

Background Information

For the Development of the Glenbow Ranch
Provincial Park Management Plan



Background Information for the Glenbow Ranch Provincial Park Management Plan| Forestry and Parks

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Opportunity to Comment

This draft background report supports the development of a management plan for Glenbow Ranch Provincial Park (GRPP). It presents the historical and environmental values, what people use, work and enjoy the park for, current uses and development and a summary of an evaluation of management effectiveness.

The [draft Terms of Reference](#) for the GRPP management plan is the focus of the first phase of [public engagement](#) towards the creation of a park management plan. A survey is available from August 5, 2025 to September 16, 2025 for public feedback on the background report and the Terms of Reference. Link to the survey is [here](#). An [interactive mapping exercise](#) is also available for the public to comment on the existing features and trails in the park.

After the engagement period, a draft management plan will be drafted. This document will be the subject of the second phase of engagement expected to occur in winter 2025/26.

A comprehensive management plan is a critical tool that will allow adjacent landowners and authorities to anticipate how their actions and policies may affect/ be affected by the park, and to provide consistent and clear guidance over the next 20 years of development.

Management planning is critical for effective decision-making, maintaining recreation and conservation values, addressing threats to those values, and managing potential conflicts in parks. A management plan contains detail and operational guidance for park management for a 20-year period. A management plan:

- Defines how the park will be managed to maintain and/or restore ecological health and protect key natural and cultural values;
- Defines specific objectives for the four key Alberta Parks program goals of Conservation and Protection, Learning and Engagement, Outdoor Recreation and Healthy Living, and Tourism and Community;
- Describes the type and extent of nature-based recreation and tourism opportunities, facilities and services that will be permitted;
- Describes the services and facilities that will be provided to enable visitors to explore and learn about the site's natural and cultural values;
- Identifies issues, concerns and conflicts, and recommends solutions;
- Identifies infrastructure development requirements that will enhance outdoor, nature-based recreation opportunities and ensure that recreational use occurs in appropriate locations and is compatible with conservation values; and
- Recommends effective and efficient allocation and prioritization of fiscal and staff resources.

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Introduction

Glenbow Ranch Provincial Park (GRPP) protects over 1,314 hectares of land along a stretch of the Bow River between the City of Calgary and the Town of Cochrane. The land was acquired by the Province of Alberta from the Harvie family who became sponsors of GRPP programs through the Harvie Conservancy Foundation, which helped establish the park infrastructure and amenities. In 2007, the Glenbow Ranch Park Foundation was established to provide visitor services, conduct research and offer public programs in the park. Following the official designation of GRPP in 2008, the park was opened to the public in 2011. The core infrastructure of GRPP consists of a parking lot, a trail system, outhouses, an education centre and a small visitor centre. The park is open to the public from sunrise to sunset only, except on special occasions.

About 80 per cent of GRPP consists of native foothills fescue grassland, a habitat that is sensitive to change and threatened by urban development. Other habitat types in the park include aspen woodland, wetlands, springs and creeks; and the Bow River. GRPP is one of the few parks in Alberta that protect or include even small grassland ecosystem areas and plays an important role in Alberta's parks and protected areas system. The health of foothills fescue grassland requires a cycle of grazing and fires and, prior to settlement, Indigenous people's habitation in the area ensured that bison and periodic natural and human-induced fires maintained the health of the ecosystem. Since the late 19th century and into the present, ranching operations' use of cattle have replaced bison populations to control weeds and retention of native grasses. GRPP actively manages the health of the grasslands ecosystem by allowing vegetation management activities such as grazing within the park.

Today, the landscape of GRPP contains evidence of thousands of years of Indigenous peoples' use followed by many eras of settlement. In addition to archaeological sites and places that are known to have been of special value to Indigenous peoples, heritage elements include the Canadian Pacific Railway (CPR) line that was built in 1883, fence lines, the remains of the Glenbow sandstone quarry used to supply stone for the Alberta Legislature and the former Glenbow village site.

This report contains background information to inform and aid in the process of development of a management plan for GRPP. It presents the historical and environmental values, what people use, work and enjoy the park for, current uses and development, and a summary of an evaluation of management effectiveness.

Historical Perspective and Past Planning

Glenbow Ranch Provincial Park (GRPP) is a bio-cultural landscape with evidence of Indigenous use for thousands of years followed by many eras of non-Indigenous settlement. The archaeological sites provide a window into the cultural landscape that was used by Indigenous peoples for generations. The post-settlement era is represented by the Canadian Pacific Railway (CPR) line that was built in 1883 as well as fence lines, the remains of the Glenbow sandstone quarry used to supply stone for the Alberta Legislature, and the former Glenbow village site. The landscape, the presence of the Bow River, and the sounds of birds and wind help visitors appreciate that the park's environment was once part of the vast grassland that stretched thousands of kilometers in all directions.

The habitats, topography, and geology of GRPP are critical to understanding the park's cultural landscape and history. As evidenced through archaeology and Indigenous knowledge, people have continuously lived on the land that is now part of GRPP for at least 4,000 years, with some places known to have been used as long as 12,000 years ago. The land and waters of the Bow Valley in the foothills provided ideal conditions for hunting and community life. Hunters found game in wooded groves, on the grasslands that sustained large herds of bison, and in the waters where birds stayed during seasonal migrations.

Changes to the environment and Indigenous peoples' traditional way of life came quickly following the signing of Treaty 7 1877. It enabled the government to prepare lands for sale to farmers, ranchers and various enterprises, including the CPR. Natural resources that were valuable to the economy of First Nations, especially grasslands and clear water. These were also valued by ranchers. The GRPP land was acquired in 1881 as part of one of the largest ranching operations in Canada – the Cochrane Rancho Company Limited. With the dissolution of the Cochrane Rancho and its successors around the turn of the century, parcels within GRPP were sold for a variety of purposes, including smaller ranches and farms, the Glenbow sandstone quarry, brick manufacturing and municipal subdivisions.

The park lands were acquired by the Alberta Government in 2006 from the Harvie family as an eco-gift¹ and GRPP was officially designated in 2008.

In 2010, the Glenbow Ranch Park Foundation, with support of the Calgary Foundation and the Alberta Government worked to conduct an extensive amount of social research on potential park users, including telephone surveys, focus groups, new Canadians surveys and individual interviews with community leaders. Respondents identified the preservation of historical buildings as the number one priority.

¹ <https://www.canada.ca/en/environment-climate-change/services/environmental-funding/ecological-gifts-program.html>

Planning Area

Regional Setting

Glenbow Ranch Provincial Park (GRPP) is located along the Bow River between the City of Calgary and the Town of Cochrane. The park acts as a connecting point for maintaining ecological corridors and green space along the river through this dynamic and growing region. GRPP protects exceptional natural values including riparian habitats along the Bow River, as well as a number of side coulees and a diversity of native grasslands and shrub lands. The park boundary largely follows the upper limits of the park's coulee systems on its northern extent and was defined in part to help protect the upper ridgelines from future development.

