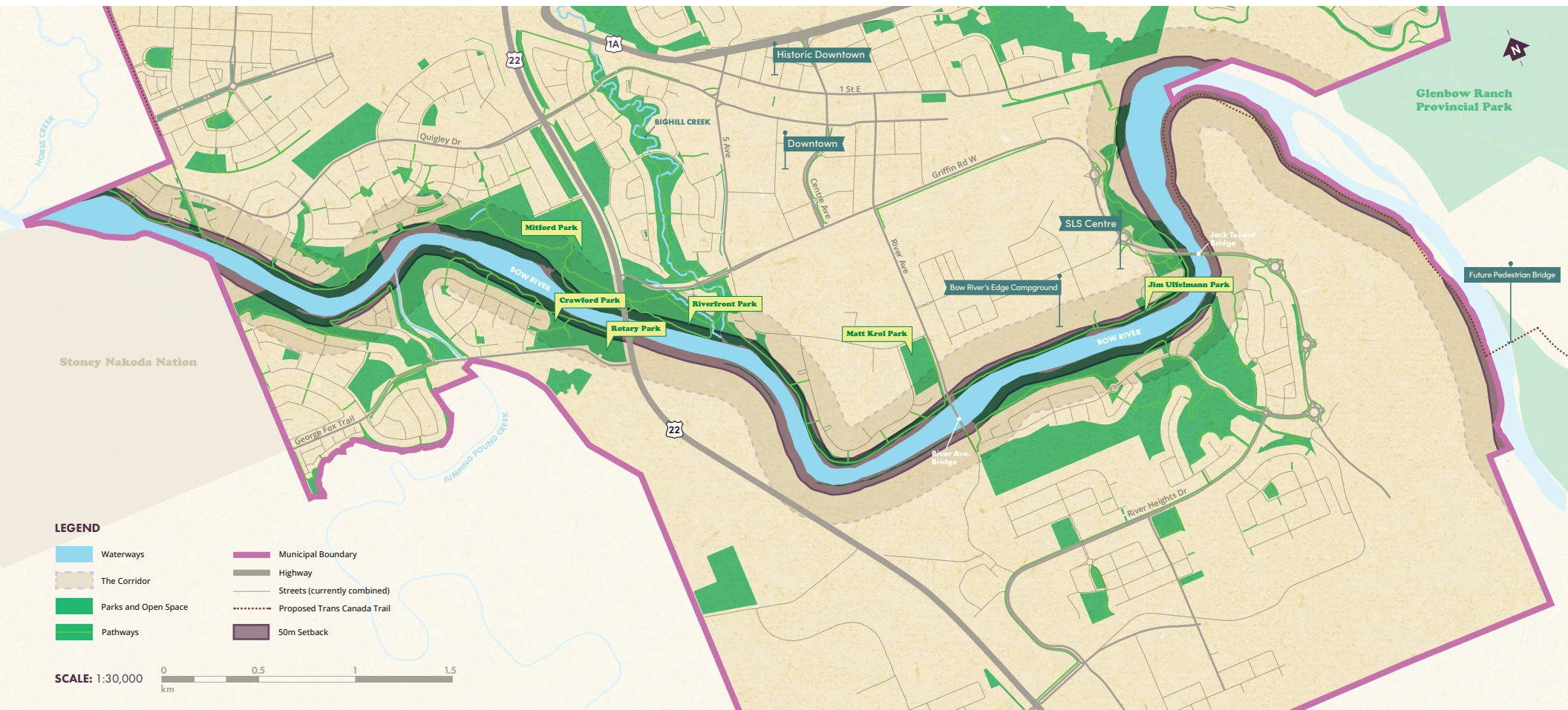
The Bow River's edge is a dynamic and sensitive landscape, shaped by natural processes and is essential to the health of the broader watershed. To preserve its ecological integrity and reduce flood-related risks, a 50-metre setback from the riverbank has been established as a protective buffer. This distance aligns with the provincial guide *Stepping Back from the Water* (2012), which recommends this standard for rivers, and is further supported by findings from the RAIS.

The setback is designed to protect riparian vegetation, maintain wildlife habitat, and support natural processes such as water filtration and erosion control. While permanent buildings are not permitted within this zone, low-impact features that enhance public enjoyment, and education, such as benches, signage, trail connections, along with municipal infrastructure (e.g., stormwater retention) that does not comprise the river or river's edge, may be considered at the Town's discretion.

The setback distance may be adjusted if reviewed and recommended by a qualified professional or

ecologist, ensuring that any changes continue to uphold the intent of protecting the river's ecological integrity.

As Cochrane continues to grow, maintaining this buffer is critical to ensuring the long-term resilience and sustainability of the Bow River, while providing opportunities for passive recreation and environmental stewardship.





# Proposed River Access

Public and emergency access to the Bow River is essential for recreation, education, and community connection, but it must be planned with care. Future access points have been identified to support low-impact use while protecting the health of the river. These locations are guided by engagement with community organizations and informed by the RAIS.

By concentrating access in appropriate areas, Cochrane can provide meaningful river experiences while preserving the integrity of the riverbank. As the community grows, these thoughtfully planned entry points will help balance human use with the long-term health of the Bow River corridor.





# Engagement

The Corridor is a key destination for Cochrane residents and visitors, offering a variety of activities such as walking, connecting with nature, and paddling. To develop a strategy that truly represents the community's needs and values, engagement with Town of Cochrane staff, Council, community organizations, and the public was essential. Throughout the report, the term 'engagement' may refer to any of these internal (Town of Cochrane) or public (community members, local organizations, stakeholders).

## Approach

Engagement played a crucial role in shaping the Strategy, ensuring it aligned with the collective vision of Cochrane's residents, stakeholders, and how it should feel for visitors. The process included a variety of activities such as walk-shops, design charrettes, workshops, an open house, surveys, and targeted stakeholder interviews. These efforts provided valuable insights into

the Corridor's current conditions, user behaviors, activation opportunities, and environmental concerns. For example, the walk-shops allowed participants to explore areas like Mitford Park, Riverfront Park, and Jim Uffelman Park, where they identified ways to improve connectivity, enhance activation, and preserve the space while addressing safety and accessibility issues.





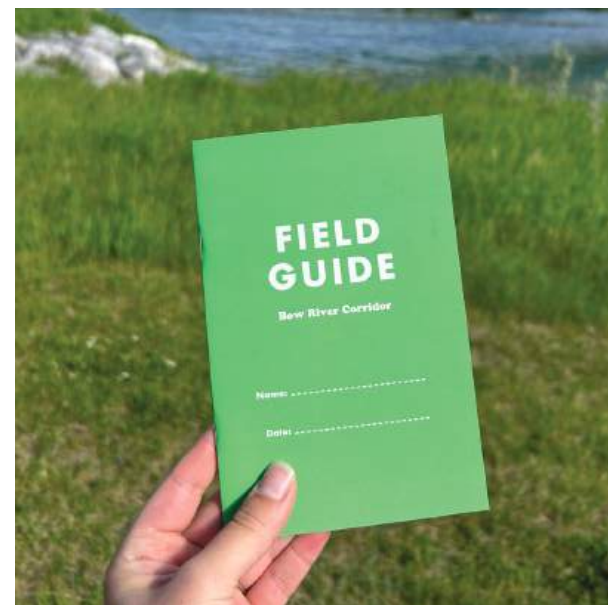
## WALK-SHOP

In June 2024, two walk-shops (on-site walking workshops), were held as initial engagements to introduce the Strategy to managers, directors and members of Council and observe current use and character traits along the Corridor. The walking tour of the Corridor encompassed three key sites identified in the map below, including: Mitford Park, Riverfront Park, and Jim Uffelmann Park.

The tour aimed to review the area's existing conditions, observed user behaviours and potential for development as well as enhanced conservation. Participants explored opportunities for activation, connectivity improvements, and community engagement, alongside addressing concerns related to safety, accessibility, and environmental conservation.

Feedback from the site visits was documented in field guides designed to foster connection to the landscape, encourage personal reflection, and link observations to specific locations using maps.

The input collected revealed a shared vision for enhancing the Corridor through thoughtful land management, innovative development, and a commitment to sustainable and inclusive growth.

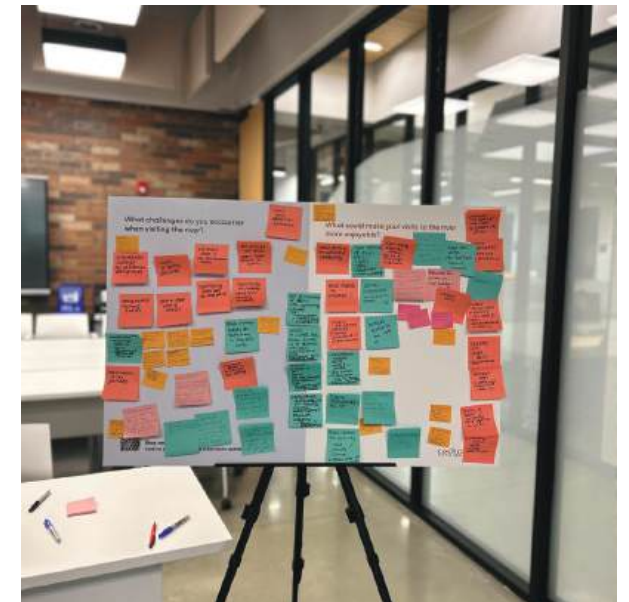




## DESIGN CHARRETTE & STAFF WORKSHOPS

In July and August 2024, an internal design charrette and staff workshops were held to consolidate information, review supporting studies, and discuss opportunities and constraints within the Bow River Corridor.

The sessions also provided an opportunity to review engagement feedback, identify initial themes, and explore potential uses and character areas for the Corridor. These discussions informed the development of key themes, opportunities, and initial directions for the Bow River Strategy.





## COMMUNITY SURVEY & VIRTUAL MAPPING

A public survey was available to the community over the course of October and November, 2024. The purpose of the survey was to collect community and stakeholder feedback to inform both the Strategy and the Parks, Culture and Active Living Plan.

The survey questions focused on gathering information regarding parks, recreation, culture and connectivity preferences. In total, 647 survey responses were received.

The survey was primarily advertised using the Town's engagement website ([letstalkcochrane.ca](http://letstalkcochrane.ca)), with the opportunity for community members to receive a paper copy if desired. The survey was also promoted through a few additional methods, including:

- The Town's Social Media Channels
- The Town's Website
- Local newspaper
- Posters in the community

The Virtual Mapping Tool was also completed in collaboration with the Parks, Culture and Active Living Master Plan.

The mapping tool was available for community members to indicate the location of their favorite trails and pathways (green pins), areas where they have experienced concerns (yellow pins) and areas that may need enhancement or new trails (red pins).

In addition to posting green, yellow, and red pins on the virtual map, respondents were asked to share why they loved the trail or pathway, the challenges they have encountered and opportunities to make their experiences more enjoyable.

In total 64 participants utilized the online mapping tool and 409 pins were collected. These findings are not representative of all residents in Cochrane; however, they did provide additional insight for subsequent engagement.

## PARKS AND RECREATION COMMITTEE WORKSHOP

In October 2024, a workshop was hosted with the Parks and Recreation Committee to review the information gathered to-date, highlight river character and potential land uses and explore implementation. Findings from the workshop highlighted potential 'quick wins', long-term actions, and long-term policies that could be further explored in the Strategy.

## COMMUNITY PARTNER DISCUSSIONS

Throughout the month of October (2024), a series of additional stakeholder engagement was held in the form of targeted stakeholder interviews. Each interviewed organization had significant investment or interest in the section of the Bow River Corridor forming the Strategy's study area. These included the following groups:

- Cochrane Tourism
- Cochrane Environmental Action Committee (CEAC)
- Cochrane Paddlers
- Bike Cochrane
- Bighill Springs Preservation Society
- Bow Valley Habitat Development

## DRAFT STRATEGY CIRCULATION & REVIEW

Following the development of the Draft Strategy, the document was circulated to key groups for review and feedback prior to its finalization. These groups included:

- Natural Environment Protection (NEP) Task Force
- Parks and Recreation Committee
- Town Council and Administration
- Stakeholders and Relevant Associations
- Landowners and Developers

In addition to the formal circulation process, targeted engagement sessions were held with the NEP Task Force, Parks and Recreation Committee, and Landowner/Developer groups. These sessions provided an opportunity to discuss specific challenges and opportunities, and to collaboratively resolve any concerns identified during the review process.



# What We Learned:

A summary of the feedback is provided below, in no particular order. For a detailed overview of the engagement process, please refer to **Appendix C** of the Strategy.

---

## Overarching Vision

In general, we heard through the engagement process that the Bow River Corridor is envisioned as a vital community connector, blending accessibility, conservation, recreation, and cultural heritage. Feedback placed value on being innovative while balancing the approach with sustainability, inclusivity and creating vibrancy within the community. Additionally, engagement reinforced the importance of maintaining the community's unique identity.

---

## Environmental Consideration

Stakeholders and community members emphasized the need for balancing conservation with development, prioritizing wildlife protection, wetland preservation, and erosion control. Suggestions include interpretive signage for environmental education, managing overuse, and enhancing natural character through riparian restoration and invasive species management.

---

## Safety & Accessibility

Improving safety features like guardrails, lighting, and clear sightlines is critical, especially in steep and high-traffic areas. Ensuring that Crime Prevention Through Environmental Design (CPTED) principles are incorporated in any future development and/or interventions. Engagement revealed that many members of the community feel unsafe in areas along the Corridor. In addition, accessibility enhances were brought up, such as separate pathways for different users, formalized river access points, and speed management for e-bikes, are essential to reduce user conflicts and ensure inclusivity.

---

## Infrastructure & Connectivity

Key feedback highlighted the need for improved pathways, pedestrian bridges, and better alignment with the future Trans Canada Trail connections. Suggestions include intuitive loops, wider pathways, and traffic calming measures to enhance usability and flow.





---

**Activation  
& Utilization**

There is significant interest in activating underutilized spaces with new amenities like acoustic music venues, amphitheatres, food truck parks, e-bike stations, and year-round restrooms. Four-season programming was also emphasized, with winter activities like tobogganing or cross-country ski tracks to further enhance year-round community activity.

---

**Amenity  
Areas**

Enhancing the area with more off-leash parks, picnic areas, shaded spaces, and public art will improve user experience. There is also a desire from community members for accessible restrooms, fire pits, and multifunctional spaces to foster inclusivity and comfort.

---

**Community  
& Cultural  
Integration**

Community engagement recognized the importance of the Calls to Action for Truth and Reconciliation and land-based learning through interpretive signage, collaboration with Indigenous artists, and showcasing traditional plants. Expanding engagement on land use impacts while preserving cultural heritage remains a priority to community members.

Preserving Indigenous artifacts and significant sites, educational awareness, interpretive signage, art.

---

**Economic  
Development**

Engagement feedback highlighted opportunities for sustainable tourism, green infrastructure, and additional tactics for economic growth. Ideas included seasonal vendor spaces, tourism hubs, recreation rentals and bike-friendly amenities. Stakeholders proposed leveraging successful models like St. George's Island in Calgary for redevelopment. Additionally, the desire for diverse lodging options and strategies to boost occupancy was consistently mentioned.

## How Input Informed The Strategy

Key themes emerged from the engagement, guiding the Strategy's focus on balancing conservation with development, enhancing infrastructure and connectivity, and activating underutilized spaces. Participants emphasized the importance of environmental stewardship, such as protecting wetlands, restoring riparian zones, and managing invasive species. Safety and accessibility were recurring priorities, with suggestions for improved pathways, guardrails, and formalized river access points to ensure inclusivity for all users.

Feedback also highlighted opportunities for economic development, sustainable tourism, and cultural integration, including incorporating Indigenous perspectives and showcasing traditional knowledge.

The resulting Strategy reflects this feedback through a shared vision for a vibrant, sustainable, and inclusive Corridor that celebrates Cochrane's unique identity while supporting community well-being and ecological health.



# Shaping The Bow River Corridor

## Vision For The Strategy

With a clear understanding of the project's intent and direction, we can focus on the broader vision for the Corridor. The Strategy's intent is not just to define physical spaces but to weave a deeper, more meaningful connection between the community and the river. This vision sets the stage for a sustainable and vibrant future where the Corridor becomes the heart of Cochrane.

The Strategy integrates natural, recreational, and cultural elements, while considering long-term operations to enhance the quality of life for both residents and visitors. Through collaboration with the community, a collective vision emerged.

This statement reflects the community's values of stewardship, shared ownership, exploration, and a deep sense of belonging.



***It is Our River...  
to Steward...  
to Share...  
to Explore...  
to Belong.***



# Guiding Principles

During engagement with stakeholders, Town staff and community members, an initial set of guiding principles was drafted. These principles were then refined through open discussions to identify what worked, what gaps existed, and what needed revision. Based on this feedback, a final set of guiding principles was developed for further testing with community members and organizations. The following principles reflect the collective input and vision shared during these discussions:



## Protect the river's **natural value** for today and future generations

The Bow River is a cherished natural amenity that holds intrinsic value for our community. By embracing a philosophy of seven-generation thinking we honor the river's significance, ensuring that our actions today preserve its potential for future use and enjoyment. As stewards, we are committed to balancing diverse uses, protecting wildlife habitats, encouraging respectful interaction, and promoting education to sustain the river's potential for all to enjoy.



## Ensure there is a **place for everyone** at the river

The Bow River should be accessible and welcoming to all, regardless of age, ability, or financial means. We are committed to creating versatile access points and barrier-free experiences that cater to everyone. By offering diverse options throughout the Corridor, including well-designed trailheads and supportive parking, we ensure that all visitors can explore, recreate, and enjoy the river in a way that meets their needs.



## Recognize the river as a **vital corridor** for community connection

The Bow River will serve as a vital corridor that can connect our community through well-designed and accessible pathways. Improving signage, pathways, and connections to key areas will enhance the experience for all users, including pedestrians, cyclists, and those with mobility challenges. By creating intuitive loops and direct trail connections, the river corridor will become easier to navigate and more enjoyable to explore. Emphasizing pathway etiquette, safety, and education will ensure that the river aligns with community needs, supports mixed-use Corridors, and strengthens existing connections.



4



### **Support the health of our diverse community**

The Bow River is an essential link that not only connects our community but also nurtures physical, mental, and spiritual well-being. It offers opportunities for recreation, allowing people to stay active while enjoying the natural environment. The river also provides serene spaces where individuals can find peace, reflect, and connect with nature, supporting mental and spiritual health. By creating areas that encourage both active participation and quiet contemplation, the river becomes a place for rest, reflection, and connection. Prioritizing safety, inclusivity, and the health of the river itself will help maintain it as a sanctuary where everyone can find balance and feel connected.

5



### **Create something special. Be bold.**

This strategy calls for boldness in shaping a unique and vibrant future for the river Corridor and the community. By defining our town's personality and making data-driven decisions, we aim to create something truly special. We will set a higher standard for development, ensuring that our choices are responsible and avoid stifling future opportunities. Having a unified voice will guide us as we push for better outcomes. With the support of strong policies and the insights of subject matter experts, we will confidently set the bar for progress, creating a legacy that reflects our community's values and aspirations.

6



### **Prioritize safety and functionality through proactive operations & maintenance**

The Bow River will serve as a vital corridor that can connect our community through well-designed and accessible pathways. Improving signage, pathways, and connections to key areas will enhance the experience for all users, including pedestrians, cyclists, and those with mobility challenges. By creating intuitive loops and direct trail connections, the river corridor will become easier to navigate and more enjoyable to explore. Emphasizing pathway etiquette, safety, and education will ensure that the river aligns with community needs, supports mixed-use Corridors, and strengthens existing connections.



# Corridor Identity & Opportunities

The Corridor has been organized into five distinct character typologies, each created and defined through collated findings from background research, community feedback, the locations' unique identity, context, challenges and opportunities. These include:



Gateways to  
Cochrane

Rugged  
& Wild

Natural  
Discovery

Gather  
& Play

Energy &  
Activation

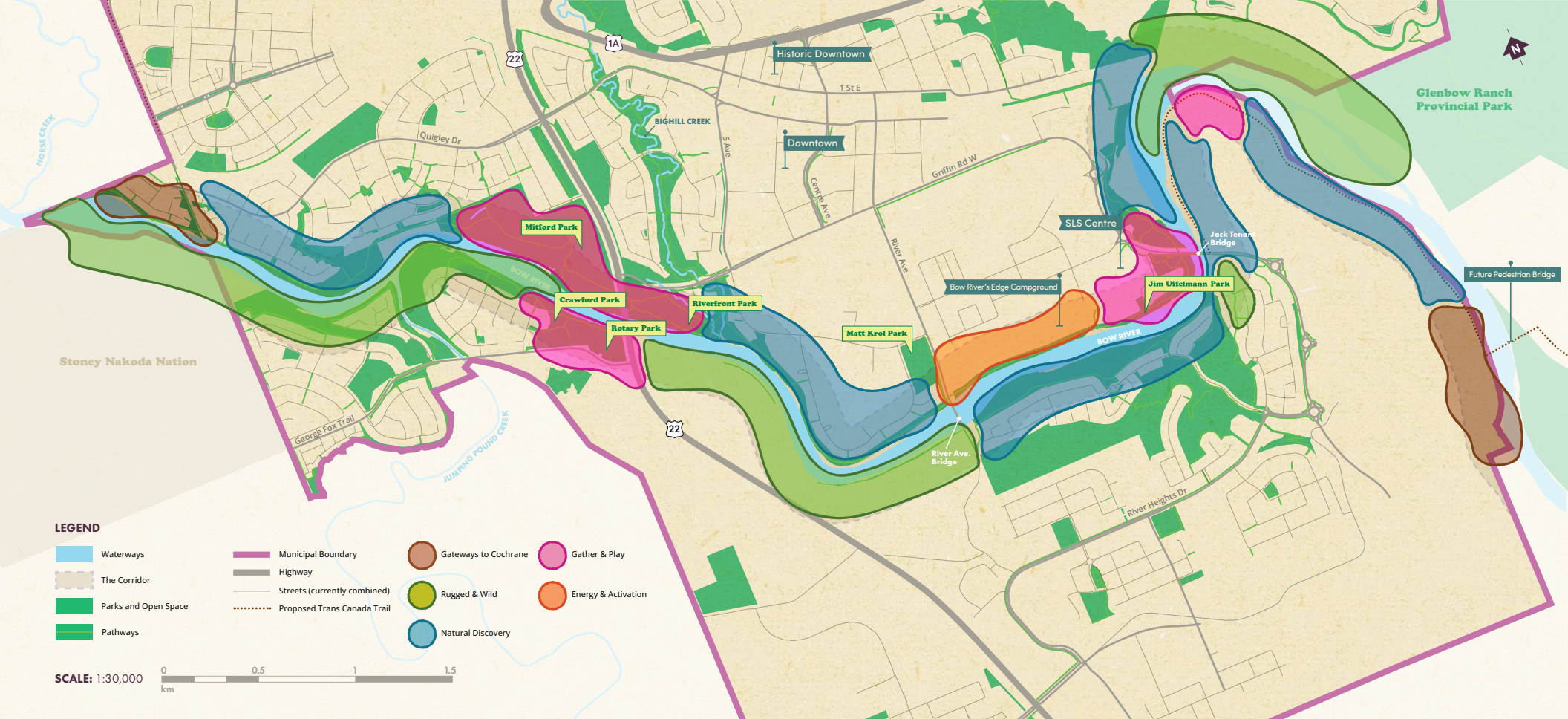
Some character typologies may appear multiple times along the Corridor when reflecting a recurring landscape, interface condition and/or functional use to respond to community needs. Others are targeted to specific extents based on a host of variables and drivers to reflect the proposed use and function.

These typologies are visually illustrated on the accompanying map and are described in detail throughout this section, providing insight into their current condition, purpose, characteristics, intended uses, and areas of significance that support the recommendation of future opportunities.

The Character Typologies are mapped in a flexible manner, overlapping both public and private lands, even though the Bow River Strategy primarily focuses on public spaces. These areas remain within the Corridor to support better connectivity and ensure appropriate transitions between different land uses.

*Importantly, character typologies are not intended to dismiss existing operational or functional uses. Instead, they aspire to integrate these essential elements of function and form in a way that complements the desired character and enhances the overall experience and identity of the Corridor.*





# Character Typologies

Each Character Typology includes an overview map, description, summary of opportunities for us and key feedback that helped shape its design and location. Additionally, each zone is then further broken down into specific 'Interest Areas' which will include a more detailed map and a summary of opportunities and design characteristics. The guiding principles will be represented using the following icons, with particular principles **bolded** for each typology when they are the highest priority:



**natural**  
value



**a place for**  
everyone



**vital**  
corridor



**our diverse**  
community



**something**  
special



**safety &**  
functionality



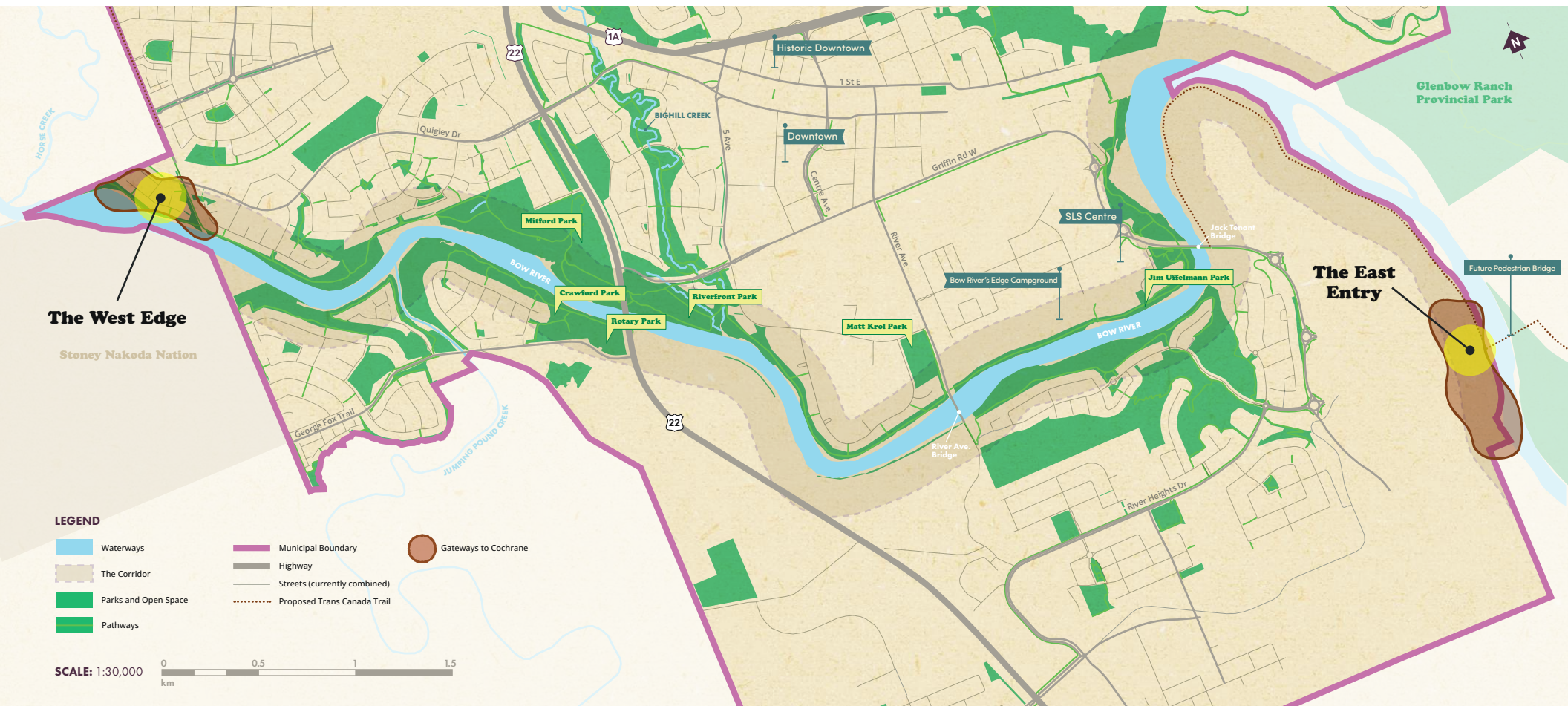
# Gateways to Cochrane

This typology emphasizes the importance Cochrane's first impression. Creating welcoming and distinctive entry points into Cochrane from both the west and east boundaries along existing and proposed regional pathway alignments, these are opportunities to make a statement and showcase Cochrane's identity and values boldly.

The general intent of this typology is to welcome visitors and residents, provide orientation features, trail maps

and directional signage and public amenities such as benches, picnic tables and courtesy stations for start and end-of-trip opportunities.

Communication is critical here. These will be two locations where users will be made aware of the variety of offerings and experiences that make Cochrane unique, worth exploring and coming back to.





### SUMMARY OF WHAT WE HEARD

- Existing connections are well-used by commuters that should be enhanced to accommodate growth of usership while respecting the neighbourhood environment.
- New trail connections coming into and leaving Cochrane will make entry points more important.
- Signage, restaurant or café and amenities are important to include at an entry point. A restaurant/café or additional amenities at the trail entry point provides a gathering space for visitors, offers a place to refuel, and supports local businesses while enhancing the overall initial impression for visitors to create a strong sense of identity.
- There are viewsheds to the west that should be considered and celebrated.

### GENERAL RECOMMENDATIONS

- Enhanced rest areas create a dynamic and welcoming gateway that sets the tone for the entire trail experience, drawing visitors into the community and showcasing its unique character. This includes bold trailhead signage, engaging interpretive elements that celebrate local culture and history, and essential amenities such as bicycle facilities, rest areas, and wayfinding to support accessibility and high visitor use. By integrating thoughtful design and community-focused features, the trailhead becomes a vibrant hub that encourages exploration, supports local businesses, and enhances the overall experience for all users.
- Rest stop amenities provide comfortable spaces for visitors with consideration of shade and shelter for all weather and year round conditions. Consider including courtesy amenities such as bicycle and scooter recharging stations and seasonal restrooms.
- Bicycle amenities includes bicycle parking, repair and maintenance stations.

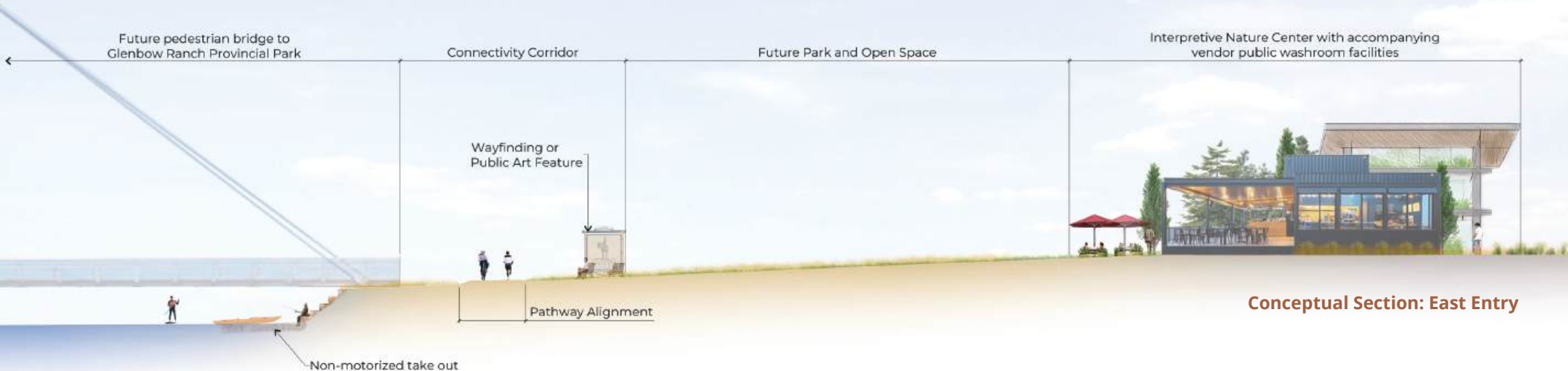
### KEY RISKS

- Gateways remain underdeveloped, missing the chance to signal the importance of the river as a key Corridor to residents and visitors.
- Lack of a clear and cohesive identity may result in underutilized spaces and reduced economic or tourism impact.
- Missed opportunity to establish Cochrane as a unique destination and steward of the Bow River Corridor.

### BOLD OPPORTUNITIES

- Invest in signature entry features that establish the Corridor as a meaningful and memorable destination.
- Establish an Interpretive Nature Centre that creates four season interest at the East Entry, welcomes visitors and reinforces Cochrane's commitment to environmental stewardship and sustainable development.
- Celebrate Cochrane's identity by showcasing its connection to the river, culture, and surrounding landscapes through storytelling elements that invite people to explore beyond the edges.
- Leverage gateway areas to support active transportation, transit, and tourism amenities.





Conceptual Section: East Entry

## PATHWAY CONSIDERATIONS

### Existing Condition

A pathway alignment exists along the western edge of Cochrane, north of the Bow. At this point, the primary users are commuters and recreational visitors. The western edge serves as a crucial connection between the neighbourhoods on the west side of town and key recreational and civic facilities.

### Anticipated Usership

With the realignment of the Trans-Canada Trail and Cochrane's ongoing growth, including developments like Heartland, this pathway network segment is expected to see increased use.

### Alignment, Capacity and Design

Given the established neighborhood surrounding the west edge gateway, it is recommended that a formal rest area be created where the north-south pathway along Horse Creek Road meets the riverfront, just south of McCaig's Park. While not directly at Cochrane's

entry point from Highway 1A, this location offers a scenic introduction to the Bow River and invites both visitors and residents to pause and take in the views. The rest area itself should include trailhead, informational and interpretive wayfinding elements relative to the location and surroundings, seating and/or picnic opportunities, bike maintenance amenities, trash and recycling collection and a washroom facility as feasibility permits. It is recommended that the pathway itself be programmed and modified to include a bypass of the rest area as to separate users traveling along it for different reasons, namely commuting or leisure.

Since the regional pathway has not yet been developed, there is an opportunity to provide a more robust alignment is recommended to accommodate future forecasts of use including a variety of users and higher volumes particularly during peak periods from late spring to early fall.

It is suggested that this area presents the primary gateway opportunity to take advantage of recreational users coming from Glenbow Ranch Provincial Park and Calgary. A vibrant, amenity-rich gateway zone is encouraged, with opportunities to host seasonal or semi-permanent food, beverage, and mixed retail installations.

## OPERATIONS AND MAINTENANCE CONSIDERATIONS

Due to the proposed amenities and anticipated use as implementation of the regional pathway occurs, a higher level of service is recommended for both the west and east gateways. A level of service framework and accompanying standards are recommended to ensure the Town has thorough procedures and adequate resources in place.



## The West Edge

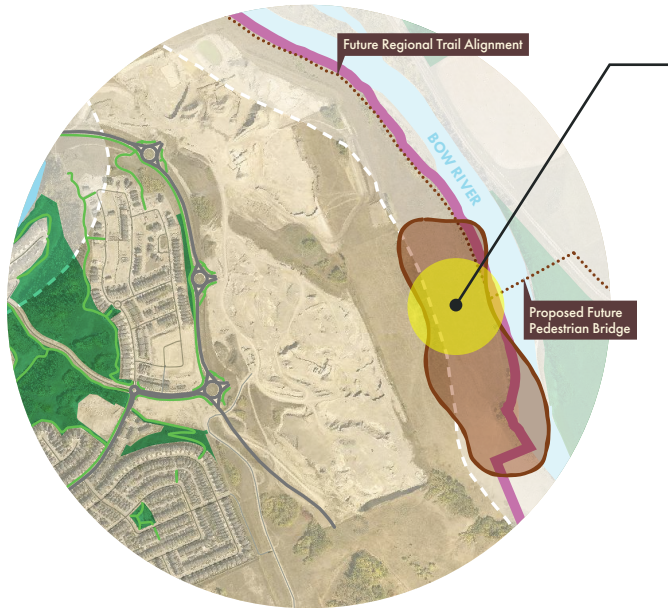
The West Edge serves as a key entry point to the west side of the Corridor, connecting the adjacent neighborhoods of West Pointe and West Terrace, as well as visitors to the area. This zone plays a crucial role in linking the future Horse Creek Sports Park and the broader West Edge area, creating a seamless experience for users to access both areas and the amenities they offer. Connectivity, including bike and some vehicle parking may be an option and considering transit options, is vital for improving access to the region's recreational and cultural opportunities.

This area has the potential to become a vibrant and welcoming hub, enhancing the visitor experience and supporting economic growth. Building on Cochrane's proximity to the mountains and its unique alpine culture, there are opportunities to create a destination that draws visitors from the Trans-Canada Highway, encouraging them to stop in Cochrane and access local transportation options, such as carpooling or buses, to further explore the region. In addition to the general recommendations, proposed opportunities may include:

- Informative welcome installation and trailhead signage that provides insights about Cochrane's history and culture, where to eat and drink and how to access interesting attractions and experiences.
- A memorable gateway to the Rocky Mountains (westbound) and to the Great Plains (eastbound). This could serve as a significant route-marker, photo opportunity and capitalize on the incredible upstream views.
- Enhanced rest stop with bicycle parking, repair and maintenance station to support cyclists at this critical stopping/entry point to ensure they can continue their journey safely.
- Washroom, format as deemed feasible.
- Consideration for shade and wind protection to enhance year-round usability.







## The East Entry

The East Entry serves as the welcoming gateway to the Town and the Corridor, providing the first impression for travelers coming from Calgary via Glenbow Ranch Provincial Park, a 3,000+ acre natural landscape with significant slopes. This entry point is critical in creating a seamless connection between Cochrane, its surrounding natural assets, and the Corridor. It also offers an opportunity to link key recreation facilities, including the existing SLS Centre and plans for facility expansion, making the East Entry a vital part of Cochrane's active community and recreation offerings.

By fostering a functional and inviting space, this gateway will ensure that visitors feel welcomed and well-prepared to explore everything Cochrane has to offer, from its vibrant downtown to its vast natural surroundings. Additionally, the area qualifies for the "Gather & Play" character typology, which emphasizes community-focused spaces for relaxation and recreation. Proposed opportunities may include:

- Explore opportunities to build an Interpretive Nature Centre that could integrate a public washroom, vendor opportunity, outdoor classroom and flexible picnic spaces. Consider the inclusion of shade and wind protection as well as fire pits for four-season use.
- Enhanced rest area complete with gateway features, trailhead signage, informational and interpretive elements, bicycle courtesy station.
- Electric charging station.
- Seasonal vendor opportunity for outfitting and small-scale retail and/or provision for mobile food and beverage vendors.
- Defined and protected river access location with small format and non-motorized watercraft launch and supporting amenities (e.g. inflation station, courtesy life preserver kiosk, seating and staging areas).
- Viewing opportunities of the river and river recreation at the bridge connecting Cochrane to Glenbow Ranch Provincial Park.
- Emergency river access point, accessed via Southridge neighbourhood.



# Rugged & Wild

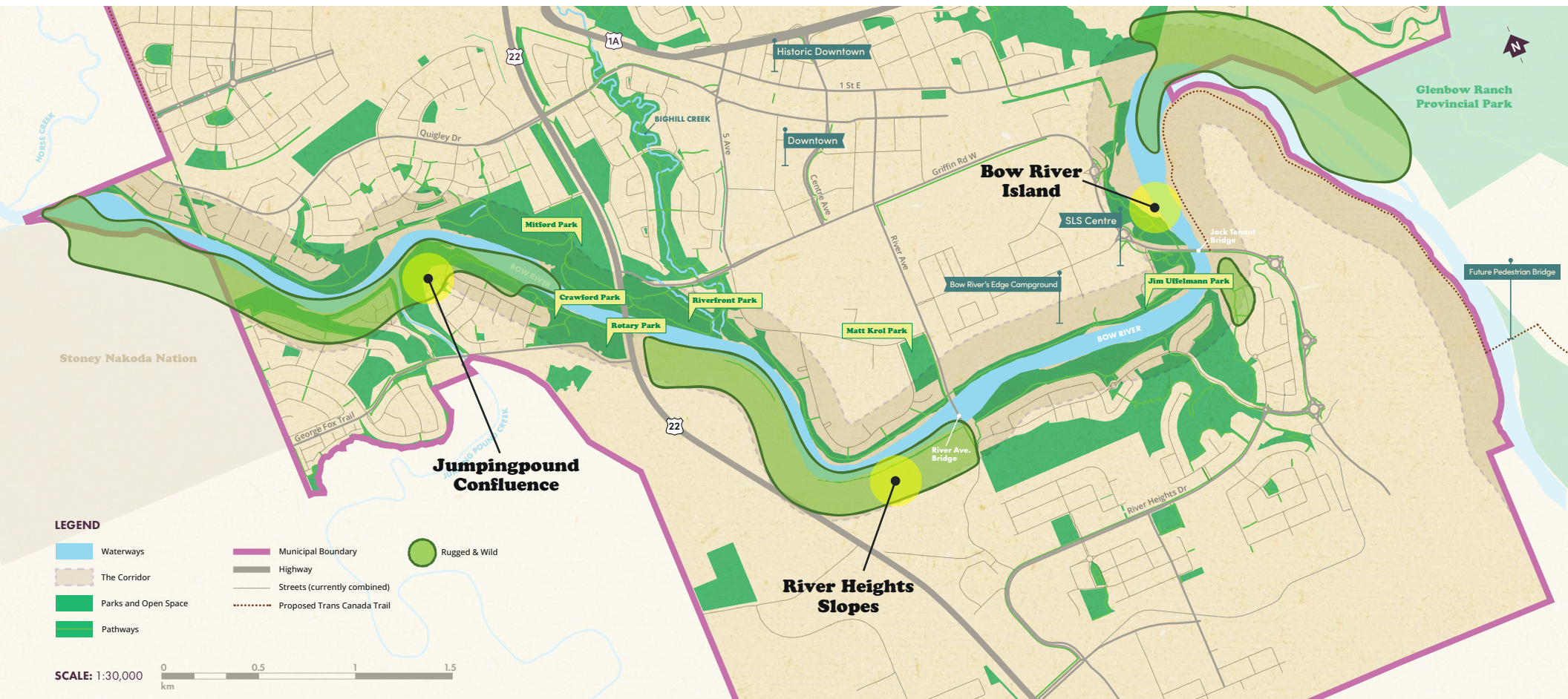
Characterized by steep slopes, uneven terrain and being predominantly wild, this typology is generally unsuitable for larger-scale development or programming based on its natural properties. This typology aligns closest to the concept of 'placekeeping' a term used to describe maintaining a place or environment simply as it is because its intrinsic value.

Areas within this typology share the topographic challenges largely caused by river action and may be subject to further

natural erosion. As well, areas with significant environmental sensitivity have been considered for this category. They may also host a transitional connection from one area to another based on necessity.

The recommendations within the "Rugged & Wild" typology focus on protecting and enhancing native ecosystems, creating a safe haven for local wildlife and native plants, while also ensuring reliable access for both residents and visitors. While conservation elements are

incorporated in other areas and typologies along the river, the areas identified under Rugged & Wild are specifically centered on this focus. The natural landscape in these areas plays a key role in shaping the identity of the region, offering opportunities for ecological stewardship and conservation. "Rugged & Wild" can apply to large sections of the Corridor or be a smaller part of the land within or adjacent to other character typologies.





### SUMMARY OF WHAT WE HEARD

- Emphasis on balancing conservation and emphasis on balancing conservation and respecting wildlife habitats.
- Suggestions to maintain an area's natural character where possible.
- There are unsanctioned trails that are damaging vegetation and wildlife, it is important to keep users on designated trails.

### GENERAL RECOMMENDATIONS

- Implement clearly marked and designated trails and access to the river to manage overuse and environmental impact.
- Implement educational signage and interpretive signage. Consider inclusion of educational content related to water quality and watershed management among other content related to habitat and ecosystem sensitivities. Placement should reflect relevance to location as well as compliment any existing interpretive resources nearby.
- Limit access to swimmers, dogs, fishing, and other recreational activities during key wildlife breeding or migration periods. While restricting access can be challenging, installing temporary signage to stay out of the water could help with both education and enforcement.

- Regularly assess ecological impacts and adjust interventions accordingly.
- There are a variety of distributed in-stream islands and seasonal gravel bars throughout the Corridor. As indicated in the River Access Impact Study (RAIS), some show signs of access by humans. As a general best practice, formal access or permanent installation of infrastructure is discouraged due to the evolving nature of these landforms as well as to preserve the natural attributes of the river formations and their role in fish and wildlife habitat.
- Throughout engagement, there was curiosity surrounding the Girl Guides lands located to the east of Highway 22 on the south side of the Bow River. At this point, the current operations and private ownership of the land is anticipated into the foreseeable future. The current uses and functions, related to youth education, is well aligned with the vision and principles of the Strategy.

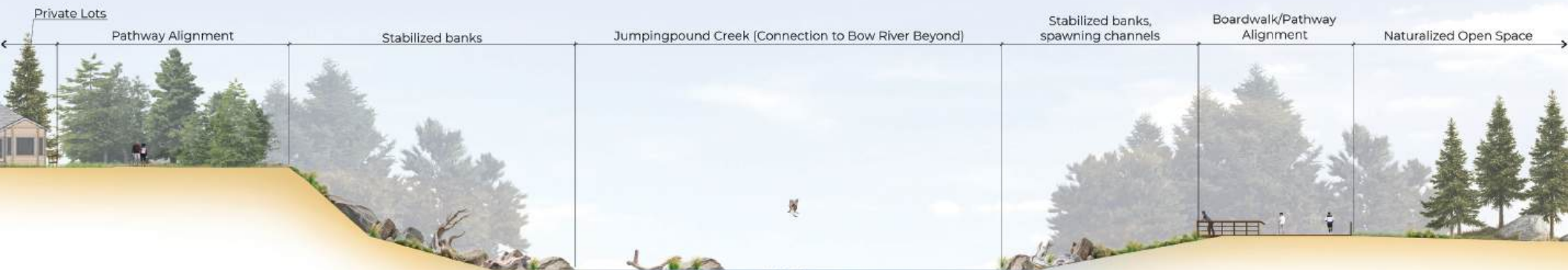
### KEY RISKS

- Lack of clarity around preservation goals may lead to piecemeal or reactive management.
- Sensitive landscapes and ecosystems are at risk due to increasing pressure from population growth and increased usership.
- Without education or enforcement, the natural environment is vulnerable to misuse and degradation.

### BOLD OPPORTUNITIES

- Establish clear guidelines and/or policies for ecological conservation and restoration efforts. Support these policies through consistent enforcement.
- Develop low-impact infrastructure to support access while preserving habitat.
- Enhance community stewardship through hands-on conservation programming and volunteer opportunities.





Conceptual Section - Jumpingpound Confluence

### PATHWAY CONSIDERATIONS

- **Existing Condition**

Pathways throughout the Rugged and Wild areas range from naturalized to paved trails that vary in width, slope and required skill level. There is often a high degree of variance.

- **Anticipated Usership**

Moderate with heavy dependency on seasonal aspects of use and/or adjacent residential or public accesses.

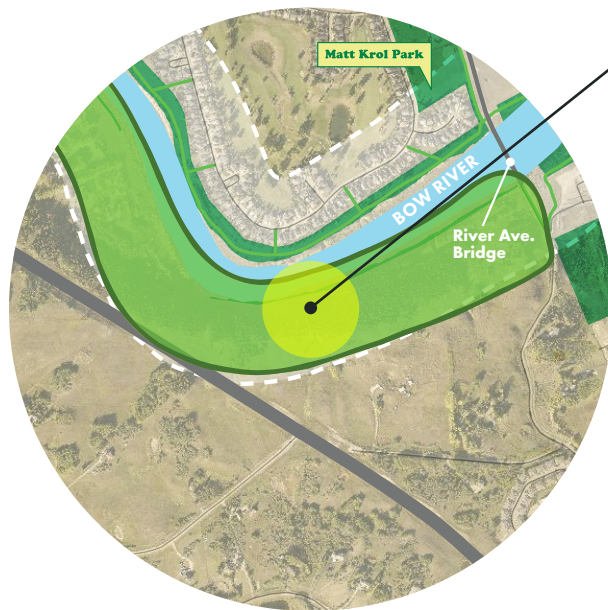
- **Alignment, Capacity and Design**

- › Rehabilitate where necessary, meet minimum safety and accessibility standards and best practices.
- › Explore boardwalk infrastructure in low lying, flood prone or native vegetation-rich locales.
- › Prioritize naturalized trail materials where possible with exceptions related to primary access points and connection to amenities where accessibility should be maintained.

### OPERATIONS AND MAINTENANCE CONSIDERATIONS

From a maintenance perspective, the level of service for areas within Rugged and Wild areas is suggested at low to moderate to reflect a general approach of naturalization and placekeeping. It is also noted that in general, these areas may be accessed for the purposes of encampments and activities that may generate safety concerns or threats to conservation efforts. With this, design of these spaces is critical as may be the presence of enforcement to ensure these areas are maintained to the desired degree.





## River Heights Slopes

Informal trails and routes to the river are observable within this general area. Due to slope conditions and consideration for environmental impacts, it is recommended to discourage access within the area. Proposed opportunities may include:

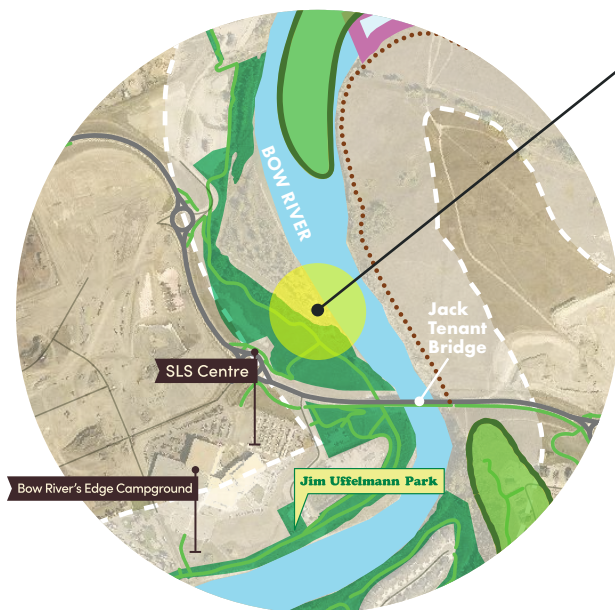
- Naturalize areas where possible with physical barriers to encourage appropriate access points.
- Measures to restore the natural vegetation and habitat, where possible.
- Educational and informational signage.
- Conduct a habitat assessment to evaluate the existing vegetation, establishing a baseline to guide restoration efforts and determine the best species to replant or reintroduce.
- Formalized access points for recreational fishing with the implementation of educational signage to ensure the area is not negatively impacted by human activity.



EXISTING CONDITION







## Bow River Island

The Bow River Island holds significant environmental value and is recommended as a long-term natural asset for the community. This aligns not only with the technical findings of the RAIS but also with stakeholder priorities for preserving natural spaces and supporting placekeeping. Understanding that some users choosing to float or paddle down the Bow may use the west channel as a bypass for slower moving water, takeouts are suggested to be on the west bank, not the island itself, where grades and access allows. *Proposed opportunities may include:*

- For the majority of the island, protect areas of native grassland, vegetation, habitat and steep slopes. Designating a low impact trail to one or two lookout locations is the extent of programming recommended.
- Plan and design takeouts and water access along the west bank where grades and access allow- to prevent overuse of the island itself.
- Provide ample signage along trail for educational purposes and to encourage respectful use of the land.







## Jumpingpound Confluence

Jumpingpound Confluence is a natural gem, characterized by its rich fish habitat and diverse microhabitats, including a variety of vegetation types. Gravel bars and beaches make this area a popular destination for recreation. However, due to the ecological sensitivities identified in the Environmental Study (RAIS), it is recommended that this area remain largely naturalized to protect its environmental values.

The Jumpingpound River is a Class C waterbody—an area of moderate sensitivity where unconfined or unrestricted activities may cause damage. These habitats are widely distributed and support local fish species populations, including sensitive species such as rainbow trout, cutthroat trout, bull trout, and mountain sucker. To minimize impact on these species, seasonal Restricted Activity Periods (RAP) are in place from **May 1 to July 15** and **September 16 to April 15**, which should be followed to ensure habitat protection. Proposed opportunities may include:

- Provide boardwalks to connect pathways in flood prone areas that are built to withstand seasonal flood conditions and help users navigate the space with defined limits to support reduced disturbance to the natural assets existing within this area.
- Implement clearly marked and designated access routes to deter overuse in highly sensitive areas and habitat.
- Repair and maintain existing pathways to reduce off-trail disturbances.
- Implement educational signage and/or fences to protect wildlife and fish habitat. Consider Bear Aware principles.



EXISTING CONDITION



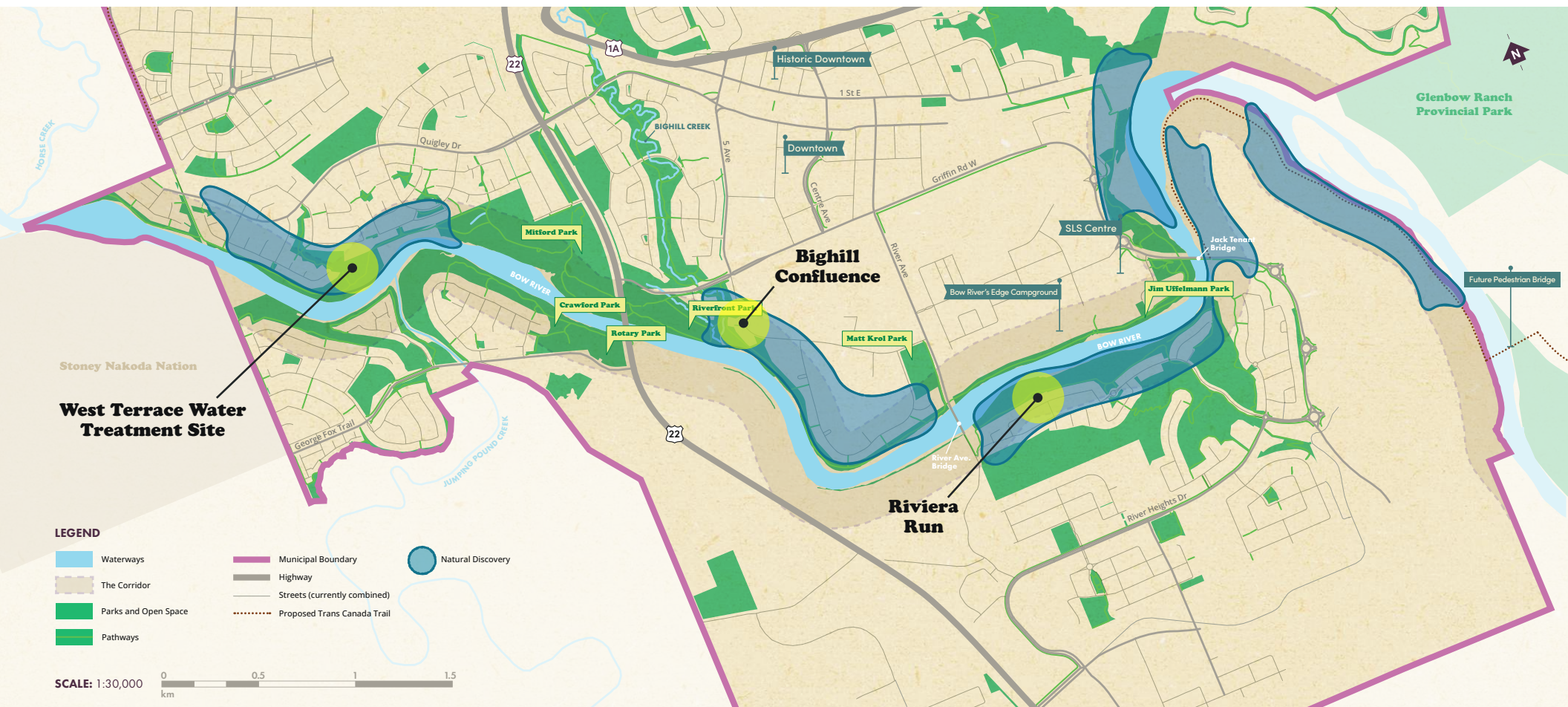


# Natural Discovery

This typology is primarily dedicated to conserving and enhancing the natural environment while providing space for low-impact, passive recreation activities that naturally complement the interface with residential lots and neighbourhoods. The landscape conditions of this typology change across the Corridor but are generally accessible with some areas highlighting increased slopes and viewpoints.

