

United Riders of Crowsnest Club Trail Management Plan

July 2023



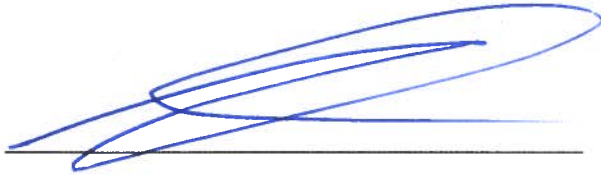
Alberta



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United Riders of Crowsnest Club Trail Management Plan
July 2023
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Endorsement of the United Riders of Crowsnest Club Trail Management Plan

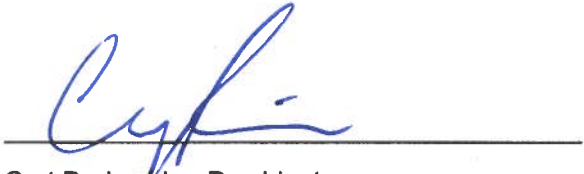
This Trail Management Plan is hereby endorsed by



Rob Simieritsch, Executive Director
Lands Delivery and Coordination South Branch
Lands Division
Forestry and Parks

26/09/2023

Date



Curt Derbyshire, President
United Riders of Crowsnest

29/09/2023

Date

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Document Convention

For clarity, we define terms within the Plan as follows:

- “Designated Trail” to mean a designated trail under the Trails Act section 4(1)(a) or (b).
- “Plan” to mean this document.
- “Provincially Designated Trail” to mean a Provincial Trail as designated under the *Public Lands Act*, or a Designated Trail as designated under the *Trails Act*.
- “Public Lands” to mean those lands within the Livingstone Public Land Use Zone
- “Recognized Mountain Biking Trail(s)” or “Recognized Trail(s)” for short, to mean the trails identified in Appendix A - Trails and shown as labeled trails on the Plan’s trails atlas. Recognized Trails are existing landscape disturbance that has been maintained, modified and/or enhanced through Temporary Field Authorizations (TFA) and developed for the purposes of mountain biking, authorized by Forestry and Parks (FP). Recognized Trails are also identified as those trails proposed for designation as Provincial Trails, under the *Public Lands Act*, as part of this Plan.
- “Proposed Mountain Biking Trail(s)” or “Proposed Trail(s)” for short, to mean the trail development opportunities identified in Appendix A - Trails and shown as labeled trails on the Plan’s trails atlas. They are trails that do not yet exist or may exist in some capacity but are not recognized by Forestry and Parks (FP) as being authorized mountain biking trails. Proposed Trail alignments are conceptual in nature and will not be developed without additional planning, design and regulatory approval. Proposed Trails are not to be included in Provincial Trail designation as part of this Plan.
- “Provincial Trail” means an area of public land designated as a provincial trail under section 71.01(1) of the *Public Lands Act*.
- “Trail network” and “trail system” are used interchangeably and are, for the purposes of the Plan, defined as a group of interconnected trails or trails within a localized geographic area that can be used individually or collectively for recreation.
- “Mountain biking trail” is a trail where mountain biking is the preferred or sole use activity occurring on the trail.
- There are many other trails, some of which are integral to functional mountain biking trail networks, which will be referred to as “existing trails”, “existing multiuse trails” or “other trails”.

UROC does not currently manage any mountain biking trails. UROC operates trails at the Pass Powderkeg, Blairmore location, under a Trail Operating Agreement with the municipality and maintains trails within the Livingstone PLUZ south of Highway 3 through maintenance TFAs issued by Forestry and Parks. UROC also informally maintains a few short sections of trail on private land.

Acronyms

AEP	Alberta Environment and Parks
DFO	Department of Fisheries and Oceans Canada
DRS	Departmental Reservation
GLIMPS	Geographic Land Information Management Planning System
FMA	Forest Management Agreement
FMU	Forest Management Unit
FP	Forestry and Parks (also referred to as “the department”)
FWIMT	Fish and Wildlife Internet Mapping Tool
FWMIS	Fish and Wildlife Management Information System
GOA	Government of Alberta
IMBA	International Mountain Bicycling Association; also, IMBA Canada, the Canadian affiliate.
MCNP	Municipality of Crowsnest Pass
MDP	Crowsnest Municipal Development Plan
PLUZ	Public Land Use Zone
PP	Provincial Park
PRA	Provincial Recreation Area
RFR	Request for Review
RMP	Livingstone-Porcupine Hills Recreation Management Plan
RMU	Recreation Management Unit (Livingstone-Porcupine Hills RMP)
ROW	Right of Way
SSRP	South Saskatchewan Regional Plan
TFA	Temporary Field Authorization
TMO	Trail Management Objective
TPU	Trail Planning Unit
TTF	Technical trail feature – usually a skill testing feature, natural or man-made
UROC	United Riders of Crowsnest Club
WPP	Wildland Provincial Park

Introduction

United Riders of Crowsnest (UROC) is the local mountain biking club working to develop and maintain mountain biking trails in the Municipality of Crowsnest Pass (Crowsnest Pass). UROC's efforts have built a strong local mountain biking community and Crowsnest Pass continues to grow in popularity as a destination for single day and multi-day trips.

The United Riders of Crowsnest Club Trail Management Plan (hereinafter referred to as the Plan) catalogues Recognized Mountain Biking Trails on Public Lands within Crowsnest Pass and identifies Proposed Trail developments to increase recreational opportunity, improve quality of life for residents and further enhance the area as a renowned tourist destination.

Within the Municipality of Crowsnest Pass, there are approximately 1,000 km of trails, of all types, on both public and private land (Lucas, 2022). Including nearby regions, over 300 km of trails have been identified as of interest for mountain biking.¹ UROC currently operates or maintains approximately 54 km of mountain biking trail on a combination of public, municipally owned and private land in Crowsnest Pass.

This Plan catalogs approximately 33 km of Recognized Trails, for future potential Provincial Trail designation, and details an additional 36 km of new proposed mountain biking trail opportunity on Public Lands. The Plan also describes opportunity for the development of a route meeting qualification criteria for an International Mountain Biking Association (IMBA) recognized Epic (a further 33 km for the Epic and related access trails).

Plan Purpose and Scope

This Plan has been developed observing guidance provided in the *Draft Guide for Developing Trail Management Plans on Public Lands* (version 11) to demonstrate that Recognized Trails have undergone a planning process considerate of all necessary components for ensuring sustainable recreation trails on public land. The Plan has been prepared to support potential future designation of FP recognized mountain biking trails (Recognized Trails), occurring on Public Lands within Crowsnest Pass. The Plan also presents the opportunity to appoint UROC to act as a Trail Manager for those trails through a potential future Trail Agreement. Within this Plan, the term Recognized Trail(s) is to be understood as existing disturbance trails, authorized by FP, that are being maintained and enhanced for seasonal mountain biking through Temporary Field Authorizations.

¹ <http://www.trailforks.com>

The Plan has also been prepared as a record of potential new trail developments (Proposed Trails) that are jointly supported, in concept, by both FP and UROC. Within this Plan, the term Proposed Trail(s) is to be understood as concepts which require further definition and may be included for approval in subsequent Trail Management Plans. The Plan will support decision making regarding new trail development and provide objectives to be implemented through future Trail Management Plans.

The scope of the Plan is describing Recognized Trails and Proposed Trails which will enhance seasonal mountain biking, occurring between May and October, on Public Lands within Crowsnest Pass. The Plan provides a detailed overview of Recognized Trails and Proposed Trails to present a complete picture of the trail network opportunity over the next 10 years. The Plan also describes high level considerations requisite to trail project approval.

Forestry and Parks is under no obligation to approve development of any Proposed Trail discussed within the Plan, nor does this Plan obligate UROC in any way to manage Recognized Trails or construct Proposed Trails.

Trails and trail grooming specific to fat biking is not included within the scope of this Plan. Trail use may continue during winter months for a variety of recreational activities. However, winter trail management will not be considered a responsibility of UROC. Mountain biking trails on adjacent municipal and private land are shown on maps to illustrate connectivity and support the rationale for Recognized and Proposed Trails on Public Lands but are otherwise not considered within the scope of the Plan.

Plan Objectives

1. Catalogue Recognized Trails for potential future designation.
2. Identify prospective locations for Proposed Trail development.
3. Consider desired user experiences, recreation setting, regional opportunities and land use constraints when identifying trail management objectives for Recognized Trails and Proposed Trail opportunities.
4. Recognize strategies to avoid, minimize or mitigate environmental, cultural and historic resources sensitivities and potential conflicts among recreational users and other land users.

Plan Principles

The following principles will be used to guide the planning and management of the trail system:

- **Planning:** The trail system and individual trails will be designed and improved to provide desired recreational opportunities using outcomes-focused management by identifying the trail management objectives, preferred trail activities, recreational setting, level of challenge, and other experiences sought by trail users.
- **Opportunity:** The trails will provide unique recreation opportunities which, when combined with the other trails in the region, provide diverse trail experiences for a variety of skill levels and interests. Enhancements to the mountain biking trail networks will not only provide benefits to local users but, will encourage multi-day visitor stays in the area, benefiting local businesses.
- **Partnerships:** Cooperation and partnerships will be key to the success of the trail system. Cooperation among recreational users, the local municipality, and other land users ensures potential conflicts are identified and addressed.
- **Low impact:** The trail system and individual trails will be designed to minimize the impact of recreation activities on environmental, cultural, and historic resources.
- **Quality:** Trails are built and managed with the three pillars of sustainability in mind – environmental, social and economic - to limit environmental impact, provide intended recreational opportunities and reduce long term costs and the need for intensive maintenance.
- **Diversity of Use:** There are a diversity of users of the trails. The trails will be designed and maintained for a preferred use - mountain-biking - but they will be, in most cases, multi-use non-motorized trails and dependent on the cooperation, respect and mutual tolerance of a variety of users.
- **Safety:** The trail system will be designed and managed for user safety.
- **Available Resources:** The rate of enhancement of the trail system will be constrained by the capacity of UROC to deliver and maintain mountain biking trails. Additional support from FP and other funding sources will be sought as needed.

About UROC

The United Riders of Crowsnest Club was established in 2009 as a registered society in the Province of Alberta. The club is managed by a Board of Directors comprised of seven elected members and the Past-President. Support for UROC has grown significantly as local, regional and nearby urban populations discover mountain biking trails within Crowsnest Pass and an enthusiastic and dedicated group of local supporters has worked hard over the last two decades to create what is now a recognized mountain biking destination.

UROC's vision is to establish Crowsnest Pass as the premier mountain biking destination in Alberta. Further, the club wishes to contribute positively to the quality of life and the local economy by providing a high-quality trail network for the benefit of both residents and visitors.

The principal objectives of the club are to encourage participation, particularly in youth, in mountain biking activities; educate users; promote responsible biking practices; build and maintain mountain biking trails; and participate in the recreation planning processes and management of mountain biking in Crowsnest Pass.

The club organizes:

- Open, ladies, youth, and novice group rides
- Social activities and events
- Trail building and maintenance work sessions
- Cooperative ventures with other local organizations and commercial mountain biking event organizations

Since 2010, UROC volunteers have contributed approximately 9,000 hours of labour to trail construction and maintenance and many more hours to trail planning and management. UROC has also managed professional contractors for trail projects and the quality of UROC trail work is highly regarded by the community and visitors to the area. The Pass Powderkeg Ski Hill area has been the primary focus of UROC's work since inception. UROC has a Trail Operating Agreement with the Municipality of Crowsnest Pass for the construction and maintenance of mountain biking trails and mountain biking trails in the York Creek area have been maintained through TFAs issued by the Government of Alberta (GOA).

Funds received through UROC membership fees are typically allocated to insurance, website, tools, training and social function expenses. UROC has raised approximately \$500,000, to date, to support trail building projects. Trail project funding has largely been received through federal, provincial, and municipal government grants as well as donations from a charitable foundation, corporations and individuals.

UROC's goals related specifically to the Plan include:

- To be the appointed Trail Manager for the Recognized Mountain Biking Trail network on Public Lands in order to maintain and enhance those trails.
- Build on the Recognized Trail network through new trail developments.
- Develop sustainable income to fund a seasonal trail crew to carry out trail maintenance and development.

UROC would like to take this opportunity to thank the Alberta Government staff who have engaged with our club to seek our input on the future of mountain biking in the region and supported our vision to create a high-value, recreational opportunity compatible with the long-term vision and desired economic, environmental and social outcomes for the region.

Background and Context

Plan History

In 2012, *IMBA Canada Trail Solutions Mountain Bicycling Trails Masterplan* was prepared for Crowsnest Pass Community Futures as a key component of a tourism business development initiative. The purpose of the 2012 Masterplan was to provide a strategy for developing trail systems that would transform Crowsnest Pass into one of the foremost mountain bicycling destinations both provincially, nationally and internationally (IMBA Canada Trail Solutions, 2012). UROC adopted this plan and implemented much of the trail development for the Pass Powderkeg trail network.

In March 2020, *UROC's Mountain Biking Trails Masterplan for Crowsnest Pass* (UROC's Trails Masterplan) was completed and provided in draft to The Municipality of Crowsnest Pass and Alberta Environment and Parks, now Forestry and Parks. UROC's Trails Masterplan was developed in recognition that the 2012 Masterplan had become outdated due to changes in the land management intent of the area following implementation of the Castle Provincial Park and Castle Wildland Provincial Park in 2017 and the Livingstone Public Land Use Zone (PLUZ) in 2018. Provincial parks and the PLUZ account for approximately 70% of the land in Crowsnest Pass (Alberta GIS Geoadministrative Base Maps, 2020). Changes in ownership of large, privately owned land holdings and the potential for coal mining developments were also considered.

In May 2020, by invitation from Alberta Environment and Parks, a repackaged version of the March 2020 plan was provided to the Castle-Livingstone-Porcupine Hills Recreation Advisory Group as a *Detailed Mountain Biking Trail Proposal*. This was followed by a presentation to the Advisory Group on October 8, 2020 to describe the plan.

In June 2020, UROC members met with AEP staff to discuss changes to UROC's trail plan. The content of the plan was substantially revised to include, amongst others, sections for relevant legislation and policy, management and operations, and an environmental review.

In December 2021, *Bill 79 Trails Act* was passed coming into force on May 1, 2022. By April 2022, it was apparent that a different approach would be required that would align with evolving regulation and policy. In this Plan, the focus is on mountain biking trails, both Recognized and Proposed, that UROC is prepared to manage under a future work agreement with FP.

Legislation and Policy

Table 1 Trail Specific Legislative and Regulatory Requirements

Legislation/Regulation	Implications for Trail Development
<i>Trails Act</i>	The <i>Trails Act</i> establishes a system for trail management on public land by introducing trail planning to identify trails for designation, ensures trails are planned in consideration of other land-uses and values, defines designated trails as belonging to the Crown, and ensures trails are repaired if damaged by other land uses. It also authorizes the appointment of a trail manager, the entering into of agreements with partners to operate, manage and monitor trails.
<i>Public Lands Act and Public Lands Administration Regulation</i>	Mountain biking trails do not have a Departmental Reservation (DRS) within the Public Land Use Zone. Approval of new builds and maintenance are done through Authorizations. Construction activities must comply with conditions specified within applicable Authorizations.
<i>Species at Risk Act (SARA)</i>	Where possible, trails should be routed to avoid the critical habitat of listed species including riparian habitat adjacent to waterbodies containing listed species.
<i>Fisheries Act (Federal)</i>	Trails must comply with Fisheries and Oceans Canada (DFO) “Measures to protect fish and fish habitat” or may be subject to a project review (Fisheries and Oceans Canada, 2019). Critical habitat for Westslope Cutthroat Trout and Bull Trout are found in many of the streams and rivers in Crowsnest Pass (Appendix B, Figure 14). If harm, harassment, capture or take of fish habitat is a likely result from the project, an authorization under the Fisheries Act is required (Fisheries and Oceans Canada, 2020).
<i>Migratory Birds Convention Act</i>	The Act specifies that no disturbances to nests or nesting birds is allowed during breeding and nesting periods. If conducting activities during the nesting period, a qualified avian biologist or naturalist with experience with nest surveys should complete nest surveys for ground disturbance and tree clearing prior to trail construction. The applicable nesting period in Crowsnest Pass is mid-April to mid-August (nesting zone A3) (Government of Canada, 2018).

Legislation/Regulation	Implications for Trail Development
<i>Water Act</i>	<p>The <i>Water Act</i> and <i>Code of Practice for Watercourse Crossings</i> (the Code of Practice) classifies watercourses and applies regulations for crossings of these watercourses. The Code of Practice applies to “any works.” This includes placing, constructing, installing, maintaining, replacing or removing a watercourse crossing.</p> <p>Class B and C water bodies have been identified intersecting trails within the trail network planning area. Preferences for crossing types and construction timing restrictions may be specified. Standards and conditions specified within the Code of Practice for Watercourse Crossings must be met before undertaking a specified activity.</p>
Wetland Policy	<p>Wetlands are defined as “land saturated with water long enough to promote formation of water altered soils, growth of water tolerant vegetation, and biological activity that is adapted to the wet environment. They include bogs, fens, swamps, marshes and shallow open water.</p> <p>Where development activities have the potential to impact wetlands, the wetland policy promotes avoidance and minimization, as the preferred courses of action. Any proposed works within wetlands would necessitate a wetland assessment by a qualified professional and <i>Water Act</i> Approval.</p>
<i>Wildlife Act</i>	<p>Construction and maintenance activities are subject to the <i>Wildlife Act</i>. Before new construction, a wildlife survey should be conducted to identify any important wildlife sites, such as nest, dens, burrow, mineral licks, natural springs, etc. Any important sites should be avoided by reroutes and a minimum buffer distance of 100m.</p> <p>Applicable Wildlife Species Recovery, Management and Land Use Plans include:</p> <ul style="list-style-type: none"> • 2020 Grizzly Bear Recovery Plan • Limber and White Bark Pine Recovery Plans • 1993 Management Plan for Bighorn Sheep in Alberta • Key Wildlife and Biodiversity Zone Guidelines • Mountain Goat and Bighorn Sheep Zone guidelines
<i>Weed Control Act</i> and associated regulations	<p>Trail operators should utilize construction practices that will avoid or minimize the chances of introducing or spreading noxious and prohibited noxious weeds in accordance with the Act.</p>

Legislation/Regulation	Implications for Trail Development
<i>Historical Resources Act</i>	<p>Collectively, historic resources are protected under the <i>Historical Resources Act</i>. <i>Historical Resources Act</i> approval is required prior to the initiation of any ground disturbing activities associated with new trail construction.</p> <p>Section 31 of the Act requires “A person who discovers an historic resource in the course of making an excavation for a purpose other than for the purpose of seeking historic resources shall forthwith notify the Minister of the discovery.”</p> <p>Any discoveries will be reported to FP, based on the procedures identified in Standard Requirements Under the <i>Historical Resources Act</i>.</p>
<i>Municipal Government Act and Municipal Bylaws</i>	<p>The Plan area is located in the Specialized Municipality of Crowsnest Pass. The Crowsnest Pass Municipal Development Plan (MDP), a statutory plan under the <i>Municipal Government Act</i>, was completed in 2021 (Municipality of Crowsnest Pass, 2021). A component of the Municipality’s growth strategy is to diversity and strengthen the economy, partly through the growth of the tourism industry. The concept of an Epic mountain biking trail and developing the trail network for families and riders of all ages and experience levels is recognized in the MDP.</p>

Table 2 Summary of Relevant Policy and Legislation.