Access

GRPP is accessed via Glenbow road with parking located at the main visitor parking lot next to the park office and visitor center. Visitors in vehicles almost exclusively access the park using Glenbow Road (primary entrance) off Highway 1A, which connects the Town of Cochrane to the City of Calgary. The park can also be accessed on foot or by bicycle on a small trail from the neighborhood of Gleneagles in the Town of Cochrane to the west and the City of Calgary to the east (see Figure 1 Context Map).

Park Boundary and land tenure

The park boundary is an irregular shape meant to protect the valley bottom, ridgelines and coulees. The Glenbow Ranch Park Foundation owns lands to the east and west of the park (see Figure 1 Context Map) that may be considered for future acquisition within the Park subject to future decision making.

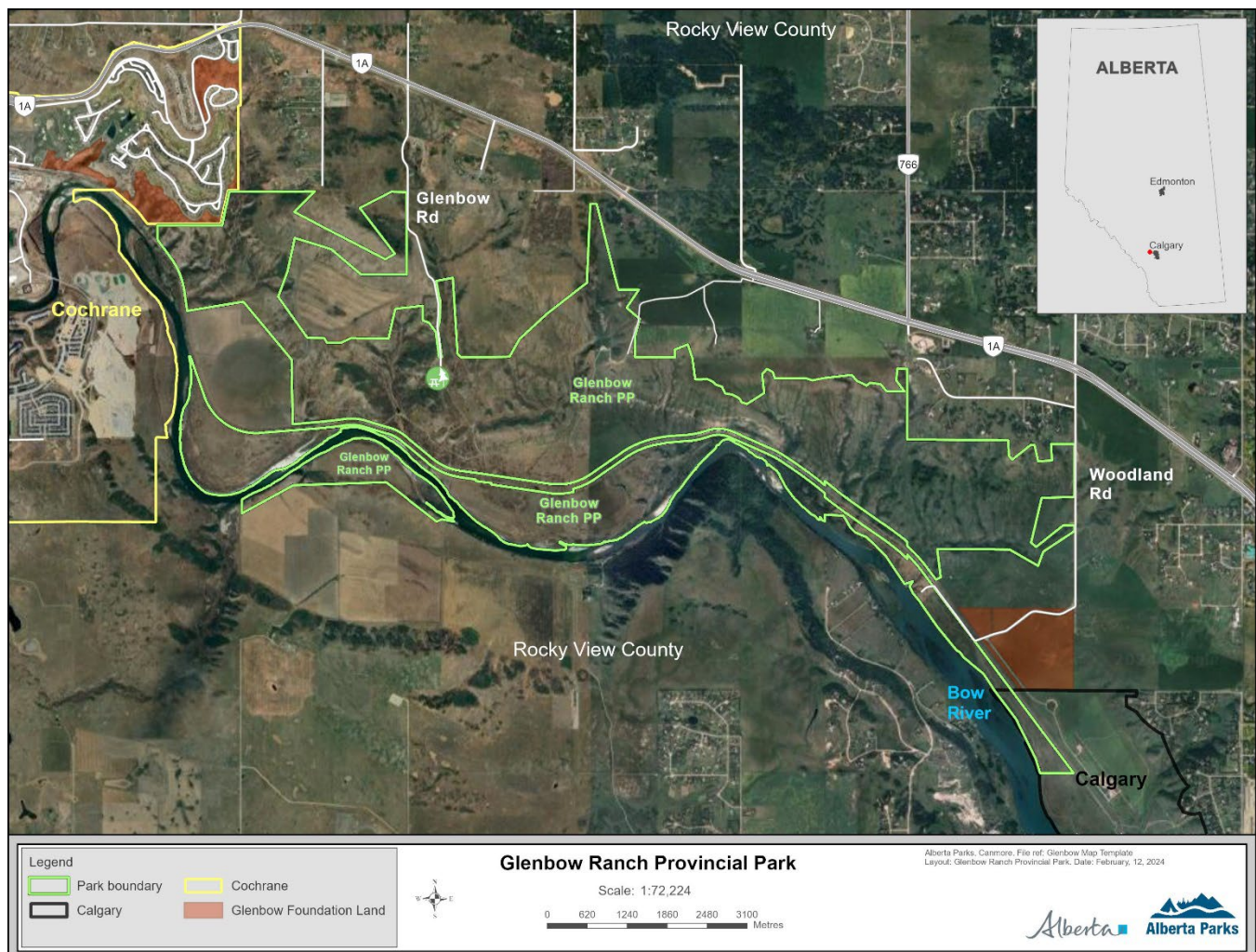


Figure 1 Context Map

Legislative and Policy Context

Provincial Legislation and Policy

GRPP is managed under the *Provincial Parks Act* and its associated regulations which outline the intent, responsibility, and operating parameters to guide site management. Provincial parks are intended to be established as protected areas with the primary objective for the conservation of nature (and associated cultural features) where nature-based recreation, tourism and education opportunities are also significant, and are dependent on and compatible with conservation objectives. All planning, management and operational actions within GRPP must be in alignment with the legislation and regulations pertaining to the classification.

In addition to the *Provincial Parks Act*, decision-making and management of GRPP is guided by other legislation and policy. Table 1 below describes the legislation or policy and its relevance to GRPP.

Table 1 GRPP Relevant Legislation and Policy

Title	Description	Relevance to GRPP
Alberta Land Stewardship Act	The <i>Alberta Land Stewardship Act</i> (ALSA) provides the legal basis for regional land-use planning in Alberta. ALSA has paramountcy over all provincial parks and protected areas legislation. Where there is a conflict, ALSA will take precedence. The regional plans under ALSA also take precedence over <i>Provincial Parks Act</i> regulations.	ALSA provides the legal basis for region plans, including the South Saskatchewan Regional Plan.
Provincial Parks Act	Provincial parks are established and managed under the <i>Provincial Parks Act</i> . The purpose of the <i>Provincial Parks Act</i> is to provide for the establishment, protection, management, planning and control of Provincial Parks for the preservation of Alberta's natural heritage, and ecological integrity, as well as for the benefit and enjoyment of current and future generations. There are three regulations under the <i>Provincial Parks Act</i> that include: The Provincial Parks (Dispositions) Regulation, Provincial Parks (General) Regulation and Provincial Parks Section 7 Declaration.	GRPP is established under the <i>Provincial Parks Act</i> . The Regulations provide guidance necessary to carry out the terms of any agreement such as construction, operation and maintenance of facilities located in or used in respect of provincial parks, as well as the provision of services to the public. See text box below for summary of some of the rules for the park as per the general or dispositions regulations. A number of the historic resources are protected by Ministerial Order closures under the <i>Provincial Parks Act</i> as described in Table 2 and shown in Error! Reference source not found.
South Saskatchewan Regional Plan	The South Saskatchewan Regional Plan (SSRP) identifies strategic directions for the region over 10 years. The region is bounded by the Rocky Mountains to the west, the Canada-U.S. border to the south, the Alberta-Saskatchewan border to the east and the northern boundaries of the municipal boundaries of the Bighorn and Rocky View, and Wheatland, Newell and Cypress counties.	The SSRP acknowledges GRPP as a protected area and indicates it is a place where grazing will continue, with no hunting, fishing or trapping permitted as per regulation, with the exception of the fishing in the Bow River, which is managed under the Alberta Sportfishing Regulations. The SSRP also acknowledges the coexistence of a multi-use corridor (rail), and linear infrastructure as part of honouring existing commitments (e.g. pipelines, water management).
Plan for Parks	The Plan for Parks 2009-2019 is Alberta Parks' strategic plan and provides high level management direction for the Parks program and identifies a vision and four overarching goals of the parks program including conservation and protection,	While the Plan for Parks term has passed, the overarching vision and program goals remain foundational to park management. The Glenbow management plan will be