These spaces aim to foster a connection with nature, support native vegetation and wildlife, and offer a tranquil setting for community members and visitors to enjoy.

In general, this typology is characterized by walking, jogging, hiking, wildlife observation, picnicking, nature appreciation and educational programming.





### SUMMARY OF WHAT WE HEARD

- There are significant viewsheds along the north edge of the river nearest the Town's west boundary that should be preserved and kept untouched.
- Areas where houses already exist should generally be passive corridor stretches that respect neighbours and private property. Naturalized buffers could be considered where the pathway runs in close proximity to residential to ensure there is a physical and noise buffer between users/uses.
- Appreciate the ability to have informal access to the river for moments of solitude and reflection.
- Many community members reflected that their favourite activity to do near the river is go for a walk, read, or have a picnic.

### GENERAL RECOMMENDATIONS

- Proactively manage off-leash use by developing or revitalizing dog parks and off-leash areas in other locations throughout town that integrate water features to alleviate the pressures of pet access to the river while providing a residents and their pets a similar experience and amenity.

- Proactively manage off-leash access near or at the river consistently to reinforce conservation efforts, stabilize water quality levels and alleviate concerns with overuse and user conflict in key areas. Maintain on-leash access throughout the Corridor with water access at designated locations only.
- Decommission informal trails and unauthorized stream crossings using natural barriers and methods.
- Formalize entry and exit points with signage for safe and controlled access into the river.
- Provide wayfinding signage on habitat protection, recreational etiquette, and conservation efforts.
- Provide seating nodes and gathering spaces that are accessible and lend to enjoyment of the natural environment and viewsheds.
- Improve regional pathway connections by widening key approaches and pull off areas near seating nodes.
- Throughout the areas within this Character Typology, support the potential for a Interpretive Nature Centre at the East Entry with additional discovery nodes - educational and interactive installations - that range in scale to entice visitors, school groups and community organizations to explore the Corridor and learn.

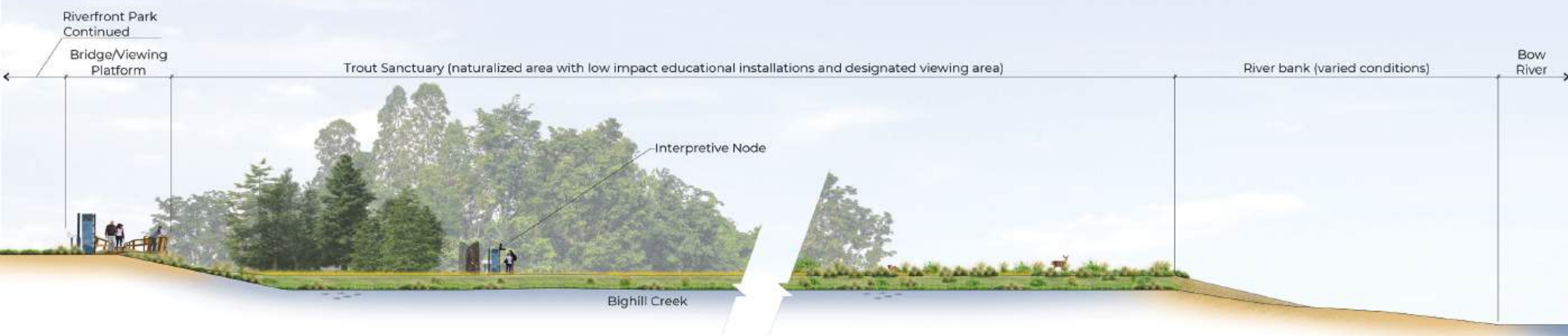
### KEY RISKS

- Environmental education may be overlooked, leading to a disconnect between people and place.
- Opportunities for meaningful, hands-on interaction with nature are limited.
- Sensitive species and ecosystems may be unintentionally disturbed by unstructured access.

### BOLD OPPORTUNITIES

- Create immersive learning spaces, like interpretive nodes or outdoor classrooms that connect people to the natural environment that makes Cochrane special.
- Invest in upgraded off-leash facilities and amenities outside of the Corridor to alleviate off-leash demand for access at the river's edge.
- Enable and encourage community science and youth-led initiatives to monitor and steward the Corridor.
- Introduce Natural Discovery installations along the pathway to introduce stewardship principles to residents and visitors of all ages, ensuring the Corridor is respected and protected for the next generation.





Conceptual Section: Bighill Confluence

### PATHWAY CONSIDERATIONS

- **Existing Condition**

Currently pathway alignments are well used through the Natural Discovery areas with some sections noticeably narrow based on the usership.

- **Anticipated Usership**

As Cochrane grows and the alignment from Jack Tenant Bridge to the proposed pedestrian bridge at the East Entry is implemented, use and ridership is anticipated to increase. Large sections of the regional pathway network will exist within this typology. It will be important to provide functional items to support peak time- or season-based volume challenges.

- **Alignment, Capacity and Design**

Introduce boardwalk style pathways in flood prone areas or areas with significant plots of native vegetation.

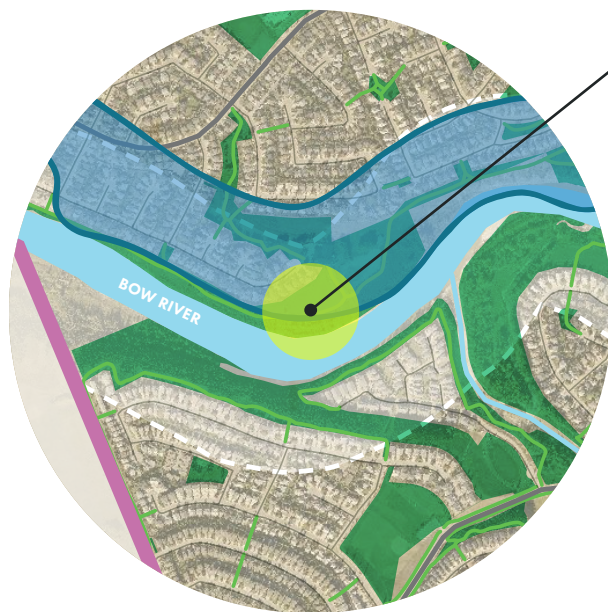
Ensure that for proposed alignments, they are connected to key amenities, accesses to the river, and optimized views to ensure the experience is punctuated conveniences and special moments. Provide adequate passing considerations and pull-off areas can alleviate any peak time- or season-based volume challenges.

### OPERATIONS AND MAINTENANCE CONSIDERATIONS

A Moderate level of service is suggested for the majority of areas within the Natural Discovery typology with pathway connections and associated amenities being maintained regularly. There may be opportunities to work with local environmental organizations to gain support with maintenance and enhancement programs specific to creeks and riparian areas.

Maintenance of vegetation should prioritize sightlines of pathway users throughout. In areas where there is a close interface with the pathway alignment and adjacent private residential lots, a balance of privacy and natural surveillance is encouraged.





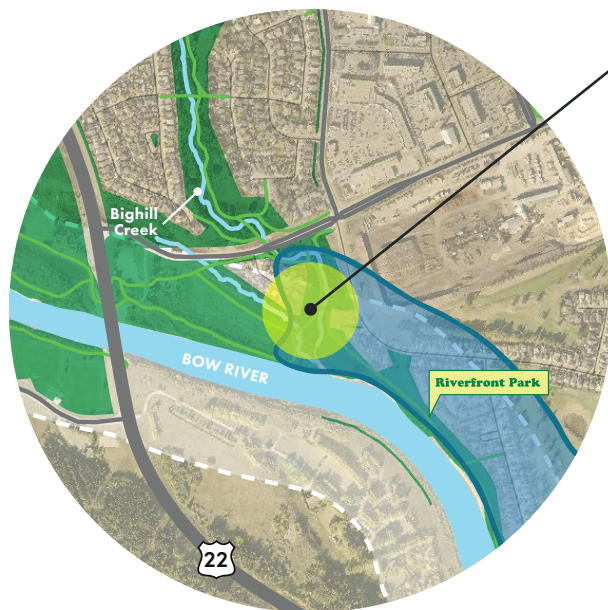
## West Terrace Water Treatment Site

The West Terrace Water Treatment Site provides informal beach and water access. While some engagement feedback suggested there is a desire from active recreation users for this location to be a second formal launch, the Strategy recommends maintaining it as an informal access point due to the limited parking in the area and negative impacts on existing residential traffic and circulation. Proposed opportunities may include:

- Establish a clearly marked entry and exit point with signage, safe beach access, and steps with a safety railing to minimize bank disturbances and control channel access.
- Restore alternate accesses, rehabilitate vegetation and introduce physical barriers at the top of slope where required.
- Ensure there are designated vehicular layby areas for drop-off and pick-up at this point. Formalization of parking of any type is recommended to be located within Town land to reduce congestion within the residential neighbourhood.
- Add interest by including some unanticipated features like discovery play elements, porch-style swings and oversized lounge chairs among accessible benches. This should be done in a way that considers neighbours and adjacent residential properties.







## Bighill Confluence

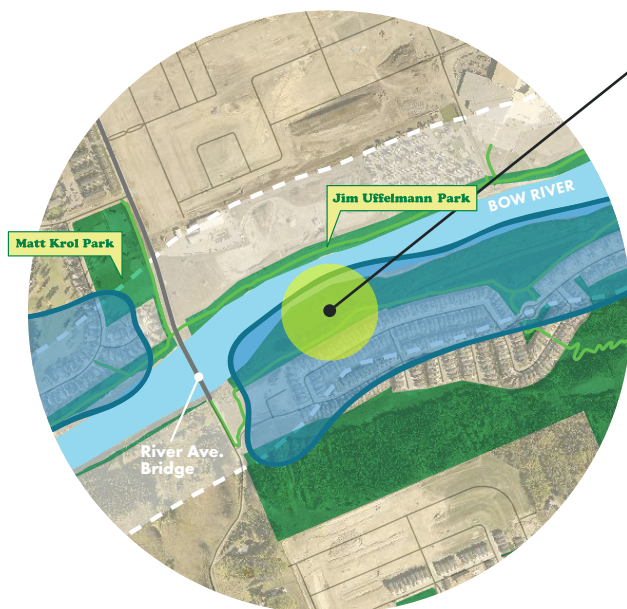
The Bighill Creek Confluence is a vital ecological and recreational area within the Corridor, where Millennium Creek meets Bighill Creek before joining the Bow River. Its natural beauty and gentle to moderate slopes make it a popular destination for visitors, as highlighted through engagement. To preserve the very qualities that make this space special, the Strategy recommends formalizing recreational access to minimize environmental impact while protecting the surrounding natural areas that provide significant value to the river ecosystem. Proposed opportunities may include:

- Create and program a Trout Sanctuary Interpretive Area to provide education and awareness of the ecological value of Bighill Creek in partnership with local interest groups and committees.
- Reprogramming of picnic areas into an outdoor learning lab or demonstration; shift general use group picnic area/rest stops away from the immediate confluence area (ie. Offset of 30m).
- Provide wayfinding and informational signage about fish habitat, recreational etiquette and the work that has been done in the area to promote spawning and conservation.
- Decommission any off-trail pathways and unofficial stream crossing over Millennium Creek. Provide restoration of informal routes that have caused erosion and exposure of tree roots.

**Did you Know** trout prefer shallow, riffly streambeds that offer a constant flow of oxygen, which they need to build nests called redds. Bighill Creek provides ideal conditions for trout, making it an important habitat that supports and sustains the species.







## Riviera Run

On the south side of the Corridor, there is a unique opportunity to reimagine the interface between the river and existing residential areas, creating a harmonious space for both residents and the natural environment. Currently, there are conflicts between users on the other side of the river, particularly with dogs accessing the water, which is leading to environmental disruptions and safety concerns. By reimagining this space, the Town can provide residents with a safe and enjoyable way to interact with the Bow River while reducing these conflicts and protecting the ecological integrity of the area. Proposed opportunities may include:

- A designated dog run area setback from the river to respond to demand while balancing environmental conservation.
- A designated access point to a small beach from Riviera View at the intersection of Riviera Link, featuring signage and naturalized seating, such as peeled logs or benches made from natural materials.
- Improve the junction of the regional pathway from Riviera to River Avenue Bridge by widening the approach and providing a rest stop and cross-river viewpoint of the Energy and Activation area.
- Collaborate with local stakeholders or interest groups to ensure that the dog run area and beach access meet community needs and align with environmental considerations.



EXISTING CONDITION

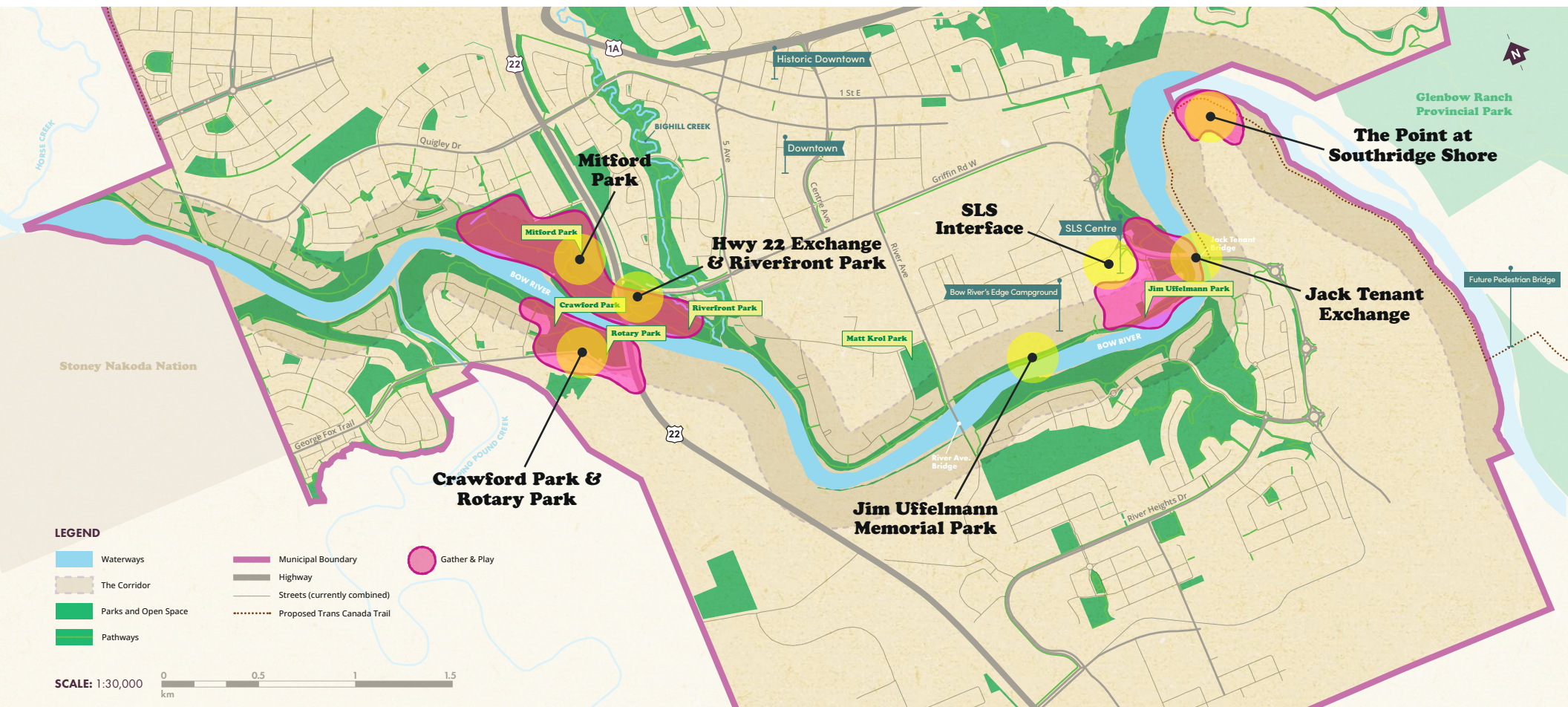




# Gather & Play

This typology is depicted by vibrant gathering spaces for recreation, arts and cultural activities, and community connection. The Gather and Play typology is designed to celebrate active lifestyles and community connection by creating nodes that are more programmed in nature and layer in opportunities related to Cochrane's history and culture, learning, arts and entertainment, providing a dynamic environment for both residents and visitors to engage in shared experiences.

Areas within Gather and Play offer a balance of active spaces and hubs to gather and connect, creating a vibrant and inclusive atmosphere that reflects the Town's identity. What these areas typically have in common is a gentle sloping terrain that lends to favourable conditions for river access and higher capacity amenity areas. These areas are typically already designated as Municipal Reserve (public parks).





### SUMMARY OF WHAT WE HEARD

- Residents and stakeholders are looking for opportunities to have safe and barrier-free access to the water. There are currently limited watercraft put-in and take-out locations.
- Solutions are needed for areas of frequent user conflict, specifically in relation to multi-use zones and where off-leash areas are present.
- Amenities that encourage respectful use of the river and public spaces are needed including washroom facilities and designated picnic areas for a range of group sizes.
- Implementation of passive and active recreational amenities like workout equipment, bike skills parks, and rentals.
- Desire for multi-functional venues for arts, culture and community interest groups.
- Interest for more intuitive loops, recreation opportunities and connectivity to existing facilities for all ages and abilities.

### GENERAL RECOMMENDATIONS

- Proactively manage off-leash use by developing or revitalizing dog parks and off-leash areas in other locations throughout town that integrate water features to alleviate the pressures of pet access to the river while providing a residents and their pets a similar experience and amenity.

- Proactively manage off-leash access near or at the river consistently to reinforce conservation efforts, stabilize water quality levels and alleviate concerns with overuse and user conflict in key areas. Maintain on-leash access throughout the Corridor with water access at designated locations only. Install enhanced trailhead, etiquette and wayfinding signage at key locations and at predictable intervals.
- Implement safety signage at trail junctions, sharp turns and areas with steep grades to prepare the user.
- Improve inclusive and accessible connections between pathways, play areas, and the rivers edge by implementing the use of stable and firm materials or extensions to pathways or concrete pads are uninterrupted.
- Incorporate picnic sites and shade structures that can host a variety of group sizes. Consider larger-scale group picnic shelters have booking ability to alleviate maintenance costs.
- Introduce beautification measures, particularly under bridges.
- Designate areas for non-motorized watercraft takeout/launch and visibly mark them in place and promote them consistently in wayfinding signage and online visitor resources.
- Provide watercraft-user amenities such as an inflation station, courtesy life vests, and temporary storage racks.

### KEY RISKS

- Overuse and lack of infrastructure can lead to environmental degradation and safety concerns.
- Without sufficient design and programming, spaces may fail to meet the needs of diverse users.
- Potential for conflict between user groups (e.g., cyclists, families, event-goers, water recreation enthusiasts, domestic animals and wildlife).
- Barriers to inclusion and access for those living with disabilities or mobility challenges could limit usability by people of all ages and abilities.

### BOLD OPPORTUNITIES

- Establish clear access to amenities and the river through physical design, defined guidelines and restrictions, regular maintenance plans, and seasonal management strategies.
- Celebrate community by investing in enhanced amenities, flexible venues, placemaking, programming, and pop-up events.
- Proactively manage off-leash access to the river consistently and create new or revitalize existing dog parks across town. Consider incorporating water features to offer residents and their pets a similar experience and amenity while reducing demand and impact of pet access to the river.



### PATHWAY CONSIDERATIONS

Pathway sections within the Gather and Play areas are generally anticipated and recommended to serve higher volumes with increased intensity of programming. There are existing pathway alignments throughout these character areas, however, in anticipation of Town growth, amenity development and associated pressure placed on pathway infrastructure, it is recommended that pathways widen to 4m with pavement markings to delineate two-way travel. In these cases and where space is limited for a significant length, provide increased pull-off or rest locations to allow for passing.

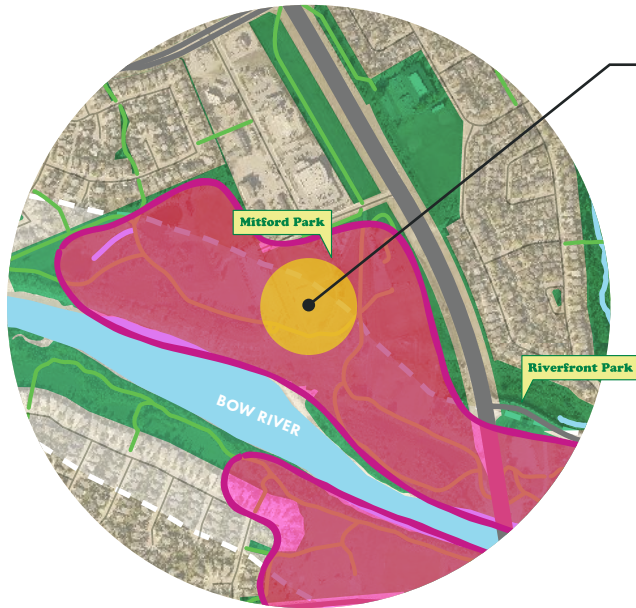
Some contexts, specifically near Jim Uffleemann Memorial Park warrant a pathway separation by mode or pace (ie. Pedestrian or active modes). It is imperative that routes are clear, have adequate transitions and are marked with accompanying wayfinding and informational signage to allow for predictable use and the reduction of user conflict.

### OPERATIONS AND MAINTENANCE

Because of the nature of the sites and stretches of pathway within the Gather and Play typology, maintenance is and will be critical to support programs and continued use through a high level of service. Consider these areas as primary public destination for residents and visitors alike that are subject to variation based on season or programming potential. As part of a standardized approach to level of service, these areas will reflect a higher priority for allocated resources and associated funding.







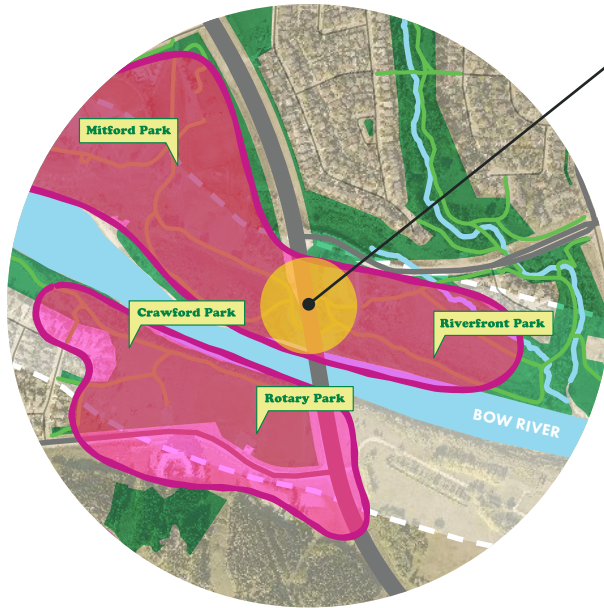
## Mitford Park

Mitford Park serves as a central hub for the community to gather, offering a blend of natural and recreational amenities at varying elevations. While the upper bench includes play fields and event-specific features, the lower areas offer flexible spaces among nature with lots of potential to become a spot to host outdoor performances or be a key venue in a town-wide festival. There is a clear opportunity to enhance the park's accessibility and inclusivity. Further improvements should focus on making the park welcoming and accessible for users of all ages and abilities, ensuring that everyone can fully participate in the activities it offers. Proposed opportunities may include:

- Existing bandshell and stage upgrades or replacement, focusing on acoustic and audience sightline improvements.
- Conduct a feasibility and conceptual study for creating a natural amphitheatre with a 250+ person capacity to support small and mid-sized performances and events, offering a diverse venue. This location is ideal due to its existing parking, strong connectivity to the surrounding community, suitable slope conditions, and stunning views of the Corridor, making it a prime spot for hosting events while enhancing the overall visitor experience.

- Upgrades to existing washroom including increased capacity
- Provide space for concession or food and beverage vendor space to service events within the park. This may include seasonal or event-specific vendor parking and hook-ups.
- Implementation of additional passing and pull-off areas for pathway users before and after steep sections along with safety signage where the grades are increased to ensure user awareness and safety.
- Promote and maintain the pond in Mitford Park to ensure it remains a suitable spot for recreational fishing for all ages and abilities. Install signage to guide visitors on where fishing is appropriate and improve walkways and wayfinding to ensure people stay on the trail or at the top of the bank while fishing. This is important to protect the sensitive habitats in the area that require conservation.
- Collaboration with local arts organizations or community groups to maximize use of the amphitheatre and vendor area, potentially including food festivals, live performances, or community gatherings.





## Hwy 22 Exchange & Riverfront Park

The area under the existing bridge is observably under-programmed while being well-used and is the only existing designated point of access to the Bow River by emergency services. With plans for a new Hwy 22 bridge and approach alignment, there is an opportunity to modify how this area is used and how connectivity between the bridge and from Mittford to Riverfront Parks is aligned. Noting this area is a popular location for non-motorized watercraft launch and take-out location, the Hwy 22 Exchange area also sees heavy use by people and dogs as a gathering place. Enhancing amenities and making access and circulation clear will be crucial for realizing this location's potential as a gathering space while maintaining its functionality. Proposed opportunities may include:

- Ensure a multi-modal separated lane on the ultimate Hwy 22 bridge with enhanced approaches and junctions on either side of the river to connect to Riverfront Park and Crawford and Rotary Parks.
- From Riverfront Park parking lot and throughout the Hwy 22 bridge underpass to reprogram access and circulation and designate sub-areas for recreational users in contrast to emergency service operations.
- Riverfront Park parking lot improvements and expansion to ensure increased user demand is met with the appropriate infrastructure and amenities.
- Implement a short-stay mobile vendor location and supporting picnic garden or patio space with access coming from the Riverfront Park parking lot.
- Improve inclusive access measures as this location offers subtle slopes to the water. Provide an accessible route to the waters' edge and consider stable and firm materials.
- Incorporate defined area for dogs to access the water downstream of other users within the immediate vicinity.
- For existing and future bridge abutments include measures such as bouldering holds, basketball hoops, enhanced lighting displays, pop-up art installations or murals beneath the bridge to activate the space.
- Supply watercraft amenities such as inflation station, courtesy life vests and/or racks to temporarily store vessels.
- Provide group picnic sites at a variety of scales. Consider including central firepits, barbeque's or electrical outlets to support a variety of group events.
- Implement safety signage and accessible features at trail junctions or vehicle access crossings and sharp or blind corners.
- Partner with local groups to host paddling safely workshops and community cleanups to introduce residents to this area.





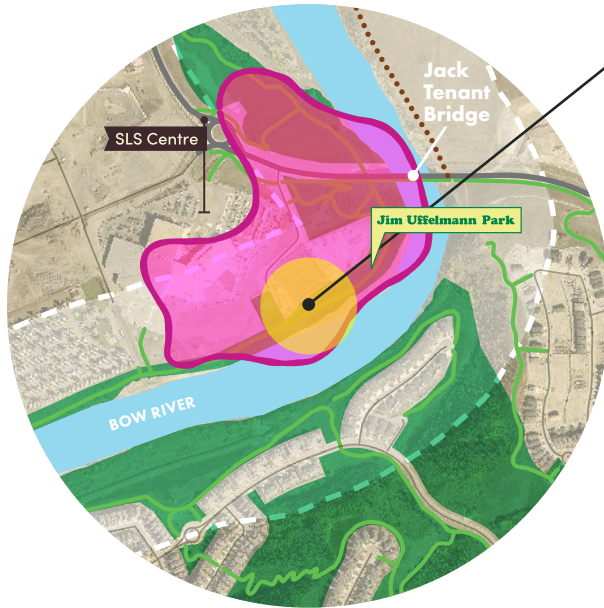
## Crawford Park & Rotary Park

Crawford and Rotary Park is a scenic green space along the river that offers valuable amenities such as seating areas and walking trails. However, the park currently lacks strong connectivity to surrounding areas, and its potential is underutilized despite significant investment from community organizations. To maximize the value of this space, it is important to improve access and programming that fully leverages the existing infrastructure, ensuring the park serves both the community and visitors to its full potential. Proposed opportunities may include:

- Improve connection to future Hwy 22 bridge approach with incorporation of rest stop, trailhead and wayfinding signage.
- Add accessible connections between play areas from pathways. Consider adding accessible and inclusive play equipment that is sensory specific and adaptive to provide enhanced play options.

- Incorporate shaded and/or sheltered picnic areas to create a day-use destination.
- Consider permanent public washroom location to service southwest side of river pathway system and park visitors.
- Expand parking lot to increase capacity in association with other park improvements.
- Partner with local organizations to ensure accessible play equipment meets community needs and is effectively integrated into local programming.



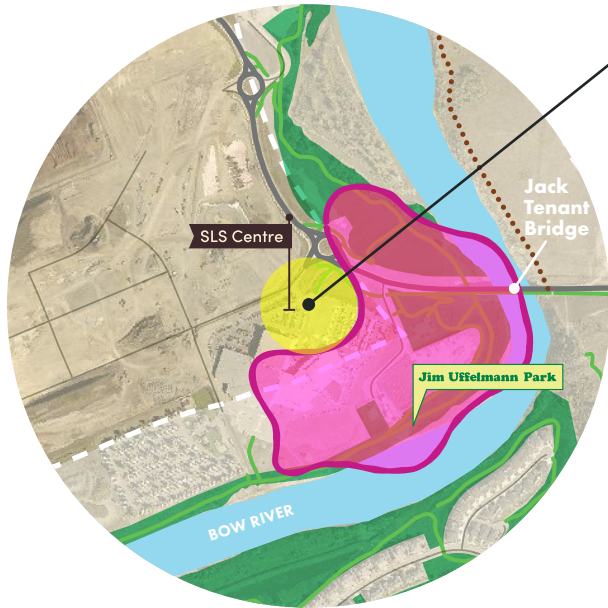


## Jim Uffelmann Memorial Park

This area along the Corridor has been identified through public engagement, observational data, and other input from the Town as a highly popular multi-purpose space and connection. The area offers a variety of possibilities for visitors and/or users featuring trails, picnic areas, an off-leash dog park and views of the river. The area has been further identified as having a low-medium ecological sensitivity rating with high steeps, elevated streambanks and exposed slopes that are highly erodible. Proposed opportunities may include:

- Introduce a physical barrier between the pathway and top of slope for the extent of the park where erosion along the riverbank is present to increase safety of all users, and deter informal access to the river that exacerbates erosion. It is suggested to incorporate barriers through naturalized materials that are reflective of community branding and theming while tying into the natural aesthetic of the park.
- Designate one or two areas where on-leash dog access to the river is permitted (outside of sensitive slope conditions extents). Where these are present, install signage indicating increased crossing of animals to provide warning and encourage respect among users.
- Provide trailhead, wayfinding and etiquette signage. For trailhead signage, indicate alternate routes to and through the Downtown core.
- Provide additional dog waste bag dispensers and trash bins at increased intervals to maintain cleanliness and promote multi-user etiquette.
- Explore a signature restaurant or service opportunity that highlights views and provides a dog friendly rest area for trail users (cyclists, walkers, dog owners).
- Introduce off-leash opportunities with water amenities where feasible in existing off-leash parks and in proposed and future off-leash parks to provide additional opportunities for similar experiences and alleviate pressure on Jim Uffelmann Memorial Park as community growth and evolution occurs.
- Collaborate with local organizations to ensure that dog-friendly amenities and spaces align with community needs and encourage responsible pet ownership.





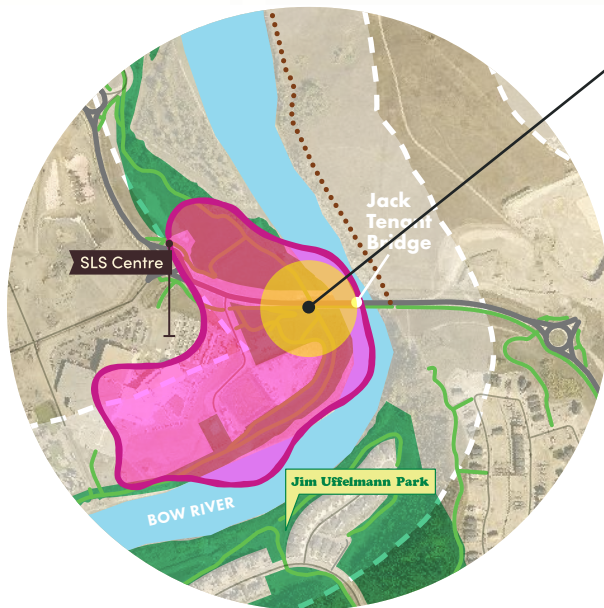
## SLS Interface

The Spray Lake Sawmills Centre (SLS) is a 325,000-square-foot community facility that offers a variety of recreational amenities, including ice arenas, an aquatic centre, a curling centre, a climbing wall, a sport court, a fitness centre, and other flexible-use programming. While SLS is located near the Corridor, it lacks a direct connection to the existing trail network behind the facility based on how it was sited. Plans are underway to enhance outdoor recreation opportunities in this area including multiple pickleball courts to the northwest of the building. Given the high number of visitors and residents who use SLS for recreation, strengthening its connection to the Corridor is increasingly important. Proposed opportunities may include:

- Install clear directional signage that guides visitors from SLS to the Corridor trail system and other key destinations along the Corridor. Relationship with Jim Uffelmann Memorial Park and the Jack Tenant Exchange (area under and surrounding the Jack Tenant Bridge) should be seamless and focus on accessibility of all modes.
- Develop a designated trailhead near SLS with amenities such as an outdoor classroom to support day camps, shade structures, benches, bike racks, e-scooter parking water stations and interpretive signage.

- To alleviate pressure along the narrow portions of Jim Uffelmann, create a fenced off dog area with agility course amenities and seasonal water and wash stations.
- Consider introducing fitness stations that are operated in partnership with the SLS and advertised within the facility.
- Collaborate with community organizations to host outdoor fitness classes, walking groups, etc. to encourage visitors to explore both the SLS and trail network
- Seek opportunities for Indigenous representation. There are opportunities to explore interpretive elements, language, place names, art and other elements. Collaborate with Stoney Nakoda (Chiniki, Bearspaw and Goodstoney First Nations), the Tsuut'ina, the Niitsitapi (Blackfoot) peoples of Siksika, Piikani and Kainai Band and Metis Districts on potential celebrations, events and activities.



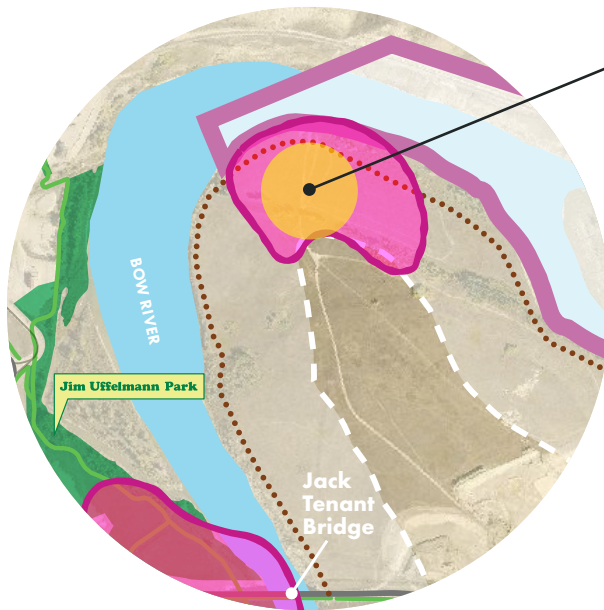
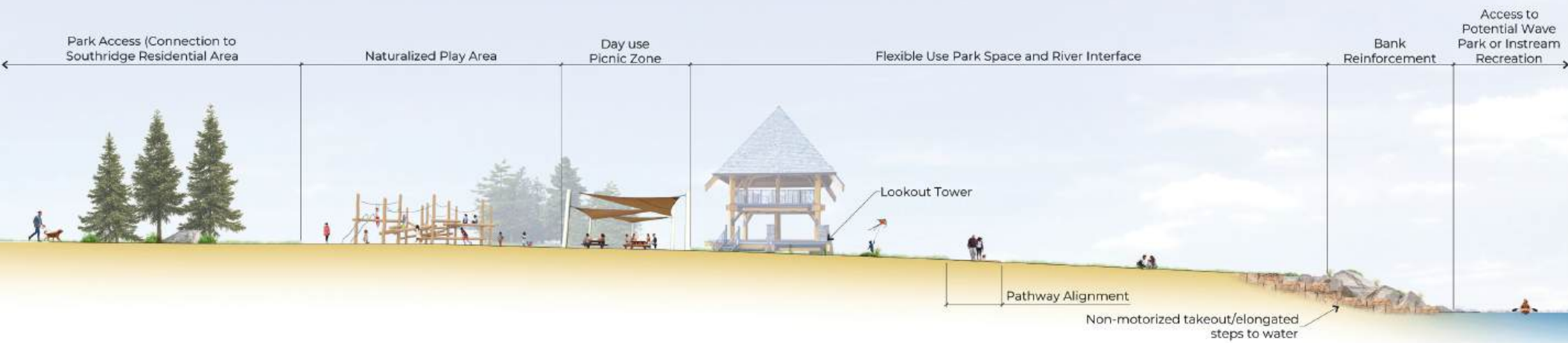


## Jack Tenant Exchange

The area under the existing bridge is observably under programmed with high utilization during the peak of summer and has the potential to be a more activated space with clear access to the Bow River and supportive amenities to ensure the site is used sustainably. This area also sees heavy use by people and dogs as a gathering place intermittently and is informally acting as a put-in and take-out for non-motorized watercraft. Enhancing amenities and facilities will be crucial to increase the level of service to match the expansion of the Bridge Crossing which took place in 2020. Proposed opportunities may include:

- Enhance approaches and junctions on either side of the river to create more intuitive connections. Allow for wide turning radii and ample opportunity to stop and rest.
- Improve inclusive access measures as this location offers subtle slopes to the water. Provide an accessible route to the waters' edge and consider stable and firm materials.
- Reprogram space to designate sub-areas for use by recreational users in contrast to emergency service operations. Consider vehicular travel routes and adequate offsets, which could look like a picnic garden, mural project etc.
- Incorporate defined area for on-leash dogs to access the water downstream of other users within the immediate vicinity.
- Formalize recreational use beneath the Jack Tenant Memorial bridge.
- Incorporate beautification measures such as enhanced lighting, pop-up art installations or murals beneath the bridge to activate the space.





## The Point at Southridge Shore

Southridge Shore is described in more detail within the Natural Discovery section as this is the predominant character type of the area. However, the point along the south banks presents a natural river access that allows for enhanced programming. To realize this, proposed opportunities may include:

- Include a Day Use Area as a secondary stop to the larger park and bridge junction located at the East Entry to serve users interested in water-based activities and those looking for a break as they traverse the Riverfront pathway system.
- Include play area and lookout tower that is positioned to view upstream to the Jack Tenant Exchange and downstream to the East Entry.
- Collaborate with local interest groups and operators on the potential for a wave park or in-stream recreational experience that is accessed via The Point with potential downstream take-out location at the proposed pedestrian bridge at the East Entry. All operations to be compliant with regulatory requirements.
- Include a washroom to serve day users and reinforce proper river use and etiquette.
- Provide amenities and in-water features to support a semi-protected put-in and take-out area.
- Include provisions for shade, seating, and picnicking.
- Reinforce proper river use and etiquette with signage and educational materials for day users.





EXISTING CONDITION: Jim Uffelmann



EXISTING CONDITION: Hwy 22

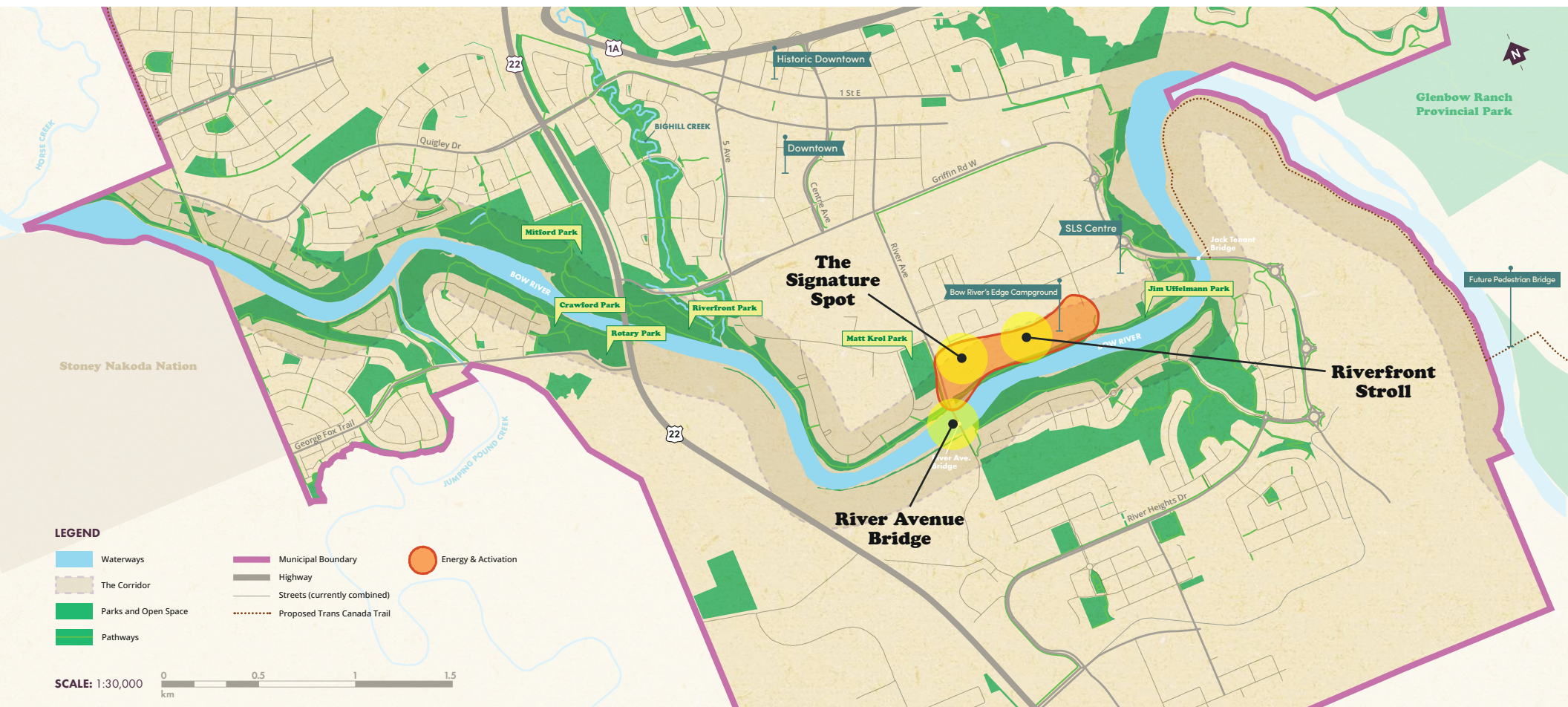




# Energy & Activation

This character area is a dynamic and vibrant hub located at the mid-way point of the Corridor that acts as a key connection to Downtown and Historic Downtown Cochrane. This area focuses on providing spaces for active recreation, community gathering, and small businesses. The Energy and Activation typology is designed to interface with future residential and commercial and to integrate economic development opportunities, cultural, and recreational uses, making it a place for people to connect, create, and celebrate.

This may include a signature development opportunity for a restaurant or food and beverage venture that compliments the surroundings and reinforces this area as a primary destination along the riverfront. Paired well to accompany an integrated riverfront development could be venues for community events, space for temporary pop ups, and an active recreation exchange with access to and from the river along with casual gathering spaces and opportunities for play.





### SUMMARY OF WHAT WE HEARD

- Desire to have collaboration with local groups for recreation and rental services.
- Collaborate with arts and culture organizations to provide new opportunities like outdoor music venues, disc golf, and seasonal food vendors.
- Focus on sustainable tourism growth with strong community involvement in decision-making.
- A potential wave park or water recreation focused intervention.
- More food, drink and service offerings as well as connection points to existing commercial nodes.

### GENERAL RECOMMENDATIONS

- Proactively manage off-leash use by developing or revitalizing dog parks and off-leash areas in other locations throughout town that integrate water features to alleviate the pressures of pet access to the river while providing a residents and their pets a similar experience and amenity.
- Proactively manage off-leash access near or at the river consistently to reinforce conservation efforts, stabilize water quality levels and alleviate concerns with overuse and user conflict in key areas. Maintain on-leash access throughout the Corridor with water access at designated locations only.

- Install wayfinding signage to guide residents and visitors to/from key destinations. This applies to the regional trail network as well as to river recreation.
- Install ambient and feature lighting that is dark sky compliant to improve safety and increase vibrancy.
- Partner with local arts organizations and incorporate large-scale sculptures, murals or public art installations to enhance sense of arrival and place identity.
- Create flexible social gathering spaces for community celebrations, festivals, and fitness activities.
- Establish signature experiences that support economic development for the community.
- Incorporate sustainably focused lodging.
- Promote and support access to the river at key destinations and provide waterfront and outdoor recreation amenities.
- Install seating, washrooms, and rental options to encourage visitors to stay, play & rest.

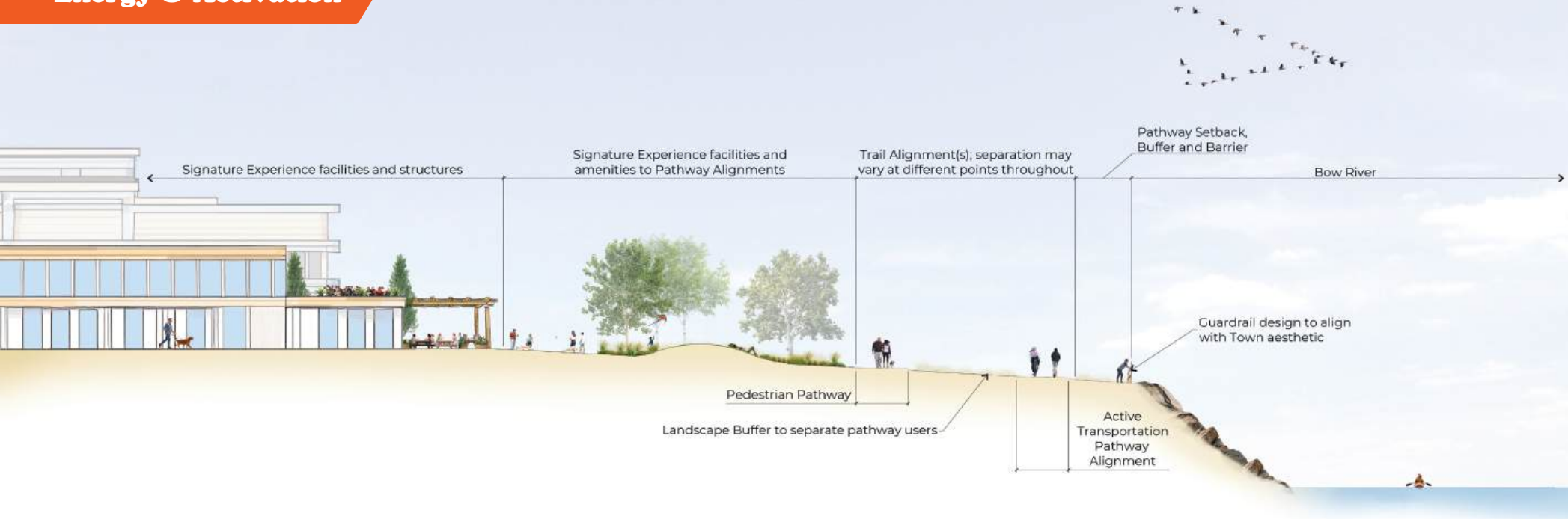
### KEY RISKS

- Without a cohesive vision or thoughtful implementation, activation efforts may feel disjointed or clash with the Corridor's vision or potential.
- The Town is late to realize an opportunity to create a key destination for sustainable tourism and responsible development along the corridor.
- Lack of infrastructure to support events or gatherings could limit their success or strain existing spaces.

### BOLD OPPORTUNITIES

- Transform River Avenue Bridge into a vibrant pedestrian connection and venue that becomes a distinct landmark within Cochrane.
- Build partnerships with businesses and organizations to steward and maintain energized spaces.
- Develop a concept while piloting temporary or pop-up activations to test ideas, and build community support.
- Allow for flexible, adaptive use before investing in permanent installations.





### PATHWAY CONSIDERATIONS

The Energy and Activation areas are generally anticipated and recommended to be higher use zones with increased intensity of programming. There are existing pathway alignments throughout these character areas, however, in anticipation of development and associated pressure placed on pathway infrastructure, it is recommended that pathways widen and are separated by mode (ie. Pedestrian or active modes) within the Energy and Activation extents. It is imperative that routes are clear, have adequate transitions and are marked with accompanying wayfinding and informational signage.

### OPERATIONS AND MAINTENANCE

Because of the nature of these sites and the enhancements outlined above, it will be critical to support the longevity of the areas within the Energy and Activation through a high level of service, maintenance and operations. Consider this area a primary public destination for residents and visitors alike. This will garner the need to allocate annual funding accordingly.



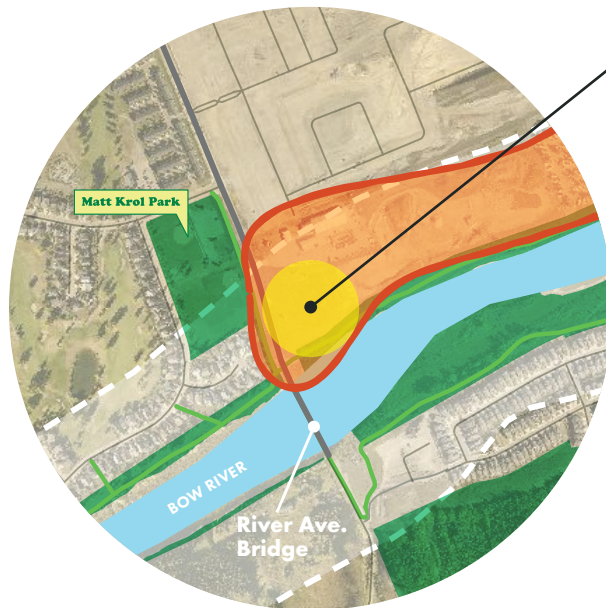


## River Avenue Bridge

The River Avenue Bridge presents a unique opportunity to transform its role within the surrounding corridor. As the bridge has been underutilized for some time, Town staff have been exploring the possibility of closing it to vehicle traffic and designating it for pedestrian use only. This shift would not only allow for additional pathway circuits, it would open the door to a range of potential activations, creating a vibrant public space through temporary and pop-up installations. Proposed opportunities may include:

- Reprogramming of bridge for primarily pedestrian and active transportation uses to allow for connectivity between north and south. Demountable barriers at either end of the bridge are encouraged, reserving the ability to get across in case of emergencies, service needs or detours.
- Install ambient, colourful feature lighting to make the space inviting year-round. Feature lighting reinforces the bridge as a landmark yet must respect dark sky policy and fish and wildlife considerations.
- Install benches or seating at the bridge's midpoint to create a space for people to pause and enjoy the view.
- Provide flexible-use spaces that enable hosted activities like general fitness, yoga or meditation sessions to encourage community well-being.
- Partner with local arts organizations to host outdoor music performances, busking, markets, and open-air art galleries.
- Collaborate with local restaurants to host shared meals, pop-up dining experiences, or seasonal events.
- Add panels or signage that share Indigenous history, river significance, poetry, or local stories.





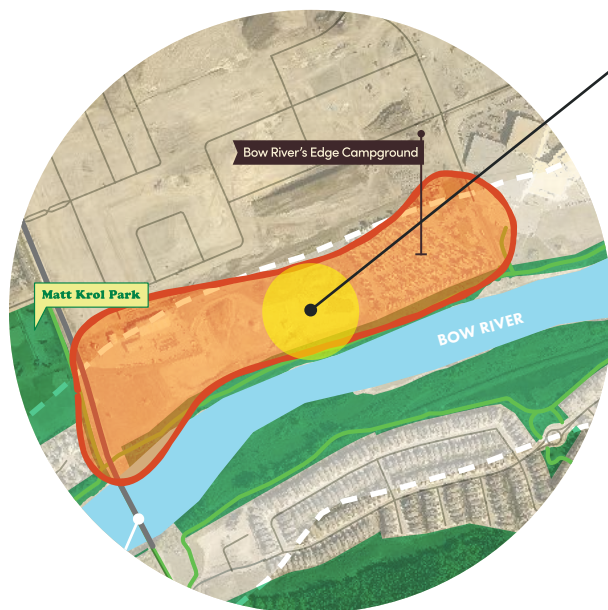
## The Signature Spot

On the northern approach to the River Avenue Bridge, the Jim Uffelmann parking lot and adjacent vacant parcel to the north, present an exciting opportunity to develop a signature experience that attracts both residents and visitors. A well-designed signature experience encourages people to eat, stay, and play, fostering a vibrant destination along the riverfront. This, in combination with the SLS provide two bookends of activation, creating movement through the western portions of Jim Uffelmann Memorial Park and fronting onto what is later described as the Riverfront Stroll. Proposed opportunities may include:

- Establish a signature restaurant, market or hybrid venture that takes full advantage of the Bow River views, providing a perfect spot for recreational users to unwind with a post-adventure meal or midday destination.
- For any built form, it is recommended that building heights are tapered as they get closer to the river itself to respect a pedestrian scale. Consideration should be made at the interface of Riverfront Stroll for indoor-outdoor spaces that are flexible in all four-seasons.

- Include provisions for a publicly accessible washroom to serve patrons and visitors.
- Emphasize that this is primary rest stop for those in and travelling through Cochrane. Trail amenities should include a hub for e-bike charging, kayak and paddleboard rentals, lockers and other supportive courtesies.
- Create space for a brewery, café, or curated food truck or seasonal vendor hub to cater to riverfront visitors, trail users, and the local community that can expand and contract based on peak demands or for larger scale events or festivals.
- Incorporate large-scale sculptures, murals or public art installations to enhance a sense of arrival and place identity.
- Partner with local food vendors, cafes, and breweries to create a culinary destination.
- Collaborate with rental companies to offer bike, kayak, and paddleboard services.





## Riverfront Stroll

In front of the Signature Spot and to the western interface of Jim Uffelmann Park presents a prime opportunity for a gradual, increase of activation. While this space already attracts a variety of users, the expansion of amenities near SLS and the future Greystone Neighbourhood create untapped potential along this stretch of the Corridor and a likely higher rate usage. Feedback from the Market Scan and community engagement identified this location as a key hub for activity, with future initiatives aiming to build on that momentum. Proposed opportunities may include:

- Establish a well-defined and accessible route linking Greystone to the riverfront Corridor.
- Incorporate sustainably focused lodging such as a small to moderate scale eco-lodge, glamping pods or a dog-friendly, small format inn to provide unique overnight accommodations and diversify market offerings. Part of the experience will be waking up in the Corridor and having direct access to the pathway network, trails, water activities and the downtown.
- In conjunction with the Signature Spot, create a public and flexible social gathering space that could be transitioned from informal to programmed for a variety of purposes such as themed festivals, community celebrations, musical performances, outdoor skating and staging for community group events like charity walks, runs and relays.
- Designate a water access with 'steps to the water' at a location with gradual slopes ie. Near the River Avenue Bridge.
- Create a semi-protected put-in and take-out space for those traveling the river in non-motorized watercraft.
- Provide communal fire pits with seating for social gatherings .
- Install a riverfront "Little Free Library" with book-sharing kiosks that promote local adventure, experiences, stories and resources.
- Partner with local event organizers to facilitate a variety of community celebrations and activities.
- Collaborate with rental companies to provide equipment for active mobility and water-based activities.







# Implementation Strategy

## Overview

The Bow River Strategy presents an aspirational vision for Cochrane's riverfront. While it is undetermined that the entire plan will be fully realized as competing priorities and time evolve, the proposed improvements can be discussed and considered within the context of the Town's asset management and capital planning programs. In addition, many improvements presented in the plan will require partnerships with local community groups and will depend on the Town's success attracting grant funding to Cochrane.

The phasing plan presents an example of how the improvements could be achieved over 20 years. It is anticipated that the completion of the projects will unfold incrementally as partnerships emerge and funding is sourced or becomes available.





# Prioritization & Phasing

## METHODOLOGY

To ensure actions are prioritized with consideration for risk, opportunity, complexity, and alignment with the Town's broader goals, evaluation criteria have been developed to assess and phase priorities. Phases are broken into short, mid- and long-term phases, considering the 20-year horizon. These phases are defined as:

- Short-term: 0–3 years
- Mid-term: 4–10 years
- Long-term: 11–20 years

Alignment with this Strategy's Guiding Principles and the Council's Strategic Goals are assumed to be inherent at the time of publishing. However, prioritization should be reviewed at a regular interval to ensure evolution of the current strategic goals remain aligned.

