# **West Bragg Creek Trails Master Plan**

For Bragg Creek Trails Association







West Bragg Creek Trails Master Plan | Forestry and Parks

© 2024 Government of Alberta | January 9, 2024 | ISBN 978-1-4601-5907-1

This publication is issued under the Open Government Licence – Alberta (http://open.alberta.ca/licence). Please note that the terms of this licence do not apply to any third-party materials included in this publication.

This publication is available online at <a href="https://open.alberta.ca/publications/west-bragg-creek-trails-master-plan">https://open.alberta.ca/publications/west-bragg-creek-trails-master-plan</a>

#### **Endorsement of the West Bragg Creek Trails Master Plan**

This plan is hereby endorsed by

Rob	Sim	ieritsch.	Executive	Director
1100	01111	101110011,	EXCOURTED	D11 00001

Jan 10/24

Date

Lands Delivery and Coordination South Branch

Lands Operations Division

Alberta Forestry and Parks

Comad Schleber

m. 9/24

Date

President, Bragg Creek Trails

## **Table of Contents**

Executive Summary	6
Introduction	7
Plan area	10
Land acknowledgement	11
Plan Purpose, Objectives and Desired Conditions	12
Plan Guiding Principles	14
Biodiversity and watershed integrity	14
Alignment with current regulations, plans, policies and guidelines	14
Safe, sustainable and enjoyable trails	15
Trail management	15
Stewardship and collaboration	15
Plan Process and Engagement	16
Plan process	16
Engagement summary	17
Trails in West Bragg Creek Today	18
Trail system history	18
Description and evaluation of existing trails and trail system	19
Winter activities and trails	19
Summer activities and trails	19
Facilities and amenities	20
Trail Network Improvements	21
Trail use	24
Proposed trails	27
Facilities	29
Operations and Management	33

Trail development, grooming, inspections and maintenance	33
Indigenous perspectives and reconciliation	38
Environmental stewardship	41
Signage and wayfinding	46
Communications and education.	47
Safety and enforcement	51
Land use activity collaboration	53
Plan monitoring and evaluation	53
Implementation	58
Review and future proposal considerations	62
References	63
Appendix A: Summary of trail management objectives for existing and proposed trail	s64
Appendix B: Signage types and content standards	75
Appendix C: West Bragg Creek dog owner code of conduct	77
Appendix D: Engagement summary	79
Engagement Phase 1	79
Engagement Phase 2	82

## **Executive Summary**

The West Bragg Creek area is home to a network of high quality, non-motorized trails within a multi-use landscape. These trails are used year round by visitors and the area has become increasingly popular due its management by the Bragg Creek Trails Association and a higher number of Albertans engaging in outdoor recreation activities. While this is exciting, the increased visitation to the area has led to an increase in reported user conflicts and public safety issues.

In addition to outdoor recreation, other land uses in the area include Indigenous traditional land uses, livestock grazing, petroleum extraction and forestry. The West Bragg Creek Trails Master Plan (Trails Plan or the Plan) serves to maintain the area's success as a hub for trail-based recreation and tourism supported by basic facilities while addressing the increased visitation.

In the development of the Trails Plan, Alberta Forestry and Parks (AFP) and Bragg Creek Trails (BCT) co-led a Trails Planning Committee, drawing information and advice from a variety of sources: Government of Alberta (GoA) policy; the BCT Strategic Plan; the results of activity user surveys; traffic and trail use counter sources; and feedback from stakeholders, Indigenous and local communities, and the public throughout the planning process.

The focus of the Trails Plan is to create a comprehensive trail system to improve visitor experience and safety while minimizing environmental impact through maintenance, education, environmental stewardship projects, and signage and wayfinding. Taking into consideration the density of the existing trail network, impacts on ecosystems and the desire to maintain the safety and quality of recreation and tourism experiences, the Trails Plan proposes the addition of 20.5 km of trail and decommissioning 3.6 km of trail to the system.

A set of desired condition statements describe the intent of the management actions of the Plan and serve as a tool for monitoring and evaluating the Plan.

West Bragg Creek is recognized as a cultural landscape used by Indigenous peoples for millennia. The Plan identifies opportunities to make the area more welcoming to Indigenous peoples, and ensures visitor use and management is inclusive of Indigenous perspectives.

### Introduction

The West Bragg Creek (WBC) trail network is located within the West Bragg Creek Provincial Recreation Area (PRA) and in the Kananaskis Country and Sibbald Snow Vehicle Public Land Use Zones (PLUZs), situated in the Eastern Slopes and foothills of the Rocky Mountains within the Elbow River watershed. The WBC trail network is accessible through two staging areas. The WBC PRA staging area is accessed off Township Road 232, approximately 9 km west of the hamlet of Bragg Creek and approximately 40 km from Calgary, and the Fullerton staging area is accessed off Highway 66, approximately 40 km from Calgary. The WBC trail system is a popular year-round destination for day-use outdoor recreation activities.

The West Bragg Creek area is designated as multi-use, encompassing non-motorized outdoor recreation, Indigenous traditional land uses, and tourism as well as land use dispositions including livestock grazing, petroleum extraction and forestry. The South Saskatchewan Regional Plan (2014, amended 2018) and Kananaskis Country Sub-regional Integrated Resource Plan (1986) describe the multi-use nature of the PLUZs. The Trails Plan will be consistent with these and other related plans and guidelines that facilitate recreation activity use and management within the West Bragg Creek PRA, Kananaskis and Sibbald Snow Vehicle PLUZs and the Kananaskis Improvement District. Any proposed changes and recommendations to the trail system will consider impacts on other land users, surrounding lands and communities.

In 1977, the Alberta government created Kananaskis Country, incorporating recreation as one of the primary land uses. In the early 1980s, as part of the Kananaskis Country capital construction program, 43 km of cross-country ski trails (and some hiking trails) were constructed or adapted from traditional travel routes and resource access roads. In 2010, the "All Season Trail Plan for West Bragg Creek" was approved. Trail construction and upgrades over the past decade have created the current network of more than 170 km of authorized trails.

Parking for the WBC network occurs at West Bragg Creek PRA (upgraded in 2017), the Fullerton parking area, and the Allen Bill and Station Flats parking lots. Albertans value the area as a recreation and tourism destination, for the beauty of the natural landscape, the variety of well-maintained trails, and the amenities such as accessible parking, washrooms, and a small warming shelter. However, it is important to note the West Bragg Creek area is not a provincial park and recreation is only one of several approved land uses in the area.

The West Bragg Creek trail network has been operated by the Bragg Creek Trails Association (BCT), in partnership with the Government of Alberta's Forestry and Parks (AFP)<sup>1</sup> since 2010.

<sup>1</sup> The department name changed from Alberta Environment and Parks in 2022.

BCT is a non-profit organization registered under the *Alberta Societies Act*, and a Canadian federally registered charity. BCT has a formal cooperating agreement with AFP for the purposes of planning, building, and maintaining both winter and summer use on non-motorized trails and amenities in the West Bragg Creek area.

The West Bragg Creek trail network is used by the public for a variety of experiences, such as:

- walking;
- hiking;
- trail running;
- bird and wildlife watching;
- cycling: mountain biking and fat-biking, including e-bikes;
- cross-country skiing;
- snowshoeing;
- backcountry skiing;
- equestrian;
- dog walking;
- hunting and wild harvesting; and
- other commercial and non-commercial activities and events, including geocaching, orienteering, and educational programming.

The West Bragg Creek area is also used by Indigenous peoples to practice their culture, which includes harvesting food and medicines, holding ceremonies, and connecting to the land. Forestry, cattle grazing, and petroleum activities are also allowed within the area.

The level of trail use in the area has grown significantly over the years and the diversity of users and activities has expanded. While the expanded recreation opportunities are viewed as largely positive, they have spurred new trail management issues that need to be addressed. Restrictions on activities during the COVID-19 pandemic led to unprecedented volumes of use and a substantial number of new users, many who are likely to return.

Ten years after the completion of the first All Seasons Trail Plan (2010) for the area, BCT and AFP are collaborating on updating the Trails Plan (see Plan Process section below). AFP and BCT are committed to including the participation of individual activity users, Indigenous peoples, stakeholder organizations with an interest in the broader trail system area and the local community. The Planning Committee has drawn information and advice from a variety of sources in the development of the plan: Government of Alberta policy; BCT Strategic Plan; activity user surveys results; traffic and trail use counter sources; and feedback from stakeholders, Indigenous and local communities and the public through the planning process. The Trails Plan will underpin the future planning and design of trails in West Bragg Creek, and further provide the framework to

help BCT and AFP provide for and manage competing uses while protecting valuable natural ecosystems.

In 2022, the provincial *Trails Act* was enacted, and trails currently managed by BCT in the PLUZ area of West Bragg Creek became provincially designated trails. The rules for provincially designated trails (such as directionality and activity restrictions) are specified through signs and notices as per the Public Land Administration Regulations under the *Public Lands Act*.

The focus of the Trails Plan is on creating a comprehensive trail system to improve visitor experience and safety while minimizing environmental impact through maintenance, education, signage and wayfinding and environmental stewardship projects. Taking into consideration the density of the existing trail network, impacts on ecosystems and the desire to maintain the safety and quality of recreation and tourism experiences, the revised Trails Plan does not recommend significantly more kilometres of new trails. Any additional kilometres of trails must deliberately address issues related to safety, maintenance, environmental impact, activity demand, or visitor experience.

The intent of trail planning is to carefully plan, design, manage and maintain a trail system that will:

- provide exceptional visitor experiences for trail-based outdoor recreation activities.
- invite trail users to stay on authorized trails.
- encourage a sense of place and stewardship.
- increase awareness of the natural environment and the cultural landscape through visitor experience and interpretive programming/signage.
- provide for the most effective and efficient use of financial and human resources in the maintenance and management of the trails system.
- coordinate with other land uses in the area.

The growing demand for recreational trails, the significant increase of summer activity use in wet or sensitive areas, and the specialized user trails in West Bragg Creek may result in unsustainable trail use and damage to natural areas. The potential environmental impacts from trails and trail use include erosion, trail widening, riparian area damage, declines in fish populations, changes in wildlife behaviour and altered vegetation composition from trampling and soil compaction. Trails may also have impacts to culturally significant areas. Building better, sustainable trails in appropriate locations is critical to minimize impact to the natural environment while balancing activity and positive place-based experiences.

Trails that are well developed, managed, and strategically marketed can become important local and regional economic drivers for adjacent communities and valuable destinations that help diversify and grow Alberta's tourism economy. A tourism trip occurs when a visitor takes either an overnight trip or a same-day trip of more than 40 km outside of their home community. Maximizing the benefits of trail tourism requires destinations to provide high-quality and dependable trail tourism experiences, complete with the appropriate trail conditions and amenities and services that visitors expect. This is a highly competitive and growing market that requires outdoor recreational opportunities to be intentionally managed to promote relevant and enjoyable experiences.

#### Plan area

The Trails Plan area is located in the Northeast Kananaskis recreation management unit, an administrative boundary for the purposes of recreation planning and management (see Figure 1). The trail network is within Kananaskis Country on provincial Crown lands; the primary WBC staging area and 5 km of trails are within West Bragg Creek PRA while additional staging areas and the rest of the trail network are located within the Kananaskis and Sibbald Snow Vehicle PLUZ.

The landscape of the trail network consists of forested ridges, valleys and wetlands.

Elevations vary from

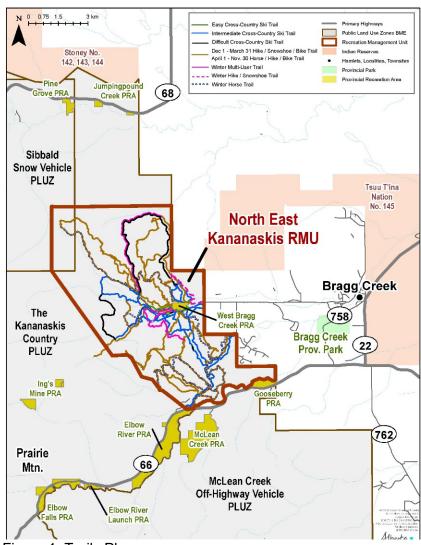


Figure 1: Trails Plan area

1,400 metres in the valley to 1,700 metres at the highest ridge top. Forest cover on slopes is primarily lodgepole pine and spruce with some aspen poplar. Valley bottoms have more diverse vegetation, including various grassy or shrubby meadows or wetland vegetation. The meadows, wetlands and riparian zones along the creek drainages provide some of the most important wildlife habitat in the plan area.

Mammals in WBC include black and grizzly bear, cougar, bobcat, lynx, wolf, coyote deer, elk and moose and many species of smaller mammals. These include at least four members of the weasel family, red squirrels, rodents, mice, and voles. Available bird data indicates at least 111 species in the plan area. An overview of the known environmental considerations and historic resources are included in a separate background report.

The West Bragg Creek area includes a large portion of the Bragg Creek drainage, as well as portions of the Ranger Creek and Iron Creek drainages, which are all tributaries of the Elbow River. The southern boundary is the Elbow River and Highway 66, while the eastern boundary is marked by the Kananaskis Country boundary. The northern boundary is the Bragg Creek-Moose Creek watershed divide, and the western boundary is an approximate line that follows the lower eastern slopes of Moose Mountain to the boundary of trail planning areas maintained by the Moose Mountain Bike Trail Society in partnership with AFP. The Trails Plan will consider linkages to the other trails networks and may make recommendations to improve trail connections but approval of these is outside of the scope of the Plan.

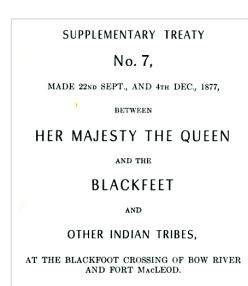


Figure 2: Treaty 7 title page

#### Land acknowledgement

In the spirit of truth and reconciliation, we honour and acknowledge that the West Bragg Creek land where many people work, volunteer and play, is located on Treaty 7 Territory (Figure 2), sacred ancestral lands of the Siksika First Nations, Kainai Nation, Piikani First Nation, and Stoney-Nakoda Nations & Tsuut'ina Nation. We also acknowledge the Métis people of Alberta who share a deep history with this land.

## Plan Purpose, Objectives and Desired Conditions

The purpose of the West Bragg Creek Trails Master Plan is:

To enable a high quality, year-round, sustainable<sup>2</sup> non-motorized trail system in the West Bragg Creek area of Kananaskis Country while maintaining biodiversity<sup>3</sup> and watershed integrity.<sup>4</sup>

The **objectives** for this Trails Plan are:

- To describe summer and winter recreation and tourism use, evaluate user experience
  and demand in the area and assess the existing trail system to identify issues and gaps.
  This will recognize the unique recreation experience and features of the West Bragg
  Creek trail network, relative to the recreation opportunities in the larger region and other
  parts of Kananaskis Country.
- To describe a comprehensive trail system. This includes changes to the trail system and facilities to improve safety, the recreation experience, minimize impacts to the environment and manage conflicts among recreation activity types (including seasonal, single use trails, and directionality on trails where needed), while considering volunteer and financial sustainability.
- To improve the maintenance and management of the trail system, including the system of signage and wayfinding, strategies to reduce the environmental impact of trail use, and actions to educate and communicate with trail users regarding responsible trail use and trail etiquette.
- To develop actions and opportunities to improve the visitor experience and minimize conflicts between recreation users, and between recreation and other land users and nearby landowners.
- 5. To identify opportunities for future planning processes to improve trail connections across the region, in collaboration with other recreation groups.

<sup>&</sup>lt;sup>2</sup> Sustainable is defined as ability to be upheld. An adapted definition from 1987 Bruntland Report is "meeting our own needs without compromising the ability of future generations to meet their own needs" (Bruntland Commission, 1987). Simply put, the trail system should be able to be maintained over time without harming the environment, cultural and historic sites, and within available human and financial resources.

<sup>&</sup>lt;sup>3</sup> Biodiversity or "biological diversity" is defined as the assortment of life on earth – the variety of genetic material in all living things, the variety of species on earth and the different kinds of living communities and the environments in which they occur.

<sup>&</sup>lt;sup>4</sup> Watershed integrity is defined as "the capacity of the watershed to support and maintain the full range of ecological processes and functions essential to the sustainability of biodiversity and of the watershed resources and services provided to society" (Flotermersch, et al., 2016).

The Trail Network Improvements and Operations and Management sections each contain specific actions and opportunities, which are summarized in the Implementation section.

Unless otherwise stated, the actions in the Plan are meant to be implemented by BCT and/or AFP, subject to time and resources. Opportunities are identified as examples of potential actions to address a management issue, although their configuration during implementation may not be as originally envisioned.

**Desired conditions** set the desired social, economic and ecological goals for trail management, as influenced by this Trails Plan. The desired conditions are subject to the timing and impacts of other land use activities in the area. They attempt to illustrate the desired experience for visitors and how recreation use will be managed to minimize impact to the environment. Desired conditions are aspirational and the basis for plan components. The actions in this plan are intended to achieve desired conditions.

#### Desired conditions for trails and experiences:

- A sustainable, well-developed trail network with associated trailhead facilities is provided to facilitate year-round day-use outdoor recreation opportunities within a publicly accessible multi-use landscape.
- Trails to provide access to year-round non-motorized recreational activities including: hiking, trail running, cross-country skiing, backcountry skiing, mountain biking, fat biking, snowshoeing and horseback riding.
- Visitors have opportunities to connect with nature.
- Trails are integrated with nature providing access from a front-country setting, where social interaction predominates to a more mid-country setting where interaction with people is less frequent and there are opportunities for solitude.
- Trails and infrastructure are designed to support recreation opportunities for all, across a
  range of experience and skill levels. Trails and infrastructure are not built for exclusive
  competitive sport-based activities; however, they are used for these purposes from time
  to time as permitted by AFP.
- Parking and amenities are kept rustic and basic, consistent with the desire for the staging areas to be used as trailheads for trail-based activities.

#### Desired conditions for stewardship and safety:

- Interactions among trail users are positive and respectful with a sense of unity in the opportunity to access a beautiful natural place.
- Visitors act in a way that conveys respect for wildlife and the land. Opportunities to learn about nature and the working landscape are available.

- Users are aware of the culturally important uses of the land by Indigenous peoples and provided information on how to respect these uses (as guided by Indigenous peoples).
- Coexistence with wildlife is prioritized and recreation user conflicts with wildlife are minimized so that animals and people are not harmed.
- Trails are designed and maintained to maximize intact riparian vegetation and streambanks.
- The public can volunteer to maintain the trails and participate in environmental stewardship projects.
- Onsite management is apparent to ensure resource protection, public safety, and minimal visitor conflict. Information about the area is readily available, and wayfinding tools are clear but kept minimal to not detract from the natural aesthetic. Parking is managed to ensure safe access for emergency vehicles.

## Plan Guiding Principles

The following principles will guide the planning and management of the trail system.