	learning and engagement, outdoor recreation and healthy living, and tourism and community.	assessed for how it meets the four overarching goals of the Plan for Parks.
Energy Information Letter 2003-25	This Information Letter describes the Alberta government's policy to honour mineral commitments that existed prior to the establishment of legislated protected areas in Alberta. This includes all activities needed to both subsurface and surface, needed to win, work and recover the mineral resource defined in the existing mineral commitment that existed prior to a protected area being established.	There are no pre-existing, honoured subsurface commitments within GRPP. All the existing mineral commitments under the park were sold after the park's establishment with a 'no surface access' addendum effectively preventing any impacts to the park from this use. Note that the information letter does not apply to privately-owned mineral rights under the park, to which surface access cannot be denied.
Historical Resources Act	Provides for the use, designation and protection of moveable and immoveable historic resources. The Listing of Historic Resources was reviewed to identify any lands that contain historic resources, including archaeological and paleontological sites, Indigenous traditional land use sites of a historical resource nature and historic structures. Collectively, these four types of historic resources are protected under the <i>Historical Resources Act</i> and are regulated by Alberta Arts, Culture and Status of Women (CSW).	There are many locations within GRPP identified in the Listing of Historic Resources (see Figure 8). The <i>Listing of Historic Resources</i> is one of the main tools designed to help land managers and users determine whether proposed development activities might affect historic resources. Table 2Error! Reference source not found. Any trail upgrading or construction activities that will result in ground-disturbing impacts will require <i>Historical Resources Act</i> approval before proceeding.
Species at Risk Act	Protects wildlife and wildlife habitat listed as threatened or endangered. Administration of the <i>Species at Risk Act</i> is the responsibility of Federal Government Departments Environment and Climate Change and Fisheries and Oceans.	Avoidance and mitigation strategies will be needed to avoid impacts to listed species. If listed species are identified in conflict with construction requirements, permits may be required.
Water Act	The <i>Water Act</i> focuses on the planning, use and enforcement needed to manage and protect Alberta's water. The <i>Water Act</i> emphasizes the wise use and allocation of our water including the protection of Alberta's rivers, streams, lakes and wetlands. The Code of Practice for Watercourse Crossings (Code) provides guidance for crossing watercourses based on specific classification.	This code provides guidance for developments in order to minimize impact to watercourse crossings. The Code classifies watercourses and applies regulations for crossings of these watercourses. For unclassified watercourses, the Code of Practice for Watercourse Crossings, including Guidelines for Complying with the Code of Practice, should be used to support route planning and watercourse site selection.
Wildlife Act and regulations	The <i>Wildlife Act</i> provides for the protection and conservation of wild animals in Alberta. It defines controls for hunting and trapping of wildlife and possession of wildlife and wildlife parts, as well as the sale, import and export of wildlife, controlled animals and endangered species.	The <i>Wildlife Act</i> prohibits the harassment of wildlife by pets.
Alberta's 20 Year Strategic Capital Plan 2020-2040	The 20-Year Strategic Capital Plan supports Alberta's Recovery Plan by focusing infrastructure planning on supporting jobs, growing communities, boosting economies, and helping ensure Alberta remains a world-class destination for people to live, work and raise a family.	The capital plan commits to sustaining Alberta's environment and building tourism destinations through a vision for the future of environment, public lands, and parks infrastructure by acknowledging that Alberta's quality parks and public lands infrastructure provide exceptional recreational opportunities that continue to enable tourism and curate world-class experiences.

High Ground: A Tourism Sector Strategy, 2024	This strategy supports government's goal of growing the province's visitor economy to \$25B by 2035 by focusing on five pillars to promote cross-ministry collaboration, developing sustainable, year-round tourism opportunities, addressing workforce and labour challenges, expanding access to tourism opportunities, and investing in Indigenous-led tourism	GRPP's unique approach to native grassland management aligns with the strategy's focus on sustainable and regenerative tourism as a priority focus in order to minimize harm and/or actively heal and enhance destinations.
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General park regulations under the *Provincial Parks Act*

Some of the rules in the general regulations for Provincial Parks that pertain to GRPP include:

- Day use areas are open to the public from 7 am- 11 pm.
- Campfires are not permitted except in facilities provided.
- Only non-motorized recreation is permitted on the trails in the park, unless it is for park management or by permit.
- Hunting and the carrying and discharging of firearms are not permitted in the park.
- Pets must be kept on a leash at all times in the park.
- No feeding of wildlife.
- No waste disposal other than in receptacles provided.
- Recreational use of Remotely Piloted Aircraft System (RPAS) otherwise known as drones or Unmanned Aerial Vehicles (UAVs) are not allowed in the park.
- Users must comply with the signs and notices in the park that control or prohibit access and activities (such as not biking on some trails).
- All guiding activities or special events, either recreational or commercial, require a park permit.

In addition to these rules, some areas of the park remain closed to public access through Ministerial Order to protect natural and cultural features. Table 2 below contains a list of the closure areas.

Applicable Federal Legislation

Table below describes relevant federal legislation.