The methodology for the criteria is that they function as filters to determine project urgency and sequencing. It is important to acknowledge that there are many variables in determining the ongoing prioritization/ phasing of an item and that the initial assessment is subject to change. In fact, change in prioritization

is likely a reflection of progress and successful implementation. When an action or initiative is deferred to the mid or long-term phase it requires attention to parcel out key steps that support the longer term objectives. This could look like the formation of partnerships, land acquisition, or identification of funding opportunities that may lead to acceleration. Each criterion, its function and its possible effect on phasing is mapped out in the following table:

Criteria (Filter)	Function	Effect on Phasing
<b>Current Safety or Environmental Risk</b>	Triggers immediate action to prevent potential harm or degradation	<b>Short-Term</b>
<b>Environmental Conservation Opportunity</b>	Prioritizes projects with significant ecological benefit	<b>Short to Mid-Term</b>
<b>Complexity of Initiative</b>	Defers completion of highly complex or regulated initiatives to provide realistic timelines and may expedite initiation. <b>Interim goals and investments are required to be identified and advanced in the short-term to ensure target completion is achieved. (ie. regulatory and due process requirements)</b>	<b>"Mid to Long-Term; Key steps identified in Short-Term."</b>
<b>Partnership Alignment &amp; Timing</b>	Syncs with third party conditions and timelines.	Expedites or Defers to any phase depending on timing of partnership members.
<b>Available Funding</b>	Advances projects with secured or accessible funding	Expedites to earlier phase(s)
<b>Ongoing Capital Improvements</b>	Integrates with scheduled capital projects	Matches timing with capital lifecycle, political or administrative focus and available resources and budget.



# Prioritization & Phasing

## ACTIONS & INITIATIVES MATRIX BY TYPOLOGY

In the following section, each recommended action or initiative has been filtered through the criteria presented in the table above to determine, at a high level, the initial prioritization based on the 20-year outlook. Actions and initiatives are organized by

affiliation to Character Typology for the purposes of connecting to the context of the presented in earlier sections. It is noted that there may be some actions or initiatives that span multiple Typologies and could be implemented cohesively for optimization of impact.

## Gateways to Cochrane

Character Typology   Interest Area   Action/Initiative Item		CRITERIA (FILTER)						PRIORITY/PHASE	VALUE
		Current Safety or Environmental Risk	Environmental Conservation Opportunity	Complexity of Initiative	Partnership Alignment & Timing	Available Funding	Ongoing Capital Improvements		
Gateways to Cochrane		(Y/N)	(Y/N)	(High/ Med/ Low)	Variable - To Be Confirmed (Y/TBC)	Variable - To Be Confirmed (TBC)	Assume All (Initially)	Term Short (0-3) Mid (4-10) Long (11-20)	Magnitude (\$ / \$\$ / \$\$\$)
Recommendations [General]									
	Design and install consistent wayfinding, interpretive and etiquette signage throughout.	✓	✓	Low/Med	TBC	TBC	✓	Short - Mid	\$
WEST EDGE									
Infrastructure	Enhanced rest area complete with gateway feature, trailhead signage, informational and interpretive elements.		✓	Med	TBC	TBC	✓	Short - Mid	\$\$
	Seating and Picnic furnishings.			Low	TBC	TBC	✓	Mid	\$
	Bicycle parking, repair and maintenance station.			Low	TBC	TBC	✓	Mid	\$
	Small public washroom, format as deemed feasible.			Med	TBC	TBC	✓	Mid	\$\$
	Install shade and wind protection at rest areas.			Low	TBC	TBC	✓	Mid	\$
EAST ENTRY (FUTURE)									
Infrastructure	Interpretive Nature Centre (in combination with public washroom).		✓	Med/High	✓	TBC	✓	Short - Long	\$\$\$
	Enhanced rest area complete with gateway feature, trailhead signage, informational and interpretive elements.		✓	Med	✓	TBC	✓	Mid	\$\$
	Defined and protected river access location with small format and non-motorized watercraft launch and supporting amenities.			Med/High	✓	TBC	✓	Mid	\$\$
	Emergency river access point.			Med/High	✓	TBC	✓	Mid	\$\$
	Public washroom, format as deemed feasible for siting.			Med/High	✓	TBC	✓	Mid - Long	\$\$
	Seating and Picnic furnishings with sheltered and/or shaded options.			Low	✓	TBC	✓	Mid - Long	\$
	Play Area or discovery features.			Low	✓	TBC	✓	Mid - Long	\$
	Bicycle parking, repair and maintenance station.			Low	✓	TBC	✓	Mid - Long	\$
	Electric charging station.			Low/Med	✓	TBC	✓	Mid - Long	\$
	Viewing opportunities of the river.			Med	✓	TBC	✓	Mid - Long	\$
Programming	Semi-permanent or provision for mobile food and beverage vendors or small format retail and/or outfitting.			Med	✓	TBC	✓	Mid	n/a - \$\$
Policy Considerations [General]									
	Develop level of service thresholds to inform future investment needs and priorities.								



# Rugged & Wild

Character Typology   Interest Area   Action/Initiative Item		CRITERIA (FILTER)						PRIORITY/PHASE	VALUE
		Current Safety or Environmental Risk	Environmental Conservation Opportunity	Complexity of Initiative	Partnership Alignment & Timing	Available Funding	Ongoing Capital Improvements		
Rugged and Wild		(Y/N)	(Y/N)	(High/ Med/ Low)	Variable - To Be Confirmed (Y/TBC)	Variable - To Be Confirmed (TBC)	Assume All (Initially)	Term Short (0-3) Mid (4-10) Long (11-20)	Magnitude (\$ / \$\$ / \$\$\$)
<b>Recommendations [General]</b>									
	Design and install consistent wayfinding, interpretive and etiquette signage throughout.	✓	✓	Low/Med	TBC	TBC	✓	Short - Mid	\$
	Regular monitoring and assessment of ecological health and impacts.		✓	Low	TBC	TBC	✓	Short - Mid	\$
<b>RIVER HEIGHTS SLOPES</b>									
Infrastructure	Naturalized, physical barriers to access with measures to restore the natural vegetation and habitat.	✓	✓	Low	TBC	TBC	✓	Short	\$
	Formalized access points for recreational fishing.	✓	✓	Low/Med	TBC	TBC	✓	Short	\$
Programming	Educational and informational signage in partnership with environmental agencies and organizations.	✓	✓	Low	TBC	TBC	✓	Short	\$
<b>BOW RIVER ISLAND</b>									
Infrastructure	Protect areas of native grassland, habitat, and steep slopes.	✓	✓	Low	TBC	TBC	✓	Short	\$
	Plan and design designated takeout and water access on the west bank of inlet channel.		✓	Low	✓	TBC	✓	Mid	\$
Programming	Designate a low-impact trail to one or two lookout locations as the extent of programming recommended.		✓	Low	TBC	TBC	✓	Mid	\$\$
	Provide ample signage along the trail for educational purposes and to encourage respectful use of the land.		✓	Low	TBC	TBC	✓	Mid	\$
<b>JUMPINGPOUND CONFLUENCE</b>									
Infrastructure	Repair and maintain existing pathways to reduce off-trail disturbances.	✓	✓	Low	TBC	TBC	✓	Short	\$
	Implement clearly marked and designated access routes to deter overuse in highly sensitive areas and habitat .	✓	✓	Low	TBC	TBC	✓	Short	\$
	Provide boardwalks in flood prone areas to designate safe path and defined access.	✓	✓	Med/High	✓	TBC	✓	Short - Mid	\$\$
Programming	Implement educational signage and/or fences to protect wildlife and fish habitat, building upon existing interpretive signage.		✓	Low	TBC	TBC	✓	Short - Mid	\$
<b>Policy Considerations [General]</b>									
	Incorporate Bow River Strategy conservation objectives into the Land Use Bylaw (e.g. 50m offset).								
	Create a policy framework for long-term ecological monitoring to ensure areas of conservation are maintained.								
	Establish seasonal access management in environmentally sensitive areas.								



# Natural Discovery

Character Typology   Interest Area   Action/Initiative Item		CRITERIA (FILTER)						PRIORITY/PHASE	VALUE
		Current Safety or Environmental Risk	Environmental Conservation Opportunity	Complexity of Initiative	Partnership Alignment & Timing	Available Funding	Ongoing Capital Improvements		
Natural Discovery		(Y/N)	(Y/N)	(High/ Med/ Low)	Variable - To Be Confirmed (Y/TBC)	Variable - To Be Confirmed (TBC)	Assume All (Initially)	Term Short (0-3) Mid (4-10) Long (11-20)	Magnitude (\$ / \$\$ / \$\$\$)
Recommendations [General]									
	Proactively manage off-leash use, support through signage and enforcement.	✓	✓	Low/Med	TBC	TBC	✓	Short - Mid	\$
	Provide alternate off-leash opportunities with water features throughout town.		✓	Med	TBC	TBC	✓	Short - Mid	\$\$
	Design and install consistent wayfinding, interpretive and etiquette signage throughout.	✓	✓	Low/Med	TBC	TBC	✓	Short - Mid	\$
	Decommission and re-naturalize disturbed areas.	✓	✓	Low	TBC	TBC	✓	Short	\$
	Improve regional pathway connections by widening key approaches and pull off areas.	✓	✓	Low	TBC	TBC	✓	Short	\$ - \$\$
	Develop interactive Natural Discovery Installations throughout corridor.		✓	Low - Med	TBC	TBC	✓	Short	\$ - \$\$
WEST TERRACE WATER TREATMENT SITE									
Infrastructure	A clear river access point with signage to mark safe access to the beach with consideration for steps to the beach complete with safety railing.	✓	✓	Low/Med	TBC	TBC	✓	Short - Mid	\$\$
	Restore alternate accesses, rehabilitate vegetation and introduce physical barriers at the top of slope where required.	✓	✓	Low	TBC	TBC	✓	Mid	\$
	Ensure there are designated vehicle layby areas for drop-off and pick-up near this point.			Low/Med	TBC	TBC	✓	Mid	\$
	Add play features and unanticipated site furnishings in addition to benches, picnic tables.			Low/Med	TBC	TBC	✓	Mid	\$\$
BIGHILL CONFLUENCE							✓		
Infrastructure	Create and program a Trout Sanctuary to provide interactive educational elements, bridge and viewpoint upgrades.	✓	✓	Med	✓	TBC	✓	Short	\$\$
	Restore of informal routes that have caused erosion and exposure of tree roots.	✓	✓	Low	TBC	TBC	✓	Short	\$
	Reprogram picnic areas into an outdoor learning lab or demonstration, shift picnic area/rest stops away from the immediate confluence area.	✓	✓	Low/Med	TBC	TBC	✓	Short	\$
Programming									
Partnerships					TBC	TBC		Medium	\$
Designate a Trout sanctuary in collaboration with local interest groups.									
RIVIERA RUN									
Infrastructure	Include a designated dog run area, away from the river to respond to demand.	✓	✓	Low	TBC	TBC	✓	Short - Mid	\$\$
	Improve the junction of the regional pathway from Riviera to River Avenue Bridge by widening the approach and providing a rest stop.			Med	TBC	TBC	✓	Short - Mid	\$
	Add a formalized access to a small beach from Riviera View at the intersection of Riviera Link with the inclusion of signage and naturalized seating.			Low/Med	TBC	TBC	✓	Mid	\$
Programming					TBC	TBC		Medium	\$
Provide a rest stop at the widened approach of the regional pathway to enhance the experience for users.									
Partnerships					TBC	TBC		Medium	
Collaborate with local stakeholders or interest groups to ensure that the dog run area and beach access meet community needs and align with environmental considerations.									
Policy Considerations									
Incorporate Bow River Strategy conservation objectives into the Land Use Bylaw (e.g. 50m offset).									
Limit new infrastructure to low-impact and permeable features to preserve ecological integrity, with allowable structures to be defined in the Parks and Open Space Bylaw.									



Character Typology   Interest Area   Action/Initiative Item		CRITERIA (FILTER)					PRIORITY/PHASE		VALUE
Gather & Play		Current Safety or Environmental Risk	Environmental Conservation Opportunity	Complexity of Initiative	Partnership Alignment & Timing	Available Funding	Ongoing Capital Improvements		
		(Y/N)	(Y/N)	(High/ Med/ Low)	Variable - To Be Confirmed (Y/TBC)	Variable - To Be Confirmed (TBC)	Assume All (Initially)	Term Short (0-3) Mid (4-10) Long (11-20)	Magnitude (\$ / \$\$ / \$\$\$)
Recommendations [General]									
	Proactively manage off-leash use, support through signage and enforcement.	✓	✓	Low/Med	TBC	TBC	✓	Short - Mid	\$
	Provide alternate off-leash opportunities with water features throughout town.		✓	Med	TBC	TBC	✓	Short - Long	\$\$
	Design and install consistent wayfinding, interpretive and etiquette signage throughout.		✓	Low/Med	TBC	TBC	✓	Short - Mid	\$
	Improve connections between pathways, play areas, and the rivers edge to increase accessibility and inclusion.	✓		Low/Med	TBC	TBC	✓	Short - Mid	\$
MITFORD PARK									
Infrastructure	Implementation of additional pathway pull-outs; safety signage where the grades are increased to ensure user safety.	✓		Low	TBC	TBC	✓	Short	\$
	Existing bandshell and stage upgrades or replacement, focusing on acoustic and visibility improvements.			Med/High	TBC	TBC	✓	Mid	\$\$
	Conduct feasibility and conceptual study of a 250+ person capacity natural amphitheatre enhancement.			Med/High	TBC	TBC	✓	Mid	\$\$\$
	Upgrades to existing washroom including increased capacity.			Med/High	TBC	TBC	✓	Mid	\$\$
	Provide concession space for vendors with hook-ups.			Med	TBC	TBC	✓	Mid	\$\$
	Designated mobile vendor area to support seasonal or event-specific food and beverage services.			Low	TBC	TBC	✓	Mid - Long	\$\$
Programming	Promote Mitford Park pond as a fishing opportunity, support with programming and informational signage.		✓	Low/Med	TBC	TBC	✓	Short - Mid	n/a
	Seasonal or event-specific programming to maximize use of the enhanced amenities, including food festivals, live performances, or community gatherings.			Low/Med	TBC	TBC	✓	Mid	n/a
HWY 22 EXCHNGE & RIVERFRONT PARK									
Infrastructure	Improve inclusive access measures throughout including pathways and access to adjacent parking and play areas. Provide an accessible route to the river.	✓		Low/Med	TBC	TBC	✓	Short	\$\$
	Implement safety signage at trail junctions and sharp turns.	✓	✓	Low	TBC	TBC	✓	Short	\$
	Reprogram space to designate sub-areas for use by recreational users in contrast to emergency service operations.	✓		Low/Med	TBC	TBC	✓	Short	\$
	Incorporate and define area for on-leash dogs to access water downstream of other users.	✓	✓	Low/Med	TBC	TBC	✓	Short	\$
	Multi-modal separated lane on the future Hwy 22 bridge with enhanced approaches and junctions on either side of the river.			High	✓	TBC	✓	Mid	\$\$\$
	Add beautification measures such as feature lighting, pop-up art installations or murals beneath the bridge to activate the space.			Low	TBC	TBC	✓	Mid	\$
	Implement a short-stay mobile vendor location with access coming from the Riverfront Park parking lot.			Low/Med	TBC	TBC	✓	Mid	\$\$
	Formalize recreational use beneath the Hwy 22 bridge in the area surrounding the pier.			Low	TBC	TBC	✓	Mid	\$
	Supply watercraft amenities such as inflation station, courtesy life vests and/or racks to temporarily store vessels.			Low	TBC	TBC	✓	Mid	\$
	Provide a variety of sizes of sheltered group picnic sites for use adjacent to Hwy 22 exchange in Riverfront Park.			Low/Med	TBC	TBC	✓	Mid	\$\$
Programming									
Partnerships	Partner with local groups to host paddling safely workshops and community cleanups to introduce residents to this area				TBC	TBC	✓	Medium	



Character Typology   Interest Area   Action/Initiative Item		CRITERIA (FILTER)						PRIORITY/PHASE	VALUE
		Current Safety or Environmental Risk	Environmental Conservation Opportunity	Complexity of Initiative	Partnership Alignment & Timing	Available Funding	Ongoing Capital Improvements		
<b>CRAWFORD PARK &amp; ROTARY PARK</b>									
<b>Infrastructure</b>	Add accessible connections between play areas from pathways. Consider adding accessible and inclusive play equipment to provide enhanced play options.	✓		Low/Med	TBC	TBC	✓	Short	\$\$
	Improve connection on south side to future Hwy 22 bridge with trailhead and wayfinding signage. Consider future Hwy 22 bridge alignment.			Med/High	✓	TBC	✓	Mid	\$
	Incorporate shaded and/or sheltered picnic areas.			Low/Med	TBC	TBC	✓	Mid	\$
	Include small public washroom facility to service south side of river.		✓	Med	TBC	TBC	✓	Mid	\$\$
	Expand Parking Lot to increase capacity.			Med	TBC	TBC	✓	Mid	\$\$
<b>Programming</b>	Design and implement programs/activities that encourage accessible and inclusive play equipment use, such as sensory play events or adaptive play sessions.			Low/Med	TBC	TBC	✓	Mid - Long	n/a - \$
<b>Partnerships</b>	Partner with local organizations to ensure accessible play equipment meets community needs and is effectively integrated into local programming				TBC	TBC		Medium	
<b>JIM UFFELMANN MEMORIAL PARK</b>									
<b>Infrastructure</b>	Introduce a physical barrier between the pathway and top of slope for the extent of the park to reduce safety risk and limit further user-caused erosion.	✓	✓	Low/Med	TBC	TBC	✓	Short	\$
	Proactively manage off-leash use in the area. Designate one or two areas where on-leash dog access to the river is permitted. Install signage.	✓	✓	Low	TBC	TBC	✓	Short	\$\$
	Provide additional dog waste bag dispensers and trash bins at increased intervals to maintain cleanliness and promote multi-user etiquette.		✓	Low	TBC	TBC	✓	Short - Mid	\$
<b>Programming</b>	Explore a vendor/service opportunity that highlights views and provides a dog friendly rest area for trail users (cyclists, walkers, dog owners).			Med/High	TBC	TBC	✓	Mid	\$\$\$
<b>Partnerships</b>	Collaborate with local organizations to ensure that dog-friendly amenities and spaces align with community needs and encourage responsible pet ownership.				TBC	TBC		Medium	



Character Typology   Interest Area   Action/Initiative Item		CRITERIA (FILTER)						PRIORITY/PHASE	VALUE
		Current Safety or Environmental Risk	Environmental Conservation Opportunity	Complexity of Initiative	Partnership Alignment & Timing	Available Funding	Ongoing Capital Improvements		
<b>SLS INTERFACE</b>									
<b>Infrastructure</b>	Install clear directional signage that guides visitors from SLS to the Corridor trail system and other key destinations along the Corridor.		✓	Low	TBC	TBC	✓	Short - Mid	\$
	Develop a designated trailhead near SLS with amenities such as shade structures benches, bike racks, water stations and interpretive signage.		✓	Low	TBC	TBC	✓	Short - Mid	\$\$
	Create a fenced dog agility amenity with a seasonal water and wash station.		✓	Low/Med	TBC	TBC	✓	Short - Mid	\$\$
<b>Programming</b>	Seek opportunities for First Nations representation. Explore opportunities for interpretive elements, place names, art, events and activities.			Low - High	✓	TBC	✓	Short - Long	\$ - \$\$\$
	Consider introducing fitness stations that are operated in partnership with the SLS and advertised within the facility.			Low	✓	TBC	✓	Mid - Long	\$
<b>Partnerships</b>	Collaborate with community organizations to host outdoor fitness classes, walking groups, etc. to encourage visitors to explore both the SLS and trail network .			Low	TBC	TBC	✓	Medium	
<b>JACK TENANT EXCHANGE</b>									
<b>Infrastructure</b>	Improve inclusive access measures. Provide an accessible route to the waters' edge.	✓		Low/Med	TBC	TBC	✓	Short	\$
	Consider vehicular travel routes and adequate offsets to ensure enhanced user safety and limit possible disturbance.	✓	✓	Low/Med	TBC	TBC	✓	Short	\$
	Enhance approaches and junctions on either side of the river to create more intuitive connections.			Low	TBC	TBC	✓	Mid	\$\$
	Add beautification measures such as interactive lighting, pop-up art installations or murals beneath the bridge to activate the space			Low	TBC	TBC	✓	Mid	\$
	Formalize recreational use beneath the Jack Tenant Memorial bridge.			Low/Med	TBC	TBC	✓	Mid	\$
<b>Programming</b>	Add beautification measures such as pop-up art installations or murals beneath the bridge to activate the space.				TBC	TBC		Medium	
<b>THE POINT AT SOUTHRIDGE SHORE (FUTURE)</b>									
<b>Infrastructure</b>	Include a Day Use Area as a secondary stop to the larger park.			Med	✓	TBC	✓	Mid	\$\$
	Include a play area and feature lookout tower landmark.			Med/High	✓	TBC	✓	Mid	\$\$\$
	Include a washroom to serve day users and reinforce proper river use and etiquette.			Med	✓	TBC	✓	Mid - Long	\$\$
	Provide amenities to support a protected put-in and take-out area.			Med/High	✓	TBC	✓	Mid - Long	\$\$
	Include provisions for shade, seating, and picnicking.			Low	✓	TBC	✓	Mid - Long	\$
<b>Programming</b>	Reinforce proper river use and etiquette with signage and educational materials for day users.		✓	Low	✓	TBC	✓	Short - Mid	\$
	Explore wave park opportunity with third party operators.			High	✓	TBC	✓	Mid - Long	\$\$
<b>Partnerships</b>									
	Collaborate with local groups or organizations to facilitate water-based activities or promote safety and stewardship.				TBC	TBC		Medium	
<b>Policy Considerations</b>									
	Integrate flexible-use zones into relevant long-range planning documents to design and maintain multifunctional gathering spaces that support active recreation, cultural programming, and community events (e.g. Parks, Culture & Active Living Masterplan).								
	Apply accessibility audits during design and construction phases to ensure new and upgraded amenities within the Gather and Play typology meet universal design standards to support barrier-free access.								
	Update the Public Art Policy to incorporate the Corridor as a key node for beautification and/ or public art initiatives in collaboration with local artists and community groups.								
	Develop level of service thresholds to inform future investment needs and priorities.								



# Energy & Activation

Character Typology   Interest Area   Action/Initiative Item		CRITERIA (FILTER)						PRIORITY/PHASE	VALUE
		Current Safety or Environmental Risk	Environmental Conservation Opportunity	Complexity of Initiative	Partnership Alignment & Timing	Available Funding	Ongoing Capital Improvements		
Energy & Activation		(Y/N)	(Y/N)	(High/ Med/ Low)	Variable - To Be Confirmed (Y/TBC)	Variable - To Be Confirmed (TBC)	Assume All (Initially)	Term Short (0-3) Mid (4-10) Long (11-20)	Magnitude (\$ / \$\$ / \$\$\$)
<b>Recommendations [General]</b>									
	Design and install consistent wayfinding, interpretive and etiquette signage throughout. For trailhead signage, indicate alternate routes to and through the Downtown core.		✓	Low/Med	TBC	TBC	✓	Short - Mid	\$
<b>RIVER AVENUE BRIDGE</b>									
<b>Infrastructure</b>	Reprogram bridge for pedestrian and active transportation uses; install access measures to support reprogramming.			Med	TBC	TBC	✓	Short - Mid	\$\$
	Install ambient and feature lighting, under-bridge lighting.			Low	TBC	TBC	✓	Short - Mid	\$
	Install benches or seating at the bridge's midpoint.			Low	TBC	TBC	✓	Short - Mid	\$
	Add panels or signage that share Indigenous history, river significance, poetry, or local stories.		✓	Low	TBC	TBC	✓	Short - Mid	\$
<b>Programming</b>	Host outdoor music performances, busking, markets, and open-air art galleries.			Low	✓	TBC	✓	Mid	n/a
	Collaborate with local restaurants to host shared meals, pop-up dining experiences, or seasonal events.			Low	✓	TBC	✓	Mid	n/a
	Provide flexible-use spaces that enable hosted activities like yoga, meditation, or sound bath sessions.			Low	✓	TBC	✓	Mid	n/a
<b>Partnerships</b>	Partner with local arts organizations to enhance the cultural offerings and events on the bridge.				TBC	TBC		Medium	
	Collaborate with local restaurants to create unique dining experiences that draw people to the bridge.				TBC	TBC		Medium	
<b>THE SIGNATURE SPOT</b>									
<b>Infrastructure</b>	Establish a signature restaurant, market or hybrid venture.			High	✓	TBC	✓	Mid - Long	\$\$\$
	Include provisions for a publicly accessible washroom to serve patrons and visitors.			Med/High	TBC	TBC	✓	Mid - Long	\$\$\$
	Include a hub for e-bike, kayak, and paddleboard rentals, lockers and amenities.			Med	✓	TBC	✓	Mid - Long	\$
<b>Programming</b>	Creating space for a small brewery, café, or curated food truck hub to cater to riverfront visitors, trail users, and the local community.			High	✓	TBC	✓	Mid - Long	\$\$
	Incorporate large-scale sculptures, murals or public art installations.			Med/High	✓	TBC	✓	Mid - Long	\$ - \$\$\$
					TBC	TBC	✓	Medium	
<b>Partnerships</b>	Partnering with local food vendors, cafes, and breweries to create a culinary destination.				TBC	TBC		Medium	
	Collaborating with rental companies to offer bike, kayak, and paddleboard services.				TBC	TBC		Medium	
	Working with artists and local art organizations to enhance the space with large-scale public art.				TBC	TBC		Medium	



Character Typology   Interest Area   Action/Initiative Item		CRITERIA (FILTER)						PRIORITY/PHASE	VALUE
		Current Safety or Environmental Risk	Environmental Conservation Opportunity	Complexity of Initiative	Partnership Alignment & Timing	Available Funding	Ongoing Capital Improvements		
<b>RIVERFRONT STROLL</b>									
<b>Infrastructure</b>	Designate a water access with 'steps to the water' at a location with gradual slopes. Provide non-motorized put-in and take-out locations.		✓	Med/High	✓	TBC	✓	Short - Mid	\$\$
	Establish a well-defined and accessible route linking Greystone to the riverfront Corridor.			Low/Med	TBC	TBC	✓	Mid	\$\$
	Incorporate sustainably focused lodging such as a small to moderate scale eco-lodge, glamping pods or a dog-friendly, small format inn.			High	✓	TBC	✓	Mid	\$\$\$
	Provide communal fire pits with playful seating opportunities.			Low	TBC	TBC	✓	Mid	\$
<b>Programming</b>	Create a public and flexible social gathering space that could be transitioned from informal to programmed space.			Med	TBC	TBC	✓	Mid	\$\$
	Enable operators to introduce equipment rental options to encourage active mobility and exploration of the Corridor.			Med	✓	TBC	✓	Mid	n/a
<b>Partnerships</b>	Install a riverfront "Little Free Library" with waterproof book-sharing kiosks in partnership with the Cochrane Public Library.					TBC			
	Partner with local event organizers to facilitate a variety of community celebrations and activities.					TBC			
	Collaborate with rental companies to provide equipment for active mobility and water-based activities.					TBC			
<b>Policy Considerations</b>									
	Coordinate with the Business Licensing Bylaw to create a streamlined process for short-term and mobile vendors.								
	Consider a Direct Control District for redevelopment along the waterfront, specifically within the Energy & Activation typology.								
	Establish River Avenue Bridge for pedestrian and multi-modal access only.								
	Coordinate with the Business Licensing Bylaw to create a streamlined process for short-term and mobile vendors.								
	Consider a Direct Control District for redevelopment along the waterfront, specifically within the Energy & Activation typology.								
	Establish River Avenue Bridge for pedestrian and multi-modal access only.								



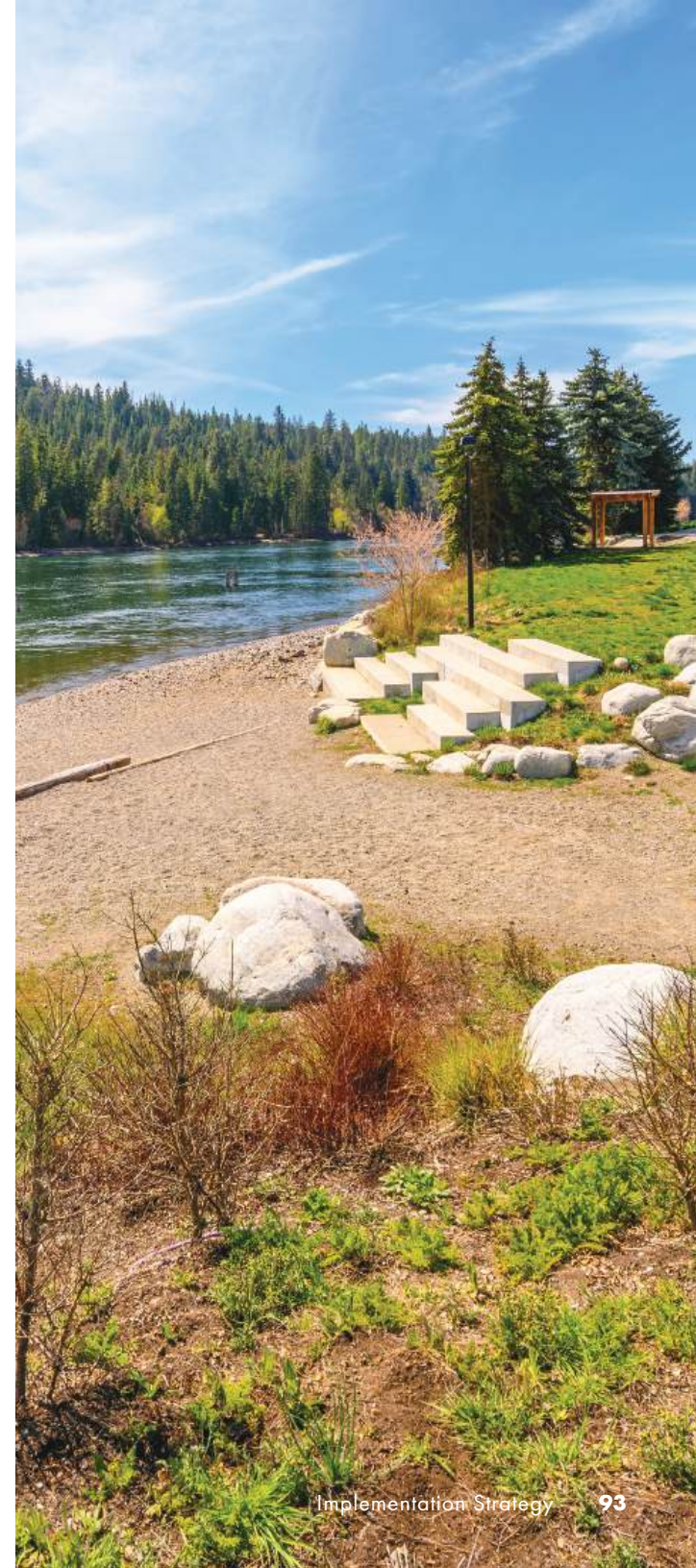
# Key Indicators for Measuring Success

Identifying measures of success is essential to track progress, demonstrate impact, and adaptively manage the Strategy actions over its 20-year implementation. Below is a breakdown of Key Indicators of success with some suggested data sources and targets where appropriate.

- Include short-term priority items in the Town's next capital plan and budgets.
- Initiate design development of short-term priority items as aligned with available funding, focusing on projects that are aligned with ongoing initiatives.
- Initiate and build relationships with prospective partners in the community that have strong alignment or interest with Strategy recommendations and have potential to support the advancement of projects or initiatives.
- The Strategy is shared broadly once adopted by Council to build support excitement and momentum.
- The Town is diligent and consistent with Monitoring and Reporting progress as identified in the following section.
- Current and future policies/plans incorporate corridor objectives and action or build upon strategy recommendations.

- New developments align with Strategy's vision and integrate recommendations into planning, design and implementation.
- Co-created programs or interpretation projects emerge with emphasis on cultural integration or environmental stewardship.
- Community satisfaction with access, safety, aesthetics and progress is measurably significant through survey and anecdotal data.

The BRS has a proposed 20-year horizon. The Implementation Plan should be reviewed and updated annually along with a review of progress towards achieving objectives. The critical factor in implementing the BRS is to remain committed to the vision and guiding principles in all aspects of riverfront and riverfront-adjacent development.





# Monitoring and Reporting Progress

To ensure action is being taken continuously and the Strategy remains front of mind for the Town and all stakeholders, the following actions are recommended to ensure ongoing integration of The Strategy and its priorities within Town planning and resourcing.

## Annual Alignment and Review

The Town of Cochrane, through the leadership of the Town of Cochrane and Safety and Community Well-Being Committee, will conduct an annual review of the Strategy to ensure continued alignment with established criteria, priorities, and opportunities for advancement.

## Progress Evaluation

An evaluation of progress will be conducted annually to measure the status of key recommendations whether in progress, completed, or integrated into ongoing Town projects and initiatives. This evaluation should be completed in advance of the Town's capital planning, budgeting cycles, and strategic planning updates to ensure informed decision-making.

## Celebrating Success and Communicating Progress

Efforts and achievements will be broadly communicated to the public and community partners to celebrate momentum and foster a sense of shared pride in the community's progress.

## On-going funding stream assessment

The Town and community partners will continually explore and enable funding opportunities across multiple levels of government, institutional initiatives, and other sources. This assessment should maintain a forward-looking approach to support the phased implementation approach, while balancing the reliance on tax-base funding.

## Annual Council Reporting

An annual report will be presented in partnership between the Safety and Community Well-Being and Parks departments, and include built-in updates to Council, Council Advisory Committees, and the public through the Town's communication and engagement strategy. Progress will be transparently communicated using tools such as the "Cochrane Report", highlighting key milestones achieved and actions remaining.

Community-facing updates may include website highlights, social media posts, and other accessible formats to ensure broad community awareness and engagement.

## ROLES & RESPONSIBILITIES

Partnerships with local service organizations, community groups and First Nations will be critical to building support and creating a sense of ownership of the facilities and assets in the BRS. The Town may wish to explore Public-Private Partnerships (PPP) for some of the proposed facilities, amenities, programs or attractions. Through the engagement undertaken through the research phase and preparation of the Strategy, it was apparent that many organizations are not only required, but keen to support the Town in realizing the stewardship and potential of the Corridor. Key strategic partnerships include:

- Cochrane Tourism
- Cochrane Chamber of Commerce
- Rockyview County
- Stoney Nakoda First Nation
- Alberta Environment
- Alberta Transportation
- Cochrane Lions Club
- Rotary Club
- Cochrane Environmental Action Committee (CEAC)
- Bighill Creek Preservation Society
- Bow Valley Habitat Development
- Bike Cochrane
- Cochrane Paddlers
- Residents of Cochrane
- Private landowners within or adjacent to study area
- Subject matter interest groups such as Freshwater Conservation Canada (formerly Trout Unlimited Canada)



# Future Studies & Recommendations

## Identified Needs for Further Research & Analysis

### COLLABORATION WITH INDIGENOUS COMMUNITIES

The Bow River and its river banks are of profound cultural, historical, and ecological importance to many Indigenous Nations. Recognizing this, collaboration with the Stoney Nakoda Nations (Chiniki, Bearspaw, and Goodstoney), the Tsuut'ina Nation, the Niitsitapi (Blackfoot) peoples of Siksika, Piikani, and Kainai, as well as Métis districts, is essential for the Bow River Strategy. Developing these relationships is crucial to understanding what meaningful collaboration will entail as this strategy progresses.

Before initiating planning, design, or procurement for any aspect of the Bow River Strategy, it is vital to engage and consult with these Nations. This approach ensures that historical uses, cultural significance, and Indigenous perspectives are acknowledged, documented, and integrated into the decision-making process. The projects arising

from this strategy offer opportunities not only for collaboration on site design and management but also for building lasting relationships grounded in respect, learning, and shared stewardship.

The connection to the land and its history is a shared heritage, not solely defined by the Town of Cochrane. By fostering ongoing conversations, engagement, and knowledge-sharing, this strategy aims to deepen the understanding of the river's significance. This commitment to collaboration is a continuous responsibility and opportunity to ensure that reconciliation and culture remain central to future decisions regarding the Bow River Corridor.

### TECHNICAL INVESTIGATIONS

Site specific technical investigations will be required on a case by case basis to ensure suitability of site installations. Investigations and analysis are important in mitigating exposure to risk for

the Town by informing approaches to ensuring regulatory requirements are met and understanding costs to construct in depth. The BRS has considered available data and technical recommendations where available, however, it is recommended that pre-development investigations such as but not limited to geotechnical and hydrological assessment be advanced prior to committing to significant investments.

### COORDINATED IMPLEMENTATION WITH LANDOWNERS AND PLANNING PROCESSES

To ensure that the Strategy's vision is realized cohesively, coordination with current and anticipated landowners, including developers with holdings adjacent to or within the Corridor, is essential. This alignment is particularly important given the scale and pace of growth occurring in the region.



Collaborating with developers early in the planning and implementation process allows for better integration of open space, access, and stewardship objectives with the design and delivery of private developments. Additionally, the Strategy should be viewed as complementary to existing statutory plans and planning processes. Future implementation and detailed design will benefit from identifying key touchpoints with Area Structure Plans (ASPs), Neighbourhood Plans, and ongoing municipal planning initiatives. These connections will allow the Strategy to evolve in a way that respects approved planning frameworks while also identifying opportunities for enhancement, refinement, and innovation.





# Appendix A

## **River Access Impact Study**



# **BOW RIVER ACCESS IMPACT**

## **STUDY**

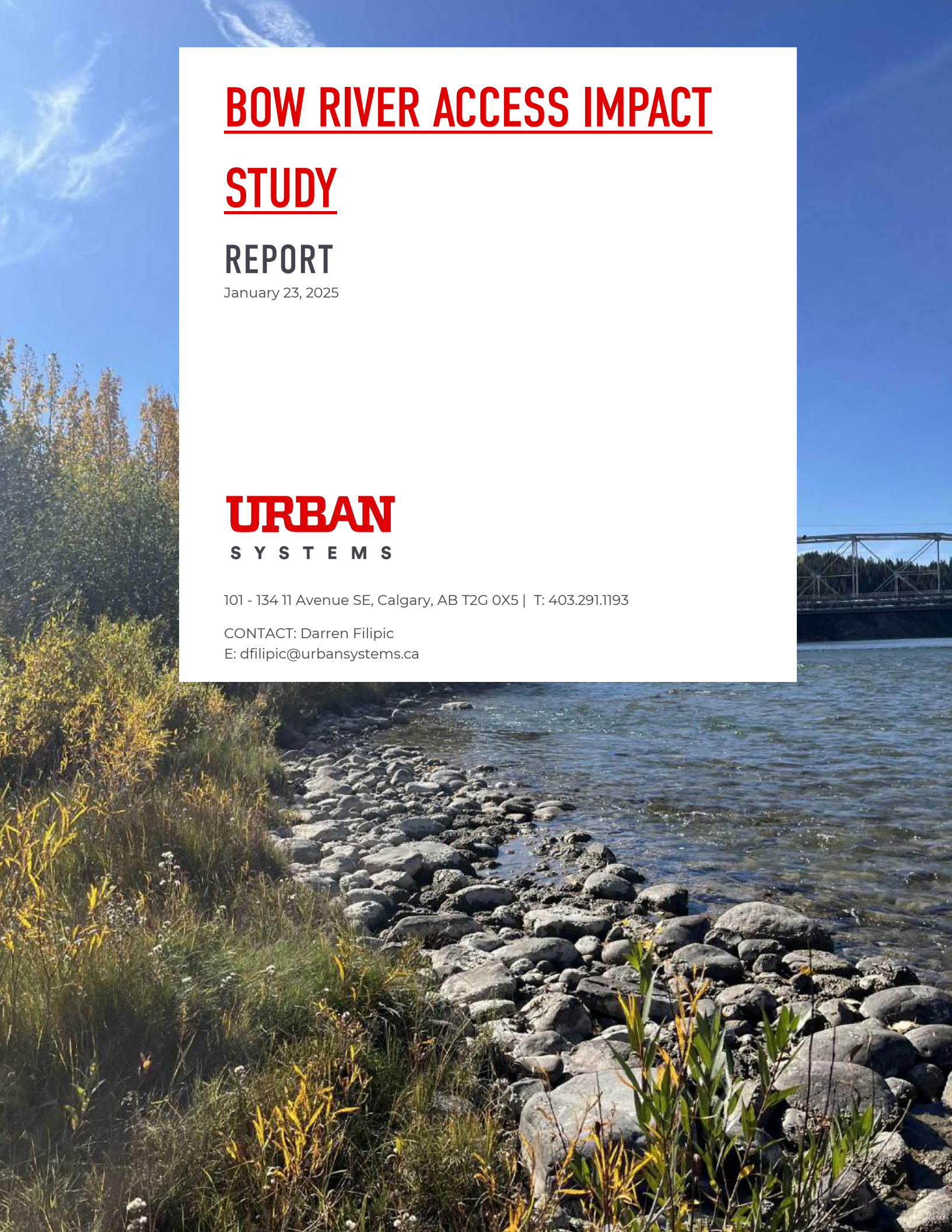
### **REPORT**

January 23, 2025

**URBAN**  
S Y S T E M S

101 - 134 11 Avenue SE, Calgary, AB T2G 0X5 | T: 403.291.1193

CONTACT: Darren Filipic  
E: [dfilipic@urbansystems.ca](mailto:dfilipic@urbansystems.ca)





## **PREPARED FOR:**

The Town of Cochrane  
101 Ranchehouse Road  
Cochrane, AB T4C 2K8

101 - 134 11 Avenue SE, Calgary, AB T2G 0X5 | T: 403.291.1193

File: 1728.0471.02

This report is prepared for the sole use of the Town of Cochrane. No representations of any kind are made by Urban Systems Ltd. or its employees to any party with whom Urban Systems Ltd. does not have a contract. © 2025 URBANSYSTEMS®.



# **CONTENTS**

<b>1.0 INTRODUCTION.....</b>	<b>4</b>
1.1 PROJECT BACKGROUND .....	4
1.2 PURPOSE OF THE REPORT.....	6
<b>2.0 METHODS.....</b>	<b>7</b>
2.1 REVIEW OF EXISTING DATA AND REPORTING.....	7
2.2 HERITAGE RESOURCES.....	7
2.3 ALBERTA CONSERVATION INFORMATION MANAGEMENT SYSTEMS AND FISH AND WILDLIFE INFORMATION MANAGEMENT SYSTEM .....	8
2.4 FLOOD HAZARDS.....	8
2.5 FISHERIES RESOURCES .....	8
2.6 ENVIRONMENTALLY SIGNIFICANT AREAS .....	8
2.7 SITE ASSESSMENTS .....	9
2.8 IDENTIFICATION AND RANKING OF PARAMETERS .....	10
<b>3.0 EXSITING CONDITIONS .....</b>	<b>13</b>
3.1 HERITAGE RESOURCES.....	13
3.2 SOILS AND LANDFORMS.....	13
3.3 VEGETATION.....	16
3.4 HABITAT.....	17
3.5 WATERBODIES.....	21
3.5.1 FLOOD HAZARD .....	21
3.6 FISHERIES RESOURCES .....	23
3.7 WILDLIFE.....	24
3.8 ENVIRONMENTALLY SIGNIFICANT AREAS .....	26
<b>4.0 RANKING RESULTS.....</b>	<b>28</b>
<b>5.0 SITE ASSESSMENT RESULTS.....</b>	<b>30</b>
5.1.1 AREA 1- JUMPINGPOUND CREEK CONFLUENCE .....	31
5.1.2 AREA 2- RIVERFRONT PARK .....	33
5.1.3 AREA 3- BIGHILL CREEK CONFLUENCE .....	35
5.1.4 AREA 4- COMMUIY OF RIVERVIEW .....	37
5.1.5 AREA 5- COMMUNITY OF RIVERIA.....	39
5.1.6 AREA 6- JIM UFFLEMAN DOG PARK .....	41
5.1.7 AREA 7- JIM UFFLEMAN PARK (JACK TENANT BRIDGE) .....	43
5.1.8 AREA 8- BOW RIVER ISLAND .....	45
5.1.9 AREA 9- SOUTH RIDGE .....	47



6.0 REGULATORY .....	49
7.0 RECOMMENDATIONS: .....	51
8.0 CONCLUSION/NEXT STEPS .....	52
9.0 CLOSURE .....	52
10.0 REFERENCES.....	53

## **APPENDICES**

APPENDIX A: HRA LISTING

APPENDIX B: AGRASID

APPENDIX C: ACIMS

APPENDIX D: SOIL AND VEGETATION DATA

APPENDIX E: FWMIS AND EBIRD RESULTS

APPENDIX F: POTENTIAL WILDLIFE LIST

APPENDIX G: HISTORICAL IMAGERY

## **TABLES**

Table 2-1: RAIS Ranking System Parameters and Assigned VEC Values .....	12
Table 3-1: Historic Resource Values.....	13
Table 3-2: ACIMS Search Results.....	16
Table 3-3: Habitat Descriptions .....	17
Table 3-4: Potential Fish Species with the Study Area .....	23
Table 3-5: Listed potential wildlife .....	25
Table 3-6: Provincial ESA values.....	26
Table 4-1 Ecological Value Ranking Results for the Assessment Areas.....	28
Table 6-1: Anticipated Applicable Regulations.....	49



## FIGURES

Figure 1- Study Area .....	5
Figure 2: Slopes .....	15
Figure 3- Habitat .....	20
Figure 4: Wetlands and Waterbodies.....	22
Figure 5- ESA Overview .....	27
Figure 6- Environmental Assessment Areas Results .....	29
Figure 7- Area 1 Jumpingpound Creek Confluence.....	31
Figure 8- Area 2 Riverfront Park.....	33
Figure 9- Area 3 Bighill Creek Confluence.....	35
Figure 10- Area 4 community of Riveria.....	37
Figure 11- Area 5 Community of Riveria .....	39
Figure 12- Area 6 Jim Uffelman Dog Park.....	41
Figure 13- Area 7 Jim Uffelman Park (Jack Tenant Bridge).....	43
Figure 14-Area 8 Bow River Island.....	45
Figure 15- Area 9 South Ridge.....	47



# 1.0 INTRODUCTION

Urban Systems (USL) has been retained by the Town of Cochrane (the Town) to complete the Bow River Strategy (BRS) - a long-term vision that guides how Cochrane will enhance, protect, and invest in the Bow River Corridor. This strategy aims to develop a comprehensive plan that considers the entire riverfront, from Cochrane's west boundary to its east, which spans across 6 sections:

- 4-26-4-W5M
- 3-26-4-W5M
- 34-25-4-W5M
- 35-25-4-W5M
- 36-25-4-W5M
- 25-25-4-W5M

For the purposes of the BRS, an arbitrary 200 metre offset from edge of the Bow River was established as the area of focus and project boundary. From an environmental lens, the Town requested that the project boundary also assess existing river access points and conditions as a factor in determining highest and best use, as well as to focus efforts in areas that would benefit greatest from preservation initiatives.

As a result, the Bow River Access Impact Study has been prepared to include a rapid health evaluation of selected riparian areas throughout, and within, the project boundary that have been or are currently at risk of being negatively impacted by recreational access or increased use. This effort included completion of a comprehensive desktop assessment and a site-specific field verification of biophysical conditions and anthropogenic disturbance along the shores of the Bow River within the Town of Cochrane's boundary. Cochrane has been experiencing rapid growth in recent years with population projected to triple in size over the next 50 years (Town of Cochrane, 2013). The increased population will undoubtedly result in a corresponding increase in pressures on the waterfront as citizens seek to enjoy the natural assets of the community. This report aims to provide a rapid health assessment of selected sites identified by the Town and stakeholders as important, or at risk of being degraded by uncontrolled recreational use.

The purpose of the Project is to collect and present available biophysical and land use information in a concise and comprehensive manner to support the *Bow River Strategy* (Urban Systems Ltd, 2025).

## 1.1 PROJECT BACKGROUND

The Town of Cochrane is located approximately 40 km west of Calgary, AB, and situated in the Bow River Valley. The Study Area is located along a 9.8 km stretch of the Bow River within the Town of Cochrane municipal boundaries with a 200m buffer. The entire waterfront was assessed through a desktop review while nine (9) Assessment Sites were selected within the Study Area for further investigation (**Figure 1**).

The Town is seeking to improve river accessibility using a well-informed, balanced approach to preserve important natural features and encourage respectful recreational usage and community-wide stewardship of the Bow River.

The Bow River riparian zone provides a multitude of ecological and recreational services. Riparian zones function as a transition zone between the aquatic and terrestrial environment (Naiman, Decamps, & Pollock, 1993). From an ecological lens, many species rely on these unique ecosystems as they provide niche habitat within the complex riparian vegetation (Anderson, Ohmart, & Rice).

The Bow River is a popular recreational location for many residents and visitors in Cochrane. People are drawn to these riparian areas along flowing streams/rivers as popular day use areas, picnic sites, beaches,



and more (Patten, 1998). The Bow River, within the study area, currently has only one designated boat launch on the river and five formal parks along the riverfront. As the population of Cochrane continues to grow, so will the usage and access of the Bow River, and planning to accommodate these needs is critical.

The Canada-Alberta Flood Damage Reduction Program (FDRP) identified flood hazard areas in the Cochrane area and has established a minimum standard for flood protection. These areas prohibit new development within the flood fringe and limit uses such as natural areas, parks, trails, and essential utilities that do not impede flood discharge. All other development is prohibited, with the exception of developments approved prior to October of 1998 which are required to be flood-proofed to the satisfaction of the Development Authority (Town of Cochrane, 2011). Schedule B in the 2008 Town of Cochrane Municipal Development Plan (MDP) can be referenced for the flood fringe areas along the Bow River (Town of Cochrane, 2008)

The Town of Cochrane resides within the Seebe to Bears paw Sub-basin (Bow River Basin Council, 2024). The Bow River is critical to Cochrane's infrastructure. Potable water is sourced from the Bow River and the Town's single water treatment plant has a current capacity to treat up to 22 million liters per day (Town of Cochrane, 2024). Cochrane has introduced several programs to improve water management and conservation. The Town has numerous methods and programs implemented to reduce the waste of water. Initiatives such as water conservation rebates, water rates, naturesscaping, water meters, water restrictions, and bylaws have been implemented and mandated to reduce water usage.

There are multiple upstream hydropower reservoirs on the Bow River including the Ghost plant which is used to provide power during periods of peak demand. These plants use an operational scheme known as hydropeaking, which can cause large daily fluctuations in river flow. Other issues in the sub-basin are population growth, expanded recreational use, and the increase in hydraulic fracturing activity (Bow River Basin Council, 2024).



Figure 1- Study Area



## 1.2 PURPOSE OF THE REPORT

As a river town, Cochrane has a long history with its waterfront. A dynamic area with multiple freshwater springs and several stream confluences, the area is rich with natural capital and has provided important resources to First Nations people and wildlife long before the modern town existed. The establishment and development of the townsite through the 20<sup>th</sup> century relied heavily on the waterfront, which has seen various levels of industrial activity, development, and recreational pressures. Recent growth of the Town, and the region, has led to increased demands on the recreational potential of the waterfront.

As the Town expands, the urbanization of the land ultimately impacts our environment and watershed. It is critical to maintain a balance between land use and the ecological goods and services that the watershed provides. This report seeks to identify sensitive areas along the Bow River that may guide future development, preservation efforts and provide management strategies and recommendations for all identified areas.



## 2.0 METHODS

### 2.1 REVIEW OF EXISTING DATA AND REPORTING

The following data sources and reports were reviewed in preparing this report:

- Alberta Merged Wetland Inventory (AMWI)
- Alberta Fish and Wildlife Management Information System (FWMIS) (Government of Alberta, 2024)
- Alberta Conservation Information Management System (ACIMS) (Alberta Parks, 2024)
- Historical Aerial Photographs (Government of Alberta, 2024)
- Listing of Historic Resources (Arts, Culture and Status of Women, 2024)
- Alberta Soil Information Viewer (Government of Alberta, 2024)
- Alberta Wildlife Sensitivity Mapping (Government of Alberta, 2024)
- Alberta Key Wildlife Biodiversity Zones (Government of Alberta, 2024)
- Provincial Environmentally Significant Areas (Fiera Biological Consulting., 2014)
- Alberta Flood Awareness Map Application (Government of Alberta, 2024)

All copies of database searches can be provided upon request.

### 2.2 HERITAGE RESOURCES

The protection and management of historical and archaeological resources in Alberta are governed under the *Alberta Historical Resources Act* (HRA) and associated regulations.

The *Listing of Historical Resources* (Culture and Status of Women, 2024) was reviewed to determine if the Project Area has been assigned an Historical Resource Value (HRV). The listing helps to determine if a proposed development may affect known or potential historic resources. The primary historic resources for an identified site are assigned one or more of the following descriptive letter values:

- a - archaeological
- c - cultural
- gl - geological
- h - historic period
- n - natural
- p - palaeontological

A Historic Resource Value (HRV) for known and potential sites is provided to the Legal Subdivision (LSD) location level. HRV's are defined on a scale from 1 to 5:

- HRV 1: designated under the HRA as a Provincial Historic Resource
- HRV 2: designated under the HRA as a Registered Historic Resource
- HRV 3: contains a significant historic resource that will likely require avoidance
- HRV 4: contains a historic resource that may require avoidance
- HRV 5: high potential to contain a historic resource

If locations within the Project Area are assigned an HRV, a Historic Resources Application for approval under the HRA is required. If it is determined that the activity is likely to result in damage, alteration, or destruction of historic resources, mitigation or avoidance may be required, or a Historic Resources Impact Assessment (HRIA) conducted by a qualified historic resource consultant may be required to obtain HRA



approval. In the event any archaeological, paleontological and/or other historical resources are found on the site during development activities, it is to be immediately reported to Alberta Culture and Tourism for further investigation.

## 2.3 ALBERTA CONSERVATION INFORMATION MANAGEMENT SYSTEMS AND FISH AND WILDLIFE INFORMATION MANAGEMENT SYSTEM

The Alberta Conservation Information Management Systems (ACIMS) is a resource that provides biodiversity information on Alberta species and ecological community sites. It provides the location, condition, and status of selected elements.

The Fish and Wildlife Information Management System (FWIMS) is a provincial database that provides information on fish and wildlife observations and can generate reports and maps of observed species within a specified area or polygon.

A database search was conducted for both management systems to reflect the most current recordings of vegetation and wildlife species of conservation concern. In addition, an eBird database search was conducted to look for any documented hotspots near the Project Area.

## 2.4 FLOOD HAZARDS

The Canada-Alberta Flood Damage Reduction Program (FDRP) identifies the flood fringe areas in the Cochrane (Town of Cochrane, 2008). The Alberta Flood Awareness Map Application was also reviewed to determine the identified flood hazard areas (Government of Alberta, 2024).

## 2.5 FISHERIES RESOURCES

Fish habitat was assessed during the rapid health evaluation site assessments; however, it was not included in the ranking of the sites. Characteristics such as overhanging vegetation, instream cover, undercut banks, substrate type, and stream habitat type was recorded at each site.

Fish habitat was rated on the following scale:

- **Poor fish habitat-** disturbed site, with minimal cover and uniform habitat. Only one stream habitat type present (run, riffle, pool, etc). Evidence of erosion/sediment deposition. Assessment Site limited to supporting one or no fish lifecycle stages.
- **Moderate fish habitat-** more than one habitat features such as overhanging cover and banks present. More than one stream habitat type present. Area expected to support one or more life cycle stage.
- **High fish habitat-** complex stream habitat. A few or more stream habitat types with multiple habitat features.
- **Unique fish habitat-** very complex stream habitat with multiple features. Area could support all lifecycles of fish. Assessment Site contains unique features such as a confluence, boulder garden, chute, cascade, etc. Assessment Site may meet the SARA critical habitat requirements

## 2.6 ENVIRONMENTALLY SIGNIFICANT AREAS

The Study Area was reviewed for the presence of ESA from Environmentally Significant Areas in Alberta: 2014 Update (Fiera Biological Consulting Ltd., 2014). Provincial-level ESAs have been mapped based on province-wide spatial information, derived from the following criteria:



### **Criteria 1: Areas that contain focal species, species groups, or their habitats.**

- 1a: Conservation hotspots (areas with rare, threatened, or endangered species)
- 1b: Areas that contain focal species groups (amphibians, aquatic breeding birds, or fish)
- 1c: Areas that contain focal species habitats (harlequin duck (*Histrionicus histrionicus*), grizzly bear (*Ursus arctos*), woodland caribou (*Rangifer tarandus*), greater sage-grouse (*Centrocercus urophasianus*), or arctic grayling (*Thymallus arcticus*)

### **Criteria 2: Areas that contain rare, unique, or focal habitats.**

- 2a: Rare habitats (vegetation communities, peatlands),
- 2b: Unique habitats and landforms (natural springs, nationally/internationally recognized landforms)
- 2c: Focal habitats (Class A and B rivers and streams, snake and bat hibernacula, waterfowl staging and foraging areas, or sharp tailed grouse (*Tympanuchus phasianellus*) leks).