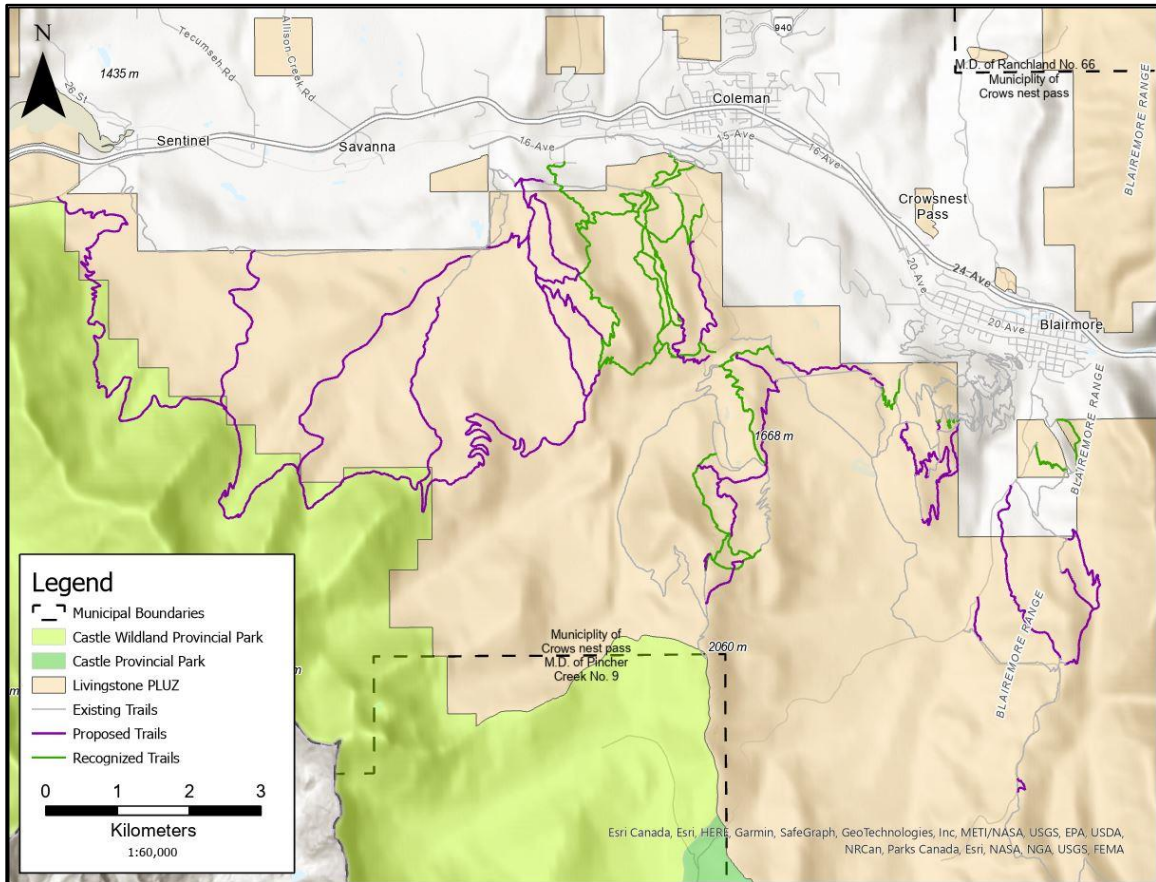
Plan / Policy	Relevance
<i>South Saskatchewan Regional Plan</i>	<p>The <i>South Saskatchewan Regional Plan</i> (SSRP) (Government of Alberta, 2018) sets the long-term vision and desired economic, environmental and social outcomes and objectives for the region. The SSRP reiterates the importance of recreation and the need to work collaboratively to provide recreation opportunities with local stewardship groups. This plan fits with the SSRP objective: “A wide range of recreation experiences and tourism opportunities that meet the preferences of regional residents and visitors will be provided” (pg. 96). The SSRP enables subregional planning for public lands in Crowsnest Pass: the <i>Livingstone-Porcupine Hills Land Footprint Management Plan</i> and <i>Livingstone-Porcupine Hills Recreation Management Plan</i>.</p>

Plan / Policy	Relevance
<p><i>Livingstone-Porcupine Hills Recreation Management Plan</i></p>	<p><i>Livingstone-Porcupine Hills Recreation Management Plan</i> (Government of Alberta, 2018) provides direction for recreational opportunities and management in the area as per the priorities of the SSRP. Crowsnest Pass is within the Crowsnest Recreation Management Unit (RMU) and is recognized for its ability to provide four-season recreation activities and tourism experiences. Several elements of the management intent for this RMU relate to this Plan. Specifically, the plan recommends:</p> <ul style="list-style-type: none"> • recreation infrastructure and amenities are concentrated in this RMU. • both summer and winter motorized, and non-motorized activities are provided, with appropriate separation between conflicting uses. • recreational experiences for all ages and abilities are provided. • recreational developments should avoid areas of wildlife habitat sensitivities. • trail developments that connect trail networks within the region should be encouraged. <p>Relevant Crowsnest RMU specific strategies and actions include:</p> <ul style="list-style-type: none"> • Identifying non-motorized trail networks that connect the region's parks and protected areas contained within the Livingstone Public Land Use Zone • Enabling mountain biking clubs and other interested parties to develop and upgrade mountain biking trails in Crowsnest Pass and other appropriate areas
<p><i>Livingstone-Porcupine Hills Land Footprint Management Plan</i></p>	<p><i>Livingstone-Porcupine Hills Land Footprint Management Plan</i> "outlines a system to minimize the extent, duration and rate of cumulative footprint to achieve landscapes with healthy, functioning ecosystems that provide a range of benefits to communities and all Albertans" (Government of Alberta, 2018). The plan set regulatory thresholds for motorized access and strategies and actions for managing human footprint in the area. Section 2.3 on <i>Siting to Avoid Valued Features</i> lists elements to be considered when trail planning including visual quality objectives, erosion risk, cultural sites, sensitive habitat, noise and more. These elements should be considered in planning and maintenance of mountain biking trails.</p>

Plan / Policy	Relevance
Castle Management Plan (2018)	To the south of Livingstone PLUZ, the Castle Provincial Park and Castle Wildland Provincial Park are guided by a management plan that emphasizes conservation of natural values, including biodiversity and headwater protection. The Indigenous cultural values of the area and respect for Indigenous rights are meant to be maintained in the management of the parks. Recreational opportunities are to be enhanced and further developed through investments in infrastructure and park management, in doing so contributing to the regional tourism industry.
Castle Region Tourism Strategy	The Castle Region Tourism Strategy (Government of Alberta, 2019) is for the municipalities adjacent the Castle Parks. The Strategy recognizes the opportunity to diversify and grow the local economic base through recreation and tourism. The Strategy identifies a series of strategic priorities and actions for government to help the regional tourism industry grow. Strategic Priority #4 includes the action to “support the development of a comprehensive, well-developed, connected and signed trail system that includes Parks, public and municipal lands.”
Government of Alberta’s Integrated Land Management Approach	Integrated Land Management (ILM) is a strategic, planned approach, to planning and decision making for activities on public land. The goal of ILM is to reduce the footprint of human uses on public land and associated natural resources. To comply with the Integrated Land Management (ILM) approach, all activities, including trails, should be located adjacent to existing operations, access, or anthropogenic clearings to minimize the spatial extent of cumulative disturbance as well as minimize the need for additional access (Government of Alberta, 2010).
Crowsnest Corridor Local Integrated Resource Plan	<p>The Crowsnest Corridor Local Integrated Resource Plan present the GOA’s resource management policy for public lands and resources within the area. Resource potentials and opportunities for development are identified with a view to assisting in the economic progress of Alberta.</p> <p>Crowsnest Pass is identified as an area of high tourism development potential and this Plan is consistent with the recreation and tourism objectives outlined within the Crowsnest Corridor Local Integrated Resource Plan.</p>

Geography

Figure 1 Crowsnest Pass Mountain Biking Trails



The Plan includes Recognized Trails and Proposed Trails on Public Lands within Crowsnest Pass. Crowsnest Pass is located in Southwest Alberta and is easily accessible by regional and urban populations of southern Alberta, British Columbia and Saskatchewan, via the Highway 3 corridor.

The Continental Divide, the principal hydrological division of the Americas, forms the western boundary of Crowsnest Pass and the border between Alberta and British Columbia. The area to the east of the Continental Divide is called the Eastern Slopes. Crowsnest Pass is located within the Eastern Slopes and is part of the Crown of the Continent ecosystem which is internationally recognized for its rich biodiversity. Crowsnest Pass is surrounded by the High Rock, Crowsnest and Livingstone ranges and elevation varies dramatically from 1,200 m, in the Crowsnest River valley, to 2,813 m, at the summit of Mount Ptolemy. The surrounding area also contains the

headwaters of major river systems and is valued for its wilderness, protected areas and as gateway access from urban areas for outdoor recreation (Government of Alberta, 2018).

Recreational Use

Crowsnest Pass is recognized as a significant tourism and recreation destination which hosts large recreation and sporting events that make use of the existing mountain biking trail system. Many events have been hosted in Crowsnest Pass for multiple years and are expected to continue to return in the future. Alberta Southwest was recently awarded a Sustainable Destination Award as “Best of the Americas” by the international non-profit organization Green Destinations. Alberta Southwest, is an economic development organization comprised of member communities, including those in Crowsnest Pass, with a goal to foster business development. Crowsnest Pass is also recognized as a sustainable tourism destination on the map guide produced by National Geographic and Crown of the Continent Geotourism Council (Crown of the Continent Geotourism Council, 2021).

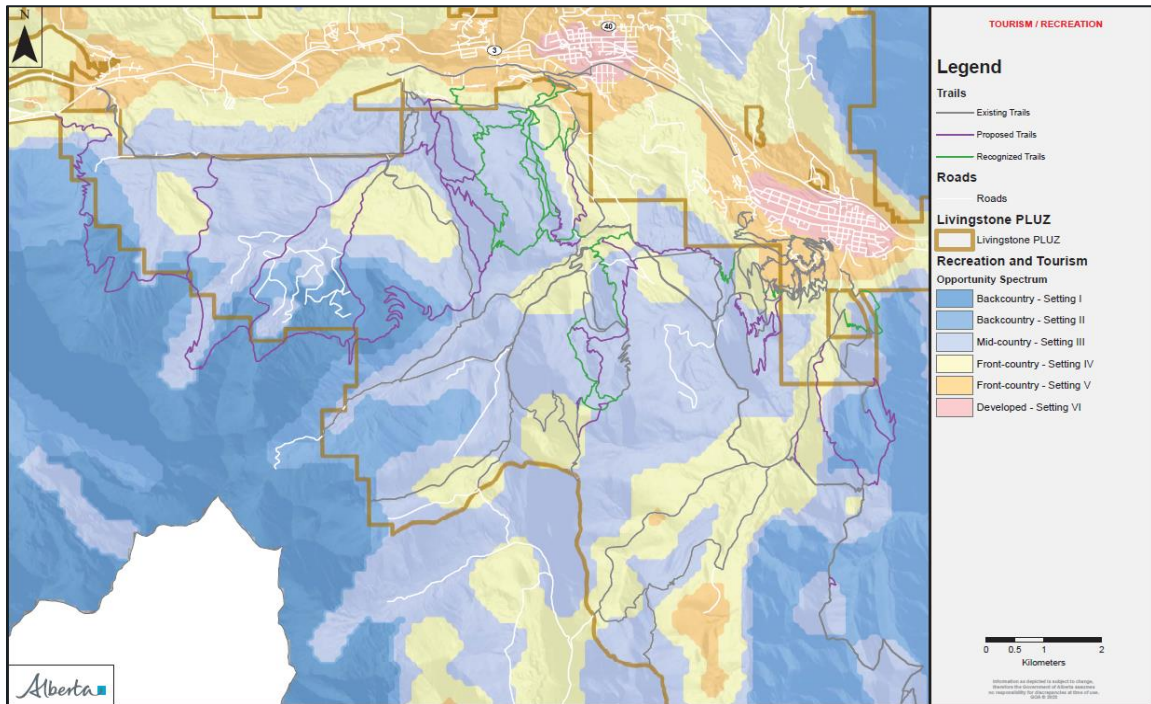
Crowsnest Pass includes a full range of trail-based motorized and non-motorized recreation including, but not limited to, mountain biking, walking/hiking, trail running, cross-country skiing, snowshoeing, equestrian and off-highway vehicle (OHV) use. The diversity of recreational opportunities in Crowsnest Pass is valued by local users and is a driver for visitors to travel to the area.

Recreation opportunity is the ability for an individual to engage in a preferred recreation activity within a desired recreation setting to obtain a desired experience. It is the combination of the activity and setting that contribute to the recreation experience. The recreation setting is the “combination of physical, biological, social and managerial conditions that give value to a place for recreation or tourism purposes” (Clark & Stankey, 1979). Recreation settings in the Plan area, based on 2014 Recreation and Tourism Opportunity Spectrum (RTOS) model data, are illustrated in Figure 2. The RTOS model recreation settings are determined by a combination of the following factors:

- Remoteness (the extent to which users are removed from human activity)
- Naturalness (the degree of human modification in an area)
- Social Conditions (the potential for human interaction, either directly or indirectly, and the extent of management presence)

The RTOS map represents the range of settings from remote, wilderness to urban, highly accessible and social places.

Figure 2 Recreation and Tourism Opportunity Spectrum



Mountain biking trails in Crowsnest Pass cross a variety of recreation settings, from trailheads in the front-country near communities and major roads, to mid-country and back-country settings at high elevations and further from human presence. These settings reflect existing development and influence the experience and use of trails by individual mountain bikers. An understanding of the recreation settings and variety of experiences within them, informs land managers and trail operators on appropriate level of use, development and type of features on the trails. As in the IMBA guidelines, “The trail experiences that riders seek are realized by the development, or lack thereof, of specific mountain biking features” (International Mountain Bicycling Association and Bureau of Land Management, 2018, p. 32).

Table 3 describes the recreation settings most often found on public land in Crowsnest Pass, a description of trail features typically found within those settings (International Mountain Bicycling Association and Bureau of Land Management, 2018) and examples of trails from the mountain biking trail network.

Table 3 Recreation Settings

Recreation Setting	Setting Description	Trail Features (IMBA Guidelines)	Examples in the trail networks
Backcountry (Setting II)	Generally un-modified moderate to large natural landscapes with minimal to no recreation or tourism infrastructure. Limited evidence of, and interaction with, other visitors and management controls. Inaccessible to motorized vehicles. In this setting, visitors can expect to experience solitude, isolation, closeness to nature, risk, and personal challenge.	Natural Features: Trails enhanced with placed natural materials such as rock or soil to guide riders to these play features. Minimal tread modifications.	Epic Trail Concept
Mid-Country (Setting III)	Landscapes that are modified to a small degree; accessible by motorized vehicles (via unimproved roads); and supportive of both motorized and non-motorized recreation and tourism activities. Limited evidence of and interaction with other visitors and management controls. This setting affords the visitor a lessened sense of isolation and a moderate degree of risk and personal challenge.	Enhanced natural features: Tread is shaped using natural materials (rocks or soil) to provide a play feature that blends with its landscape.	Rumhead Big Bear
Front-Country (Setting IV)	A natural appearing setting with higher degree of human modifications that, for the most part, blend with the surroundings. Recreation and tourism infrastructure and management controls may be evident, as could be resource development activities. The area is easily accessible and evidence and interaction with other visitors is common. This setting affords visitors less frequent opportunities to experience solitude.	Constructed trail features: Tread may be highly sculpted using natural or imported materials to provide a play feature.	Double Dirt-spresso Berma-Grin

Many recreational activities take place on trails and UROC trail projects often benefit a broad range of trail users. Table 4 lists activities and their compatibility with mountain biking trails.

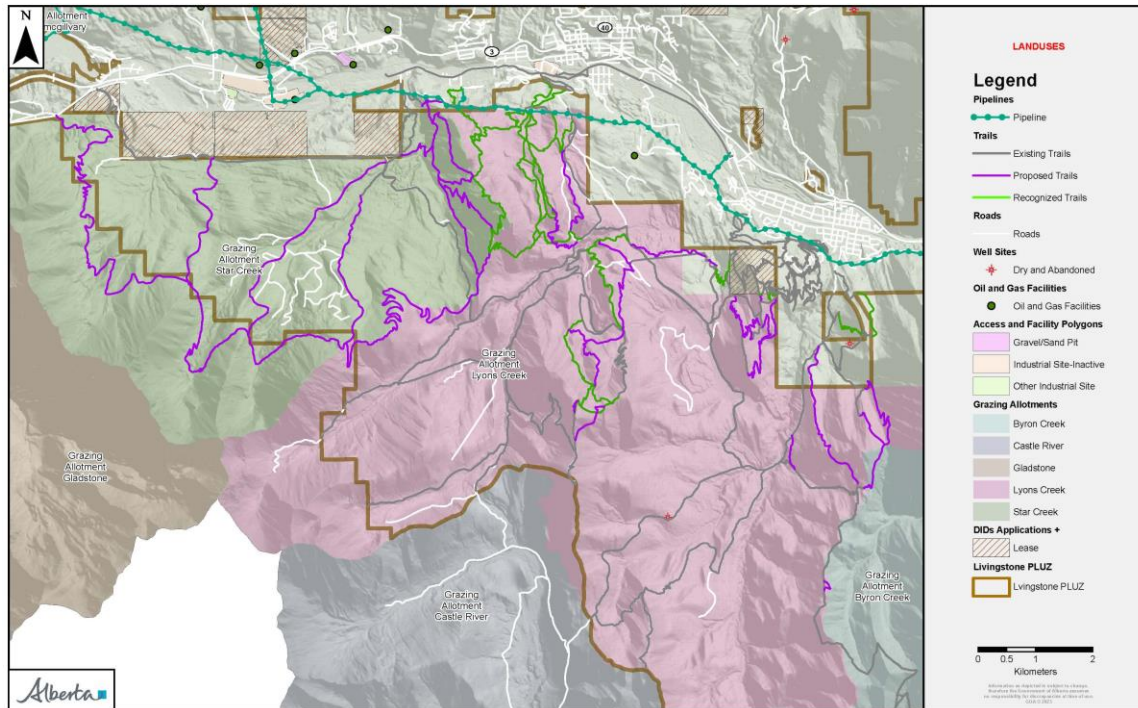
Table 4 Recreation Activities and Compatibility

Activity	Compatibility
Pedestrian (walking, running, hiking, backpacking)	Pedestrian activities are generally compatible with mountain biking trails. Pedestrian users seeking challenge and exercise may use the trails for interrelated activities. However, users may find some mountain biking trails too indirect (i.e., not efficient for their purpose).
Equestrian	Trails may be used by equestrian users. However, equestrian users generally prefer to avoid trails used by mountain bikers especially those designed for high speeds and a steep descent. Horse traffic may cause damage to trails when trails are wet.
Cross-country skiing	Most mountain biking trails, except for wide and low-angle trails, are not well suited for classic or skate cross-country skiing activities. User conflicts are unlikely due to separate seasonal uses.
Snowshoeing	Like pedestrian activities, snowshoeing is generally a very compatible activity on mountain biking trails. User conflicts are unlikely due to separate seasonal uses.
Motorized Activities	Motorized activity is incompatible with the desired user experience for mountain bikers on singletrack trails (typically no wider than 1 m). Mountain bikers often use OHV trails as connectors throughout the network. Two-wheeled OHVs are capable of using mountain biking trails but their high power, aggressive tire treads and often aggressive riding style can be destructive to the trail tread. Motorized recreation is not permissible outside of the designated OHV trail network.

Other Land Uses

Public lands are multi-use and support forestry, agriculture, mining, energy industries, outdoor recreation, tourism and First Nations traditional uses. Figure 3 illustrates land uses in Crowsnest Pass. Enhanced recreation management is required to mitigate impacts to ecological values and integrate recreation with other land uses. Available information on existing and potential land uses was utilized when considering Proposed Trail opportunities.

Figure 3 Land Uses in Crowsnest Pass



Indigenous Traditional Land Use

Crowsnest Pass is within the Treaty 7 region of Southern Alberta and the traditional territories of the Blackfoot Confederacy (Siksika, Kainai, Piikani), the Tsuut'ina, the Îyâxe Nakoda Nations and the Métis Nation (Region 3). Crowsnest Pass was once used as a rich hunting area, trade route and is home to sacred sites. The area is a cultural landscape with Indigenous stories and traditions that are important for intergenerational Indigenous cultural transmission. It is not anticipated that development of mountain biking trails will negatively impact First Nations Treaty Rights or access for traditional use.

Development of mountain biking trails within the Crowsnest RMU was consulted on as part of the *Livingstone-Porcupine Hills Recreation Management Plan*. Designation of Recognized Trails as Provincially Designated Trails will not alter access or have the potential to adversely impact the continued exercise of Treaty Rights. As part of implementation of the *Livingstone-Porcupine Hills Recreation Management Plan*, the department may designate Recognized Trails as Provincially Designated Trails. Pre-consultation assessment maybe necessary for any potential future Proposed Trail development.

Residential

The trail networks emanate from communities within Crowsnest Pass. Based on Statistics Canada population estimates, 5,695 people live within the Municipality of Crowsnest Pass including its main communities: Coleman, Blairmore, Frank, Bellevue and Hillcrest (Government of Alberta, 2020). A shadow population, or non-permanent residents owning recreational properties, is estimated at 1,500 to 2,000 people (Municipality of Crowsnest Pass, 2021). The permanent population of the Municipality of Crowsnest Pass is expected to grow by 1.5-2% annually to approximately 8,000 - 9,000 people by 2040 (Municipality of Crowsnest Pass, 2021) In general, mountain biking trails provide increased connectivity, enhanced recreational opportunities and increased quality of life for residents.

Development of mountain biking trails within the Crowsnest RMU was consulted on as part of the *Livingstone-Porcupine Hills Recreation Management Plan*. Designation of Recognized Trails as Provincially Designated Trails will not alter available access or land use within the area. As part of implementation of the *Livingstone-Porcupine Hills Recreation Management Plan*, the department may designate Recognized Trails as Provincially Designated Trails. Public notification may be necessary for future Proposed Trail development, facilitated by the Government of Alberta.

Coal Mining

Coal mining was a main economic driver in the region until the 1980s. Riversdale Resources Ltd. (Benga Mining Ltd.) and Montem Resources Ltd. (Montem) own land and/or coal leases in Crowsnest Pass and exploration has recently been undertaken on these lands. A resurgence of coal mining activity may occur, which could bring economic growth to the area and affect access to recreation areas. Coal development has potential to negatively impact both Recognized Trails and Proposed Trails. Crowsnest Pass is comprised of Category 2 lands as described by Alberta's reinstated 1976 Coal Policy. Coal exploration activity on Category 2 lands is paused, effective April 23, 2021, pending widespread consultations on a new coal policy (Government of Alberta, 2023). A Provincial Trail designation, for trails included within this Plan, may help to protect the mountain biking recreational resource if surface coal mining activities were once again permitted within Category 2 lands.

As no trails within the plan occur on lands leased for coal exploration, no engagement with coal exploration companies will be completed as part of this plan.

Grazing

The planning area overlaps Range Allotments within the Rocky Mountain Forest Reserve. Designation of Recognized Trails as Provincially Designated Trails will not impact existing

allocations and activities associated with Range Allotments and the grazing rights administered under the *Forest Reserves Act*. As part of implementation of the *Livingstone-Porcupine Hills Recreation Management Plan*, the department may designate Recognized Trails as Provincially Designated Trails.

Grazing allotment holders will be notified before Recognized Trails are declared designated as Provincially Designated Trails. Discussion with grazing allotment holders will be required for any potential future Proposed Trail development, with support from FP, prior to detailed trail design approval.