Table 3 GRPP Applicable Federal Legislation

Title	Description	Relevance to GRPP
<i>Fisheries Act</i>	Alberta's fisheries are managed through the Alberta <i>Fisheries Act</i> , while fish habitat in Alberta is managed and protected through the federal <i>Fisheries Act</i> (Canada). The Federal <i>Fisheries Act</i> aims to manage and protect Canada's fisheries resources. It contains requirements for preventing pollution in Canadian waters and includes new protections for fish and fish habitat in the form of standards, codes of practice, and guidelines for projects near water.	The <i>Fisheries Act</i> contains two main provisions that would affect developments in GRPP: 1) key habitat protection provision, prohibiting any work or undertaking that would cause the harmful alteration, disruption or destruction of fish habitat. And 2) key pollution prevention provision, prohibiting the deposit of deleterious substances into waters frequented by fish, unless authorized by regulations under the <i>Fisheries Act</i> or other federal legislation. A deleterious substance can be any substance that, if added to any water, would degrade or alter its quality such that it could

		be harmful to fish, fish habitat or the use of fish by people.
<i>Migratory Birds Convention Act</i>	The federal <i>Migratory Birds Convention Act</i> provides for the protection of migratory birds through the Migratory Birds Regulations and the Migratory Birds Sanctuary Regulations. The Act and regulations ensures the legal protection extends to their nests, eggs, and any part of the bird. The killing or harming of the birds or destruction or disturbance of nests and eggs is unlawful regardless of intent.	Any infrastructure development or trail maintenance that involves tree removal should occur outside of the breeding and nesting period. In GRPP, this is mid-April to late August.
<i>Canadian Navigable Waters Act</i>	The <i>Canadian Navigable Waters Act</i> is meant to protect the public's rights to navigation and marine safety in the navigable waters of Canada.	The Bow River is a navigable water and any projects that may affect navigation (e.g., bridges, water control structures) will be required to submit an application for approval.
<i>Species at Risk Act</i>	The purposes of the <i>Species at Risk Act</i> (SARA) is to prevent wildlife species in Canada from disappearing, provide for the recovery of wildlife species that are extirpated (no longer exist in the wild in Canada), endangered, or threatened as a result of human activity, and to manage species of special concern to prevent them from becoming endangered or threatened.	SARA "prohibits the killing, harming, harassing, capturing, taking, possessing, collecting, buying, selling or traditions of individuals of endangered, threatened and extirpated species list in the Schedule 1 of SARA. SARA also contains a prohibition against the damage or destruction of their residences (e.g. nest or den)" (Government of Canada, 2020),

Municipal Legislation and Policy

GRPP is within the boundaries of the municipality of Rocky View County and borders on the City of Calgary and Town of Cochrane. The legislation, policy and regulations in Rocky View County apply to the lands adjacent to GRPP, but not to the provincially owned park lands. The development and use of these adjacent lands can have an impact on the park. Under the *Municipal Government Act*, municipalities are required to have statutory plans and regulatory documents in place that provide a policy and regulatory framework to guide land use planning and management of both public and private property. Municipalities are not required to submit statutory plans to the province for input and feedback but some may do so as part of their individual planning processes. These include:

- Municipal Development Plan (MDP): The overarching municipal policy framework that provides context for the entire community and helps guide decision-making for future change, growth and development. A key component of an MDP is a future land use concept which sets direction for the future development of lands in the municipality.
- Intermunicipal Development Plan (IDP): A shared policy framework between two or more municipalities,
- Area Structure Plan and Area Redevelopment Plan (ASP/ARP): These provide direction for future development in a particular area of a municipality. At minimum they must address the sequence of development, proposed uses and population densities, the location of transportation routes and public utilities, and any other matters as set by Council.
- Land Use Bylaw (LUB): Used to regulate the type, location and intensity of land use and buildings within a municipality.

Each of the three adjacent municipalities to GRPP have ASPs that propose developments and land uses that will have varying levels of impacts on the park including:

- [Glenbow Ranch ASP](#) (Rocky View County)
- [Gleneagles ASP](#) (Town of Cochrane)
- [South Ridge ASP](#) (Town of Cochrane)
- [River Heights ASP](#) (Town of Cochrane)
- [Haskayne ASP](#) (City of Calgary)

A summary of adjacent land uses and communities (existing and proposed) is provided below in Section 6.

Current Use and Development

As a result of its location, GRPP has become a regionally important recreation and tourism asset, attracting tens of thousands of outdoor enthusiasts for activities such as hiking and biking. It is also an area of traditional use for Indigenous peoples.

This section describes the current land uses, amenities, and visitation in the park. See Figure 7 for land uses in and adjacent the park.

Uses and Activities

Livestock Grazing

In the past, Glenbow was a working ranch with over 600 head of cattle. Today, year-round grazing occurs in the park with approximately 200 cattle, administered through a grazing permit. Grazing is a means to maintain the health of the grasslands ecosystem and vegetation management, controlling weeds and brush encroachment.

Range vegetation inventories were conducted in the park in 2007 and 2013, providing information on vegetation types in the area, and range and riparian health assessments. An updated range and vegetation inventory is being conducted in 2024. This information supports determination of ecologically sustainable stocking rates and will be the basis for developing the range management strategies for the park.

Indigenous Use

GRPP is within land associated with the Treaty 7 agreement, and the traditional territory of several Indigenous groups. The area was once used as a rich hunting area, a trade route, and is home to sacred sites. GRPP is a cultural landscape, with Indigenous stories and traditions that are important for intergenerational Indigenous cultural transmission. The trails in the park provide access for Indigenous peoples to continue traditional use activities.

Scientific, Education or Resource Use

GRPP has been a subject of research in various fields, including ecology, history, archaeology, recreation and visitor services, as noted in the Sources section of this draft park management plan. The studies are referenced to help establish baseline ecological data that assists in the management of the park and its natural resources. See Appendix A for a complete list of studies within the GRPP.

Interpretation and Education Programs

The Glenbow Ranch Park Foundation operates several programs and services that facilitate visitor experiences in the park and provide opportunities for deeper public engagement in the park through volunteerism. Park programs led by the Foundation staff and volunteers allow visitors to interact, explore and enrich their understanding of the park’s natural and cultural resources.

Table 2: Glenbow Ranch Park Foundation Programs

Program Type	Program Examples
Youth Camps and Curriculum Based Learning	Archaeological Adventures, Amazing Amphibians, Incredible Insects, Kites and Wacky Weather, Remarkable Raptors (and other Winged Wonders), Paws and Claws, Pond Exploration
Interpretation and Adult Experiential Learning	Golf Cart Interpretive Tours, Art, Photography and Birding Workshops, Park Talks & custom programs
Outreach and Education	Booths at local markets and trade fair, newsletter

Railway

The Canadian Pacific Kansas City Railway (CPR) was built in 1883 and runs east-west along the length of the park. An estimated 22 trains a day go through the park. One permanent public crossing exists in the park and another agricultural crossing.

Tourism and Events

GRPP is promoted as a tourist destination for a variety of summer and winter activities, with Cochrane as the hub for shopping, dining and accommodations.

Cochrane Tourism Association (CTA) is the Destination Management Organization (DMO) for Cochrane Alberta and surrounding areas. Completed with the Town of Cochrane, the CTA completed 2023-2025 the Cochrane Tourism Strategy,

which include promoting and building awareness of Cochrane's unique tourism products. Events and tours at GRPP are promoted by the CTA as part of the mix of tourism products available in the Cochrane area.