### **Criteria 3: Areas with ecological integrity**

- 3a: Habitat patch size (terrestrial habitat patches)
- 3b: Habitat intactness and connectivity (intact landscapes, watercourse connectivity, and lentic waterbody habitat intactness)

### **Criteria 4: Areas that contribute to water quality and quantity.**

- 4a: Rivers and streams (river and stream density, landscape intactness)
- 4b: Wetlands and lakes (wetland landscape composition, water storage potential)

## **2.7 SITE ASSESSMENTS**

Assessment of existing ecological conditions and Valued Ecosystem Components (VEC's) are based on desktop data from available Provincial databases and previous environmental studies conducted with the Town.

The rapid health evaluation site assessments were completed in the field within the 2024 growing season. The assessment and classification were completed using a combination of soils, vegetation, topography, and historical data. The Study Area was traversed during site visits to assess vegetation composition, soils, signs of erosion, slopes, anthropogenic disturbance, and wildlife habitat potential.

The assessed locations were split into nine (9) Assessment Sites based on typical topography and features. The Sites were identified from east to west throughout the Study Area (**Figure 1**).

**Area 1-** Jumpingpound Creek Confluence

**Area 6-** Jim Uffelman Park

**Area 2-** Riverfront Park

**Area 7-** Jim Uffelman Park (under Jack Tenant bridge)

**Area 3-** Bighill Creek Confluence

**Area 8-** Bow River Island

**Area 4-** Community of Riverview

**Area 9-** South Ridge (future development area)

**Area 5-** Community of Riveria



## 2.8 IDENTIFICATION AND RANKING OF PARAMETERS

Valued Ecological Components (VEC's) are features that provide intrinsic value to the community through ecological services such as maintaining biodiversity, water treatment and storage, and providing recreational and aesthetic value. These can be difficult to quantify and must consider many variables. This includes considering not only the physical and ecological characteristics of an area, but also aspects such as social and aesthetic values, as well as how common a specific element may be within the region relative to the Assessment Site.

The following parameters considered for each Assessment Site include:

- Slopes
- Native vegetation
- Habitat Complexity
- Erosion potential
- Debris/disturbance
- Wildlife habitat
- Fish habitat
- Historic resource value (HRV)

### Slopes

Slopes along the Bow River were assessed during the field assessments. There is a direct relationship between slope and erosion. Increasing grade is associated with increasing erosion risks, as well as engineering constraints associated with slope stability. Steeper slopes are also often less disturbed by human activity and provide a unique range and density of native vegetation and wildlife habitat. The provincial guide, *Stepping Back from the Water*, was referenced in the approach to determine a ranking for slope ranges. Slopes with grades of 15% or higher are considered steep and may pose challenges with construction. The greater the slope, the greater the chance of producing heavy soil erosion and sediment loading that may cause temporary or long-term impacts to watercourses/waterbodies associated with these slopes (Government of Alberta, 2012). The occurrence of slopes on a given site were also categorized into 1 (0-15% slope), 2 (15%-30%) and 3 (30%+), with greater slope percent being awarded the highest value ranking.

### Erosion

K factor is the erodibility of a soil which represents both the susceptibility of soil to detach and the rate of runoff. It reflects that different soil types have the ability to erode at different rates (PNNL, 2024). Other factors influence soil erodibility including slope, vegetation, precipitation, and river action.

- **Low erosion potential** – K value is under 0.25. Sand and clay soils fall under this category as they typically are associated with low erodibility scores. (sandy loam, clay loam, silty clay, sand, clay)
- **Medium erosion potential**- Medium textured soils have a K value between 0.25 to 0.4 (loam, sandy loam, silt loam)
- **High erosion potential**- K value greater than 0.4. (silt, silt loam, fine sand loam)

### Native Vegetation

5m x 5 metre vegetation plots were recorded in each habitat type in the Assessment Site. Percent cover and percent native species were also recorded.

### Habitat Complexity

Habitat complexity was assessed at each site. Land use was divided into 3 categories. A site was considered simple habitat if the area was approximately >50% manicured grass, bare ground, or exposed



gravels, it was assigned the lowest ranking (0). Areas consisting of grasslands or low shrubs have a higher potential occurrence for species throughout and were assigned a moderate ranking (1). Areas with complex habitat structures were considered native/natural and were assigned the highest ranking (2).

- **Simple habitat-** Area primarily disturbed or grassland, minimal shrubs and trees present within vicinity.
- **Moderate habitat-** Area primarily composed of tall grasses and shrubby species. Sparse trees and saplings present.
- **Complex habitat-** Dense mature trees with significant understories.

#### Debris/ Disturbance

Assessment Sites were assessed for signs of anthropogenic disturbance such as unofficial trails, litter, rock piles, moved trees and branches (forts). The assessment approach is derived from the concept that an ecosystem showing little or no anthropogenic disturbance is generally “healthier” than a more disturbed ecosystem. Assessing the extent and level of disturbance could be an indicator of health (Clare & Sass, 2012)

#### Wildlife Potential

Presence/absence of wildlife was assessed at each location. Incidental wildlife observations were recorded along with the identification of existing nests, dens, and cavities.

#### Historic Resource Value (HRV)

HRV was reviewed to determine the level of historic ranking - The Listing of Historical Resources (Alberta Government Historic Resources Management Branch, 2019) was reviewed to determine if the Project Site has been assigned an Historical Resource Value (HRV).



The above value parameters were assessed at each site and a score of low, medium, or high was assigned to each parameter. **Table 2-1** provides a breakdown of the value system for each parameter.

**Table 2-1: RAIS Ranking System Parameters and Assigned VEC Values**

SLOPES	NATIVE VEGETATION	HABITAT COMPLEXITY	SOIL EROSION POTENTIAL	DEBRIS/DISTURBANCE	WILDLIFE POTENTIAL	HRV
0-15% <b>= Low</b>	Less than 20% <b>= Low</b>	Simple habitat <b>= Low</b>	Stable soils = <b>low</b>	Greater than 70% of the site has signs of anthropogenic disturbance <b>= Low</b>	Human disturbance has eliminated and reduced habitat <b>= Low</b>	5 or less <b>= Low</b>
15-30% <b>= Medium</b>	20-60% <b>= Medium</b>	Moderate habitat <b>= Medium</b>	Signs of erosion = <b>Medium</b>	30-70% of the site has signs of anthropogenic disturbance <b>= Medium</b>	Some wildlife present, human influence is notable <b>= Medium</b>	4 <b>= Medium</b>
>30% <b>= High</b>	Greater than 60% <b>= Medium High</b>	Complex habitat <b>= High</b>	Highly erodible soils, erosion visible = <b>High</b>	Less than 30% of the site has signs of anthropogenic disturbance <b>= High</b>	Area contains significant wildlife, relatively inaccessible for humans <b>= High</b>	3 <b>= Medium High</b>
	Greater than 80% <b>= High</b>					2 or 1 <b>= High</b>

After each parameter is assigned a score, each Assessment Area was totalled to provide a total value of ecological sensitivity ranking.



## 3.0 EXSITING CONDITIONS

### 3.1 HERITAGE RESOURCES

The Alberta Listing of Historical Resources was searched on December 2, 2024, to determine if there is an existing HRV assigned to the Assessment Site. All Assessment Sites have been assigned an HRV score ranging from a category 5 a (archaeological sites) and p (paleontological sites) to a category 3p and 4a (**Appendix A**). HRV values associated with Assessment Sites are found in **Table 3-1**.

Table 3-1: Historic Resource Values

SITE	HRV *, **
Area 1- Jumping pound Creek Confluence	3p, 4a, 5a
Area 2- Riverfront Park	4a, 4p, 5a, 5p
Area 3- Community of Riverview	4p, 5a, 5p
Area 4- Community of Riveria	5a, 5p
Area 5- Jim Uffelman Dog park	5a,4p
Area 6- Jim Uffelman Dog Park (under Jack Tenant bridge)	5a, 4p
Area 7 - Bow River Island	4a,4p
Area 8- Bighill Creek Confluence	5a, 5p
Area 9- South Ridge (future development area)	4a, 4p
*a – archaeological, c – cultural, gl – geological, h - historic period, n – natural, p - palaeontological	

\*\* HRV1: designated under the HRA as a Provincial Historic Resource

HRV 2: designated under the HRA as a Registered Historic Resource

HRV 3: contains a significant historic resource that will likely require avoidance

HRV 4: contains a historic resource that may require avoidance

HRV 5: high potential to contain a historic resource

### 3.2 SOILS AND LANDFORMS

The Project is located on the Paskapoo bedrock formation which is a recessively weathering, grey to greenish-grey mudstone and siltstone (Prior, et al., 2013). The surficial geology in the Study Area is a fluted moraine, which is composed of glacial derived sediments.

Alberta Soil Information Viewer indicates that the Cochrane Bow River Valley is primarily within two soil polygons (Government of Alberta, 2024) (**Appendix B**).

- Polygon 11694 contains miscellaneous coarse textured soils in the Black soil zone. The polygon consists of poorly drained soils and rego profiles. Landform is a terraced valley.
- Polygon 11683- contains Orthic Black Chernozem on gravel or gravelly coarse textured undifferentiated materials. The landform is a confined terraced floodplain.



Slopes varied at each site. Steep slopes are typically expressed along the riverbanks where undercut banks and erosion was visible. Jim Uffelman Park and the South Ridge Assessment Site were recorded to have the greatest slopes within the Study Area (**Figure 2**).





Town of Cochrane

Bow River Access Impact Study

Slopes

Legend

Slope (% Rise)

- 0
- 0 - 5
- 5 - 10
- 10 - 15
- 15 - 20
- 20 - 30
- > 30

Watercourses

Waterbodies

Municipal Boundary

Assessment Areas

ATS Quarter Section

Notes:

Area 1- Jumpingpound Creek Confluence

Area 2- Riverfront Park

Area 3- Bighill Creek Confluence

Area 4- Community of Riverview

Area 5- Community of Riveria

Area 6- Jim Uffelman Park

Area 7- Jim Uffelman Park (under Jack Tenant bridge)

Area 8- Bow River Island

Area 9- South Ridge (future development area)

The accuracy & completeness of information shown on this drawing is not guaranteed. It will be the responsibility of the user of the information shown on this drawing to locate & establish the precise location of all existing information whether shown or not.

0 100 200 300 400 500

Meters

Coordinate System:

NAD 1983 3TM 114

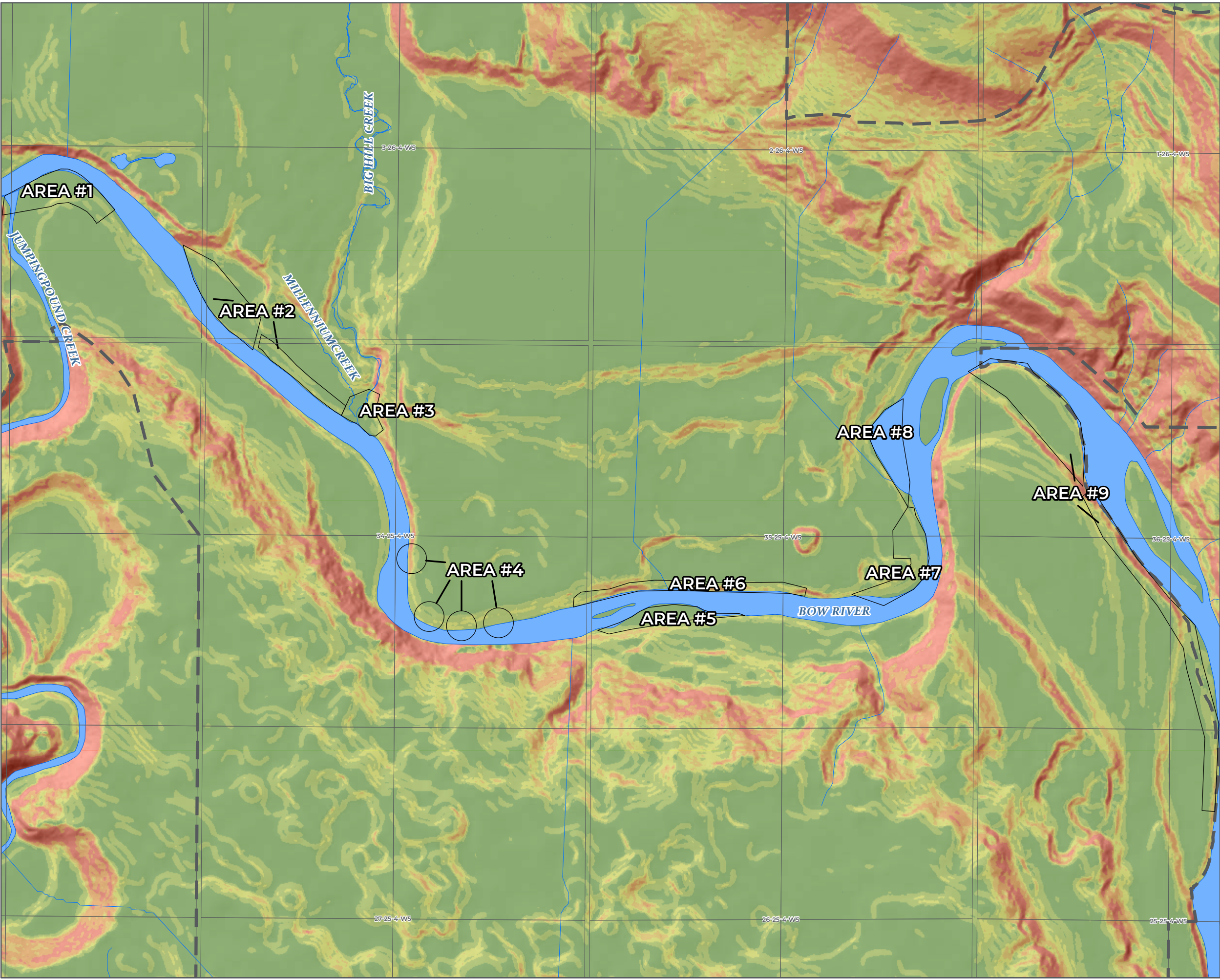
Data Sources:

- Data from the Town of Cochrane, AEP, ESRI, NRCan.

Scale: 1:15,500

(When plotted at 11"x17")

Project #:	1728.0471.02	
Author:	SDF	
Checked:	SK	
Status:	Review	
Revision:	A	
Date:	2025 / 1 / 22	FIGURE 2



Last updated by SdeBoerFuller on Wednesday, January 22, 2025 at 11:40 AM

Last exported by SdeBoerFuller on Tuesday, October 29, 2024 8:39 AM

Last printed by SdeBoerFuller on Monday, September 25, 2017 11:46 AM

\\us1urban-systems.com\projects\Projects\_CAL\1728\0471\02ID-Design\GIS\Projects\Pro\_Projects\1728\_0471\_02 - Cochrane - Bow River Access Impact Study - v2 - 20250122.aprx\Cochrane-Bow River Access Impact Study-Fig2-Slopes-11x17-20250122



### 3.3 VEGETATION

The Project Area is located within the Grassland Natural Subregion and Foothills Fescue Subregion of the Province. The primary land use is agriculture (cultivation and grazing). Orthic Black Chernozems dominate soils, while native vegetation is represented by mountain rough and Idaho fescue, Parry oat grass, and wildflowers such as sticky purple geranium, lupine, and woolly gromwell. Shrub communities include silverberry, buckbrush, cinquefoil, and wild rose (Alberta Parks, 2014).

A search of Alberta Conservation Information Management System (ACIMS) was conducted on August 15, 2024, to determine the potential for elements of natural biological and physical diversity, such as listed species, ecological communities, and landform elements, within the Project Area. The Study Area was searched for elemental occurrences (EOs), and the results are in **Appendix C**. One non-sensitive occurrence was identified within the Study Area, Smooth cliffbrake (*Pellaea glabella ssp. Simplex*) was identified to have a range that extends into five Assessment Areas.

Table 3-2: ACIMS Search Results

SITE	ELEMENTAL OCCURRENCES (EOS)
Area 1- Jumping pound Creek Confluence	No
Area 2- Riverfront Park	No
Area 3- Community of Riverview	No
Area 4- Community of Riveria	Yes*
Area 5- Jim Uffelman Dog park	Yes*
Area 6- Jim Uffelman Dog Park (under Jack Tenant bridge)	Yes*
Area 7 - Bow River Island	Yes*
Area 8- Bighill Creek Confluence	Yes*
Area 9- South Ridge (future development area)	Yes*

\*Smooth cliffbrake (*Pellaea glabella ssp. Simplex*)

Descriptions of the following occurrences are listed below:

**Smooth cliffbrake (*Pellaea glabella ssp. Simplex*)** is an evergreen perennial S2 rank species which is found in dry to mesic cracks of calcareous rocks (E-Flora BC, 2024). Suitable habitat was not recorded within the assessment sites, although there still is potential for this species to occur throughout the Study Area.

**Northern wheatgrass- needle and thread grassland (*Elymus lanceolatus* - *Hesperostipa comata* grassland)** is a S2 rank elemental occurrence. These grass species have potential to occur in each of the study areas, however needlegrass species were only recorded within Site 9- South Bow.

**Limber pine (*Pinus flexilis*)** is a five-needled evergreen tree with a S2 rank. It is typically found on warm, dry sites, and can be found at both lower and upper treelines with south or west aspects (COSEWIC, 2014) (eFlora BC, 2020). Limber pine is listed as Endangered under the Alberta Wildlife Act and is currently



under consideration for addition to Schedule 1 of the federal Species at Risk Act (Alberta Species at Risk Program, 2021). Limber pine was identified within Site 9- South Bow.

**Narrowleaf umbrellawort (*Mirabilis linearis*)** is an S2 rank perennial herb. This species is commonly located along anthropogenically disturbed sites (Native Plant Trust, 2024). Although this species was not observed, there is suitable habitat within the Study Area.

Based on the current land use, native vegetation is expected to be impacted. Soil and vegetation data is located in **Appendix D**.




### 3.4 HABITAT

Undulating terrain, natural and anthropogenic disturbance, and the unique hydrology of the riverbanks provides a patchwork of micro habitats. Habitat types within the Study Area are not spatially uniform and frequent variation in vegetation community density and distribution was observed (**Figure 3**). This report has divided the Study Area into five (5) polygons that may share more than one habitat type as described below and in **Table 3-3**.

Table 3-3: Habitat Descriptions

HABITAT TYPE	DESCRIPTION	
Wetland	Wetland communities observed typically include moss species, sedge species ( <i>Carex spp.</i> ), wire rush ( <i>Juncus balticus</i> ), fowl bluegrass ( <i>Poa palustris</i> ), and willow species ( <i>salix spp.</i> ).	<div></div> <p>Photograph 1: Community of Riveria at 51°10'23.46"N, 114°27'36.68"W</p>



<b>Riparian shrub</b>	<p>Riparian communities commonly consist of Kentucky bluegrass (<i>Poa pratensis</i>), reed canary grass (<i>Phalaris arundinacea</i>), sedge species (<i>Carex</i> spp.), goldenrod species (<i>Solidago</i> spp.), willow species (<i>salix</i> spp.), silverberry (<i>Elaeagnus commutata</i>), and balsam poplar (<i>Populus balsamifera</i>)</p>	 <p>Photograph 2: Community of Riverfront at 51°10'20.79"N, 114°28'28.15"W</p>
<b>Upland low shrub</b>	<p>Grasslands included smooth brome (<i>Bromus inermis</i>), Kentucky bluegrass (<i>Poa pratensis</i>), aster species (<i>aster</i> spp.), northern bedstraw (<i>Galium boreale</i>), creeping juniper (<i>Juniperus horizontalis</i>), shrubby cinquefoil (<i>Dasiphora fruticose</i>), Canada buffaloberry (<i>Shepherdia canadensis</i>)</p>	 <p>Photograph 3: Jim Uffelman Park at 51°10'25.94"N, 114°27'13.49"W</p>
<b>Disturbed</b>	<p>The modified communities typically have bare areas and species including chickpea milkvetch (<i>astragalus cicer</i>), sow thistle (<i>Sonchus oleraceus</i>), yellow sweet clover (<i>Melilotus officinalis</i>), common dandelion (<i>Taraxacum officinale</i>), and common wormwood (<i>Artemisia vulgaris</i>).</p>	 <p>Photograph 4: Jim Uffelman Park at 51°10'26.26"N, 114°27'51.34"W</p>



## Forested

These areas consist of spruce and poplars. The typical understory includes common wild rose (*Rosa woodsii*), goldenrod species (*Solidago spp.*) willow species (*salix spp.*), silverberry (*Elaeagnus commutata*), Canada buffaloberry (*Shepherdia canadensis*), Kentucky bluegrass (*Poa pratensis*), and northern bedstraw (*Galium boreale*).



Photograph 5: Jumpingpound Creek  
51°11'20.38"N, 114°30'1.07"W





Town of Cochrane

Bow River Access Impact Study

Habitat Mapping

Legend

Gravel

Riparian / Wetland

Low Shrub

Disturbed / Weedy Species

Grassland

Semi-Native Grassland Flood Fringe

Treed

Watercourses

Waterbodies

Assessment Areas

Municipal Boundary

ATS Quarter Section

Notes:

Area 1- Jumpingpound Creek Confluence  
Area 2- Riverfront Park  
Area 3- Bighill Creek Confluence  
Area 4- Community of Riverview  
Area 5- Community of Riveria  
Area 6- Jim Uffelman Park  
Area 7- Jim Uffelman Park (under Jack Tenant bridge)  
Area 8- Bow River Island  
Area 9- South Ridge (future development area)

The accuracy & completeness of information shown on this drawing is not guaranteed. It will be the responsibility of the user of the information shown on this drawing to locate & establish the precise location of all existing information whether shown or not.

0 100 200 300 400 500

Meters

Coordinate System:

NAD 1983 3TM 114

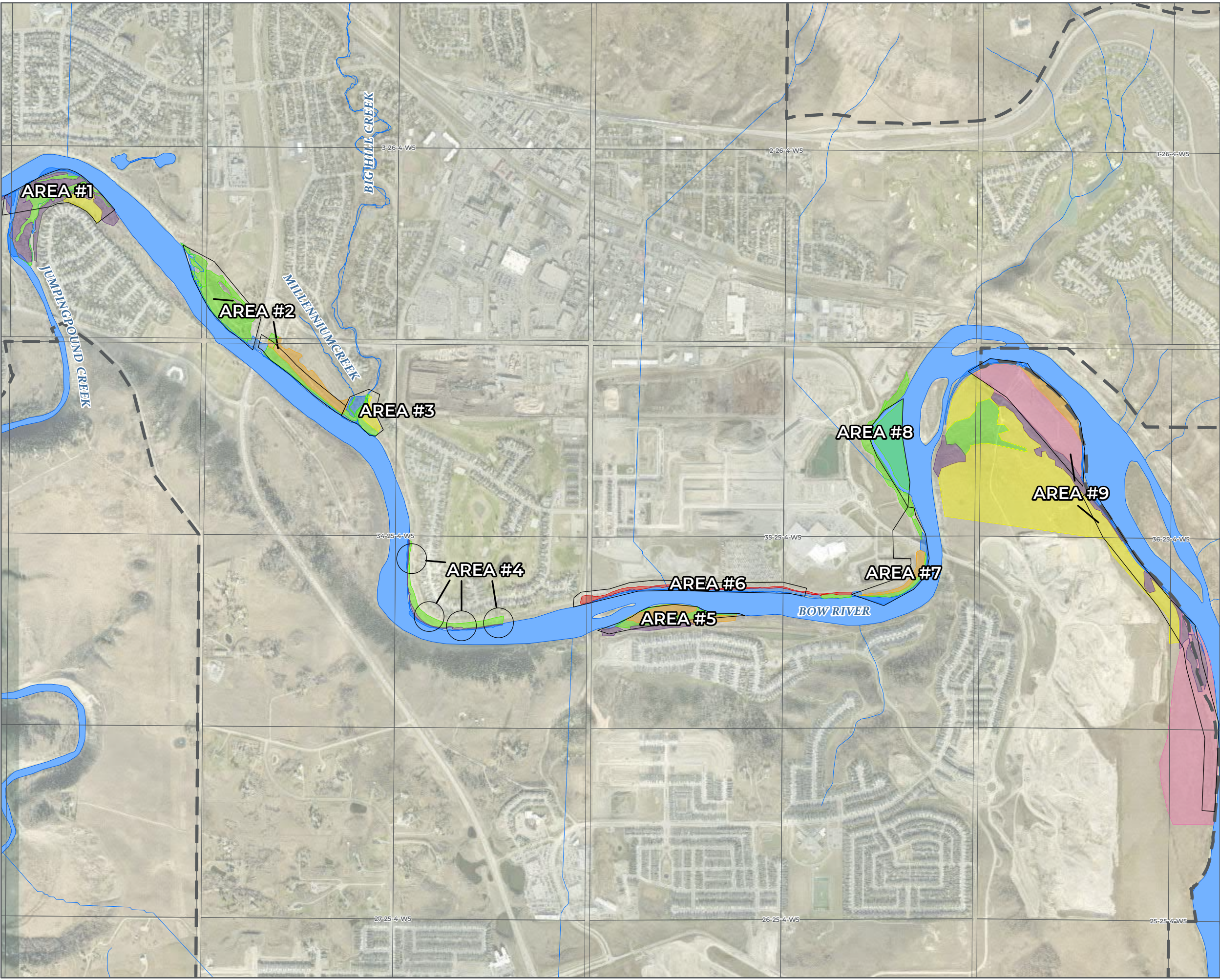
Scale: 1:15,500

(When plotted at 11"x17")

Data Sources:

- Data from the Town of Cochrane, AEP, ESRI, NRCan.

Project #: Author: Checked: Status: Revision: Date:	1728.0471.02 SDF SK Review A 2025 / 1 / 22	<div>URBANSYSTEMS</div>	
		FIGURE 3	



\\usl.urban-systems.com\projects\Projects.CAL\1728\0471\02\XD-Design\GIS\Projects\Pro\_Projects\1728\_0471\_02 - Cochrane - Bow River Access Impact Study - v2 - 20250122.aprx\Cochrane-Bow River Access Impact Study-Fig3-HabitatMap-11x17-20250122

Last updated by SdeBoerFuller on Wednesday, January 22, 2025 at 11:37 AM  
Last exported by SdeBoerFuller on Tuesday, October 29, 2024 8:39 AM  
Last printed by SdeBoerFuller on Monday, September 25, 2017 11:46 AM



## 3.5 WATERBODIES

There are four (4) main watercourses within the Study Area. The Bow River (waterbody ID 1988) is the focus of this report. Three smaller streams flow into the Bow River; including, Bighill Creek (ID 133), Jumpingpound creek (ID 877), and Millenium Creek (ID 25446) (**Figure 4**).

**Bow River** is an 8<sup>th</sup> order stream which originates in the Rocky Mountain Range and flows east until its confluence with the Oldman River to form the South Saskatchewan River (Veiga, Hassan, & He, 2015). The Bow River has a restricted activity period of September 16 to April 15.

**Bighill Creek** is a 4<sup>th</sup> order, Class C watercourse with a Restricted Activity Period (RAP) of September 16 to April 15 (Government of Alberta, 2012). Activities conducted in, or adjacent to, Bighill Creek during the RAP are considered high risk for causing harm to fish populations and habitat.

**Jumpingpound** Creek is a 4<sup>th</sup> order stream, with a length of approximately 87 km, which originates in the foothills of the Rocky Mountains and flows into the Bow River at Cochrane (Jumpingpound Creek Watershed Partnership. 2009). With a watershed encompassing an area of 604 km<sup>2</sup> (Jumpingpound Creek Watershed Partnership. 2009), approximately 70% of streamflow can come from groundwater springs that feed the Creek. Jumpingpound Creek is a Class C watercourse with a Restricted Activity Period (RAP) of May 1 to July 15 and September 16 to April 15 (Government of Alberta, 2012).

**Millennium Creek** is a 4<sup>th</sup> order spring fed stream which originates from Millennium Creek Pond off of Cowboy Trail (Highway 22) and Griffin Road W. Although Millenium Creek is not assigned a RAP, it adopts the Class C RAP of Bighill Springs from September 16 to April 15 (Government of Alberta, 2012).

### 3.5.1 FLOOD HAZARD

The Canada-Alberta Flood Damage Reduction Program (FDRP) identified flood hazard areas in Cochrane and has established a minimum standard for flood protection. These areas prohibit new development within the flood fringe and limit uses such as natural areas, parks, trails, and essential utilities that do not impede flood discharge. All other development is prohibited, with the exception of developments approved prior to October of 1998 which are required to be floodproofed to the satisfaction of the Development Authority (Town of Cochrane, 2011). Schedule B in the 2008 Town of Cochrane Municipal Development Plan (MDP) can be referenced for the flood fringe of the Bow River (Town of Cochrane, 2008).





Town of Cochrane

Bow River Access Impact Study  
Wetland and Waterbodies

**Legend**

Alberta Merged Wetland Inventory Class

- Marsh
- Open Water

**FWMIS Watercourse and Waterbodies**

- Intermittent, Perennial, Recurring Stream
- Lake, Pond, Major River

Assessment Areas

Municipal Boundary

ATS Quarter Section

**Notes:**

**Area 1-** Jumpingpond Creek Confluence  
**Area 2-** Riverfront Park  
**Area 3-** Bighill Creek Confluence  
**Area 4-** Community of Riverview  
**Area 5-** Community of Riveria  
**Area 6-** Jim Uffelman Park  
**Area 7-** Jim Uffelman Park (under Jack Tenant bridge)  
**Area 8-** Bow River Island  
**Area 9-** South Ridge (future development area)

The accuracy & completeness of information shown on this drawing is not guaranteed. It will be the responsibility of the user of the information shown on this drawing to locate & establish the precise location of all existing information whether shown or not.

0 100 200 300 400 500  
Meters

**Coordinate System:** NAD 1983 3TM 114

**Scale:** 1:15,500  
(When plotted at 11"x17")

**Data Sources:**

- Data from the Town of Cochrane, AEP, ESRI, NRCan.

<b>Project #:</b> 1728.0471.02 <b>Author:</b> SDF <b>Checked:</b> SK <b>Status:</b> Review <b>Revision:</b> A <b>Date:</b> 2025 / 1 / 22	<b>URBAN</b> SYSTEMS  <b>FIGURE 4</b>
---	--



Last updated by SdeBoerFuller on Wednesday, January 22, 2025 at 11:37 AM  
Last exported by SdeBoerFuller on Tuesday, October 29, 2024 8:39 AM  
Last printed by SdeBoerFuller on Monday, September 25, 2017 11:46 AM  
\\usl.urban-systems.com\projects\Projects.CAL\1728\0471\02\X-D-Design\GIS\Projects\Pro\_Projects\1728\_0471\_02 - Cochrane - Bow River Access Impact Study - v2 - 2025\0122.aprx\Cochrane-Bow River Access Impact Study-Fig4-Waterbodies-11x17-2025\0122



## 3.6 FISHERIES RESOURCES

A search of FWMIS was conducted on December 9, 2024, and identified 12 fish species found within the Study Area. The potential fish species and their status are listed in **Table 3-4**.

**Table 3-4: Potential Fish Species with the Study Area**

SPECIES	SCIENTIFIC NAME	EPA	SARA
<b>Brook Stickleback</b>	<i>Culaea inconstans</i>	Secure	-
<b>Brook Trout</b>	<i>Salvelinus fontinalis</i>	Exotic/Alien	-
<b>Brown Trout</b>	<i>Salmo trutta</i>	Exotic/Alien	-
<b>Bull Trout</b>	<i>Salvelinus confluentus</i>	At Risk	Threatened
<b>Bull trout x brook trout hybrid</b>	-	-	-
<b>Cutthroat Trout</b>	<i>Oncorhynchus clarki</i>	At Risk *	Threatened
<b>Lake chub</b>	<i>Couesius plumbeus</i>	Secure	-
<b>Longnose dace</b>	<i>Rhinichthys cataractae</i>	Secure	-
<b>Longnose sucker</b>	<i>Rhinichthys cataractae</i>	Secure	-
<b>Mountain Sucker</b>	<i>Threatened</i>	Secure	Threatened**
<b>Rainbow Trout***</b>	<i>Oncorhynchus mykiss</i>	At Risk	Endangered
<b>Trout-perch</b>	<i>Rhinichthys cataractae</i>	Secure	-
<b>White sucker</b>	<i>Rhinichthys cataractae</i>	Secure	-

\* Introduced Cutthroat Trout populations in Alberta are Exotic.

\*\*Milk River populations

\*\*\*Athabasca River populations

With its many tributaries, Jumpingpound Creek provides valuable fish habitat. Critical fish habitat features of Jumpingpound Creek includes gravel/cobble substrate, deep overwintering pools, instream cover and healthy riparian areas along with high quality water. (Jumpingpound Creek Watershed Partnership, 2009). As Jumpingpound Creek is directly connected to the Bow River, it is likely that all species present in the Bow River utilize Jumpingpound Creek. Specifically, cutthroat trout and bull trout, could potentially be present in Jumpingpound Creek.

Bighill Creek provides valuable fish habitat including large gravel and cobbles, deep undercut banks, cool water and healthy riparian areas. A fish rescue was conducted by Trout Unlimited Canada in 2018 90m upstream of the confluence which identified longnose dace to be abundant with encounters of brown trout, rainbow trout, white sucker and longnose sucker (Trout Unlimited Canada, 2018).



The Bow River is renowned for its sportfishing and is home to many fish species including the Species at Risk Act (SARA) listed bull trout. However, the river is under pressure due to its many demands including drinking water, energy, agriculture and recreational services. The river experiences many anthropogenic disturbances including channelized stream banks, diversions, withdrawals, road culverts, 15 dams and multiple dikes. These features all contribute to the limitations of fish habitat. The upstream Ghost Reservoir uses an operational scheme known as hydropeaking, which causes the rapid dewatering of a river channel. Hydropeaking is known to reduce productivity, and cause fish and aquatic invertebrate mortality (Bow River Trout Foundation, 2019). Studies have shown that Bow River trout populations have declined as much as 50% between 2003 and 2013. The study indicates that flooding, whirling disease and angling are the primary reasons that the trout and whitefish populations are in decline (Cahill, et al., 2018).

### 3.7 WILDLIFE

The Bow River Valley is identified by the FWMIS database search as a “Key Wildlife and Biodiversity Zone”. This classification recognizes the area as important ungulate overwintering habitat, and as an area likely to express higher biodiversity in association with riparian vegetation. The database identifies the Project Area and surrounding areas as Sensitive Raptor Range for species including golden eagle (*Aquila chrysaetos*), prairie falcon (*Falco mexicanus*) and bald eagle (*Haliaeetus leucocephalus*). It has also been identified by the database as a sharp-tailed grouse (*Tympanuchus phasianellus*) survey area indicating that the area is a probable location for sharp-tailed grouse habitat and recommends proponents to survey for leks and observe appropriate setbacks where they occur.

The FWMIS and eBird databases were reviewed with a 3 km radius around the Project Area (Government of Alberta, 2024). The FWMIS database identified the Project Area and surrounding areas as Sensitive Raptor Range for species including golden eagle (*Aquila chrysaetos*), prairie falcon (*Falco mexicanus*), and bald eagle (*Haliaeetus leucocephalus*). It has also been identified by the database as a sharp-tailed grouse (*Tympanuchus phasianellus*) habitat. Based on aerial imagery, level of human activity, and historical records, there is potential for sharp-tailed grouse habitat near the Project Area. FWIMT maps presenting data from the FWMIS database are provided in **Appendix E**.

The species list for an eBird Hotspot (Airdrie-Range Rd 292 Slough) is approximately 0.5km south of the Study Area and included a total of 89 species. The eBird list is provided in **Appendix E**.

A potential species list was prepared for the Study Area based on the region and available habitat within the Project Area (**Appendix F**). The potential species list included 128 birds, 12 fish, and 1 mammal.



**Table 3-5** provides a list of the species of conservation concern.

**Table 3-5: Listed potential wildlife**

COMMON NAME	SCIENTIFIC NAME	SARA <sup>1</sup>	AEP <sup>2</sup>
<b>American kestrel</b>	<i>Falco sparverius</i>	-	Sensitive
<b>bald eagle</b>	<i>Haliaeetus leucocephalus</i>	-	Sensitive
<b>bank swallow</b>	<i>Riparia riparia</i>	Threatened	Sensitive
<b>barn swallow</b>	<i>Hirundo rustica</i>	Threatened	May Be at Risk
<b>black-crowned night heron</b>	<i>Nycticorax nycticorax</i>	-	Sensitive
<b>common yellowthroat</b>	<i>Geothlypis trichas</i>	-	Sensitive
<b>eastern kingbird</b>	<i>Tyrannus tyrannus</i>	-	Sensitive
<b>eastern phoebe</b>	<i>Sayornis phoebe</i>	-	Sensitive
<b>golden eagle</b>	<i>Aquila chrysaetos</i>	-	Sensitive
<b>great blue heron</b>	<i>Ardea herodias</i>	-	Sensitive
<b>olive-sided flycatcher</b>	<i>Contopus cooperi</i>	Threatened	May Be at Risk
<b>peregrine falcon</b>	<i>Falco peregrinus anatum/tundrius</i>	Special Concern	At Risk
<b>pied-billed grebe</b>	<i>Podilymbus podiceps</i>	-	Sensitive
<b>pileated woodpecker</b>	<i>Dryocopus pileatus</i>	-	Sensitive
<b>prairie falcon</b>	<i>Falco mexicanus</i>	-	Sensitive
<b>western wood-pewee</b>	<i>Contopus sordidulus</i>	-	may be at risk

Great blue heron (*Ardea herodias*) and pileated woodpecker (*Dryocopus pileatus*) are listed on listed as Sensitive in Alberta and species of Special Concern under SARA Schedule 1. Habitat of the great blue heron is generally near fresh or saltwater bodies. They have also been observed foraging in grassland and agricultural areas in the vicinity of their breeding colonies (Cornell Lab of Ornithology, 2024). Pileated woodpecker habitat is typically located in mature stands of trees (Cornell Lab of Ornithology, 2024). Nesting cavities are typically found in decaying trees (Government of Canada, 2024). Great blue heron and pileated woodpecker are listed under Schedule 1 of the Migratory Birds Regulations 2022, and their nests are protected year-round. Should an occupied nest/cavity be identified within the Project Area, it must be avoided and protected at all times. The nests of this species may only be destroyed, damaged, disturbed or removed if they have been deemed to be abandoned; that is, after a notification has been submitted through the Abandoned Nest Registry (Government of Alberta, 2022) and the designated wait time has passed.

It should be noted that these database searches are limited to public and professional assessments conducted in the area and, therefore, may not offer a complete representation of the species utilizing the habitat.

<sup>1</sup> Federal Species at Risk Public Registry (Government of Canada, 2024)

<sup>2</sup> Alberta Wild Species Status Search (Government of Alberta, 2024)



## 3.8 ENVIRONMENTALLY SIGNIFICANT AREAS

### Provincial Environmentally Significant Areas

Three provincial ESAs were identified in the Project Area using the provincial dataset developed by (Fiera Biological Consulting., 2014) (**Figure 5**). Three quarter sections had an ESA value of greater than 0.189, which is the minimum value needed for the quarter section to be assessed as an ESA at the provincial level. The three-quarter sections identified as ESA's are all located within the South Bow Area of Cochrane. **Table 3-6** identifies the ESA values of each quarter section within the Study Area.

**Table 3-6: Provincial ESA values**

QUARTER SECTION	PROVINCIAL ESA VALUE*	ESA
SE 4-26-4-W5M	0.1457	No
SW 3-26-4-W5M	0.1164	No
NW 34-25-4-W5M	0.1414	No
SE 34-25-4-W5M	0.1435	No
SW 35-25-4-W5M	0.1234	No
SE 35-25-4-W5M	0.1289	No
NE 35-25-4-W5M	0.1688	No
NW 36-25-4-W5M	0.244	<b>Yes</b>
SW 36-25-4-W5M	0.2343	<b>Yes</b>
SE 36-25-4-W5M	0.1963	<b>Yes</b>
NE 25-25-4-W5M	0.149	No

\* A minimum of 0.189 is required for a quarter section to qualify as an ESA

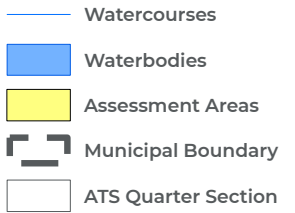
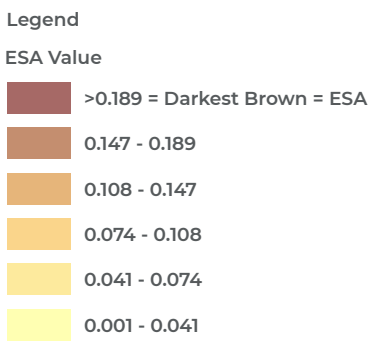




Town of Cochrane

Bow River Access Impact Study

ESA



Notes:

Area 1- Jumpingpound Creek Confluence

Area 2- Riverfront Park

Area 3- Bighill Creek Confluence

Area 4- Community of Riverview

Area 5- Community of Riveria

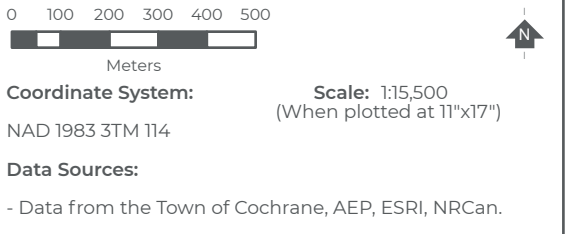
Area 6- Jim Uffelman Park

Area 7- Jim Uffelman Park (under Jack Tenant bridge)

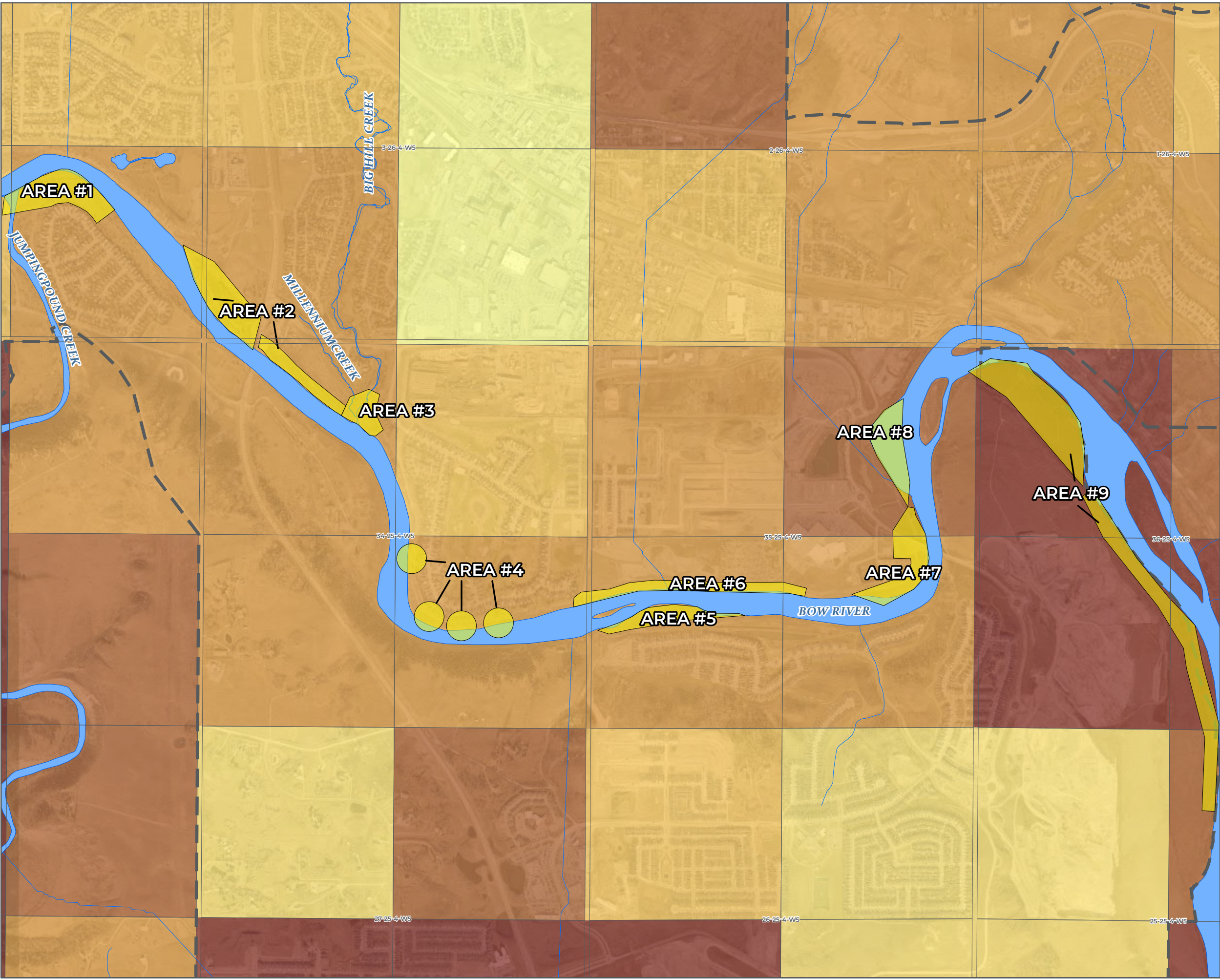
Area 8- Bow River Island

Area 9- South Ridge (future development area)

The accuracy & completeness of information shown on this drawing is not guaranteed. It will be the responsibility of the user of the information shown on this drawing to locate & establish the precise location of all existing information whether shown or not.



Project #:	1728.0471.02	
Author:	SDF	
Checked:	SK	FIGURE 5
Status:	Review	
Revision:	A	
Date:	2025 / 1 / 22	



Last updated by SdeBoerFuller on Wednesday, January 22, 2025 at 11:40 AM

Last exported by SdeBoerFuller on Tuesday, October 29, 2024 8:39 AM

Last printed by SdeBoerFuller on Monday, September 25, 2017 11:46 AM

\\usl.urban-systems.com\projects\Projects\CAL\1728\0471\02\XD-Design\GIS\Projects\Pro\_ Projects\1728\_0471\_02 - Cochrane - Bow River Access Impact Study - Fig5-ESA-1\17-20250122



## 4.0 RANKING RESULTS

**Table 4-1** below provides the result of the ecological ranking assessment for areas within the Town. The highest ranking was adopted on a presence/absence basis for each site and a compilation of these features was used to determine the overall assessment area sensitivity ranking. **Figure 6** provides a detailed map with the rankings and ecological areas.

**Table 4-1 Ecological Value Ranking Results for the Assessment Areas.**

	AREA #1	AREA #2	AREA #3	AREA #4	AREA #5	AREA #6	AREA #7	AREA #8	AREA #9
<b>SLOPE PERCENTAGE</b>	Medium	Medium	Low	Low	Low	High	Low	Low	High
<b>SOIL EROSION POTENTIAL</b>	Medium	Low	Medium	Low	Low	High	Medium	Medium	High
<b>NATIVE VEGETATION</b>	Medium-High	Medium	Medium-High	Medium-High	Medium-High	Medium	Medium-High	Medium-High	High
<b>DEBRIS/DISTURBANCE</b>	Medium	Low	Medium	Medium	High	Medium	Medium	Medium	High
<b>HABITAT COMPLEXITY</b>	High	Low	High	Medium	High	Low	Medium	High	High
<b>WILDLIFE HABITAT</b>	Medium	Low	Medium	Medium	High	Low	Medium	Medium	High
<b>HRV</b>	Medium-High	Medium	Low	Medium	Low	Medium	Medium	Medium	Medium
<b>Total</b>	<b>Medium-High</b>	<b>Low</b>	<b>Medium</b>	<b>Medium</b>	<b>Medium</b>	<b>Low-Medium</b>	<b>Medium</b>	<b>Medium-High</b>	<b>High</b>

The ecological value ranking system is subject to several limitations due to the spatial variability of the value parameters. The lack of uniformity in vegetation density, topography, habitat complexity, and distribution complicate the ability to apply a consistent and reliable value ranking system. Frequent variations in these factors may lead to discrepancies in data interpretation and value assignment. As a result, while the ranking system represents a general idea of the value of the assessment areas, it may not fully capture the intricate variations present in the landscape, limiting its accuracy and effectiveness in reflecting the true ecological and environmental significance of different areas. A smaller scope and targeted technical studies could help close this knowledge gap by providing detailed, site-specific data that improves the precision and reliability of the value ranking system.





Town of Cochrane

Bow River Access Impact Study  
Environmental Assessment  
Results

- Legend
- Assessment Score
- Low Sensitivity (Score = 0-1)
  - Med-Low Sensitivity (Score = 2-4)
  - Medium Sensitivity (Score = 5-7)
  - Med High Sensitivity (Score = 8-10)
  - High Sensitivity (Score = 11+)

- Watercourse
- Waterbody
- Assessment Areas
- Municipal Boundary
- ATS Quarter Section

- Notes:
- Area 1- Jumpingpound Creek Confluence
  - Area 2- Riverfront Park
  - Area 3- Bighill Creek Confluence
  - Area 4- Community of Riverview
  - Area 5- Community of Riveria
  - Area 6- Jim Uffelman Park
  - Area 7- Jim Uffelman Park (under Jack Tenant bridge)
  - Area 8- Bow River Island
  - Area 9- South Ridge (future development area)

The accuracy & completeness of information shown on this drawing is not guaranteed. It will be the responsibility of the user of the information shown on this drawing to locate & establish the precise location of all existing information whether shown or not.

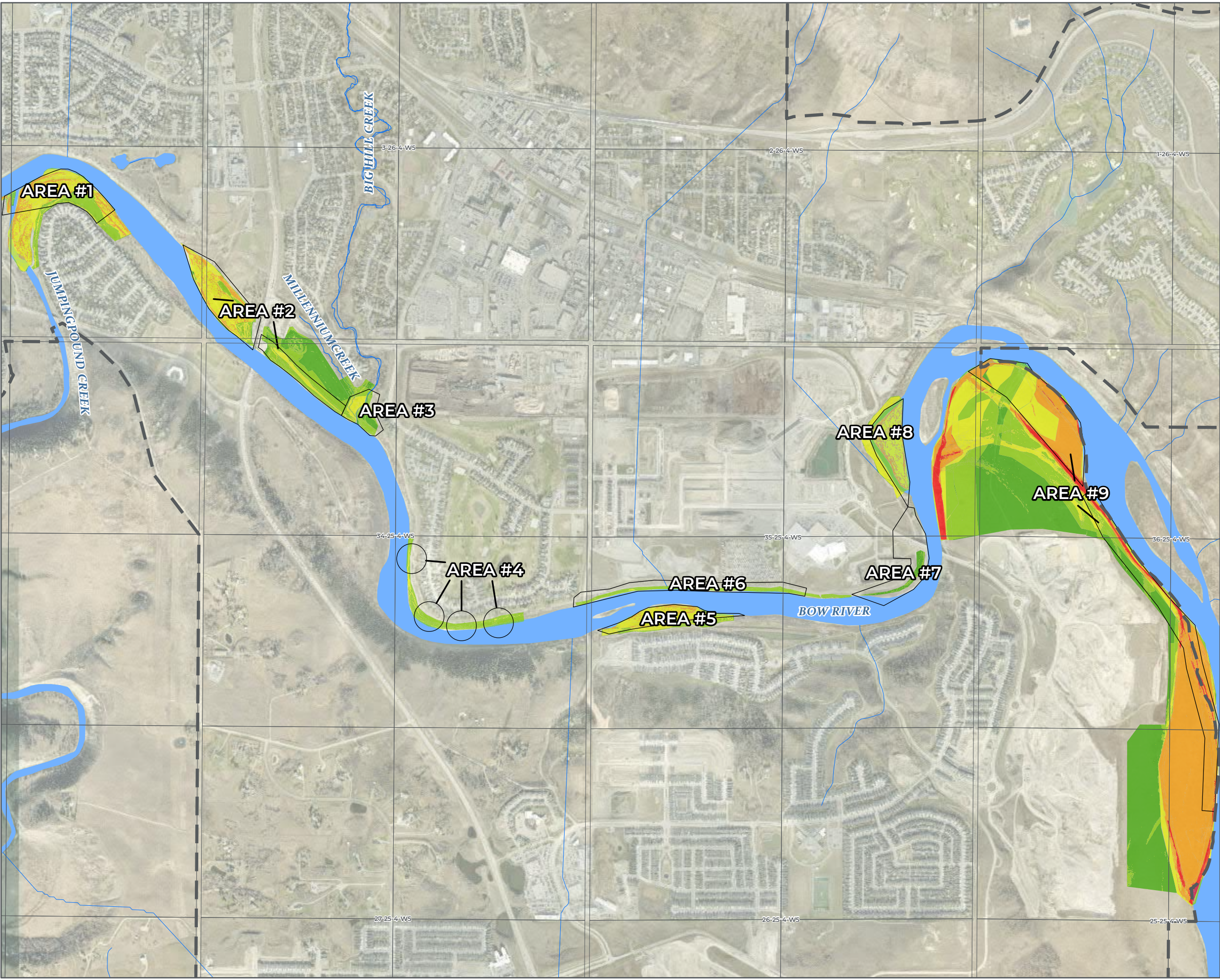


Coordinate System: NAD 1983 3TM 114

Scale: 1:15,500  
(When plotted at 11"x17")

Data Sources:  
- Data from the Town of Cochrane, AEP, ESRI, NRCan.

Project #:	1728.0471.02	
Author:	SDF	
Checked:	SK	FIGURE 6
Status:	Review	
Revision:	A	
Date:	2025 / 1 / 22	



Last updated by SdeBoerFuller on Wednesday, January 22, 2025 at 11:37 AM  
Last exported by SdeBoerFuller on Tuesday, October 29, 2024 8:39 AM  
Last printed by SdeBoerFuller on Monday, September 25, 2017 11:46 AM  
\\usl.urban-systems.com\projects\Projects.CAL\1728\0471\02\XD-Design\GIS\Projects\Pro\_Projects\1728\_0471\_02 - Cochrane - Bow River Access Impact Study - v2 - 20250122.aprx\Cochrane-Bow River Access Impact Study-Fig6-EAResults-11x17-20250122



## 5.0 SITE ASSESSMENT RESULTS

Each site was fully traversed, and conditions were assessed. Soil and vegetation data was collected at each Assessment Site and numerous rapid health evaluations were conducted within each site and is in **Appendix D**. Each below summary is intended to provide overall context and information on each Assessment Site to influence development and access to the area.



### 5.1.1 AREA 1- JUMPINGPOUND CREEK CONFLUENCE

The Jumpingpound confluence is a unique feature within the Study Area that has been assigned a medium-high ecological sensitivity value. The area is known to be a popular recreational day use area which is frequented by the residents of the neighbouring communities. Historically the right bank of the Jumpingpound confluence was a maintained red shale pathway which is visible in historical imagery until 2013. The pathways and bridge appear to have been washed away in the 2013 flood. Since the pathways have been washed away the official trails are no longer clear and unofficial foot trails become more visible in more recent imagery. Historical imagery is located in **Appendix G**.



Figure 7- Area 1 Jumpingpound Creek Confluence

The Jumpingpound confluence site is located within the flood fringe of the Bow River. This site is highly unique within the Study Area as it contains high value fish habitat and diverse microhabitats. Features such as the spawning habitat, diverse vegetation and natural toluene were observed while on-site. The topography is generally flat with low gravel beach areas and undercut banks with the exception of the left bank at the confluence which exhibits a high bank of ~65%. Multiple gravel bars and beaches are located around this site making river access quite popular. Soils were typically composed of a silty sand and were quite compact along the upper bank areas. Vegetation was quite dense in this area with a complex canopy of spruce, poplar, and established cottonwoods. Woodpecker cavities were observed throughout the Assessment Area. Diverse habitat was recorded to be available for small to large mammals and birds.