#### **Biodiversity and watershed integrity**

The trail system and individual trails are designed and maintained to minimize negative impacts on biodiversity and watershed integrity, considering both site specific environmental issues and cumulative effects.

#### Alignment with current regulations, plans, policies and guidelines

The plan and trail system will be consistent with the following:

- Provincial Parks Act and regulations;
- Public Lands Act and regulations;
- Trails Act;
- Forest Reserves Act and regulations
- Plan for Parks (2009 to 2019);
- Alberta's Tourism Framework (2013 to 2020);
- South Saskatchewan Regional Plan (2014, amended 2018);
- Kananaskis Country Recreation Policy (1999);
- Land use plans including the Kananaskis Country Subregional Integrated Resource Plan, area range management plans, Forest Management Plan (Spray Lake Sawmills);
- Kananaskis Country Provincial Recreation Areas and Bragg Creek Provincial Park Management Plan (2012);

- Government of Alberta's Policy on Consultation with First Nations on Land and Natural Resource Management (2013; and guidelines 2014);
- Alberta's 20-Year Strategic Capital Plan;
- Rocky View County policies;
- Kananaskis Improvement District policies and bylaws; and
- Any other existing legislation, policies, standards and guidelines for development of trails, protection of vegetation, water and watershed, fish, and wildlife sensitive species, including federal legislation, regulations and processes where applicable.

A review of regulations, plans, policies, and guidelines is provided in a separate background report.

#### Safe, sustainable and enjoyable trails

- Intentional trail design, maintenance and management will enhance public safety, trail sustainability and visitor enjoyment.
- Adequate trail opportunities and a positive visitor experience will be provided for various activity types, based on an evaluation of recreation use and future demand.
- Investments in the trail system must be sustainable and implementable from an environmental, social, economic, and operational perspective.

#### Trail management

- Trails are managed within the context of a multiple use landscape.
- Most existing trails are expected to remain on the landscape, although some changes or alterations will occur over time. Decommissioning of unsustainable and redundant trails will occur.
- Best practices in trail planning, design, construction, and maintenance will be employed.
- Trail signage and wayfinding will be designed to enhance public safety, visitor experience, minimize conflict among users and educate users on trail etiquette and environmental stewardship.

#### Stewardship and collaboration

- Planning, development, and maintenance of these trails will continue to be done through
  a collaborative, partnership approach between AFP, BCT, volunteers, stakeholders,
  Indigenous peoples, and other land users. An environmental stewardship ethic in trail
  users will be encouraged and stewardship activities in partnership with other groups will
  be pursued.
- The multi-use nature of public lands will be reflected in the plan and communicated to trail users.
- A variety of government and non-governmental resources (e.g., volunteers, donations, contributions in kind) will be brought to the development and operation of the trail system.

## Plan Process and Engagement

#### **Plan process**

Ten years after the completion of the first All Seasons Trail Plan (2010) for the area, BCT and AFP began collaborating on updating the plan to produce an updated version.

As part of the planning process, a Planning Committee was formed which included representatives from the following:

- AFP staff;
- BCT Board members and volunteers;
- Cows and Fish (Alberta Riparian Habitat Management Society);
- Elbow River Watershed Partnership;
- Rocky View County;
- Tsuut'ina Nation;
- Blood/ Kainai Tribe;
- Siksika Nation;
- Pieridae Energy;
- Spray Lake Sawmills; and
- Jumpingpound Grazing Range Allotment

This committee provided input, advice and endorsement of the plan.

In collaboration with the Planning Committee, AFP and BCT drafted a Trails Plan Terms of Reference. The Terms of Reference was the subject of the first phase of public, stakeholder and Indigenous engagement in December 2021 to January 2022, with feedback received through an online survey and interactive map. Issues and opportunities for the Trails Plan were identified in the Plan's Terms of Reference and reviewed as part of the first phase of engagement.

The draft plan was the result of much deliberation by the Planning Committee and was the subject of the second phase of public, stakeholder and Indigenous engagement. Based on comments and input received, the Planning Committee considered final amendments to the plan prior to its submission for formal approval by AFP and BCT.

#### **Engagement summary**

From December 2021 until November 2022, Albertans were invited to participate in public engagement for the Master Trail Plan for the trails in the West Bragg Creek area. This feedback was gathered in two phases:

- Phase 1: December 8, 2021 to January 24, 2022
  - o Feedback on the draft Terms of Reference.
- Phase 2: September 28, 2022 to November 16, 2022
  - o Feedback on the draft West Bragg Creek Trails Master Plan.

Both phases of the engagement were conducted entirely online. In total, 1,460 survey responses were collected and 890 pins (along with comments) were placed on an interactive map. Respondents provided 2,808 comments throughout the surveys and 890 comments through the interactive mapping tools.

The majority of respondents were from the Calgary area, although participation also included people from the surrounding communities of Bragg Creek, Redwood Meadows, Cochrane and Chestermere.

A copy of the draft Terms of Reference and draft Plan was also sent to Treaty 7 Indigenous communities and organizations during both phases of engagement, with a request to provide feedback. Feedback was received from a number of Nations.

Both phases of engagement included the following:

- Resources and engagement activities were available through Alberta.ca.
- The engagement was communicated to the public via social media, onsite posters at
  West Bragg Creek, via notices on an Alberta.ca webpage, and by BCT through various
  means including social media and newsletters. The engagement was communicated to
  stakeholders via the same means as the public, with the addition of direct email to
  identified stakeholder groups.
- A survey and interactive map activity were used to collect public and stakeholder feedback. The survey included both multiple choice questions and the opportunity for respondents to leave comments. Many of the 2,808 comments collected supported different sides of various topics (i.e., in support of or against revised parking).

Feedback from Phase 1 of the engagement was incorporated into the draft Terms of Reference and feedback from Phase 2 of the engagement was incorporated into the final West Bragg Creek Trails Master Plan.

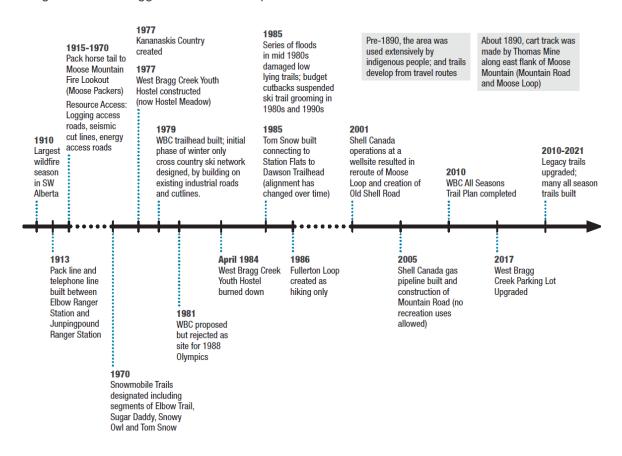
A summary of engagement feedback can be found in Appendix D: Engagement summary.

## Trails in West Bragg Creek Today

#### **Trail system history**

The West Bragg Creek area has been a gathering area and contains travel routes for Indigenous peoples. In the early 1980s, the Alberta government, as part of the Kananaskis Country capital construction program, aided in the development of trails in the area, many of which were developed on resource roads and travel trails. The Alberta Forest Service and a trails consultant planned and developed the trails. While many of the trails made use of old seismic, logging or ranger patrol trails, some re-routes and upgrades were also completed, including the construction of the Hostel and Telephone Trails. In the late 1970s, a small youth hostel located on the southeast corner of Hostel Loop unfortunately burned down soon after the ski trails were established. Subsequent timber harvesting led to several trail re-routes for better snow retention and the addition of Iron Springs Trail. In addition, when Shell and Spray Lake Sawmills had active equipment in the area, the companies made donations that facilitated occasional trail upgrades and the construction of new bridges. Figure 3 shows a timeline of trail development in the area.

Figure 3 West Bragg Creek trail development timeline



#### Description and evaluation of existing trails and trail system

In 2021 and 2022, the Alberta government conducted a detailed assessment to thoroughly map and inventory the existing trails and to identify gaps and issues associated with the trail network, specifically on trail segments and their impact on the environment and overall recreational experience. In the first phase of engagement of the Trails Plan, the public, stakeholders and Indigenous communities were invited to comment on the trails and the features in the network; this information was incorporated into the assessment. Appendix A: Summary of trail management objectives for existing and proposed trails contains a table with all the existing trails in the network and the recommendations for changes as a result of the assessment.

#### Winter activities and trails

#### Cross-country skiing, trails and amenities

As of 2023, the area provides cross-country skiing enthusiasts with 58.7 km of groomed trails. Twenty kilometres of these groomed trails are multi-use (skiing, hiking, fat biking, snowshoe).

Several groups offer instructional programs for people who want to learn or enhance their cross-country skiing abilities. The meadow by the Trail Centre and the Hostel Meadow are used for training and learning areas.

#### Snowshoe/hiking and trails

In the winter, there are 8.1 km of snowshoe/hike only trails. These trails are the Watershed Heritage Interpretive Trail, Snowshoe Hare East, Fisher Link and the Fullerton Loop. Another 130 km are available in the winter for snowshoeing and hiking, trail running, fat biking and equestrian use.

#### Winter equestrian use and trails

The winter equestrian trails pilot began in 2019 and mapped 62.1 km of winter equestrian trails. An evaluation of the winter equestrian pilot was completed as part of the development of this Trails Plan. See winter equestrian trails in the Trail Network Improvements section.

#### Fat biking and trails

There are 108 km of trails available in the winter for fat biking; 51 km of these trails are on the priority list for snow grooming.

#### Summer activities and trails

All trails in the West Bragg Creek network are accessible in the summer months for all activity types, with a few exceptions. The Fullerton Loop is restricted to pedestrian-only activities.

Winter-only trails are also restricted for summer use, although a number of existing winter-only trails are proposed to be upgraded to year-round use. See winter trails description in the Trail Use section for proposed changes.

#### Mountain biking

Mountain biking, and especially cross-country biking, is one of the most popular activities in West Bragg Creek. Many mountain bikers also use the Moose Mountain network adjacent to the WBC Trail network, which offers more advanced terrain including both built and natural technical terrain features.

Pedal-assist e-bikes are permitted in West Bragg Creek. Pedal-assist e-bikes are defined as non-throttled electric powered bicycles that provide up to 500 watts of continuous max output,

which stops assisting when either pedaling stops or 32 km/hr is reached.

Trail running

Trail running is a growing year-round activity at West Bragg Creek. Trail runners are more likely to select singletrack trails with flow, similar to mountain biking.

What is NOT a pedal-assist e-bike?

- throttle or power-on demand
- more than 500 watts of maximum output
- provides power at over 32 km/hr
- an electric mobility aid<sup>5</sup>

#### Hiking

Hiking is a popular activity in West Bragg Creek. West Bragg Creek offers hikes for beginner and intermediate hikers.

#### Equestrian

Almost all trails are open to equestrian use in the summer and are considered beginner/intermediate terrain. Equestrian parking is provided at West Bragg Creek and Fullerton parking lots.

Other activities at West Bragg Creek include orienteering, biathlon (with portable electronic targets) and geocaching.

#### **Facilities and amenities**

West Bragg Creek PRA and Fullerton parking lot are the main trailhead staging areas. Station Flats Day Use is another staging area for access to the network and Allen Bill Day Use Area is

<sup>&</sup>lt;sup>5</sup> Except under permit.

used as additional parking for the Fullerton trailhead. The primary purpose of these formalized areas is to facilitate staging onto the public land trail network and not attract or support day use within the PRA. Some limited guiding and instructing are facilitated out of the West Bragg Creek PRA. The PRA includes three washroom facilities (four vault toilet stalls/facility), a basic public trail centre with three picnic tables, and a garage/storage compound for trail maintenance equipment. At the Fullerton parking lot, there is one washroom facility, with four vault toilet stalls. Parking capacity is shown in Table 1.

Table 1: Staging area parking capacity

Day use areas	Parking capacity	Paved/ designated/ gravel	Where does the overflow go?
West Bragg Creek	475 Passenger vehicles 2 Buses 8 Equestrian	Paved	West Bragg Creek Road (Township Road 232)
Fullerton	59 Passenger vehicle 5 Equestrian	Gravel	Allen Bill, Hwy 66

Picnic tables are located at the junctions of a few ski trails to serve as rest/lunch stops.

## **Trail Network Improvements**

An objective of the plan is to describe a comprehensive trail system. Following extensive planning committee deliberations and evaluation of the feedback engagement, several changes to the network are proposed. This includes changes to the trail system and facilities to improve the recreation experience, minimize impacts to the environment and manage conflicts among recreation activity types (including seasonal, single use trails, and directionality on trails, where needed), while considering volunteer and financial sustainability.

Maps of the future trail network in summer and winter are shown in Figure 4 and Figure 5. A total of 20.5 km of new trails are proposed in this plan and 3.6 km of trails are identified to be decommissioned. The trail use recommendations and proposed trails will not apply immediately; they will gradually be applied/built. New trails will follow the trail development process outlined in the Trail development section of this document.

Note: some of the *Actions* and *Opportunities* that relate to the trail network improvement sections have been included in the Operations and Management sections to avoid repetition.



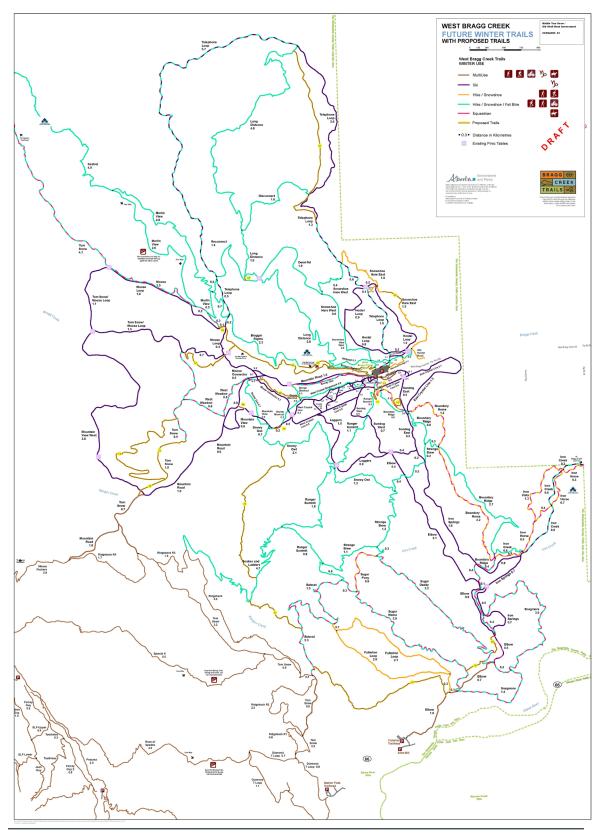
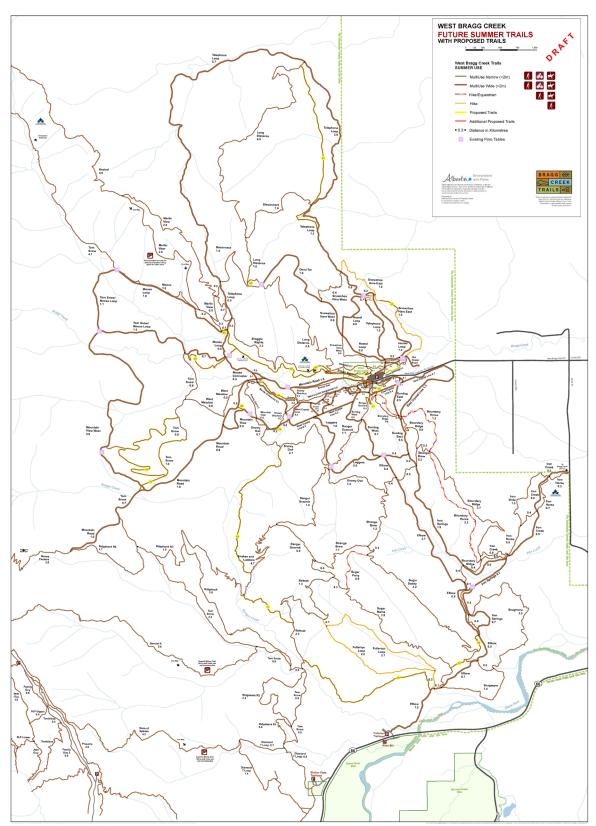


Figure 5: Future summer map for West Bragg Creek



#### Trail use

#### **Directionality**

Multi-use trails can be shared with minimal conflict for much of the trail network. Ensuring sufficient sightlines and encouraging proper trail etiquette through signage will help reduce conflicts on trails (more on signage in the Trail development section).

Most trails will be designed for two-way traffic and will include pull outs or ensure good sightlines. This increases the total kilometres of useable trail in WBC. However, some trails will be signed and regulated for one-way travel. Posting appropriate signage at trail junctions to discourage travel in the wrong direction will help address safety concerns and potential user conflicts.

The trails recommended for one-way direction for bikes are the lower 700 metres of Braggin' Rights (down-track) and Merlin View (counter-clockwise direction). Whitetail will remain two-way but will be signed as the appropriate up-track from the West Bragg parking lot.

Warning signs about high speeds and caution signs to slow down will be placed on the following trails: Braggin' Rights, Boundary Ridge, Merlin View, Ranger Summit and Strange Brew.

Other trails may be delineated for directionality in the future as needed in response to monitoring (see Monitoring section).

#### Trail activity types

Permitted / prohibited activity rules and signage are used in the West Bragg Creek network to separate user types and minimize user conflict.

The winter activity categories on trails are:

- multi-use (hike/ fat bike/snowshoe/ski/equestrian);
- cross-country ski;
- hike/snowshoe;
- equestrian;
- hike/snowshoe/fat bike

The summer activity categories on trails are:

- multi-use (including mountain biking)
- hike/equestrian; and
- hike.

See Figure 5 and Figure 6 for future activity types on trails in the summer and winter seasons.

#### Year-round and winter-only trails

All trails in the network will be designed and maintained for year-round use, where possible.

Several winter trails in the network do not have a maintained trail tread or the erosion control needed to withstand use in wet and warm conditions. Some trails, like the ski trails, have been upgraded over time to improve trail tread, with a more compact base and better erosion control measures so that they can be used in the summer.

Winter-only trails are being used year-round as users explore them in the winter and return in another season. As a result, trails become wider and rutted as users spread out to avoid wet areas, sometimes compromising wetland and riparian areas. Given the predictions of increased weather variability due to climate change, it is prudent to upgrade trails for year-round use.