Site Amenities and Recreation Use

Trails and Pathways

GRPP's trail system includes approximately 30 km of pathways and trails, including 9.8 km of paved pathway and 20.2 km of gravel (also called natural surface) trails. The trails and pathways are at various grades; some segments are flat along the river valley and other segments have steep grades (>20%). Some trails and pathways have been subject to seasonal flooding and closures.

Buildings

Three ranch houses and associated outbuildings existed on the landscape when the land was purchased by the province. The ranch house located at the end of Glenbow Road has received some upgrades and retrofits to function as the Glenbow Ranch Park office and Glenbow Park Foundation office. This location is currently the main facility supporting park operations, although is not large enough to meet current operational needs. In the centre north part of the park, the foreman's house sits derelict and has to be demolished due to hazard materials and safety concerns. A nearby maintenance building houses the park's operations and equipment.

An educational building was constructed in the facility zone in 2022 and is used by the foundation for its educational programming and for park-related meetings.

Visitor Parking

Parking at the end of Glenbow road is provided to support existing access and programming. Approximately 100 public parking spots exist on site. The recently opened Haskayne Legacy Park in the City of Calgary is located adjacent to the east side of GRPP and provides parking for access to the east end of the park.

Inventory of Current Park Amenities

Table 1: Park Amenities Inventory

Visitor Centre	Park Office	Kiosks	Picnic Tables	Viewpoints
1	1	7	9	3
Washrooms	Education Building	Paved Pathway	Granular Pathway	Parking Stalls
3	1	9.8 km	20.2 km	~100

Historic Resources

Within Alberta, historic resources are protected under the *Historical Resources Act*. The *Act* defines historic resources as "...any work of nature or of humans that is primarily of value for its palaeontological, archaeological, prehistoric, historic, cultural, natural, scientific or esthetic interest including, but not limited to, a palaeontological, archaeological, prehistoric, historic or natural site, structure or object" (Province of Alberta, *Historical Resources Act*, Revised Statutes of Alberta 2000, Chapter H-9, Current as of November 16, 2022, Section 1(e)).

The *Listing of Historic Resources* identifies areas that contain, or have high potential to contain, historic resources. A four-tiered system in the *Listing* ranges from HRV 1 ratings (which represents World Heritage sites and sites designated as Provincial Historic Resources under Section 20 of the *Historical Resources Act*) to HRV 3 (significant historic resources that are likely to require impact avoidance), HRV 4 (historic resources that may require either avoidance or further assessment) and HRV 5 (lands with high potential to contain historic resources).

The lands within GRPP carry HRV ratings of 3, 4 and 5 in relation to archaeological and palaeontological resources (see Figure 8). HRV 3 lands ('significant historic resources') include archaeological sites associated with the historic industrial

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Glenbow Quarry and the bunkhouse, residences and Glenbow town site that supported operation of the quarry during the period 1905 to 1915. A number of palaeontological locales of high interpretive value are also found in the HRV 3 lands. The HRV 4 lands, where the majority of the recorded archaeological and palaeontological sites are located, take their rating from the presence of numerous precontact period stone feature ('tipi ring') sites and campsites. There are also a number of historic period sites associated with the early 20th century homestead, ranching and dairy industries in the area and palaeontological location with evidence of ancient shell beds, fossils and bones. Surrounding these recorded site locations are the HRV 5 lands of high potential, where no sites have yet been found, but where there is a probability that evidence for new sites will be discovered in undisturbed or lightly disturbed lands.

Any projects in the park whose footprints cross lands considered to have high historic resources site potential, or those crossing locations of recorded historic resource sites, will be required to undertake a Historic Resources Impact Assessment field investigation prior to the initiation of development. Some of these investigations will result in the identification of newly recorded historic resource sites, while others will help refine the understanding of the historic resource site potential in the park. This information will be used to refine the *Listing of Historic Resources*, which will lead to more effective planning and management that will ultimately aid in the preservation of significant historic resources in the park.

GRPP Ministerial Closures Areas

To protect for natural and cultural features in the park, several Ministerial Closures Areas under the *Provincial Parks Act* are in place (see Figure 7 GRPP Land Use Map and Table 2).

Table 2 GRPP Ministerial Closure Areas

Area and Name	Size	Description
Area A Central Escarpment and Quarry	265.64 ha	The area includes the protection of the historic Glenbow Quarry, a potential provincial historic site that is regionally and provincially significant. The site has a number of remnant features and artefacts that are a concern for visitor safety and protection of the resource. The western part of the area protects a relatively large patch of intact native grasslands that provides nationally significant breeding and ground nesting habitat for birds, especially the vulnerable Sprague's Pipit. The eastern portion encompasses a series of long coulee complexes that provides needed shelter and habitat for a number of important plant and animal species.
Area B Seed Institute Reclamation Field	17.08 ha	To be used by the Foothills Fescue Research Institute to conduct long-term research on fescue grassland restoration and seed development.
Area C 7.99 ha, Glenbow Village	7.99 ha	This area is the historical location of the Town of Glenbow associated with quarry operations in the early 1900s.
Area D Corral	24.92 ha	Area includes facilities used as part of the livestock operations in the park, healthy native grasslands on the slopes and forested lands identified to have high ecological and archaeological value.
Area E Glenbow Store and Brickyard	1.24 ha	Location of the Glenbow Store and siding for the CPR railway. Structure still standing with other debris and piles of bricks, causing significant safety and historical protection concerns.
Area F Chimney and Wetland Complex	4.25 ha	Location includes watering site, wetland and chimney remnant. Closed to prevent undesired vandalism to the operations equipment and historical resource, as well as to maintain the integrity of the long term research on the grassland restoration of the site.
Area G South Bow Area	10.79	Area of high ecological and archaeological importance that receives occasional undesired overnight and day use by paddlers on the Bow River.
Area H Bowl Hill	18.67 ha	Area provides excellent ground and tree bird nesting and habitat, as well as cover for ungulates and other mammals. Some species of nationally significant vegetation have been documented in this area.

Members of the public may be admitted to closed portions of the park for the purpose of participating in conducted tours under the guidance of park employees, employees of the Glenbow Ranch Park Foundation or Department approved and licensed guides.

Grazing disposition holders may have access to specified closed portions of the park to conduct their business.

Other members of the public may, with the permission of a conservation officer, be admitted to specified closed portions of the park to conduct research or film under the authority of a permit.

Visitation

GRPP receives an estimated 99,000 visits each year.² Visitor volumes are estimated from a traffic counter on the main road to the park and do not include foot traffic from other access points, such as the new City of Calgary Haskayne Park.³ Visitor volumes spiked in 2020 and 2021 due to the COVID-19 pandemic, which encouraged people to recreate locally but visitor volumes have since returned to near 2019 levels.