Forestry

Crowsnest Pass is within Forest Management Unit (FMU) C5 to which an area-based Forest Management Agreement (FMA) has been allocated to Crowsnest Forest Products Ltd. Volume based timber quotas within FMU C5 have also be allocated to 770538 AB Ltd. and 793128 AB Ltd. Harvest areas within Crowsnest Pass overlap with Recognized Trails and Proposed Trails. Trail maintenance is unlikely to result in a significant volume of merchantable timber removal or damage to timber regeneration. Designation of mountain biking trails as Provincially Designated Trails would not impact available timber volumes or constitute a withdrawal from the FMA. Future timber harvesting is anticipated and will likely result in restoration or rerouting of several trails. As part of implementation of the *Livingstone-Porcupine Hills Recreation Management Plan*, the department may designate Recognized Trails as Provincially Designated Trails.

FMA holders will be notified before Recognized Trails are designated as Provincially Designated Trails. Consideration will be given to timber harvest sequencing for any potential future development of Proposed Trails and engagement with the FMA holder may be necessary, with support from FP, prior to detailed trail design approval.

Trapping

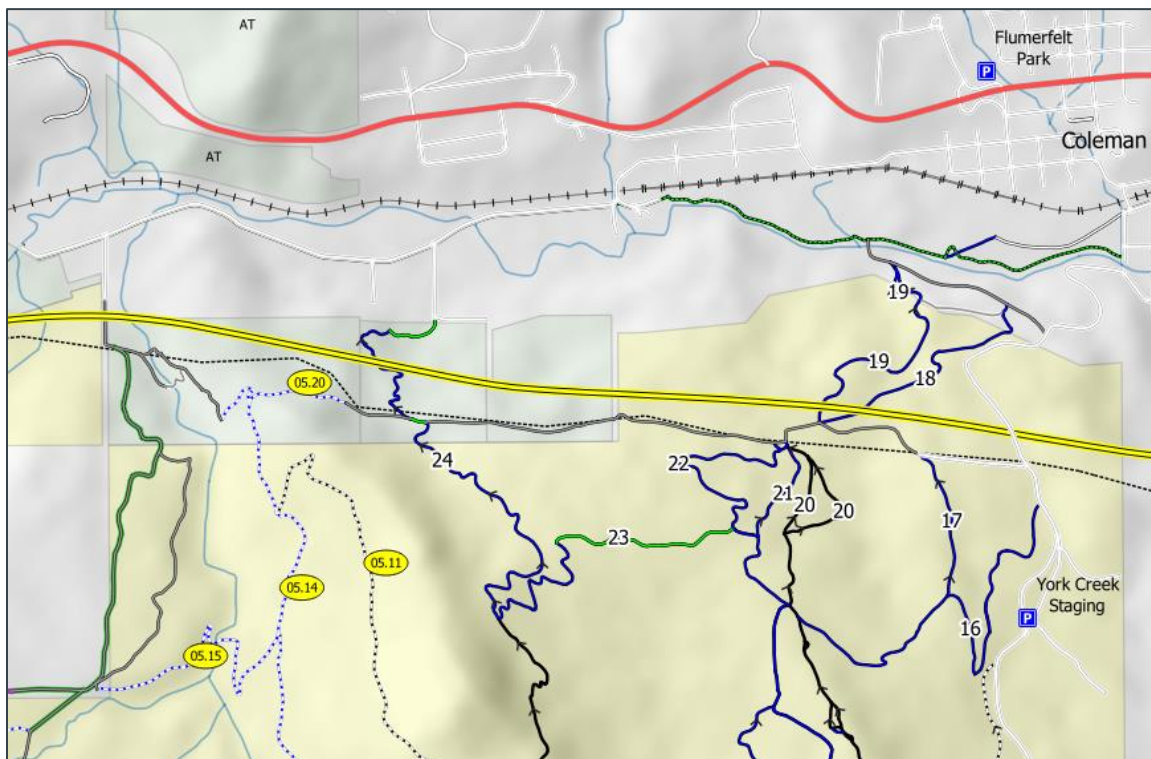
Two Registered Fur Management Areas overlap with Recognized Trail areas (1726 and 2178). The Plan is not likely to impact access for trapping or trapping related activities. However, trapping will not be permissible within 10 m of a Provincial Trail tread.

Registered trappers will be notified before Recognized Trails are designated as Provincially Designated Trails. Engagement with registered trappers affected by any potential future Proposed Trail developments may be necessary, with support from FP, prior to detailed trail design approval.

Transportation

Alberta Transportation has been considering upgrading Highway 3 since the early 1970s and a Highway 3X route was published in 1979. Renewed efforts were made in 2004 and 2017 – 2018 resulting in the publication in 2018 of functional study details for a Highway 3X “Truck Route”, bypassing Coleman to the south, <http://www.transportation.alberta.ca/6087.htm>. Construction of Highway 3x has potential to cause trail loss and negatively impact trail network access. A Provincial Trail designation, for trails included within this Plan, may help to protect and ensure access to the mountain biking recreational resource when Highway 3x is constructed.

Figure 4 Trail Network South of Coleman with Highway 3X Proposed Alignment (yellow)



Pipelines, Power Distribution and Buried Facilities

Specific agreements may be required to complete trail work or operate vehicles and equipment near pipelines, power distribution lines and buried facilities. Additional consideration will be given to pipelines, power lines and buried facilities when planning trail work or access to trails to ensure all required approvals are in place.

Several Recognized Trails cross TC Energy Corporation (Nova Gas) pipeline dispositions south of Highway 3. A crossing agreement will be required for any ground disturbance activities, as defined under the *Pipeline Act*, occurring within 30 m of a pipeline or for any vehicle or equipment traffic that must cross a pipeline when not traveling on a highway or public road. UROC has obtained a *Permission to Construct and Maintain Trail (non-motorized use)* agreement and *Consent to Temporary Operation of Vehicles/Mobile Equipment Across, Along, On or Within Right-of-Way* from TC Energy/NOVA Gas for past trail projects.

Fortis Alberta Inc. (Fortis) power lines are also present within mountain biking trail areas. Vehicles and equipment must not exceed specified maximum allowable heights when passing under power lines. Equipment must not operate within 7 m of a power line without first confirming the voltage and seeking additional approval from the utility operator.

Other buried facilities may also be present within mountain biking trail areas and requirements may vary by the utility type and owner. Before undertaking any ground disturbance activities, a Utility Safety Partners notification request should be placed to ensure all requirements are met before proceeding.

Special Events

The Crowsnest Pass is host to many recreational sporting events that make use of the mountain biking trail network. Several events hosted in Crowsnest Pass have gained provincial, national or international attention and the spotlight placed on Crowsnest Pass resulting from these highly recognizable events generates regard for the Crowsnest Pass as a tourist destination.

The Norco Canadian Enduro Series (formerly BC Enduro Series) returned to Crowsnest Pass in 2022 and is Canada's flagship Enduro series and the preeminent enduro series in North America. The TransRockies Race Series, first hosted within Crowsnest Pass in 2002, has returned with events such as the TransRockies Challenge, TransRockies Classic and the Singletrack 6 (2023). The Crowsnest Pass 100 is another growing event that makes use of mountain biking trails and hosted over 200 registrants in 2022. The Sinister 7 Ultra is recognized as one of Canada's longest and most rugged races. The Sinister 7 Ultra brings 1,600 annual participants to Crowsnest Pass as well as support personnel, volunteers, race organizers and event staff.

Special events will continue to make use of mountain biking trails and further development and protection of mountain biking trails will enhance and support special events into the future.

Trail System

Trail System Purpose

The mountain biking trail network provides improved quality of life for local recreational users and increased tourism potential for the area. Visitors may travel further and stay longer to enjoy the attractions provided by the trail network which in turn benefits the local economy. Development of Proposed Trail opportunities would further enhance the network and increase renown for Crowsnest Pass as a tourist destination.

There has been steady growth in mountain biking popularity within Crowsnest Pass and the area is well suited to provide a riding experience comparable to other popular mountain biking destinations in North America. The landscape of Crowsnest Pass features terrain appropriate for a variety of mountain biking styles and difficulty levels and is accessible from large urban centres. Compared to areas near Calgary, Crowsnest Pass is uncrowded yet has all services required by visitors. Trail networks in Crowsnest Pass are readily accessible from municipal accommodations reducing the need for secondary transportation to trailheads. The proximity of Crowsnest Pass to Fernie, British Columbia, provides opportunity for mountain bikers in both areas to take day trips to a variety of complementary trail networks in nearby riding destinations.

A comparison of the total kilometres and number of mountain biking trails listed on Trailforks for regional riding destinations in Alberta and BC is provided in Table 5. Trails listed on Trailforks within Crowsnest Pass are not all designed specifically for mountain biking but indicate that there is comparable interest in mountain biking in Crowsnest Pass to other well known recreation destinations.

Table 5 Trailforks Summary of Number and Kilometres of Trails of Interest for Mountain Biking by Region²

	Crowsnest Pass, AB	Elbow Valley, AB	Fernie, BC	Rossland, BC	Nelson, BC	Squamish, BC	Revelstoke, BC
Number of Trails	147	125	377	163	226	437	213
Total km of Trails	338	445	776	278	481	457	372

Intentional trail development, through a formalized Trail Management Planning process, will provide better constructed trails and promote use of superior trail design and construction techniques. Development of a trail system meeting the needs of recreational users will also decrease instances of user created trails and mitigate potential land use conflicts and resource and environmental concerns associated with user created trails.

Appendix A - Trails contains descriptions of Recognized Trails and Proposed Trails

Trail System Evaluation

An evaluation of Recognized Trails and Proposed Trails relative to environmental values, land use and resource extraction was conducted as part of the development of this Plan to identify which Recognized Trails should continue to be part of the network and where opportunity for Proposed Trails exists. Key considerations for the planning area are documented in Appendix B - Environmental Review and include historical resources and environmental sensitivities.

Recognized Mountain Biking Trails

Recognized Trails in Crowsnest Pass are existing disturbance trails, authorized by FP, that have been maintained, modified and/or enhanced through TFAs and are enabled through the strategies and actions outlined for the Crowsnest RMU within the *Livingstone-Porcupine Hills Recreation Management Plan*. Trail modifications or enhancements may include, but are not limited to, alterations to the trail tread; incorporation of technical trail features; installing crossing structures for watercourses and drainages; installation of signage; and completion of trail maintenance activities.

² trailforks.com; retrieved October 16, 2021

Most mountain biking trails in Crowsnest Pass are on Public Lands or municipally owned land. There are 24 Recognized Mountain Biking Trails included in this Plan, totalling 32.5 km of trail, where mountain biking is the preferred or sole use activity for the trail. Approximately 28 km of mountain biking trails on public land, excluding the recreational lease, are currently maintained by UROC. Many other trails are used by mountain bikers but, for the purpose of this Plan, are not considered to be mountain biking trails. Trails operated by UROC within the Pass Powderkeg Recreation Lease are outside the scope of this Plan.

Table 6 Recognized Trail on Public Land by Trail Planning Unit (excluding Pass Powderkeg)

Trail Planning Unit	Recognized Trail (km)
1 Blairmore-Coleman	4.6
4 Turtle-Hillcrest	2.2
5 York-Girardi	25.7
Total	32.5

Trails maintained by UROC on Public Lands only include trails within the Blairmore-Coleman and York-Girardi Trail Planning Units (TPU). Currently, UROC does not maintain any mountain biking trails within the Turtle-Hillcrest TPU.

Many of the trails in Crowsnest Pass were established in the early 2000s and changes in mountain bike technology and capability have altered the style of trail sought by recreational users. Updates to Recognized Trails will meet the needs of current users and improve user experiences through incorporation and maintenance of desirable trail features. Trail Management Objectives describe the desired state of trails and will continually be assessed to ensure the variety of user needs and preferences are being met.

Maps, tables and descriptions of Recognized Trails are included in the Appendix A - Trails.

Proposed Mountain Biking Trails

Within the *Livingstone-Porcupine Hills Recreation Management Plan* the Government of Alberta has committed to exploring options to locate, designate, build and maintain technical trails for

mountain biking. In particular, the Government of Alberta has committed to working with trail groups to develop an “epic ride” as defined by the International Mountain Biking Association, which would connect the Castle Parks and the Livingstone PLUZ.

A UROC Trails Committee reviewed Proposed Trail opportunities before arriving at the selection included in this Plan. Proposed Trails can generally be classified as either an expansion to an existing trail network area or as enhancements to Recognized Trails. This Plan identifies approximately 36 km of Proposed Trail on Public Lands to enhance the Recognized Trail networks. The Plan also includes the proposed development of an IMBA Epic type trail with trail additions yet to be determined. Proposed Trails depicted in the trails atlas are representative of potential future trail alignments. Final route alignments and schedule of trail development priorities will be determined through future trail management planning.

Table 7 Proposed Trail Opportunity by Trail Planning Unit

Trail Planning Unit	Proposed Trail Opportunity (km)
1 Blairmore-Coleman	13.0
4 Turtle-Hillcrest	7.9
5 York-Girardi (excluding Epic)	16.3
Epic (also located in the York-Girardi TPU)	33.2
Total	70.4

Maps, tables and descriptions of Proposed Trails are included in Appendix A - Trails.

Summary of Trail Opportunities by Trail Planning Unit

Nine geographic sub-regions have been identified within Crowsnest Pass and are illustrated on the Trail Planning Unit Map (Appendix). Of these nine Trail Planning Units, development opportunity is supported by both UROC and FP within Blairmore-Coleman (1), Turtle-Hillcrest (4) and York-Girardi (5). The Plan acknowledges that mountain biking opportunity exists within other TPUs. However, due to a variety of limiting factors, planning within Bluff (2), Frank-Bellevue (3), McGillivray (6), Byron Hill (7), Tecumseh (8) and Crowsnest-Ptolemy (9) is not within the scope of this Plan. Instead, the focus of the Plan is to enhance trail opportunities south of Highway 3 close to Recognized Trails.

Blairmore-Coleman

The Blairmore-Coleman TPU is the most highly developed and frequently used mountain biking trail network area in Crowsnest Pass. This Plan includes approximately 4.6 km of Recognized Trails in the Blairmore-Coleman TPU and identifies opportunity for approximately 13.0 km of expansion in this area.

The Proposed Trail opportunity within Blairmore-Coleman includes a southward extension of the Pass Powderkeg trail network which makes use of existing trailhead infrastructure. One half section of land, within the Livingstone PLUZ, occurs directly south of the recreation lease and offers similar terrain to the upper half of the Pass Powderkeg Ski Hill. Several kilometres of user-created singletrack trail have been identified within the area and are included in this Plan as Proposed Trails.

Constraints to development opportunity within the Blairmore-Coleman TPU include watercourses within the opportunity area. Watercourse crossings should be avoided, where possible, for sustainable trail development.

Turtle-Hillcrest

The Turtle-Hillcrest TPU contains one of the first mountain biking trails in Crowsnest Pass (Secret Trail) as well as a popular multi-use trail traversing Hastings Ridge with spectacular views. This Plan includes 2.2 km of Recognized Trails in the Turtle-Hillcrest TPU and identifies Proposed Trail opportunity for approximately 7.9 km of expansion in this area.

Hastings Ridge has been a popular mountain biking route for many years and is generally traversed south to north along a wide multiuse trail within the designated summer OHV network. The OHV trail has become degraded in recent years and upgrades and/or minor re-routes would be required to increase accessibility for mountain biking. Existing descent options from Hastings Ridge include road travel or access through private land and cross unbridged watercourses. Proposed Trail opportunities within Turtle-Hillcrest TPU include reroutes and improved options for descent from the north end of Hastings Ridge.

Constraints to development within the Turtle-Hillcrest TPU include private land east of the opportunity area, the Sartoris multiuse road and watercourses within the opportunity area. For user experience and safety reasons, travel on roads should be avoided. Watercourse crossings should also be avoided, where possible, for sustainable trail development.

York-Girardi

The York-Girardi TPU contains many intermediate and advanced trails that are accessible from the community of Coleman. This Plan includes approximately 25.7 km of Recognized Trails in the

York-Girardi TPU and identifies Proposed Trail opportunity for 16.3 km of expansion in this area (excluding an Epic and related access trails).

The Proposed Trail opportunity within York-Girardi exists along northern, southern and western aspects of Saddle Mountain. The northern portion of Saddle Mountain leads to Star Creek and Proposed Trails make use of existing multiuse trails with access to trailhead parking. The southern portion of Saddle Mountain provides Proposed Trail opportunity in an area that has recently been logged with no further logging planned. The western portion of Saddle Mountain provides Proposed Trail development opportunity on both open slopes and in treed areas. Proposed Trail opportunities identified in this Plan are shown between the Big Bear trail and Star Creek trails with potential for many loops as well as technical downhill trails.

Constraints to development in the York-Girardi TPU include areas of severe topographic relief as well as the density of existing trails.

Epic

The International Mountain Biking Association (IMBA) has a special designation program to recognize iconic, adventurous, backcountry trails as 'IMBA Epics' (Epic). An Epic designation recognizes immersive rides that are technically and physically challenging, beautiful to behold and worthy of celebration, which satisfy the following criteria:

- At least 20 miles (32 km) in length
- More than 80% singletrack
- Technically and physically challenging
- Beautiful to behold and worthy of celebration.

Adding a trail meeting Epic criteria in Crowsnest Pass would create a lengthy backcountry mountain biking experience and elevate the status of Crowsnest Pass as an internationally recognized mountain biking destination. A developed trail, meeting landscape aesthetic criteria for an Epic, may also be of interest to the Great Divide Trail Association to replace segments of the Great Divide Trail located on designated OHV routes.

Opportunity for development of a route meeting IMBA EPIC criteria exists within Crowsnest Pass. An Epic route could make use of Recognized Trails already meeting Epic criteria. However, extensive new trail construction would likely be required. Development of an Epic route would necessitate trail alignments for the primary Epic route as well as early exit points. Early exit points provide access for emergency services, accommodate users not wishing to complete the entirety of the trail and provide egress options to users who encounter other situational eventualities requiring early departure from the trail. In general, an Epic should traverse areas with a variety of impressive vistas or noteworthy features. These criteria would likely place the conceptual route

alignment intermittently within alpine and subalpine natural subregions. Consideration should also be given to utilizing existing developed trailhead areas or further developing formalized trailheads for access to the Epic route and Recognized Trail network. Additional planning and recognisance is required to determine an optimal Epic route alignment with respect to Epic criteria, environmental and resource sensitivities, and land management objectives. Given the complexity of the Epic opportunity, planning, design and capital investment support will be sought from FP.

Due to the desirability for trail alignments in appealing high elevation areas, the principal limiting constraints for an Epic are environmentally focused and related to key wildlife and biodiversity areas and sensitive alpine ecosystems. There is also high probability for the proposed Epic to be an interjurisdictional transboundary trail which will require approval from multiple land management authorities. Creation of an Epic trail will need to be supported by all land use authorities for each respective area of the proposed trail alignment before development can be considered.

Epic opportunity has been explored within the York–Girardi TPU. As currently conceptualized, the main trail would start near Emerald Lake, ascend to high elevation open terrain within Castle Wildland Provincial Park, join Recognized Trails in the York Creek area and end at the Pass Powderkeg trailhead. A conceptual route and connector trails are illustrated in the trails atlas which would require approximately 33 km of new trail on Public Lands and the Wildland Provincial Park. The conceptual route traverses sensitive habitat for sheep and goats where seasonal closure may be necessary to avoid times where the animals are particularly sensitive to disturbance (e.g. the lambing and kidding period). However, due to high elevations and northerly aspect, it is probable that persistent snow accumulations would make use of the conceptual trail impractical during sensitive periods. Further analysis and planning will be required to identify a suitable route and mitigating actions before this opportunity can be considered.

Trail Rating System

UROC has applied the IMBA Trail Difficulty Rating System to Recognized Trails described in this Plan. For further information see: <https://www.imba.com/resource/trail-difficulty-rating-system>.

Trail ratings apply to technical challenge only and should be considered as reasonably consistent within Crowsnest Pass but not necessarily consistent with those in other regions. Trail ratings for Recognized Trails are somewhat subjective and represent the consensus of experienced local riders. Suggested ratings for Proposed Trails are preliminary and would be refined during the detail trail design stage.

Trailheads

There are multiple access points to mountain biking trails within the Blairmore-Coleman, Turtle-Hillcrest and York-Girardi TPUs.

Two main trailhead areas are currently used for access to Blairmore-Coleman trails, the Blairmore Bike Skills Park (Skills Park) and the Pass Powderkeg day lodge parking lot. The Skills Park, located adjacent Isabelle Sellon School at the bottom of Pass Powderkeg, is the primary trailhead and includes ample parking, washroom facilities, a small picnic shelter, garbage/recycling bins and a bike tool stand. The Pass Powderkeg day lodge parking lot also has ample parking space but boasts fewer amenities to service riders. Plans are in place to construct informational kiosks and additional opportunity exists for the provision of a washroom and waste disposal.

For access to Turtle-Hillcrest trails, the trailhead at the Skills Park is most commonly used. The Sartoris OHV staging area is available but is less popular. Depending on future trail development, the existing Sartoris OHV staging area could see increased usage by mountain bikers.

York-Girardi trails are some of the most intensely used trails in Crowsnest Pass but the TPU lacks well-defined trailheads. There have been issues with trail users parking on residential streets in Coleman. Residential area parking is being discouraged through social media messaging and by indicating other parking options on Trailforks. UROC currently encourages trail users to park at Flumerfelt Park, or at the York Creek OHV staging area. Flumerfelt Park has washrooms and picnic tables but lacks adequate parking space, is often crowded with a variety of users, and riders must travel through downtown Coleman to access the York Creek Road. The York Creek OHV staging area is used by mountain bikers but includes no amenities other than parking which may become limited due to multiuse activities in summer months. The York Creek OHV staging area is not popular with trail users because riders must travel uphill to return to their vehicles at the end of their ride. Mountain bikers have been observed parking along the lower portion of York Creek Road to avoid riding back uphill. A designated trailhead with washrooms, located close to the bottom of the current trail network, would be a significant improvement to the York-Girardi TPU.