For most of the network, upgrades to existing trails will make year-round use possible. Some realignments to existing trails are needed. The following trails will be converted over time to year-round use:<sup>6</sup>

- Boundary Horse
- Fisher Link
- Iron Horse
- Iron Vista
- Old Hostel Road (on the north side outside of the riparian area)
- Snagmore-Elbow Winter Equestrian
- Snowshoe Hare East and West

- Snowy Owl (with the exception of the 300m west of the WBC parking lot)
- Snowy Shortcut
- Sugar Pony
- Telephone Loop West
- Tom Snow (the portion within WBC network)
- West Crystal Singletrack Winter Multi Use
- West Meadow

In discussions with Tom Snow Jr. in 2022, BCT received the recommendation to rename the Tom Snow trail to Chief Tom Snow, who was a respected member and leader of the Îethka Nakoda Wîcastabi for two terms in the early 1950s.

Until these trails are upgraded, they will be appropriately signed to identify that they are not appropriate for use outside of winter months for environmental and safety reasons.

<sup>&</sup>lt;sup>6</sup> For Middle Tom Snow: Detailed trail design needs to be completed by prior to upgrade. If this trail cannot be upgraded, it will be discontinued and proposed trail #7 Middle Tom Snow #2 will not be built.

The following segments of trails will remain winter-only use and will be signed that they are closed in the summer:

- Snowy Owl segment from Chickadee Meadow to the beaver dam, and the blue bridge to Moose Connector and Snowy Shortcut
- Mountain View West Winter Realignment Segment
- Middle Crystal between Crystal Link #1 and #2

The following trails segments will be decommissioned because they have been deemed unsustainable or undesirable:

- Part of Old Shell Road (including creek crossing)
- Snowshoe Hare East segment (to be rerouted)
- Ranger Summit and Boundary Ridge trailhead segments (to be rerouted)
- Snowy Owl Shortcut connections to Mountain Road
- Snowy Owl Shortcut segments to be rerouted
- Old Hostel Road, east of Bragg Creek to Township Road 232
- Southern-most portion of West Meadow

The prioritization of these trail projects is listed in the Implementation section.

#### Winter equestrian trails

Part of the development of this Trails Plan included the evaluation of the winter equestrian pilot that began in winter 2019. This involved reviewing the three years' worth of BCT winter reports inclusive of incident reports, evaluation of trail design and analysis of user volume on some trails. The winter reports documented numerous incidents of damage to groomed winter trails from equestrian use that decreased the quality of user experience and occasionally required closing trails and additional work for groomers.

This plan includes several strategies with the goal of eliminating damage to groomed trails, while providing trail opportunities for equestrian users in the winter:

- Discontinue winter equestrian use on northern trails Snowshoe Hare West, Hostel Loop,
   Demi-tel, and Reconnect.
- Create a new multi-use trail from the parking lot to the west parallel to Braggin Rights (mountain bike up only, bi-directional for other users).
- Create new loop options for equestrian users to the west to provide trail access away from Mountain Road.
- Upgrade existing equestrian trails to improve trail tread and reduce the desire for equestrian users to travel on winter trails not designated for equestrian use.

These changes and enhanced education are expected to lessen user conflict and damage to snowpack on groomed ski and multi-use trails. Additional recommendations related to education on trail etiquette are in the communications and education section. Ongoing monitoring of trail use is integrated into the plan monitoring and evaluation section.

The following trails will continue to be accessible to equestrian users in the winter: Bobcat, Iron Vista, Iron Horse, Sugar Daddy, Sugar Pony, Sugar Mama, Snagmore, Snagmore to Iron Springs Connector, Elbow south of the Sugar Daddy junction, West Meadow, Boundary Horse, portions of Snowy Owl, Tom Snow North, Tom Snow South, Moose Line Singletrack, Old Shell Road (until it's decommissioned) and south portion of Merlin connecting Old Shell Road and Moose Line Singletrack.

The proposed Horseshoe Ridge trail, Braggin' Rights twin, Tom Snow re-route #2 would be open to equestrian users (as well as hiking and snowshoeing) in the winter. Given the small number of equestrian users on the weekends and holidays in the winter season, the winter equestrian parking lot at West Bragg Creek will be opened to all users to park on the weekends and holidays. The equestrian parking lot will be signed equestrian-only Monday to Friday.

The *action* to implement the trail network improvements as listed above is in the Trail development section below.

#### **Proposed trails**

Several proposed trails were evaluated during the development of this Trails Plan. Trails were proposed to address a safety or environmental issue, a user conflict and/or to create new recreation experiences.

The Planning Committee followed a structured decision-making process in evaluating the proposed trails. This process provided a framework for transparent and accountable decisions, with emphasis on clarifying objectives and criteria, developing and evaluating options, exploring key trade-offs and reaching agreement among diverse perspectives. The approach is supported by tools from the decision sciences (such as influence diagrams and consequence tables) that help groups deal with the complexity of important decisions and diverse interests.

More than 40 km of proposed trails were evaluated relative to the following objectives and criteria (Table 2). While every proposed trail did not need to meet all criteria to be considered, the evaluation illuminated the tradeoffs amongst criteria for each trail. Trail proposals included in this plan successfully met several criteria. Approximately 20 km of proposed trails are described in this Plan; however final decision on construction of each trail will be made after detailed trail design is complete.

Table 2: Evaluation objectives and criteria for proposed trails

Objective	Criteria	
	Trail segments avoid riparian areas as much as possible (greater than 30 m from watercourse)	
Minimize environmental impact	Trail segments do not cross watercourses / wetlands	
·	Trail does not extend beyond current trail network footprint to new undisturbed areas	
	Trail will be sustainable given climate change (not a winter-only trail)	
	Trail addresses an identified recreation desire/need/issue/hazard/problem/conflict (e.g., diverting non-skiers away from ski trail)	
Improve/provide for recreation experience	Trail is expected to be well used/popular	
	The trail does not create an issue/problem (e.g., potential to create additional conflicts between users)	
Minimize conflict with other land uses	The trail does not create an issue/problem for another land user (e.g., trails that cross range allotment boundaries requiring additional livestock management)	
Minimize impact on maintenance/ human resource capacity	The trail is not going to be difficult to maintain or require disproportionate resources (e.g., far away for regular maintenance).	

Proposed trails meet one or more of the following categories:

- Connectors These are short segments proposed to create links between trails and loop alternatives for users.
- Re-routes/ parallel routes These trails are created to separate activity types to reduce user conflict and/or to move the trail alignment to provide a sustainable tread.
- New opportunity These trails are proposed to ensure adequate opportunities for user types, and to fill a gap in the experience for existing activity types.

See Appendix A: Summary of trail management objectives for existing and proposed trails. The table includes an excerpt from the Trail Management Objectives (TMO) form which establishes a clear vision for each individual trail, permitted/prohibited use, trail user objectives, level of challenge, permitted season of use, and trail length. TMOs guide all future trail planning, design, construction, maintenance and management decisions for the trail and are used to help land managers understand, communicate and, ultimately, approve the development of the trail.

#### Trail connections in the region

A number of connections to Moose Mountain and Station Flats networks have been suggested through the trails planning process. While this Trails Plan will be constrained to its study area, some suggestions are identified here for consideration in future planning processes:

- A singletrack trail between Fullerton and Station Flats to connect the two parking lots.
- Intermediate two-way trail between Moose Mountain hiking trail and Mountain View West, comprised of a 500 m downhill from Moose Mountain.
- A trail along the Elbow Valley highway to allow bicycles, hikers and walkers to travel from Fullerton to as far back as Paddy's Flats without travelling on the highway.

The Trails Plan engagement included suggestions to create additional connectors from the West Bragg Creek network and Pinetop/Sibbald Highway 68. These connectors would have to be further scoped in the future as a trail network near Pinetop is not being considered at this time.

#### **Facilities**

The West Bragg Creek PRA is a trailhead staging area that provides access to an expansive network of high quality, day-use, multi-use, year-round trails in Kananaskis Country. In response to increased visitation, growing visitor use conflicts and emergency access issues, enhanced facilities and amenities were envisioned in 2017 and generally approved through the 2012 Kananaskis Provincial Recreation Areas and Bragg Creek Provincial Park Management Plan. This resulted in the redevelopment of the parking lot, with the intent of maintaining the area as a hub for trail-based recreation and tourism supported by basic facilities.

The Fullerton parking lot is frequently at capacity on weekends. Additional parking is available across the Highway at Allen Bill day use area but there is no reduction in the highway speed limit to allow safe pedestrian crossing. Equestrian users have found it difficult to park and exit at Fullerton because of the design of the parking lot. A redesign of the Fullerton parking lot is recommended, as well as a speed reduction on the highway to facilitate safe crossing of the highway to Allen Bill.

#### **Parking**

In recent years, the Fullerton and West Bragg Creek parking lots have been at capacity, especially during the weekends in the winter. Parking and visitation levels continue to vary after the high use levels in 2020 and 2021 during the COVID-19 pandemic. AFP and BCT will continue to monitor the parking lot capacity and consider recommendations and corrective actions in the future as outlined in the monitoring section of the plan.

This plan proposes new connector trails in the south half of the network, with the intent of encouraging users to park at Fullerton, Allen Bill or Station Flats parking areas to access the network to distribute use from the already busy West Bragg Creek parking lot.

#### Trail centre

In 2017, the expansion of the PRA parking lot included concepts for a trail centre. In 2018, a trailer was installed to serve as a temporary trail centre. It has also been used as a public warming hut and a meeting space for BCT and AFP.

During the pandemic in 2020, and the mandated closing of shared public spaces, the temporary trail centre became an information hub and housed the newly formed Trail Host program. Trail Host volunteers currently use the temporary centre as their headquarters. In 2021, BCT began selling branded merchandise from the trail centre as a fundraising initiative.

The development of a permanent trail centre at the West Bragg Creek PRA is recommended, with a primary focus on public access, training and education. The trail centre will provide trail information, serve as a warming hut, support trail hosts/volunteers and sales for BCT merchandise, and offer a space for educational programs and limited support to occasional non-profit small-scale events.

Private commercial uses or sales will not be considered, however not-for-profit sales that support the work of the BCT are permitted within the PRA and trail centre.

The proposed trail centre should be constructed in roughly same location as the current temporary centre, with direct access to the parking lot. BCT will work to maintain reliable internet connectivity at the trail centre and maintenance facilities. The footprint will remain small in size (174 m² (1875 ft²) per story to a maximum of two stories). Future expansion will not be considered.

The trail centre will be administered and operated by the BCT under a lease agreement with the Government of Alberta.

#### Specifics:

- Contains five areas:
  - Meeting/classroom/eating area (for 30-50 people)
  - Office for trail hosts
  - o Office for BCT staff
  - Small information and BCT sales booth
  - o Indoor equipment storage room

**Action:** Plan, design and build a new, permanent trails centre in the West Bragg Creek PRA that serves as a place to gather, store equipment and deliver outdoor education for all trail users. A separate environmental review will be conducted for the trail centre. Inclusion of the trail centre concept in this document does not imply final approval.

#### Other amenities/facilities

The West Bragg Creek area is intended for day-use trail-based activities. Additional amenities such as picnic tables and fire pits that encourage additional activities, like picnicking or group gatherings, will not be installed within the PRA. Picnic tables are installed throughout the network at the junctions between trails and at lookout points. Additional picnic tables and shelters may be installed along the trails at junctions and viewpoints.

Basic amenities will be available; vault toilets will be provided but no flush toilets and no running water will be installed.

Bike racks, ski racks and a bike tool stand are available near the trail centre.

Although a bike park and playground were suggested during the trail planning process, these facilities will not be provided as they are not consistent with the intent of the parking areas as trailheads for trail-based activities.

A bike wash station will not be installed, in the interest of conserving water and because there is no running water. Users are expected to clean their equipment at home and not in the creek.

Garbage bins are required on-site to encourage positive behaviour, such as properly disposing of dog bags instead of leaving them on the trail. AFP will investigate options to add garbage bins and servicing of those bins to encourage proper waste disposal.

A WBC winter ski trail lighting feasibility study was conducted in 2023. It was decided that providing ski lighting was not a priority at the time, although revisiting the feasibility of ski lighting may be considered in the future as part of BCT's strategic planning process. Major considerations include environmental and wildlife impacts, traffic and community impacts and BCT's capacity and resources. If revisited, the BCT Board will conduct a feasibility study and consider recommending it to AFP for decision.

In recent years, trail hosts have witnessed an increasing number of visitors who have limited mobility issues and use mobility aids or devices at the West Bragg Creek PRA. AFP should conduct an accessibility assessment to evaluate the West Bragg Creek parking lot and amenities

and make recommendations to improve access and remove barriers to visitor use in the PRA.<sup>7</sup> Examples of recommendations could include the number and design of disabled parking stalls and the design of the trail centre.

**Action:** AFP to conduct an accessibility assessment of the West Bragg Creek and Fullerton parking lot and amenities.

#### **Events and commercial activities**

All special events and commercial, recreational and group activities require a permit that may include conditions to reduce conflicts and impacts.<sup>8</sup>

As per Alberta Parks' policy, the limit for special event capacity in the PRA is 150 participants and exclusive use of the parking area is not allowed. A portion of the parking spaces must be kept available for public use.

School groups are asked to complete a form so that Parks Operations Division can keep track of field visits.<sup>9</sup>

Several groups, clubs and commercial operators provide instruction and guiding at West Bragg Creek for various activities including hiking, mountain biking, equestrian, orienteering, trail running, snowshoeing, fat biking, first aid and cross-country skiing.

Facilities or amenities to support medium to large-scale events will not be provided. Events staged at West Bragg Creek will continue to utilize existing amenities, remain small-scale in size, and require an event permit. Locations for small event tents will be limited to the instruction area and a small portion of the parking lot as is currently permitted.

The Parks Division proposes to formalize Station Flats as a special event staging area in the Elbow Valley Day Use Refurbishment and Expansion Plan, in addition to day use activities. As part of its redevelopment as a special events hub in the region, the 150-person capacity limit will be reconsidered. Permitted event size will be assessed on a case-by-case basis through the permitting process. A connector trail to Fullerton Day Use Area as a means of linking Station Flats to West Bragg Creek trail system is recommended in the plan.

<sup>&</sup>lt;sup>7</sup> Alberta Parks Inclusion and Accessibility https://albertaparks.ca/Inclusion/

<sup>&</sup>lt;sup>8</sup> For <u>event permits within the PRA</u>:

For guiding and instructing permits:

For authorizations in the PLUZ

<sup>&</sup>lt;sup>9</sup> Education programs

## **Operations and Management**

#### Trail development, grooming, inspections and maintenance

#### Trail development

The proposed trails in this plan are routes defined to meet intended recreational experiences while minimizing environmental impact. Final AFP approval of detailed trail design and all pertinent regulatory approval must be received prior to construction. Detailed trail design and construction occurs after trail planning and should be consistent with the best practices in Trail Development Guidelines for Alberta's Public Land (Government of Alberta, 2019).<sup>10</sup>

Other best practice guidelines will be applied depending on the activity type for which the trail is designed (International Mountain Bicycling Association, 2004; International Mountain Bicycling Association and Bureau of Land Management, 2018; International Mountain Bicycling Association, 2007; United States Department of Agriculture and Forest Service, 2007; Hancock, Vander Hoek, Bradshaw, Sunni, & Engelmann, 2007).

Trail design parameters are created considering the Trail Management Objectives (TMO) for each trail. Parameters include clearing heights and widths, tread width, technical trail features (TTFs), grades, cross slope, turning radius and sight lines based on type of use.

Final trail alignment, grading and drainage are also defined at this stage. The alignment should be consistent with the TMO and ensure a sustainable tread while considering measures to limit erosion and prevent trail braiding. Water management features may be installed to ensure proper drainage and watercourse crossings to avoid impact to watercourses. Erosion control features such as structures, planting, tread compaction and geotextiles may be considered as needed.

A written, detailed trail plan for individual trails, including the site and route maps, the TMO, design details and constraints (environmental, social, economic, physical) that may impact the work, may be necessary. The development of a detailed trail designs/plans should include professional advice.

Approval and relevant permits will be obtained prior to work commencing. Regulatory approvals include:

- Alberta Environment and Protected Areas (Water Act);
- Alberta Forestry and Parks (*Public Lands Act*);
- Alberta Culture (Historical Resources Act); and
- Fisheries and Oceans Canada (for any work in watercourses).

<sup>&</sup>lt;sup>10</sup> Particularly Section 5 on Trail Infrastructure Design Guidelines and Section 6 Trail Construction.

The approvals will determine timing restrictions, wildlife sweeps and surveys, setbacks and other mitigation measures that apply if activities intersect a wildlife or habitat sensitivity layer.

Compliance with established approval conditions is required throughout the construction process.

Once approved and built, these new trails will become Provincial trails.

The upgrading and rerouting of existing trails should occur prior to the development of new trails, unless there is a compelling environmental problem that is solved by the new trail.

**Action:** BCT and AFP will work together to develop the trail network as per the recommendations for new trails, trail reroutes, directionality, activity types and trail upgrades in the trail network improvements section of the Plan.

#### **Snow grooming**

The West Bragg Creek trail network winter season is November 1 to March 31. During this period the permitted and prohibited uses change to facilitate winter activity types. The change in date from December 1 to November 1 reflects more frequent winter activity opportunities in November. The change will be monitored for efficacy.

Snow grooming on trails in West Bragg Creek is key to providing safe, exceptional winter recreation experiences. Grooming takes place for cross-country skiing and fat biking. Snow grooming requires a quick and flexible response after snowfalls to account for the unique environment and weather in the area. The area is in the montane sub-region at a transition point between mountain and prairie, resulting in variable snowfall, frequent freeze-thaw cycles and debris from windstorms, all of which affect trail grooming. Early snow packing and grooming may be necessary after an early snowfall to ensure a proper base for winter operations.

Snow that falls in October and November can melt away, be used to build the snowpack and help to facilitate the ground freezing, even if it melts. The decision to commence grooming depends on a number of factors:

- How much snow has fallen and is more in the forecast?
- What are temperature forecasts?
- How long is it until reliable snowfalls?
- Are resources and operational time available?

Grooming is done according to BCT's operating procedures.

#### Ski trails

By grooming at a standard that meets or exceeds the expectations of recreation and performance-oriented skiers, all users are provided with an experience that meets or exceeds their expectations. The safety of all skiers and operators in WBC is paramount. In low snowfall areas, frequent refreshing of the snowpack by renovating is important to prevent over-compaction and ice formation. Snow farming from areas adjacent to the trails is often necessary to add to the existing snowpack provide coverage in low snowfall areas. This increases overall durability of the snowpack, especially during extended, challenging weather conditions.

Track setting is prioritized based on trail popularity and usage and on trails damaged from heavy use or misuse. Trails further afield, like Telephone Loop, are groomed as resources and conditions allow.

The table below describes how the trails may be groomed for classic and skate skiing in the future. Some sections of ski trails will require widening to 6 metres to accommodate both skate and classic ski tracks.