Significant spawning habitat availability was noted at this location within the Jumpingpound confluence. Side channels, suitable substrate, undercut banks, and overhanging vegetation was recorded throughout the site and would provide quality spawning habitat. High levels of anthropogenic usage were visible, with well-established pathways, benches and wood structures constructed around the confluence. The top of banks at the confluence had bare areas due to frequent anthropogenic usage (**Photograph 6 to Photograph 9**).





**Photograph 6:** Jumpingpound creek confluence from the left bank at 51°11'20.08"N, 114°30'3.93"W.



**Photograph 7:** Anthropogenic disturbances at Jumpingpound creek top of right bank at 51°11'19.44"N, 114°30'3.83"W.



**Photograph 8:** Woodpecker cavity at 51°11'20.05"N, 114°30'1.21"W.



**Photograph 9:** Beach area looking east at the Bow River at 51°11'19.91"N, 114°29'47.55"W.

#### Recommendations:

- Repair pathways to reduce off-trail disturbances. Consider boardwalk style pathways in flood prone areas
- Implement educational signage and/or fences to protect wildlife and fish habitat
- Install trash receptacle near the picnic area to encourage proper disposal of litter
- Consider completing an riparian health assessment for the entirety of Jumpingpound Creek within the municipal boundary
- This Assessment Area has an Historic Resource Value (HRV) of 3p, 4a, and 5a. A Historic Resources Application for approval under the HRA is required should development be proposed



### 5.1.2 AREA 2- RIVERFRONT PARK

Riverfront Park has been designated a low ecological sensitive value. It is located off Highway 22 and Griffin Road. The park was originally a red shale pathway with a boat launch (**Figure 8**). In 2015, the park was upgraded and re-paved. Other amenities such as another section of paved path, a disc golf park, minibike park, picnic tables, a boat launch, public restrooms, and more were added during the upgrades (**Appendix G**).



Figure 8- Area 2 Riverfront Park

The topography at this site is generally flat with gentle slopes leading to the exposed cobble shore. Multiple gravel bars and beaches are located around this site making river access quite accessible to the public. Soils were typically composed of a silty sand and were quite compact along the upper bank areas. The vegetation northwest of the boat launch consists of a diverse riparian community. Southeast of the boat launch the vegetation becomes increasingly more disturbed with higher percentages of weedy species.

Habitat at Riverfront Park was recorded to be available for small mammals and birds but is limited due to the high levels of activity in this park. Fish habitat is marginal in this location with no stream cover available. Substrate consists of large cobbles and small boulders. This Assessment Site was observed to be a high usage area with a network of highly established foot trails (**Photograph 10 to Photograph 13**).



).



**Photograph 10:** Woodpecker cavity at 51°11'20.05"N, 114°30'1.21"W.



**Photograph 11:** Beach area looking east at the Bow River at 51°11'19.91"N, 114°29'47.55"W.



**Photograph 12:** pathway looking north upstream from 51°11'8.98"N, 114°29'26.88"W.



**Photograph 13:** Looking west at upland vegetation from 51°11'10.04"N, 114°29'26.30"W.

## Recommendations

- Provide increased signage along pathways
- Provide fence or physical barrier along river side of paved path to deter informal access and decrease erosion potential
- Designate one or two formalized beach access areas
- This Assessment Area has an historic resource value of 4a, 4p, 5a, 5p. A Historic Resources Application for approval under the HRA is required should development be proposed



### 5.1.3 AREA 3- BIGHILL CREEK CONFLUENCE

This Assessment Area has been designated a medium ecological sensitive value. The Bighill confluence is a popular destination that is unique within the Cochrane area. Millennium Creek drains into Bighill Creek which then confluences with the Bow River making this site environmentally significant (**Figure 9**). The original red shale pathway was paved in 2015 along with the Riverfront Park upgrades. The 2002 imagery depicts that several structures and parking was located east of Bighill creek. It appears that the parking space was removed in 2015 (**Appendix G**). This location is very scenic and is a popular day use area.



**Figure 9- Area 3 Bighill Creek Confluence**

This site has gentle to moderate slopes and undercut banks in Bighill Creek. The confluence canopy consists of blue spruce and large poplars. The slopes are dominated by reed canary grass (*Phalaris arundinacea*), with Canada thistle (*Cirsium arvense*), and smooth brome (*Bromus inermis*).

This site provides habitat for many species and the confluence is unique to Cochrane. The fisheries resources that this site provides are very unique and is an important spawning location for multiple fish species. Although this assessment area provides valuable habitat, it experiences significant activity due to the proximity to the Glenbow trails and day use area nearby (**Photograph 13 to Photograph 15**).





**Photograph 13:** Bighill Creek looking northeast upstream at 51°10'52.26"N, 114°28'48.83"W.



**Photograph 14:** Looking south at the Bighill Creek and Millennium creek confluence



**Photograph 15:** Looking northwest at Bighill Creek confluence from 51°10'48.48"N, 114°28'50.19".

## Recommendations

- Decommission the off-trail pathways and unofficial stream crossing over Millenium Creek
- Pursue further studies of Bighill Creek and implement recommendations based on findings
- Investigate creating the area into a fish sanctuary zone:
  - Build official trails to the confluence, potentially a viewing platform
  - Provide informational signage along the trail about fish habitat, recreational etiquette and the work that has been done in this area to promote spawning and preservation
  - Create the area as a no swim zone (including dogs), to reduce disturbance in water
- This Assessment Area has an Historic Resource Value (HRV) of 5a, 5p. A Historic Resources Application for approval under the HRA is required should development be proposed



#### 5.1.4 AREA 4- COMMUNITY OF RIVERVIEW

This Assessment Area was assigned a medium ecological sensitivity value. The community of Riverview was developed in the early 1990s. The community extends along the bow river and wraps around the Cochrane Golf Club (Figure 10). The red shale pathway that follows the Bow River was paved between summer 2014 and 2015 (**Appendix G**).



Figure 10- Area 4 community of Riveria

The Riverview Assessment Site consists of a pathway that borders the residential community. The vegetation north of the pathway is maintained grass, and south of the pathway consists of low shrubs which transition into small poplars and willows within the riparian zone. The river shoreline along this location is typical along the entire study area. The shoreline primarily consists of a gradual sloping upland area with low undercut bank which transitions into a small rocky stretch of exposed cobbles. Riparian vegetation typically consists of willow (*Salix spp*), red-osier dogwood (*Cornus stolonifera*), reed canary grass (*Phalaris arundinacea*), and Kentucky bluegrass (*Poa pratensis*). The site has many walking trails that have been established from pedestrians accessing the Bow River.

Although the site experiences high anthropogenic volume and disturbance, there is habitat available for birds and small mammals. Fish habitat is limited in this area due to the lack of instream cover and spawning gravels (**Photograph 16 to Photograph 19**).





**Photograph 16:** pathway looking north upstream from 51°11'8.98"N, 114°29'26.88"W.



**Photograph 6:** Looking west at upland vegetation from 51°11'10.04"N, 114°29'26.30"W.



**Photograph 18:** Riparian area at 51°10'20.73"N, 114°28'28.70"W.



**Photograph 19:** Anthropogenic disturbance at 51°10'27.07"N, 114°28'39.30"W.

## Recommendations

- Create one or two official beach access areas
- Provide additional signage related to responsible access and etiquette
- The Assessment Area has a Historic Resource Value (HRV) of 4a, 4p, 5a, 5p. A Historic Resources Application for approval under the HRA is required should development be proposed



### 5.1.5 AREA 5- COMMUNITY OF RIVERIA

The Community of Riveria Assessment Area has been designated a medium ecological sensitive value. Construction of the community of Riveria was initiated in 2012. A pathway was built between 2012 and 2015 (**Appendix G**). The community backs onto the pathways and the gravel island north of the community is often accessed.

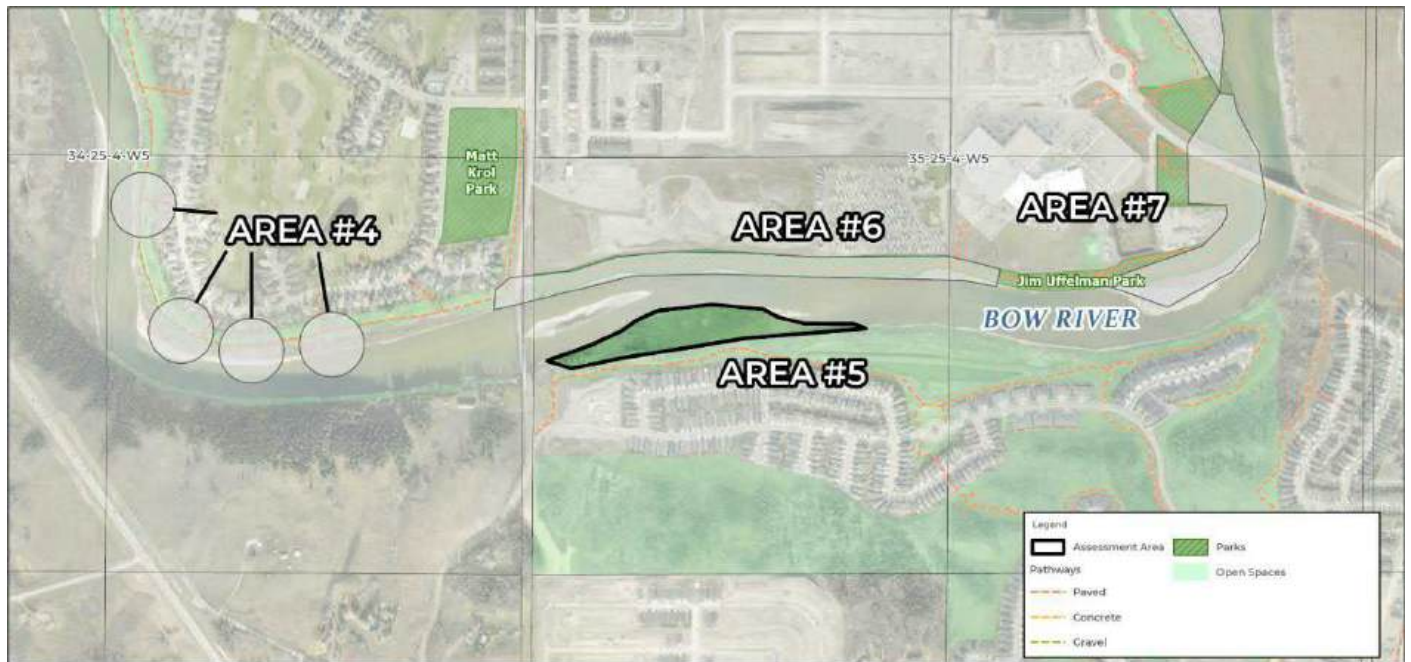


Figure 11- Area 5 Community of Riveria

The landscape generally consisted of a 40% sloped bank that led to the shoreline. This upper bank contains mature poplar with dense shrub/grass understories. A gravel bar and wetland area are present along the base of the slope which generally consists of willows (*salix spp*), sedges (*Carex spp*), and grassland species. Anthropogenic disturbance appeared to be minimal with opportunity for a diverse habitat throughout the site. Shorebird habitat was available which is unique to the assessment areas. Woodpecker cavities were observed in the mature poplars on the upper bank of the site. No instream cover or gravels were available at this site, so fish habitat was recorded to be limited to fast riffles and deep pools (**Photograph 20 to Photograph 23**).



**Photograph 20:** Looking north at the upland bank from 51°10'22.48"N, 114°27'39.91"W..



**Photograph 21:** Vegetation on the gravel bar at 51°10'23.58"N, 114°27'48.56"W.





**Photograph 22:** Wetland area along gravel bar at 51°10'22.73"N, 114°27'39.82"W.



**Photograph 7:** Gravel bar shoreline at 51°10'24.30"N, 114°27'44.25"W.

## Recommendations

- Generally, few recommendations as it was observed that there is limited if any access to the gravel bar
- Implement informational signage regarding the importance of and scarcity of intact habitat along the Bow River in Cochrane
- Provide signage regarding the importance of wetland riparian area for education and awareness
- This Assessment Area has a Historic Resource Value (HRV) of 5a, 5p. A Historic Resources Application for approval under the HRA is required should development be proposed



### 5.1.6 AREA 6- JIM UFFLEMAN DOG PARK

This Assessment Area has been designated a low- medium ecological sensitive value. The Jim Uffelman Dog Park is a highly popular multi-purpose area which is primarily used as an off-leash dog park, bike path, walking path and more. The pathway is located along the upper banks of the bow river (**Appendix G**).



Figure 12- Area 6 Jim Uffelman Dog Park

Jim Uffelman Park has high steep, elevated streambanks and the topography of the site generally slopes towards the east. The banks feature exposed slopes that are highly erodible. The vegetation on the slopes generally consisted of shrubby cinquefoil (*Dasiphora fruticosa*), grass species, and ground juniper (*Juniperus communis*). It appears that the vegetation consists of more weedy species as you move to the west end of the Dog Park (**Photograph 24 to Photograph 27**).

Due to the very high levels of activity at this location, there is minimal habitat available for both fish and wildlife. Throughout the area, multiple paths were visible along the steep slopes that people and dogs use to access the water. The *Jim Uffelman Park Environmental Study* was completed by EDS in 2023 and determined that the park is in relatively good condition and recommended future maintenance such as planting may be required if slopes continue to erode (EDS, 2023). This area is currently experiencing the pressures of a high recreation site; impacts include but are not limited to:

- Anthropogenic created pathways along highly erodible slopes
- Dog waste/disturbances in the river
- Increased weeds due to foot/dog traffic
- Decreased wildlife due to high levels of activity





**Photograph 8:** Slopes along Dog Park at 51°10'26.22"N, 114°27'29.71"W.



**Photograph 25:** Slopes at the east end of the Assessment Area at 51°10'25.54"N, 114°27'11.70"W.



**Photograph 26:** West end of the offleash dog park 51°10'26.48"N, 114°27'42.53"W.



**Photograph 27:** Eroded path on slope at 51°10'25.98"N, 114°27'12.71"W.

## Recommendations

- Provide fence or physical barrier along the bank to deter informal access leading to further erosion
- Designate and formalize a dog swim area where conditions allow for safer access at reduced slopes.
- Consider adding steps or stairs to access the river near the dog park and reinforce where and how to access the river as well as reduce erosion caused by informal usage
- Provide signage related to education and user etiquette
- Re-vegetate exposed slopes with a native seed mix to promote bank stability and promote biodiversity
- The Assessment Area has a Historic Resource Value (HRV) of 5a,4p. A Historic Resources Application for approval under the HRA is required should development be proposed



### 5.1.7 AREA 7- JIM UFFLEMAN PARK (JACK TENANT BRIDGE)

This Assessment Area has been designated a medium ecological sensitive value. The Jim Uffelman Dog Park (Jack Tenant Bridge) is a highly populated area which is primarily used as an off-leash dog park, and to access the Bow River due to the open cobble beach area (**Figure 13**).



Figure 13- Area 7 Jim Uffelman Park (Jack Tenant Bridge)

This Assessment Area has gentle topography with expansive cobble shores. The upland banks feature embedded cobbles with vegetation generally consisting of willows (*salix spp*), sedges (*Carex spp*), and grassland species (**Photograph 28 to Photograph 31**).



**Photograph 28:** North end of the Assessment Area at 51°10'34.16"N, 114°26'48.47"W.



**Photograph 29:** looking south at the community of Riveria at 51°10'25.60"N, 114°26'56.69"W.





**Photograph 9:** West end of the Assessment Area 51°10'25.74"N, 114°27'0.17"W.



**Photograph 31:** Under James Walker Trail Bridge at 51°10'32.95"N, 114°26'48.00"W.

### Recommendations

- Provide signage related to education and user etiquette
- Install more waste bins to maintain the beach cleanliness
- The Assessment Area has a Historic Resource Value (HRV) of 5a,4p. A Historic Resources Application for approval under the HRA is required should development be proposed



### 5.1.8 AREA 8- BOW RIVER ISLAND

The Bow River Island Assessment Area has been designated a medium-high ecological sensitive value. This island north of Jim Uffelman Park, is accessible from Griffin Rd E, had visible walking trails in early imagery (**Figure 14**). In 2002, it was highly accessible on foot due to multiple connections to the shoreline. The 2012 flood widened the channel significantly, inundating the island. This change resulted in a wider channel that now restricts access. The island remains accessible, but you must wade through the side channel. The walking path was connected from the dog park north in about 2012 (**Appendix G**).

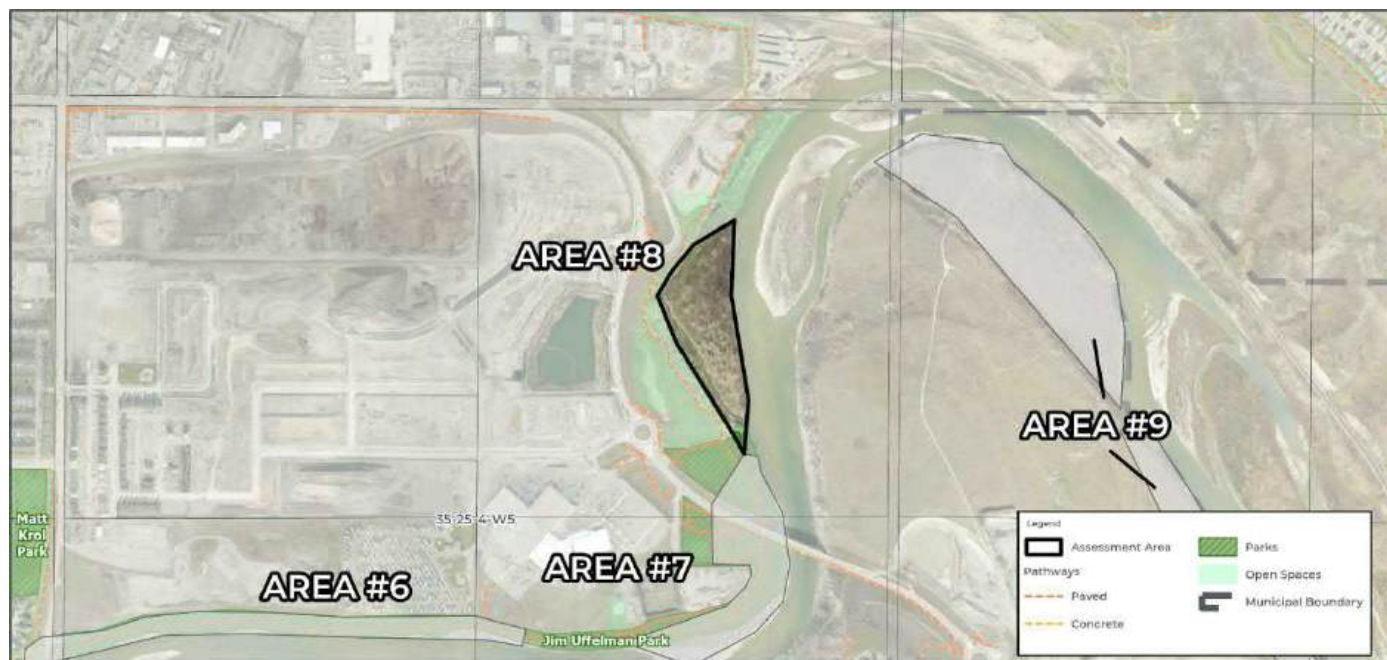


Figure 14-Area 8 Bow River Island

The island is generally flat with low banks. Vegetation consists of small trees and shrubs growing out of the embedded cobble substrate of the island. The side channel limits accessibility and promotes wildlife habitat. Fish habitat was observed throughout the site as the side channel substrate consisted of suitable spawning gravels and undercut banks with overhanging vegetation readily available (**Photograph 32 to Photograph 34**). Low velocity side channel habitat is also very important rearing habitat for salmonids.





Photograph 32: Looking north upstream from 51°10'47.33"N, 114°27'0.03"W.



Photograph 33: small gravel substrate at 51°10'40.36"N, 114°26'53.41"W.



Photograph 34: undercut banks at 51°10'42.83"N, 114°26'56.25"W

## Recommendations

- Provide informational signage along the trail about fish habitat, and the work that has been done in this area to promote spawning.
- Provide informational signage related to proper use and etiquette to stay on trail and prohibit access onto the island
- The Assessment Area has a Historic Resource Value (HRV) of 4a, 4p. A Historic Resources Application for approval under the HRA is required should development be proposed



### 5.1.9 AREA 9- SOUTH RIDGE

This Assessment Area has been designated a high ecological sensitive value. It is located east of an active gravel extraction operation. South ridge has been incorporated into multiple ASP's and has been identified by the Town as a future residential area (Town of Cochrane, 2011). The TransCanada pathway is currently planned to enter the Municipal boundary through this area through The Trail project.

This Area has been identified as an ESA on the Provincial database and contained the most diverse and native vegetation of all the site assessments (Fiera Biological Consulting., 2014). Habitat within this site ranged from riparian, floodplain, grasslands, and more. Listed species such as limber pine was identified during the site assessments.



Figure 15- Area 9 South Ridge

This site consists of an upland area which has moderate slopes transitioning into the floodplain. The upland banks are tall, exposed banks with little to no growth on the slope. Vegetation at this site is diverse as it supports a variety of habitats and habitat for multiple listed species such as limber pine (**Photograph 37**). Although this site provides suitable habitat and areas within the assessment areas are undisturbed, much of the area is relatively inaccessible for wildlife due to the gravel pit operations. Fish habitat was recorded to be limited due to the fast-flowing deep water, boulder substrate and lack of stream cover. Site Photos are provided in (**Photograph 34 to Photograph 38**).



**Photograph 34:** Potential bank swallow community at 51°10'57.34"N, 114°26'30.48"W.



**Photograph 10:** Slopes looking upstream south from 51°10'27.06"N, 114°25'56.81"W.





**Photograph 11:** looking south upstream from the floodplain at 51°10'45.28"N, 114°26'14.33"W.



**Photograph 12:** Limber pine located at 51°10'31.56"N, 114°26'4.15"W



**Photograph 38:** Looking north downstream from the floodplain at 51°10'10.64"N, 114°25'45.11"W.

## Recommendations

- Designate, design and implement park spaces within this area that respect the natural assets of the site
- Conduct vegetation salvages for re-planting/re-seeding
- Provide informational signage on pathway to educate users on etiquette and promote conservation efforts
- Require protection of the floodplains in all future development applications for this area.
- Engage a wildlife biologist to confirm if bank swallow cavities are active and if so, then implement a buffer and strategy
- Conduct groundwater studies as several springs were observed within the riverbank to ensure future development respects and avoids these natural features
- Establish native vegetation buffers by using a mix of native grasses, shrubs, and trees. This will help stabilize the exposed slopes, prevent erosion, and promote biodiversity
- Implement a native vegetation restoration area. Opportunity to initiate a citizen science program to support in tracking the success of restoration projects
- The Assessment Area has a Historic Resource Value (HRV) of 4a, 4p. A Historic Resources Application for approval under the HRA is required should development be proposed



## 6.0 REGULATORY

Regulatory considerations vary depending on the environmental conditions, the proposed development, and potential impacts. Based on the results of Section 3.0 and 5.0, a compilation of anticipated regulatory triggers for development within the Study Area has been prepared. **(Table 6-1)**. The identification of these regulatory triggers is crucial, as they directly inform the recommendations outlined in Section 5.0 and help shape the general recommendations in Section 7.0, ensuring that development aligns with environmental regulations and mitigates potential impacts.

**Table 6-1: Anticipated Applicable Regulations**

Legislation	Description	Trigger
PROVINCIAL LEGISLATION		
<b><i>Alberta Wildlife Act</i></b>	This Act provides for the protection and conservation of wild animals in Alberta.	The potential to disturb or destroy an animal or its active residence.
<b><i>Alberta Weed Control Act</i></b>	This document outlines proponents' responsibilities in controlling and limiting the spread of provincially listed weed species.	Part 1 Section 4(1) states that it is the responsibility of companies operating on lands to mitigate the spread of noxious weeds or prohibited noxious weeds (Government of Alberta, 2008).
<b><i>Alberta Water Act</i></b>	The purpose of the Act is to promote the conservation and management of water. An Activity such as a diversion, construction/operation, and use of water in Alberta is controlled under provisions of the <i>Water Act</i> .	Disturbance of surface waters (i.e. wetlands or watercourses) require a Water Act approval and/or a <i>Code of Practice for Watercourse Crossings</i> .
<b><i>Alberta Public Lands Act</i></b>	This document prohibits the unauthorized use of Alberta's public lands, including the beds and shores of all-natural watercourses and permanent and naturally occurring bodies of water.	An approval process may be triggered when the development of public lands is proposed. This includes the bed and shore of Crown claimed waterbodies (i.e., Bow River).
<b><i>Master Schedule of Standards and Conditions</i></b>	This document identifies the conditions applicable for impacts to public lands if a formal disposition is required.	The potential to interact with Public Lands (e.g., Bow River) and a Key Wildlife Biodiversity Zone (KWBZ).
<b><i>Recommended Land Use Guidelines: Key Wildlife and Biodiversity Zones</i></b>	This document provides the guidelines for construction within a KWBZ.	The routing of all options through a KWBZ.



Legislation	Description	Trigger
<b>Alberta Soil Conservation Act</b>	Discourages practices that cause soil degradation.	Stripping activities in areas that are to be reclaimed and areas of native vegetation.
<b>Environmental Protection and Enhancement Act (EPEA)</b>	Promotes the protection, enhancement, and wise use of the environment.	The diversion, discharge, or retention of surface waters will require EPEA approval. The construction of stormwater management facilities require EPEA approval and registration. Any contamination released into/onto the environment (i.e., Bow River) will trigger EPEA.
FEDERAL LEGISLATION AND GUIDELINES		
<b>Species at Risk Act (SARA)</b>	Provides for the protection and conservation of Species At Risk in Canada.	Disturbance to or destruction of a species at risk, its active residence, or its critical habitat.
<b>Migratory Birds Convention Act</b>	Provides for the protection of migratory birds, their nests, and their habitats. Incidental take (i.e., the disturbance/death of migratory birds, their eggs, or nests) is a federal offense.	Development within areas of suitable nesting habitat during the Restricted Activity Period (April 14 to August 28).
<b>Fisheries and Oceans Canada (FOC)</b>	The Federal Fisheries Act provides for the management of fisheries and protection of fish and fish habitat, including pollution prevention and fish passage protection. A FOC Request for Review (RFR) will be required for any works within any fish-bearing watercourses'	Project interactions with the Bow River, Bighill creek, and Millenium Creek. Uncoded/unmapped watercourses within 2km upstream of Class C waterbody will be classed the same as the water body it enters.



## 7.0 RECOMMENDATIONS:

Key recommendations have been identified to guide responsible development and land management practices, considering the environmental sensitivity of the Study Area and its surrounding ecosystems. The recommendations aim to mitigate potential risks associated with steep slopes, historical resources, native vegetation, fisheries, wildlife, and flood-prone areas. It is essential that these guidelines be followed to preserve the integrity of natural habitats, protect valuable ecosystems, and ensure sustainable development practices. Adherence to these recommendations will contribute to maintaining ecological balance and ensuring that future development is aligned with both environmental protection and community well-being.

### Slopes and Soil Erosion Potential

Geotechnical investigation is recommended at any slopes greater than 30% or highly erodible soils to determine potential development setbacks. Re-vegetating exposed slopes with native seed mixes will help stabilize the slopes, prevent erosion, enhance the landscape, and promote biodiversity.

### Native Vegetation

Grasslands or Native Pasture are of the most at-risk ecosystems in the world (IUCN 2010). Although no specific database layer was applied for native grasslands, it was included in the assessment and ranking based on current site conditions and most recent aerial imagery. The database overlay of potential endangered plant species was reviewed and included in the high-level mapping for the Town. However, it was determined not to be included in the ranking system simply due to the fact the layer for potential for endangered plants covers the entire area of the Town. As this factor applies to all land parcels equally, fully developed, and undeveloped, the net result is equal on all sites and has been omitted from the ranking system. Site specific vegetation surveys are the only way to confirm the presence/absence of rare/endangered plant species, or native grasslands and should be considered on a site-by-site basis prior to a change in land use and/or development.

### Fish and Wildlife

Jumpingpound creek, Millenium Creek and Bighill Creek each provide unique, valuable fish habitat for all fish life cycle stages. These confluences provide instream cover, complex and unique fish habitat that is relatively rare on the Bow River. Due to the high value spawning habitat in the confluences, it is recommended that further fish habitat studies be conducted at each of the sites if surrounding land use is to change. Detailed fish habitat studies, including mapping of critical spawning, rearing, and feeding areas should be conducted. Work with universities, research institutions, or conservation organizations to investigate habitat requirements for specific species of concern. Additionally, designating specific access points for recreational activities such as fishing, walking, or river access can help minimize foot traffic and habitat disturbance. Signage and barriers should be put in place to direct users away from ecologically sensitive areas, while promoting awareness of responsible recreational practices near these vital habitats.

Wildlife sweeps should be conducted between 5-7 days prior to construction. To comply with both the federal Migratory Birds Convention Act and the provincial Wildlife Act, wildlife sweeps should be conducted between February 15 to August 25 if construction begins or is reinstated within this timeline

### HRV

All Site Assessment locations within the Project Area are assigned an HRV, and a Historic Resources Application for approval under the HRA is required should development be proposed. If it is determined that the activity is likely to result in damage, alteration, or destruction of historic resources, mitigation or avoidance may be required, or a Historic Resources Impact Assessment (HRIA) conducted by a qualified historic resource consultant may be required to obtain HRA approval. In the event any archeological, paleontological and/or other historical resources are found on the site during development activities, it is to be immediately reported to Alberta Culture and Tourism for further investigation (Arts, Culture and Status of Women, 2024).

### Setbacks

Development is restricted in the mapped flood fringe areas. In the upland areas, Stepping Back from the Water should be implemented to determine a development setback prior to any construction. The document recommends



implementing a 50m setback from permanent waterbodies such as lakes that consist of coarse textured sand and gravel substrate (Government of Alberta, 2012). A 50m setback from the Bow River is recommended to be implemented.

## 8.0 CONCLUSION/NEXT STEPS

The Bow River and its surrounding riparian zones are vital to the Town of Cochrane, not only for their ecological significance but also for their recreational, cultural, and economic contributions to the community. As the town continues to grow and its demands on the river increase, it is essential to prioritize sustainable development practices that respect and preserve the natural environment while providing accessible, recreational spaces for residents and visitors. The recommendations outlined in this report provide a balanced approach to managing the river's resources, ensuring the protection of sensitive areas, and promoting responsible use of the waterfront. By adopting these strategies, the Town of Cochrane can continue to foster a harmonious relationship between urban growth and environmental stewardship, preserving the Bow River for future generations while meeting the needs of the community.

The following is a list of recommendations based on the above environmental regulations and limitations of the Bow River Access Impact Study:

- A site visit by an environmental professional is recommended to confirm the conditions of the Project Area for native vegetation, and habitat conditions prior to any disturbance or development
- Designate specific entry points for recreational activities to access the river to minimize foot traffic and habitat disturbance
- Establish signage and barriers to guide users away from ecologically sensitive areas
- Install educational signage throughout the Study Area to promote awareness regarding environmental sensitives
- Ongoing efforts to gather up-to-date data on the Study Area are essential for implementing adaptive strategies to safeguard the Bow River

## 9.0 CLOSURE

This document, entitled *Town of Cochrane- Bow River Access Impact Study*, is prepared by Urban Systems Ltd. for the Town of Cochrane. The material in this document reflects the best judgment of Urban Systems Ltd. based on the information available at the time of preparation. Any use, reliance on, or decisions a third party makes based on this report are the third party's responsibilities. Urban Systems Ltd. accepts no responsibility for damages, if any, suffered by any third party due to decisions made or actions taken based on this report.

### URBAN SYSTEMS LTD.

Author



Sidney Kwok, AIT  
Environmental Consultant

### URBAN SYSTEMS LTD.

Review



Darren Filipic, R.P. Bio  
Senior Environmental Consultant



## 10.0 REFERENCES

- Arts, Culture and Status of Women. (2024). *Listing of historic resources*. Retrieved from Heritage Conservation and Protection: <https://www.alberta.ca/listing-historic-resources.aspx>
- Adams, B. W., Ehlert, R., Moisey, D., & McNeil, R. L. (2012). *Range Plant Communities and Range Health Assessment Guideline for the Foothills Parkland Natural Subregion of Alberta of Alberta*. Retrieved from <https://open.alberta.ca/dataset/0b369ba1-fb87-4bb5-96d1-568293391d2b/resource/2d985ea5-7b4c-4553-a36b-b72b7e4394e6/download/2012-foothillsparklandrangeplantguide.pdf>
- Alberta Agriculture and Forestry. (2018, 07 31). *Alberta Climate Information Service*. Retrieved from Interpolated Weather Data Since 1961 for Alberta Townships: <http://agriculture.alberta.ca/acis/township-data-viewer.jsp>
- Alberta Environment and Parks. (2012). *Calgary Management Map*. Retrieved from Code of practice for pipelines and telecommunication lines crossing a water body, code of practice for watercourse crossings, code of practice for outfall structures on water bodies [maps]: <https://open.alberta.ca/dataset/1bdbc003-75a0-41dc-b33d-099c5bc536ad/resource/1e69166a-0c01-4d94-b6d8-9adeabbde437/download/calgary-codepracticecross-map-2012.pdf>
- Alberta Environment and Sustainable Resources Development. (2015). *Alberta Wetland Classification System*. Edmonton, AB: Water Policy Branch, Policy and Planning Division.
- Alberta Parks. (2014). *Natural Regions & Subregions of Alberta*.
- Alberta Parks. (2024, April 1). Alberta Conservation Information Management System. <https://www.albertaparks.ca/albertaparksca/management-land-use/alberta-conservation-information-management-system-acims/>.
- Alberta Species at Risk Program. (2021). *Whitebark and limber pine recovery program in Alberta*. Retrieved from <https://open.alberta.ca/dataset/20b673f1-d129-4396-b337-adc4d6a483f6/resource/6a1192fd-8215-4659-ab6c-2d4efbe05806/download/aep-sar-166-alberta-whitebark-limber-pine-recovery-program-2020.pdf>
- Anderson, B., Ohmart, R., & Rice, J. (n.d.). Avian and Vegetation Community Structure and Their Seasonal Relationships in the Lower Colorado River Valley. *The Condor* 85, pp. 392–405.
- Atkinson, N., Utting, D., & Pawley, S. (2014, 07 14). *Glacial Landforms of Alberta, Canada*. Retrieved from Alberta Geological Survey: [https://static.ags.aer.ca/files/document/MAP/Map\\_604.pdf](https://static.ags.aer.ca/files/document/MAP/Map_604.pdf)
- Bow River Basin Council. (2024, September). *Bow River Basin State of the Watershed*. Retrieved from <https://ecr.brbc.ab.ca/>
- Bow River Trout Foundation. (2019). *The Impact of Bow River Water Management on the Fish Population*. Retrieved from Bow River Trout Foundation: <https://www.calgaryriverusers.org/wp-content/uploads/2024/03/Bow-River-Populations-and-Water-Revised-PCS-28Mar2024.pdf>
- Cahill, C., Mogensen, S., Wilson, K., Cantin, A., Sinnatameby, R., Paul, A., . . . Post, J. (2018). *Multiple challenges confront a high-effort inland recreational fishery in decline*. Retrieved from [https://docs.wixstatic.com/ugd/c9e0c9\\_c5a407800c1a4425b91c80b9f2ac8eff.pdf](https://docs.wixstatic.com/ugd/c9e0c9_c5a407800c1a4425b91c80b9f2ac8eff.pdf)
- Clare, S., & Sass, G. (2012). *Riparian lands in Alberta: Current state, conservation tools, and management approaches*. Edmonton.
- Cornell Lab of Ornithology. (2024). *Great Blue Heron*. Retrieved from [https://www.allaboutbirds.org/guide/Great\\_Blue\\_Heron#](https://www.allaboutbirds.org/guide/Great_Blue_Heron#)



COSEWIC. (2014). *COSWIC Assessment and Status Report on the Limber Pine (Pinus flexilis) in Canada*. Retrieved from Committee on the Status of Endangered Wildlife in Canada.: [https://publications.gc.ca/collections/collection\\_2016/eccc/CW69-14-710-2015-eng.pdf](https://publications.gc.ca/collections/collection_2016/eccc/CW69-14-710-2015-eng.pdf)

Culture and Status of Women. (2024, April 1). Listing of Historical Resources. Edmonton, Alberta, Canada.

EDS. (2023). *Jim Uffelmann Park Environmental Study*. Retrieved from [https://ehq-production-canada.s3.ca-central-1.amazonaws.com/6fb643907b0aac03f159e40ff2158fb5bcbbc39d/original/1722447359/3b054c54cf050dfa5d4465c36d78cd6e\\_32237\\_-\\_Jim\\_Uffelmann\\_Park\\_Environmental\\_Study\\_181223.pdf?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Cred](https://ehq-production-canada.s3.ca-central-1.amazonaws.com/6fb643907b0aac03f159e40ff2158fb5bcbbc39d/original/1722447359/3b054c54cf050dfa5d4465c36d78cd6e_32237_-_Jim_Uffelmann_Park_Environmental_Study_181223.pdf?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Cred)

eFlora BC. (2020). *Limber Pine*. Retrieved from E-Flora BC: Electronic Atlas of the Flora of British Columbia: <https://linnet.geog.ubc.ca/Atlas/Atlas.aspx?sciname=Pinus%20flexilis&redblue=Both&lifeform=1>

E-Flora BC. (2024). Retrieved from E-Flora BC: Electronic Atlas of the Flora of British Columbia: <https://linnet.geog.ubc.ca/Atlas/Atlas.aspx?sciname=Pellaea%20glabella%20ssp.%20occidentalis>

Fenton, M., Waters, E., Pawley, S., Atkinson, N., Utting, D., & McKay, K. (2013). *Alberta Geological Survey*. Retrieved from Surficial: [https://static.ags.aer.ca/files/document/MAP/Map\\_601.pdf](https://static.ags.aer.ca/files/document/MAP/Map_601.pdf)

Fiera Biological Consulting Ltd. (2014). *Environmentally Significant Areas in Alberta: 2014 Update*. Edmonton.

Fiera Biological Consulting. (2014). *Environmentally Significant Areas in Alberta: 2014 Update*. Retrieved from Government of Alberta: <https://open.alberta.ca/dataset/91444b6b-395b-4c83-ba37-a2e07ffbe69e/resource/21f22275-ae8e-4976-9caa-f5be09a11fec/download/2014-esa-final-report-april-2014.pdf>

Government of Alberta. (2008). *Weed Control Act*. Alberta Queens Printer.

Government of Alberta. (2012). *Calgary Managment Area Map*. Retrieved from Water Codes of Practice : <https://open.alberta.ca/dataset/1bdbbc003-75a0-41dc-b33d-099c5bc536ad/resource/1e69166a-0c01-4d94-b6d8-9adeabbde437/download/calgary-codepracticecross-map-2012.pdf>

Government of Alberta. (2012). *Stepping Back from the Water*. Retrieved from Open Alberta: <https://open.alberta.ca/dataset/1c70eb43-a211-4e9c-82c3-9ffd07f64932/resource/6e524f7c-0c19-4253-a0f6-62a0e2166b04/download/2012-steppingbackfromwater-guide-2012.pdf>

Government of Alberta. (2015). *Alberta Wetland Identification and Delineation Directive*. Edmonton: Alberta Environment and Parks.

Government of Alberta. (2022). *Notice: Abandoned Nest Registry*. Retrieved from Government of Canada: <https://www.canada.ca/en/environment-climate-change/services/migratory-bird-permits/notice-abandoned-nest-registry.html>

Government of Alberta. (2024). *Flood Awareness Map Application*. Retrieved from [https://floods.alberta.ca/?N=&app\\_code=FH&mapType=Final](https://floods.alberta.ca/?N=&app_code=FH&mapType=Final)

Government of Alberta. (2024). Aerial Photographic Record System Air Photo Library. Edmonton, Alberta, Canada.

Government of Alberta. (2024). *Alberta Soil Information Viewer*. Retrieved from Alberta Agriculture and Forestry: <http://www4.agric.gov.ab.ca/agrasidviewer/>

Government of Alberta. (2024, June 18). *Fish and Wildlife Internet Mapping Tool*. Retrieved from [https://maps.alberta.ca/FWIMT\\_Pub/Viewer/?Viewer=FWIMT\\_Pub](https://maps.alberta.ca/FWIMT_Pub/Viewer/?Viewer=FWIMT_Pub)

Government of Alberta. (2024). *GeoDiscover Viewer*. Retrieved from <https://geodiscover.alberta.ca/geoportal/#searchPanel>



- Government of Alberta. (2024). *Wild Species Status Search*. Retrieved from Alberta.ca: <https://www.alberta.ca/lookup/wild-species-status-search.aspx>
- Government of Canada. (2024). *Accessibility Standards Canada*. Retrieved from CAN-ASC-2.1 Outdoor spaces: Public Review Draft: <https://accessible.canada.ca/sites/default/files/2023-06/SD-PRD-2.1OS-V01-20230317-EN%20AODA.pdf>
- Government of Canada. (2024). *Contaminated Site Registry*. Retrieved from Treasury Board of Canada: <https://map-carte.tbs-sct.gc.ca/map-carte/fcsi-rscf/map-carte.aspx?Language=EN&backto=www.tbs-sct.gc.ca/fcsi-rscf/home-accueil-eng.aspx>
- Government of Canada. (2024). *Pileated Woodpecker Cavity Identification Guide*. Retrieved from <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/pileated-woodpecker-cavity-identification-guide.html>
- Government of Canada. (2024). *Species at Risk Registry*. Retrieved from Canada.ca: <https://species-registry.canada.ca/index-en.html#/species?sortBy=commonNameSort&sortDirection=asc&pageSize=10>
- Jumpingpound Creek Watershed Partnership. (2009). *Jumpingpound Creek State of the Watershed Report 2009*. Palliser Environmental Services Ltd..
- Naiman, R., Decamps, H., & Pollock, M. (1993). The Role of Riparian Corridors in Maintaining Regional Biodiversity. *Ecological Applications*, pp. 209-212.
- Native Plant Trust. (2024). *Native Plant Trust: Go Botany*. Retrieved from <https://gobotany.nativeplanttrust.org/species/mirabilis/linearis/>
- O2 Planning and Design. (2013, November 6). *Ecological Inventory Expansion and Environmental Best Practices Report*. Retrieved from City of Airdrie: <https://www.airdrie.ca/getDocument.cfm?ID=9556>
- Patten, D. (1998). Riparian ecosystems of semi-arid North America: Diversity and human impacts. *Wetlands* , pp. 498-512.
- PNNL. (2024). *Pacific Northwest National Laboratory*. Retrieved from [https://mepas.pnnl.gov/mepas/formulations/source\\_term/5\\_0/5\\_32/5\\_32.html](https://mepas.pnnl.gov/mepas/formulations/source_term/5_0/5_32/5_32.html)
- Prior, G., Hathway, B., Glombick, P., Pana, D., Hay, D., Schneider, C., . . . Weiss, J. (2013). *Bedrock geology of Alberta- Map 600*. Retrieved from Alberta Energy Regulator: [https://static.ags.aer.ca/files/document/MAP/Map\\_600.pdf](https://static.ags.aer.ca/files/document/MAP/Map_600.pdf)
- Stalker, A. (1957). *The erratics train, foothills of Alberta*. Geological Survey of Canada. Retrieved from Government of Canada.
- Town of Cochrane. (2008, 07). *Municipal Development Plan*. Retrieved from <https://www.cochrane.ca/media/278>
- Town of Cochrane. (2011). *South Ridge Area Structure Plan*. Retrieved from <https://www.cochrane.ca/media/301>
- Town of Cochrane. (2013). *Growth Management Strategy*. Retrieved from [https://www.cochrane.ca/sites/default/files/2023-09/Growth%20Management%20Strategy\\_201310171645294861.pdf](https://www.cochrane.ca/sites/default/files/2023-09/Growth%20Management%20Strategy_201310171645294861.pdf)
- Town of Cochrane. (2024). *Town Services*. Retrieved from Water Treatment Plant: <https://www.cochrane.ca/town-services/facilities/water-treatment-plant>
- Trout Unlimited Canada. (2018). *Electrofishing Investigations in Bighill Creek, June 2018*.
- Urban Systems Ltd. (2025). *Bow River Strategy*.
- Veiga, V., Hassan, Q., & He, J. (2015). Development of Flow Forecasting Models in the Bow River at Calgary, Alberta, Canada. *Water*, 99-115.

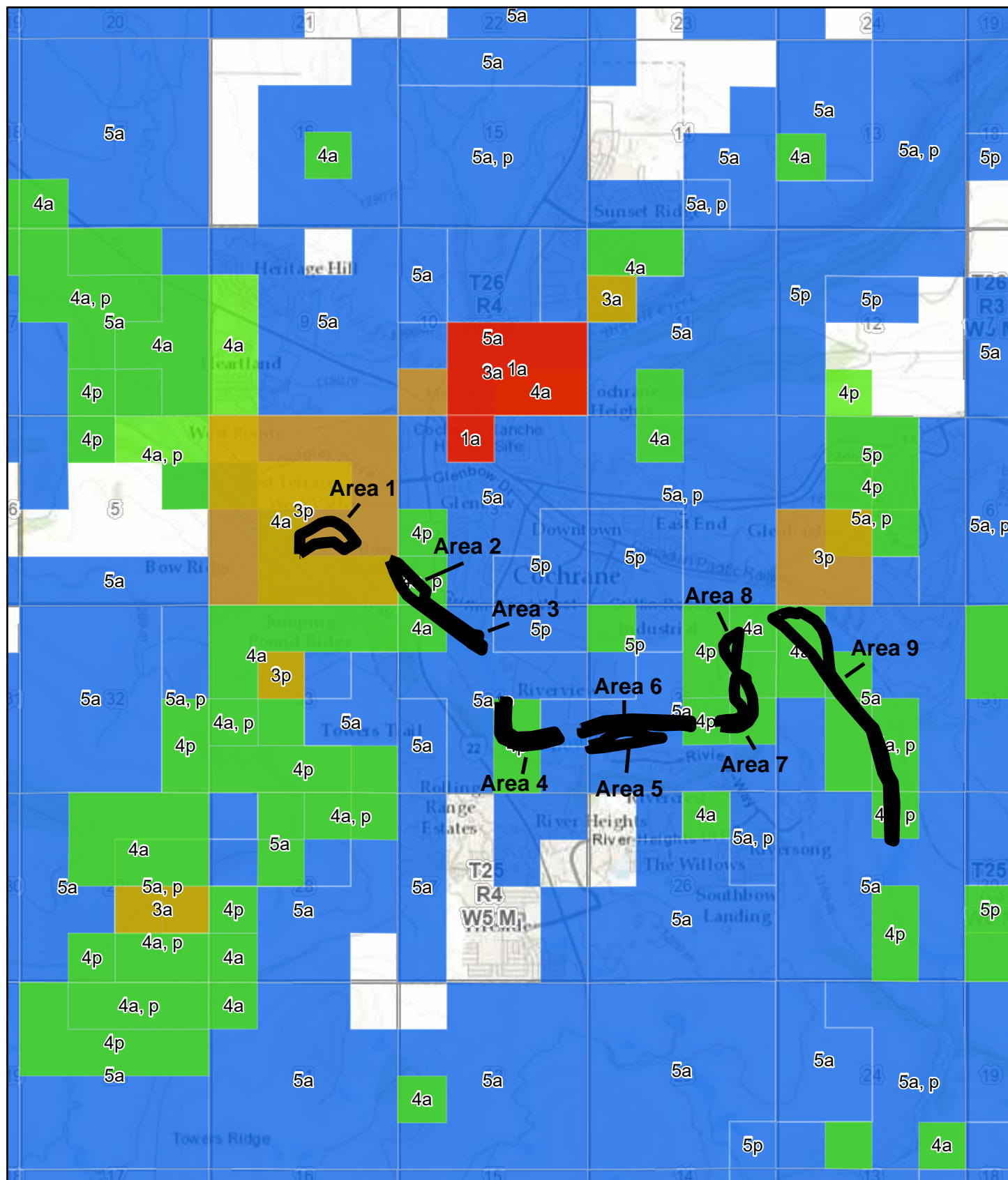


# APPENDIX A: HRA LISTING





# Listing of Historic Resources - Historic Resource Values



12/2/2024, 11:46:46 AM

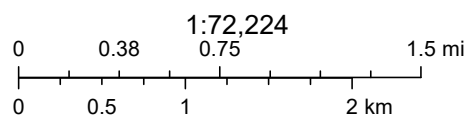
- Listing of Historic Resources Public- HRV 1
- Listing of Historic Resources Public- HRV 3
- Override 1
- Listing of Historic Resources Public- HRV 4

ATS Township Index Label Above Hydro

ATS Section with Road Allowance Label Below Hydro

ATS Township Index Outline 5

Activities planned for lands not included in the Listing of Historic Resources may still require Historical Resources Act approval. The results of a Listing search MUST be used in conjunction with the

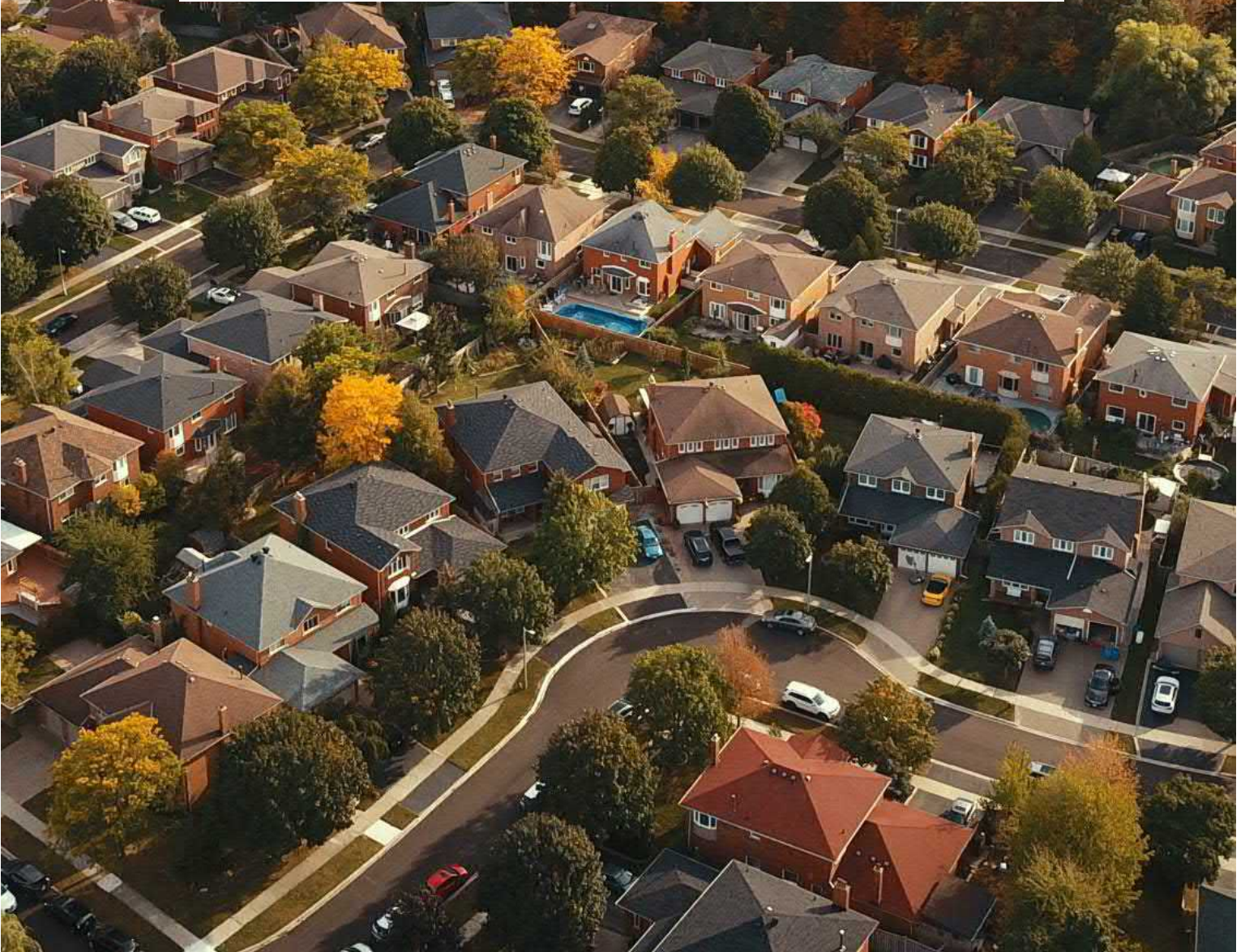


Town of Cochrane, RDEK, Province of Alberta, Province of British Columbia, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, NGA, EPA, USDA, AAFC, NRCAN, Copyright Government of Alberta

ArcGIS Web AppBuilder



# APPENDIX B: AGRASID





# Report on Soil Polygon: 11694

Variable	Value
POLY_ID	11694
Map Unit Name	ZCOzbl8/SC2
Landform	SC2 - valley with terraces
LSRS Rating (Spring Grains)	5TM(6) - 5H(2) - NR(2)

## Landscape Model Descriptions:

Miscellaneous coarse-textured soils in the Black soil zone (ZCOzbl).

The polygon includes poorly drained soils and soils with Rego profiles (8).

Valley with terraces landform with slopes ranging from 1-5% on terraces and up to 35% on the side slopes (SC2).

## Image:

No image.

## Landform Model:

No landform model.

## Landform Profile:

No landform profile.



# Report on Soil Polygon: 11683

Variable	Value
POLY_ID	11683
Map Unit Name	LNMF1/FP3
Landform	FP3 - confined, terraced
LSRS Rating (Spring Grains)	3H(6) - 3HM(4)

## Landscape Model Descriptions:

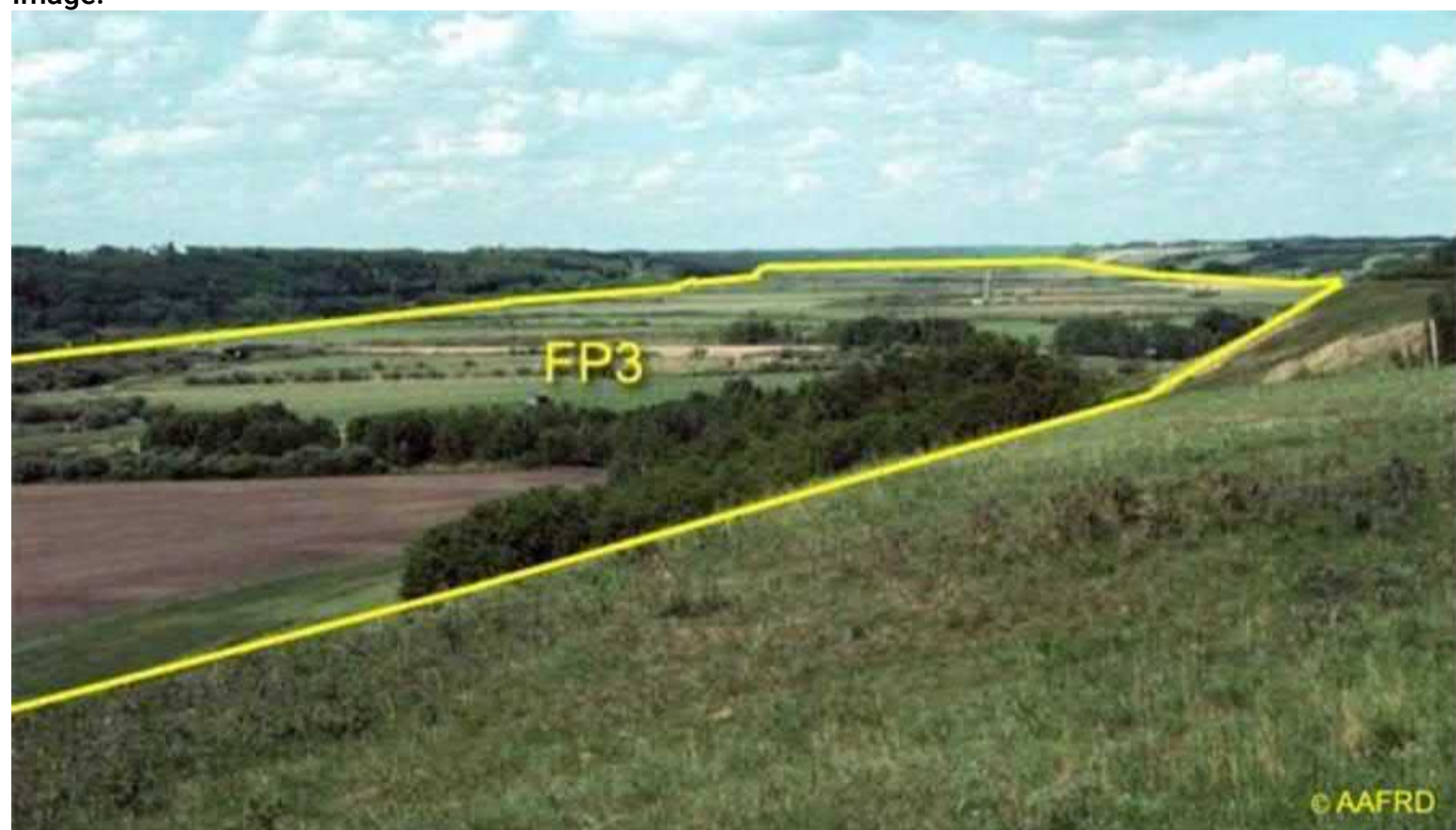
Orthic Black Chernozem on gravel or gravelly coarse textured (S, LS, SL) undifferentiated materials (includes cobbly and stony variations) (LNB).