Further development and operation of trailheads is expected to be the role of FP and the municipality.

Management and Operations

Trail Agreement

Opportunity exists for UROC to enter into a Trail Agreement with FP for maintenance, as described *within Public Lands Administration Regulation 207.1*, of Recognized Trails included within this Plan. UROC's work priorities would then be identified through subsequent Annual Work Plans. An Annual Work Plan would authorize and determine how trails are managed to meet GOA Trail Development Guidelines (Government of Alberta, 2019) and the intended trail design and experience expressed within the TMO Table 8.

Signage

Trail mapping and information signs help visitors find their way through unfamiliar areas. Wayfinding and trail rating signage has been established on Recognized Trails included within this Plan. With assistance from FP, UROC will continue to develop the signage and wayfinding program for trails through Annual Work Plans following specifications in the Alberta Public Lands Sign Manual and best practices from reference guides (International Mountain Bicycling Association, 2004; International Mountain Bicycling Association and Bureau of Land Management, 2018). Signage will be installed, repaired, or replaced as needed to maintain quality appearance and function. Signage needs for Proposed Trail development will be assessed during detailed trail design.

To aid users navigating the system, UROC will also maintain up-to-date trail information with Trailforks or equivalent. The Trailforks smartphone app allows users to navigate the trails, with or without cell service.

References

- Alberta GIS Geoadministrative Base Maps. (2020).
- Clark, R. N., & Stankey, G. H. (1979). *The Recreation Opportunity Spectrum: A Framework for Planning, Management, and Research*. Pacific Northwest Forest and Range Experiment Station, U.S. Department of Agriculture Forest Service.
- Crown of the Continent Geotourism Council. (2021, 04 27). *Crown of the Continent*. Retrieved from Crown of the Continent: <https://crownofthecontinent.net/>
- Downing, D. a. (2006). *Natural Regions and Subregions of Alberta*. Edmonton, AB.
- Fisheries and Oceans Canada. (2019, 08 28). *Measures to Protect Fish and Fish Habitat*. Retrieved from Government of Canada: <https://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures-eng.html>
- Fisheries and Oceans Canada. (2019). *Recovery Strategy and Action Plan for the Alberta populations of Westslope Cutthroat Trout (Oncorhynchus clarkii lewisi) in Canada [Proposed]*. Species at Risk Act Recovery Strategy Series. Ottawa: Fisheries and Oceans Canada. Retrieved from <https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/recovery/westslope-cutthroat-trout-2019-proposed.html>
- Fisheries and Oceans Canada. (2020). *Recovery Strategy for the Bull Trout (Salvelinus confluentus), Saskatchewan-Nelson Rivers populations, in Canada [Proposed]*. Ottawa: Fisheries and Oceans Canada. Retrieved from <https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/recovery-strategies/bull-trout-proposed-2020.html>
- Fisheries and Oceans Canada. (2020, 10 23). *Request a review of your project near water: Step 1. What this service offers*. Retrieved from Government of Canada: <https://www.dfo-mpo.gc.ca/pnw-ppe/reviews-revues/request-review-demande-d-examen-001-eng.html>
- Government of Alberta. (2010). *Integrated Land Management*. Edmonton: Government of Alberta. Retrieved from <https://www.alberta.ca/integrated-land-management-overview.aspx>
- Government of Alberta. (2018). *Livingstone-Porcupine Hills Land Footprint Management Plan*. Government of Alberta.
- Government of Alberta. (2018). *Livingstone-Porcupine Hills Recreation Management Plan*. Government of Alberta.

Government of Alberta. (2018). *South Saskatchewan Regional Plan*. Edmonton: Government of Alberta.

Government of Alberta. (2019). *Castle Region Tourism Strategy: Strategy for Government of Alberta in Support of Tourism Development*. Culture and Tourism. Government of Alberta. Retrieved from <https://open.alberta.ca/dataset/d21f77a1-4701-4756-ae3-cc6e07e12731/resource/8f2752f6-f67a-4965-8f89-6f0eeb1e8560/download/castle-tourism-strategy-final.pdf>

Government of Alberta. (2019). *Trail Development Guidelines for Alberta's Public Land*. Edmonton, AB: Alberta Environment and Parks.

Government of Alberta. (2020). *Crowsnest Pass - Population - Adapted from Statistics Canada*. Retrieved 03 23, 2021, from <https://regionaldashboard.alberta.ca/region/crowsnest-pass/population/#/?from=2015&to=2019>

Government of Alberta. (2023). *Coal Policy - Information and Clarification About The Coal Policy*. Retrieved 02 03, 2023, from <https://www.alberta.ca/coal-policy-guidelines.aspx#:~:text=In%20response%20to%20concerns%20raised,exploration%20and%20development%20can%20occur.>

Government of Canada. (2018). General Nesting Periods of Migratory Birds. Retrieved 02 03, 2023, from <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods/nesting-periods.html>.

IMBA Canada Trail Solutions. (2012). *Crowsnest Pass Mountain Bicycling Trail Masterplan, Final Edition v4.3*. IMBA Canada Trail Solutions.

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. (2020). *IMBA Trail Difficulty Rating System*. Retrieved from IMBA.com: <https://www.imba.com/sites/default/files/content/resources/2018-10/IMBATrailDifficultyRatingSystem.jpg>

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

Municipality of Crowsnest Pass. (2021). *Municipal Development Plan*. Retrieved March 23, 2021, from <https://www.crowsnestpass.com/public/download/files/173885>

United Riders of Crowsnest. (2020). Crowsnest Pass Mountain Biking Trails Masterplan, Draft V3.

Appendix A - Trails

This Appendix includes:

- Figure 5 - Trail Planning Units
- Figure 6- A Trails Atlas showing Recognized Trails, Proposed Trails and some additional existing multiuse trails illustrated for network connectivity.
- Recognized Trail descriptions
- Table 8 - A Trail Management Objectives Table describing the principal characteristics of Recognized Trails
- Proposed Trail descriptions
- Table 9 – A Trail Management Objectives Table describing the principal characteristics of Proposed Trails

The TMO tables are simplified versions of Excel worksheets. The Excel worksheets are available upon request. The “Label” field provides the key to match trails in TMO tables to the trails shown in the trails atlas.

The level of development (LOD) shown in the TMO tables is a composite value reflecting the LOD for three components – trail tread, trail features and signage. They are specific to mountain biking trails and use different criteria than those in the Alberta Trail Development Guidelines which covers a broader spectrum of trails.

Figure 5 TRAIL PLANNING UNITS

Municipality of Crowsnest Pass

United Riders of Crowsnest

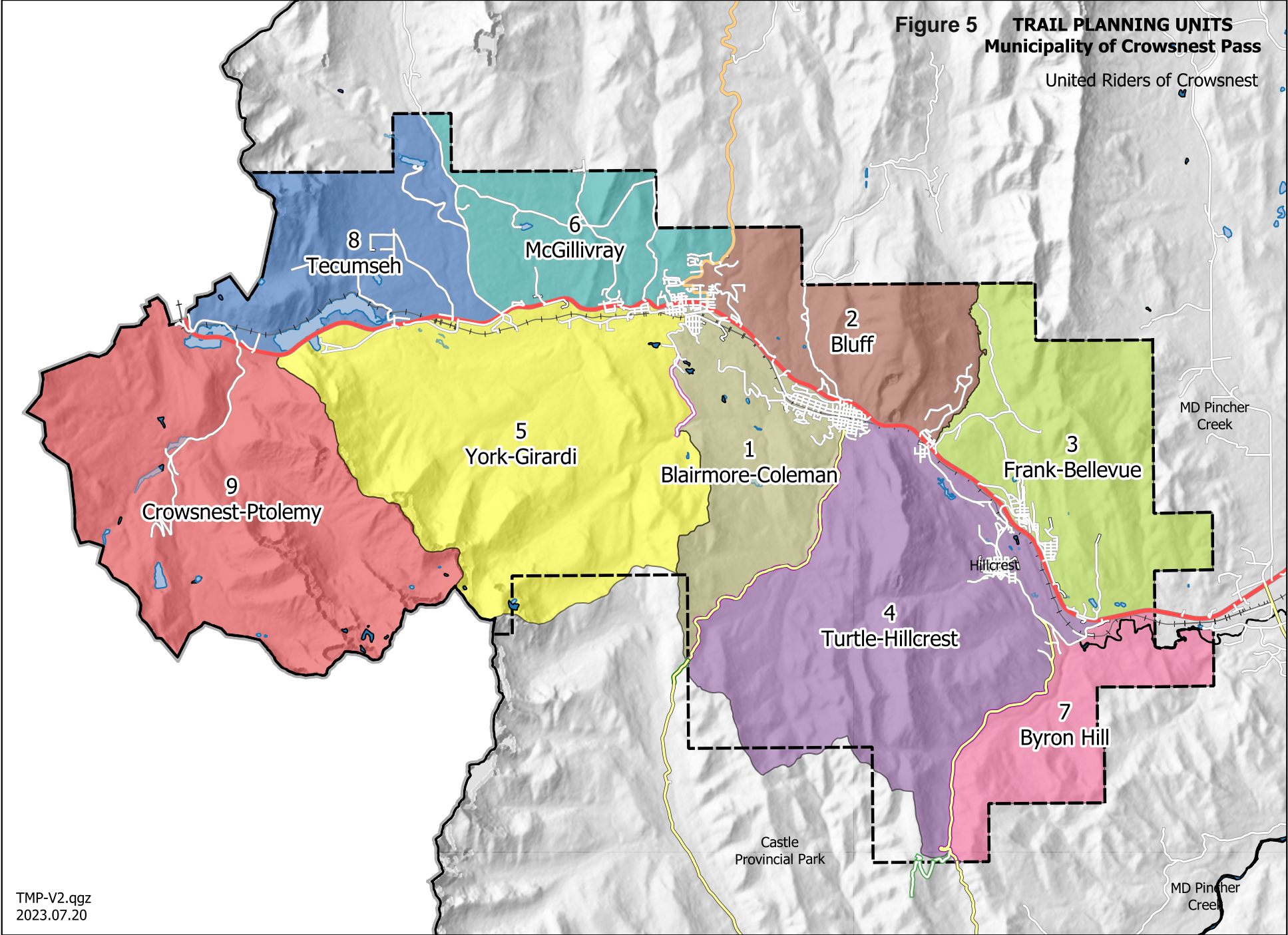


Figure 6 UNITED RIDERS OF CROWNEST CLUB



**TRAILS MANAGEMENT PLAN
FOR CROWNEAST PASS**

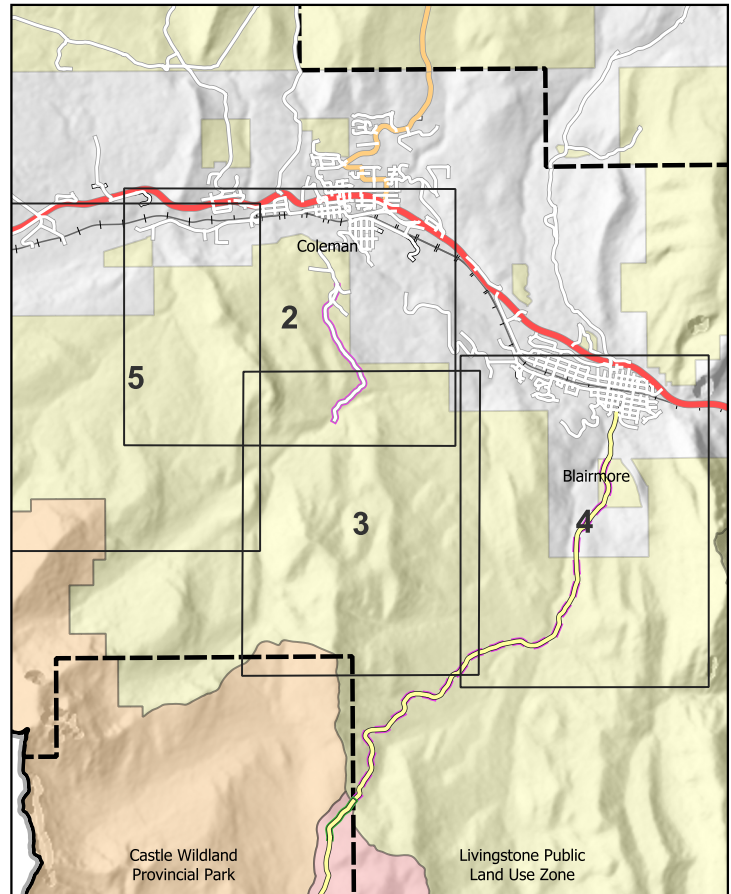
RECOGNIZED AND PROPOSED TRAILS

These maps have been prepared to illustrate the location of recognized and proposed mountain biking trails as described in UROC's Trails Management Plan.

Recognized mountain biking trails are numbered and may be cross-referenced with the Recognized Trails table. Proposed trails have yellow labels with their ID which may be cross-referenced with the Proposed Trails table.

Each detailed map page represents an area of approximately 5 km x 4 km. The maps do not show all trails but instead focus on those that provide mountain biking network connectivity. In this context, "trails" refer to any manmade, linear off-highway feature used for travel.

CRS NAD83/Alberta 10-TM (Forest)



Overview Map
Detail Map Page Number As Shown Above

Symbology for designated summer motorized (OHV) access PLUZ 2023

	Vehicle Description	Trail Sign	Map Symbol	Explanation
Trail Classification	Motorized vehicles with an overall width up to and including 2.4m (98") in width.			Open May 1 - Nov 30
	Motorized vehicles with an overall width up to and including 1.8m (70") in width.			Open May 1 - Nov 30
	Motorized vehicles with an overall width up to and including 0.9m (36") in width.		 	Open May 1 - Nov 30 Open July 15 - Aug 22
Location	Motorized vehicles insured and registered as on-highway or off-highway vehicles are permitted on these roads.		Unmaintained 	Departmental Licence of Occupation and Licence of Occupation Roads

LEGEND FOR DETAIL MAPS

TRAILS

- biking, recognized and other: easiest (green-black dotted) easy (green) more difficult (blue) very difficult (black) extremely difficult (red)
- singletrack not rated
- doubletrack/track
- road
- biking proposed, colour coded similarly to recognized trails

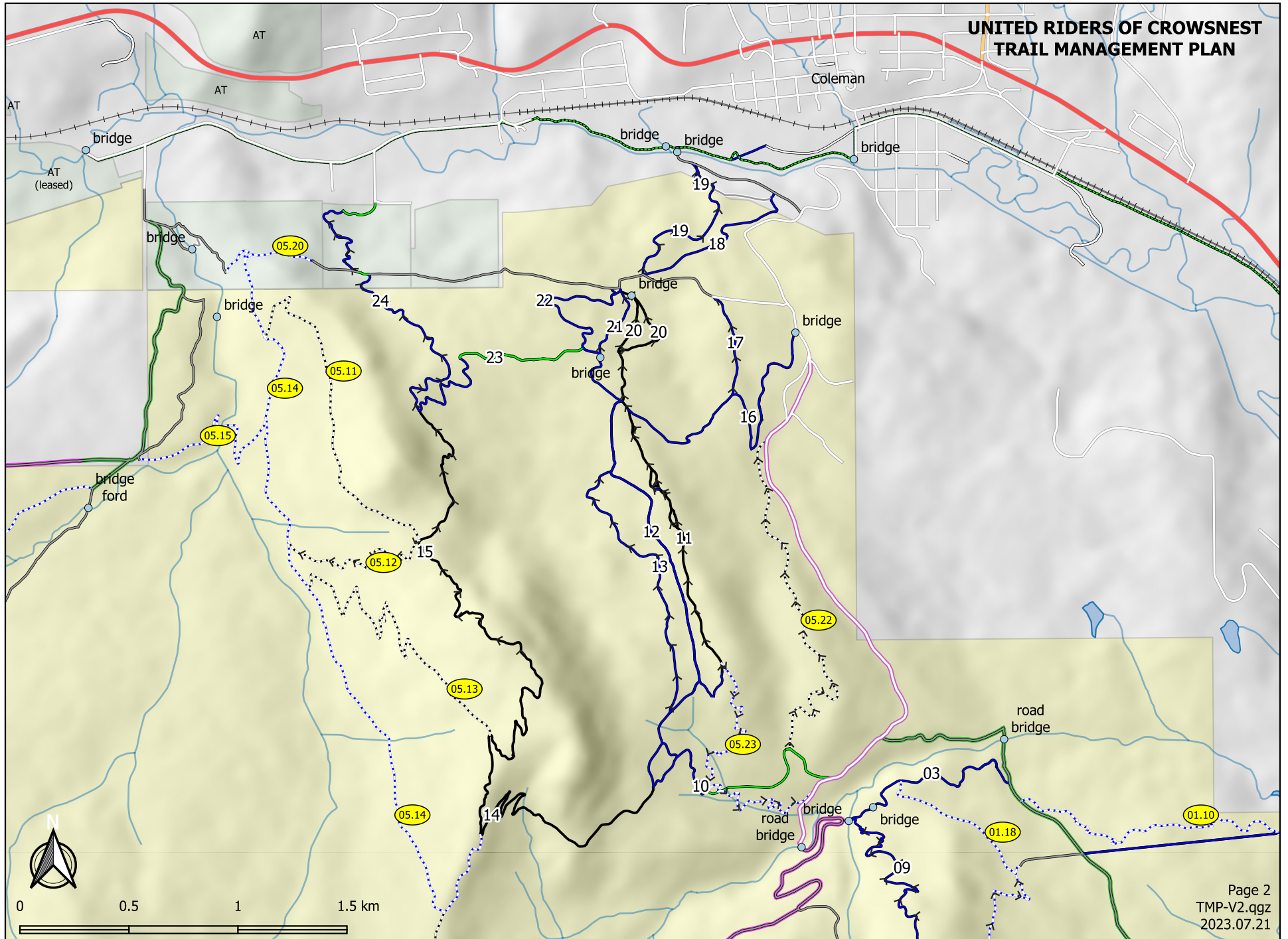
ACCESS-FACILITIES

- railway

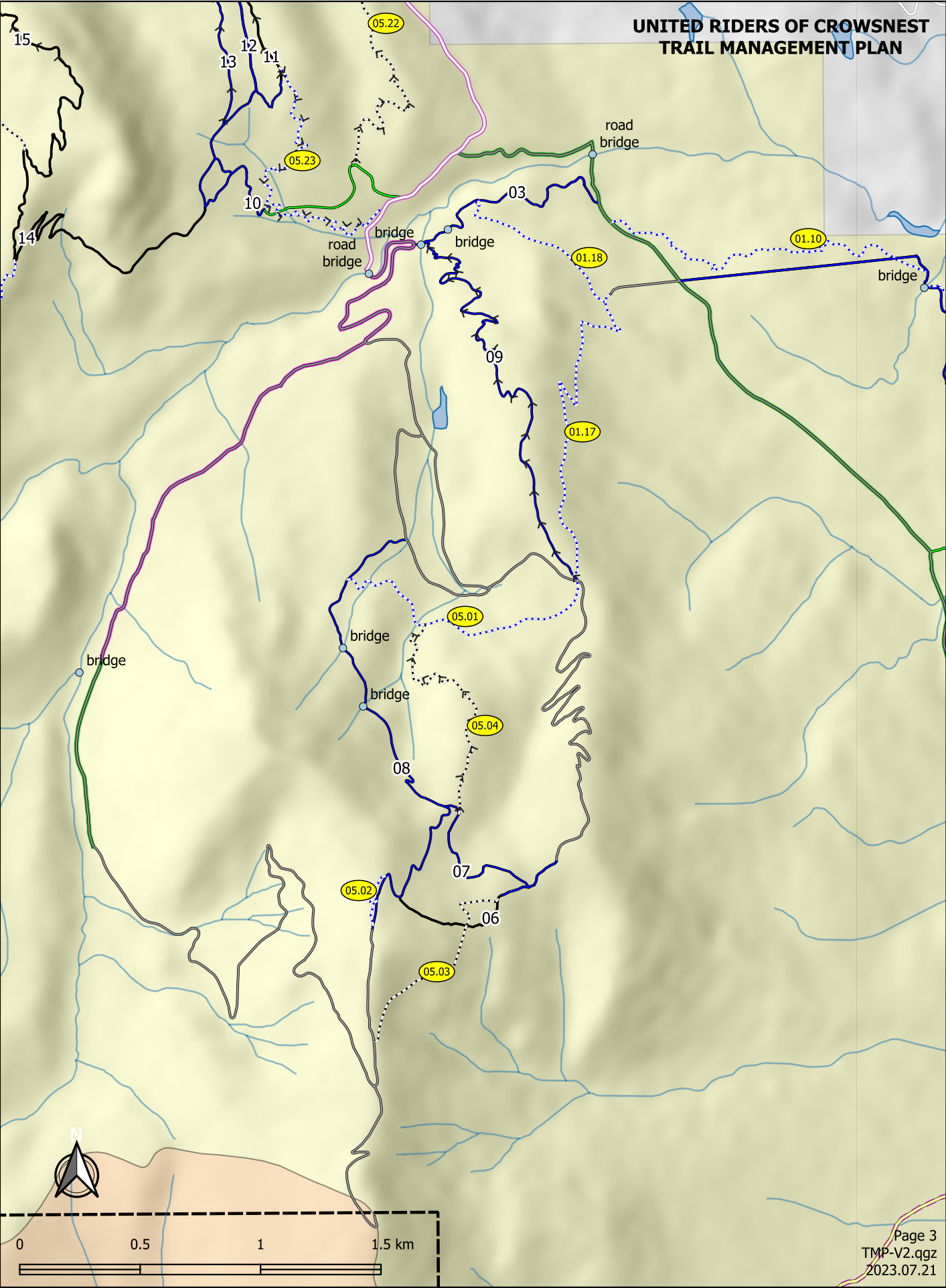
GEOADMIN

- Municipal District and County
- Provincial Park
- Wildland Provincial Park
- Public Land Use Zone
- Crown Land