Table 3: Ski trails and grooming<sup>11</sup>

Trail	Track set
East Crystal Line	Skate and classic double track set
Sundog Loop	Skate and classic double track set
Iron Springs	Classic double track set
Iron Creek	Classic single track set
Elbow Trail	Classic double track set
Loggers	Skate and classic double track set
West/Middle Crystal Line Loops	Skate and classic double track set
Mountain View	Skate and classic double track set
Mountain View West	Skate and classic double track set
Moose Connector	Skate and classic double track set
Mountain Road	Skate and classic double track set
Moose Loop	Skate and classic double track set
Hostel Loop	Classic single track set
Telephone Loop	Classic single track set

<sup>&</sup>lt;sup>11</sup> Loggers, Middle Crystal Line, Mountain View, Moose Connector and Moose Loop will be authorized for skate ski grooming once the trails are upgraded to 6m width.

#### Multi-user snow grooming

Some multi-use trails are machine packed to support fat-biking. Multi-use trail grooming frequency is prioritized; the trails most used, recently damaged and closest trails to the parking lot are groomed first, followed by second level and then third level priorities. Priority trails are groomed regularly as conditions allow, while tertiary priority trails may or may not be groomed in a season. The following table describes the priority for grooming, as of the date of this plan. Priorities may be adjusted by the operational team over time as need or resources allow. Trails accessible to equestrian use are not normally groomed.

Table 4: Multi-use trails snow grooming priority

Trail	Grooming Priority (1st, 2nd, 3rd)
Boundary Ridge to Iron Creek	2
Braggin Rights	1
Demi-tel Properties of the control o	3
Disconnect	3
Kestrel	3
Long Distance North	3
Long Distance South	2
Merlin View	2
Moose Single Track	3
Ranger Summit	2
Reconnect	2
Snakes (between Ranger and proposed trail #14)	2
Snowy Owl	1
Snowy Shortcut	1
Strange Brew	2
Whitetail	1
West Crystal Single Track	1
Tom Snow North	3

The following trails are groomed for cross-country skiing as well as multi-use:

- Elbow from Fullerton Parking Lot to Iron Springs junction (groomed by AFP)
- Iron Creek (from near RR54 to Iron Springs junction)
- Mountain Road
- East and West Telephone Loop

All other multi-use trails in the network are accessible to users but not prioritized for grooming. Grooming of these trails may occur as time and resources allow.

#### Trail inspections and maintenance

Inspections are a critical element of trail management. Inspections can identify deterioration of the trail tread, erosion and environmental concerns, and features or hazards that may affect user safety. Issues can be addressed by maintenance to reduce the chance of a safety incident. The long-term objectives for the inspections and maintenance program are to:

- Provide exceptional trail experiences,
- Ensure continued resource protection (social and environmental), and
- Protect trail user safety and manage risk and liability (Government of Alberta, 2019).

The inspection plan will refer to the trails' Trail Management Objectives (TMO) and consider if the objectives are being met, while also addressing standard issues like vegetation management for line of sight, reduction of human/wildlife conflict (i.e., removal of wildlife attractants), raking debris, rebuilding corners and features, and addressing any critical maintenance issues like drainage or technical trail features that need replacing. Trails within 30 m of a watercourse should be inspected for evidence of flood damage, channelization, or exposed channel substrate (e.g., cobbles, clay, etc.) resulting from high flow conditions of watercourses in the area.

During inspections, a trail condition survey provides information about the physical characteristics and features, including:

- nature of the problem;
- length of the tread;
- width of the tread;
- soil condition (vegetation flattened, bare mineral soil, soil erosion); and
- possible repair options.

Photographs are taken of the site at fixed locations so that they can repeated and monitored over time.

Inspections will take place at least once a year, with details on problem areas documented in a consistent manner. A standardized checklist should be compiled to provide a clear and concise record of trail conditions and required maintenance procedures. This information yields direction for crew leads, needed equipment, material costs and scheduling priorities. A digital inspection could also be integrated into the inspection program that is simple, portable, repeatable and easily shared.

**Action:** Develop and formalize a WBC Inspection Program with a standardized trail condition monitoring checklist and procedures.

#### Trail decommissioning and reclamation

BCT is responsible for building properly designed trails, maintaining trails and water crossings, rerouting trails as necessary, and decommissioning unauthorized trails. AFP will support the decommissioning of trails, as necessary.

Unauthorized trail construction circumvents the approval process, may directly impact environment and cultural resources and sensitive features, and diverts time and resources away from other important trail-related work when a trail must be investigated and rehabilitated.

Informal trails and some segments of existing trails need to be decommissioned and reclaimed because they are unsustainable, pose a safety risk and/or run through environmentally sensitive terrain. The appropriate decommissioning and reclamation approach is determined on a case-by-case basis. Some approaches include:

- scarify compacted soils so they may absorb moisture and encourage seed germination;
- plant and/or seed native vegetation;
- reclaim access/exit points, preferably with natural materials (e.g., rocks, logs), or man-made materials if necessary;
- sign and define the rationale for the public;
- · remove signage and map alignments.

Trail closures will need to be prioritized after considerations of the trail's environmental impact, safety issues, redundancy, use and experience.

**Action:** Ensure new trails follow the proper channels for approval and construction. Actively monitor, discourage, inform AFP and decommission unauthorized trail construction in the area.

#### Indigenous perspectives and reconciliation

West Bragg Creek and greater Kananaskis Country is important to Indigenous peoples. The area is within "The Blackfeet Treaty of 1877 between the Queen, the Blackfeet and other Indian Tribes" (Treaty 7). This treaty territory is the homeland of the Blackfoot Nations of Siksika Nation, Kainai Nation, Piikani Nation; Stoney-Nakoda (Bearspaw, Chiniki and Goodstoney) Nations; and Tsuut'ina Nation. It is also home to Region 3 of the Métis Nation of Alberta. The Métis people of Alberta also share a deep history with this land.

The land has provided food, medicine and enabled a way of life for Indigenous peoples since time immemorial. The history of Indigenous peoples in this area is not popularly known or understood. Education and awareness are needed to facilitate reconciliation with Indigenous peoples.

Reconciliation in Canadian society will take sustained effort in all aspects of everyday lives. Early in the planning process for the West Bragg Creek trail network, it was recognized that the concept of reconciliation should be integrated into the development and management of the network.

At the beginning of the trail planning process, Indigenous advisors were sought from the local area to integrate the perspectives and understanding of local Indigenous peoples. There were several Indigenous representatives on the Planning Committee from Tsuut'ina Nations, Siksika and Kainai Nations. During the planning process, representatives shared stories about local history, language, spirituality, how to behave in nature, plants as medicines and how to harvest them. Some of these stories are shared in this plan with permission.

Indigenous languages are important to maintain. Not only is the preservation of language integral to Indigenous culture but these languages are a valued part of Canadian society and need to be preserved. Some translations of words are cited in the plan and emphasize the depth of connection Indigenous peoples have with the land.

The Truth and Reconciliation Commission speaks to the principles of mutual recognition, mutual respect, and shared responsibility. These principles are woven into the actions proposed in this Plan.

Indigenous languages reflect cultural connections to the seasons and the land.

Examples of some Blackfoot words for months and their literal meaning and English translations.

- Ómahksíki'somm "old moon" January
- Aapistsísskitsaato's "flower or blossom month" May
- Pi'kssííksi otsítaowayiihpiaawa "when birds lay their eggs" June
- Pákkii'pistsi otsítai'tssp "when choke cherries ripen"- August
- Sa'áíksi itáómatooyi "when ducks leave" October
- litáóhkanaikokotoyi niítahtaistsi "when all the rivers freeze" November

Source: https://dictionary.blackfoot.atlas-ling.ca/

Nature-based activities are central to all people's physical, mental, emotional and spiritual well-being. Local Indigenous peoples report having been historically excluded from conducting traditional use activities on public lands. This fact, among other factors, leads to the expectation that there are lower visitation rates by Indigenous peoples to public lands like West Bragg Creek. West Bragg Creek should be an inclusive place where Indigenous peoples feel welcome.

#### What to do when you see prayer flags...

When you see a prayer predictor or anything like that, you stay away from it, you don't touch it...because that's somebody's prayer. And a lot of times we just leave the prints there so that they can go back to Mother Earth. Pretty soon they'll deteriorate to the point where they'll just fall on the ground and then become one again with the earth... our way of thinking is that when you offer a print and you offer tobacco for a prayer that's for something that you know... you're asking for help from the creator whether somebody is sick or maybe you're going through hard times ... you wrap it around the base of the tree ... and when you offer it your knot has to be facing south and that's where you place your tobacco... [when you] see it ... what you do is just acknowledge it... say a prayer to say that you know whoever offered the print that hopefully they'll get their prayers answered. You just leave it; you don't touch it. You just avoid it because you know somebody came out there to ask for help and that's what that represents...you don't usually take pictures of ceremonies... because they're supposed to be personal experiences that you remember in your own mind... just acknowledge it and say a prayer of your own... ask the creator that this person... get his prayer answered.

- Anthony Starlight, Tsuut'ina Elder

**Action:** Incorporate Indigenous perspectives and explore opportunities for Indigenous peoples to be part of ongoing trail planning, development and operations.

#### **Opportunities**<sup>12</sup>:

- Partner with local Indigenous communities to facilitate youth field trips and youth trail building skills workshops, where Indigenous youth can learn hands-on the skill of trail building with BCT and AFP trail builders.
- Partner with local Indigenous communities and organizations to develop education and outreach initiatives such as medicinal plant walks and interpretive events.
- Through engagement with local Indigenous communities and organizations, install a cultural awareness sign or other structure that commemorates and acknowledges the Treaty, Indigenous history and cultural significance of the area.
- Partner with Indigenous peoples to host events at WBC, such as a teepee raising ceremony.

<sup>&</sup>lt;sup>12</sup> These opportunities were developed with the advice of the representatives from Indigenous organizations on the Planning Committee.

#### **Environmental stewardship**

Through the planning process, several themes on environmental stewardship were raised: water and riparian health, weed control, climate change adaptation, beaver management, and wildlife habitat and human/wildlife conflict management. A review of the environmental considerations and historic resources is provided in a separate background report.

During the review of the draft plan, Indigenous communities and organizations expressed interest in being involved in defining and implementing environmental stewardship in the WBC area. Opportunities will be explored for Indigenous involvement in all of the environmental stewardship actions below.

#### Water and riparian health

Riparian areas are important habitat for many animal species and provide corridors for wildlife movement. Recreation use in riparian areas can lead to soil compaction and weaken plant vigor and root penetration. Lower infiltration on compacted trails can lead to increased water runoff and erosion of the soil, which can enter waterways and impact aquatic environments. Riparian areas are critical to shelter fish and provide habitat to aquatic insect species, which are food for fish and other wildlife.

The management of impacts from other land uses are not in-scope for a trails plan; it instead occurs during sector specific management planning and in land use planning at the regional and subregional levels. <sup>13</sup>

In 2019, a West Bragg Creek Collaborative Watershed Stewardship Project was launched between BCT, AFP, Cows and Fish, the Elbow River Watershed Partnership, the Rocky Mountain Forest Range Association and local range allotment holders. The project's goal was for these partners work together to improve the watershed's resiliency to drought and flood events through enhanced range and riparian health.

The project studies have confirmed that West Bragg Creek is an ecologically important area, containing rare plants and high integrity, functionally intact, biologically diverse wetlands and headwater stream riparian areas. Although many healthy, functioning areas were identified, some 'hotspot' areas were flagged for impacts from long-term cumulative land uses. The following initiatives are underway to address these issues:

a pilot off-site watering system to reduce instream use by livestock;

<sup>&</sup>lt;sup>13</sup> See the <u>South Saskatchewan Regional Plan</u> (<u>https://open.alberta.ca/publications/9781460139417</u>) and reference to future landscape management planning in this area.

- riparian restoration site along Old Shell Road at Bragg Creek (native species plantings and bioengineering);
- pulling of weeds (as defined in the Weed Control Act and regulation) through volunteer events (see Weed Control section below); and
- beaver coexistence initiative (see Beaver management section below).

Below are Plan actions related to water and riparian health. Additional *actions* related to building an ethic of environmental stewardship are contained in the Trail user education section.

**Action:** Per best practice, limit trail development in riparian areas and ensure proper watercourse crossings. As new trails are designed and existing trails maintained, look to move trails away from low-lying areas with high water tables which are vulnerable to erosion and compaction from recreation activity. Creek crossings should always contain bridges or culverts to ensure proper sediment control and minimize impact to riparian areas.

**Action:** Through proper signage, trail reports and barriers, manage seasonal closures for areas that are unsuitable for use due to the ground being wet, flooded and subject to deep rutting and erosion from recreational and livestock use.

#### Weed control

Trail corridors and temporary service roads can serve as conduits for movement of non-native plant species as seeds can be carried by vehicles and machinery, recreational users, livestock and horses.

A 2021 Range Health Assessment (Dodd, 2021) noted the presence of two prohibited noxious weeds in the WBC area: meadow hawkweed and orange hawkweed. Although meadow hawkweed appears to be somewhat more widespread, orange hawkweed currently appears to be confined to one small area, along the Reconnect trail. Early weed control can prevent the species from becoming more widespread and potentially impacting biodiversity and livestock forage values.

The Weed Control Act stipulates that prohibited noxious weeds must be eradicated whenever observed. Several herbicides are registered for use on hawkweeds in Alberta. Other options for weed control are annual organized events whereby volunteers target meadow and orange hawkweed (and possibly other weeds listed under the Weed Control Act) with hand-pulling. BCT also has an environmental policy related to weed control.

**Opportunity:** Through the West Bragg Collaborative Stewardship Group, collaborate to monitor the Reconnect site and remove the weeds. Education about weed growth suppression, reporting protocols and removal will be shared with recreational trail users.

#### Climate change adaptation

Climate change may alter the outdoor recreation opportunities and the preferences of users. One of the challenges of managing the trail network will be in adapting recreation management to the increasingly unpredictable weather and long-term climate changes. Warmer winter temperatures will mean that what snow arrives will not stay as long. Even if winter precipitation levels remain roughly the same, precipitation will come in the form of rain, including rain-on snow events, which increases the rate of snowmelt. This means the ski season could be shortened and interrupted over the winter. Creek crossings and wet areas may change over seasons and time — precipitation variability and more extreme weather events can result in water levels and flooding occurring any month of the year (not just in spring). Trails will be muddy for a longer duration in the season, which will have an impact on trail maintenance. Enhanced public awareness about not recreating on muddy trails will be needed. Recreationists may need to adjust activities to account for risks from heat-related illnesses, human disease vectors like ticks and mosquitos, and a longer pollen season, which will impact people who suffer from allergies and asthma.

In the winter, if the days are warmer and the snow is less reliable, other forms of recreation like biking or walking/hiking could become more popular. A longer season could emerge for warmweather recreation activities. With potentially increased annual precipitation, the trails built near water could be prone to high soil moisture and flooding. Keeping the trails consistently snow packed and groomed could become more difficult. Maintenance and grooming of many trails may require greater frequency and cost.

Over time, recreation management will need to respond to the risks and changes from climate change. BCT and AFP have already applied adaptation strategies and tactics such as:

- Trails Maintain, improve and construct trails using designs that minimize erosion and build/maintain trail tread or add features (such as boardwalks) to withstand changes in soil moisture and flooding.
- Snow retention Manage trails in winter for snow retention, such as by realignment, snow funnel, rock removal, vegetation shade buffer, snow harvesting and up-slope ditches to keep water away from trails.
- Flood resiliency Maintain beaver dams that can stabilize the water table.
- Shift visitation- Improve public awareness about avoiding use during wet and marginal conditions.

Additional adaptation tactics that may be employed over time include:

- Managing demand Facilitate alternative transportation options if overcrowding occurs in the parking lot.
- Public safety Educate users about risks and precautions such as carrying water and avoiding periods of peak temperatures.

**Action:** Continue to engage climate change adaptation strategies and tactics for trail development, maintenance and management.

#### Beaver management

Beavers are an integral part of the landscape. They create habitats for themselves and a variety of other wildlife (including fish), help keep water in the creek and ponds for watershed level flood and drought mitigation, rejuvenate forests with their tree felling, and provide a source of water for livestock watering troughs. Beaver management in WBC includes wire wrapping of trees to protect them from beaver chewing.

Localized flooding at a low spot on Mountain Road has also affected the road and Snowy Owl trail. Mountain Road was raised significantly to address this issue, and to keep the road operational for recreational users. BCT is looking at long term, economical, low maintenance solutions to keep beavers on the landscape while reducing the flooding issue at this location.

To achieve this goal, a project team of BCT members, Cows and Fish, Elbow River Watershed Partnership (EWRP) and AFP is working on a plan to install a flow device (pond leveler) in the dam where water backup is an issue. The pond leveler is designed to keep the beaver dam and pond intact while allowing water to flow to a more desirable level for the trails and still maintain adequate aquatic habitat. A pond leveler would be one of the first in the Bragg Creek area and is one of many potential beaver coexistence strategies that could be implemented. It will serve as a demonstration site for beaver coexistence, allowing staff to share the lessons learned with others so similar levelers can be applied in alternate locations. Part of this project includes navigating necessary approvals for working around water and fish bearing streams like Bragg Creek. Although the objective is to retain beavers on the landscape, if the pond leveler is ineffective, then other alternatives will have to be explored in consultation with ERWP, Cows and Fish, AFP and other partners.

**Action:** BCT to continue to work on beaver coexistence and management strategies with Cows and Fish, AFP and other partners.

44

#### Wildlife habitat and human/wildlife conflict management

Noise and motion from recreation use can affect the behaviour and movement of wildlife. Encounters between recreationists and wildlife can cause wildlife stress by increasing the metabolism of animals, causing them to burn more calories and expend more energy. The disturbance effect has been shown to be greater off trail, where human use is less predictable to wildlife. Wildlife alter their behaviours in areas with high levels of recreation use as they seek food. Wildlife that become habituated to human food may have to be killed or relocated from their territories. Wildlife can also become ill from human disease or exposure to trash and food left by humans. To minimize human-wildlife conflict, the following is standard practice:

- proper disposal of waste (including dog waste) in bear-proof garbage bins;
- trails should be managed to improve line of sight, and to ensure natural wildlife attractants (e.g., Sherperdia canadensis – Canada buffaloberry) are removed from trails to lessen conflict risk.

Microclimatic changes (increased sunlight, increased rainfall due to reduced canopy interception, increased wind, decreased humidity, altered temperature regime, etc.) occur within the edges adjacent to trails. The microclimatic changes could affect the site composition of vegetation and wildlife species, such as decreased nesting near trails, altered bird species composition near trails and increased predation due to predators' use of the clearings as corridors. Trails can both facilitate the movement of wildlife and impede the movement and dispersal of animals that are reluctant to cross openings.

Recreational facilities and trails can reduce and fragment habitat for wildlife. Research has shown that the survival of large mammals is dependent on the availability of large, unfragmented core areas (also called interior habitat). Core areas are measured by the amount of secure habitat (amount of native habitat patch beyond a specified buffer from human footprint).