Orthic Black Chernozem on moderately fine textured (CL, SCL, SiCL) sediments deposited by water (MFT).

The polygon may include soils that are not strongly contrasting from the dominant or co-dominant soils (1).

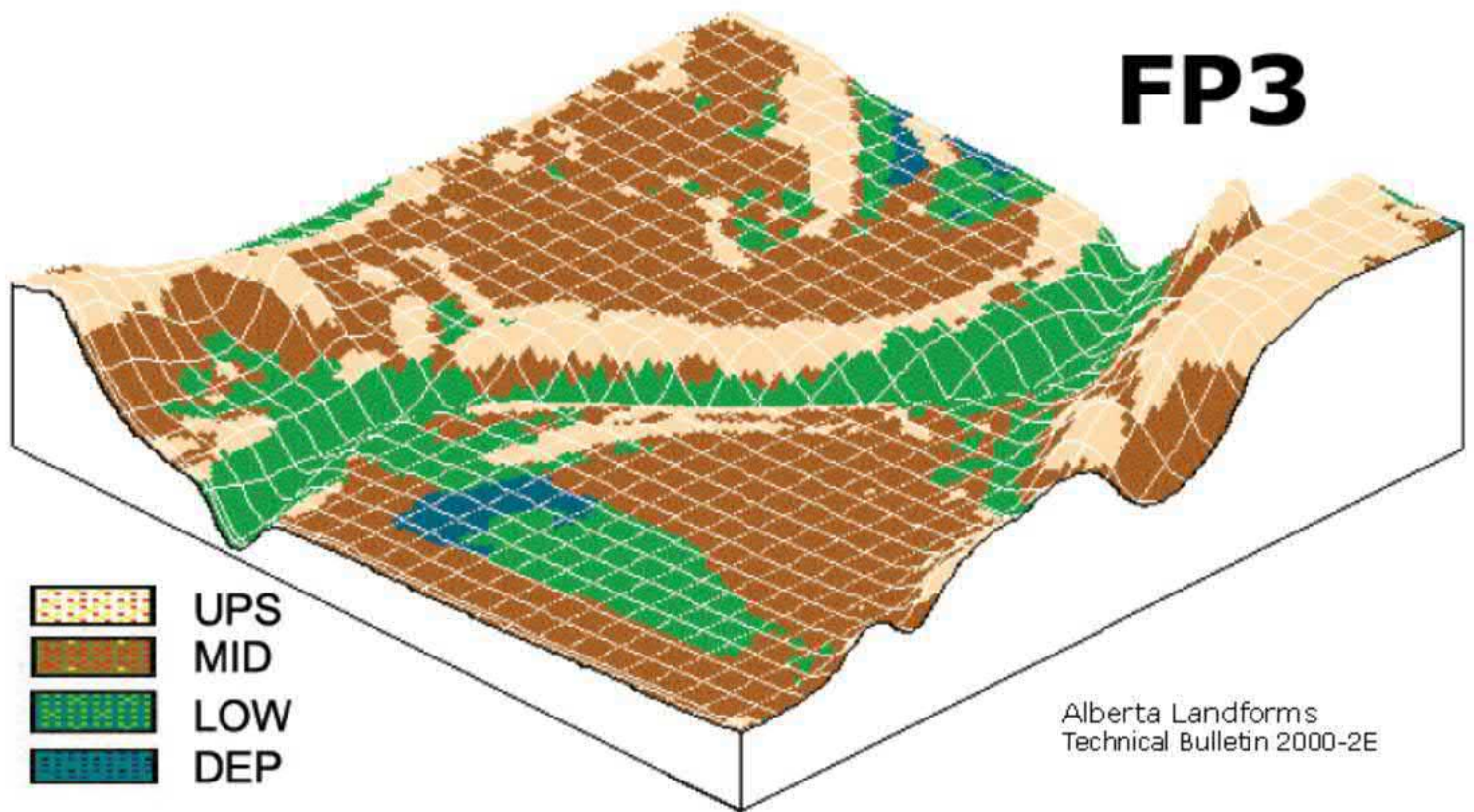
Confined, terraced floodplain landform with a limiting slope of 3% (FP3).

## Image:





Landform Model:





# APPENDIX C: ACIMS





**Date:** 26/11/2024

**Requestor:** Consultant

**Reason for Request:** Environmental Reporting

**SEC:** 35 **TWP:** 025 **RGE:** 04 **MER:** 5



## ■ Non-sensitive EOs (updated: June 2022)

M_RR_TTT_SS	EO_ID	ECODE	S_RANK	SNAME	SCOMNAME	LAST_OBS_D
5-04-025-35	13982	PPADI0H066	S2	Pellaea glabella ssp. simplex	smooth cliffbrake	1940-09-20

**Next Steps:** [See FAQ](#)

## ■ Sensitive EOs (updated: June 2022)

M-RR-TTT	EO_ID	ECODE	S_RANK	SNAME	SCOMNAME	LAST_OBS_D
----------	-------	-------	--------	-------	----------	------------

**No Sensitive EOs Found: Next Steps -** [See FAQ](#)



**Date:** 26/11/2024

**Requestor:** Consultant

**Reason for Request:** Environmental Reporting

**SEC:** 36 **TWP:** 025 **RGE:** 04 **MER:** 5



## ■ Non-sensitive EOs (updated: June 2022)

M_RR_TTT_SS	EO_ID	ECODE	S_RANK	SNAME	SCOMNAME	LAST_OBS_D
5-04-025-36	13982	PPADI0H066	S2	Pellaea glabella ssp. simplex	smooth cliffbrake	1940-09-20
5-04-025-36	17772	CEAB000147	S2	Elymus lanceolatus - Hesperostipa comata grassland	northern wheat grass - needle-and-thread grassland	2007-06-21
5-04-025-36	17795	PGPIN040F0	S2	Pinus flexilis	limber pine	2007-06-13
5-04-025-36	27486	PDNYC0A200	S2	Mirabilis linearis	narrowleaf umbrellawort	2003-06-21

**Next Steps:** [See FAQ](#)

## ■ Sensitive EOs (updated: June 2022)

M-RR-TTT	EO_ID	ECODE	S_RANK	SNAME	SCOMNAME	LAST_OBS_D
----------	-------	-------	--------	-------	----------	------------

**No Sensitive EOs Found: Next Steps -** [See FAQ](#)



**Date:** 26/11/2024

**Requestor:** Consultant

**Reason for Request:** Environmental Reporting

**SEC:** 25 **TWP:** 025 **RGE:** 04 **MER:** 5



## ■ Non-sensitive EOs (updated: June 2022)

M_RR_TTT_SS	EO_ID	ECODE	S_RANK	SNAME	SCOMNAME	LAST_OBS_D
-------------	-------	-------	--------	-------	----------	------------

No Non-sensitive EOs Found: Next Steps - [See FAQ](#)

## ■ Sensitive EOs (updated: June 2022)

M-RR-TTT	EO_ID	ECODE	S_RANK	SNAME	SCOMNAME	LAST_OBS_D
----------	-------	-------	--------	-------	----------	------------

No Sensitive EOs Found: Next Steps - [See FAQ](#)



**Date:** 26/11/2024

**Requestor:** Consultant

**Reason for Request:** Environmental Reporting

**SEC:** 04 **TWP:** 026 **RGE:** 04 **MER:** 5



## ■ Non-sensitive EOs (updated: June 2022)

M_RR_TTT_SS	EO_ID	ECODE	S_RANK	SNAME	SCOMNAME	LAST_OBS_D
-------------	-------	-------	--------	-------	----------	------------

No Non-sensitive EOs Found: Next Steps - [See FAQ](#)

## ■ Sensitive EOs (updated: June 2022)

M-RR-TTT	EO_ID	ECODE	S_RANK	SNAME	SCOMNAME	LAST_OBS_D
----------	-------	-------	--------	-------	----------	------------

No Sensitive EOs Found: Next Steps - [See FAQ](#)



**Date:** 26/11/2024

**Requestor:** Consultant

**Reason for Request:** Environmental Reporting

**SEC:** 34 **TWP:** 025 **RGE:** 04 **MER:** 5



## ■ Non-sensitive EOs (updated: June 2022)

M_RR_TTT_SS	EO_ID	ECODE	S_RANK	SNAME	SCOMNAME	LAST_OBS_D
5-04-025-34	13982	PPADI0H066	S2	Pellaea glabella ssp. simplex	smooth cliffbrake	1940-09-20

**Next Steps:** [See FAQ](#)

## ■ Sensitive EOs (updated: June 2022)

M-RR-TTT	EO_ID	ECODE	S_RANK	SNAME	SCOMNAME	LAST_OBS_D
----------	-------	-------	--------	-------	----------	------------

**No Sensitive EOs Found: Next Steps -** [See FAQ](#)



# APPENDIX D: SOIL AND VEGETATION DATA







Town of Cochrane

Bow River Access Impact Study

Rapid Health Evaluation Sites

**Legend**

- Rapid Health Assessment Site

**Pathways**

- Paved
- Concrete
- Dirt
- Gravel
- Watercourses
- Assessment Areas
- Parks
- Open Spaces
- Municipal Boundary
- ATS Quarter Section

**Notes:**

**Area 1-** Jumpingpound Creek Confluence  
**Area 2-** Riverfront Park  
**Area 3-** Bighill Creek Confluence  
**Area 4-** Community of Riverview  
**Area 5-** Community of Riveria  
**Area 6-** Jim Uffelman Park  
**Area 7-** Jim Uffelman Park (under Jack Tenant bridge)  
**Area 8-** Bow River Island  
**Area 9-** South Ridge (future development area)

The accuracy & completeness of information shown on this drawing is not guaranteed. It will be the responsibility of the user of the information shown on this drawing to locate & establish the precise location of all existing information whether shown or not.

0 100 200 300 400 500  
 Meters

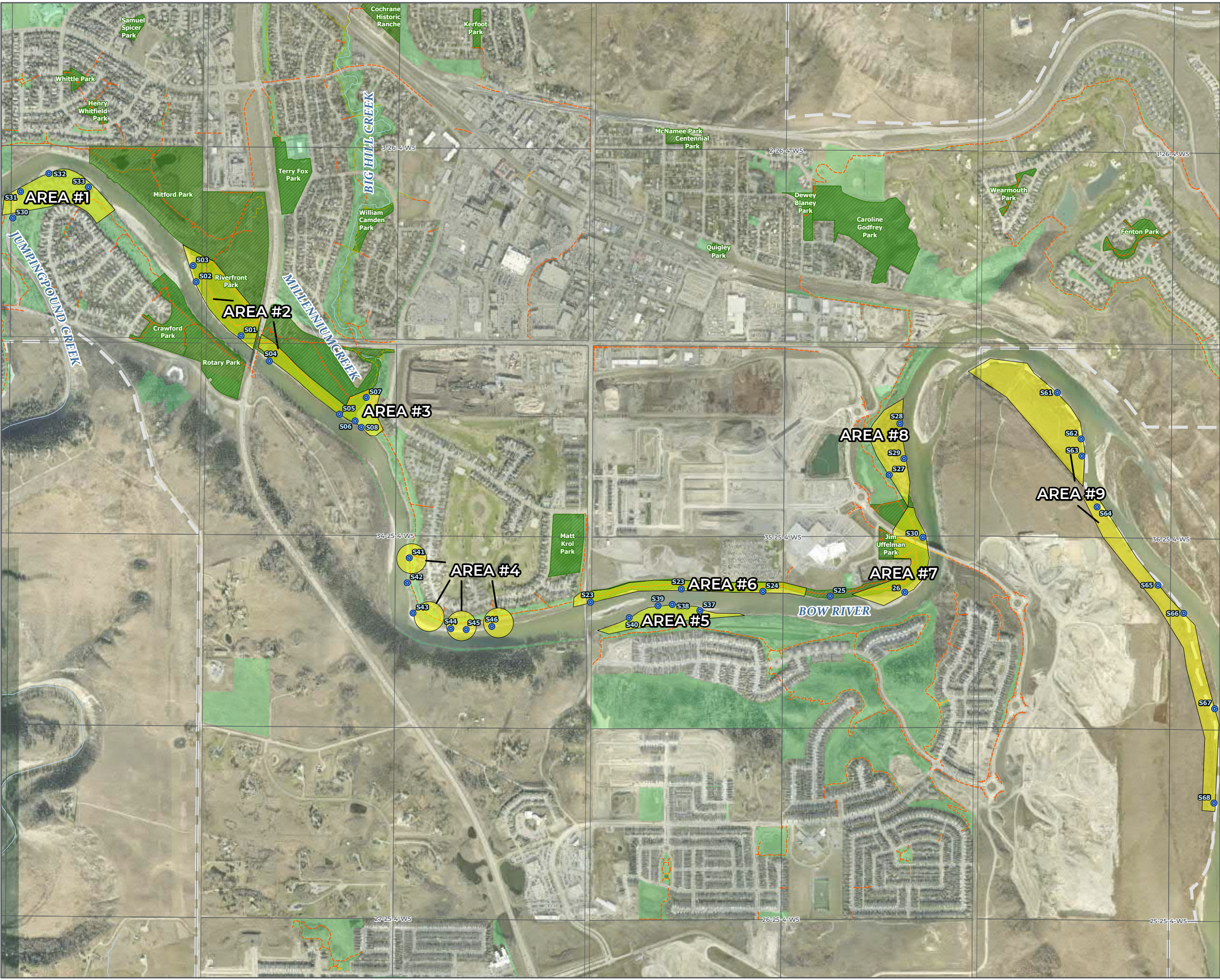
**Coordinate System:** NAD 1983 3TM 114

**Scale:** 1:15,500  
(When plotted at 11"x17")

**Data Sources:**

- Data from the Town of Cochrane, AEP, ESRI, NRCan.

Project #:	1728.0471.02	
Author:	SDF	
Checked:	SK	
Status:	Review	
Revision:	A	
Date:	2025 / 1 / 22	APPENDIX D



Last updated by SdeBoerFuller on Wednesday, January 22, 2025 at 12:26 PM  
Last exported by SdeBoerFuller on Wednesday, January 22, 2025 12:24 PM  
Last printed by SdeBoerFuller on Monday, September 25, 2017 11:46 AM  
\\uslurban-systems.com\projects\Projects.CAL\1728\0471\02\X-D-Design\GIS\Projects\Pro\_1728\0471\_02 - Cochrane - Bow River Access Impact Study - v2 - 20250122.aprx\Cochrane-Bow River Access Impact Study-Fig1-Project Area-11x17-20250122



## Area 1- Jumpingpound Creek Confluence

## Site 30: Vegetation Data

Plot #	Common Name	Scientific Name
Site 30	reed canary grass	<i>Phalaris arundinacea</i>
	yellow sweet-clover	<i>Melilotus officinalis</i>
	silverberry	<i>Elaeagnus commutata</i>
	goldenrod species	<i>solidago spp.</i>
	sedge species	<i>carex spp.</i>
	balsam poplar	<i>Populus balsamifera</i>

## Site 30: Soil Texture

Site	Sand (%)	Silt (%)	Clay (%)	Organic matter (%)
30	20	75	2	3
* Iron oxide was observed				





*Photograph 1: Site 30 looking south from 51°11'16.30"N, 114°30'5.58"W.*



## Site 31: Vegetation Data

Plot #	Common Name	Scientific Name
Site 31	reed canary grass	<i>Phalaris arundinacea</i>
	willow species	<i>salix spp.</i>
	silverberry	<i>Elaeagnus commutata</i>
	moss species	moss spp.
	anemone species	<i>Anemone sp.</i>
	balsam poplar	<i>Populus balsamifera</i>
	horsetail species	<i>Equisetum sp.</i>
	yellow sweet-clover	<i>Melilotus officinalis</i>
	common wild rose	<i>Rosa woodsii</i>
	green alder	<i>Alnus viridis</i>
	arctic dwarf birch	<i>Betula nana</i>
	red-osier dogwood	<i>Cornus stolonifera</i>
	wild strawberry	<i>Fragaria virginiana</i>

## Site 31: Soil Texture

Site	Sand (%)	Silt (%)	Clay (%)	Organic matter (%)
31	85	3	10	2





*Photograph 2: Site 31 looking east from 51°11'19.89"N, 114°30'3.93"W.*



## Site 32: Vegetation Data

Plot #	Common Name	Scientific Name
Site 32	sandbar willow	<i>Salix interior</i>
	moss species	moss spp.
	white sweet-clover	<i>Melilotus alba</i>
	balsam poplar	<i>Populus balsamifera</i>
	wild strawberry	<i>Fragaria virginiana</i>
	common dandelion	<i>Taraxacum officinale</i>
	goldenrod species	<i>solidago sp.</i>
	fowl bluegrass	<i>Poa palustris</i>
	Kentucky bluegrass	<i>Poa pratensis</i>
	smooth brome	<i>Bromus inermis</i>

## Site 32: Soil Texture

Site	Sand (%)	Silt (%)	Clay (%)	Organic matter (%)
30	45	50	1	4





*Photograph 3: Site 32 looking east from 51°11'22.38"N, 114°29'57.85"W.*



## Site 33: Vegetation Data

Plot #	Common Name	Scientific Name
Site 33	silverberry	<i>Elaeagnus commutata</i>
	red-osier dogwood	<i>Cornus stolonifera</i>
	moss species	moss spp.
	wild strawberry	<i>Fragaria virginiana</i>
	reed canary grass	<i>Phalaris arundinacea</i>
	bedstraw species	<i>Galium sp.</i>
	goldenrod species	<i>solidago sp.</i>
	sedge species	<i>carex spp.</i>
	rush species	<i>Juncaceae spp.</i>
	fowl bluegrass	<i>Poa palustris</i>
	Kentucky bluegrass	<i>Poa pratensis</i>
	clover species	<i>Trifolium sp.</i>
	gooseberry species	<i>Ribes spp.</i>
	anemone species	<i>Anemone spp.</i>
	willow species	<i>salix spp.</i>
	green alder	<i>Alnus viridis</i>
	black spruce	<i>Picea mariana</i>
	balsam poplar	<i>Populus balsamifera</i>

## Site 33: Soil Texture

Site	Sand (%)	Silt (%)	Clay (%)	Organic matter (%)
33	68	25	5	2





*Photograph 4: Site 33 looking east from 51°11'20.57"N, 114°29'49.27"W*



## Area 2- Riverfront Park

## Site 01: Vegetation Data

Plot #	Common Name	Scientific Name
Site 01	marsh willowherb	<i>Epilobium palustre</i>
	sandbar willow	<i>Salix interior</i>
	yellow clematis	<i>Clematis tangutica</i>
	creeping juniper	<i>Juniperus horizontalis</i>
	arctic dwarf birch	<i>Betula nana</i>
	shrubby cinquefoil	<i>Dasiphora fruticosa</i>
	northern bedstraw	<i>Galium boreale</i>
	Kentucky bluegrass	<i>Poa pratensis</i>
	annual sow-thistle	<i>Sonchus oleraceus</i>
	common bearberry	<i>Arctostaphylos uva-ursi</i>
	goldenrod species	<i>solidago sp.</i>
	prickly rose	<i>Rosa acicularis</i>
	blue spruce	<i>Picea pungens</i>
	wheatgrass species	<i>Agropyron sp.</i>
	gaillardia	<i>Gaillardia aristata</i>
	red-osier dogwood	<i>Cornus stolonifera</i>
	wild licorice	<i>Glycyrrhiza lepidota</i>
	chickpea milkvetch	<i>astragalus cicer</i>

## Site 01: Soil Texture

Site	Sand (%)	Silt (%)	Clay (%)	Organic matter (%)
01	73	20	7	0





*Photograph 5: Site 1 looking east from 51°11'0.52"N, 114°29'16.05"W.*



Site 02: Vegetation Data

Plot #	Common Name	Scientific Name
Site 02	creeping spikerush	<i>Eleocharis macrostachya</i>
	white sweet-clover	<i>Melilotus alba</i>
	sedge species	<i>carex spp.</i>
	fowl bluegrass	<i>Poa palustris</i>
	knotted rush	<i>Juncus nodosus</i>
	sandbar willow	<i>Salix interior</i>
	clover species	<i>Trifolium sp.</i>
	curled dock	<i>Rumex crispus</i>





*Photograph 6: Site 2 looking south from 51°11'7.80"N, 114°29'25.86"W.*



## Site 03: Vegetation Data

Plot #	Common Name	Scientific Name
Site 03	Kentucky bluegrass	<i>Poa pratensis</i>
	willow species	<i>salix spp.</i>
	wire rush	<i>Juncus balticus</i>
	creeping spikerush	<i>Eleocharis macrostachya</i>
	aster species	<i>aster sp.</i>
	sandbar willow	<i>Salix interior</i>
	common plantain	<i>Plantago major</i>
	sedge species	<i>carex spp.</i>
	alfalfa	<i>Medicago sativa</i>
	shrubby cinquefoil	<i>Dasiphora fruticosa</i>
	balsam poplar	<i>Populus balsamifera</i>
	sticky false asphodel	<i>Triantha glutinosa</i>
	fringed gentain	<i>Gentianopsis crinita</i>





*Photograph 7: Site 3 looking south from 51°11'10.00"N, 114°29'26.52"W.*



## Site 04: Vegetation Data

Plot #	Common Name	Scientific Name
Site 04	sandbar willow	<i>Salix interior</i>
	shrubby cinquefoil	<i>Dasiphora fruticosa</i>
	milk vetch species	<i>Astragalus sp.</i>
	yellow clematis	<i>Clematis tangutica</i>
	tall goldenrod	<i>Solidago altissima</i>
	white sweet-clover	<i>Melilotus alba</i>
	common wild rose	<i>Rosa woodsii</i>
	silverberry	<i>Elaeagnus commutata</i>
	arctic dwarf birch	<i>Betula nana</i>
	balsam poplar	<i>Populus balsamifera</i>
	smooth brome	<i>Bromus inermis</i>
	creeping thistle	<i>Cirsium arvense</i>
	sea buckthorn	<i>Hippophae rhamnoides</i>

## Site 04: Soil Texture

Site	Sand (%)	Silt (%)	Clay (%)	Organic matter (%)
04	55	42	2	1





*Photograph 8: Site 4 looking east from 51°10'57.09"N, 114°29'9.90"W.*



## Site 05: Vegetation Data

Plot #	Common Name	Scientific Name
Site 05	smooth brome	<i>Bromus inermis</i>
	common plantain	<i>Plantago major</i>
	shrubby cinquefoil	<i>Dasiphora fruticosa</i>
	white spruce	<i>Picea glauca</i>
	silverberry	<i>Elaeagnus commutata</i>
	aspen	<i>Populus tremuloides</i>
	clover species	<i>Trifolium sp.</i>
	prickly rose	<i>Rosa acicularis</i>
	saskatoon	<i>Amelanchier alnifolia</i>
	American milk vetch	<i>Astragalus americanus</i>
	milk vetch species	<i>Astragalus sp.</i>
	arctic dwarf birch	<i>Betula nana</i>
	wild strawberry	<i>Fragaria virginiana</i>
	timothy	<i>Phleum pratense</i>
	willow species	<i>salix spp.</i>
	snowberry	<i>Symphoricarpos albus</i>
	northern bedstraw	<i>Galium boreale</i>
	sandbar willow	<i>Salix interior</i>

## Site 05: Soil Texture

Site	Sand (%)	Silt (%)	Clay (%)	Organic matter (%)
05	83	10	3	2





*Photograph 9: Site 5 looking east from 51°10'49.94"N, 114°28'54.65"W.*



## Area 3- Bighill Creek Confluence

## Site 06: Vegetation Data

Plot #	Common Name	Scientific Name
Site 06	common plantain	<i>Plantago major</i>
	Kentucky bluegrass	<i>Poa pratensis</i>
	clover species	<i>Trifolium sp.</i>
	creeping thistle	<i>Cirsium arvense</i>
	sandbar willow	<i>Salix interior</i>
	wheatgrass species	<i>Agropyron sp.</i>
	smooth brome	<i>Bromus inermis</i>
	milk vetch species	<i>Astragalus sp.</i>
	shrubby cinquefoil	<i>Dasiphora fruticosa</i>
	arctic dwarf birch	<i>Betula nana</i>
	silverberry	<i>Elaeagnus commutata</i>
	aster species	<i>aster sp.</i>





*Photograph 10: Site 6 looking south from 51°10'49.04"N, 114°28'51.27"W.*



## Site 07: Vegetation Data

Plot #	Common Name	Scientific Name
Site 07	reed canary grass	<i>Phalaris arundinacea</i>
	smooth brome	<i>Bromus inermis</i>
	annual sow-thistle	<i>Sonchus oleraceus</i>
	horsetail species	<i>Equisetum sp.</i>
	creeping thistle	<i>Cirsium arvense</i>
	aster species	<i>aster sp.</i>
	white spruce	<i>Picea glauca</i>
	common dandelion	<i>Taraxacum officinale</i>
	wire rush	<i>Juncus balticus</i>
	silverberry	<i>Elaeagnus commutata</i>
	alfalfa	<i>Medicago sativa</i>
	Kentucky bluegrass	<i>Poa pratensis</i>
	water sedge	<i>Carex aquatilis</i>

## Site 07: Soil Texture

Site	Sand (%)	Silt (%)	Clay (%)	Organic matter (%)
07	83	5	3	7





*Photograph 11: Site 7 looking north from 51°10'52.23"N, 114°28'48.92"W.*



## VEGETATION AND SOIL DATA

### Site 08: Vegetation Data

Plot #	Common Name	Scientific Name
Site 08	sandbar willow	<i>Salix interior</i>
	tall goldenrod	<i>Solidago altissima</i>
	balsam poplar	<i>Populus balsamifera</i>
	reed canary grass	<i>Phalaris arundinacea</i>
	prickly rose	<i>Rosa acicularis</i>
	horsetail species	<i>Equisetum sp.</i>
	aster species	<i>aster sp.</i>

### Site 08: Soil Texture

Site	Sand (%)	Silt (%)	Clay (%)	Organic matter (%)
08	55	25	5	15





*Photograph 12: Site 8 looking west from 51°10'48.16"N, 114°28'49.93"W.*

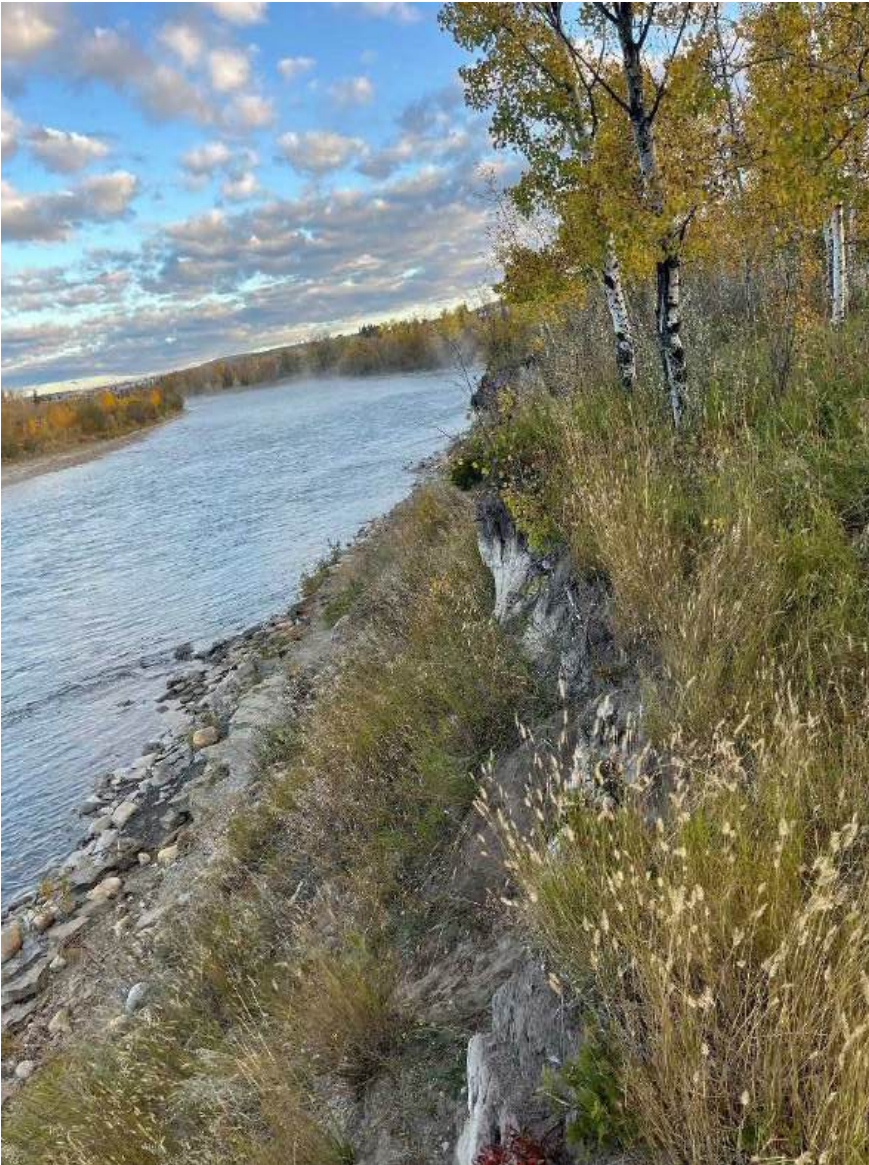


Area 4- Community of Riverview

Site 41: Vegetation Data

Plot #	Common Name	Scientific Name
Site 41	crested wheatgrass	<i>Agropyron cristatum</i>
	smooth brome	<i>Bromus inermis</i>
	Kentucky bluegrass	<i>Poa pratensis</i>
	creeping thistle	<i>Cirsium arvense</i>
	goldenrod species	<i>solidago sp.</i>
	silverberry	<i>Elaeagnus commutata</i>
	prairie sagewort	<i>Artemisia ludoviciana</i>
	prickly rose	<i>Rosa acicularis</i>
	aster species	<i>aster sp.</i>





*Photograph 13: Site 41 looking north from 51°10'30.47"N, 114°28'39.37"W.*



## Site 42: Vegetation Data

Plot #	Common Name	Scientific Name
Site 42	common wild rose	<i>Rosa woodsii</i>
	chickpea milkvetch	<i>astragalus cicer</i>
	willow species	<i>salix spp.</i>
	silverberry	<i>Elaeagnus commutata</i>
	shrubby cinquefoil	<i>Dasiphora fruticosa</i>
	timothy	<i>Phleum pratense</i>
	anemone species	<i>Anemone sp.</i>
	saskatoon	<i>Amelanchier alnifolia</i>
	red-osier dogwood	<i>Cornus stolonifera</i>
	goldenrod species	<i>solidago sp.</i>
	buckbrush	<i>Symphoricarpos occidentalis</i>
	smooth brome	<i>Bromus inermis</i>
	western meadow rue	<i>Thalictrum occidentale</i>
	arctic dwarf birch	<i>Betula nana</i>





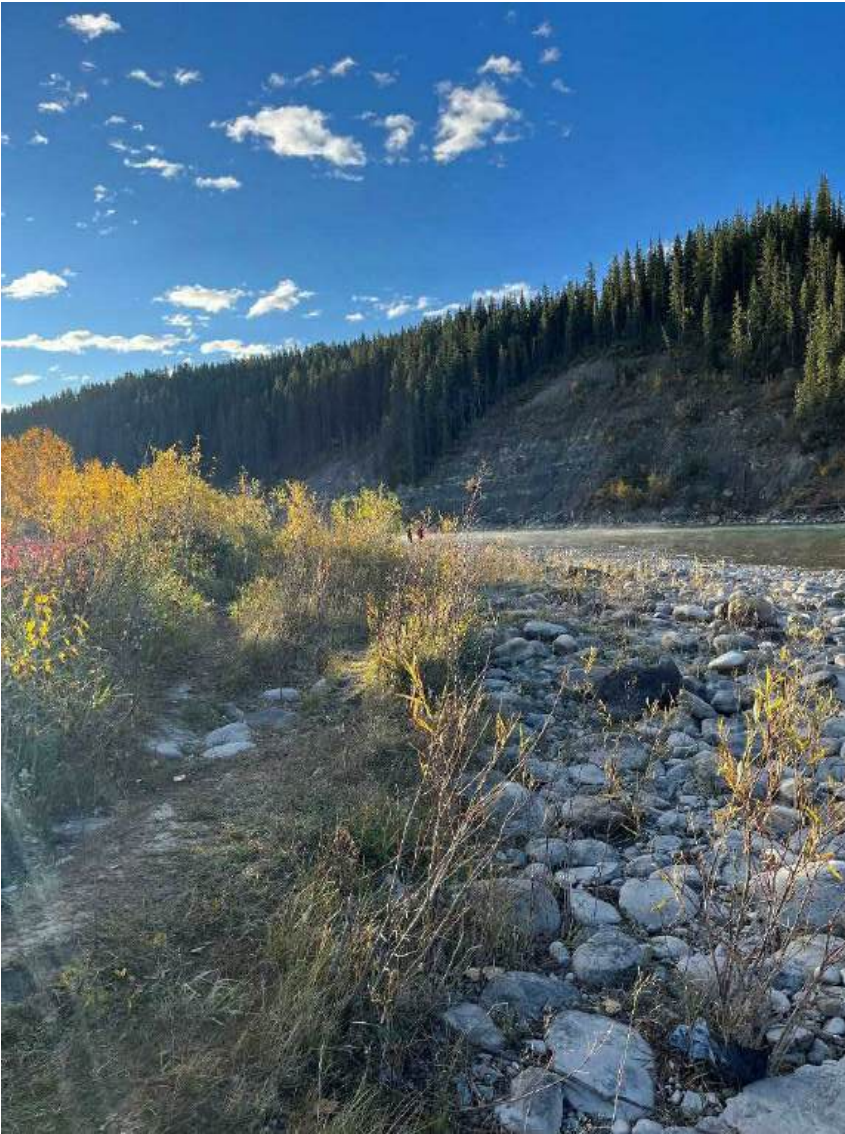
*Photograph 14: Site 42 looking north from 51°10'27.08"N, 114°28'39.79"W.*



## Site 43: Vegetation Data

Plot #	Common Name	Scientific Name
Site 43	shrubby cinquefoil	<i>Dasiphora fruticosa</i>
	chickpea milkvetch	<i>astragalus cicer</i>
	sandbar willow	<i>Salix interior</i>
	willow species	<i>salix spp.</i>
	reed canary grass	<i>Phalaris arundinacea</i>
	common wild rose	<i>Rosa woodsii</i>
	clover species	<i>Trifolium sp.</i>
	Kentucky bluegrass	<i>Poa pratensis</i>
	goldenrod species	<i>solidago sp.</i>
	smooth brome	<i>Bromus inermis</i>
	timothy	<i>Phleum pratense</i>
	silverberry	<i>Elaeagnus commutata</i>
	spruce sapling	<i>Picea sp.</i>
	balsam poplar	<i>Populus balsamifera</i>
	arctic dwarf birch	<i>Betula nana</i>





*Photograph 15: Site 43 looking south from 51°10'22.98"N, 114°28'38.49"W.*



## Site 44: Vegetation Data

Plot #	Common Name	Scientific Name
Site 44	common dandelion	<i>Taraxacum officinale</i>
	willow species	<i>salix spp.</i>
	timothy	<i>Phleum pratense</i>
	Kentucky bluegrass	<i>Poa pratensis</i>
	mustard species	<i>Brassica sp.</i>
	balsam poplar	<i>Populus balsamifera</i>
	chickpea milkvetch	<i>astragalus cicer</i>
	aster species	<i>aster sp.</i>
	shrubby cinquefoil	<i>Dasiphora fruticosa</i>
	clover species	<i>Trifolium spp.</i>
	yellow sweet-clover	<i>Melilotus officinalis</i>
	buckbrush	<i>Symphoricarpos occidentalis</i>
	spruce sapling	<i>Picea sp.</i>
	common goatsbeard	<i>Aruncus dioicus</i>





*Photograph 16: Site 44 looking east from 51°10'22.98"N, 114°28'38.49"W.*



## Site 45: Vegetation Data

Plot #	Common Name	Scientific Name
Site 45	willow species	<i>salix spp.</i>
	goldenrod species	<i>solidago sp.</i>
	timothy	<i>Phleum pratense</i>
	yellow sweet-clover	<i>Melilotus officinalis</i>
	balsam poplar	<i>Populus balsamifera</i>
	Kentucky bluegrass	<i>Poa pratensis</i>
	chickpea milkvetch	<i>astragalus cicer</i>
	smooth brome	<i>Bromus inermis</i>
	reed canary grass	<i>Phalaris arundinacea</i>
	fowl bluegrass	<i>Poa palustris</i>

## Site 45: Soil Texture

Site	Sand (%)	Silt (%)	Clay (%)	Organic matter (%)
45	83	5	5	2





*Photograph 17: Site 45 looking east from 51°10'20.77"N, 114°28'26.98"W.*



## Site 46: Vegetation Data

Plot #	Common Name	Scientific Name
Site 46	sandbar willow	<i>Salix interior</i>
	fowl bluegrass	<i>Poa palustris</i>
	willow species	<i>salix spp.</i>
	wire rush	<i>Juncus balticus</i>
	balsam poplar	<i>Populus balsamifera</i>
	chickpea milkvetch	<i>astragalus cicer</i>
	aster species	<i>aster sp.</i>
	shrubby cinquefoil	<i>Dasiphora fruticosa</i>
	wild strawberry	<i>Fragaria virginiana</i>
	creeping juniper	<i>Juniperus horizontalis</i>
	ground juniper	<i>Juniperus communis</i>
	silverberry	<i>Elaeagnus commutata</i>
	anemone species	<i>Anemone sp.</i>
	common wild rose	<i>Rosa woodsii</i>
	Kentucky bluegrass	<i>Poa pratensis</i>
	smooth brome	<i>Bromus inermis</i>
	moss species	moss spp.
	bedstraw species	<i>Galium sp.</i>
	goldenrod species	<i>solidago sp.</i>





*Photograph 18: Site 46 looking east from 51°10'21.23"N, 114°28'21.44"W.*



Area 5- Community of Riveria

Site 36: Vegetation Data

Plot #	Common Name	Scientific Name
Site 36	fowl bluegrass	<i>Poa palustris</i>
	wire rush	<i>Juncus balticus</i>
	sedge species	<i>Carex</i> spp.
	willow species	<i>Salix</i> spp.
	small bottle sedge	<i>Carex utriculata</i>
	timothy	<i>Phleum pratense</i>





*Photograph 19: Site 36 looking northeast from 51°10'22.62"N, 114°27'39.74"W.*



Site 37: Vegetation Data

Plot #	Common Name	Scientific Name
Site 37	sedge species	<i>carex spp.</i>
	willow species	<i>salix spp.</i>
	goldenrod species	<i>solidago sp.</i>
	fowl bluegrass	<i>Poa palustris</i>
	green alder	<i>Alnus viridis</i>
	moss species	moss spp.





*Photograph 20: Site 37 looking northwest from 51°10'23.55"N, 114°27'36.50"W.*



## Site 38: Vegetation Data

Plot #	Common Name	Scientific Name
Site 38	shrubby cinquefoil	<i>Dasiphora fruticosa</i>
	moss species	moss spp.
	wild strawberry	<i>Fragaria virginiana</i>
	Kentucky bluegrass	<i>Poa pratensis</i>
	wire rush	<i>Juncus balticus</i>
	smooth brome	<i>Bromus inermis</i>
	yellow sweet-clover	<i>Melilotus officinalis</i>
	timothy	<i>Phleum pratense</i>
	balsam poplar	<i>Populus balsamifera</i>
	green alder	<i>Alnus viridis</i>
	willow species	<i>salix spp.</i>

## Site 38: Soil Texture

Site	Sand (%)	Silt (%)	Clay (%)	Organic matter (%)
38	65	15	7.5	7.5





*Photograph 21: Site 38 looking north from 51°10'24.36"N, 114°27'42.47"W.*



## Site 39: Vegetation Data

Plot #	Common Name	Scientific Name
Site 39	fowl bluegrass	<i>Poa palustris</i>
	willow species	<i>salix spp.</i>
	creeping thistle	<i>Cirsium arvense</i>
	annual sow-thistle	<i>Sonchus oleraceus</i>
	goldenrod species	<i>solidago sp.</i>
	silverberry	<i>Elaeagnus commutata</i>
	arctic dwarf birch	<i>Betula nana</i>
	green alder	<i>Alnus viridis</i>
	wild strawberry	<i>Fragaria virginiana</i>
	shrubby cinquefoil	<i>Dasiphora fruticosa</i>
	chickpea milkvetch	<i>astragalus cicer</i>
	Anemone species	<i>Anemone sp.</i>
	June grass	<i>Koeleria macrantha</i>
	clover species	<i>Trifolium sp.</i>





*Photograph 22: Site 39 looking south from 51°10'24.18"N, 114°27'45.55"W.*



## Site 40: Vegetation Data

Plot #	Common Name	Scientific Name
Site 40	sandbar willow	<i>Salix interior</i>
	timothy	<i>Phleum pratense</i>
	wire rush	<i>Juncus balticus</i>
	sedge species	<i>Carex spp.</i>
	moss species	moss spp.
	horsetail species	<i>Equisetum spp.</i>
	prickly rose	<i>Rosa acicularis</i>
	willow species	<i>Salix spp.</i>
	green alder	<i>Alnus viridis</i>
	balsam poplar	<i>Populus balsamifera</i>
	creeping thistle	<i>Cirsium arvense</i>
	wild strawberry	<i>Fragaria virginiana</i>
	anemone species	<i>Anemone sp.</i>





*Photograph 23: Site 40 looking south from 51°10'22.54"N, 114°27'51.76"W.*



## Area 6- Jim Uffelman Dog Park

## Site 23: Vegetation Data

Plot #	Common Name	Scientific Name
Site 23	sandbar willow	<i>Salix interior</i>
	chickpea milkvetch	<i>astragalus cicer</i>
	annual sow-thistle	<i>Sonchus oleraceus</i>
	balsam poplar	<i>Populus balsamifera</i>
	yellow sweet-clover	<i>Melilotus officinalis</i>
	smooth brome	<i>Bromus inermis</i>
	common wormwood	<i>Artemisia vulgaris</i>
	yellow clematis	<i>Clematis tangutica</i>
	common dandelion	<i>Taraxacum officinale</i>

## Site 23: Vegetation Data

Plot #	Common Name	Scientific Name
Site 24	balsam poplar	<i>Populus balsamifera</i>
	smooth brome	<i>Bromus inermis</i>
	buckbrush	<i>Symphoricarpos occidentalis</i>
	Canada buffaloberry	<i>Shepherdia canadensis</i>
	creeping juniper	<i>Juniperus horizontalis</i>
	slender wheatgrass	<i>Elymus trachycaulus</i>
	annual sow-thistle	<i>Sonchus oleraceus</i>





*Photograph 24: Site 23 looking north from 51°10'24.60"N, 114°28'0.13"W.*



## Site 24: Upland Vegetation Data

Plot #	Common Name	Scientific Name
Site 24 upland veg	buckbrush	<i>Symphoricarpos occidentalis</i>
	ground juniper	<i>Juniperus communis</i>
	aspen	<i>Populus tremuloides</i>
	smooth brome	<i>Bromus inermis</i>
	slender wheatgrass	<i>Elymus trachycaulus</i>
	prairie sagewort	<i>Artemisia ludoviciana</i>
	common wild rose	<i>Rosa woodsii</i>
	choke cherry	<i>Prunus virginiana</i>
	common goatsbeard	<i>Aruncus dioicus</i>
	bedstraw species	<i>Galium spp.</i>
	silverberry	<i>Elaeagnus commutata</i>

## Site 24: Soil Texture

Site	Sand (%)	Silt (%)	Clay (%)	Organic matter (%)
24	65	30	5	0





*Photograph 25: Site 24 looking north from 51°10'26.23"N, 114°27'22.89"W.*



# VEGETATION AND SOIL DATA

## Site 25: Vegetation Data

Plot #	Common Name	Scientific Name
Site 25	sedge species	<i>Carex spp.</i>
	fowl bluegrass	<i>Poa palustris</i>
	sandbar willow	<i>Salix interior</i>
	red-osier dogwood	<i>Cornus stolonifera</i>
	goldenrod species	<i>Solidago sp.</i>
	arctic dwarf birch	<i>Betula nana</i>
	chickpea milkvetch	<i>Astragalus cicer</i>
	silverberry	<i>Elaeagnus commutata</i>
	snowberry	<i>Symphoricarpos albus</i>
	pasture sagewort	<i>Artemisia frigida</i>
	false Solomon's-seal	<i>Maianthemum racemosum</i>
	bedstraw species	<i>Galium sp.</i>
	shrubby cinquefoil	<i>Dasiphora fruticosa</i>
	smooth brome	<i>Bromus inermis</i>
	clover species	<i>Trifolium sp.</i>
	timothy	<i>Phleum pratense</i>
	Canada buffaloberry	<i>Shepherdia canadensis</i>

## Site 25: Soil Texture

Site	Sand (%)	Silt (%)	Clay (%)	Organic matter (%)
25	50	10	38	2





*Photograph 26: Site 25 looking north from 51°10'25.63"N, 114°27'8.36"W.*



## Area 7- Jim Uffelman Park (Under Jack Tenant Bridge)

## Site 26: Vegetation Data

Plot #	Common Name	Scientific Name
Site 26	sandbar willow	<i>Salix interior</i>
	yellow sweet-clover	<i>Melilotus officinalis</i>
	silverberry	<i>Elaeagnus commutata</i>
	balsam poplar	<i>Populus balsamifera</i>
	timothy	<i>Phleum pratense</i>
	goldenrod species	<i>solidago sp.</i>
	arctic dwarf birch	<i>Betula nana</i>
	vetch species	<i>vetch sp.</i>
	sedge species	<i>carex spp.</i>
	aster species	<i>aster sp.</i>
	shrubby cinquefoil	<i>Dasiphora fruticosa</i>
	buckbrush	<i>Symphoricarpos occidentalis</i>
	smooth brome	<i>Bromus inermis</i>





*Photograph 27: Site 26 looking northwest from 51°10'26.23"N, 114°26'52.23"W.*



Site 30: Vegetation Data

Plot #	Common Name	Scientific Name
Site 30	sandbar willow	<i>Salix interior</i>
	balsam poplar	<i>Populus balsamifera</i>
	yellow sweet-clover	<i>Melilotus officinalis</i>
	fowl bluegrass	<i>Poa palustris</i>
	reed canary grass	<i>Phalaris arundinacea</i>
	shrubby cinquefoil	<i>Dasiphora fruticosa</i>
	horsetail species	<i>Equisetum sp.</i>
	common dandelion	<i>Taraxacum officinale</i>





*Photograph 28: Site 30 looking north from 51°10'33.70"N, 114°26'48.40"W.*



## Area 8- Bow River Island

## Site 27: Vegetation Data

Plot #	Common Name	Scientific Name
Site 27	sedge species	<i>Carex spp.</i>
	shrubby cinquefoil	<i>Dasiphora fruticosa</i>
	false Solomon's-seal	<i>Maianthemum racemosum</i>
	prickly rose	<i>Rosa acicularis</i>
	goldenrod species	<i>Solidago sp.</i>
	annual sow-thistle	<i>Sonchus oleraceus</i>
	arctic dwarf birch	<i>Betula nana</i>
	red-osier dogwood	<i>Cornus stolonifera</i>
	fowl bluegrass	<i>Poa palustris</i>
	slender wheatgrass	<i>Elymus trachycaulus</i>

## Site 27: Soil Texture

Site	Sand (%)	Silt (%)	Clay (%)	Organic matter (%)
27	85	10	2	3





*Photograph 29: Site 27 looking northwest from 51°10'42.16"N, 114°26'55.74"W.*



## Site 28: Vegetation Data

Plot #	Common Name	Scientific Name
Site 28	sedge species	<i>Carex spp.</i>
	horsetail species	<i>Equisetum sp.</i>
	reed canary grass	<i>Phalaris arundinacea</i>
	fowl bluegrass	<i>Poa palustris</i>
	sandbar willow	<i>Salix interior</i>
	willow species	<i>Salix spp.</i>
	goldenrod species	<i>Solidago sp.</i>
	clover species	<i>Trifolium sp.</i>
	rush species	<i>Juncaceae spp.</i>
	silverberry	<i>Elaeagnus commutata</i>
	balsam poplar	<i>Populus balsamifera</i>
	hard-stemmed bulrush	<i>Schoenoplectus acutus</i>
	shrubby cinquefoil	<i>Dasiphora fruticosa</i>





*Photograph 30: Site 28 looking south from 51°10'49.14"N, 114°26'53.52"W.*



## Site 29: Vegetation Data

Plot #	Common Name	Scientific Name
Site 29	willow species	<i>salix spp.</i>
	yellow sweet-clover	<i>Melilotus officinalis</i>
	sandbar willow	<i>Salix interior</i>
	goldenrod species	<i>solidago sp.</i>
	creeping thistle	<i>Cirsium arvense</i>
	wild strawberry	<i>Fragaria virginiana</i>
	Kentucky bluegrass	<i>Poa pratensis</i>
	chickpea milkvetch	<i>astragalus cicer</i>
	shrubby cinquefoil	<i>Dasiphora fruticosa</i>
	silverberry	<i>Elaeagnus commutata</i>
	wire rush	<i>Juncus balticus</i>

## Site 29: Soil Texture

Site	Sand (%)	Silt (%)	Clay (%)	Organic matter (%)
29	85	10	2	3





*Photograph 31: Site 29 looking north from 51°10'44.38"N, 114°26'52.60"W.*



## Area 9- South Ridge

## Site 60: Vegetation Data

Plot #	Common Name	Scientific Name
	Canada buffaloberry	<i>Shepherdia canadensis</i>
	Kentucky bluegrass	<i>Poa pratensis</i>
	moss species	moss spp.
	common yarrow	<i>Achillea millefolium</i>
	goldenrod species	<i>solidago sp.</i>
	bedstraw species	<i>Galium sp.</i>
	vetch species	<i>vetch sp.</i>
	sedge species	<i>carex spp.</i>
	aster species	<i>aster sp.</i>
	fowl bluegrass	<i>Poa palustris</i>

## Site 60: Soil Texture

Site	Sand (%)	Silt (%)	Clay (%)	Organic matter (%)
60	35	60	2.5	2.5





*Photograph 32: Site 60 looking east from 51°10'57.54"N, 114°26'29.42"W.*



## Site 61: Vegetation Data

Plot #	Common Name	Scientific Name
Site 61	silverberry	<i>Elaeagnus commutata</i>
	willow species	<i>salix spp.</i>
	chickpea milkvetch	<i>astragalus cicer</i>
	smooth brome	<i>Bromus inermis</i>
	aster species	<i>aster sp.</i>
	reed canary grass	<i>Phalaris arundinacea</i>
	horsetail species	<i>Equisetum sp.</i>
	sandbar willow	<i>Salix interior</i>
	arctic dwarf birch	<i>Betula nana</i>
	creeping thistle	<i>Cirsium arvense</i>
	shrubby cinquefoil	<i>Dasiphora fruticosa</i>

## Site 61: Soil Texture

Site	Sand (%)	Silt (%)	Clay (%)	Organic matter (%)
61	85	7.5	5	2.5





Photograph 33: Site 61 looking southeast from 51°10'53.47"N, 114°26'19.53"W.