UNITED RIDERS OF CROWSNEST TRAIL MANAGEMENT PLAN



UNITED RIDERS OF CROWSNEST TRAIL MANAGEMENT PLAN



**UNITED RIDERS OF CROWSNEST
TRAIL MANAGEMENT PLAN**

Blairmore

Red Lease
830018

bridge

bridge

02

01.19

bridge

01.07

01

01.06

01.04

01.05

01.03

01.20

01.04

01.04

01.05

05

04

bridge

bridge

04.09

04.01

04.09

04.10

04.01

04.03



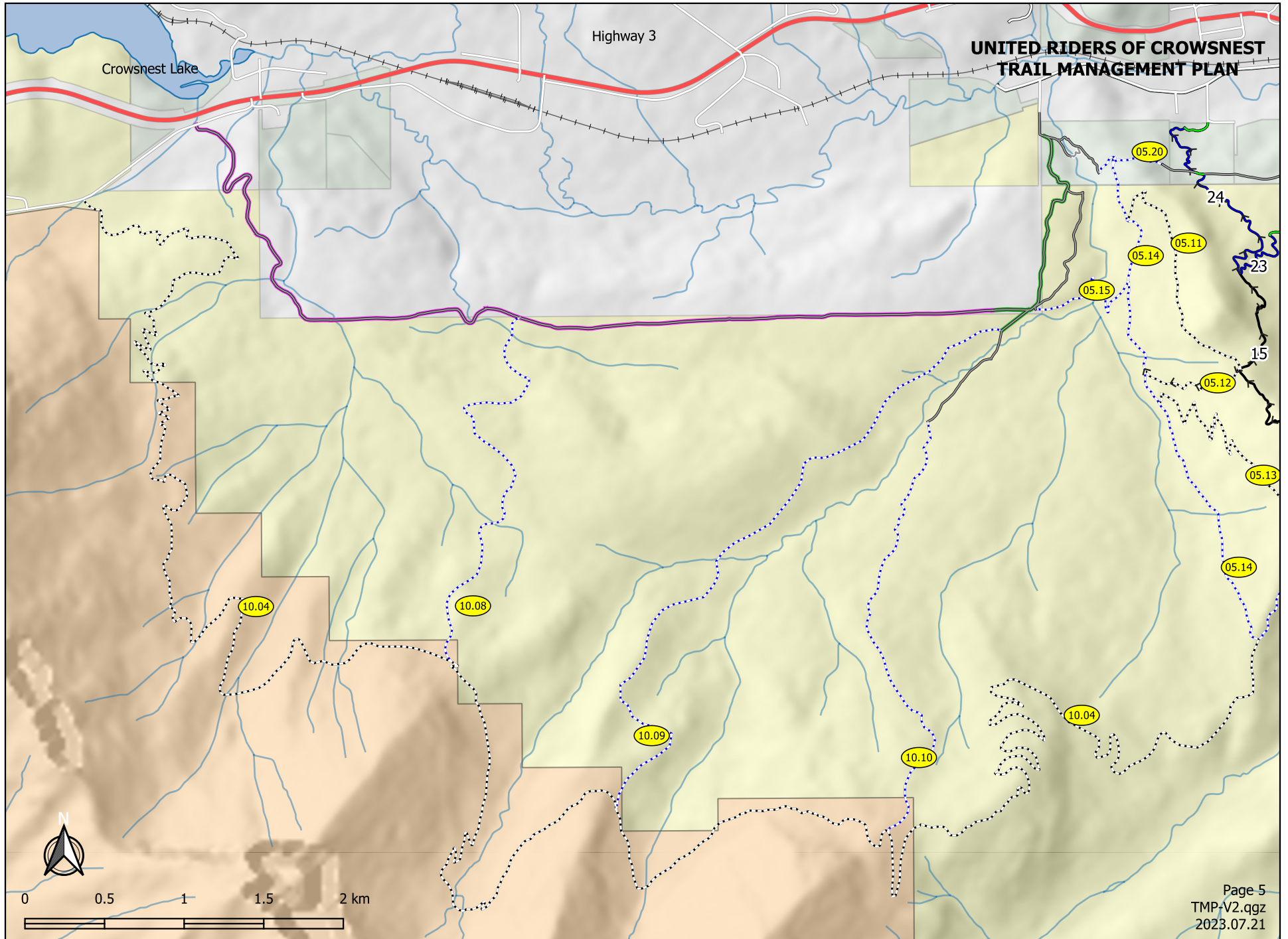
0 0.5 1 1.5 km



**UNITED RIDERS OF CROWSNEST
TRAIL MANAGEMENT PLAN**

Highway 3

Crowsnest Lake



Descriptions for Recognized Trails

In the following, numbers refer to numbered trails in the trails atlas and the trail name is bolded.

01 **Chainsaw Massacre** An intermediate bi-directional trail commonly used as the climbing route to the top of Pass Powderkeg. It can be accessed from ASG or Double Dirt-spresso. It is a rolling trail with a gentle grade, and a few short sections with natural obstacles to add some challenge.

02 **Powderkeg-York Connector** An intermediate bi-directional trail that connects the Pass Powderkeg trails to the York Creek area. Accessed from halfway down the Buck-50 trail at Pass Powderkeg, or from the Betanger Main logging road on the York Creek side. This trail is currently a mix of new singletrack and pre-existing double track. The new singletrack section is generally a moderate grade, while the double track sections have very steep spots that are difficult to bike.

03 **Big Rocks** An intermediate bi-directional trail accessed from the bottom of York with a Fork, or from the Betanger Main logging road. Primarily used for connectivity, this trail can be ridden in conjunction with the Connector route from Pass Powderkeg to York Creek. It is a narrow singletrack trail with small natural obstacles and a wood boardwalk.

04 **Climb to Secret** An intermediate climbing trail used to access Secret Trail. The Pass Powderkeg skills park is typically used as a trailhead for this trail. The trail is a moderate grade with some small natural features adding challenge to the climb.

05 **Secret Trail** An advanced downhill trail located on the lower west slopes of Turtle Mt. It starts at the top of the Climb to Secret, and then joins Crowd Control to continue the ride downhill. The trail is generally narrow, with some short steep sections, small natural features, and a few wood drops and jumps.

06 **Rumhead Uptrack East** Accessed from the upper end of York Creek Mine Road, this minimalist singletrack climb starts where the double track ends and completes the east side climb to the Rumhead trail. It intersects the Rumhead trail about 400 m from the top.

07 **Homonculus** An advanced, minimalist downhill trail that connects York Creek Mine Road to Rumhead avoiding the Rumhead Uptrack. The upper end of Rumhead has late clearing snow so Homonculus allows for earlier seasonal use of most of Rumhead.

08 **Rumhead** An intermediate trail in the York Creek area that starts near the top of Willoughby Ridge. The trail is accessed with a long climb up from either the east or west side, primarily on double track trails. It has some tight corners, short sections with roots and rocks, and

an overall smooth tread. There are two bridges along the trail. Riders can then connect to several other trails in the area.

09 **York with a Fork** An intermediate downhill trail in the York Creek area that starts with a short climb from York Creek Mine Road. It is also commonly ridden as a continuation of the Rumhead trail. From York with a Fork, riders can head over to Back Door to access other trails in the area. This trail has many tight corners, small natural features, and short technical sections.

10 **Back Door** An intermediate climbing trail. Part of the York Creek area trails, it is used to access School of Rock, Squirrel Sh!t, and Big Bear trails from York Creek Road. The trail is a mix of double track and singletrack. It is generally a moderate grade with some natural obstacles that make it a more challenging climb.

11 **School of Rock** An advanced downhill trail, and one of the most popular trails in the York Creek area. It can be accessed by climbing either the Front Door or Back Door trails. The trail offers lots of variety and has many different optional lines. There are many rock and wood jumps, bridges, rock features, and a signature rock slab to ride down. The lower portion of the trail has steep sections with roots and rocks, and some wood jumps.

12 **Front Door** An intermediate climbing trail in the York Creek area, used as an option to access a variety of trails. This trail is mostly double track, with sections turning to single track. It is generally smooth, with a moderate climbing grade.

13 **Squirrel Sh!t** An intermediate downhill trail in the York Creek area. It can be accessed by riding either the Front Door or Back Door climbing trails. This is a technically easier alternative to School of Rock, but it still has sections of rocky trail tread and small natural obstacles.

14 **Big Bear Up** An advanced climbing trail in the York Creek area. It is a physically and technically challenging climbing trail that brings riders up to the Big Bear Down trail. The trail is accessed from the Back Door climbing trail. This climb has steep, technical sections with roots and rocks, and tight switchback corners.

15 **Big Bear Down** An advanced downhill trail in the York Creek area. This trail is accessed from the Big Bear Up trail and connects to Sooper Trooper at the bottom. This trail is generally rocky, with some loose sections and many steep, technical rock features. The lower section enters the forest, where there are bermed corners and a few small jumps before joining the upper end of Sooper Trooper.

16 **Sweet Duaneage** An intermediate bi-directional trail that is a main access route for many of the York Creek trails. From York Creek Road, it allows riders to pedal to many of the lower trails

or access the Front Door to continue climbing. It is primarily singletrack with a gentle grade and generally smooth trail tread.

17 **NRA Lower** An advanced downhill trail in the York Creek area, accessed from Sweet Duaneage. The trail has lots of variety, as it starts off with a gentle rolling trail and then has some steeper rocky sections down lower.

18 **Whistling Post Uptrack** An intermediate climbing trail used to access the top of Whistling Post in the York Creek area. It gives riders the option to then ride downhill, or to continue to Toadstool to access some of the higher trails. It is an alternative to York Creek Road for accessing trails in the area. It is a singletrack trail built mostly on an old roadbed that gently climbs, with a smooth trail tread.

19 **Whistling Post** An intermediate downhill trail in the York Creek area. A popular trail that often gets ridden as the last downhill before arriving back in town. This is an authorized trail with a short section located on private land. The trail tread is generally smooth, with some small natural obstacles, jumps, and numerous berms.

20 **Lower School of Rock** An advanced downhill trail with some steep sections, small natural features, and a few wooden jumps. One option for continuing below School of Rock.

21 **Pineapple Express** An intermediate downhill trail in the York Creek area. It can be combined with numerous other trails in the area for variety. It has small natural obstacles, some tight corners, and short steep sections.

22 **Toadstool** An intermediate climbing trail that provides access from the bottom of Pineapple Express or top of Whistling Post Uptrack. It connects riders to the Sooper Trooper Connector which is linked to many trails in the area. A steady climb with a few short steep sections and small natural obstacles.

23 **Sooper Connector** An intermediate bi-directional trail in the York Creek area. It allows riders to access the top of Sooper Trooper, and many other trails in the area. This trail is a mix of singletrack and double track with some natural obstacles and sections with moderate climbing grades.

24 **Sooper Trooper** An intermediate downhill trail in the York Creek area. It can be accessed from the Big Bear Down trail, or by riding the Sooper Trooper Connector. A generally flowy downhill trail that has small berms, short rooty sections, and some tight corners. The trail has several optional features, including gaps jumps, wood jumps, and rock drops.

RECOGNIZED MOUNTAIN BIKING TRAILS

Label	Trail Name	TPU	Length (m)	Width (m)	Rating	Trail Management Objective	Level of Development	Preferred Use	Other Permitted Uses
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Chainsaw Massacre	Blairmore-Coleman	462	1.0	blue	Intermediate bi-directional trail commonly used as the climbing route to the top of Pass Powderkeg. A rolling trail with a gentle grade and a few small natural obstacles.	Moderate	Mountain biking	Other non-motorized
2	Powderkeg-York Connect	Blairmore-Coleman	1,212	1.0	blue	Intermediate bi-directional trail that connects the Pass Powderkeg trails to the York Creek area. A generally smooth trail with small natural obstacles and two wood bridges.	Moderate	Mountain biking	Other non-motorized
3	Big Rocks	Blairmore-Coleman	1,035	1.0	blue	Intermediate bi-directional trail that can be ridden in conjunction with the Connector route from Pass Powderkeg to York Creek. It is a narrow singletrack trail with small natural obstacles and a wood boardwalk.	Low	Mountain biking	Other non-motorized
4	Climb to Secret	Turtle-Hillcrest	1,114	0.7	blue	Intermediate climbing trail used to access Secret Trail. The trail is a moderate grade with some small natural features adding challenge to the climb.	Low	Mountain biking	Other non-motorized
5	Secret Trail	Turtle-Hillcrest	1,081	1.0	black	Advanced downhill trail that is generally narrow, with some short steep sections, small natural features, and a few wood drops and jumps.	Low	Mountain biking	Other non-motorized
6	Rumhead Uptrack East	York-Girardi	837	1.0	blue	Advanced, minimalist singletrack climbing trail that starts where the double track ends on York Creek Mine Road and connects with the Rumhead trail.	Low	Mountain biking	Other non-motorized
7	Homonculus	York-Girardi	696	1.0	blue	Intermediate, minimalist singletrack trail that connects York Creek Mine Road to Rumhead avoiding the Rumhead Uptrack.	Low	Mountain biking	Other non-motorized
8	Rumhead	York-Girardi	2,427	1.0	blue	Intermediate downhill trail that starts near the top of Willoughby Ridge. It has some tight corners, short sections with roots and rocks, and an overall smooth tread with two bridges along the trail.	Moderate	Mountain biking	Not recommended
9	York with a Fork	York-Girardi	2,418	1.0	blue	Intermediate downhill trail that starts with a short climb from York Creek Mine Road. This trail has many corners, small natural features, small jumps and short technical sections, with one bridge at the end.	Moderate	Mountain biking	Other non-motorized
10	Back Door	York-Girardi	1,987	0.7	blue	Intermediate climbing trail used as a main access route. The trail is a mix of double track and singletrack. It is generally a moderate grade with some natural obstacles that make it a more challenging climb.	Low	Mountain biking	Other non-motorized
11	School of Rock	York-Girardi	1,722	1.0	black	Advanced downhill trail that follows a rocky ridge with many different optional lines. There are rock and wood jumps, bridges, rock features, and a signature rock slab to ride down.	High	Mountain biking	Not recommended
12	Front Door	York-Girardi	1,473	1.0	blue	Intermediate climbing trail used as a main access route. This trail is mostly double track, with sections turning to single track. It is generally smooth, with a moderate climbing grade.	Low	Mountain biking	Other non-motorized
13	Squirrel Sh!t	York-Girardi	1,409	1.0	blue	Intermediate downhill trail in the York Creek area. This a technically easier alternative to School of Rock, but it still has sections of rocky trail tread and small natural obstacles.	Moderate	Mountain biking	Other non-motorized
14	Big Bear Up	York-Girardi	3,441	1.0	black	Advanced climbing trail that is physically and technically challenging. This climb has steep, technical sections with roots and rocks, and tight switchback corners.	Moderate	Mountain biking	Other non-motorized
15	Big Bear Down	York-Girardi	1,756	1.0	black	Advanced downhill trail that connects to Sooper Trooper at the bottom. This trail is generally rocky, with some loose sections and many steep, technical rock features.	Moderate	Mountain biking	Not recommended
16	Sweet Duaneage	York-Girardi	1,650	1.0	blue	Intermediate bi-directional trail used as a main access route. It is primarily singletrack with a gentle grade and generally smooth trail tread.	Low	Mountain biking	Other non-motorized
17	NRA Lower	York-Girardi	487	1.0	blue	Advanced downhill trail. The trail has lots of variety, as it starts off with a gentle rolling trail and then has some steeper rocky sections down lower.	Low	Mountain biking	Other non-motorized
18	Whistling Post Uptrack	York-Girardi	743	1.0	blue	Intermediate climbing trail. It is a singletrack trail built mostly on an old roadbed that gently climbs, with a smooth trail tread.	Low	Mountain biking	Other non-motorized
19	Whistling Post	York-Girardi	805	1.0	blue	Intermediate downhill trail that is generally smooth, with some small natural obstacles, jumps, and numerous berms.	Moderate	Mountain biking	Other non-motorized
20	Lower School of Rock	York-Girardi	1,015	1.0	black	Advanced downhill trail with some steep sections, small natural features, and a few wooden jumps.	Moderate	Mountain biking	Not recommended
21	Pineapple Express	York-Girardi	372	1.0	blue	Intermediate downhill trail that has small natural obstacles, some tight corners, and short steep sections.	Moderate	Mountain biking	Not recommended

RECOGNIZED MOUNTAIN BIKING TRAILS

22	Toadstool	York-Girardi	872	1.0	blue	Intermediate climbing trail that provides access to many trails in the area. A steady climb with a few short steep sections and small natural obstacles.	Low	Mountain biking	Other non-motorized
23	Sooper Connector	York-Girardi	1,756	1.0	green	Intermediate bi-directional trail that is a mix of singletrack and double track with some natural obstacles and sections with moderate climbing grades.	Moderate	Mountain biking	Other non-motorized
24	Sooper Trooper	York-Girardi	1,778	1.0	blue	Intermediate downhill trail with some smooth, flowing sections, small berms, and natural features. The trail has several optional features, including gaps jumps, wood jumps, and rock drops.	Moderate	Mountain biking	Other non-motorized
	Total (km)		32.6						
This printed table is a simplified version of an Excel workbook. Refer to the GIS file for the complete set of trail attributes. Trail descriptions are documented elsewhere in this plan.									
Table Notes:									
1. Corresponds to labels on atlas maps.									
2. Trail Planning Unit (TPU) - a UROC construct to group trails by sub-region.									
3. Length refers to only that portion of the trail within the Livingstone PLUZ.									
4. Widths are just representative. For most trails, their widths depend on how they were built, riding style and usage and are rarely consistent over the full length of the trail. Typically machine-built trails will be 1.0m or wider; hand-built trails might be 0.5m wide when built but may become wider with use.									
5. Ratings are relative to other trails in the region and are somewhat subjective. Rating refers to technical challenge not physical effort. Ratings colours correspond to IMBA technical ratings as follows: green (easier), blue (more difficult), black (very difficult) and red (extremely difficult/double-black).									
6. Short form Trail Management Objectives (retrospective).									
7. Using a 3-level scale based on sum of three individual 3-level scales for tread, features and signs.									
8. When a trail has been built by mountain bikers primarily for mountain biking then that is the preferred use. With respect to mountain biking use, the trail type for all trails is "Summer" (per Trail Development Guidelines Sep 2019)									
9. Trails are all intended to be non-motorized. Where other permitted uses = "not recommended" is indicated, these are single user type, often highly constructed downhill only bike trails.									
Additional Notes:									
The trail clearing widths will generally be about 1.5 m wider than the trail tread. However it is standard practice for mountain biking trail design to leave larger trees (limbed tree trunks) and rocks close to the trail tread to a) keep users on the trail (corralling) particularly where there is an opportunity to cut corners and b) control speed using a narrowing of the trail (chokes).									
The trail clearing height will be a standard 3m above the trail tread.									
An important aspect of vegetation control is maintaining good sight lines so occasionally vegetation may be thinned outside the nominal clearing width when approaching corners.									