Wildlife can adapt to human use of an area. Predictability of human use is important as wildlife will avoid high use areas and modify their use to times when people are inactive. Recreation use in West Bragg Creek varies throughout the day, and nighttime activities are becoming more common. Nighttime use may impede the willingness of wildlife to use the area. A study in Banff National Park showed that when human use was restricted from 8:00 p.m. to 8:00 a.m., wildlife adapted and began using the area more during the closure (Whittington, Low, & Hunt, 2019). This is especially important in the springtime when young are born, and forage is limited at higher elevations.

**Action:** Educate users about the time-of-day restrictions at West Bragg Creek PRA, which are 11:00 p.m. to 7:00 a.m., complemented by enhanced law enforcement of the closure time.

**Action:** AFP will continue to close trails or areas when bears, cougars or aggressive wildlife are seen. Users should contact Kananaskis Emergency Services (403-591-7755) to report bear or cougar sightings. These closures occur at the discretion of enforcement staff but should not occur indefinitely.

#### **Opportunities:**

- BCT may install and manage a notice board at WBC trailhead so the public can list daily wildlife sightings.
- BCT may formulate and conduct a wildlife monitoring and study project, in partnership
  with non-profit organizations and AFP, which will provide information and
  recommendations to help guide management decisions on new trail construction, trail
  closures, trail re-routes, capital projects and operations activities to protect wildlife and
  wildlife habitat.

#### Signage and wayfinding

A signage and wayfinding program enhances the ability of visitors to establish positive, meaningful and memorable experiences in the West Bragg Creek area. Information provided on site improves the safety, enjoyment and convenience of visitors. Signage provides information to help with navigating the trails, trail etiquette, safety and warnings, identifying facilities and learning about the ecological, historical and human use of the area.

Signage must be consistent in graphics and branding as per AFP signage manuals.

All signs should be designed, and positioned to:

- fulfill an important need;
- command attention;
- convey a clear, simple meaning; and/or
- command respect.

Signs should be placed only where needed. Where there are too many signs, they lose their effectiveness.

Signs will be placed on separate posts and not on trees.

The signage program includes a number of sign categories:

- wayfinding:
  - trailhead kiosks
  - o trailhead/junction signs
  - o enroute signs

- o navigation/ Directional
- advisory
- educational
- interpretive

Appendix B: Signage types and content provides the description and content for each type of signage.

#### On preparing for your trip...

... the climate has changed so much that I don't understand what's to come.... in the fall, we used to have cool weather. But a few years ago, we had snow in July, in August... the weather patterns and everything are shifting so much. I can reiterate is that, you have to be prepared for the bush...So in preparation, you have to make sure that you have enough water, enough dry clothes...if you're going to be gone for a few hours, who's to say that, you slip in the river and you get soaked...you got to make sure that you have a nice dry pair of clothes, or even a towel or something... you got to make sure that you have waterproof matches, you got to make sure you got enough water to keep you going for the day and something to snack on.

... the people that used to travel all the time... they would carry pemmican [that] was composed of berries, and meat and grease and things like that. And [there] was enough protein in a handful or even just a pinch of pemmican to last you half a day.

- Anthony Starlight, Tsuut'ina Elder

**Action:** Implement a signage and wayfinding program that aligns with the standards in this plan.

#### Communications and education

Fostering a culture of mutual respect with a trailhead community requires effective communication and education. BCT plays a central role in promoting positive and respectful interactions between users, community residents, and local businesses through its communications, education initiatives and partnerships.

Programs that help users learn about nature, Indigenous uses and the working landscape can facilitate shared respect for wildlife, the land and each other.

#### **Communications**

BCT has increased its communications and engagement with visitors and residents over the past few years through both traditional and social media methods. The website,

http://www.braggcreektrails.org, provides a central source of information on the trail network and allows visitors to subscribe to a monthly email newsletter. BCT also connects with users through social media available at:

Facebook: <u>Bragg Creek Trails</u>;

• Instagram: Bragg Creek Trails

These communication efforts have proven successful, as reflected in the result from the 2020 recreation use and experience survey which revealed that WBC visitors access information on WBC through (in order of response frequency):

- apps (such as Trailforks or AllTrails),
- non-government websites (such as braggcreektrails.org)
- friends or family
- · information kiosks on site
- non-government social media (Alberta Environment and Parks, 2021).

WBC visitors reported the need for information on trail conditions, maps and trail closures. Additionally, weather reports, elevation, wildlife sightings and emergency services were considered prior to travel (Ibid).

During the first phase of engagement on the Trails Plan, many local residents showed an interest in being more informed on trail network developments. BCT recognizes the importance of engaging with the local community to ensure they "are doing the best to support the community of Bragg Creek." <sup>14</sup>

**Action:** Communicate conditions and messaging with AFP/Alberta Parks to ensure the accuracy of BCT and AFP's online information.

<sup>&</sup>lt;sup>14</sup> Strategic Plan, 14

#### **Opportunities:**

- BCT to develop and implement a trailhead community communication strategy— with a primary goal of fostering a community of respect and understanding between all trail users.
- Host a trail fair for users and the local community. The intent of the trail fair is to build a trail community and create awareness about respectful and safe recreation use in the area.
- Update the BCT website and other communication methods on projects in development, those completed and associated costs (volunteer hours and donor funding).
- Provide contact numbers for the public to reach emergency services and to report illegal activity, public safety issues and bear/cougar sightings.

#### Nature-based education

Nature-based education can enhance users' experience, improve their outdoor preparedness, and foster an ethic of environmental stewardship. Educational opportunities may occur through programming, interpretive signage, or guided tours.

#### **Opportunities:**

- BCT to develop and implement a trailhead community communication strategy— with a primary goal of fostering a community of respect and understanding between all trail users.
- Support organizations and educational institutions interested and qualified to lead guided sessions to help people connect with nature, history, and culture in an "outdoor" classroom.
- Share news about local environmental stewardship projects (e.g., beaver management) with users and residents through BCT's communication channels.
- Extend the Interpretive Trail, preferably with additional Indigenous and environmental content (digital or signs).
- Partner with organizations to facilitate youth field trips and youth trail building skills workshops, where youth can learn hands-on the skill of trail building with BCT and AFP trail builders.

#### Trail user education

BCT invests in focused user education designed to enhance visitor experience. Education programs are designed to reach all trail enthusiasts, encouraging users to find enjoyment, empowerment, and connection to the trail community through healthy pursuits.

The education and awareness of users about proper trail etiquette is the most effective strategy to address conflicts that may arise between different users on the trail. Trail etiquette includes the rules about permitted and prohibited uses on the trail, appropriate behaviours (e.g., waste disposal), right-of-way for different users, and the environmental impact of unauthorized trail building. In addition to in-person interactions with BCT volunteers, trail etiquette can be advertised on signs, websites, social media, and at trail fairs. See the signage and wayfinding section for additional recommendations on signage and wayfinding.

BCT and the Government of Alberta developed the Bragg Creek Trail Hosts program in 2020. Trail hosting is a means for volunteers to communicate directly with trail users about trail use, safety, etiquette, donations, volunteer opportunities and BCT. The program strives to use education and awareness to improve the trail users' experience. The Trail Hosts program has been very successful, reaching as many as 100 people a day during weekends.

A respectful trail use campaign, in partnership with other trail user organizations and businesses, would support the above-mentioned trailhead community communication strategy. The campaign should seek to improve trail experiences for all users, by encouraging respect, inclusivity, safety and enjoyment.<sup>15</sup>

Due to the multi-use landscape in West Bragg Creek, conflicts between users are inevitable. Indigenous peoples, forestry companies, petroleum companies, livestock producers, and recreationists all have a right or authorization to access the land and each group needs to work together to avoid or manage conflicts. Continued cooperation is encouraged. For example, a campaign on the importance of keeping gates closed and maintaining a safe distance from livestock could educate trail users about the rights of different land users in the area. Informational signage and/or the Trail Hosts program can be used to spread the message.

#### Dog owner engagement

Many respondents of the first phase of engagement on the Trails Plan valued their ability to have dogs off leash in the Kananaskis and Sibbald Snow Vehicle PLUZs. Alternatively, some respondents expressed concern about uncontrolled dogs posing a risk to wildlife and people.

<sup>&</sup>lt;sup>15</sup> For example: https://trailsarecommonground.org/

Incidents of conflict have occurred the most often on winter ski trails, especially on technical trails with tight turns and steep hills where dogs can collide with skiers at speed.

Under the Public Lands Administration Regulations, dogs are required to be under control on provincially designated trails in the PLUZ and on leash in the PRA. At this time, there is no recommendation to prohibit dogs in the West Bragg Creek area, but instead to enhance education and awareness of good dog owner etiquette and behavioural expectations. Enhanced enforcement for violations of dogs off leash in the PRA, and uncontrolled dogs is also important. This issue is included in the Monitoring section of the Plan, including corrective actions if the issue persists. Corrective actions may include restrictions for dogs off-leash on certain trails/seasons and mandatory on leash periods and enhanced AFP enforcement.

#### Opportunities:

- Expand the Trail Hosts program, by increasing number of trail hosts and frequency of the program.
- Create and build awareness about the codes of conduct for each user type (biker, hiker, skier, equine, snowshoe/hiker, e-biker, dog owner), in discussion with activity-specific representatives. See Appendix C: West Bragg Creek dog owner Code of Conduct.
- In partnership with other land users, seek opportunities to provide information to users on the local land uses through a variety of communication methods, including online platforms, the BCT newsletter and Trail Hosts program.
- Develop trail signage and communication materials encouraging users to stay on the designated trails and educate about the risks of unauthorized trail development and use.

#### Safety and enforcement

The *Provincial Parks Act* and *Public Lands Act* are the legislative authorities for the PRA and PLUZs that make up the WBC area. The regulations under these acts allow for the enforcement of rules to protect natural and cultural features, visitor experience and safety:

- The rules for activities in the PRA such as dogs on leash and time of day restrictions are enforced under the Provincial Parks (General) Regulation.
- The rules (such as activities permitted and prohibited on trails) in the PLUZ are regulated by signs and notices as per the Public Land Administration Regulations.

#### **Enforcement**

Conservation Officers and Fish and Wildlife Officers regularly patrol the Elbow Valley. When the visitor levels are high and officer time is stretched, calls are triaged on a priority basis.

Conservation Officers, based out of the Parks Operations Division office at the Elbow Fire Base, are responsible for Crown lands enforcement, helping to protect and manage natural resources and visitor use in parks and on public lands. Fish and Wildlife Officers, based out of Cochrane are responsible for fish and wildlife enforcement for both private and Crown lands. Both organizations coordinate to help protect and manage the province's natural resources through law enforcement and ensure the public's safety and protection of property.

The RCMP and Sheriff Traffic Operations conduct regular highway patrols during peak periods to reduce the risk of speeding and wildlife/vehicle collisions.

**Action:** Educate visitors about the rules in the PRA and public lands and associated penalties.

**Action:** AFP to increase frequency of site visits by enforcement staff during peak times to enforce rules on the trails and in the PRA.

#### Safety

It is expected that visitors to the West Bragg Creek trail network will come prepared with a trip plan, and bring food, water and all required safety equipment (e.g., bear spray, communication device) for travel in remote locations. <sup>16</sup> Most of the West Bragg Creek area does not have cell coverage.

In the event of an emergency, there is sporadic public Wi-Fi signal at the West Bragg Creek Trail Centre and minimal cell coverage at the Fullerton parking lot. The primary safety agency in Kananaskis Country is Kananaskis Improvement District's Kananaskis Emergency Services (KES). During an emergency, when the public calls 9-1-1, KES will be dispatched or will coordinate with Kananaskis Public Safety Services (backcountry rescue), the RCMP and Redwood Meadows Emergency Services.

Call 310-LAND (5263) to report public safety incidents, illegal activity and enforcement concerns on Crown land.

Emergency services are reached through 9-1-1. Kananaskis Country fire and emergency services are provided by Kananaskis Emergency Services.

Report wildlife sightings to Kananaskis Emergency Services at 403-591-7755.

**Action:** Develop and distribute education materials on user preparedness for travel and emergency contacts.

Hiking Safety: ONE

<sup>&</sup>lt;sup>16</sup> See trip planning resources such as:

<sup>-</sup> Backcountry Safety: TWO

#### Land use activity collaboration

Since the 2010 Plan, disposition, tenure, and permit holders in the West Bragg Creek area committed to continued collaboration and communication on their operations to avoid unintended conflicts and impacts on each other's operations. A "West Bragg Creek Land Users Agreement" was completed in 2011 to "promote better management, coordination and sustainability of their respective activities on the land for mutual benefit." The agreement describes impacts related to overlapping operations, including considerations for disturbance, weeds, timing of activities, scenic values, safety and cumulative effects. It is expected, as in recent years, that meetings will be held as needed.

**Action:** Continue commitment to working together for cooperation, coordination and communication, holding meetings among affected parties as needed.

#### Plan monitoring and evaluation

#### Monitoring

Monitoring is what keeps a plan on track after it has been implemented. Monitoring helps us to answer the question, "Are we doing things right?" It is the systematic and routine collection of information about the status of specific resource conditions and visitor experiences. The information collected provides insight into the status, trends (changes over time) and impacts of plan implementation, thereby allowing managers and trail stewardship groups to improve efficiency and take immediate corrective actions if necessary.

The sources of information and indicators used in monitoring need to be relevant, cost-effective, tied to the desired conditions, and provide consistent information over time to track changes.

Table 5 lists the sources of information for monitoring use and visitor experience.

Table 5: Sources of information for monitoring use and visitor experience

Sources of information for monitoring use include, but are not limited to:	Sources of information for visitor use experience include, but are not limited to:
Reports from inspection and grooming programs	Feedback through phone calls or emails to BCT and AFP
Trail counters	Feedback to trail hosts
Road traffic counts	Recreation surveys
Strava Metro data	Reviews on social media and recreation apps
Ranking of trails on AllTrails and TrailForks	
Other social media sites, i.e., Facebook or local blogs	

The key elements of the monitoring framework are: 17

- Desired conditions/behaviours What the plan attempts to achieve
- Indicators What should be measured to determine if the results are being achieved
- Indicator rationale Reasons for the indicator
- Standard Acceptable bounds related to the measured indicator
- Management actions Actions triggered if monitoring suggests that indicators have exceeded acceptable boundaries
- Monitoring method, sources and schedule Information used, and frequency and timing of monitoring indicators

Table 6 describes the details on each element of the monitoring and evaluation framework. Table 7 includes corrective management action tactics and techniques that may be applied if an indicator has exceeded a standard, as described below. These corrective actions may be applied by BCT, Government of Alberta or another agency/organization.

Table 6: Monitoring framework; indicators and standards

Desired condition/ behaviour	Monitoring question(s)	Indicator(s)	Indicator rationale	Standard(s)	Monitoring method/ sources and schedule
Trail tread is sustainable	<ul> <li>Are the trails designed for their intended use?</li> <li>Are the trails maintained to minimize erosion and long-term solid tread?</li> </ul>	<ul> <li>Trail widening and braiding</li> <li>Evidence of erosion</li> <li>Design of trail: clearing width, clearing heights, tread width, grade, sight lines, turning radius</li> </ul>	<ul> <li>Sustainable trails retain their tread, and are maintained to minimize erosion</li> <li>Trails are designed and maintained for the permitted activity</li> </ul>	- Trails are not required to be maintained more than once per year. No increase in the width of trail tread  - The trail meets the trail development design standard	- Trail Development Guidelines - Reports from the Inspection and Grooming Programs
Damage to snowpack and tracks on winter ski and core fat bike trails from other users is minimized	- Is visitor use damaging roller packed or track set trails?	- Incidents reports on damage to snowpack on ski and core fat bike trails	- Damage to the snowpack on ski and core fat biking trails take time and resources to recover and can be a safety risk	- Remedial work because of damage to snowpack on ski/core fat bike trails is not required more than three times year	- Reports from the Inspection and Grooming Programs
Recreation use occurs only on the authorized trails and not in sensitive sites	- Is visitor use occurring outside of the authorized trails and on sensitive sites?	- Number of informal trails determined through biannual inspections  - Number of trail reports that include damage to sensitive sites	- Informal trails may occur on poor soils or sensitive vegetation that is easily damaged. This can indicate that the current trail system does not satisfy the desired visitor experience	- No more than one trail per year. A low threshold is needed given the resources required to reclaim trails and to ensure that informal trails are not increasing - No vegetation damage in sensitive sites because of recreation use	- Reports from the Inspection and Grooming Programs

<sup>&</sup>lt;sup>17</sup> Adapted from Ministry of Environment, 2006; Interagency Visitor Use Management Council, 2019; Government of Alberta, 2019.