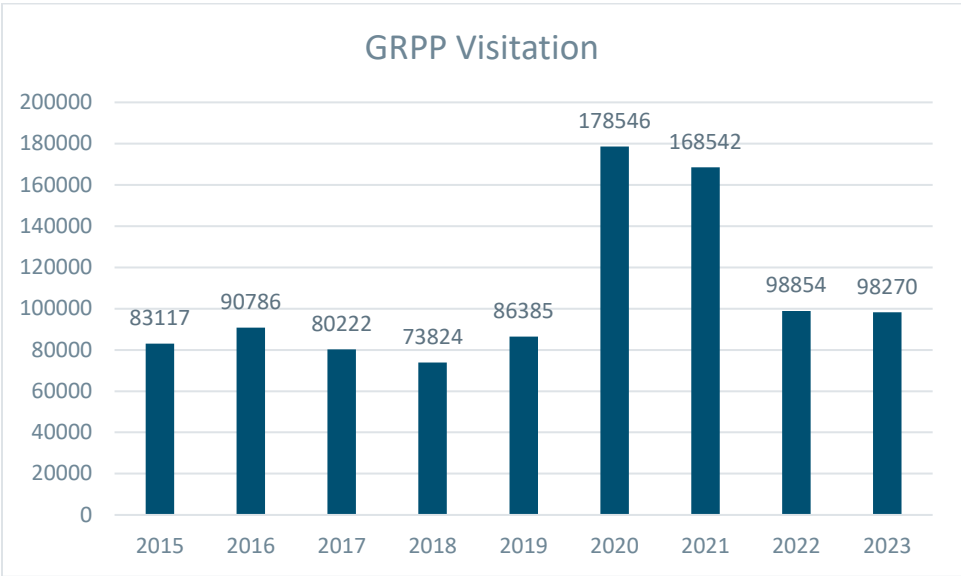


Figure 2 Annual Visits to GRPP

Demographics

A recreation use and experience survey was conducted across three study periods in 2023; March-May, June-August, and September-November. The following demographic analysis from the survey results are summarized below:

- Ninety-six percent of visitors to Glenbow Ranch Provincial Park were from Alberta.
- Ninety-two percent of visitors originated from within 100 km of the Glenbow Ranch Provincial Park. The majority of visitors were from Calgary (60.3 percent); 21.2 percent were from Cochrane, and 3.4 percent were from Airdrie.
- Ninety-six percent of visitors were visiting the park as a day trip. Four percent of visitors were tourists and staying overnight in the region during their trip.
- Thirteen percent of visitors reported that they visit the park at least once per week, 52.7 percent reported visiting once or twice a month, 25 percent said they visit once a year, and 19 percent were visiting the park for the first time.
- Overall, the most frequent users of the park were individuals over the age of 55 (49 percent of all parks visitors). People aged 55 and older made up a lower percentage of park visitors from June to August (38 percent) compared to in March to May (49 percent) or September to November (58 percent). People under 25 made up 22.7 percent of all visitors.
- Hiking (46 percent), sightseeing (16 percent) and wildlife viewing (16 percent) were the most frequent activities reported. People also reported biking (10 percent), picnicking (7 percent), and running (3 percent).

Recreation Setting and Opportunity

The diversity of recreational opportunities in GRPP is valued by local users and is a driver for visitors to travel to the park. Recreation opportunity is defined as “the ability for an individual to engage in a preferred recreation activity within a desired

² Estimation based on 2023 vehicle volumes and multiplied by 2.18 for number of people per vehicle (informed by 2023 visitor survey).

³ Visitation is estimated by multiplying the number of vehicles by 2.1 people/vehicle based on the 2023 Glenbow recreation use and experience survey results.

recreation setting and natural region to obtain a desired experience” (Government of Alberta, 2019). It is the combination of the activity, the level of challenge, the natural region and setting that changes the recreation experience.

A 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). See Table 3 for a description of the recreation settings in the area. An understanding of the settings and variety of experiences within them informs parks managers on appropriate level of use, development and type of features. There are two main settings identified and managed for within the park. The main entrance to the park is within a front-country setting and includes a parking lot and visitor centre. The rest of the park is identified and managed as a more natural mid-country setting.

Table 3 Recreation Settings and Opportunities

Front-Country Setting and Opportunities			
<ul style="list-style-type: none"> • Character: Highly intensified and modified landscape with basic services to public. • Accessibility: Year-round road access with fully serviced facilities and amenities allowing general barrier-free access and travel to the parking lot. • Naturalness: The area is significantly modified within the facility zone and parking lot. • Usage: The area receives highest levels of use year-round as the focal point and access for most day use activities in the park • On-site Operations: Year-round visitor centre; snow clearing on the main pathway, summer interpretive and educational programming. 			
Activities	Natural Features/Landscapes	Regulations and Policies	Operations and Services
<ul style="list-style-type: none"> • Non-motorized year-round day use 	<ul style="list-style-type: none"> • Modified landscape 	<ul style="list-style-type: none"> • Activities are regulated or restricted as per the Provincial Parks Act-General Regulations. 	<ul style="list-style-type: none"> • Visitor services operated by Glenbow Ranch Park Foundation • Year-round trail maintenance
Mid-Country Setting and Opportunities			
<ul style="list-style-type: none"> • Character: Largely natural landscapes with easily accessible trail network sustains higher levels of use dispersed from facility areas through the park. • Accessibility: The trail network connects staging in the front-country to the interior of the park. Several different types of difficulty and activity type opportunities provided. • Naturalness: Largely natural landscapes intersected by trail corridors that have significant modifications. Modifications such as gates required to manage grazing may also be encountered. The highly modified rail corridor runs through the mid-country setting. • Usage: Day-to-day use levels impact the experience, as well as different user types (i.e., sport development vs casual; skill level and activity type). • On-site Operations: Trail maintenance and snow clearing operations. 			
<ul style="list-style-type: none"> • Non-motorized year-round day use 	<ul style="list-style-type: none"> • Foothills and valley bottom terrain and viewsapes through most of park interior • Natural snow accumulation 	<ul style="list-style-type: none"> • Designated trails • Rail 	<ul style="list-style-type: none"> • Grazing administered by permit • Visitor services operated by Glenbow Ranch Park Foundation • Year-round trail maintenance

Adjacent Land Uses and Communities

GRPP has significant external pressures due to its location within the growing Calgary region. The park is bound by the Town of Cochrane to the west and south, to the east and southeast by the City of Calgary, and by Rocky View County to the north and portions of the south. Primary access to the park is by means of provincial Highway 1A. Furthermore, the Bow River is a navigable waterway under the authority of the federal Department of Fisheries and Oceans (DFO). An additional layer of complexity is that the river is managed for electricity production by TransAlta. Inter-jurisdictional cooperation and partnerships is critical for the long-term viability and success of GRPP.