Descriptions for Proposed Trails

In the following, numbers refer to the numbered labels on the trails atlas and TMO Table 9.

mp01.03 A cross-country style trail. Will work with a short trail from Chainsaw Massacre (mp01.07) to connect Pass Powderkeg to the Blairmore South expansion. Will use some existing singletrack trail (dirt bike) and new trail to bypass a very steep climb to the ridge. Build standard for new trail will be comparable to nearby Pass Powderkeg trails; existing singletrack will require just a light touch to retain its natural characteristics. Some smaller berms and possible inclusion of natural features as technical trail features (TTFs). Interesting and varied terrain that will enable a high-quality trail experience. While the existing very steep singletrack would be rideable downhill, its use should be discouraged but given this was made by dirt bike riders, this may not be possible. An optional line is available by using more of the existing trail. Terrain has been surveyed and proposed route can be considered a well-defined candidate.

mp01.04 A scenic, mostly open ridge with lightly developed trail - a natural experience. Part of the Blairmore South area expansion. It provides the connection between trails on the north and south ends of the hill. There is existing singletrack trail that just needs a light touch to complete. Apart from the option to ride over a bit of exposed rock, no TTFs are proposed. This trail appears to have been made by dirtbikes but has also been used by Sinister 7 in recent years.

mp01.05 A cross-country style trail which will add variety. Part of the Blairmore South area expansion. Will work with mp01.03 and mp01.04 to complete a loop back to Dale Strandquist and Pass Powderkeg. Build standard for new trail will be comparable to nearby Pass Powderkeg trails. Some smaller berms and possible inclusion of natural features as TTFs. Mostly in the trees without views - would need a bit of creativity to add interest to the trail. Completes a loop as an alternative to out and back along the ridge. Could tie into any future development on Benga Mining land to east. Terrain has been surveyed and the proposed route can be considered a good starting point.

mp01.06 A technical trail descending from a ridge to Dale Strandquist that will provide a fun and challenging experience. Part of the Blairmore South area expansion. This trail will normally be ridden down hill but may be built to provide a viable uphill option for those looking for a physical challenge. From Dale Strandquist it will tie into a new trail mp01.19 connecting to Buck-50 on the west side of Pass Powderkeg. Build standard for new trail will be comparable to nearby Pass Powderkeg trails. As a more downhill oriented trail, there will be an emphasis on including medium-large TTFs. At mid-hill, the terrain will allow for creating a series of large sweeping turns (big berms). Terrain has been surveyed and the proposed route can be considered a well-defined candidate.

mp01.07 A short connecting trail. Connects Chainsaw Massacre and area expansion to the south. A modest upgrade of a well-defined game trail. One small jump using rock feature. The route

follows an old trail that it now obstructed with deadfall. Terrain has been surveyed and the proposed route can be considered a well-defined candidate.

mp01.10 Primarily intended as a connection between Pass Powderkeg and main York Creek area trails. It could also serve as part of a future Epic trail. This will be Phase 3 of the Powderkeg-York Connector (2) and will complete this trail. It will bypass some steep doubletrack, a poor-quality cutline and a short section of the Betanger Main permanent logging road. About half of the trail will run through a recent cutblock. Build standard for new trail will be comparable to nearby Pass Powderkeg trails and the Powderkeg-York Connector Phase2. The Powderkeg-York Connector was originally conceived as a minimalist trail making use of as much existing trail as possible. The plan has evolved to a more ambitious undertaking to make best use of the terrain and add real interest to the trail. In 2020, UROC applied for a TFA to complete this project, but the terms were unacceptable (complete details in the project file). Current plan would work well with the proposed Epic.

mp01.17 This trail provides variety for cross-country riders. As a new connection from Betanger Main to the upper end of York with a Fork (09) and the east access to Rumhead (08), it will enable a variety of through rides or loops. This trail is expected to be primarily used as an uptrail. Build standard for new trail will be comparable to Pass Powderkeg trails and the Powderkeg-York Connector. This trail works with York with a Fork (09), Rumhead (08), mp01.18 and mp05.01 to make a sub-network south of York Creek. Terrain has not been surveyed.

mp01.18 This trail provides variety for cross-country riders. This completes a loop with York with a Fork (09) and mp01.17. Build standard for new trail will be comparable to Pass Powderkeg trails and the Powderkeg-York Connector. Trail will mostly contour around a hillside with a few small climbs and descents added for interest. Terrain has been surveyed and the mapped route is a good representation.

mp01.19 This short trail provide connectivity and variety. Build standard for new trail will be comparable to Pass Powderkeg trails. The connection from mp01.06 to Buck-50 was considered in 2016 but dropped because of the feeling that this would be inviting dirtbikers to use Buck-50. This is still a risk but with the heightened awareness of recreation management and designated motorized trails in the PLUZ, it is of less concern.

mp01.20 This trail provides variety for cross-country riders. Part of the Blairmore South area expansion. This trail works with mp01.03, mp01.04 and mp01.05 to create a loop. There is some steeper terrain so could be a more challenging option than mp01.05. Build standard for new trail will be comparable to Pass Powderkeg trails. Will include some smaller berms and the possible inclusion of natural features as TTFs. Largely forested but may use an old cutline. Terrain has not been surveyed.

mp04.01 This trail adds value to the Hastings Ridge trail with connectivity to trails on the west slopes of Turtle Mt. It would provide an alternative to the rather rough and eroded doubletrack exits off the north end of Hastings Ridge. The route crosses some steep sidehill and a couple of streams so will need a bit of creativity. There is potential to add technically challenging features. The south end of the trail would more or less follow the route of an old mountain biking trail that fell into disuse. The area is heavily inundated with deadfall resulting from the 2003 fire. Prior to the fire there was a biking trail approximately as mapped south of the junction with mp04.09.

mp04.03 A short section of trail providing a decent bikeable connection from Hastings Ridge to Sartoris Rd. This adds value to the Hastings Ridge trail. It will bypass highly degraded doubletrack trail at the lower end of the designated motorized trail. The route follows an old logging trail. Build standard could be minimalist. While the new trail will be bi-directional, it is most likely to be used as an exit off Hastings Ridge i.e., generally ridden downhill.

mp04.04 A short bypass section of steep slabby rock with loose cover. Hastings Ridge has many open areas and is very scenic. There is one obvious area that needs improving for biking but there are other sections further north that also need upgrading or bypassing. Build standard could be minimalist. Hastings Ridge was one of the principal "mountain biking" trails in the 1990's but sees less use now because of the alternatives that have been built since. It is a designated motorized trail and it, as well as the exits off the north end of the ridge, have become quite degraded in places. This trail has appeal for back country touring and extended rides.

mp04.09 A shorter alternative to the north half of mp04.01. This would run from a saddle at the south end to pick up the descending trail off the Turtle Mt. sub-peak. The trail crosses areas of rockfall which would allow for some interesting routing. With exposed rock, some creative options are possible. It runs through heavy deadfall and new growth area. It must climb through a small cliff band to access the trail used for Sinister7-Leg2. The area was surveyed but route is only indicative. There would likely be a short carry through the cliff band unless a lot of work was done to create a ramp. Might not build this trail if the full 3 km of mp04.01 was built.

mp04.10 A technically challenging trail offering a route off the north end of Hasting Ridge. Could also be ridden in an uphill direction to make a loop with mp04.01. After minimal elevation gain from the north end of Hastings Ridge, head north along a ridge overlooking Sartoris Rd. Good views across valley to the west. Tread can make use of exposed rock. Possibly hand-built through rockier areas. Lots of exposed rock and potential for creating challenge. The ridge is mostly open because of the 2003 wildfire. Could be an alternative to or done as well as mp04.01. There is approximately 0.8 km at the north end on private land but a more direct route to down to Sartoris would be possible if land use permission was not forthcoming.

mp05.01 This trail is about connectivity and avoiding degraded trail and wet areas along an old logging road. It will provide a connection between the lower end of Rumhead (08) and the start of York with a Fork (09). Normally will be ridden west to east. Build standard for new trail will be comparable to Pass Powderkeg trails. Two bridges will be required (same stream crossings as Rumhead) otherwise keep it simple. Much of the route runs through recent cutblocks. Both streams have riparian buffers. There might need to be a third bridge over a seasonal stream near the old mine road.

mp05.02 This is a bypass for a short section of degraded doubletrack. An upgrade for the Rumhead trail. Build standard could be minimalist. Currently, the upper end of Rumhead (08) is a fall line doubletrack that is eroded.

mp05.03 A more or less challenging climb crossing some interesting terrain (level of challenge TBD). This would take off from the upper end of the York Creek Mine Road and be a proper climbing trail to access the upper end of Rumhead (08). Further terrain survey is required to better appreciate the character of the area. As predominantly a climbing trail, there are not likely to be many technical features. This trail can also be used to access the track to the fire lookout. It would replace the bike push required with the current singletrack (06).

mp05.04 An advanced downhill trail that will make use of the steep terrain to create interesting trail features. The proposed trail will generally follow the line of an existing, primitive trail but substantial upgrades and some reroutes will be required. A more direct alternative to Rumhead for accessing York with a Fork.

mp05.11 This trail will be moderately challenging with the potential for loops and variety. Part of the Saddle Mt. West expansion of the York Creek network. It provides a connection from Big Bear Down (15) to the Star Creek area. It will be bi-directional and can be ridden uphill to create a loop with lower Big Bear Down and Sooper Trooper (24). It could be ridden downhill as an alternative to riding more difficult sections on Big Bear Down. Much of the trail is in naturally open areas. Tread should be well built for longevity. Some small-medium berms and the possible inclusion of natural features as TTFs. The area has been surveyed but the mapped route is just indicative. As the network on the west side of Saddle Mt is built, more loop options will become available.

mp05.12 This will be a more challenging enduro style trail. Part of the Saddle Mt. West expansion of the York Creek network. Located on steeper terrain working a modestly defined ridge, it has lots of potential for creativity. Maximum use will be made of exposed rock. A high build standard will be required for sustainability. Likely will include some bigger berms and more challenging natural TTFs. This terrain has not yet been surveyed. Potentially two-thirds open

terrain. Will require mp05.14 collector trail to be available. As Saddle Mt. West is built out, there will be potential for including in loops.

mp05.13 A trail allowing for loops and variety. Part of the Saddle Mt. West expansion of the York Creek network. This trail provides an option to avoid the upper end of Big Bear Up (14) or alternatively be used to access the upper part of Big Bear Up as well as Big Bear Down (15). It could be part of a challenging loop with Big Bear, Sooper Trooper (24), mp05.14 and mp05.20. Much of the trail is in naturally open areas. Tread should be well built for longevity. Some small-medium berms and the possible inclusion of natural features as TTFs. This terrain has not yet been surveyed. Potentially two-thirds open terrain. Will require mp05.14 collector trail to be available. As Saddle Mt. West is built out, there will be potential for including in loops.

mp05.14 This will be an intermediate cross-country trail and serve as a collector for the lower end of trails on the west slopes of Saddle Mt. Part of the Saddle Mt. West expansion of the York Creek network. The trail will be bi-directional. It could work with a nearby designated motorized trails for touring the Star Creek and York Creek areas. Much of the trail is in naturally open areas. Tread should be well built for longevity. This terrain has not yet been surveyed. Potentially half in open terrain. With mp05.15, will connect to existing Star Creek trails and others to the west.

mp05.15 For connectivity between Saddle Mt trails and Star Creek area. Can also be part of a loop around the lower Star Creek area which is popular for hiking and sightseeing. Build standard for new trail will be comparable to Pass Powderkeg trails. Makes the Star Creek area a worthwhile proposition for mountain biking.

mp05.20 This is for connectivity and avoids a steep descent and climb back up to the TC Energy pipeline track. Works as part of the Saddle Mt. West network to create loops and could also be part of bikeable connection between York Creek and Star Creek. Tread should be well built for longevity. This is mostly a contouring trail through a treed area.

mp05.22 A challenge trail utilizing an extended line of exposed rock to create TTFs. This trail would complement similar trails in the area such as School of Rock.

mp05.23 A heavily constructed flow (freeride) trail with big features, primarily man-made TTFs. This trail adds variety to the trail selection in the area which attracts more skilled riders. (Trail name yet to be determined)

mp10.04 Epic1 (2020) The Epic - a signature trail combining all the elements of technical and physical challenge in a fabulous setting. This trail would tie in with other trails to the east to meet the distance criteria and offer options for overall length and start-end points. Two or three intermediate connections in the PLUZ would allow for shorter variants. Trail will be built to a high standard. The route will be partially in the Castle WPP and partly in the Livingstone PLUZ. This

version of an Epic is UROC's preferred choice and there could be synergies with the Great Divide Trail. Terrain has been surveyed but much more is required before finalizing the route. See Castle Region Epic Trail (Jun 27, 2019) for more details. This might be an Alberta Parks project as currently shown.

mp10.08 Epic1 Dropoff1, mp10.09 Epic1 Dropoff2 and mp10.10 Epic1 Dropoff3 Three intermediate access-exits from the main Epic route. They will allow riders to enjoy a portion of the Epic route without committing to the full distance. They will also be available for more direct emergency response. The routes can make use of existing doubletrack trails in the area particularly closer to Highway 3. The routes shown are indicative. They need to be spaced to divide the main Epic trail into similar length segments. Because of the high elevation and aspect of parts of the main trail, these drop-offs could offer earlier seasonal access to parts of the Epic route.

PROPOSED MOUNTAIN BIKING TRAILS

Label	Trail Name	TPU	Length (m)	Width (m)	Rating	Level of Development	Trail Classification (seasonal)	Preferred Use	Other Permitted Uses	Land Manager
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
01.03	mp01.03	Blairmore-Coleman	1,264	1.0	blue	Moderate	None	Mountain biking	Other non-motorized	FP (Public)
01.04	mp01.04	Blairmore-Coleman	1,568	1.0	blue	Low	None	Mountain biking	Other non-motorized	FP (Public)
01.05	mp01.05	Blairmore-Coleman	2,528	1.0	blue	Moderate	None	Mountain biking	Other non-motorized	FP (Public)
01.06	mp01.06	Blairmore-Coleman	1,027	1.0	black	High	None	Mountain biking	Not recommended	FP (Public)
01.07	mp01.07	Blairmore-Coleman	161	1.0	blue	Low	None	Mountain biking	Other non-motorized	FP (Public)
01.10	mp01.10	Blairmore-Coleman	1,907	1.0	blue	Moderate	None	Mountain biking	Other non-motorized	FP (Public)
01.17	mp01.17	Blairmore-Coleman	1,709	1.0	blue	Moderate	None	Mountain biking	Other non-motorized	FP (Public)
01.18	mp01.18	Blairmore-Coleman	762	1.0	blue	Moderate	None	Mountain biking	Other non-motorized	FP (Public)
01.19	mp01.19	Blairmore-Coleman	480	1.0	blue	Moderate	None	Mountain biking	Other non-motorized	FP (Public)
01.20	mp01.20	Blairmore-Coleman	871	1.0	blue	Moderate	None	Mountain biking	Other non-motorized	FP (Public)
04.01	mp04.01	Turtle-Hillcrest	3,037	1.0	black	Moderate	None	Mountain biking	Other non-motorized	FP (Public)
04.03	mp04.03	Turtle-Hillcrest	632	1.0	blue	Moderate	None	Mountain biking	Other non-motorized	FP (Public)
04.04	mp04.04	Turtle-Hillcrest	340	0.7	blue	Low	None	Mountain biking	Other non-motorized	FP (Public)
04.09	mp04.09	Turtle-Hillcrest	813	0.7	black	Low	None	Mountain biking	Other non-motorized	FP (Public)
04.10	mp04.10	Turtle-Hillcrest	3,043	1.0	black	Moderate	None	Mountain biking	Other non-motorized	FP (Public)
05.01	mp05.01	York-Girardi	1,262	1.0	blue	Moderate	None	Mountain biking	Other non-motorized	FP (Public)
05.02	mp05.02	York-Girardi	291	0.7	blue	Low	None	Mountain biking	Other non-motorized	FP (Public)
05.03	mp05.03	York-Girardi	952	1.0	black	Moderate	None	Mountain biking	Other non-motorized	FP (Public)
05.04	mp05.04	York-Girardi	1,155	1.0	black	Moderate	None	Mountain biking	Other non-motorized	FP (Public)
05.11	mp05.11	York-Girardi	1,677	1.0	black	Moderate	None	Mountain biking	Other non-motorized	FP (Public)
05.12	mp05.12	York-Girardi	841	1.0	black	Moderate	None	Mountain biking	Not recommended	FP (Public)
05.13	mp05.13	York-Girardi	1,963	1.0	black	Moderate	None	Mountain biking	Other non-motorized	FP (Public)
05.14	mp05.14	York-Girardi	4,019	1.0	blue	Moderate	None	Mountain biking	Other non-motorized	FP (Public)
05.15	mp05.15	York-Girardi	1,065	1.0	blue	Moderate	None	Mountain biking	Other non-motorized	FP (Public)
05.20	mp05.20	York-Girardi	331	1.0	blue	Low	None	Mountain biking	Other non-motorized	GOA Other
05.22	mp05.22	York-Girardi	1,879	0.7	black	Moderate	None	Mountain biking	Not recommended	FP (Public)
05.23	mp05.23	York-Girardi	1,742	1.5	blue	High	None	Mountain biking	Not recommended	FP (Public)
10.04	mp10.04 Epic1 (2020)	Castle-PLUZ	22,324	1.0	black	High	Summer	Mountain biking	Other non-motorized	FP (Parks)
10.08	mp10.08 Epic1 Dropoff1	York-Girardi	2,995	1.0	blue	Moderate	None	Mountain biking	Other non-motorized	FP (Public)
10.09	mp10.09 Epic1 Dropoff2	York-Girardi	4,659	1.0	blue	Moderate	None	Mountain biking	Other non-motorized	FP (Public)
10.10	mp10.10 Epic1 Dropoff3	York-Girardi	3,038	1.0	blue	Moderate	None	Mountain biking	Other non-motorized	FP (Public)
		Total (km)	70.3							

This table is a simplified version of an Excel workbook. Refer to the GIS file for the complete set of trail attributes. Trail descriptions are documented elsewhere in this plan.

PROPOSED MOUNTAIN BIKING TRAILS

Table Notes:										
1. Corresponds to labels on atlas maps.										
2. Trail names are per UROC Trails Management Plan (July 2023).										
3. Trail Planning Unit (TPU) - a UROC construct to group trails by sub-region.										
4. Length refers to only that portion of the trail within the Livingstone PLUZ										
5. Widths are just representative. For most trails, their widths depend on how they were built, riding style and usage and are rarely consistent over the full length of the trail. Typically machine-built trails will be 1.0m or wider; hand-built trails might be 0.5m wide when built but may become wider with use.										
6. Ratings are relative to other trails in the region and are somewhat subjective. Rating refers to technical challenge not physical effort. Ratings colours correspond to IMBA technical ratings as follows: green (easier), blue (more difficult), black (very difficult) and red (extremely difficult/double-black)										
7. Using a 3-level scale based on sum of three individual 3-level scales for tread, features and signs.										
8. With the exception of the Epic (mp10.04), there are no seasonal limitations on any of these trails. While they may not be practically useable during the winter by regular mountain bikes, they are available for fat bikes and other non-motorized users.										
9. Mountain biking is the preferred use for all trails in this table. With respect to mountain biking use, the trail type for all trails is "Summer" (per Trail Development Guidelines Sep 2019)										
10. Trails are all intended to be non-motorized. Where other permitted uses = "not recommended" is indicated, these are single user type, highly constructed downhill only bike trails.										
11. Formal Trail Management Objectives for these trails will be prepared when trails are progressed to detailed design. Refer to trail descriptions for now.										
12. Trail mp05.23 has been approved for construction per TFA 232161 dated June 13, 2023										
Additional Notes:										
The trail clearing widths will generally be about 1.5 m wider than the trail tread. However it is standard practice for mountain biking trail design to leave larger trees (limbed tree trunks) and rocks close to the trail tread to a) keep users on the trail (corralling) particularly where there is an opportunity to cut corners and b) control speed using a narrowing of the trail (chokes).										
The trail clearing height will be a standard 3m above the trail tread.										
An important aspect of vegetation control is maintaining good sight lines so occasionally, vegetation may be thinned outside the nominal clearing width when approaching corners.										

Appendix B - Environmental Review

A desktop environmental review was conducted to identify sensitivities on the landscape. This review is summarized in the following sections:

- Ecoregions
- Historic Resources
- Soils and Terrain
- Vegetation
- Wildlife
- Water and Aquatic Resources
- Land and Resource Use

Illustrations for this section include:

- Figure 8 Natural Regions and Subregions of Alberta
- Figure 9 Historic Resources Value
- Figure 10 Erosion Hazard
- Figure 11 Recreation Opportunity Model
- Figure 12 Alberta Conservation Management Information System
- Figure 13 Wildlife Sensitive Species Areas
- Figure 14 Water and Aquatic Resources

Ecoregions

Crowsnest Pass lies within the Rocky Mountain Natural region and three natural sub-regions: Alpine, Subalpine and Montane. Mountain biking trails within Crowsnest Pass occur predominantly within the Subalpine and Montane regions (Figure 8.)

The Subalpine subregion typically has short, cool, wet summers, and long, cold winters characterized by heavy snows, compared to the Montane subregion which is characterized by mild summers that have high precipitation, and frequent Chinook winds that result in warmer winters. Montane subregions are generally characterized by valleys and foothills consisting of till with significant fluvial deposits, whereas Subalpine subregions are characterized by till and residual materials over rolling and inclined bedrock (Downing, 2006). Vegetation within Montane subregions is generally characterized by mixed and pure forests, with some grasslands, whereas the Subalpine subregion vegetation generally consists of mixed conifer forests.

Both the Montane and Subalpine sub-regions offer terrain suitable for mountain biking and mountain biking trail development. Development of mountain biking trails within the Montane and Subalpine sub-regions is not believed to be of significant environmental concern.

Historic Resources

Historic resources are protected under the *Historical Resources Act* and are regulated by Alberta Arts, Culture and Status of Women (ACSW). The *Listing of Historic Resources*³ was reviewed to identify any lands that contain historic resources, including archaeological sites, palaeontological sites, Indigenous traditional land use sites of a historical resource nature and historic structures.

Within and adjacent to Recognized Trail and Proposed Trails, palaeontological, archaeological and historic structure sites are present, and may be affected by the development of trails. The interpretive potential of these sites is represented through ACSW's Historic Resources Value (HRV) rating system (Figure 9). Ratings relevant to the sites identified in the study area include:

- HRV 1: sites designated as Provincial Historic Resources under Section 20 of the *Historical Resources Act*;
- HRV 3: sites that contain a significant historic resource that will likely require avoidance.
- HRV 4: sites that contain a significant historic resource that may require avoidance.
- HRV 5: sites that are believed to contain a historic resource.

³ <https://www.alberta.ca/listing-historic-resources.aspx>

Recognized Trails

Historical Resources Act approval with conditions has been granted for Recognized Trails included within this plan (HRA Number: 4725-23-0002-002). There are no *Historical Resources Act* requirements associated with palaeontological resources, Aboriginal traditional use sites of a historic resource nature, historic structures, or Provincially Designated Historic Resources; however, all activities must comply with Standard Requirements under the *Historical Resources Act: Reporting the Discovery of Historic Resources*, which are applicable to all land surface disturbance activities in Alberta.

A Historic Resource Impact Assessment is recommended for development of trail segments that lie within LSDs 13 & 14 of Section 5, LSD 16 of Section 6 and LSDs 1, 2 3 & 7 of Section 8 in Twp 8-4-W5M. This includes parts of the following trails: Whistling Post Uptrack, Whistling Post, Pineapple Express, Toadstool, Sooper Connector and Lower School of Rock. A Historical Resources Impact Assessment will only be required for the targeted trails identified above when development activities will result in ground-disturbing impacts. Such activities may include, but are not limited to, maintenance activities involving grading or excavation, trail rerouting, trail erosion control or new trail and/or berm construction.