Desired condition/ behaviour	Monitoring question(s)	Indicator(s)	Indicator rationale	Standard(s)	Monitoring method/ sources and schedule
Recreation use activities in West Bragg Creek allow for the coexistence of wildlife	- Is visitor use causing an impact to wildlife use? - Is visitor use managed to minimize humanwildlife conflicts?	- Number of reported encounters resulting in an alarm response	- Recreation use can have a negative impact on wildlife behaviour and result in displacement from preferred habitat, direct mortality, habituation and sensitization	- No increase in rate of alarm responses over time caused by recreation activities	- Record wildlife encounters reported to AFP and BCT
The West Bragg Creek parking area and trail system is kept free of litter and garbage	- Is visitor experience affected by litter and garbage? - Where is litter and garbage a concern?	- Per cent of sampled visitors who report being affected by litter and garbage - Observations of trail hosts and trail maintenance crews	- Prevalence of litter and garbage can contaminate the soil and be a wildlife attractant, leading to greater wildlife habituation/ sensitization to humans	- No more than 15 per cent of randomly sampled visitors report being affected by litter and garbage	- Recreation Use and Experience Survey (administered every five years)
High quality visitor experiences are maintained	- Are visitors satisfied with their experiences at WBC?	- Per cent of sampled visitors who report "reduced enjoyment" - Number of complaints to AFP and BCT on visitor use conflicts (emails, trail hosts, comments drop box) - User types on trails	<ul> <li>Incident reports of visitor use conflicts can be indication of negative visitor experience</li> <li>The assigned activity type should be appropriate to the demand for the trail</li> </ul>	<ul> <li>No more than 15 per cent of randomly sampled visitors report "reduced enjoyment" due to noise and behaviour from other visitors</li> <li>No more than 25 per cent of incident reports to BCT/AFP are about a particular visitor use conflict (in general or on a particular trail).</li> <li>User types on trails: no standard, supplementary indicator</li> </ul>	- Analysis of trail cameras, trail counters, Strava Metro - Recreation Use and Experience Survey (administered every five years) - Annually track the number of incidents reports to Trail Hosts, AFP and BCT email
Emergency incidents are declining in West Bragg Creek	- Are emergency incidents declining? - What are the preventative causes of incidents?	- Number of emergency incidents to West Bragg Creek	- Incidents can indicate trail condition issues that need to be addressed through maintenance	- Emergency incidents are declining in West Bragg Creek	- Record from Kananaskis Emergency Services and Redwood Meadows Emergency Services
Parking is managed to ensure safe access for emergency vehicles	- Is the parking at West Bragg Creek and Fullerton adequate for demand?	- Parking lot capacity	<ul> <li>Parking lots should be the main places for parking.</li> <li>Parking on the roadway creates public safety risk and may affect emergency vehicle access.</li> </ul>	<ul> <li>Parking lot is at full capacity less than 80 per cent of the time</li> <li>Parking areas are not more than 95 per cent full more than two days per week during the peak use period</li> </ul>	- Reporting from BCT - Traffic counters

Table 7: Corrective management action tactics and techniques

Desired condition/ behaviour	Management action tactics and techniques
Trail tread is sustainable	Reroute trails away from problem area and rehabilitate old trail segment  Educate visitors on when to avoid trails during muddy/wet conditions  Trail closures  Maintenance on tread  Revaluate the trail activity types, and design of trails (width, pull-outs)  Install signs that are more effective and improve educational materials about trail etiquette for specific user groups
Damage to snowpack and tracks on winter ski and core fat bike trails from other users is minimized	- Maintenance on tread     - Revaluate the trail activity types and designations, directionality and design of trails (width, pull-outs)     - Install signs that are more effective and improve educational materials about trail etiquette for specific user groups     - Enhanced enforcement to minimize damage from prohibited uses on trails in winter
Recreation use occurs only on the authorized trails and not in sensitive sites	- Educate visitors on sensitive resources and staying on trails - Rehabilitate trails as soon as possible - Restrict off trail travel - Close areas - Improve delineation of authorized trails
Recreation use activities in West Bragg Creek allow for the coexistence of wildlife	- Trail closures - Educate visitors on appropriate travel preparations and precautions ("pack in and pack out garbage", carry bear spray, stay a sufficient distance) - Apply additional time of day trail use restrictions
The West Bragg Creek parking area and trail system is kept free of litter and garbage	Increase the number of garbage bins and adjust the locations     Install signs that are more effective and improve educational materials about "pack in/pack out" and animal waste
Visitor use conflicts are managed to maintain high quality visitor experience	Install signs that are more effective and improve educational materials about trail etiquette for specific user groups     Revaluate the trail activity types, directionality and design of trails (width, pull-outs)     If related to off-leash dogs, consider restrictions for dogs off-leash for certain trails/seasons/areas and mandatory on-leash periods
Emergency incidents are declining in West Bragg Creek	Install signs that are more effective and improve educational materials about trail safety.      If related to off-leash dogs, consider restrictions for dogs off-leash on certain trails/seasons/areas and mandatory on-leash periods
Parking is managed to ensure safe access for emergency vehicles	- Install a real-time signage system in Bragg Creek to indicate full parking lots and post information online - Encourage users to go to other areas during peak times - Hire parking attendants during peak periods to manage traffic - Encourage private shuttle or transit options

#### **Evaluation**

Evaluation is a systematic assessment of the implementation or results of the Plan for the purposes of learning or decision-making<sup>18</sup>. Evaluation helps us to answer the question, "Are we doing the right thing?" It assesses the relevance, impact, sustainability, effectiveness and efficiency of the plan. An evaluation typically takes place at one or two time points during plan implementation: a review at the halfway point of implementation and a full evaluation at the end.

An evaluation is a collaborative process that starts by scoping out the evaluation criteria. Facilitated conversations to develop key questions that are based on the overarching vision and outcomes of the Plan will generate the data required to analyze the plan's performance or success. This data is augmented by the information derived from the monitoring framework.

Key questions for conducting a full evaluation of the Trails Plan should include:

- The perception of recreationists on recreational use and satisfaction;
- The perception of other stakeholders on conflict;
- State and impact of enforcement, education and outreach (change in practices and knowledge);
- The state of formal and informal recreation infrastructure (designated and undesignated trails, camping zones, staging areas, and day use areas);
- The economic impact of outdoor recreation-based tourism in the planning area;
- Impact to environment (land, water, air, biodiversity);
- The status of legislated requirements of the plan and/or direction from other plans and frameworks (e.g., the regional plan or land management plan); and
- The status of desired conditions and actions within the plan.

**Action:** AFP and BCT to monitor and evaluate the desired conditions and Plan implementation.

<sup>&</sup>lt;sup>18</sup> Based on the definition established by the Canadian Evaluation Society.

## **Implementation**

The West Bragg Creek Trails Master Plan provides long-term actions, including a variety of projects to enhance the trail network and recreation experience (see Table 9). Implementation of the proposed changes to the trail network will occur over a period of years as funding, approvals and/or other resources are secured. Some actions of the plan, such as the development of new trails, will require capital investments and volunteer resources, while other actions will be programming initiatives requiring primarily volunteer resources.

BCT is a "community minded, volunteer-run nonprofit" (Bragg Creek Trails, 2021) that has committed to maintaining and operating the trails in the West Bragg Creek area through a cooperating agreement with AFP. Except for a small number of paid staff, all operations by BCT are done by 80 to 120 volunteers who support the organization's work.

BCT requires significant fundraising to sustain its operations. This includes direct donations from individuals, charitable foundations, business, income from silent auctions/raffles, and sales from BCT branded merchandise at the Trail Centre. In-kind support from local business in the form of labour and equipment is also donated for trail work. AFP provides operational and capital grants periodically when available.

The implementation of this Trails Plan is dependent on the BCT's volunteer and financial sustainability. This means that if volunteer capacity falters or financial resources are limited, then the actions in this plan will need to be postponed or altered.

The following table represents the results of a prioritization exercise completed by the Planning Committee for the upgrading and reroutes of existing trails, and construction of proposed trails. The trails are grouped into the categories of short term (1-3 years), medium term (3-5 years) and long term (5-10 years) Generally, trails that minimize environmental impact, improve safety and reduce user conflict were prioritized first.

Table 8: Recommended prioritization of trail network additions and improvements

Trail	Prioritization
Boundary Horse	Short term
Fisher Link	Short term
Old Hostel Road	Short term
Snagmore-Elbow Winter Equestrian	Short term
Snowshoe Hare East	Short term
Snowy Owl	Short term
Snowy Shortcut	Short term
Sugar Pony	Short term
Middle Tom Snow	Short term
Telephone West	Short term

Trail	Prioritization
West Crystal Singletrack	Short term
West Meadow	Short term
Iron Horse	Short term
Iron Vista	Short term
#08 Rerouting of Snowy Owl Shortcut	Short term
#09 Mountain Road to Mountain View	Short term
#10 Mountain View /Snowy Shortcut	Short term
#3 Re-route Snowshoe Hare East	Short term
#12 Re-route end of Boundary Ridge	Short term
#11 Ranger to East Crystal Re-route	Short term
#02 Reconnect to Long Distance	Short term
#13 Sundog Ski Circuit	Short term
#05 Braggin Rights Twin	Medium term
#14 Snakes and Ladders to Snowy Owl	Medium term
Decommission Old Shell Road	Medium term
#04 Old Shell Road- Moose Single track	Medium term
#20 Elbow to Sugar Daddy	Medium term
#19 Sugar Daddy to Sugar Mama	Medium term
#17 Bobcat to Snakes and Ladders	Medium term
#18 Fullerton to Bobcat	Medium term
#1 East Telephone Single Track	Medium term
#15/16 Horseshoe Ridge/ Tom Snow Re-route	Long term
#7 Tom Snow Re-route #2	Long term
Decommission West Meadow South	Long term

The management actions and opportunities in this plan have not been scheduled for implementation. The actions in the plan are meant to be implemented by BCT and/or AFP, and unless otherwise stated, subject to time and resources. Opportunities are identified as examples of possible strategies to address a management issue, although their configuration during implementation may not be as originally envisioned.

Table 9: Operations and management actions and opportunities summary

Action/ Opportunity	Plan section page number
Trail Network Improvements	
Action: Plan, design and build a new, permanent trails centre in the West Bragg Creek PRA that serves as a place to gather, store equipment and deliver outdoor education for all trail users. A separate environmental review will be conducted for the trail centre. Inclusion of the trail centre concept in this document does not imply final approval.	29
Action: AFP to conduct an accessibility assessment of the West Bragg Creek and Fullerton parking lot and amenities.	29

Action/ Opportunity	Plan section page number
Trail Development, Grooming, Inspections and Maintenance	
Action: BCT and AFP will work together to develop the trail network as per the recommendations for new trails, trail reroutes, directionality, activity types and upgrading of trails in the trail network improvements section of the Plan.	33
Action: Develop and formalize a WBC Inspection Program with a standardized trail condition monitoring checklist and procedures.	37
Action: Ensure new trails follow the proper channels for approval and construction. Actively monitor, discourage, inform AFP and decommission unauthorized trail construction in the area.	38
Indigenous Perspectives and Reconciliation	
Action: Incorporate Indigenous perspectives and explore opportunities for Indigenous peoples to be part of ongoing trail planning, development and operations.	38
Opportunity: Partner with local Indigenous communities to facilitate youth field trips and youth trail building skills workshops, where Indigenous youth can learn hands-on the skill of trail building with BCT and AFP trail builders.	38
Opportunity: Partner with local Indigenous communities and organizations to develop education and outreach initiatives such as medicinal plant walks and interpretive events.	38
Opportunity: Through engagement with local Indigenous communities and organizations, install a cultural awareness sign or other structure that commemorates and acknowledges the Treaty, Indigenous history and cultural significance of the area.	38
Opportunity: Partner with Indigenous communities and organizations to host events at WBC, such as a teepee raising ceremony.	38
Opportunity: Through engagement with local Indigenous groups, use Indigenous words for some of the new trails or trails that are being renamed.	38
Opportunity: Share information and resources on Indigenous history, language and culture with trail users through BCT's newsletter.	38
Environmental Stewardship	
Action: Per best practice, limit trail development in riparian areas and ensure proper watercourse crossings.	41
Action: Through proper signage, trail reports and barriers, manage seasonal closures for areas that are unsuitable for use due to the ground being wet, flooded and subject to deep rutting and erosion from recreational and livestock use.	41
Opportunity: Through the West Bragg Collaborative Stewardship Group, collaborate to monitor the Reconnect site and remove the weeds. Education about weeds, week growth suppression, weed reporting and their removal will be shared with recreational trail users.	42
Action: Continue to engage climate change adaptation strategies and tactics for trail development, maintenance and management.	43

Action/ Opportunity	Plan section page number
Action: Continue to work on beaver coexistence and management strategies with Cows and Fish, AFP and other partners.	44
Action: Educate users about the time-of-day restrictions at West Bragg Creek, which are 11:00 p.m. to 7:00 a.m., complemented by enhanced law enforcement of the closure time.	45
Action: AFP will continue to close trails or areas when bears, cougars or other aggressive wildlife are seen.	45
Opportunity: BCT may install and manage a notice board at WBC trailhead so the public can list daily wildlife sightings.	45
Opportunity: BCT to formulate and conduct a wildlife monitoring and study project, in partnership with non-profit organizations and AFP that will provide information and recommendations to help guide management decisions on new trail construction, trail closures, trail re-routes, capital projects and WBC operations activities in order to protect wildlife and wildlife habitat.	45
Signage and Wayfinding	
Action: Implement a signage and wayfinding program that aligns with standards in this plan.	46
Communications and Education	
Action: Communicate conditions and messaging with AFP/Kananaskis to ensure the accuracy of BCT and AFP's online information.	48
Opportunity: BCT to develop and implement a trailhead community communication strategy – with a primary goal of fostering a community of respect and understanding between all trail users.	48
Opportunity: Host a trail fair inviting the users and the local residents to the event. The intent of the trail fair is to build a trail community and create awareness about respectful and safe recreation use in the area.	48
Opportunity: Update the BCT website and other communication methods on projects in development, those completed and associated costs (volunteer hours and donor funding).	48
Opportunity: Support organizations and educational institutions are interested and qualified to lead guided sessions to help people connect with to nature, history and culture in an "outdoor" classroom	49
Opportunity: Share news about local environmental stewardship projects (e.g., beaver management) with users and local residents through BCT's communication channels.	49
Opportunity: Extend the Interpretive Trail, preferably with additional Indigenous and environmental content (digital or signs).	49
Opportunity: Partner with organizations to facilitate youth field trips and youth trail building skills workshops, where youth can learn hands-on the skill of trail building with BCT and AFP trail builders.	49
Opportunity: Expand the Trail Hosts program, by increasing number of trail hosts and frequency of the program.	50
Opportunity: Create and build awareness about the codes of conduct for each user type (biker, hiker, skier, equine, snowshoe/hiker, e-biker, dog owner), in discussion with sport specific representatives.	50

Action/ Opportunity	Plan section page number
Opportunity: In partnership with other land users, seek opportunities to provide information to users on the local land uses through a variety of communication methods including online platforms, the BCT newsletter and Trail Hosts program.	50
Opportunity: Develop trail signage and communication materials encouraging users to stay on the designated trails and the risks of unauthorized trail development and use.	50
Safety and Enforcement	
Action: Educate visitors about the rules in the PRA and public lands and associated penalties.	51
Action: AFP to increase frequency of site visits by enforcement staff during peak times to enforce rules on the trails and in the PRA.	51
Action: Develop and distribute education materials on user preparedness for travel and emergency contacts.	52
Land Use Activity Collaboration	
Action: AFP to update the Land User Agreement to facilitate the process of cooperation, coordination and communication among disposition holders, and reinstate annual meetings (in the late fall/winter), which will be facilitated by AFP.	53
Monitoring and Evaluation	
Action: AFP and BCT to monitor and evaluate the desired conditions and plan implementation.	53

#### Review and future proposal considerations

The Planning Committee has done its best to make recommendations for trail network additions, improvements, management and operations for the next ten years. However, inevitably there will be additional ideas or projects that come forward in the future that planning has not foreseen at this time. These proposals will be considered by AFP and BCT on a case-by-case basis, provided they are consistent with the desired conditions in this plan, government policy and legislation.

The plan is intended to be reviewed every five years and updated every 10 years. During the review/update timeframe, the monitoring framework followed by plan evaluation should be conducted as outlined in the Plan Monitoring and Evaluation section to inform any changes to the network and management actions.

62

### References

- Alberta Environment and Parks. (2021). Recreation use and experience survey results: Elbow Valley summer 2020. Government of Alberta. Retrieved from https://open.alberta.ca/publications/recreation-use-and-experience-survey-results-elbow-valley-summer-2020
- Bragg Creek Trails. (2021). 2020 Annual Report. Retrieved from https://braggcreektrails.org/2020-annual-report/
- Bruntland Commission. (1987). *Our Common Future: Report of the World Commission on Environment and Development.* United Nations.
- Flotermersch, J., Leibowitz, S., Hill, R., Stoddard, J., Thoms, M., & Tharme, R. (2016). A Watershed Integrity Definition and Assessment Approach to Support Strategic Management of Watersheds. *River Research and Applications*, 1654-1671.
- Government of Alberta. (2019). *Trail Development Guidelines for Alberta's Public Land.* Edmonton, AB: Alberta Environment and Parks.
- Hancock, J., Vander Hoek, K. J., Bradshaw, Sunni, C. J., & Engelmann, J. (2007). *Equestrian Design Guidebook for Trails, Trailheads and Campgrounds*. Missoula, MT: USDA Forest Service.

  Retrieved from https://www.fhwa.dot.gov/environment/recreational\_trails/publications/fs\_publications/pdf/pdf07232816dpi72all.pdf
- International Mountain Bicycling Association. (2004). *Trail Solutions: IMBA's Guide to Building Sweet Singletrack.* International Mountain Bicycling Association.
- International Mountain Bicycling Association. (2007). *Managing Mountain Biking: IMBA's Guide to Providing Great Riding*. International Mountain Bicycling Association.
- International Mountain Bicycling Association and Bureau of Land Management. (2018). *Guidelines for Quality Trail Experiences*. Retrieved from International Mountain Bicycling Association: https://www.imba.com/sites/default/files/GQTE Digital Book Rev 6.11.18 high res.pdf
- United States Department of Agriculture and Forest Service. (2007). Equestrian Design Guidebook for Trails, Trailheads, and Campgrounds. Retrieved from Recreation Trails Program: https://www.fhwa.dot.gov/environment/recreational\_trails/publications/fs\_publications/07232816/index.cfm
- Whittington, J., Low, P., & Hunt, B. (2019). Temporal road closures improve habitat quality for wildlife. Scientific Reports, 9(3772), 11.

# Appendix A: Summary of trail management objectives for existing and proposed trails

Table 10: Existing trails

Existing Trail Name	Trail Description	Trail User Objectives 19	Trail Planning Notes (Management Actions, maintenance, signage etc.)
Access Trail	Access Trail from the Parking Lot to Ranger, Sundog West and East Crystal Junction	Connectivity	
Bobcat	Links Ranger Summit/Fullerton to Ridgeback/Tom Snow	Variety, Escape, Nature, Fun & Playfulness, Exercise	
Bobcat - Sugar Mama to Strange Brew	Link between Sugar Mama and Strange Brew	Escape, Nature, Fun & Playfulness, Exercise, Connectivity	
<b>Bobcat Connector</b>	Link between Fullerton and Bobcat	Connectivity, Escape	
Boundary Horse (W-Eq)	Parallels Boundary Ridge from parking lot to Iron Horse trail	Nature, Escape, Variety, Exercise, Solitude	Convert to year-round trail for hike/snowshoe/ equestrian use; minor route adjustments for areas that are prone to snow drifting; install posts or wayfinding markers. Not recommended for biking or fat biking.
Boundary Ridge (incl. connector across E Crystal)	WBC trailhead to Strange Brew and Snagmore	Escape, Nature, Fun & Playfulness, Exercise, Connectivity	Re-route trailhead; install warning signs on this trail about high speeds; TransCanada Trail. Equestrian use not permitted in the winter.

<sup>&</sup>lt;sup>19</sup> Descriptions of Trail User Objectives are in Government of Alberta, 2019.