Rocky View County

Glenbow Ranch Area Structure Plan

Proposed development within the Glenbow Ranch Area Structure Plan (ASP) in Rocky View County is likely to have the largest external development impact on GRPP. The total build out would add 15,000 residents in the area served by complementary commercial and public land uses (see Figure 3/Figure 3).

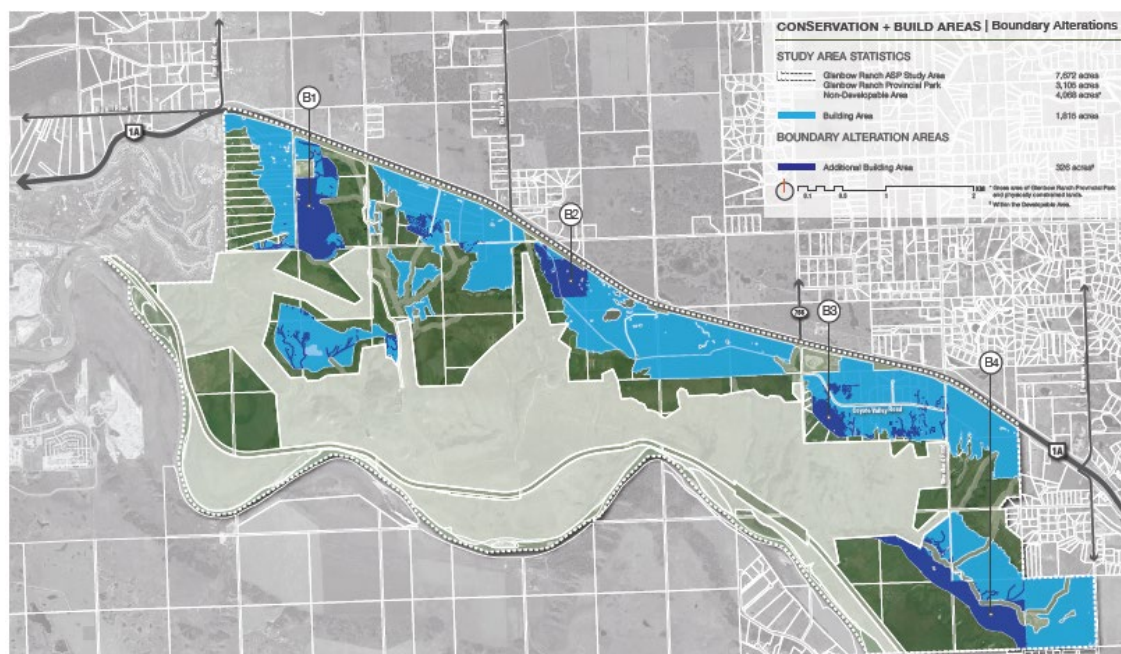


Figure 3 Glenbow Area Structure Plan Conservation and Build Areas

In Glenbow ASP, a significant portion of the development lands adjacent to the park has been set aside for conservation and recreation (see Figure 3). This approach is meant to aid in the preservation of the park's natural and cultural resources, as well as regional wildlife corridors and viewsheds.

Town of Cochrane

Two Town of Cochrane ASPs are approved on the west side of the Bow River from GRPP; the South Ridge ASP and the River Heights ASP.

South Ridge Area Structure Plan (1994; Updated 2011)

The majority of the Town of Cochrane land across the river from GRPP falls within South Ridge. While the ASP pre-dates the park, the plan remains a statutory bylaw in effect unless amended by the Town. Proposed development is focused on residential land use with associated open space (see Figure 3). The ASP's concept maps show that the existing open space and natural connectivity across the Bow River would largely be removed and replaced with urban-style development. The area's open spaces and recreation areas are meant to be integrated into the town's park network, thereby requiring maintenance typical of an urban park and largely removing any native grassland species or significant wildlife connectivity. Proposed pathways would connect GRP from the pedestrian bridge (see TransCanada Trail Initiative section below) to the Town system.

River Heights Area Structure Plan (2011; Updated 2013)

The River Heights ASP contains a small area of land adjacent to GRPP. Figure 4 shows the proposed concept plan for the ASP. GRPP is located on the west side of the Bow River which runs along the area labelled “C”.