No Historic Resources Impact Assessment is required for the following activities within the targeted trails: (1) continued recreational use by the public; (2) designation of the trails as Provincially Designated Trails; (3) maintenance activities that do not involve grading or excavation (such as debris removal or the cutting of dangerous or intrusive vegetation); (4) trail improvement requiring the addition of new surfacing materials on the existing trail to build up the trail and/or improve its tread (as long as surfacing materials are sourced outside the target area lands).

Proposed Trails

Alignments for Proposed Trails are considered to be within lands of high potential for the existence of palaeontological, archaeological and historic period sites. No sites representing the precontact archaeological period or Aboriginal traditional use sites of a historic resource nature have been recorded within lands intersected by Proposed Trail alignments.

Recorded Archaeological sites and important palaeontological locations, including the named locations of the York Creek, Blairmore, Lyon Creek and Turtle Mountain palaeontological sites, may be affected by development of Proposed Trails. Any Proposed Trail development, upgrading or construction activities that will result in ground-disturbing impacts will require *Historical Resources Act* approval before proceeding.

Soil and Terrain

The general surface morphology of the area is rugged, with high relief, uneven land surface with widespread bedrock and few trees or plants (Government of Alberta, 2019).

Soils within Recognized and Proposed Trail areas are typically moderately well drained and fine-grained with a medium nutrient regime overlaying clay subsoil. A medium-high erosion hazard and medium rutting hazard were given to most of the soils in the trail areas based on the moisture regime and surface texture of soil types identified by the Government of Alberta's derived ecosite phase data. Review of the Recreation Opportunity Model indicates Recognized Trails and Proposed Trail alignments are located in areas of excellent or good ground conditions for trail development (Figure 10 and Figure 11).

Based on soil and terrain information reviewed as part of this plan, Recognized and Proposed Trail alignments are suitably sited and development of these trails is not believed to be of significant environmental concern. Soils should be conserved during trail development and all trails should be protected from erosion.

Vegetation

The trail network is located within a forested area consisting of predominantly trembling aspen (*Populus tremuloides*), Douglas fir (*Pseudotsuga menziesii*), spruce (*Picea spp.*) and pine (*Pinus spp.*) with a woody understory and various native grasses and shrubs consistent with montane and subalpine subregions. Patches of grasslands are present in the York-Girardi and Turtle-Hillcrest areas.

Recognized and Proposed Trail areas are within the endangered and threatened plant ranges of whitebark pine (*Pinus albicaulis*) and foothills rough fescue (*Festuca campestris*). Review of Alberta Conservation Information Management System (ACMIS) indicates no sensitive element occurrences (Figure 12). Non-sensitive element occurrences within or in near proximity to Recognized and Proposed Trail areas are summarized in Table 10. Review of the Recreation Opportunity Model also indicates that patches of rough fescue may occur within areas of Recognized Trails and Proposed Trail alignments.

Table 10 Summary of ACMIS Non-Sensitive Element Occurrences

Common Name	Scientific Name
Macoun's cudweed	<i>Pseudognaphalium macounii</i>
Snowbrush ceanothus	<i>Ceanothus velutinus ssp.</i>
Phacelia linearis	<i>Phacelia linearis</i>
Whitebark pine	<i>Pinus albicaulis</i>
Western larch	<i>Larix occidentalis</i>

As Recognized Trail alignments occur within existing disturbance, Recognized Trails are unlikely to pose significant environmental concern to vegetation. Prior to development of any trails, an appropriate pre-construction survey should be conducted as per the direction of the Sensitive Species Inventory Guidelines as amended from time to time. No activities are permitted within 30 m of endangered or threatened plant species as listed under the *Alberta Wildlife Act*. Proposed Trail alignments should be routed to avoid any endangered or threatened plant species encountered as part of the pre-construction survey. Trail development should also minimize loss of native vegetation and the introduction of invasive plant species.

Wildlife

Wildlife species that can be found in the area include but are not limited to moose (*Alces alces*), elk (*Cervus Canadensis*), white-tailed deer (*Odocoileus virginianus*), mule deer (*Odocoileus hemionus*), grizzly bear (*Ursus arctos horribilis*), black bear (*Ursus americanus*), grey wolf (*Canis lupus*), cougar (*Puma concolor*), coyote (*Canis latrans*), big horn sheep (*Ovis Canadensis*), and mountain goat (*Oreamnos americanus*). Many species of migratory and non-migratory birds are also present in the planning area.

The Government of Alberta Fish and Wildlife Internet Mapping Tool (FWIMT) was used to query the Fisheries and Wildlife Management Information System (FWMIS) utilizing an approximate 2.5 km buffer surrounding Recognized and Proposed Trails. The FWIMS indicates the potential presence of the following species and their associated status as per the Alberta Government Wild Species General Status Listing 2020.

Table 11 Fish and Wildlife Management Information System (FWMIS) Search – Wildlife Inventory

Common Name	Scientific Name	AB General Status 2020
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Sensitive
Bank Swallow	<i>Riparia riparia</i>	Sensitive
Boreal Toad	<i>Anaxyrus boreas boreas</i>	Sensitive
Clark's Nutcracker	<i>Nucifraga columbiana</i>	Sensitive
Columbia Spotted Frog	<i>Rana luteiventris</i>	Sensitive
Cougar	<i>Puma concolor</i>	Secure
Eastern Kingbird	<i>Tyrannus tyrannus</i>	Sensitive
Grizzly Bear	<i>Ursus arctos horribilis</i>	At Risk
Little Brown Bat	<i>Myotis lucifugus</i>	May Be at Risk
Long Toed Salamander	<i>Ambystoma macrodactylum</i>	Sensitive
Short-eared Owl	<i>Asio flammeus</i>	May Be at Risk

Review of the Government of Alberta Landscape Analyses Tool (LAT) indicates Recognized and Proposed Trails overlap sensitive species areas described in Table 12 and shown in Figure 12.

Table 12 Wildlife Sensitivity Areas Intersected by Trails and Associated Best Practices

Wildlife Sensitivity Area	Overlaps with Trails/TPU	Best Practice/ Recommendation
Key Wildlife and Biodiversity Zone (KWBZ)	KWBZ stretches along the Crowsnest River valley and on the southern-facing slopes on much of the north side of the valley. KWBZ overlaps with some segments of Recognized and Proposed Trails within the north portion of the York-Girardi TPU.	<p>Avoidance of new developments is preferred. The KWBZ is a combination of key winter ungulate habitat and high value habitats for biodiversity. No construction activities should occur between December 15 and April 30.</p> <p>Open south facing meadows are important foraging habitat for a number of species and should be avoided.</p>
Mountain Goat and Sheep Areas	Mountain Goat and Sheep Areas overlap with Recognized and Proposed Trail alignments in Turtle-Hillcrest and Blairmore-Coleman TPUs.	<p>New construction activities may only occur between July 1 and August 22. Construction activities should not occur within 400m of sheep or goats, or steep cliffs or other known high use areas.</p> <p>Mineral licks should be avoided by a minimum buffer distance of 100m.</p>
Grizzly Bear Zone	All mountain biking trails are within the Grizzly Bear Zone.	Trail construction should avoid high quality and /or effective grizzly bear habitat and areas of high probability of bear occurrence. Additionally, it is recommended that project work be completed outside of active bear season.

As Recognized Trail alignments occur within existing disturbance, Recognized Trails are unlikely to pose significant environmental concern to wildlife. Prior to development of any trail, a pre-construction wildlife sweep should be conducted as per the wildlife sweep protocol and key habitat features avoided.

Water and Aquatic Resources

A desktop review of the GOA FWIMT was used to query the FWMIS utilizing an approximate 2.5 km buffer surrounding Recognized and Proposed Trails. The FWMIS indicates the potential presence of the following species and their associated status as per the Alberta Government Wild Species General Status Listing 2020.

Table 13 Fish and Wildlife Management Information System (FWMIS) Search – Fish

Common Name	Scientific Name	Status (AB General Status 2020)
Brook Trout	<i>Salvelinus confluentus</i>	Exotic/Alien
Cutthroat Trout	<i>Oncorhynchus clarkii</i>	At Risk
Fathead Minnow	<i>Pimephales promelas</i>	Secure
Lake Chub	<i>Couesius plumbeus</i>	Secure
Lake Trout	<i>Salvelinus namaycush</i>	Sensitive
Longnose Dace	<i>Rhinichthys cataractae</i>	Secure
Longnose Sucker	<i>Catostomus Catostomus</i>	Secure
Mountain Sucker	<i>Catostomus platyrhynchus</i>	Secure
Mountain Whitefish	<i>Prosopium williamsoni</i>	Secure
Rainbow Trout	<i>Oncorhynchus mykiss</i>	Secure
White Sucker	<i>Catostomus commersoni</i>	Secure

A Desktop review of FWIMT and available hydrology layers was conducted to identify segments of Recognized and Proposed Trails that may intersect mapped watercourses and/or wetlands. Recognized and Proposed Trails do not intersect any mapped wetlands (Figure 14). Recognized Trail segments potentially intersecting mapped watercourses are summarized in Table 14.

Table 14 Recognized Trails Intersecting Mapped Watercourse

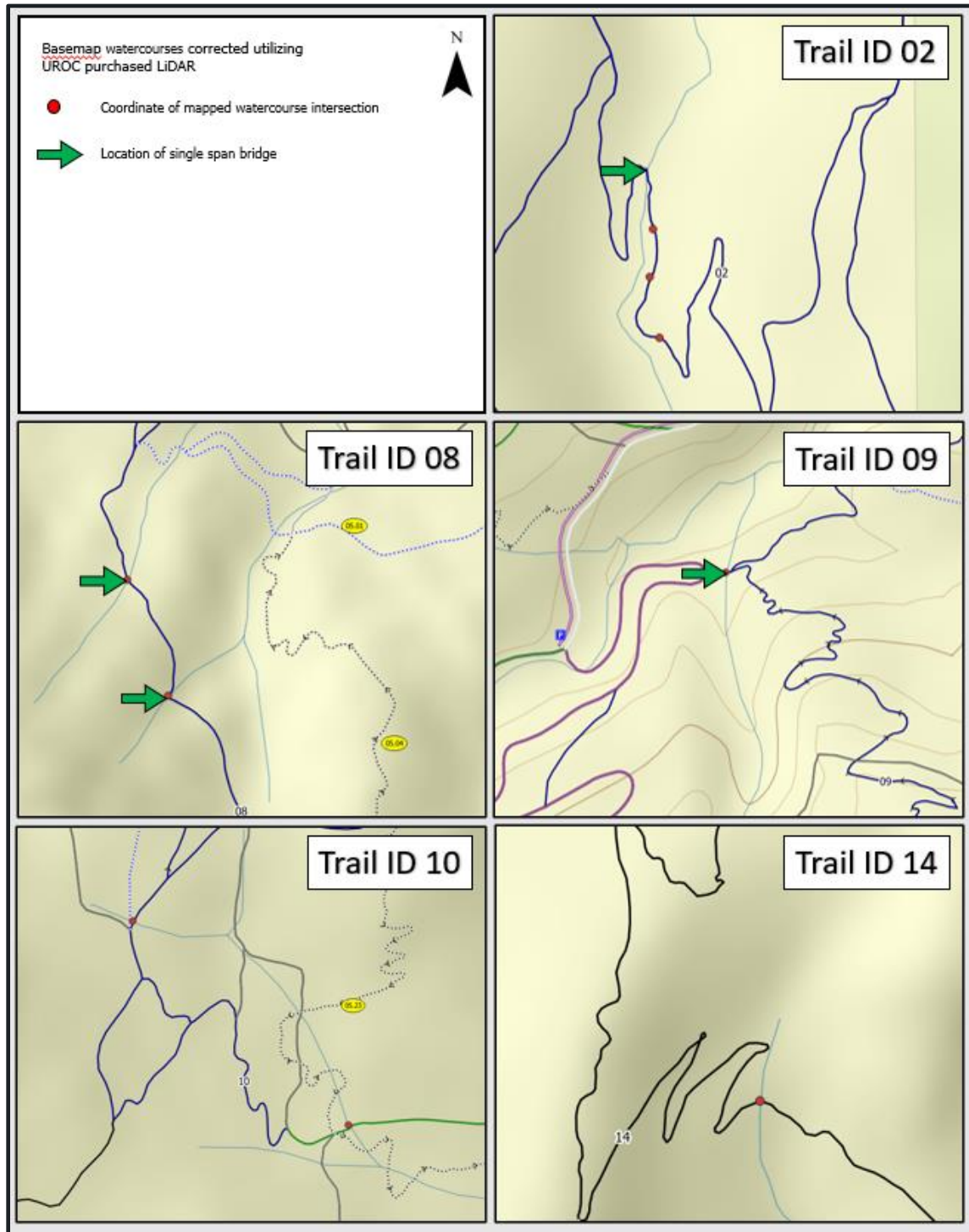
Trail ID	Stream Name	Strahler Order	Tributary of	Waterbody ID	Coordinates (Lat Long)	Fish Species Present	Critical Habitat (Y/N)	Crossing Type
02	NA	2	York Creek	87765	49.598940 -114.466738	None Sampled	N	NA ¹
02	NA	2	York Creek	87765	49.599346 -114.466837	None Sampled	N	NA ¹
02	NA	2	York Creek	87765	49.599660 -114.466796	None Sampled	N	NA ¹
08	NA	1	York Creek	87861	49.586766 -114.502229	None Sampled	Y	Single Span Bridge
08	NA	1	York Creek	87847	49.588941 -114.503373	None Sampled	Y	Single Span Bridge
09	NA	2	York Creek	87861	49.603972 -114.498726	None Sampled	Y	Single Span Bridge
10	NA	2	York Creek	87659	49.605351 -114.506534	None Sampled	Y	NA ²
10	NA	1	York Creek	87659	49.607948 -114.510696	None Sampled	Y	NA ²
14	NA	1	York Creek	87683	49.604619 -114.519384	None Sampled	Y	NA ²

¹Crossing does not exist, see Figure 7

²No water has been observed within the predicted steam channel.

Mapped watercourses potentially intersected by Recognized Trails were adjusted utilizing UROC purchased LiDAR to increase predictive stream channel accuracy. Figure 7 details Recognized Trails intersecting LiDAR corrected watercourses.

Figure 7 LiDAR Corrected Watercourse Crossing Detail Map



Recognized Trails (Trail ID 10 and Trail ID 14) intersect mapped watercourses where no crossings are present. For the most part, unbridged trails intersect with Strahler order 1 streams based on predictive stream mapping. Field observation of Trail ID 10 and Trail ID 14 indicate that no water is present at the area of the supposed intersection. In the instance of Trail ID 10 and Trail ID 14, It is likely that predictive stream mapping is erroneously illustrating the presence of a watercourse. If at any point water is observed in the identified channel a crossing should be constructed or a Request for Review (RFR) form submitted to the Fish and Fish Habitat Protection Program with the Department of Fisheries and Oceans Canada (DFO).

Proposed Trail segments intersecting watercourses are shown in Table 15.

Table 15 Proposed Trails Intersecting Watercourses

Trail ID	Stream Name	Order	Tributary of	Waterbody ID	Coordinates (Lat Long)	Fish Species Present	Critical Habitat (Y/N)
mp01.04	NA	1	Lyons Creek	87810	49.589936 -114.458936	None Sampled	N
mp01.05	NA	1	Lyons Creek	87810	49.589143 -114.457126	None Sampled	N
mp01.06	NA	1	York Creek	87789	49.596025 -114.462627	None Sampled	N
mp04.01	NA	2	Lyons Creek	26190	49.576360 -114.425830	None Sampled	N
mp04.01	NA	2	Lyons Creek	26190	49.576662 -114.426628	None Sampled	N
mp04.01	NA	2	Lyons Creek	26190	49.576828 -114.427035	None Sampled	N
mp04.01	NA	2	Lyons Creek	87934	49.578633 -114.428571	None Sampled	N
mp04.01	NA	3	Lyons Creek	26190	49.581998 -114.432037	None Sampled	N

Trail ID	Stream Name	Order	Tributary of	Waterbody ID	Coordinates (Lat Long)	Fish Species Present	Critical Habitat (Y/N)
mp04.10	NA	1	Lyons Creek	22384	49.570130 -114.435984	None Sampled	N
mp04.10	NA	1	Lyons Creek	88010	49.570585 -114.438738	None Sampled	N
mp04.10	NA	1	Lyons Creek	87990	49.573081 -114.440570	None Sampled	N
mp05.01	NA	2	York Creek	87861	49.589828 -114.499141	None Sampled	Y
mp05.01	NA	1	York Creek	87847	49.591418 -114.501802	None Sampled	Y
mp05.014	NA	1	Star Creek	87662	49.607413 -114.527856	None Sampled	Y
mp05.014	NA	1	Star Creek	87586	49.616365 -114.534103	None Sampled	Y
mp05.15	Star Creek	4	Crowsnest River	1669	49.620385 -114.538329	Cutthroat, Rainbow Trout	Y
mp05.23	NA	2	York Creek	87659	49.604671 -114.505271	None Sampled	Y
mp05.23	NA	2	York Creek	87659	49.604802 -114.505778	None Sampled	Y
mp05.23	NA	2	York Creek	87659	49.605030 -114.506190	None Sampled	Y
mp05.23	NA	2	York Creek	87659	49.605799 -114.506761	None Sampled	Y

Trail ID	Stream Name	Order	Tributary of	Waterbody ID	Coordinates (Lat Long)	Fish Species Present	Critical Habitat (Y/N)
mp05.23	NA	2	York Creek	87659	49.606052 -114.506894	None Sampled	Y
mp05.23	NA	2	York Creek	87659	49.606783 -114.507491	None Sampled	Y

Where Proposed Trails intersect watercourses an appropriate crossing structure should be constructed. Trails intersecting critical habitat will require a RFR submitted to the DFO prior to trail project approval.

Trail development should not interfere with or alter natural drainage or fish passage. All trail development should maintain the integrity of the bed and shore of the watercourse and the health and function of riparian and aquatic habitats. An erosion and sediment control plan must be in place to prevent soil and other deleterious materials from entering waterbodies.

Land and Resource Use

Recognized and Proposed Trails have the potential to affect many various dispositions. A review of the Government of Alberta Geographic Land Information Management Planning System (GLIMPS) was conducted to identify active dispositions present within quarter sections of land intersected by Recognized and Proposed Trails.

Recognized Trails are not believed to be of concern to intersected dispositions. Disposition holders that may be affected by Recognized Trails should be notified before a Recognized Trail can be declared a Provincially Designated Trail.

Disposition holders that may be affected by Proposed Trails must be engaged prior to development of the Proposed Trail.