Site 62: Vegetation Data

Plot #	Common Name	Scientific Name
Site 62	shrubby cinquefoil	<i>Dasiphora fruticosa</i>



## VEGETATION AND SOIL DATA

	silverberry	<i>Elaeagnus commutata</i>
	smooth brome	<i>Bromus inermis</i>
	buckbrush	<i>Symphoricarpos occidentalis</i>
	bedstraw species	<i>Galium sp.</i>
	Kentucky bluegrass	<i>Poa pratensis</i>
	balsam poplar	<i>Populus balsamifera</i>
	goldenrod species	<i>solidago sp.</i>
	aster species	<i>aster sp.</i>

### Site 62: Soil Texture

Site	Sand (%)	Silt (%)	Clay (%)	Organic matter (%)
62	70	25	3	2





*Photograph 34: Site 62 looking east from 51°10'47.21"N, 114°26'14.30"W.*



## Site 63: Vegetation Data

Plot #	Common Name	Scientific Name
Site 63	ground juniper	<i>Juniperus communis</i>
	creeping juniper	<i>Juniperus horizontalis</i>
	aster species	<i>aster sp.</i>
	shrubby cinquefoil	<i>Dasiphora fruticosa</i>
	smooth brome	<i>Bromus inermis</i>
	northern bedstraw	<i>Galium boreale</i>
	goldenrod species	<i>solidago sp.</i>
	prairie sagewort	<i>Artemisia ludoviciana</i>
	Kentucky bluegrass	<i>Poa pratensis</i>
	wild strawberry	<i>Fragaria virginiana</i>
	pasture sagewort	<i>Artemisia frigida</i>
	anemone species	<i>Anemone sp.</i>





*Photograph 35: Site 63 looking south from 51°10'44.88"N, 114°26'14.13"W.*



## Site 64: Vegetation Data

Plot #	Common Name	Scientific Name
Site 64	creeping juniper	<i>Juniperus horizontalis</i>
	fern moss species	<i>thuidinm spp.</i>
	bedstraw species	<i>Galium sp.</i>
	gooseberry species	<i>Ribes spp.</i>
	shrubby cinquefoil	<i>Dasiphora fruticosa</i>
	aspen	<i>Populus tremuloides</i>
	red-osier dogwood	<i>Cornus stolonifera</i>
	spruce species	<i>Picea sp.</i>
	Canada buffaloberry	<i>Shepherdia canadensis</i>
	common wild rose	<i>Rosa woodsii</i>
	buckbrush	<i>Symphoricarpos occidentalis</i>
	Kentucky bluegrass	<i>Poa pratensis</i>





*Photograph 36: Site 64 looking south from 51°10'37.97"N, 114°26'10.77"W.*



## Site 65 Vegetation Data

Plot #	Common Name	Scientific Name
Site 65	spruce species	<i>Picea sp.</i>
	shrubby cinquefoil	<i>Dasiphora fruticosa</i>
	goldenrod species	<i>solidago spp.</i>
	sedge species	<i>carex spp.</i>
	common bearberry	<i>Arctostaphylos uva-ursi</i>
	Canada buffaloberry	<i>Shepherdia canadensis</i>
	bedstraw species	<i>Galium sp.</i>
	prairie sagewort	<i>Artemisia ludoviciana</i>
	needlegrass species	<i>nassella sp.</i>
	Kentucky bluegrass	<i>Poa pratensis</i>
	ground juniper	<i>Juniperus communis</i>
	moss species	<i>moss spp.</i>





*Photograph 37: Site 65 looking southeast from 51°10'27.38"N, 114°25'57.53"W.*



## Site 66: Vegetation Data

Plot #	Common Name	Scientific Name
Site 66	Kentucky bluegrass	<i>Poa pratensis</i>
	wire rush	<i>Juncus balticus</i>
	wild strawberry	<i>Fragaria virginiana</i>
	yellow sweet-clover	<i>Melilotus officinalis</i>
	aster species	<i>aster sp.</i>
	nodding onion	<i>Allium cernuum</i>
	horsetail species	<i>Equisetum sp.</i>
	green alder	<i>Alnus viridis</i>
	balsam poplar	<i>Populus balsamifera</i>
	red-osier dogwood	<i>Cornus stolonifera</i>

## Site 66: Soil Texture

Site	Sand (%)	Silt (%)	Clay (%)	Organic matter (%)
66	0	97	1	2





*Photograph 38: Site 66 looking northwest from 51°10'23.57"N, 114°25'51.93"W.*



## Site 67: Vegetation Data

Plot #	Common Name	Scientific Name
Site 67	aster species	<i>aster sp.</i>
	wire rush	<i>Juncus balticus</i>
	creeping thistle	<i>Cirsium arvense</i>
	fowl bluegrass	<i>Poa palustris</i>
	reed canary grass	<i>Phalaris arundinacea</i>
	timothy	<i>Phleum pratense</i>
	goldenrod species	<i>solidago sp.</i>
	sedge species	<i>carex spp.</i>
	wild mint	<i>Mentha arvensis</i>
	horsetail species	<i>Equisetum sp.</i>
	green alder	<i>Alnus viridis</i>





*Photograph 39: Site 67 looking north from 51°10'10.64"N, 114°25'45.11"W*



Site 68: Vegetation Data

Plot #	Common Name	Scientific Name
Site 68	ground juniper	<i>Juniperus communis</i>
	smooth brome	<i>Bromus inermis</i>
	mustard species	<i>Brassica spp.</i>
	porcupine grass species	<i>Hesperostipa spp.</i>
	wild strawberry	<i>Fragaria virginiana</i>
	aster species	<i>aster spp.</i>

Site 68: Soil Texture

Site	Sand (%)	Silt (%)	Clay (%)	Organic matter (%)
68	70	29	1	0





*Photograph 40: Site 68 looking north from 51° 9'57.82"N, 114°25'45.15"W.*



# APPENDIX E: FWMIS AND EBIRD RESULTS





# Fish and Wildlife Internet Mapping Tool (FWIMT)

(source database: Fish and Wildlife Management Information System (FWMIS))

## Species Summary Report

**Report Date:** 09-Dec-2024 11:31

### Species present within the current extent

#### Fish Inventory

BROOK STICKLEBACK  
BROOK TROUT  
BROWN TROUT  
BULL TROUT X BROOK TROUT HYBRID  
CUTTHROAT TROUT  
LAKE CHUB  
LONGNOSE DACE  
LONGNOSE SUCKER  
MOUNTAIN WHITEFISH  
RAINBOW TROUT  
TROUT-PERCH  
WHITE SUCKER

#### Wildlife Inventory

BALD EAGLE  
LITTLE BROWN BAT

#### Stocked Inventory

BROOK TROUT  
BROWN TROUT  
CUTTHROAT TROUT  
RAINBOW TROUT

### Buffer Extent

#### Centroid (X,Y)

537192, 5667504

#### Projection

10-TM AEP Forest

#### Centroid (Qtr Sec Twp Rng Mer)

NE 34 25 4 5

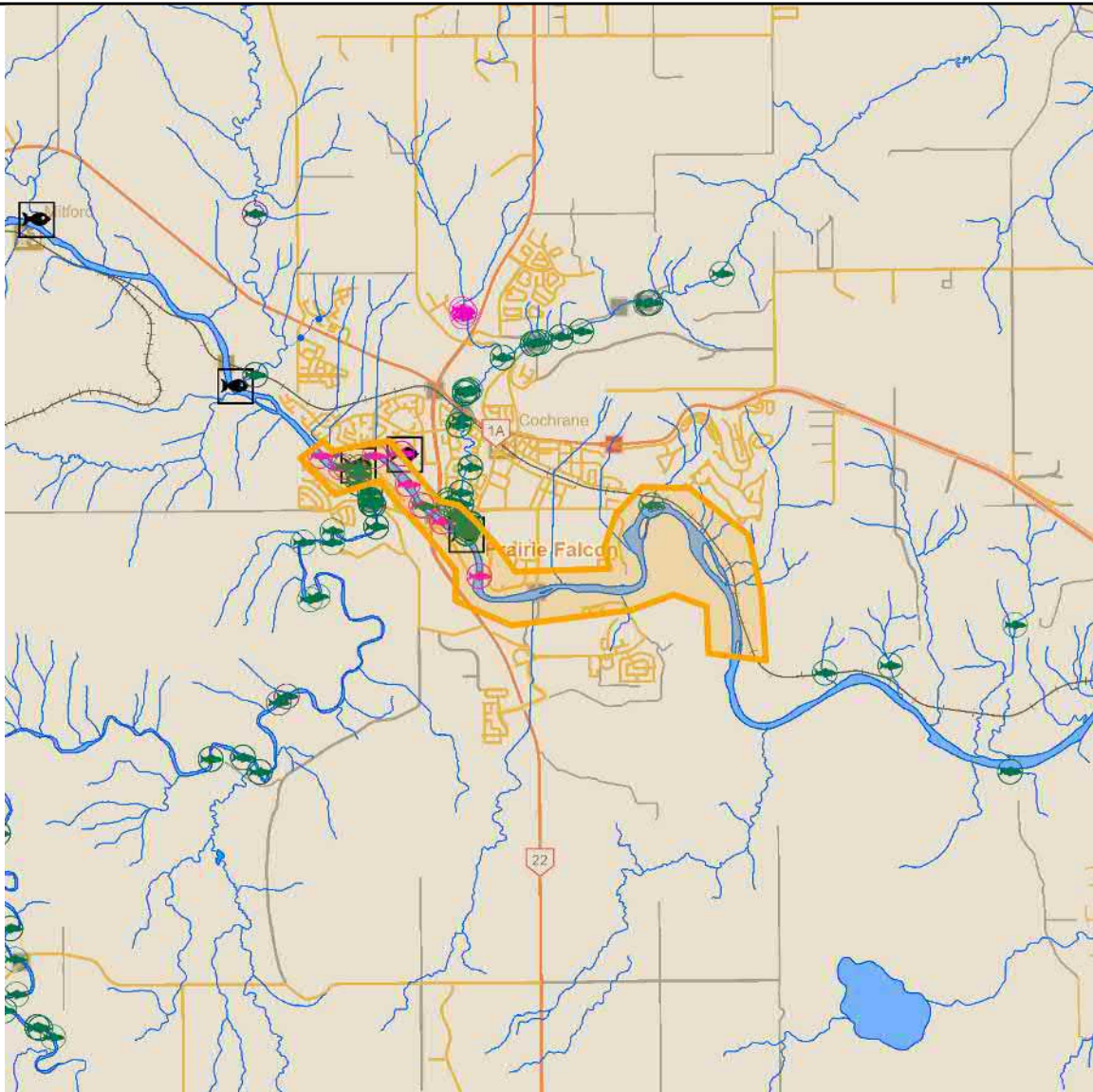
#### Radius or Dimensions

6354, 3000 meters

### Contact Information

For contact information, please visit:  
<https://www.alberta.ca/fisheries-and-wildlife-management-contacts.aspx>





Display may contain: Base Map Data provided by the Government of Alberta under the Alberta Open Government Licence. Cadastral and Dispositions Data provided by Alberta Data Partnerships. (c)GeoEye, all rights reserved. Information as depicted is subject to change, therefore the Government of Alberta assumes no responsibility for discrepancies at time of use



# eBird Field Checklist

## Cochrane--Riverfront Park

Calgary, Alberta, CA

[ebird.org/hotspot/L7871337](http://ebird.org/hotspot/L7871337)

102 species (+12 other taxa) - Year-round, All years

**Date:** \_\_\_\_\_  
**Start time:** \_\_\_\_\_  
**Duration:** \_\_\_\_\_  
**Distance:** \_\_\_\_\_  
**Party size:** \_\_\_\_\_  
**Notes:** \_\_\_\_\_

This checklist is generated with data from eBird ([ebird.org](http://ebird.org)), a global database of bird sightings from birders like you. If you enjoy this checklist, please consider contributing your sightings to eBird. It is 100% free to take part, and your observations will help support birders, researchers, and conservationists worldwide.

Go to [ebird.org](http://ebird.org) to learn more!

### Waterfowl

\_\_\_\_ Canada Goose  
\_\_\_\_ Trumpeter Swan  
\_\_\_\_ Trumpeter/Tundra Swan  
\_\_\_\_ Blue-winged Teal  
\_\_\_\_ Northern Shoveler  
\_\_\_\_ Gadwall  
\_\_\_\_ American Wigeon  
\_\_\_\_ Mallard  
\_\_\_\_ Ring-necked Duck  
\_\_\_\_ Lesser Scaup  
\_\_\_\_ Bufflehead  
\_\_\_\_ Common Goldeneye  
\_\_\_\_ Barrow's Goldeneye  
\_\_\_\_ Hooded Merganser  
\_\_\_\_ Common Merganser  
\_\_\_\_ duck sp.

### Grouse, Quail, and Allies

\_\_\_\_ Gray Partridge

### Pigeons and Doves

\_\_\_\_ Rock Pigeon  
\_\_\_\_ Eurasian Collared-Dove

### Hummingbirds

\_\_\_\_ hummingbird sp.

### Rails, Gallinules, and Allies

\_\_\_\_ American Coot

### Shorebirds

\_\_\_\_ Killdeer  
\_\_\_\_ Wilson's Snipe  
\_\_\_\_ Spotted Sandpiper

### Gulls, Terns, and Skimmers

\_\_\_\_ Franklin's Gull  
\_\_\_\_ Ring-billed Gull  
\_\_\_\_ California Gull  
\_\_\_\_ Larus sp.  
\_\_\_\_ gull sp.

### Grebes

\_\_\_\_ Pied-billed Grebe

### Hérons, Ibis, and Allies

\_\_\_\_ Great Blue Heron

### Vultures, Hawks, and Allies

\_\_\_\_ Turkey Vulture  
\_\_\_\_ Osprey  
\_\_\_\_ Sharp-shinned Hawk  
\_\_\_\_ Bald Eagle  
\_\_\_\_ Swainson's Hawk  
\_\_\_\_ Red-tailed Hawk  
\_\_\_\_ Rough-legged Hawk  
\_\_\_\_ hawk sp.

### Owls

\_\_\_\_ Great Horned Owl

### Kingfishers

\_\_\_\_ Belted Kingfisher

### Woodpeckers

\_\_\_\_ Yellow-bellied Sapsucker  
\_\_\_\_ Downy Woodpecker  
\_\_\_\_ Hairy Woodpecker  
\_\_\_\_ Downy/Hairy Woodpecker  
\_\_\_\_ Pileated Woodpecker  
\_\_\_\_ Northern Flicker



\_\_\_ woodpecker sp.

### **Falcons and Caracaras**

\_\_\_ American Kestrel  
\_\_\_ Merlin  
\_\_\_ Peregrine Falcon  
\_\_\_ Prairie Falcon

### **Tyrant Flycatchers: Pewees, Kingbirds, and Allies**

\_\_\_ Western Wood-Pewee  
\_\_\_ Least Flycatcher  
\_\_\_ Empidonax sp.  
\_\_\_ Eastern Kingbird

### **Vireos**

\_\_\_ Warbling Vireo  
\_\_\_ Red-eyed Vireo

### **Jays, Magpies, Crows, and Ravens**

\_\_\_ Blue Jay  
\_\_\_ Black-billed Magpie  
\_\_\_ American Crow  
\_\_\_ Common Raven

### **Tits, Chickadees, and Titmice**

\_\_\_ Black-capped Chickadee  
\_\_\_ Mountain Chickadee  
\_\_\_ Boreal Chickadee  
\_\_\_ chickadee sp.

### **Martins and Swallows**

\_\_\_ Bank Swallow  
\_\_\_ Tree Swallow  
\_\_\_ Violet-green Swallow  
\_\_\_ Northern Rough-winged Swallow  
\_\_\_ Barn Swallow

\_\_\_ Cliff Swallow  
\_\_\_ swallow sp.

### **Kinglets**

\_\_\_ Ruby-crowned Kinglet

### **Nuthatches**

\_\_\_ White-breasted Nuthatch  
\_\_\_ Red-breasted Nuthatch

### **Wrens**

\_\_\_ Northern House Wren

### **Starlings and Mynas**

\_\_\_ European Starling

### **Catbirds, Mockingbirds, and Thrashers**

\_\_\_ Gray Catbird

### **Thrushes**

\_\_\_ Mountain Bluebird  
\_\_\_ Veery  
\_\_\_ Hermit Thrush  
\_\_\_ American Robin

### **Waxwings**

\_\_\_ Bohemian Waxwing  
\_\_\_ Cedar Waxwing

### **Old World Sparrows**

\_\_\_ House Sparrow

### **Finches, Euphonias, and Allies**

\_\_\_ Pine Grosbeak  
\_\_\_ House Finch  
\_\_\_ Redpoll  
\_\_\_ Pine Siskin  
\_\_\_ American Goldfinch

### **New World Sparrows**

\_\_\_ Chipping Sparrow  
\_\_\_ Clay-colored Sparrow  
\_\_\_ American Tree Sparrow  
\_\_\_ Dark-eyed Junco  
\_\_\_ White-crowned Sparrow  
\_\_\_ White-throated Sparrow  
\_\_\_ Vesper Sparrow  
\_\_\_ Savannah Sparrow  
\_\_\_ Song Sparrow  
\_\_\_ Lincoln's Sparrow  
\_\_\_ new world sparrow sp.

### **Blackbirds**

\_\_\_ Baltimore Oriole  
\_\_\_ Red-winged Blackbird  
\_\_\_ Brown-headed Cowbird  
\_\_\_ Rusty Blackbird  
\_\_\_ Brewer's Blackbird  
\_\_\_ Common Grackle

### **Wood-Warblers**

\_\_\_ Tennessee Warbler  
\_\_\_ Orange-crowned Warbler  
\_\_\_ Common Yellowthroat  
\_\_\_ Yellow Warbler  
\_\_\_ Yellow-rumped Warbler

### **Cardinals, Grosbeaks, and Allies**

\_\_\_ Rose-breasted Grosbeak

This field checklist was generated using eBird ([ebird.org](http://ebird.org))



# eBird Field Checklist

## Cochrane--Mitford Park

Calgary, Alberta, CA

[ebird.org/hotspot/L7871356](https://ebird.org/hotspot/L7871356)

129 species (+10 other taxa) - Year-round, All years

**Date:** \_\_\_\_\_

**Start time:** \_\_\_\_\_

**Duration:** \_\_\_\_\_

**Distance:** \_\_\_\_\_

**Party size:** \_\_\_\_\_

**Notes:** \_\_\_\_\_

This checklist is generated with data from eBird ([ebird.org](https://ebird.org)), a global database of bird sightings from birders like you. If you enjoy this checklist, please consider contributing your sightings to eBird. It is 100% free to take part, and your observations will help support birders, researchers, and conservationists worldwide.

Go to [ebird.org](https://ebird.org) to learn more!

### Waterfowl

- ☐ Greater White-fronted Goose
- ☐ Canada Goose
- ☐ Trumpeter Swan
- ☐ Wood Duck
- ☐ Blue-winged Teal
- ☐ Northern Shoveler
- ☐ American Wigeon
- ☐ Mallard
- ☐ Green-winged Teal
- ☐ Canvasback
- ☐ Ring-necked Duck
- ☐ Lesser Scaup
- ☐ Bufflehead
- ☐ Common Goldeneye
- ☐ Barrow's Goldeneye
- ☐ Hooded Merganser
- ☐ Common Merganser

### Grouse, Quail, and Allies

- ☐ Ruffed Grouse
- ☐ Ring-necked Pheasant
- ☐ Chukar

### Pigeons and Doves

- ☐ Rock Pigeon
- ☐ Eurasian Collared-Dove
- ☐ Mourning Dove

### Hummingbirds

- ☐ Rufous Hummingbird
- ☐ hummingbird sp.

### Rails, Gallinules, and Allies

- ☐ Sora
- ☐ American Coot

### Shorebirds

- ☐ Killdeer
- ☐ Wilson's Snipe
- ☐ Spotted Sandpiper
- ☐ Solitary Sandpiper
- ☐ Greater Yellowlegs

### Gulls, Terns, and Skimmers

- ☐ Bonaparte's Gull
- ☐ Franklin's Gull
- ☐ Ring-billed Gull
- ☐ California Gull
- ☐ gull sp.

### Grebes

- ☐ Pied-billed Grebe
- ☐ Red-necked Grebe

### Loons

- ☐ Common Loon

### Cormorants and Anhingas

- ☐ Double-crested Cormorant

### Hérons, Ibis, and Allies

- ☐ Black-crowned Night Heron
- ☐ Great Blue Heron

### Vultures, Hawks, and Allies

- ☐ Turkey Vulture
- ☐ Osprey
- ☐ Golden Eagle
- ☐ Sharp-shinned Hawk



\_\_\_ Cooper's Hawk  
\_\_\_ American Goshawk  
\_\_\_ Northern Harrier  
\_\_\_ Bald Eagle  
\_\_\_ Swainson's Hawk  
\_\_\_ Red-tailed Hawk  
\_\_\_ Rough-legged Hawk  
\_\_\_ hawk sp.

#### **Owls**

\_\_\_ Great Horned Owl

#### **Kingfishers**

\_\_\_ Belted Kingfisher

#### **Woodpeckers**

\_\_\_ Yellow-bellied Sapsucker  
\_\_\_ Downy Woodpecker  
\_\_\_ Hairy Woodpecker  
\_\_\_ Downy/Hairy Woodpecker  
\_\_\_ Pileated Woodpecker  
\_\_\_ Northern Flicker  
\_\_\_ woodpecker sp.

#### **Falcons and Caracaras**

\_\_\_ Merlin  
\_\_\_ Peregrine Falcon  
\_\_\_ Prairie Falcon

#### **Tyrant Flycatchers: Pewees, Kingbirds, and Allies**

\_\_\_ Olive-sided Flycatcher  
\_\_\_ Western Wood-Pewee  
\_\_\_ Alder Flycatcher  
\_\_\_ Eastern Phoebe  
\_\_\_ Eastern Kingbird

#### **Vireos**

\_\_\_ Red-eyed Vireo

#### **Shrikes**

\_\_\_ Northern Shrike

#### **Jays, Magpies, Crows, and Ravens**

\_\_\_ Blue Jay  
\_\_\_ Black-billed Magpie  
\_\_\_ American Crow  
\_\_\_ Common Raven

#### **Tits, Chickadees, and Titmice**

\_\_\_ Black-capped Chickadee  
\_\_\_ Mountain Chickadee  
\_\_\_ Boreal Chickadee

#### **Martins and Swallows**

\_\_\_ Bank Swallow  
\_\_\_ Tree Swallow  
\_\_\_ Violet-green Swallow  
\_\_\_ Northern Rough-winged Swallow  
\_\_\_ Barn Swallow  
\_\_\_ Cliff Swallow  
\_\_\_ swallow sp.

#### **Kinglets**

\_\_\_ Ruby-crowned Kinglet

#### **Nuthatches**

\_\_\_ White-breasted Nuthatch  
\_\_\_ Red-breasted Nuthatch

#### **Wrens**

\_\_\_ Rock Wren  
\_\_\_ Northern House Wren

#### **Starlings and Mynas**

\_\_\_ European Starling

#### **Catbirds, Mockingbirds, and Thrashers**

\_\_\_ Gray Catbird

#### **Thrushes**

\_\_\_ Townsend's Solitaire  
\_\_\_ Varied Thrush  
\_\_\_ American Robin

#### **Waxwings**

\_\_\_ Bohemian Waxwing  
\_\_\_ Cedar Waxwing  
\_\_\_ Bohemian/Cedar Waxwing

#### **Old World Sparrows**

\_\_\_ House Sparrow

#### **Wagtails and Pipits**

\_\_\_ American Pipit

#### **Finches, Euphonias, and Allies**

\_\_\_ Evening Grosbeak  
\_\_\_ Pine Grosbeak  
\_\_\_ House Finch  
\_\_\_ Purple Finch  
\_\_\_ Redpoll  
\_\_\_ Pine Siskin  
\_\_\_ American Goldfinch

#### **New World Sparrows**

\_\_\_ Chipping Sparrow  
\_\_\_ Clay-colored Sparrow  
\_\_\_ Spizella sp.  
\_\_\_ American Tree Sparrow  
\_\_\_ Dark-eyed Junco

This field checklist was generated using eBird (ebird.org)



- ☐ White-crowned Sparrow
- ☐ White-throated Sparrow
- ☐ Vesper Sparrow
- ☐ Savannah Sparrow
- ☐ Song Sparrow
- ☐ Lincoln's Sparrow
- ☐ Spotted Towhee

#### **Blackbirds**

- ☐ Yellow-headed Blackbird
- ☐ Western Meadowlark
- ☐ Red-winged Blackbird
- ☐ Brown-headed Cowbird
- ☐ Rusty Blackbird
- ☐ Brewer's Blackbird
- ☐ Common Grackle
- ☐ blackbird sp.

#### **Wood-Warblers**

- ☐ Tennessee Warbler
- ☐ Orange-crowned Warbler
- ☐ Yellow Warbler
- ☐ Blackpoll Warbler
- ☐ Yellow-rumped Warbler
- ☐ Wilson's Warbler

#### **Cardinals, Grosbeaks, and Allies**

- ☐ Western Tanager
- ☐ Rose-breasted Grosbeak
- ☐ Rose-breasted/Black-headed Grosbeak

This field checklist was generated using eBird ([ebird.org](http://ebird.org))



An aerial photograph of a suburban neighborhood. In the foreground, there are several large, two-story houses with brick and siding exteriors, some with swimming pools. A winding road cuts through the middle of the neighborhood. In the background, a large green golf course is visible, surrounded by trees with autumn foliage. The sky is clear and blue.

# APPENDIX F: POTENTIAL WILDLIFE LIST



COMMON NAME	SCIENTIFIC NAME	SARA	EPA
<b>alder flycatcher</b>	<i>Empidonax alnorum</i>	-	Secure
<b>American coot</b>	<i>Fulica americana</i>	-	Secure
<b>American crow</b>	<i>Corvus brachyrhynchos</i>	-	Secure
<b>American goldfinch</b>	<i>Carduelis tristis</i>	-	-
<b>American kestrel</b>	<i>Falco sparverius</i>	-	Sensitive
<b>American pipit</b>	<i>Anthus rubescens</i>	-	Secure
<b>American robin</b>	<i>Turdus migratorius</i>	-	Secure
<b>American tree sparrow</b>	<i>Spizella arborea</i>	-	-
<b>American wigeon</b>	<i>Anas americana</i>	-	-
<b>bald eagle</b>	<i>Haliaeetus leucocephalus</i>	-	Sensitive
<b>Baltimore oriole</b>	<i>Icterus galbula</i>	-	Secure
<b>bank swallow</b>	<i>Riparia riparia</i>	Threatened	Sensitive
<b>barn swallow</b>	<i>Hirundo rustica</i>	Threatened	May Be at Risk
<b>Barrow's goldeneye</b>	<i>Bucephala islandica</i>	-	Secure
<b>belted kingfisher</b>	<i>Ceryle alcyon</i>	-	-
<b>black-billed magpie</b>	<i>Pica hudsonia</i>	-	Secure
<b>black-capped chickadee</b>	<i>Poecile atricapillus</i>	-	Secure
<b>black-crowned night heron</b>	<i>Nycticorax nycticorax</i>	-	Sensitive
<b>blue jay</b>	<i>Cyanocitta cristata</i>	-	Secure
<b>blue-winged teal</b>	<i>Anas discors</i>	-	-
<b>bohemian waxwing</b>	<i>Bombycilla garrulus</i>	-	Secure
<b>Bonaparte's gull</b>	<i>Larus philadelphia</i>	-	-
<b>boreal chickadee</b>	<i>Poecile hudsonicus</i>	-	Secure
<b>Brewer's blackbird</b>	<i>Euphagus cyanocephalus</i>	-	Secure
<b>brown-headed cowbird</b>	<i>Molothrus ater</i>	-	Secure
<b>bufflehead</b>	<i>Bucephala albeola</i>	-	Secure
<b>California gull</b>	<i>Larus californicus</i>	-	Secure
<b>Canada goose</b>	<i>Branta canadensis</i>	-	Secure
<b>canvasback</b>	<i>Aythya valisineria</i>	-	Secure
<b>cedar waxwing</b>	<i>Bombycilla cedrorum</i>	-	Secure
<b>chipping sparrow</b>	<i>Spizella passerina</i>	-	Secure
<b>chukar</b>	<i>Alectoris chukar</i>	-	Exotic/Alien
<b>clay-colored sparrow</b>	<i>Spizella pallida</i>	-	Secure
<b>cliff swallow</b>	<i>Petrochelidon pyrrhonota</i>	-	Secure
<b>common goldeneye</b>	<i>Bucephala clangula</i>	-	Secure
<b>common grackle</b>	<i>Quiscalus quiscula</i>	-	Secure
<b>common loon</b>	<i>Gavia immer</i>	-	Secure



COMMON NAME	SCIENTIFIC NAME	SARA	EPA
common merganser	<i>Mergus merganser</i>	-	Secure
common raven	<i>Corvus corax</i>	-	Secure
common yellowthroat	<i>Geothlypis trichas</i>	-	Sensitive
Cooper's hawk	<i>Accipiter cooperii</i>	-	Secure
dark-eyed junco	<i>Junco hyemalis</i>	-	Secure
double-crested cormorant	<i>Phalacrocorax auritus</i>	-	Secure
downy woodpecker	<i>Picoides pubescens</i>	-	-
eastern kingbird	<i>Tyrannus tyrannus</i>	-	Sensitive
eastern phoebe	<i>Sayornis phoebe</i>	-	Sensitive
European starling	<i>Sturnus vulgaris</i>	-	Exotic/Alien
evening grosbeak	<i>Coccothraustes vespertinus</i>	Special Concern	Secure
Franklin's gull	<i>Leucophaeus pipixcan</i>	-	Secure
gadwall	<i>Anas strepera</i>	-	-
golden eagle	<i>Aquila chrysaetos</i>	-	Sensitive
gray catbird	<i>Dumetella carolinensis</i>	-	Secure
gray partridge	<i>Perdix perdix</i>	-	Exotic/Alien
great blue heron	<i>Ardea herodias</i>	-	Sensitive
great horned owl	<i>Bubo virginianus</i>	-	Secure
greater white-fronted goose	<i>Anser albifrons</i>	-	Secure
greater yellowlegs	<i>Tringa melanoleuca</i>	-	Secure
green-winged teal	<i>Anas crecca</i>	-	Secure
hairy woodpecker	<i>Picoides villosus</i>	-	-
hermit thrush	<i>Catharus guttatus</i>	-	Secure
hooded merganser	<i>Lophodytes cucullatus</i>	-	Secure
house finch	<i>Carpodacus mexicanus</i>	-	Secure
house sparrow	<i>Passer domesticus</i>	-	Exotic/Alien
killdeer	<i>Charadrius vociferus</i>	-	Secure
least flycatcher	<i>Empidonax minimus</i>	-	Secure
lesser scaup	<i>Aythya affinis</i>	-	Secure
Lincoln's sparrow	<i>Melospiza lincolnii</i>	-	Secure
mallard	<i>Anas platyrhynchos</i>	-	Secure
merlin	<i>Falco columbarius</i>	-	Secure
mountain bluebird	<i>Sialia currucoides</i>	-	Secure
mountain chickadee	<i>Poecile gambeli</i>	-	Secure
mourning dove	<i>Zenaida macroura</i>	-	Secure
northern flicker	<i>Colaptes auratus</i>	-	Secure
northern harrier	<i>Circus cyaneus</i>	-	-



COMMON NAME	SCIENTIFIC NAME	SARA	EPA
<b>northern rough-winged swallow</b>	<i>Stelgidopteryx serripennis</i>	-	Secure
<b>northern shoveler</b>	<i>Anas clypeata</i>	-	-
<b>northern shrike</b>	<i>Lanius excubitor</i>	-	-
<b>olive-sided flycatcher</b>	<i>Contopus cooperi</i>	Threatened	May Be at Risk
<b>orange-crowned warbler</b>	<i>Vermivora celata</i>	-	Secure
<b>osprey</b>	<i>Pandion haliaetus</i>	-	Secure
<b>peregrine falcon</b>	<i>Falco peregrinus anatum/tundrius</i>	Special Concern	At Risk
<b>pied-billed grebe</b>	<i>Podilymbus podiceps</i>	-	Sensitive
<b>pileated woodpecker</b>	<i>Dryocopus pileatus</i>	-	Sensitive
<b>pine grosbeak</b>	<i>Pinicola enucleator</i>	-	Secure
<b>pine siskin</b>	<i>Carduelis pinus</i>	-	-
<b>prairie falcon</b>	<i>Falco mexicanus</i>	-	Sensitive
<b>purple finch</b>	<i>Carpodacus purpureus</i>	-	Secure
<b>red-breasted nuthatch</b>	<i>Sitta canadensis</i>	-	Secure
<b>red-eyed vireo</b>	<i>Vireo olivaceus</i>	-	Secure
<b>red-necked grebe</b>	<i>Podiceps grisegena</i>	-	Secure
<b>red-tailed hawk</b>	<i>Buteo jamaicensis</i>	-	Secure
<b>red-winged blackbird</b>	<i>Agelaius phoeniceus</i>	-	Secure
<b>ring-billed gull</b>	<i>Larus delawarensis</i>	-	Secure
<b>ring-necked duck</b>	<i>Aythya collaris</i>	-	Secure
<b>ring-necked pheasant</b>	<i>Phasianus colchicus</i>	-	Exotic/Alien
<b>rock pigeon</b>	<i>Columba livia</i>	-	Exotic/Alien
<b>rock wren</b>	<i>Salpinctes obsoletus</i>	-	Secure
<b>rose-breasted grosbeak</b>	<i>Pheucticus ludovicianus</i>	-	Secure
<b>rough-legged hawk</b>	<i>Buteo lagopus</i>	-	Secure
<b>ruby-crowned kinglet</b>	<i>Regulus calendula</i>	-	Secure
<b>ruffed grouse</b>	<i>Bonasa umbellus</i>	-	Secure
<b>rufous hummingbird</b>	<i>Passerculus sandwichensis</i>	-	Secure
<b>rusty blackbird</b>	<i>Actitis macularius</i>	-	Secure
<b>Savannah sparrow</b>	<i>Buteo swainsoni</i>	-	Secure
<b>sharp-shinned hawk</b>	<i>Poocetes gramineus</i>	-	Secure
<b>solitary sandpiper</b>	<i>Tachycineta thalassina</i>	-	Secure
<b>song sparrow</b>	<i>Vireo gilvus</i>	-	Secure
<b>sora</b>	<i>Sitta carolinensis</i>	-	Secure
<b>spotted sandpiper</b>	<i>Zonotrichia leucophrys</i>	-	Secure
<b>Swainson's hawk</b>	<i>Zonotrichia albicollis</i>	-	Accidental/Vagrant



COMMON NAME	SCIENTIFIC NAME	SARA	EPA
Tennessee warbler	<i>Dendroica coronata</i>	-	Secure
Townsend's solitaire	<i>Myadestes townsendi</i>	-	Secure
tree swallow	<i>Tachycineta bicolor</i>	-	Secure
trumpeter swan	<i>Cygnus buccinator</i>	-	sensitive
turkey vulture	<i>Cathartes aura</i>	-	Secure
varied thrush	<i>Ixoreus naevius</i>	-	Secure
veery	<i>Catharus fuscescens</i>	-	Secure
vesper sparrow	<i>Pooecetes gramineus</i>	-	Secure
violet-green swallow	<i>Tachycineta thalassina</i>	-	Secure
warbling vireo	<i>Vireo gilvus</i>	-	Secure
western wood-pewee	<i>Contopus sordidulus</i>	-	may be at risk
white-breasted nuthatch	<i>Sitta carolinensis</i>	-	Secure
white-crowned sparrow	<i>Zonotrichia leucophrys</i>	-	Secure
white-throated sparrow	<i>Zonotrichia albicollis</i>	-	accidental/vagrant
Wilson's snipe	<i>Gallinago delicata</i>	-	Secure
wood duck	<i>Aix sponsa</i>	-	Secure
yellow-bellied sapsucker	<i>Sphyrapicus varius</i>	-	Secure
yellow-rumped warbler	<i>Dendroica coronata</i>	-	Secure
Mammals			
Little brown bat	<i>Myotis lucifugus</i>	May Be at Risk	Endangered

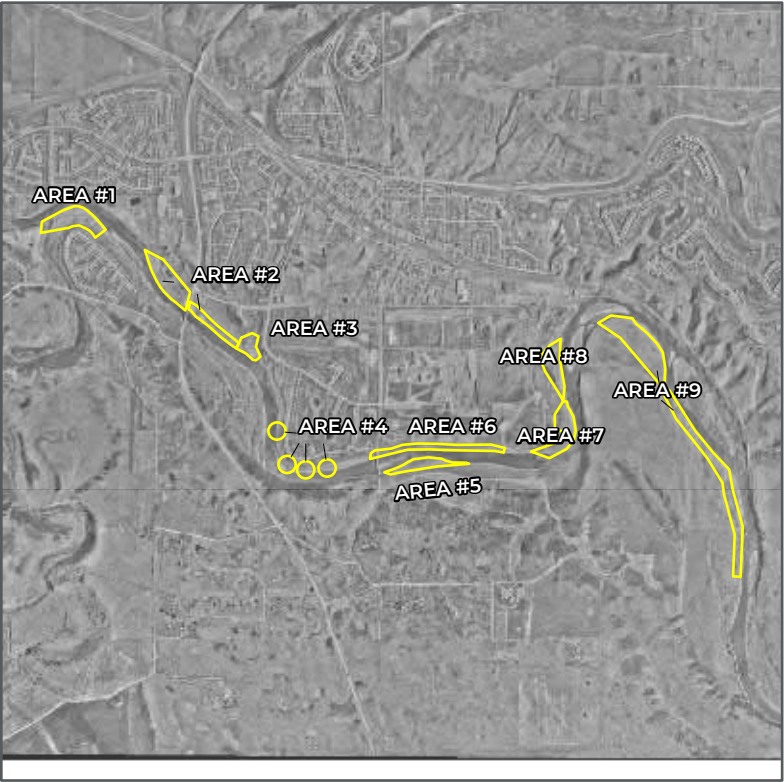


An aerial photograph of a suburban neighborhood. The houses are primarily two-story brick structures with dark roofs. A prominent swimming pool is visible in the center-left. The trees are in various stages of autumn, with some showing bright yellow and orange. A curved road runs through the bottom of the frame. The overall scene is a typical suburban residential area.

## APPENDIX G: HISTORICAL IMAGERY



Last updated by SdeBoerFuller on Thursday, January 23, 2025 at 3:51 PM  
Last exported by SdeBoerFuller on Thursday, January 23, 2025 3:51 PM  
Last printed by SdeBoerFuller on Monday, September 25, 2017 11:46 AM  
\\usl.urban-systems.com\projects\Projects\_CAL\1728\0471\02\ID-Design\GIS\Projects\Pro\_Projects\1728\_0471\_02 - Cochrane - Bow River Access Impact Study-AC-Historical Imgs-20250123



2002



2012



2015



2023



Town of Cochrane  
Bow River Access Impact Study  
Historical Imagery

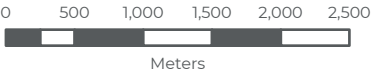
Legend

Assessment Areas

Notes:

- Area 1- Jumpingpound Creek Confluence
- Area 2- Riverfront Park
- Area 3- Bighill Creek Confluence
- Area 4- Community of Riverview
- Area 5- Community of Riveria
- Area 6- Jim Uffelman Park
- Area 7- Jim Uffelman Park (under Jack Tenant bridge)
- Area 8- Bow River Island
- Area 9- South Ridge (future development area)

The accuracy & completeness of information shown on this drawing is not guaranteed. It will be the responsibility of the user of the information shown on this drawing to locate & establish the precise location of all existing information whether shown or not.



Coordinate System: NAD 1983 3TM 114  
Scale: 1:55,000  
(When plotted at 11"x17")

Data Sources:  
- Data from the Town of Cochrane, AEP, ESRI, NRCan.

Project #: 1728.0471.02  
Author: SDF  
Checked: SK  
Status: Final  
Revision: A  
Date: 2025 / 1 / 23

URBAN  
SYSTEMS  
APPENDIX G



DATE: August 9, 2024  
TO: Lee Giddens  
CC: Kris Nelson  
FROM: David Bell  
FILE: 1728.0471.01  
SUBJECT: Bow River Strategy – Market Scan (Economic Development Opportunities)

## 1.0 INTRODUCTION

This memorandum provides a summary market opportunity scan in support of the larger Bow River Strategy. The intent of this assessment is to provide a high-level summary of high potential economic development opportunities in select study area locations, following reviews of both secondary research sources and in-person field work in July 2024.

This review includes market-driven recommendations for a range of land uses deemed to be most appropriate for the study area and surrounding context, notably multi-family residential, retail-commercial and arts/cultural/recreation.

## 2.0 RESIDENTIAL MARKET ACTIVITY

This section provides an overview of market-wide residential market activity, with the intention of highlighting multi-family market indicators and forms with the greatest degree of relevance for select segments of the study area. This includes a CMHC-driven review of local housing starts, as well as profiles of new multi-family projects that are either actively marketing or recently completed in the Cochrane market.

### 2.1 MARKET-WIDE MULTI-FAMILY RESIDENTIAL TRENDS

With the study area offering a few select Bow River-oriented locations appropriate for potential new multi-family housing options, it is important to gauge the scale of the local market. A key measure of market size is the number of annual multi-family housing starts and gauging multi-family as a proportion of overall market activity. This assessment provides a check and balance on the realistic scale of the multi-family residential market in Cochrane.

Annual housing start activity for the 2011 to 2023 period is summarized in the following table:

*Table 1 - Annual Housing Starts by Type - Cochrane (2011 to 2023)*

Year	Single	Semi-Detached	Row	Apartment	All
2011	248	96	21	0	365
2012	320	62	16	80	478
2013	409	120	168	89	786
2014	456	128	264	32	880
2015	293	172	397	107	969
2016	235	90	55	11	391



# URBAN SYSTEMS MEMORANDUM

DATE: August 9, 2024 FILE: 1728.0471.01  
SUBJECT: Bow River Strategy – Market Scan (Economic Development Opportunities)

PAGE: 2 of 20

2017	274	128	152	136	690
2018	225	118	79	24	446
2019	171	98	32	0	301
2020	166	122	31	12	331
2021	314	96	90	39	539
2022	346	86	79	18	529
2023	306	174	84	3	567

Source: CMHC Housing Information Portal

As noted in the table above, row housing as a building form has been delivered at a steadier pace in Cochrane throughout the review period. Since 2011, there have been 1,468 row home starts in the Cochrane market, for an average of roughly 113 homes per year. Over that same period, the local market saw 551 new apartment home starts, for an annual average of only 42 apartment homes.

Multi-family starts as a proportion of total market starts in Cochrane is presented in the table below:

<b>Year</b>	<b>Multi-Family Starts</b>	<b>% of All Starts</b>
2011	21	5.8%
2012	96	20.1%
2013	257	32.7%
2014	296	33.6%
2015	504	52.0%
2016	66	16.9%
2017	288	41.7%
2018	103	23.1%
2019	32	10.6%
2020	43	13.0%
2021	129	23.9%
2022	97	18.3%
2023	87	15.3%
<b>Period</b>	<b>155</b>	<b>27.8%</b>

Source: CMHC Housing Information Portal

During the 2011 to 2023 period, multi-family development activity peaked in 2015, with the addition of 504 housing units (397 row homes, 172 apartment units) representing 52% of all start activity that year. For the period, multi-



family starts averaged 155 homes or nearly 28% of market-wide starts. This includes an average of 113 row homes (73% of multi-family starts) and 42 apartment homes (27% of multi-family starts).

A visual representation of housing start activity in Cochrane by residential product type is shown in the chart below.

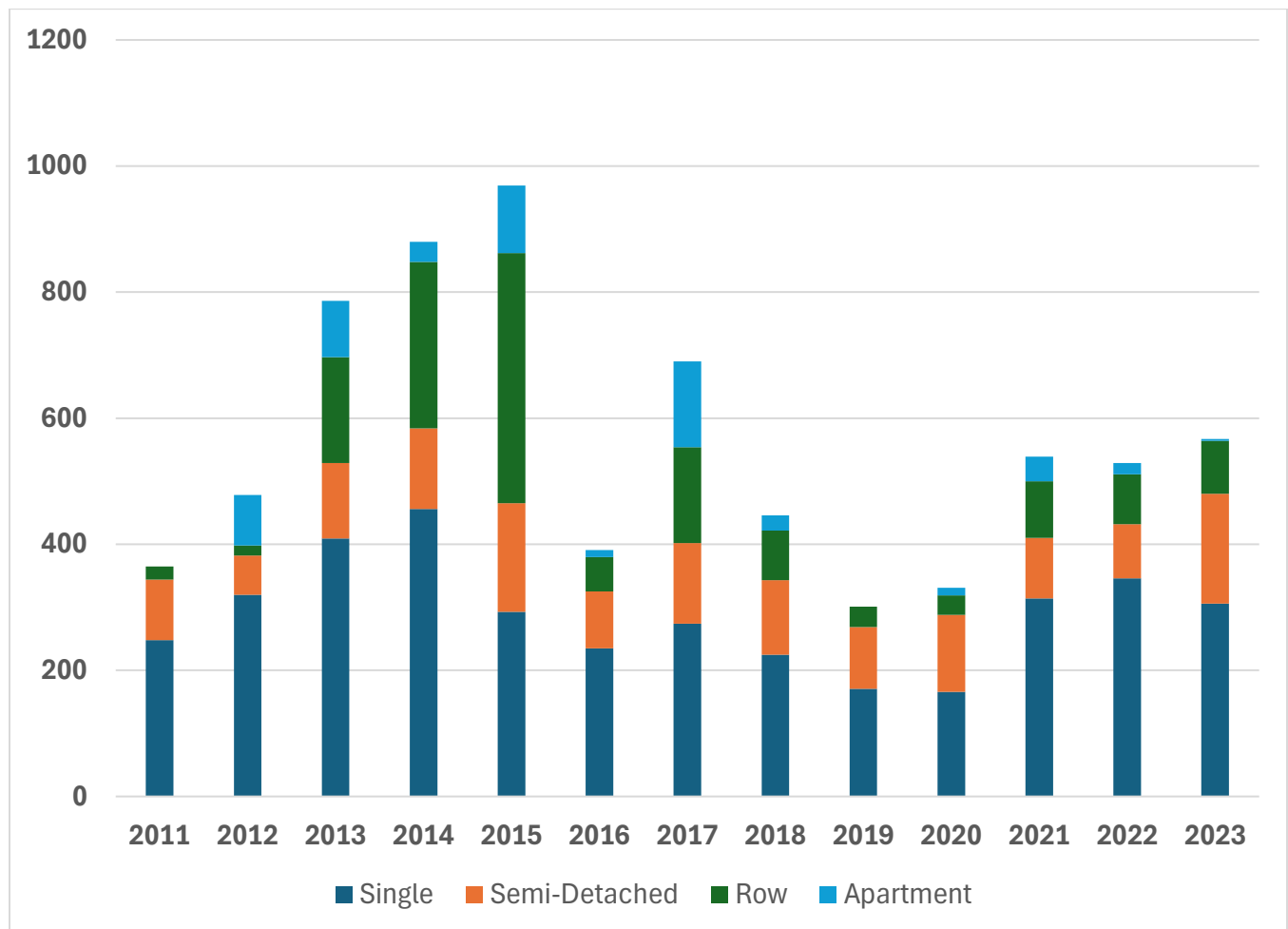


Figure 1 - Annual Housing Starts by Typology - Cochrane (2011-2023)

The Cochrane market is defined primarily by lower-density forms of multi-family homes, with row homes (or townhomes) outpacing apartment homes in terms of annual market delivery. This has implications for potential delivery of new homes near the Bow River study area, particularly given the extent of new multi-family development anticipated within the Greystone development area.



# Appendix B

## Market Opportunity Scan



## 2.2 NEW MULTI-FAMILY CONDOMINIUM PROJECT ACTIVITY

There have been several new multi-family projects of note since 2019. These include:

- Precedence Street Towns (5 Riversong Boulevard) – sales start Jan. 2019, sold out in Feb. 2022
- Vertos (Vantage Drive) – actively marketing since Jan. 2022
- ZEN Greystone (Vantage Drive) – actively marketing since Jan. 2024

These relevant multi-family projects are profiled in greater detail below, as they offer some insights in terms of infill residential development potential within and adjacent to the study area.

### 2.2.1 Completed Multi-Family Projects

#### **Precedence Street Towns – 5 Riversong Boulevard**



*Figure 2 - Precedence Street Towns - 5 Riversong Boulevard (south of Bow River)*

- Developer: Trico Homes
- Total Townhome Units: 43 three-level townhomes averaging 1,380 sq. ft. in size.
- Sales Performance: Project was on the market for 27 months – from Oct. 31, 2019 to Feb. 27, 2022, for average absorption of only 1.6 homes per month.
- Unit Mix: All 43 three-storey townhomes are 3-bedroom, 2.5-bath layouts ranging from 1,341 to 1,411 sq. ft.
- Sales Prices – Townhome units sold for between \$340,000 and \$395,000 or \$252 to \$279 per sq. ft.; Average sale price was \$367,080 or \$266 per sq. ft.
- Marketing notes for the project indicate that home buyers were a mix of professionals, restarters and downsizer buyers from other markets in Ontario, Canmore, Calgary and Cochrane
- Amenities/Features – All units feature double garages.



## Vertos – Vantage Drive (Apartment Condominiums)



Figure 3 - Vertos - Vantage Drive (north of study area)

- Developer: Ocgrow Group of Companies
- Total Townhome Units: 150 units in 4-storey building format, average size of 831 sq. ft.
- Sales Performance: Project started selling on April 30, 2022, and has sold 74 homes to date, for average absorption of 3 homes per month.
- Unit Mix: Vertos home layouts include one-bedroom and three-bedroom units:
  - One-bedroom one-bath homes: 19 of 109 units (18%), 495 sq. ft.
  - Three-bedroom 1.5-bath homes: 33 of 104 units (32%), 797 sq. ft.
  - Three-bedroom 2-bath homes with single garage: 52 of 104 units (50%), 882 to 1,002 sq. ft.
- Sales Prices – The project's average sale price to date has been roughly \$430,500 or \$518 per sq. ft., incl.:
  - One-bedroom homes: 17 sold to date for \$249,900 to \$319,900 or \$504 to \$646 per sq. ft.
  - Three-bedroom homes no garage: 27 sold to date for \$369,900 to \$419,900 or \$464 to \$526/sq. ft.
  - Three-bedroom homes with garage: 30 sold to date - \$479,900 to \$529,900 (\$528 to \$544/sq. ft.)
- Marketing notes for the project indicate that the typical buyer profile comprises younger or older professionals, young families and investors. Notes also indicate the developer is offering a free stainless steel appliance package, in-suite storage, and discounted parking spaces to entice buyers.
- Amenities/Features – Greystone neighbourhood to feature green spaces, multi-use trails; some floorplans offer rooftop patios; parking options include above-ground parking stall, private garage or underground heated parking.



## ZEN Greystone – Vantage Drive (Townhomes)



Figure 4 - ZEN Greystone - Vantage Drive (north of study area)

- Developer: Avalon Master Builder
- Total Townhome Units: 55 two-level townhome units, average size of 1,470 sq. ft.
- Sales Performance: Project started selling on Jan. 1, 2024, with an initial release of 12 homes and has sold 5 homes to date, for average absorption of 1 home per month.
- Unit Mix: All townhomes at ZEN Greystone are three-bedroom 2.5-bath layouts ranging in size from 1,430 to 1,509 sq. ft.
- Sales Prices – Townhomes sold to date have recorded sales prices ranging from \$535,000 to \$573,000 or \$374 to \$379 per sq. ft.; average sale price to date is \$552,700 or \$376 per sq. ft.
- Marketing notes for the project indicate that the typical buyer profile is local buyers, most of whom are young families.
- Amenities/Features – ZEN Greystone is marketing these homes as net zero townhomes that are environmentally friendly and more energy efficient than traditional homes, with inclusion of solar panels to provide lower energy bills. **These townhomes are also freehold and do not have condo fees.** Local community amenities will include green spaces, pathways and both pickle ball and tennis courts.



## 2.3 MARKET-WIDE RENTAL APARTMENT TRENDS

### 2.3.1 Rental Market Supply

Through 2015, multi-family residential rental supply as tracked by CMHC in the Town of Cochrane has been very modest, with a total market-wide rental unit count of between 140 and 150 housing units over the 2011-2015 period. 42% to 47% of this supply was smaller bachelor and one-bedroom apartments. As of October 2015, larger 49 two-bedroom rental units accounted for about 35% of total supply, while family-oriented three-bedroom rental homes (25) accounted for only 18% of total supply.

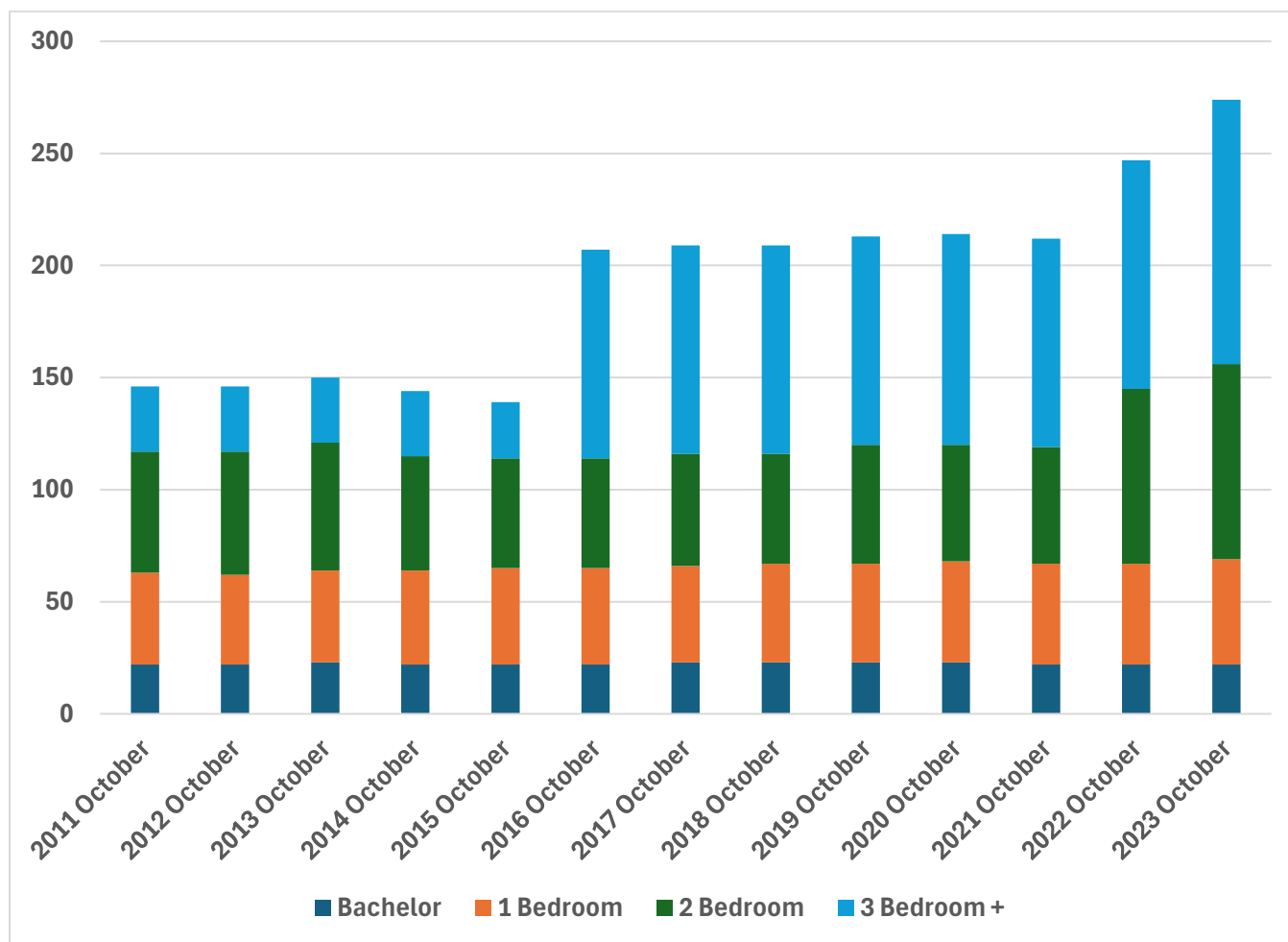


Figure 5 - Town of Cochrane Rental Market Supply by Unit Type

Source: CMHC Housing Information Portal

Rental housing supply increased significantly in 2016, with the addition of 58 three-bedroom rental homes. This brought total market supply up from 139 units to 207 units, with 93 three-bedroom units making up 45% of total supply. The local rental market universe expanded again in 2022-23, with the addition of 35 two-bedroom rental



homes and 25 three-bedroom homes. By the end of 2023, larger two and three-bedroom rental homes made up fully 75% of the local rental market, compared to only 57% in 2011.

### 2.3.2 Rental Market Rate Growth by Type

Rental apartment rental rates have grown significantly in the Town of Cochrane since 2011, as presented in the table below.

Table 2 - Cochrane Apartment Rental Rate Growth (2011-2022)

Rental Unit Type	2011	2021	2022	% AAGR 2011-22	% Change 2011-22	% Change 2021-22
Bachelor	\$ 626	\$ 874	\$ 902	3.4%	44.1%	3.2%
1-Bedroom	\$ 761	\$ 968	\$ 1,020	2.7%	34.0%	5.4%
2-Bedroom	\$ 844	\$ 1,096	\$ 1,213	3.4%	43.7%	10.7%
3-Bedroom	\$ 923	\$ 1,442	\$ 1,544	4.8%	67.3%	7.1%
All Units	\$ 805	\$ 1,217	\$ 1,292	4.4%	60.5%	6.2%

Source: CMHC Housing Information Portal

- **Bachelor units:** A benchmark apartment which rented for \$626/month in 2011 saw its rental rate increase by 44% over the 2011-22 period or an average of 3.4% per year.
- **One-bedroom units:** One-bedroom apartments in Cochrane saw their average rent rise by a more modest 34% over the same period, moving from \$761 to \$1,020/month by 2022. This included a 5.4% increase within the most recent 2022-23 period.
- **Two-bedroom units:** Larger two-bedroom rental homes saw a 44% increase in their monthly rental rate over the period, or an average increase of 3.4% per annum. The two-bedroom rate did, however, jump more significantly between 2022 and 2023, from \$1,096 to \$1,213/month – a nearly 11% increase in one year.
- **Three-bedroom units:** Larger family-friendly three-bedroom apartments saw the most substantial growth in monthly rental rates over this same period, despite the significant increase in local supply post 2015. These apartments saw rents increase from \$923 to \$1,544, or roughly 67% for the period. This reflects an average annual increase of 4.8%, though the 2022-23 change was 7.1%.

Growth in supply and in monthly rental rates in Cochrane is focused primarily on larger two and three-bedroom apartments, likely indicating higher levels of demand for young couples and families.

### 2.3.3 Rental Market Vacancy by Type

While CMHC rental market vacancy estimates are spotty in terms of year-to-year consistency in Cochrane, the following vacancy rate movement by unit type has been tracked:

- **Bachelor units** – 4.3% vacancy in 2013, reaching a period high of 8.7% in 2018. The latest high confidence estimate is 0% for 2022.



- **One-bedroom units** – Vacancy was 4.7% in 2016 but decreased to 3.5% by 2019. Unreliable estimates post 2019.
- **Two-bedroom units** – Vacancy in Cochrane's two-bedroom units has been very low, ranging from 0% to 1.7% since 2013. Movement in two-bedroom rental rates in recent years suggest high occupancy and demand.
- **Three-bedroom units** – Vacancy for the larger three-bedroom units in Cochrane was tracking high in the early part of the period, with marks of 6.9% in 2011 and 8.0% in 2015. This Decreased to 3.1% to 3.9% in 2018/19, despite a significant increase in three-bedroom rental supply. CMHC has not provided vacancy estimates since 2019 for three-bedroom units.
- **All rental apartment units** – CMHC estimates 2023 rental apartment vacancy at 0.5% down from 2.4% in 2019. This is well below healthy levels and is generally indicative of market-support for increased supply.