Existing Trail Name	Trail Description	Trail User Objectives <sup>19</sup>	Trail Planning Notes (Management Actions, maintenance, signage etc.)
Braggin Rights	WBCPL to Long Distance, Merlin View/Reconnect	Nature, Fun & Playfulness, Exercise, Connectivity	TransCanada Trail; Directionality downhill only for bikes and speed mitigation measures on segment closest to parking lot; widen sections where passing is difficult; install warning signs on this trail about high speeds.
Bunny & equestrian links	Links from Equestrian lot to trail network	Connectivity, Safety	Continue to direct equestrian users on this trail from parking lot; multi-user trail.
Chickadee Loops	Easy Loops near WBC parking lot.	Nature, Connectivity	Year-round trail; improve signage about XC skiing priority in winter.
Crystal Line-East	WBC parking lot east to Sundog	Exercise, Escape	Install signage to indicate ski only in winter and discourage foot access from road; widen segments that are less than 6m.
Crystal Line-Middle	Links Sundog to upper West Crystal Line	Exercise, Escape	Year-round trail except for segment between Crystal Link #1 and #2 which will be closed in the summer to protect wetland and for trail user safety.
Crystal Line-West	WBCPL west loop to Moose Connector/Mountain View	Exercise, Escape	Additional signage to indicate ski only in winter; widen segments that are less than 6m.
Crystal Link #1	Links lower West Crystal Line to Middle Crystal Line	Exercise, Escape	Year-round trail; Additional signage to indicate ski only in winter.
Crystal Link #2	Links lower West Crystal Line to Middle Crystal Line	Connectivity	Additional signage to indicate ski only in winter.
Crystal Link #3	Links lower West Crystal Line to Middle Crystal Line	Connectivity	Year-round trail; Additional signage to indicate ski only in winter; widen and regrade Middle Crystal junction.
Crystal Link #4	Links lower West Crystal Line to upper West Crystal Line	Connectivity	Year-round trail.
Demi-Tel	Links Snowshoe Hare to Long Distance/Reconnect	Connectivity	Discontinue winter equestrian use on this trail.
Disconnect	From WBC parking lot to Long Distance north end	Connectivity, Escape, Exercise	

Existing Trail Name	Trail Description	Trail User Objectives <sup>19</sup>	Trail Planning Notes (Management Actions, maintenance, signage etc.)	
East Telephone (All-Season & XC ski)	East Side of Telephone Loop	Escape, Exercise, Nature, Variety	Create a separate multi-user single track to the west of trail between Long Distance and Disconnect; then convert Telephone Loop from Disconnect to Reconnect to ski only in winter.	
East Telephone (1st hill)	From WBC parking lot to Snowshoe Hare	Nature, Exercise, Connectivity, Solitude (for bike & hike)	Improve signage about how to share the trail.	
Elbow-Iron Spring Connector	Elbow to Iron Springs Connector	Connectivity		
Elbow - Fullerton parking to Iron Springs	Connects Iron Springs to Hwy #66 trailhead	Connectivity	Raise bridge by the parking lot; upgrade/possible minor re-routes to the trail to ensure proper drainage features and establish a properly constructed, hardened tread in a clearly defined corridor.	
Elbow – Sundog to Iron Springs	Connects Sundog to Iron Springs	Connectivity, Socializing, Exercise	Additional signage about XC ski only segments and multi-use at all intersections; improve sightlines at Strange Brew junction.	
Fisher Link (S)	From East Snowshoe Hare, across Hostel Loop, to East Telephone	Connectivity, Socializing, Exercise	Convert to year-round; additional signage to indicate pedestrian access only.	
Fullerton Loop	Pedestrian only ridge Loop which connects Elbow Trail to Bobcat	Connectivity, Variety, Exercise	Improve drainage; repair bridges and railings.	
Hostel Loop	Loop north of WBC parking lot, bisected by East Telephone.	Nature, Socializing, Exercise, Variety	Additional signage about xc ski only in winter.	
Hostel Meadow	Link between East Telephone & Hostel Loop.	Nature, Socializing, Exercise, Variety	Additional signage about xc ski only winter.	
Iron Creek Link (singletrack link)	Single track portion of Iron Creek (TCT), connects to Boundary Ridge	Socializing, Exercise, Connectivity	TransCanada Trail; permit equestrian use in the winter; rename Iron Creek	

Existing Trail Name	Trail Description	Trail User Objectives <sup>19</sup>	Trail Planning Notes (Management Actions, maintenance, signage etc.)	
Iron Creek/TCT (All season & XC ski)	Connects Iron Springs to RR#54	Connectivity, Variety, Exercise	TransCanada Trail	
Iron Horse	Parallels Iron Creek/TCT from 300m west of RR54 to Boundary Ridge	Connectivity, Socializing, Exercise (for hiking, biking)	Convert to year-round trail.	
Iron Springs & link	Connects East Crystal Line to south Elbow Trail	Connectivity, Solitude, Exercise, Escape	Address snow capture and retention issues through trail design and shade fencing.	
Iron Vista	Short loop to viewpoint from Iron Horse	Exercise, Escape, Solitude	Convert to year-round multi-user trail.	
Kestrel	Between north Merlin View & Tom Snow	Nature, Solitude, Escape, Variety, Exercise	TransCanada Trail	
Loggers	Connects Sundog to upper West Crystal Line	Nature, Solitude, Escape, Variety, Exercise, Fun & Playfulness	Additional signage about XC ski only at intersection with Ranger Summit; widen to 6m.	
Long Distance	From Braggin Rights to north corner of East Telephone Loop	Exercise, variety, escape, nature		
Merlin View	Ridge loop between Telephone and Moose Loop	Nature, Solitude, Escape, Variety, Exercise, Fun & Playfulness	Install signage about counterclockwise directionality for mountain biking on Merlin West. Uphill travel recommended for hikers and trail runners; install warning signs on this trail about high speeds.	
Moose Connector & Link	Connects West Crystal Line to Moose Loop/ Mountain Road	Escape, Fun & Playfulness, Exercise, Connectivity, Nature	On Moose Connector South, improve drainage to achieve at least a single track of dry tread for summer use; TransCanada Trail from Moose Link to Moose Loop; widen to 6m.	
Moose Loop (incl. overlap w/ Tom Snow)	Loop west of Telephone Loop, includes part of Tom Snow	Connectivity, Exercise	Install drainage ditches on either side of tread to make winter route useable in summer; widen to 6m at narrow areas.	
Moose Singletrack	Old Shell Road to Tom Snow northbound	Nature, Escape, Solitude, Exercise	Re-route Tom Snow onto this trail and rename to Chief Tom Snow	

Existing Trail Name	Trail Description	Trail User Objectives <sup>19</sup>	Trail Planning Notes (Management Actions, maintenance, signage etc.)	
Mountain Road (Year-Round & XC ski)	WBC parking lot to Mountain View West	Nature, Solitude, Escape, Variety, Exercise, Connectivity	Multi-use on first 300m when Snowy Owl is not accessible in winter then redirect non-skiers to Snowy Owl; additional signage; TransCanada Trail to Moose Connector.	
Mountain View	Connects West Crystal Line to Mountain Rd	Socializing, Exercise, Connectivity, Efficiency	Additional signage about XC ski only in winter; improve gate usability; widen to 6m.	
Mountain View West	Connects Mountain Road to Moose Loop	Nature, Exercise, Variety	Rename to avoid confusion with Mountain View.	
Old Hostel Road (S)	From East K-Country boundary to Snowshoe Hare	Nature, Escape, Solitude, Exercise	Convert to year-round multi-use; extend the Interpretive Trail down Old Hostel Road west side of creek for beaver dam viewing; decommission the trail east of the creek.	
Old Shell Road WMU	Links Mountain Road to Moose singletrack	Nature, Solitude, Socializing, Escape	Decommission Old Shell Road from Mountain Road to the height of land.	
Ranger Summit	WBC parking lot to Strange Brew/Bobcat	Connectivity	Install warning signs on this trail about high speeds (bottom) and slow to uphill traffic (top); decommission the end steep section; re-route at trailhead.	
Reconnect	Links Braggin Rights to Long Distance/Demi-Tel	Escape, Fun & Playfulness, Exercise, Connectivity, Nature	Discontinue winter equestrian use on this trail; realign to reduce steep slope on sections of the trail.	
Snagmore	Connects Boundary Ridge to Elbow Trail	Escape, Exercise, Connectivity, Nature		
Snagmore-Elbow (W-Eq)	Connects Snagmore to south Elbow	Escape, Fun & Playfulness, Variety, Exercise, Nature	Convert to year-round multi-use.	
Snakes & Ladders	Links Ranger Summit to Ridgeback	Connectivity, Efficiency	Create a few "walk-arounds" for hikers/equestrian at tight S-turns.	
Snowshoe Hare (W)	Loop north of WBC parking lot, around Hostel Loop, west of East Telephone	Escape, Fun & Playfulness, Exercise, Connectivity, Nature, Solitude	Improved signage at intersections indicating which trails are for winter multi- use and which are for XC skiing only; add physical barrier/gate to limit non- pedestrian traffic at Snowshoe Hare West/Hostel junction; discontinue winter equestrian on this trail; decommission southern short segment between Demi-tel and Telephone that is duplicated.	

Existing Trail Name	Trail Description	Trail User Objectives <sup>19</sup>	Trail Planning Notes (Management Actions, maintenance, signage etc.)	
Snowshoe Hare (E)	Loop north of WBC parking lot, around Hostel Loop, east of East Telephone	Escape, Exercise, Connectivity, Nature	Convert to year-round pedestrian only; small re-route to navigate natural drainage and crossings; possible board walks over wet sections; add physical barrier/gate to limit to pedestrians only.	
Snowy Owl WMU	Parallels Mountain Road, and connects to Ranger Summit Trail	Escape, Variety, Nature, Exercise	First 300m remains closed in summer; convert rest to year-round; re-route Snowy Owl from blue bridge to West Meadow to move out of wet areas; Ranger to Strange Brew closed in summer use until it can be upgraded.	
Snowy Shortcut WMU	Shorter link from Mountain Road to west Snowy Owl	Escape, Fun & Playfulness, Exercise, Connectivity, Nature, Solitude	Convert to year-round.	
Strange Brew	Links Ranger Summit/Bobcat to Boundary Ridge	Connectivity, Efficiency, Escape	Install warning signs at junctions with this trail about high speeds; install "yield" signs at Baruch's Corner and Sugar Daddy; rename segment west of West Crystal.	
Sugar Daddy	Connects Strange Brew to Snagmore	Fun & Playfulness, Exercise, Connectivity, Escape, Nature		
Sugar Mama	Connects Bobcat to Elbow/Snagmore	Nature, Escape, Exercise, Connectivity	Minor re-routes to avoid wet areas.	
Sugar Pony (W-Eq)	Connects upper Sugar Mama & Sugar Daddy	Fun & Playfulness, Exercise, Connectivity, Escape, Nature	Convert to year-round; construct a short section of bench-cut tread for equestrian safety; rename as not an equestrian only trail.	
Sundog	Loop south of WBCPL to Iron Springs & Elbow	Nature, Escape, Exercise, Connectivity, Safety	Additional signage about xc ski only segments and direction of multi-use trails at all intersections.	
Tom Snow (North, Middle, South)	This part links Moose Loop to Kestrel/new Tom Snow junction	Exercise, Escape, Socializing, Variety	Rename to Chief Tom Snow; create a continuous Chief Tom Snow through the network by renaming other trails; decommission segment of Tom Snow Middle that no longer connects year-round; Tom Snow north is part of the TransCanada Trail.	
West Telephone (WMU)	Connects East Telephone to Moose Loop	Nature, Escape, Exercise, Connectivity, Solitude	Convert to year-round; improve signage about how to share the trail.	

Existing Trail Name	Trail Description	Trail User Objectives <sup>19</sup>	Trail Planning Notes (Management Actions, maintenance, signage etc.)	
Watershed Heritage Interpretive Trail	Interpretive connector from East trailhead to Snowshoe Hare	Nature, Escape, Exercise, Solitude		
WBC Perimeter	Perimeter trail around WBC parking lot.	Nature, Escape		
West Crystal Singletrack	Adjacent to lower West Crystal XC ski trail.	Connectivity	Convert to year-round; rename and continue trail name to Snowy Shortcut.	
West Meadow (W- Eq)	Parallels Mountain Road from Snowy Owl/Moose Connector to Tom Snow	Exercise, Fun and Playfulness, Variety	Convert to year-round; construct bench cuts on short sections, as needed for safe footing; once proposed trails #15 and 16 are built, decommission the southern end of West Meadow by Mountain Road.	
Whitetail	Link from WBCPL to Long Distance/Braggin Rights	Nature, Escape, Variety	Keep as two-way; direct bikers to use this trail as an up track from the parking lot.	

Table 11: Proposed trails

Proposed Trail Number	Total Length (Metres)	Trail Description	Trail User Objectives	Winter Use Activity Types	Summer Use Activity Types
01	2901.5	East Telephone singletrack. East Telephone was originally conceived in the early 1980's as a very challenging cross country ski trail. It was also featured as one of the classic mountain bike trails in the early days of the sport. The portion of east Telephone roughly between Disconnect and Long Distance features a series of very steep, narrow descents and climbs combined with sharp corners. While these dips are challenging for skiers, they become hazardous when the snow tread contains bike ruts or boot prints or is icy or scraped bare. It can also be dangerous if a skier is descending while bikes, hikers or snowshoers are climbing in the opposite direction. The sharp dips are also frustrating for biking or hiking and therefore reduce the quality of the experience on the trail. The proposal is to create alternate singletrack trail along East Telephone. The singletrack trails would have easier climbing and descent angles and would have an enjoyable "flow" character. In the winter, it would allow for the separation of skiers and non-skiers onto separate alignments at the most difficult sites. In the summer, it would allow for separation of equestrians on the wider trail and other users on the singletrack trail. This trail will not be highest priority for winter grooming.	Variety, Connectivity	Hike/Bike/ Snowshoe	Hike/Bike/ Equestrian
02	51.5	Reconnect to Long Distance #2. This is a shortcut from the high point of Reconnect to Long Distance North. It short-cuts a descent and climb on Reconnect. It also provides a safer alternative route for fat-biking in the winter, when the final uphill segment of Reconnect becomes impassable due to snow drifts from the adjacent cut-block. This trail will be second priority for winter grooming.	Connectivity	Hike/Bike/ Snowshoe	Hike/Bike/ Equestrian
03	382.5	Re-route Snowshoe Hare East. This is a short re-route of Snowshoe Hare East around some wetter segments of the trail to allow for all-season use.	Safety, Nature	Hike/ Snowshoe	Hike
04	102.1	Old Shell Road – Moose Single Track. There is short segment where non-skiers are required to share the same trail alignment as Moose Loop. The proposal is to create a separate trail for ski and non-ski traffic. This trail will be first priority for winter grooming.	Connectivity	Hike/Bike/ Snowshoe/ Equestrian	Hike/Bike/ Equestrian
05	2748.9	Braggin Rights twin. This trail will be a multi-user trail, and uphill only for mountain bikers, paralleling Braggin Rights. It will serve as a viable alternative to Braggin Rights, which is the busiest trail in the network connecting users to the western and northern network trails. The new trail will reduce user volume and improve safety on Braggin Rights. The new trail will take over the alignment of Braggin Rights for a few 100m, which will be moved upslope for a few hundred metres at that point. The trail will extend from west of the trail centre to Meadow at the top of Old Shell Road. It will cater to beginner hikers and mountain bikers and be available for winter equestrian use. This trail will be first priority for winter grooming.	Exercise, Fun and Playfulness	Hike/ Bike/ Snowshoe/ Equestrian	Hike/Bike/ Equestrian

Proposed Trail Number	Total Length (Metres)	Trail Description	Trail User Objectives	Winter Use Activity Types	Summer Use Activity Types
06	382.5	Re-route to end of Braggin Rights. The proposed trail #5 Braggin Rights twin would take over a portion of Braggin Rights and Braggin Rights will be realigned higher upslope. It will have a similar feel and construction to the existing portion of Braggin Rights. This will be the main downhill route for bike riders to the parking lot. The final section of Braggin Rights will also be rerouted and would have features on the trail to slow user speed before existing the trail to the trailhead.	Nature, Fun & Playfulness, Exercise, Connectivity	Hike/Bike/ Snowshoe/ Equestrian	Hike/Bike/ Equestrian
07	1154.0	Tom Snow re-route #2. Middle Tom Snow currently is shared with the south and west side of Moose Loop ski trail. Since Moose Loop is groomed only for XC skiing in the winter, this presents a user conflict problem for any non-skiers who want to continue through on Tom Snow trail. The proposal is to create a separate alignment for Tom Snow that connects to Old Shell Road, crossing at the Moose Loop/Moose Connector intersection, and then to rename Moose Singletrack as Tom Snow trail. This would allow all of Tom Snow Trail to be used year-round as a multi-user trail. And it would provide better loop options from the WBC parking lot. This trail is conditional on the upgrade of Middle Tom Snow to an all-season trail. This trail would not be prioritized for winter grooming.	Variety, Connectivity	Hike/Bike/ Snowshoe/ Equestrian	Hike/Bike/ Equestrian
08	807.1	Reroute to segment of Snowy Shortcut between West Crystal Singletrack and Moose Connector to move the trail out of wetter segments of the trail to allow for year-round use.	Connectivity	Hike/Bike/ Snowshoe/ Equestrian	Hike/Bike/ Equestrian
09	94.1	Mountain View to Mountain Road. This is the existing alignment of an old wellsite road. In the winter, it would create a short-cut for skiers who want to return to Mountain Road, without skiing all of Mountain View. This trail will be groomed with double tracks for skate and classic skiing.	Connectivity	Ski	Hike/Bike/ Equestrian
10	133.9	Mountain View/Snowy Shortcut. There is short segment where Snowy Shortcut and Mountain View share the same trail alignment to cross through the Bragg Creek East/West cattle fence line. The proposal is to create separate trails for ski and non-ski traffic. This trail should be renamed. This trail will be first priority for winter grooming.	Connectivity	Hike/Bike/ Snowshoe	Hike/Bike/ Equestrian
11	246,5	Ranger to East Crystal. This is a reroute to the ending of Ranger Summit trail, allowing for a more gradual climb and descent so that users will no longer take the steep downhill before Ranger-East Crystal junction. It uses an existing old road alignment for portions of it. Once built, the steep hill at trailhead of Ranger should be decommissioned.	Safety	Hike/Bike/ Snowshoe	Hike/Bike/ Equestrian
12	84.3	Rerouted start/end of Boundary Ridge. This trail would allow users on Boundary Ridge to cross perpendicularly to East Crystal at the top of a hill and descend along the north side of	Safety	Hike/Bike/ Snowshoe	Hike/Bike/ Equestrian