Figure 8 Natural Regions and Subregions of Alberta

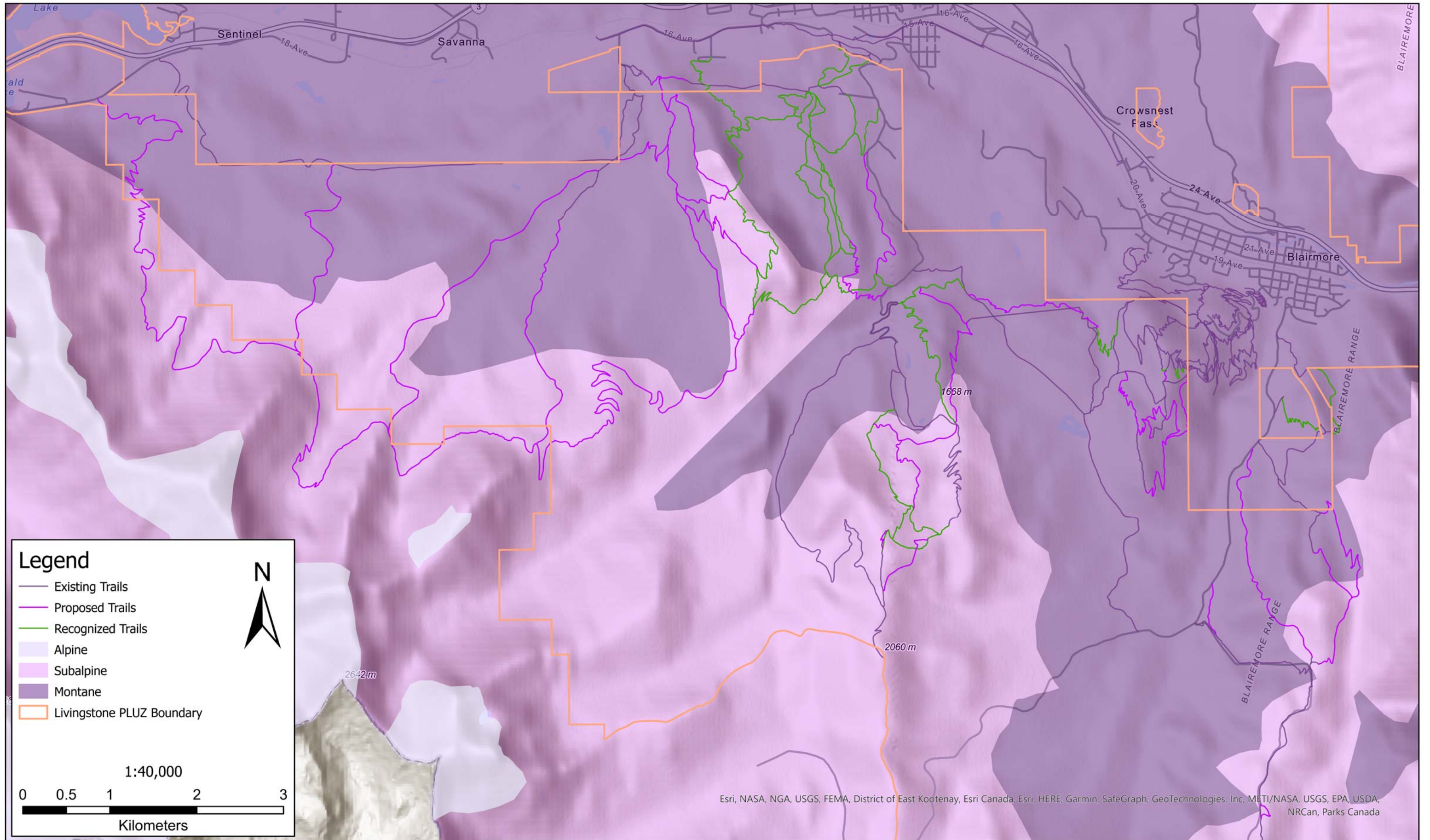


Figure 9 Historic Resource Value Listing

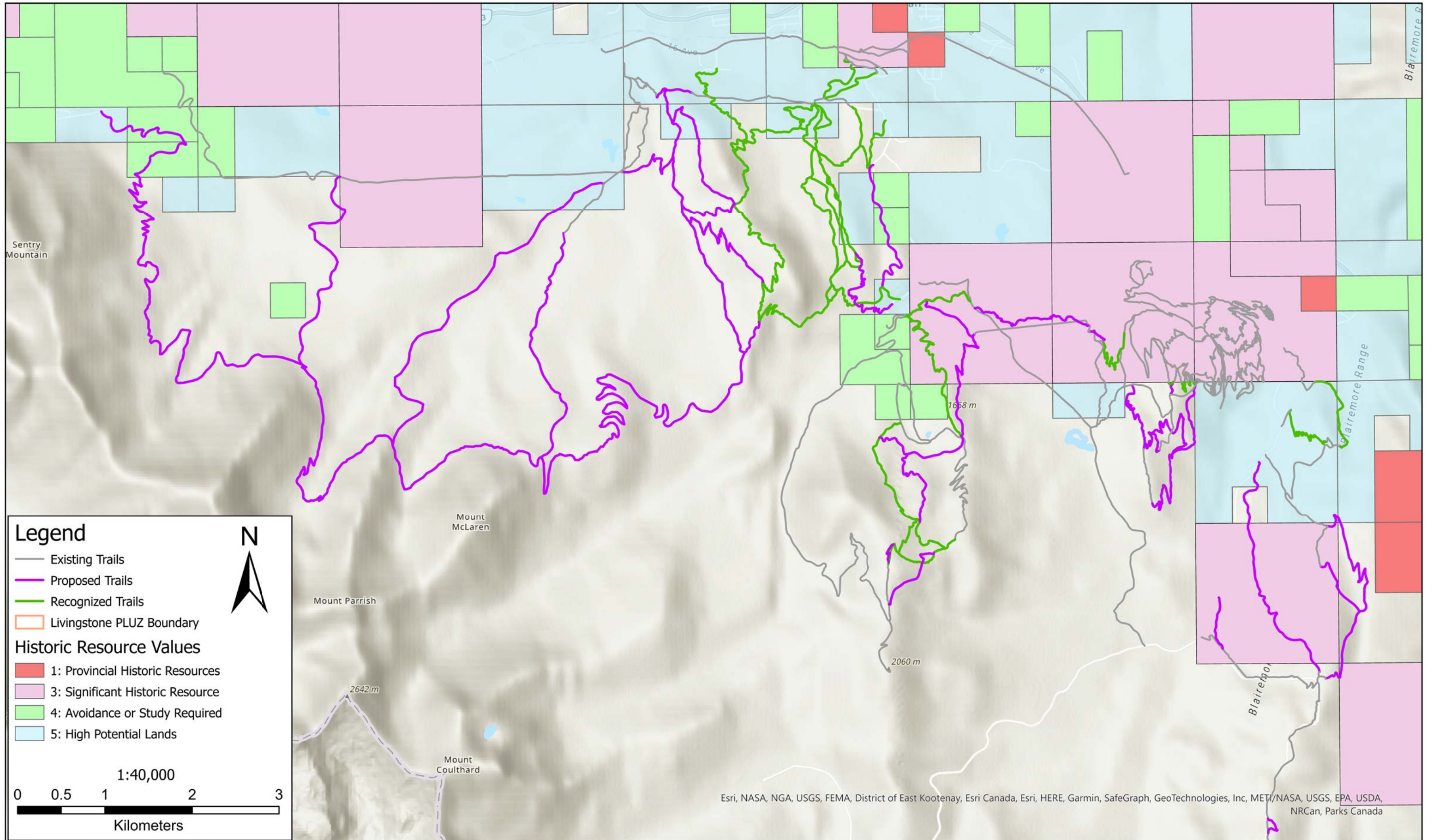


Figure 10 Erosion Hazard

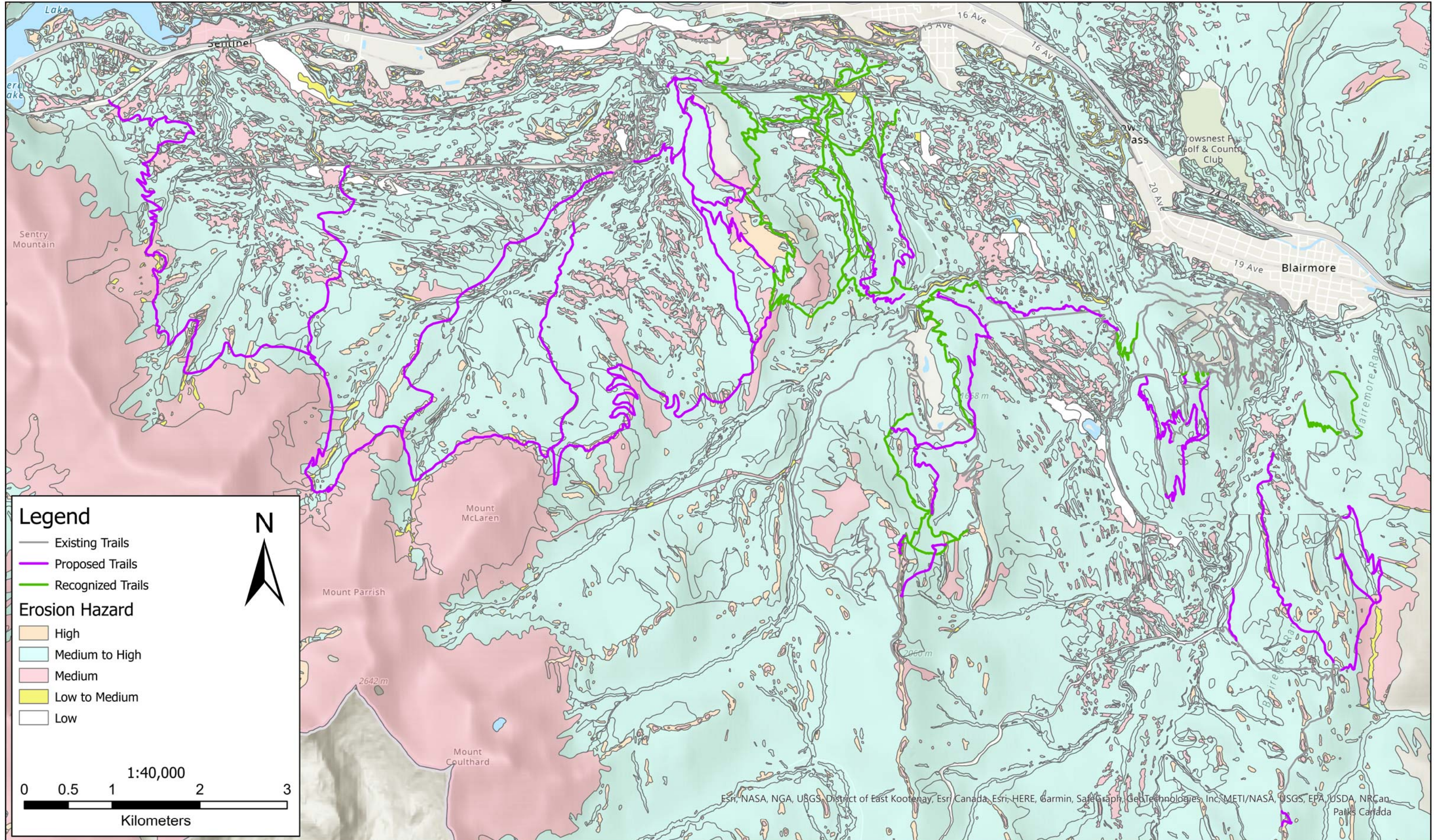


Figure 11 Recreation Opportunity Model

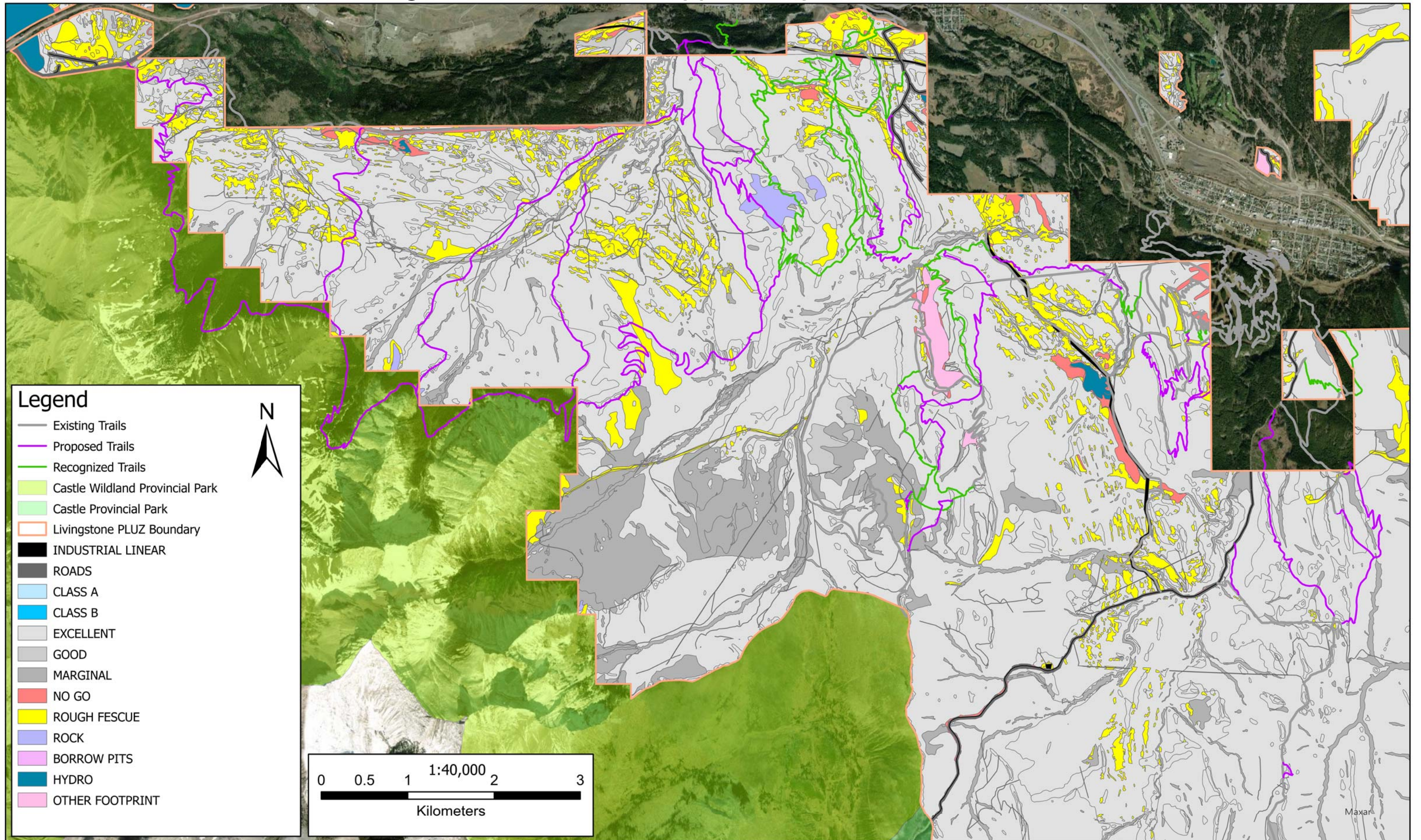
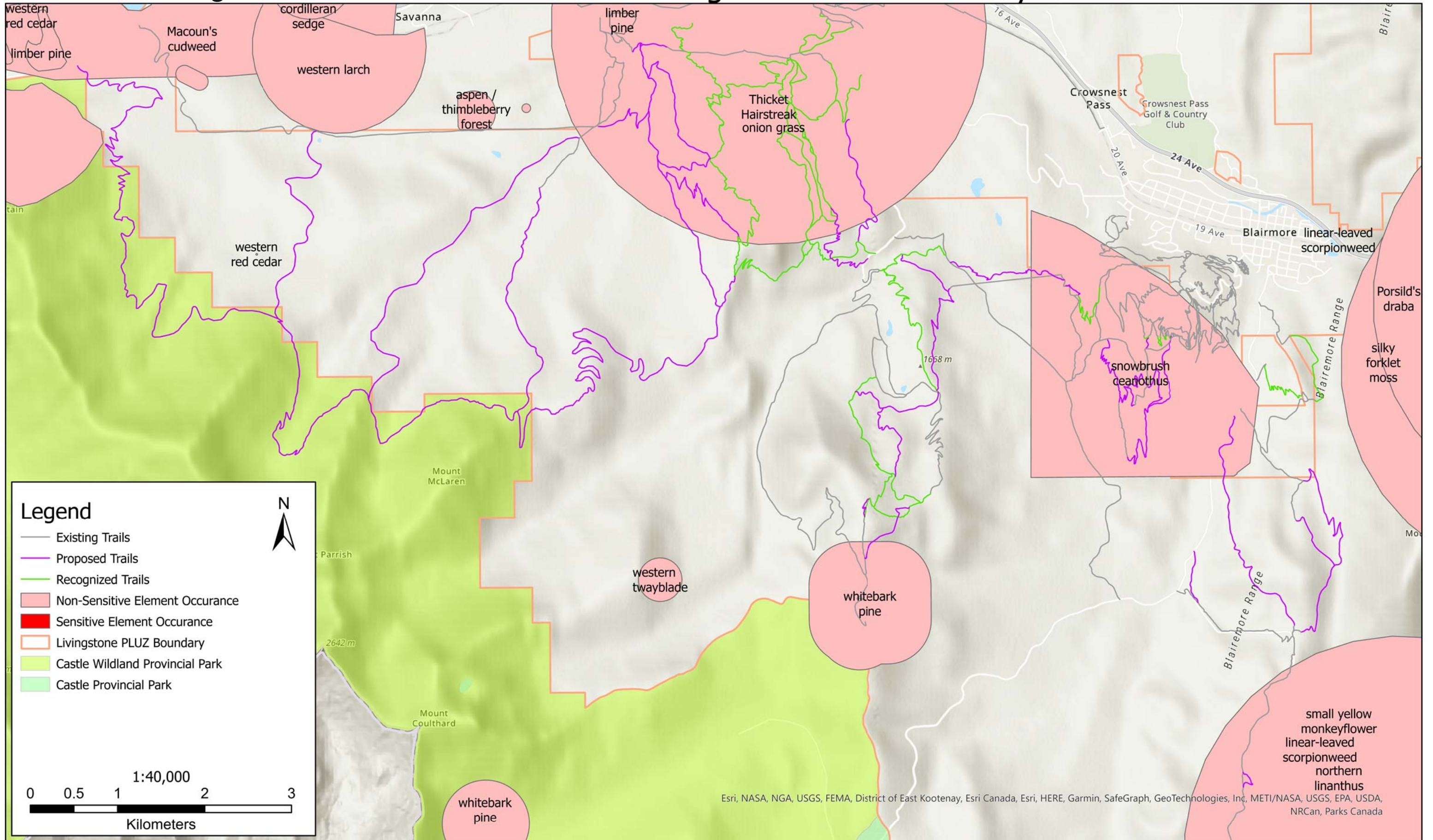


Figure 12 Alberta Conservation Management Information System



Esri, NASA, NGA, USGS, FEMA, District of East Kootenay, Esri Canada, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, USDA, NRCAN, Parks Canada

Figure 13

WILDLIFE SENSITIVE SPECIES AREAS

Legend

Trails

- Existing Trails
- Proposed Trails
- Recognized Trails

Roads

- Roads

Key Wildlife and Biodiversity

- Key Wildlife and Biodiversity

Mountain Goat And Sheep Range

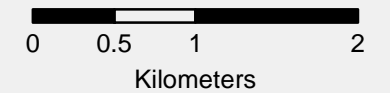
- Mountain Goat And Sheep Range

Grizzly Bear Management Areas

- Grizzly Bear Management Areas

Livingstone PLUZ

- Livingstone PLUZ



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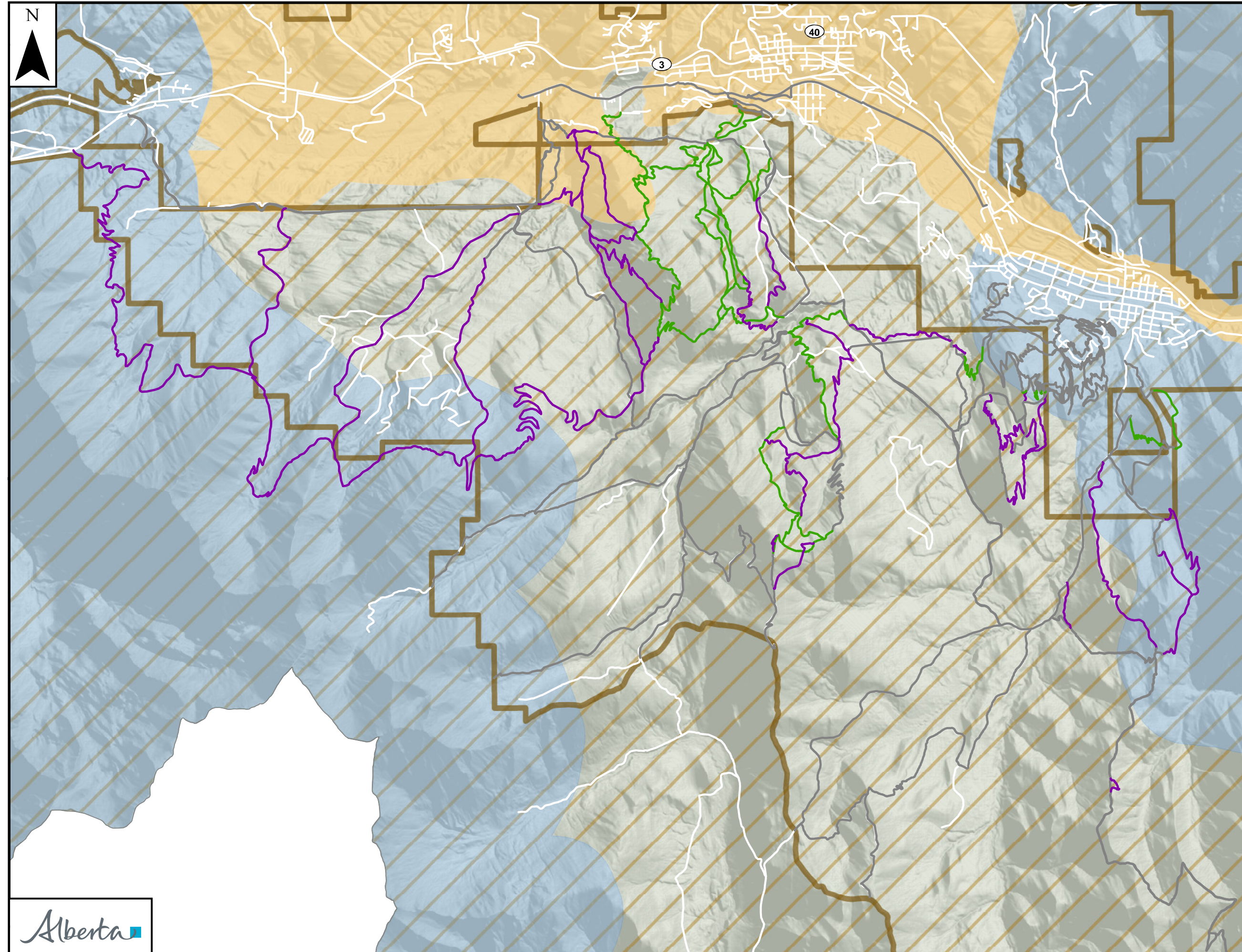


Figure 14 WATER AND AQUATIC RESOURCES

Legend

FWMIS Fish Survey Species 2010 - 2019

- BROOK TROUT
- BROWN TROUT
- CUTTHROAT TROUT
- CUTTHROAT TROUT RAINBOW TROUT
- LONGNOSE DACE
- MOUNTAIN WHITEFISH
- RAINBOW TROUT
- WHITE SUCKER

Watercourse Crossings

- Recognized Trail Crossing Location

Trails

- Existing Trails
- Proposed Trails
- Recognized Trails

Roads

- Roads

Water Course Crossing COP - Class

- B
- C

Bull Trout Federal Critical Habitat

- Bull Trout Federal Critical Habitat

Westslope Cutthroat Federal Critical Habitat

- Westslope Cutthroat Federal Critical Habitat

Alberta Merged Wetland Inventory - Class

- Marsh
- Open Water

Livingstone PLUZ

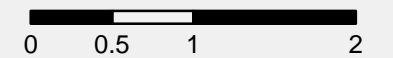
- Livingstone PLUZ

Predicted Stream Channel

- Predicted Stream Channel

Wet Areas Mapping

- 1: 0.0 - 0.10 m
- 2: 0.10 - 0.25 m
- 3: 0.25 - 0.50 m
- 4: 0.50 - 1.0 m
- 6: predicted streams, 0.0 m
- 7: predicted bog, 0.0 m



Kilometers

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