## 2.4 NEW MULTI-FAMILY RENTAL PROJECT ACTIVITY

To gauge study area adjacent potential for new multi-family rental apartment potential, it is worth noting the following currently active rental market projects in the Town of Cochrane:

### 2.4.1 Actively Marketing Rental Apartment Projects

There is only one currently marketing project in the Cochrane Market – Riverview Pointe at 25 Clydesdale Avenue in northwest Cochrane, a short distance south of the intersection of Highway 1A and Horse Creek Road. While not a contextually similar location, project details for Riverview Pointe's buildings at 1000 and 2000 25 Clydesdale Avenue provide some insights into potentially achievable rental rates, unit mix and market rates.

The developer for the project's two 6-storey wood-frame apartment buildings is City Vibe Developments. Market details for the two buildings is as follows:

#### Riverview Pointe Building 1000 – 25 Clydesdale Avenue



Figure 6 - Riverview Pointe Building 1000 (25 Clydesdale Avenue)



DATE: August 9, 2024  
FILE: 1728.0471.01  
SUBJECT: Bow River Strategy – Market Scan (Economic Development Opportunities)

PAGE: 10 of 20

- Total Rental Units: 67 apartment units, of which 63 were released to the market on Feb. 29, 2024
- Leasing Progress: 59 of 63 released units leased to date – 37 of these leases occurred during the second quarter of 2024.
- Unit Mix: Average unit size of 925 sq. ft. – 42 of the released units are two-bedroom or two-bedroom and den units, while 18 are three-bedroom or larger three and den homes.
- Unit Sizes by Unit Type: Two-bedroom apartments range in size from 762 to 980 sq. ft. (with den). Larger three-bedroom homes range in size from 1,016 to 1,275 sq. ft.
- Rental Rates – Building 1000 lease rates have averaged \$2.10 per sq. ft., with larger three-bedroom units leasing for between \$1.70 and \$2.04 per sq. ft. and two-bedroom homes renting for \$2.07 to \$2.32/sq. ft.
  - Two-bedroom units: \$1,703 to \$1,991 per month
  - Two-bedroom and den units: \$1,822 to \$2,031 per month
  - Three-bedroom units: \$2,015 to \$2,075 per month
  - Three-bedroom and den units: \$2,163 per month
- Amenities/Features – Pets allowed for a fee of \$35/month; parking stall at \$75/month; no storage locker.

## Riverview Pointe Building 2000 – 25 Clydesdale Avenue



Figure 7 - Riverview Pointe Building 2000 (25 Clydesdale Avenue)

- Total Rental Units: 83 homes, of which 82 were released to the market on June 13, 2024
- Leasing Progress: 5 of 82 units leased to date.
- Unit Mix: 30 smaller one-bedroom and den homes (579-756 sq. ft.), 40 two-bedroom homes (762-980 sq. ft. with den), 12 larger three-bedroom homes (902-1,016 sq. ft.)



- Rental Rates – Building 2000 lease rates have averaged \$2.23 per sq. ft. Lease rates by unit type are:
  - One-bedroom and den: \$1,545 to \$1,806 per month (\$2.39 to \$2.67 per sq. ft.)
  - Two-bed one bath: \$1,703 per month (\$2.19 per sq. ft.)
  - Two-bed two bath: \$1,793 to \$1,813 per month (\$2.35 to \$2.38 per sq. ft.)
  - Two-bed and den: \$1,822 to \$1,991 (\$2.03 to \$2.12 per sq. ft.)
  - Three-bed 2 bath: \$1,927 to \$2,035 per month (\$2.00 to \$2.14 per sq. ft.)
- Amenities / Features: Pets allowed for a fee of \$35/month; parking stall at \$75/month; no storage locker.

## 2.4.2 Fully Leased Out Rental Projects

There have been three rental apartment projects that have leased out in the Cochrane market since 2019. Base details on the most relevant completed project are provided below as reference for future rental apartment potential.

### **Rivercrest Townhomes – 24 Rivercrest Drive (south of the Bow River)**



*Figure 8 - Rivercrest Townhomes (24 Rivercrest Drive)*

- Developer: Leven Homes
- Total Rental Units: 87 three-level townhomes
- Leasing Performance: Started leasing on Jan. 1, 2022, completed within 7 months for average absorption of 12.4 townhomes per month.
- Unit Mix comprised two and three-bedroom homes, with the following size ranges:



- 2-bed / 1.5 bath – 1,203 to 1,206 sq. ft.
- 2-bed / 2.5 bath – 1,289 to 1,293 sq. ft.
- 3-bed / 2.5 bath – 1,100 to 1,446 sq. ft.
- Rental rates by unit type:
  - 2-bed / 1.5 bath – \$1,359 per month or \$1.13 per sq. ft.
  - 2-bed / 2.5 bath – \$1,359 per month or \$1.05 per sq. ft.
  - 3-bed / 2.5 bath – \$1,485 per month or \$1.03 to \$1.35 per sq. ft.

### 3.0 RETAIL MARKET CONTEXT

While the Bow River study area is not deemed to be appropriate for inclusion of significant new retail-commercial clusters due in part to the extent of planned retail-commercial uses within the nearby Greystone neighbourhood plan area and downtown Cochrane, there are nevertheless select study area locations offering clear potential for specialty amenity retail – most likely in the restaurant food & beverage and specialty service categories – to enhance enjoyment of the waterfront trail network for both residents and visitors alike. This section provides some base market statistics in support of these types of place-making commercial amenities.

#### 3.1 LOCAL MARKET DEMOGRAPHIC HIGHLIGHTS

Select local Town of Cochrane demographic characteristics relative to province of Alberta metrics are summarized below for reference:

*Table 3 - Select Demographic Characteristics (2023)*

Demographic	Town of Cochrane	Province of Alberta
Population Growth (2018-2023)	10.1%	6.3%
Median Age	40.0	38.5
Bachelor's degree and higher educational attainment	29.2%	27.3%
Average household size	2.44	2.58
Home ownership rate	83.5%	70.1%
Average household income	\$135,800	\$128,000
Row homes and apartments (% of supply)	Row homes (15.6%), Apartments (10.8%)	Row homes (7.9%), Apartments (22.7%)
Visible minority population %	9.3%	29.6%
Top visible minorities as % of total population	Filipino (2.4%), South Asian (2.0%), Black (1.4%)	South Asian (8.6%), Filipino (4.9%), Black (4.8%), Chinese (3.9%)

Source: Environics Analytics, via Sitewise Pro.



The Town of Cochrane market is characterized by higher than provincial level household incomes, significantly higher levels of home ownership, and a multi-family housing stock that is deeper in townhomes than it is apartment homes. Cochrane as a market is also less ethnically diverse than many small cities, with a visible minority population accounting for less than 10% of the overall population (vs. nearly 30% at the provincial level).

### 3.2 LOCAL MARKET HOUSEHOLD SPENDING HIGHLIGHTS

Given the extent of commercial offerings in Downtown Cochrane and in other existing and planned nodes – including future retail-commercial uses in the growing Greystone community north of the study area, the most appropriate uses to consider for select study area locations are restaurant food and beverage uses. Signature uses in the right locations can provide new experiences for existing Cochrane residents, while also catering to the needs and wants of day visitors and overnight tourists.

Although restaurant spending is not tracked by Statistics Canada within its retail trade volume tracking across the country, national household survey data offers a reasonable proxy of likely spending in this important category. The two sub-categories of interest for evaluating new restaurant food & beverage potential are:

- Food purchased from restaurants; and
- Alcoholic beverages served on licensed premises.

To gauge the extent of reasonable market support for new Bow-River-oriented restaurant food & beverage uses, it is necessary to evaluate reasonable expectations in terms of support from the local market population as well as non-resident visitors and tourists.

A comparison of household survey spending in relevant categories for both the local Cochrane market and the province of Alberta is presented in the table below.

*Table 4 - Comparative Annual Household Spending on Restaurant Food & Beverage*

Average Household Spending	Cochrane	Alberta
Food purchased from restaurants	\$5,545	\$5,250
Alcoholic beverages served on licensed premises	\$913	\$776
<b>Total – restaurant food &amp; beverage spending</b>	<b>\$6,458</b>	<b>\$6,026</b>

*Source: Statistics Canada Household Survey data, compiled by Environics Analytics*

As noted above, Cochrane residents, based on the survey data, spend on average roughly \$6,500 per year on restaurant meals, compared to roughly \$6,000 at the provincial level (roughly 7% more per annum).

To gauge potential for additional restaurant space in Cochrane, and to do so in a way that minimizes undue competitive influence on existing businesses, it is worth evaluating how the local Cochrane market is likely to grow over the foreseeable future, and what reasonable proportion of existing and incremental market spending potential new facilities might draw from. These calculations are presented in the tables below.



Table 5 - Anticipated Growth in Cochrane Households and Restaurant F&B Spending (2023-33)

Market Measure	2023	2033	2023-33 Change
Households	12,714	13,972	1,258
Total F&B Spending	\$82.1M	\$90.2M	\$8.1M

Source: Environics Analytics, as compiled in Sitewise Pro.

To evaluate local study area opportunity to support new restaurant food & beverage space, it is worth building potential sales revenue from a modest proportion of existing market potential plus a more significant proportion of incremental growth. These estimates of market capture and equivalent annual sales are presented below, along with reasonable estimates of annual inflow spending from day visitors and tourists.

Market Measure	Restaurant Market capture %	Restaurant Market sales \$
Market capture of existing potential	2%	\$1.6M
Market capture of growth potential (Table 5)	10%	\$810,000
<b>Total Cochrane resident spending potential</b>		<b>\$2.4M</b>
<i>Estimated annual inflow spending (% of total)</i>	25%	\$800,000
<b>Total annual restaurant spending (study area)</b>		<b>\$3.2M</b>

Source: Urban Systems market capture and sales volume estimates

As noted above, and based on reasonable market captures, new study area restaurant uses would likely drive annual sales volume of about \$3.2M. At an assumed target sales per sq. ft. productivity rate of \$800 per sq. ft., this level of annual sales would support new restaurant food & beverage floor area of about 4,000 sq. ft.

This level of market-supportable floor area could potentially break down as follows:

- Signature full-service restaurant in high profile location – 2,500 sq. ft.
- Casual restaurant (potentially as part of boutique hotel) – 1,000 sq. ft.
- Seasonal restaurant F&B purveyors (various) – 500 sq. ft.



## 4.0 HOTEL MARKET CONTEXT

Apart from local bed & breakfast options, the range of hotel accommodations in the Town of Cochrane is very traditional and limited, with no tourist accommodations leveraging views of, or activities along the scenic Bow River. Cochrane's primary cluster of overnight accommodations is located southwest of the intersection of Highway 22 and Quigley Drive as noted in the figure below.



Figure 9 - Primary Hotel Accommodation Cluster (Highway 22 and Quigley Drive)

This primary hotel cluster is made up of the following traditional two-star hotel facilities:

- Bow River Inn – budget motel property with mid-August rates at roughly \$144/night.
- Days Inn & Suites – 4-storey hotel with pool and wifi, summer rates of about \$219/night
- Super 8 by Wyndham Cochrane – two-storey budget hotel with breakfast and wifi - \$184/night
- Ramada by Wyndham Cochrane – with pool and waterslide - \$239/night mid-August rate



Tourists and visitors seeking a more unique overnight experience have the option of staying at the historic Rockyview Hotel, which was first established in 1904 at 304 1<sup>st</sup> Street West in downtown Cochrane. This hotel retains its turn-of-the-century western feel, includes the Texas Gate Bar & Grill and offers free wifi.



Outside of RV campground and glamping options, Cochrane does not currently offer a boutique hotel experience of 3-star or more quality in a Bow River-oriented location. This gap represents a potential opportunity, particularly given the likely upgrades to the study area in terms of multi-purpose trails and improved connectivity to a range of riverfront amenities and locations. Increasingly, tourists and visitors are seeking out overnight accommodation that offer more than a convenient location at a reasonable price point.



## 5.0 ECONOMIC DEVELOPMENT OPPORTUNITIES

This high-level market scan, including secondary research and field/site visits, has identified the following high potential development opportunities.

### 5.1 MULTI-FAMILY RESIDENTIAL

Relevant potential multi-family residential market opportunities of note include:

- Family-friendly for-sale townhomes with a range of parking options (freehold or strata)
- Condominium apartments
- Rental apartments

### 5.2 RETAIL AND RESTAURANT COMMERCIAL

Given the extent of planned retail-commercial within the growing Greystone neighbourhood north of the study area, the most suitable commercial uses for select areas of the Bow River study area include:

- Seasonal food trucks to support activity at current and future recreation and arts and cultural nodes.
- Signature full-service restaurant with significant outdoor seating area, leveraging a high visibility, Bow-River view-oriented location.
- Casual healthy dining/café, potentially as part of a boutique hotel development

### 5.3 BOUTIQUE HOTEL

Overnight accommodations in Cochrane are limited, with two-star travel hotel-motels, B&Bs and RV parks dominating the offerings. Given the dearth of options, it is recommended that a hotel market opportunity analysis be conducted, ideally by a firm specializing in hotel market and positioning analysis. There are significant potential tie-ins between planned/prospective active transportation network upgrades and tourism / destination development potential and there is very likely a role for a more unique overnight hotel-motel concept catering to recreationally active tour groups.

### 5.4 ARTS & CULTURAL / RECREATION USES

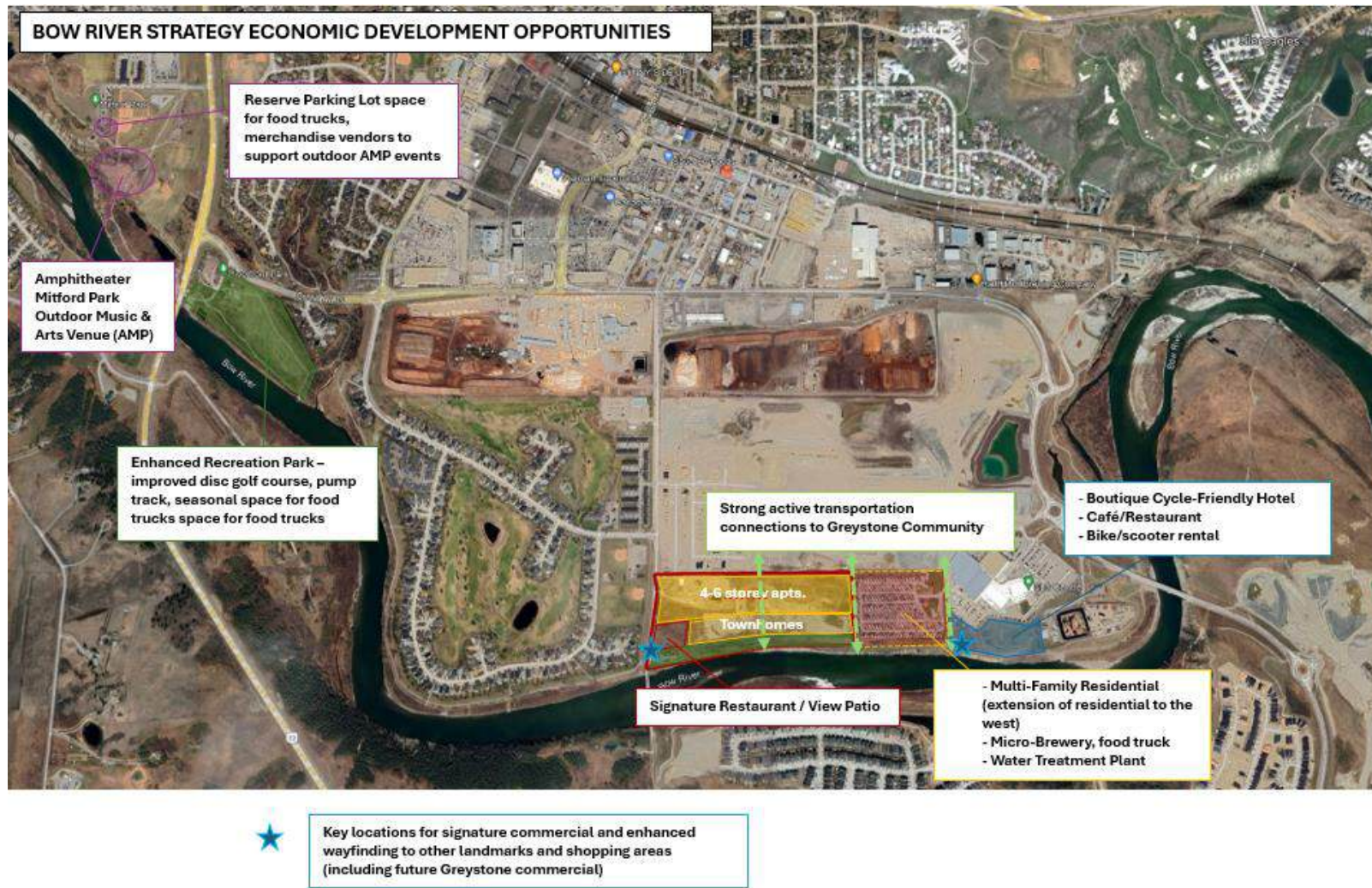
While pocket parks and modestly scaled green spaces will be important in enhancing the Bow River experience for residents and visitors, there are also potential opportunities to pursue the following:

- Enhanced disc-golf course and park, informed by benchmarking of award-winning competition-level disc golf courses.
- Pump track for specialized biking and events.
- Outdoor music venue or amphitheatre with views of the Bow River
- Seasonal locations for food trucks, in support of the above and to support walking, rolling and cycling activities along the Bow River study area.



## 5.5 OPTIMAL LOCATIONS FOR RECOMMENDED USES

A summary of high potential economic development opportunities by location of relevance to the study area is presented below.





## 6.0 KEY NEXT STEPS

To best capitalize on these potential economic development opportunities, the depth of market for such uses, along with the development viability of appropriate built forms and the City's potential role in ensuring delivery of a suitable mix of land uses should be more fully explored. Further evaluations of relevance include:

- Benchmark profiling of relevant project examples in identified high-potential categories to derive critical success factors and lessons learned.
- More refined residential market analysis, including developer interviews (including Calgary region) to gauge potential interest in expanding the array of residential typologies in Cochrane.
- Hotel market opportunity analysis, examining depth of market and feasibility for a modestly scaled boutique hotel in a signature Bow River-oriented location.
- Development viability analysis for high potential uses.
- Analysis in support of potential City of Cochrane land acquisitions or dispositions



Sincerely,

**URBAN SYSTEMS LTD.**

A handwritten signature in dark ink, appearing to read 'David Bell', with a large, stylized loop at the end.

David Bell, RPP, MCIP  
Lead – Land Economics

cc:



# Appendix C

## What We Learned Report



A scenic landscape photograph showing a wide river valley. In the foreground, there are green fields and a small stream. In the middle ground, a town is visible on a hillside. In the background, there are more hills and a larger body of water. A large, thick, white wavy line graphic starts from the left side of the image and curves downwards and to the right, partially obscuring the landscape.

# **WHAT WE LEARNED REPORT**

Bow River Strategy



## Contents

Executive Summary.....	4
Project Understanding.....	5
Project Process .....	5
Engagement Overview .....	5
Internal Walk-Shop.....	6
Summary .....	6
Key Findings .....	7
Notable Constraints & Existing Conditions.....	8
Design Charrette & Staff Workshops.....	10
Summary .....	10
Key Findings .....	10
Draft Character Areas .....	11
Open House.....	13
Summary .....	13
Key Findings .....	13
What challenges do you encounter when visiting the river?.....	13
What would make your visits to the river more enjoyable?.....	14
.....	14
Community Survey.....	15
Summary .....	15
Key Findings .....	15
Online Mapping Tool.....	16
Summary .....	16
Key Findings .....	16
Parks and Recreation Committee Workshop.....	18
Summary .....	18
Key Findings .....	18



Stakeholder Discussions.....	19
Summary .....	19
Key Findings .....	19
Organization’s Vision and Mandates.....	19
Observations, Gaps and Opportunities .....	20
Implementation.....	21
Conclusion.....	21



# Executive Summary

The Town of Cochrane is developing the Bow River Strategy (BRS) to support its Parks, Culture & Active Living Plan and guide how the Town will enhance, protect, and invest in the Bow River Corridor, a vital natural asset. This strategy focuses on promoting environmental stewardship, expanding recreational and economic opportunities, and celebrating Cochrane's unique character, considering the entire riverfront from Cochrane's west to east boundaries. The Bow River corridor, which spans a 200-meter radius on both sides of the river, includes trails, parks, open spaces, and areas where people connect directly with the river.

The strategy's development involved comprehensive community engagement, including walk-shops, design charrettes, staff workshops, and an open house.

In June 2024, two "walk-shops" introduced the Bow River Strategy to managers, directors, and Council members. These on-site workshops enabled participants to experience current uses and characteristics along the Bow River Corridor, assess existing conditions, and discuss possibilities for activation, improved connectivity, and enhanced community engagement. The feedback gathered highlighted a shared vision of elevating the corridor through thoughtful land management, innovative development, and sustainable growth.

From August to September 2024, internal design charrettes and staff workshops were held to refine insights received so far, review studies, and assess opportunities and constraints in the corridor. These sessions allowed for reviewing engagement feedback, identifying key themes, and exploring potential uses and character areas. A guiding purpose statement emerged: "It's Our River... to Steward... to Share... to Explore... to Belong."

An open house invited input from Town staff, community organizations, and interest groups. Participants engaged with informational and interactive displays and shared feedback on key topics. Findings from these engagements emphasized the importance of balancing conservation with development, enhancing safety and accessibility, activating underutilized spaces, and improving infrastructure and connectivity. There was also strong support for sustainable tourism, economic growth, community integration, and cultural elements, as well as a focus on addressing constraints like challenging topography and environmental sensitivity.

This extensive stakeholder feedback has provided valuable insights to further Cochrane's environmental and community goals through enhanced planning, partnerships, and accountability. The Bow River Strategy ultimately aims to create a vibrant, sustainable, and inclusive river corridor that aligns with the community's values and aspirations.



# Project Understanding

The Town of Cochrane is developing the Bow River Strategy (BRS) as part of its commitment to the Parks, Culture & Active Living Plan. This strategy is designed to:

- Promote environmental stewardship and preserve the Bow River's unique natural qualities.
- Explore new opportunities for recreation, economic growth, and physical and social connections within the community.
- Celebrate and promote Cochrane's distinct character and identity as a riverfront town.

The Bow River corridor encompasses a 200-meter radius on both sides of the river as it flows through Cochrane. This area includes trails, parks, open spaces, and locations where people engage directly with the river.

## Project Process



## Engagement Overview

The Bow River Corridor is a vital destination for both residents and visitors to Cochrane, offering a range of activities—from enjoying pathways and connecting with nature to paddling downstream. To create a truly impactful strategy that reflects the community's voice, the Bow River Strategy included engagement with Town of Cochrane staff, Council, community organizations, and the public.

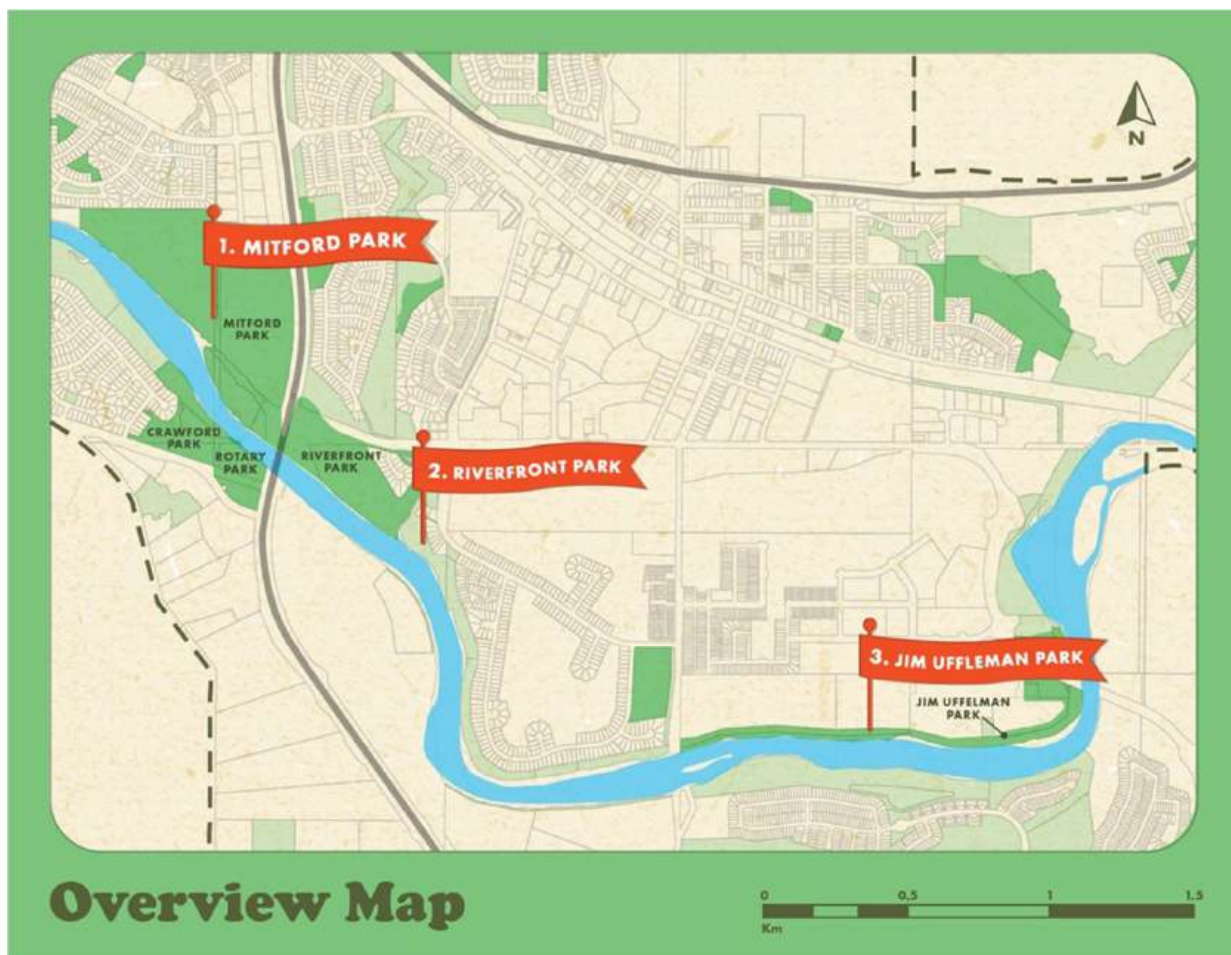


# Internal Walk-Shop

## Summary

In June 2024, two walk-shops (on-site walking workshops), were held as initial engagements to introduce the Bow River Strategy to managers, directors and members of Council and observe current use and character traits along the Bow River Corridor. The walking tour of the Bow River corridor encompassed three key sites identified in the map below, including: Mitford Park, Riverfront Park, and Jim Uffelman Park.

The tour aimed to review the area's existing conditions, observed user behaviours and potential for development as well as enhanced preservation. Participants explored opportunities for activation, connectivity improvements, and community engagement, alongside addressing concerns related to safety, accessibility, and environmental preservation. The feedback gathered from these site visits highlighted a collective vision for enhancing the Bow River corridor through thoughtful land management, innovative development approaches, and a commitment to sustainable and inclusive growth.





## Key Findings

<b>THEMES</b>	<b>SUMMARY OF FEEDBACK</b>
Environmental Considerations	<ul style="list-style-type: none"> <li>• Emphasis on balancing conservation with development, managing natural spaces to prevent overuse, and preserving wildlife habitats.</li> <li>• Addressing bank erosion, ecological impacts, and road debris affecting pathways.</li> <li>• Suggestions for interpretive signage on environmental awareness and maintaining the area's natural character.</li> </ul>
Safety & Accessibility	<ul style="list-style-type: none"> <li>• Importance of safety features like guard rails, clear sightlines, and improved lighting, particularly at steep areas and sharp corners.</li> <li>• Enhancing accessibility for all abilities, with suggestions for "slow" signage, managing e-bike speeds, and separate pathways to reduce user conflicts.</li> <li>• Strengthening direct trail connections and formalizing river access points.</li> </ul>
Activation and Utilization	<ul style="list-style-type: none"> <li>• Opportunities to activate underutilized spaces</li> <li>• Utilize large slopes for new opportunities such as an amphitheatre and winter activities like tobogganing.</li> <li>• Ideas for new amenities and activities like an acoustic concert venue, food truck parking, beer gardens, e-bike charging stations, and public restrooms.</li> <li>• Opportunities to activate spaces under the bridge and along the river.</li> <li>• Exploring forms of sustainable tourism and economic development through purpose-built redevelopment.</li> </ul>
Infrastructure and Connectivity	<ul style="list-style-type: none"> <li>• Addressing steep alignments and topography challenges.</li> <li>• Pathway improvements: wider pathways, calming measures, and guard rails for safety.</li> <li>• Enhancing connectivity with pedestrian bridges and alignment with the Trans Canada Trail.</li> <li>• Incorporating intuitive loops and connections to improve flow and usability.</li> </ul>
Economic Development	<ul style="list-style-type: none"> <li>• Opportunities for tourism and economic growth through event spaces, food truck areas, and seasonal activities.</li> <li>• Green tourism ideas, bike-friendly infrastructure, and models from successful examples like St. George's Island, Calgary.</li> <li>• Opportunities for environmental and recreational activities in slowed-down channels.</li> <li>• Exploring forms of tourism to capture economic benefits, especially in flat spaces and parking areas.</li> </ul>
Amenities and Facilities	<ul style="list-style-type: none"> <li>• Potential for additional off-leash spaces and more frequent use of existing parks.</li> <li>• Need for more year-round restrooms, seating, shaded areas, and picnic facilities to enhance the user experience.</li> <li>• Suggestions for adding accessible washrooms, fire pits, and public art under bridges to create inviting spaces.</li> </ul>
Community & Cultural Integration	<ul style="list-style-type: none"> <li>• Integrating wayfinding and interpretive signage, including opportunities for reconciliation, land-based learning and traditional plants.</li> <li>• Place-keeping through community art and land-based learning, collaborating with local Indigenous artists.</li> <li>• Expanding community engagement and ongoing dialogue on land use while considering residential impacts</li> <li>• Emphasis on public/private interface and enhancing the community space.</li> </ul>



## Notable Constraints & Existing Conditions

1. **Topography and Pathway Challenges:** Address steep alignments, narrow pathways, and poor sightlines to ensure safety and accessibility. Implement calming measures and safety features like guard rails and signage.
2. **Environmental Sensitivity:** Manage bank erosion and protect wildlife habitats. Ensure development aligns with ecological considerations and preserves the natural character of the area.
3. **User Conflicts and Safety Concerns:** Mitigate conflicts between different user groups, such as dog walkers and cyclists. Enhance safety through better management practices, lighting, and clear signage.
4. **Diverse Mix Along the River – Character Areas:** The Bow River corridor features a variety of character areas, each with its unique attributes and uses. This diversity could be further reviewed to ensure the strategy includes natural habitats, recreational spaces, residential areas, and commercial zones, to further promote a rich and varied landscape along the river.
5. **Current Uses Back onto the Bow River Pathway:** Many of the properties and developments, including the SLS centre along the river back on to the river, rather than directly interfacing with the pathway. The close proximity provides easy access to the river for property owners/tenants for recreational and transportation purposes but also requires careful management to balance the needs of different users and promote activation of the pathway.
6. **Vacant Opportunities:** There are numerous vacant or underutilized parcels of land along the river corridor including a large vacant lot neighbouring the SLS centre. These areas present significant opportunities for thoughtful development and activation, which can enhance the overall vibrancy and functionality of the riverfront.
7. **Monochromatic Approach:** The current aesthetic and design approach along some sections of the river corridor is somewhat uniform and lacks variety. This monochromatic style may not fully reflect the diverse character areas and potential vibrancy of the Bow River corridor, suggesting a need for more dynamic and varied design interventions.







# Design Charrette & Staff Workshops

## Summary

In July and August 2024, an internal design charrette and staff workshops were held to reflect and distill information received to-date, review supporting studies, discuss opportunities and constraints within the Bow River Corridor. The sessions also provided an opportunity to review engagement feedback, establish initial themes, explore potential uses and character areas.

## Key Findings

During the Design Charrette and Staff workshops, we drafted a set of initial guiding principles and facilitated an open discussion to explore what was working, what was missing, and what needed to be revised. Based on this feedback, a revised set of draft guiding principles were created to be further tested with community members and organizations. Additionally, a foundational purpose statement emerged from the charrette discussions, which will help shape the future guiding principles and the overall strategy:

### ***It's Our River... to Steward...to Share...to Explore...to Belong***

<b>Theme</b>	<b>Details/Feedback</b>
Protect the river's <b>natural value</b> for today and future generations	The Bow River is a cherished natural amenity that holds intrinsic value for our community. By embracing a philosophy of seven-generation thinking we honor the river's significance, ensuring that our actions today preserve its potential for future use and enjoyment. As stewards, we are committed to balancing diverse uses, protecting wildlife habitats, encouraging respectful interaction, and promoting education to sustain the river's potential for all to enjoy.
Ensure there is <b>a place for everyone</b> at the river	The Bow River should be accessible and welcoming to all, regardless of age, ability, or financial means. We are committed to creating versatile access points and barrier-free experiences that cater to everyone. By offering diverse options throughout the river corridor, including well-designed trailheads and supportive parking, we ensure that all visitors can explore, recreate, and enjoy the river in a way that meets their needs.
Recognize the river as <b>a vital corridor</b> for community connection	The Bow River will serve as a vital corridor that can connect our community through well-designed and accessible pathways. Improving signage, pathways, and connections to key areas will enhance the experience for all users, including pedestrians, cyclists, and those with mobility challenges. By creating intuitive loops and direct trail connections, the river corridor will become easier to navigate and more enjoyable to explore. Emphasizing pathway etiquette, safety, and education will ensure that the river aligns with community needs, supports mixed-use corridors, and strengthens existing connections.
Support the <b>health of our diverse community</b>	The Bow River is an essential link that not only connects our community but also nurtures physical, mental, and spiritual well-being. It offers opportunities for recreation, allowing people to stay active while enjoying the natural environment. The river also provides serene spaces where individuals can find peace, reflect, and connect with nature, supporting mental and spiritual health. By creating areas that encourage both active participation and quiet contemplation, the river

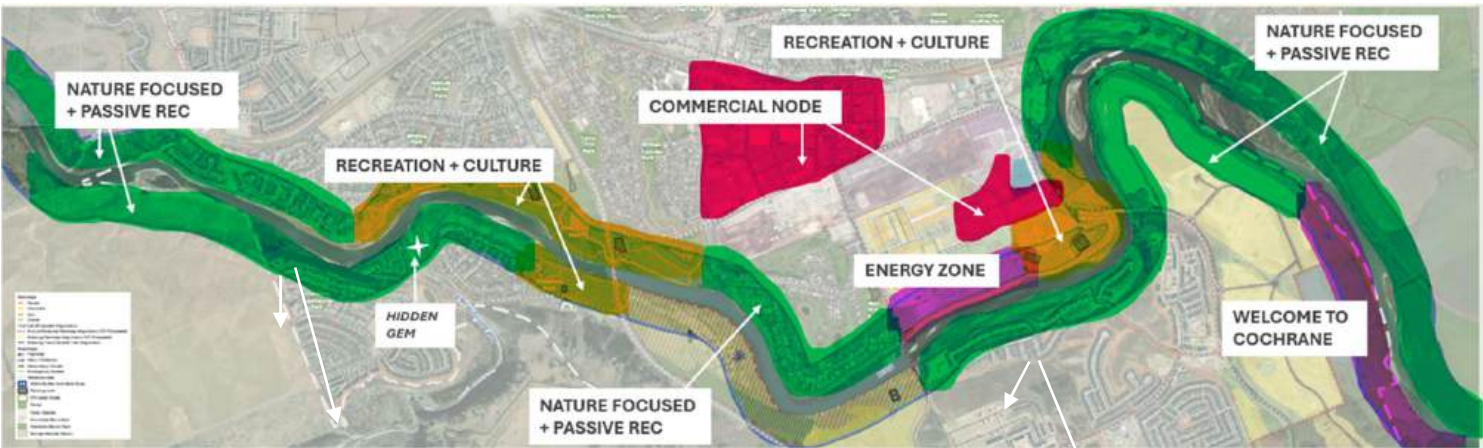


	becomes a place for rest, reflection, and connection. Prioritizing safety, inclusivity, and the health of the river itself will help maintain it as a sanctuary where everyone can find balance and feel connected.
Create <b>something special</b> . Be <b>bold</b> .	This strategy calls for boldness in shaping a unique and vibrant future for the river corridor and the community. By defining our town's personality and making data-driven decisions, we aim to create something truly special. We will set a higher standard for development, ensuring that our choices are responsible and avoid stifling future opportunities. Having a unified voice will guide us as we push for better outcomes. With the support of strong policies and the insights of subject matter experts, we will confidently set the bar for progress, creating a legacy that reflects our community's values and aspirations.

### Draft Character Areas

The design charrette and staff workshops enabled a detailed spatial review of the project boundary, guiding the development of initial character areas that reflect the unique needs and opportunities within the community. Each character zone was thoughtfully discussed based on the current context, community priorities, and identified constraints, with careful attention to future residential and commercial growth and integration with existing residential areas. The draft character areas serve as a base for discussion and ideation for further refinement during subsequent engagement activities.

The character areas offer a range of uses. The group reviewed the natural characteristics and potential of a determined zone from nature-focused spaces designed for passive recreation to more vibrant zones featuring a mix of recreational activities, commercial spaces, and community activations. The sentiment of the discussion was that creating space for this diversity ensures that each area serves a distinct purpose while supporting a balanced mix of natural, recreational, and commercial experiences the use.









# Open House

## Summary

An open house was held by the Town of Cochrane in collaboration with the Parks, Culture and Active Living Master Plan. The purpose of participating in the open house was to engage with broader Town Staff, community organizations, and interest groups. The Open House included both informational and interactive posters for participants to review and respond to by adding their comments with sticky notes to the board.

## Key Findings

What challenges do you encounter when visiting the river?

<b><i>THEMES</i></b>	<b><i>SUMMARY OF FEEDBACK</i></b>
<i>Access and Infrastructure</i>	Physical access is limited, defined access points are needed A lack of cross-river pedestrian bridges + rest areas Traffic congestion, near Southridge, and inadequate parking Feedback on pathway maintenance
<i>Signage and Wayfinding</i>	Poor signage and a lack of wayfinding, interpretive information, and user education contribute to confusion, particularly around access points and river etiquette There's a need for more educational programs regarding pathway etiquette, fishing locations, and off-leash dog areas
<i>Conflicting Users/Uses</i>	Issues with off-leash dogs in non-designated areas, conflicts with other users such as bikers and runners Multi-modal pathways lead to conflicting uses, & safety concerns from mixed users like pedestrians, bikers, and dog walkers
<i>Environmental Concerns</i>	Erosion and balancing fire risks near Jumping pound Creek are environmental concerns Garbage management is generally good but needs improvement, especially in certain areas like West Valley Water quality is a priority for users Speeding bikes and e-scooters pose safety risks on shared pathways
<i>Amenities and Facilities</i>	Lack of amenities (washrooms, garbage cans, picnic areas, and rest areas) More off-leash dog parks with water access & formalized boat launches and designated fishing areas There are requests for places that offer food and beverages, artistic performances, and multifunctional spaces



## What would make your visits to the river more enjoyable?



- Kids activities
- Recreational areas
- Rentals- bikes, tubes, etc.
- Access points



- Cultural hub
- Events/Performance space
- Acoustic Stages + theatre
- Painting Sessions



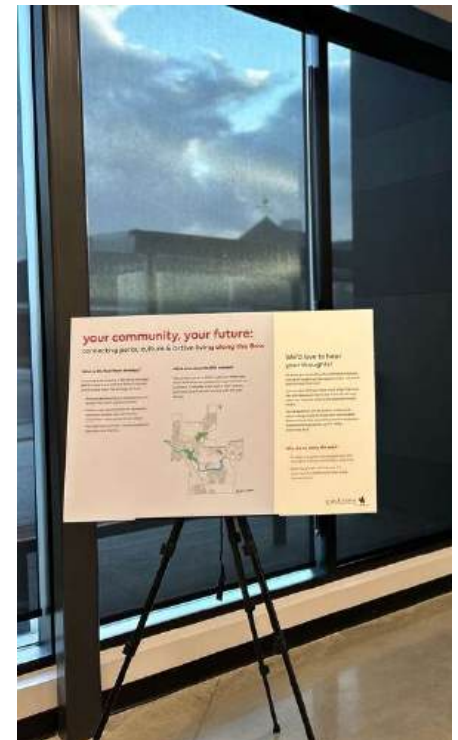
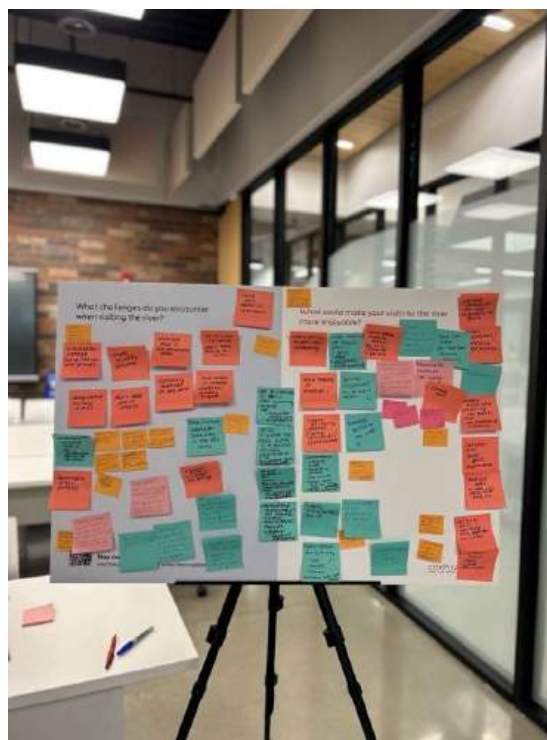
- Balance wildlife corridors
- Environmentally responsible water recreation



- Restaurant
- Hotel
- Festivals, events, pilot projects
- Activities & performances



- Washrooms
- Picnic + BBQ spots
- Water fountains





# Community Survey

## Summary

In collaboration with the Parks, Culture and Active Living Master Plan, a community survey was created with the intent to gather feedback and insight from residents living in Cochrane. The questions focused on gathering information regarding parks, recreation and culture and connectivity preferences. In total, 647 survey responses were received.

The survey was primarily advertised using the Town's engagement website ([letstalkcochrane.ca](http://letstalkcochrane.ca)), with the opportunity for community members to receive a paper copy if desired. The survey was also promoted through a few additional methods, including:

- The Town's Social Media Channels
- The Town's Website
- Local newspaper
- Posters in the community

Additional findings from the community survey will be available in the Parks, Culture and Active Living Master Plan, while specific feedback related to the Bow River Corridor is highlighted in the report below.

## Key Findings

<b>SURVEY QUESTION TOPIC</b>	<b>SUMMARY OF FEEDBACK</b>
<i>Frequency of Use (outdoor spaces)</i>	Almost all respondents reported using pathways at least once a week (82%). Parks and opens (70%) are also frequently used outdoor spaces. The river was also highly ranked with 48% of respondents visiting once a week and 28% of respondents visiting once a month.
<i>Satisfaction with Current Parks, Recreation and Culture Opportunities</i>	When considering outdoor parks, recreation and culture most respondents (85%) indicated they are satisfied (very satisfied and somewhat satisfied) with the quality of the Town's trails. Additionally, a great majority of respondents (83%) reported they are satisfied with the access to the Bow River Corridor for recreation activities.
<i>General Comments</i>	Feedback from community residents emphasized the need for improved connectivity, preservation of natural landscapes, and prioritization of youth recreation and sport opportunities. Concerns included lack of cultural facilities, lack of education/ use of pathway systems and inadequate enforcement of pathway rules and bylaws. Community members also stressed the importance of prioritizing environmental considerations and protecting wildlife/vegetation.



# Online Mapping Tool

## Summary

In collaboration with the Parks, Culture and Active Living Master Plan, an online mapping tool was available for community members to indicate the location of their favorite trails and pathways (green pins), areas where they have experienced concerns (yellow pins) and areas that may need enhancement or new trails (red pins). In addition to posting green, yellow, and red pins on the virtual map, respondents were asked to share why they loved the trail or pathway, the challenges they have encountered and opportunities to make their experiences more enjoyable.

In total 64 participants utilized the online mapping tool and 409 pins were collected. These findings are not representative of all residents in Cochrane; however, they do provide additional insight for subsequent engagement. Additional findings from the online mapping tool will be available in the Parks, Culture and Active Living Master Plan, while specific feedback related to the Bow River Corridor highlighted in the report below.

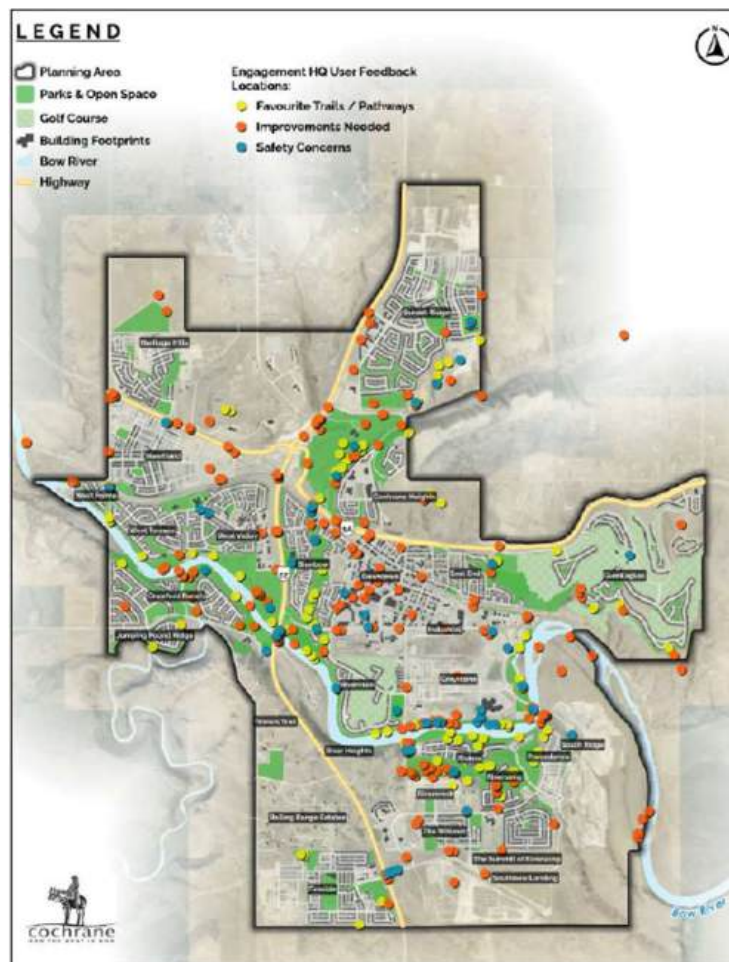
## Key Findings

<b>POSITIVE ASPECTS</b>	<b>SUMMARY OF FEEDBACK</b>
<i>Trails and Pathways</i>	<ul style="list-style-type: none"><li>• Cochrane's trails are highly appreciated for their natural beauty, access to nature, and safety for various users</li><li>• The multi-use pathways provide connectivity and enhance recreational opportunities</li><li>• The paved paths are valued for daily use and commuting needs</li><li>• Off-leash dog areas and natural green spaces are valued</li><li>• Continued maintenance of existing trails and access points is highly appreciated</li></ul>
<i>Desirable Features</i>	<ul style="list-style-type: none"><li>• Respondents indicated an appreciation for green spaces and river access</li><li>• The convenience of accessing and recreating near the river is important</li></ul>
<b>AREAS OF CONCERN</b>	<b>SUMMARY OF FEEDBACK</b>
<i>Safety and Connectivity</i>	<ul style="list-style-type: none"><li>• A pedestrian bridge over the Bow River would provide safer crossing</li><li>• Create paths between the tri-schools area, Greystone, and the Bow River</li><li>• Improve bike access to the river and create safer pathways for bikes and pedestrians</li><li>• Address steep gradients that make paths difficult for bikes and pedestrians of all ages and abilities</li><li>• Resolve pathway safety concerns (roots lifting pavement, branches, other hazards)</li></ul>



<i>Conflicting Users</i>	<ul style="list-style-type: none"> <li>• Separate dog users and cyclists to avoid accidents and enhance safety for both.</li> <li>• Require better boundaries, signage, enforcement and separate fenced off-leash zones</li> <li>• Need more signage to educate community members and visitors on different users/uses</li> </ul>
<i>Amenities and Infrastructure</i>	<ul style="list-style-type: none"> <li>• Address the lack of accessible washrooms</li> <li>• Improve public river access points for activities like kayaking, paddle boarding and swimming</li> <li>• Consider the development of bike parks</li> </ul>
<i>Environmental and Maintenance</i>	<ul style="list-style-type: none"> <li>• Broken asphalt, abrupt transitions and seasonal path clearing</li> <li>• Unsanctioned trails damaging vegetation and impacting wildlife</li> <li>• Damage to the riverbank caused by the development of unsanctioned trails, dogs, and lack of enforcement</li> </ul>

The pins are also illustrated on the map below.





# Parks and Recreation Committee Workshop

## Summary

In October 2024, a workshop was hosted with the Parks and Recreation Committee to review the information gathered to-date, highlight river character and potential land uses and explore implementation. Findings from the workshop highlighted potential 'quick wins', long-term actions, and long-term policies that could be further explored in the Strategy.

## Key Findings

<b>IMPLEMENTATION THEME</b>	<b>QUICK WINS</b>	<b>LONG-TERM ACTIONS</b>	<b>LONG-TERM POLICY</b>
Environment			Create an Erosion Management Plan
Economic Development	Identify the location/land base for new opportunities		
	Identify nodes where washrooms are needed		
	Facilitate discussions with developers adjacent to the river		
Recreation	Install wayfinding and kilometer markers		
	Pilot a rental program (bikes, rafts, kayaks, etc.)		
Culture	Install murals to improve beautification of the riverfront		
	Identify a space(s) for future arts and culture activities and programming	Implement pop-up style art/cultural programming	
	Focus on short-term initiatives at key locations that are already popular		
		Pilot the location of washrooms or porta potty facilities at key locations	Develop a public washroom strategy
Partners	Facilitate discussions with developers adjacent to the river		
	Continue to build relationships with neighbouring Indigenous communities		
	Create partnerships with bike or recreational rental companies to explore pilot projects		



# Stakeholder Discussions

## Summary

Six discussions were held in the fall of 2024 with key community interest groups focused on active recreation, trail connectivity, cycling, environmental preservation, conservation, and tourism. These included the following groups:

- Cochrane Tourism
- Cochrane Environmental Action Committee (CEAC)
- Cochrane Paddlers
- Bike Cochrane
- Bighill Springs Preservation Society
- Bow Valley Habitat Development

These conversations aimed to identify current opportunities, gaps, and potential implementation measures. The following questions guided the discussions:

- Can you tell us about your group's mandate? What does success look like for the future of the Bow River Corridor?
- What current projects is your group collaborating on with the Town, specifically near the Bow River?
- What is your organization's vision for this area, both short and long term?
- What do you believe would help advance your vision and similar initiatives in the future?
- Do you see your group playing a role in long-term implementation?

## Key Findings

### Organization's Vision and Mandates

The stakeholder groups identified their organization's individual vision and mission but share a vision of promoting sustainable recreation, environmental stewardship, and community engagement. Bike Cochrane envisions a cycling-friendly community connected through accessible infrastructure, advocating for active participation in planning and development to support transportation, recreation, and competition. Cochrane Tourism has shifted to a regenerative tourism model that supports economic growth, environmental health, and local culture. Their mission emphasizes creating memorable experiences while protecting the community's identity and natural resources, with a particular focus on improving river access for wellness, recreation, and economic benefits.



Complementing these efforts, several river-focused organizations share their individual and shared interests. Cochrane Paddlers promotes safe river activities like kayaking and paddleboarding, while the Alberta Whitewater Association advocates for paddle sports across Alberta. The Alberta River Surfing Association seeks to establish high-quality, eco-friendly river surfing that enriches the community. The Bighill Creek Preservation Society adds to this collective mission by preserving the ecological and historical values of the Bighill Creek Watershed. Their work aims to maintain biodiversity, improve water quality, encourage stewardship, and educate the public, with plans for a State of the Watershed report to guide ongoing conservation.

Together, these groups foster a connected, sustainable, and accessible outdoor culture in Cochrane.

### Observations, Gaps and Opportunities

<b>THEME</b>	<b>FOCUS/CONCERN</b>	<b>DETAILS</b>
Environment	Environmental Preservation	Wildlife protection, wetland preservation, invasive species management, dark sky initiatives
	Riparian and Flood Mitigation	Glenbow pathway expansions, riparian restoration, flood mitigation projects, erosion control
	Wildfire Protection	Wildfire risk management, balancing fire prevention with vegetation preservation, unsanctioned use of deadwood
	Future Planning	State of the Watershed Report, long-term sustainability goals for Bow River corridor
Operations	Collaborative Efforts	Partnerships for conservation projects, river access improvements, wave park research, trail alignment
	Safety and Infrastructure	Trail safety around Spray Lakes Recreation Centre, new 22 Bridge, trail connectivity and maintenance
	Active Transportation	Enhancing connectivity between neighborhoods and Bow River Corridor, developing recreational loops, bike racks, rest areas
Recreation, Arts & Culture	Recreational Enhancement	Improving river access, adding amenities, supporting non-motorized activities
	Community Education	Promoting awareness on wildlife and erosion prevention through events and education
	Outdoor Music/Arts Venue	Flexible gathering space for events, collaboration with Route 22 to highlight arts and culture
	Seasonal Vendor Locations	Potential for pop-up vendor events, enhancing community connection
	Seasonal Events	Winter events, cross-country skiing, ski track in town, winter programming
	Indigenous History and Sites	Preserving Indigenous artifacts and significant sites, educational awareness, interpretive signage, art
Economic Development	Sustainable Tourism	Developing tourism hubs, highlighting Indigenous culture, balancing preservation with development
	Recreational and Economic Development	Establishing Cochrane as a bike-friendly destination, exploring partnerships for amenities and tourism
	Accommodations	Need for diverse lodging options, strategies to boost occupancy, attracting international travelers
	River Access	Partnerships with local businesses, improving recreational offerings, additional amenities for boat rentals and other offerings



## Implementation

Stakeholder feedback has provided valuable insights for advancing Cochrane's environmental and community goals through enhanced planning, partnerships, and accountability. A key recommendation is to integrate these priorities within existing town plans, such as the Municipal Development Plan (MDP) and the Sustainability Plan, to ensure long-term impact. Suggested educational initiatives include interpretive signage, an annual Environmental Forum, and awareness campaigns to highlight the efforts of local community groups.

To improve river access, stakeholders emphasized the need for support from the Town's administration and Council to conduct concept studies, with follow-up phases of site selection and development once studies are complete. The 10-year vision seeks to create a well-connected network linking neighborhoods and recreational areas across various modes of transportation. Key priorities include enhancing trail safety, improving connectivity across Highway 22, and managing pathway lifecycles to ensure these spaces remain safe, accessible, and enjoyable for all users. Establishing a long-term management plan for Cochrane's pathways, including routine maintenance, is considered crucial to support this vision.

Partnerships with local businesses, recreational groups, and regional organizations are also essential to developing an active, sustainable Bow River Corridor. Cochrane Tourism is currently developing a data collection system to support future planning efforts, with plans to share insights with the town in the coming year. Collaborating with regional partners, including the MD of Bighorn, Rocky View, and Bragg Creek, is recommended to position Cochrane within a broader tourism network.

Overall, this feedback emphasizes the importance of strategic partnerships, comprehensive planning, and sustainable development to implement Cochrane's tourism and recreation goals effectively.

## Conclusion

In conclusion, the collaborative efforts and strategic insights provided by Town staff, community members, local organizations and stakeholders have paved the way for a comprehensive approach to enhancing Cochrane's Bow River Corridor. By integrating these recommendations into the Strategy and future Implementation plan, Cochrane can look forward to a future where its river corridor is at the heart of the community. The emphasis on strategic planning, connectivity, and ongoing maintenance will ensure that Cochrane remains a vibrant and accessible destination for generations to come.