Proposed Trail Number	Total Length (Metres)	Trail Description	Trail User Objectives	Winter Use Activity Types	Summer Use Activity Types
		East Crystal to the bridge on Boundary Horse. The reroute will separate users and eliminate the need for non-skiers to travel down East Crystal.			
13	340	Sundog Ski Circuit. This loop will be groomed in the tame pasture grassland that used to have a gas well. The loop will provide opportunity for recreational and performance-oriented skiers alike to improve their technique on a flat groomed track. No tread needs to be made; some mowing of grass in late fall may be needed.	Challenge, Exercise	Ski	None
14	2508.5	Snakes & Ladders to Snowy Owl. In winter 2021 an unauthorized snowshoe/fat-bike route appeared, which connected the Snakes & Ladders bridge to Snowy Owl via Ranger Creek. Most of the route followed the 1913 Elbow to Jumpingpound Telephone Line and an existing logging road that extends from Snowy Owl. The route appeared to be very popular, and dramatically increased the use of Snakes & Ladders. But it is unsustainable, as it is in the Ranger Creek riparian zone and has 8 unbridged crossings of Ranger Creek. The proposed alignment achieves the same trail connection objective but follows an escarpment edge well above the Ranger Creek valley. Combined with the previous proposed trail, it would allow for a variety of loop options that include Snakes & Ladders, Bobcat, Ranger Summit and Snowy Owl. The trail will be optimized for beginner advanced users and provide an alternate route back to the parking lot from Snakes and Ladders if users are tired or for maintenance and emergency access. This trail will be second priority for winter grooming.	Variety, Connectivity	Hike/Bike/ Snowshoe	Hike/Bike/ Equestrian
15	3844.9	Horseshoe Ridge-west of middle Tom Snow. Most of the horseshoe shaped ridge west of Tom Snow and north of Mountain Road was logged in 2014 by SLS. A trail roughly following the ridge-crest would extend the West Meadow Horse Trail to create a longer loop and a viewpoint destination. This trail will be lower priority for winter grooming.	Variety, solitude, nature	Hike/Bike/ Snowshoe/ Equestrian	Hike/Bike/ Equestrian
16	457.4	Tom Snow re-route #1. The south half of the Horseshoe Ridge loop is partially on an old cutline. This is a well-constructed and well drained bench-cut, and it extends westward to intersect Mountain View West. If Tom Snow trail were re-routed onto this cutline, it would provide user separation between skiers on Mountain Road and non-skiers on Tom Snow. The route is also more scenic than Mountain Road, for year-round use. This trail will be lower priority for winter grooming.	Connectivity	Hike/Bike/ Snowshoe/ Equestrian	Hike/Bike/ Equestrian
17	1035	Bobcat to Snakes & Ladders. The proposed route would be located at the upper end of the terrace on the east side of Ranger Creek, along the base of "Ranger Ridge." This connection would allow users to make a loop out of Snakes & Ladders and Bobcat, without the climb up to Ridgeback. Or to make a Bobcat-Snakes & Ladders-Ridgeback loop from the Station Flats trailhead. This connection would increase the trail options from Station	Variety, Connectivity	Hike/Bike/ Snowshoe	Hike/Bike/ Equestrian

Proposed Trail Number	Total Length (Metres)	Trail Description	Trail User Objectives	Winter Use Activity Types	Summer Use Activity Types
		Flats and should be done after Station Flats parking area improvements. This trail will lower priority for winter grooming.			
18	2634.2	Fullerton to Bobcat. This trail would start from Elbow Trail near the bridge and follow the base of the "Fullerton Loop" hillside, on the northwest side of the cattle fence above the flat meadow. For trail users starting from Fullerton Trailhead, either one would create a variety of loop options that could include Fullerton Loop, Sugar Mama, Sugar Daddy and Bobcat. This trail will accommodate beginner hikers and mountain bikers and permit year-round equestrian use. This trail will be lower priority for winter grooming.	Variety, Connectivity	Hike/Bike/ Snowshoe/ Equestrian	Hike/Bike/ Equestrian
19	302.7	Sugar Daddy to Sugar Mama. After following a short segment of Sugar Daddy, this link would continue the singletrack connection across to Sugar Mama. The result would be a complete single-track loop with Snagmore. Being drier and more scenic, it would provide a much better single track trail experience. It would also allow users to complete a Sugar Daddy-Sugar Mama Loop, without the Snagmore section. The trail will encourage nonskiers to stay off the Elbow Trail, reducing winter user conflict. This trail will be lower priority for winter grooming.	Connectivity	Hike/Bike/ Snowshoe/ Equestrian	Hike/Bike/ Equestrian
20	355.6	Elbow to Sugar Daddy. This is a singletrack continuation of the previous trail. It would allow hikers, bikers and equestrians to connect Snagmore to Sugar Daddy, without travelling on the Elbow Trail. The trail will encourage non-skiers to stay off the Elbow Trail, reducing winter user conflict. This trail will be lower priority for winter grooming.	Connectivity	Hike/Bike/ Snowshoe/ Equestrian	Hike/Bike/ Equestrian

# Appendix B: Signage types and content standards

The description and content for each type of signage is provided below.

### Wayfinding: Trailhead kiosks

There are eight trailhead kiosks around the parking lot to provide information to users at the entrances to the network.

Trailhead kiosks should include:

- topographical map of network area with scale;
- alternating seasonal maps with permitted/non-permitted activity types, location of trail heads, junctions, other network entrance locations and "you are here" indication;
- main trail name in large font at the top of the kiosk, visible from a distance;
- instructional information on appropriate use and etiquette in the area;
- safety information;
- emergency contact;
- trail condition (trail centre kiosk only);
- rules and regulations;
- applicable logos; and
- use at your own risk disclaimer.

The maps on the trailhead kiosks match the orientation of the kiosk.

### Wayfinding: Trailhead/junction signs

Trailhead signs are used to mark the entrance to a particular trail and provide users with adequate information to make informed decisions about using the trail.

Junction signs mark junctions with two or more trails and help the user to navigate along their preferred trail.

Trailhead/junction signs should include:

- topographical map of network area with scale;
- Finer scale than overall network map to aid with navigating (e.g., north, center, south of network);
- alternate seasonal maps;
- map includes trail names, legend with permitted/non-permitted activity types, and "you are here" indication:
- features such as picnic tables, look out spots can be marked on the map,
- · use at your own risk disclaimer; and
- applicable logos

The location of the trailhead/junction signs should match the orientation on the map.

### Wayfinding: Enroute signs

Enroute signs provide users with trail specific information at junctions to help with navigation. Additional enroute signs may be placed where the route is difficult to follow.

Enroute signs are placed within *10m* of trailhead signs and junction signs and as needed for easy wayfinding.

Enroute signs should include:

- trail name at top;
- graphic representation of purpose of trail if applicable (e.g., interpretive trail);
- permitted and non-permitted activity types depending upon the season, with dates (in graphics with text below); and
- direction of travel information, if needed.

### Wayfinding: Navigation/directional signs

Orange and white trail markers, also called blaze markers, are used to help users find the trail where the route may be difficult to follow and are traditionally a diamond shape (no trail names or activities).

### **Advisory**

Advisory signs may or may not be regulatory in nature. These signs give information on potential dangers, warnings on hazardous conditions and boundaries. They give notice, warn or alert users of dangers; to themselves or to a resource or area (e.g., area closures, sensitive areas, wildlife dangers, steep hill).

Warning Signs/Posters should include:

- safety colours yellow and black;
- text explanation of the warning; and
- date if it is a temporary closure.

### **Educational signs**

Educational signage on the trail etiquette for different activity types is placed along shared use trails. Signage uses graphics and text to explain to users how to share the trail. It includes who yields to who on the trail, etiquette when crossing trails, and etiquette relative to direction of travel (up or down).

### Interpretive signs

Interpretive signage tells a story and provides in-depth explanations and graphics to engage an audience about an environmental or cultural feature. Design flexibility is allowed to complement the context.

# Appendix C: West Bragg Creek dog owner code of conduct

Dogs visiting WBC are expected to not interrupt the enjoyment or safety of other users.

For the purposes of the below, 'owner' refers to the person in charge of the dog while in the West Bragg Creek area.

Users who bring dogs to West Bragg Creek are expected to abide by the regulations of the Provincial *Parks Act, the Trails Act,* the *Public Lands Act,* and the *Wildlife Act.* 

The regulations within the Provincial Recreation Area are:

- dogs must be leashed with the Provincial Recreation Area.
- defecation: owners of dogs must remove animal defecation immediately and dispose of it properly.
- dogs are not permitted in any area where signs are posted prohibiting animals or in any public structure, including washrooms.

Dogs are permitted off leash with the Public Land Use Zone except where signs are posted prohibiting animals.

Under the *Wildlife Act*, dogs are defined as privately owned animals that are not permitted to harass wildlife or destroy wildlife habitat.

Under the *Trails Act*, dogs are required to be under control on Provincial trails.

Owners are fully liable for the behavior of their dogs. Where an incident involving a dog occurs, the owner is responsible for all damages.

Aggressive behavior towards any human or dog users is not tolerated at any time. Should there be any question as to whether a dog is aggressive or not, BCT strongly recommends that dog owners who use West Bragg Creek should get certified via the <u>Canine Good Neighbor Program</u>.

### Recommended dog maximums per user:

- One dog if skijoring.
- Two dogs per user, to a maximum of four per user group.

### General etiquette:

- Recall
  - Dogs are expected to always have excellent recall, in sight and under voice control.

- Dogs are expected to be within 10m of their owner at all times.
- Should the above not be the case, users are expected to always maintain dogs on leash. Leashes must be physically affixed to the user, should not exceed 3m in length and should not be retractable.

### Defecation

 Users are expected to remove dog waste immediately off the trail surface and dispose of it properly in a trash bin at the parking lot, no matter the distance from the trailhead.

### Visibility/ audibility

- Dogs are recommended to have a light on their body while in the dark.
- Dogs should also carry a bear bell/audible signal at all times.

### Skijoring

- o Skijorers must slow down and announce their presence when passing other skiers.
- Skijoring lines should be no more than 3m before stretch.
- It is the responsibility of the skijorer to prevent their dog and line from interfering with other users.
- lt is also the responsibility of other dog owners from interfering with skijorers.
- Dog sledding is not recommended.

### Skiing

- o It is encouraged for dogs to run reliably to the side slightly in front of the owner.
- When encountering another skier, dogs should be by owner's side.

# Appendix D: Engagement summary

### **Engagement Phase 1**

From December 8, 2021 to January 24, 2022, Phase 1 of the Trails Plan engagement was conducted via Alberta.ca through a survey and an interactive mapping tool.

### Objectives:

- Educate users, Indigenous peoples and stakeholders about trail planning in West Bragg Creek.
- Obtain feedback on the draft Terms of Reference, including the purpose, objectives, principles, and planning considerations.
- Obtain feedback on the existing trail network.

In total, 860 survey responses were collected through the survey and 397 pins were dropped on the interactive mapping tool during Phase 1 of the engagement. Respondents provided 2,180 comments through the survey, in addition to the 397 comments provided with the pins in the interactive mapping tool, and generally considered the draft Terms of Reference to be comprehensive.

Respondents were generally supportive of the draft Plan Purpose, Objectives, Principles and Planning Issues and Concerns, with between 77-93 per cent of respondents being somewhat or very supportive of each section. Suggestions provided focused primarily on ways to improve the clarity of the Terms of Reference components, add in missing ideas and provide greater emphasis on other elements such as trail connectivity, environmental impact, and signage. Respondents also indicated they appreciated the interactive mapping function as a way of commenting on trails and making recommendations to improve the network. The Alberta government considered the advice collected through this phase of the engagement when revising the Terms of Reference and drafting the Trails Plan.

#### Results

### Online survey

Question	N =	Strongly Supportive	Somewhat Supportive	Neither Satisfied nor Dissatisfied	Somewhat Unsupportive	Very Unsupportive
To what degree do you support the purpose statement for the trail plan as written?	851	74%	17%	2%	3%	4%

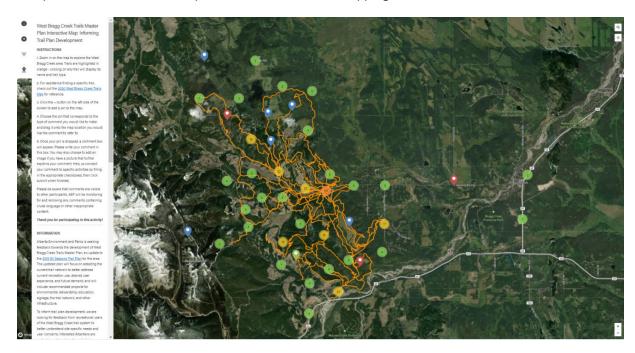
Objective	N =	Very Satisfied	Somewhat Satisfied	Neither Satisfied nor Dissatisfied	Somewhat Dissatisfied	Very Dissatisfied
Objective 1 - To characterize recreation use, experience and demand in the area	854	66%	25%	4%	2%	3%
Objective 2 - To evaluate the existing trails and trail system	852	74%	19%	3%	2%	3%
Objective 3 - To recommend a comprehensive trail system	849	70%	18%	4%	4%	4%
Objective 4 - To improve the system of signage and wayfinding, and identify education strategies	849	69%	19%	7%	2%	3%
Objective 5 - To recommend collaborative strategies and actions to mitigate impacts or conflicts with other land users	849	58%	23%	9%	5%	6%
Objective 6 - To follow best practices for sustainable trail building, maintenance and management to address the environmental impact of trails and trail use	846	73%	18%	3%	2%	3%
Objective 7 - To evaluate and make recommendations to address the impact of the Trail Plan on the maintenance and management of the trail system	838	67%	22%	7%	2%	3%
Objective 8 - To identify opportunities for future planning processes to improve trail connections across the region	840	70%	18%	6%	2%	4%

Principles	N =	Very Satisfied	Somewhat Satisfied	Neither Satisfied nor Dissatisfied	Somewhat Dissatisfied	Very Dissatisfied
Ecological and Land Use Integrity	842	61%	20%	6%	7%	6%
Alignment with Current Regulations, Plans, Policies and Guidelines	839	52%	25%	13%	6%	5%

Principles	N =	Very Satisfied	Somewhat Satisfied	Neither Satisfied nor Dissatisfied	Somewhat Dissatisfied	Very Dissatisfied
Safe, Sustainable and Enjoyable Trails	839	67%	19%	6%	5%	3%
Trail Management	840	63%	23%	6%	5%	3%
Stewardship and Collaboration	829	59%	24%	7%	5%	5%

# Online Places Map Tool

364 pins and comments were placed in the interactive mapping tool.



# **Engagement Evaluation**

Question	N =	Very Satisfied	Somewhat Satisfied	Neither Satisfied nor Dissatisfied	Somewhat Dissatisfied	Very Dissatisfied
Please let us know your level of satisfaction with the survey.	594	45%	37%	9%	6%	2%

## **Engagement Phase 2**

From September 28, 2022 to November 16, 2022 Phase 2 of the Trails Plan engagement was conducted via Alberta.ca through a survey and an interactive mapping tool.

### Objectives:

- Obtain user and stakeholder feedback on the draft plan to inform trail plan finalization.
- Identify issues and features of interest associated with the current West Bragg Creek trails system and shared recommendations for improvements.

In total, 600 survey responses were collected through the survey and 493 pins were dropped on the interactive mapping tool during the second phase of engagement. Respondents provided 628 comments through the survey, in addition to the 493 comments provided with the pins in the interactive mapping tool, and were notably supportive of the draft plan, with 84 per cent of respondents indicating they were somewhat or very supportive.

Slightly more than half (55 per cent) of survey commented on the Operations and Management sections of the draft plan, with most (52-72 per cent) respondents being supportive of the sections Those sections with fewer 'supportive' responses, such as the Land Use Activity, Monitoring and Evaluation, and Indigenous Perspectives and Reconciliation sections, had very high levels of neutral responses.

Survey respondents also commented generally on the proposed trails via an open-ended question and by participating in the interactive mapping activity. Comments were categorized as trail feedback, signage, funding, enforcement and safety, access, infrastructure and services, activities, plan and process, survey, and other. Respondents expressed appreciation for the interactive map, which allowed for feedback on specific existing or proposed trails and the ability to make recommendations on how to improve the network. This feedback was considered by the Planning Committee as it developed the final plan. Overall, most respondents (85 per cent) were very satisfied or somewhat satisfied with the engagement survey.

The Alberta government considered the feedback from the public and integrated suggestions where appropriate in the final West Bragg Creek Trails Master Plan.

### Results

### Online Survey

Objective	N =	Very Satisfied	Somewhat Satisfied	Neither Satisfied nor Dissatisfied	Somewhat Dissatisfied	Very Dissatisfied
Please provide your level of support for the directionality	557	59.8%	26.8%	2.9%	5.6%	5.0%

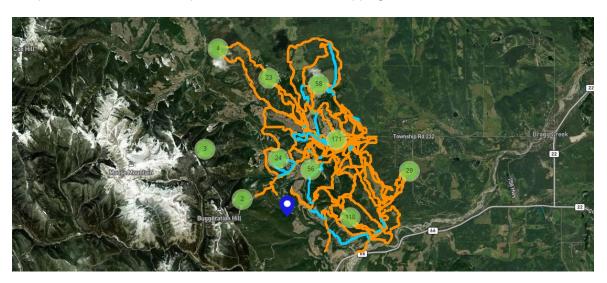
Objective	N =	Very Satisfied	Somewhat Satisfied	Neither Satisfied nor Dissatisfied	Somewhat Dissatisfied	Very Dissatisfied
trail use section as currently written in the draft plan.						
Please provide your level of support for the permitted/prohibited activity types trail use section as currently written in the draft plan.	550	50.9%	33.3%	5.5%	5.5%	4.9%
Please provide your level of support for the year-round and winter-only trails trail use section as currently written in the draft plan.	549	56.3%	29.9%	7.5%	2.9%	3.5%
Please provide your level of support for the winter equestrian trail use section as currently written in the draft plan.	550	26.7%	20.7%	37.3%	8.4%	6.9%
Please provide your level of support for the facilities section as currently written in the draft plan.	412	51.5%	30.3%	4.6%	9.0%	4.6%

Question	N =	Supportive	Neither Supportive or Unsupportive	Unsupportive
How do you feel about the list of actions in the Trail Development, Grooming, Inspections and Maintenance section?	330	68.9%	21.0%	10.1%
How do you feel about the list of actions in the Indigenous Perspectives and Reconciliation section?	327	56.4%	37.6%	6.1%
How do you feel about the list of actions in the Environmental Stewardship section?	327	66.1%	21.1%	12.8%
How do you feel about the list of actions in the Signage and Wayfinding section?	326	72.2%	22.9%	4.9%
How do you feel about the list of actions in the Communications and Education section?	329	64.4%	27.0%	8.6%
How do you feel about the list of actions in the Safety and Enforcement section?	321	56.8%	28.3%	14.9%
How do you feel about the list of actions in the Land Use Activity Collaboration section?	327	51.7%	43.3%	5.0%

Question	N =	Supportive	Neither Supportive or Unsupportive	Unsupportive
How do you feel about the list of actions in the Monitoring and Evaluation section?	330	53.5%	41.0%	5.5%

### Online Places Map Tool

493 pins and comments were placed in the interactive mapping tool.



In addition to comments on specific trails, comments were also provided on the following topics:

- parking/transportation
- amenities/services
- trail use
- RR54 trail access
- dogs

- trail connections to other networks
- environmental stewardship
- operations
- out of scope

## **Engagement Evaluation**

Question	N =	Very Satisfied	Somewhat Satisfied	Neither Satisfied nor Dissatisfied	Somewhat Dissatisfied	Very Dissatisfied
Please let us know your level of satisfaction with the survey.	585	47.7%	37.3%	8.5%	4.3%	2.2%