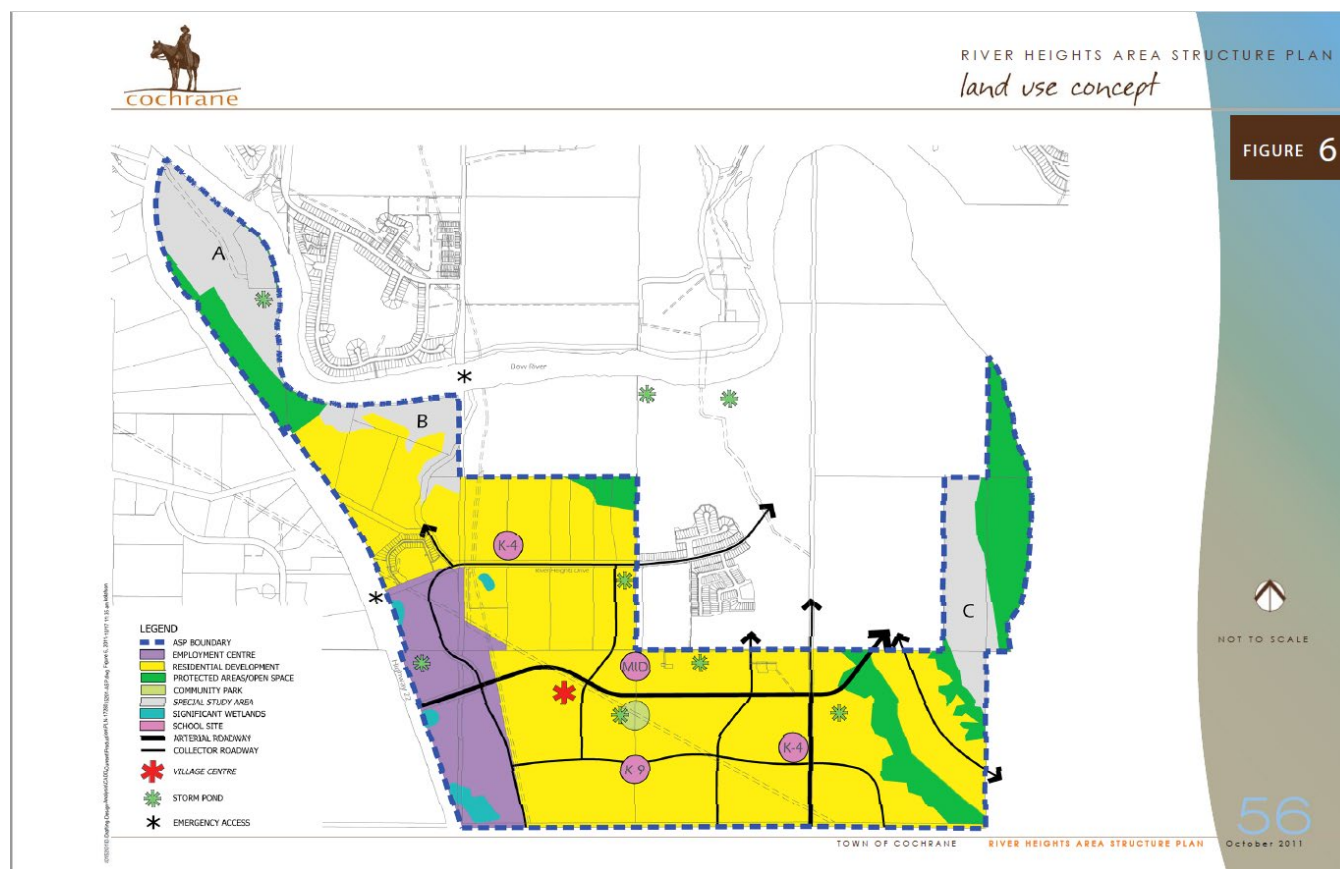


Figure 4 Excerpt from the River Heights Area Structure Plan

City of Calgary

Haskayne Legacy Park

Haskayne Legacy Park opened in September 2023, on the eastern edge of GRPP. It includes 200 parking stalls, public washrooms, picnic tables, a non-motorized trail to GRPP and a visitor and education centre (City of Calgary, 2023). The day use area is open from 5 a.m. to 11 p.m. At present the centre is closed until there is a regular operator of the facility.



Figure 5 Haskayne Legacy Park

TransCanada Trail Initiative

The Rotary Club of Cochrane has been leading “The Trail” initiative to complete the Trans Canada Trail connection between Calgary and Canmore, a multi-use pathway and regional connector in the Bow Valley (Rotary Club of Cochrane, 2023). The initiative is focused first on the connection between Calgary and Cochrane, coordinating intergovernmental discussions and

public communications on the project. The initiative proposes a pedestrian bridge across the Bow River from the future Cochrane communities of South Ridge and Southbow Landing into GRPP. A trail would then need to be built to extend from the bridge to the existing park main trail (see Figure 6Figure 6).

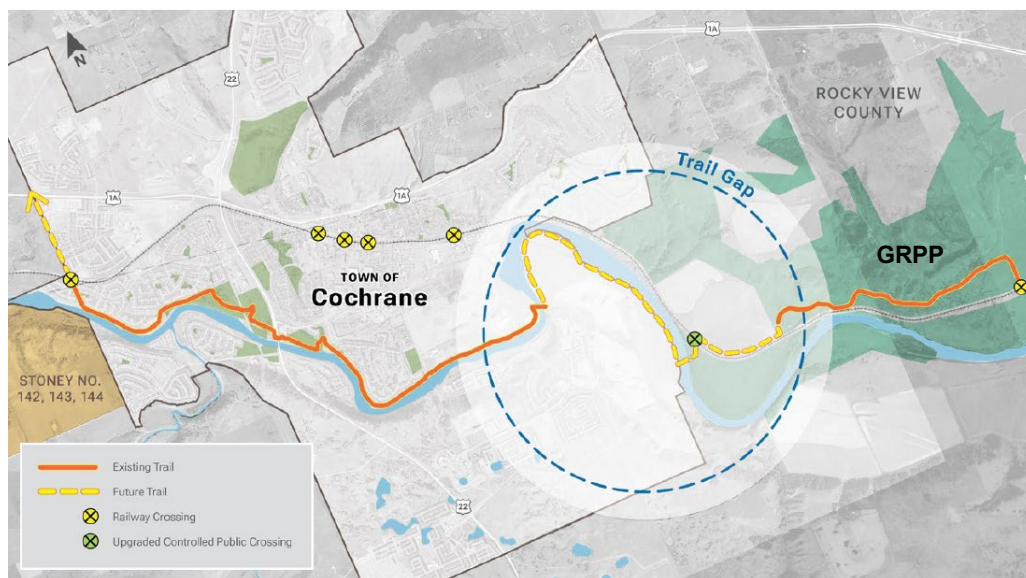


Figure 6 Proposed trail connections and pedestrian bridge

Values

Alberta Forestry and Parks uses a suite of tools designed to assess a park’s values and threats and evaluate management effectiveness based on a global standard framework called protected areas management effectiveness (PAME). The PAME framework was developed by the [International Union for the Conservation of Nature \(IUCN\)](#) in 2000 and provides a standardized set of guidelines to assess how well a site’s values are being protected and objectives are being achieved (also called management effectiveness).

The Alberta Parks’ PAME process includes:

- assessments of a park’s values and design risks at both local and system-wide scale;
- assessment of threats (or pressures) to those values;
- evaluation of management systems and processes.

The assessment and evaluation were informed by data and expert opinion and will help to identify the management objectives in the plan. The results from the PAME process are summarized in this section: the values assessment tools are summarized below and the results from the threats assessment tools are summarized in section 8 (Park Pressures).

Conservation values

GRPP is a relatively large land base connecting two growing urban centers and the park offers a relatively undeveloped and intact landscape that provides critical wildlife habitat and is part of two known wildlife movement corridors through this dynamic and changing region. GRPP protects exceptional natural values including riparian habitats along the Bow River as well as a number of side coulees and a diversity of grasslands and shrub lands. This landscape is a good representative example of the Foothills Parkland Natural Sub-Region, which is significantly under-represented in the system and is sensitive to urbanization. The park boundary was designed to help protect ridgelines from future development, following the upper limits of the park’s coulee system on its northern extent. Geology features include the Paskapoo formation and sandstone as well as glacial till. Seventy-six percent of the site is identified as Environmentally Significant Area and provides niche landscapes for listed plants and animals such as the Sprague’s Pipit, Prairie Falcon, Loggerhead Shrike and Limber pine.

The Conservation Values and Design Risk Assessment (CVA) is a component of a PAME evaluation. The CVA is based on an ecological framework that addresses both conservation values (ecological structure and function) and design risks of the park or protected area. The tables below summarize the results from the CVA for the following categories:

- Ecosystem Representation
- Special Features (geomorphic)
- Special or Unique Habitats
- Species of Concern
- Species Composition
- Ecological Function
- Disturbance Regimes
- Hydrologic Function
- Climate Change Resilience
- Park Design Risks

ECOSYSTEM REPRESENTATION

Assesses the extent, significance and diversity of representative ecosystem elements including natural landscape types and natural landscape components as identified by the Natural Regions and Subregions of Alberta: A Framework for Alberta’s Parks (Government of Alberta, 2014).

- GRPP is one of only 12 protected areas in Alberta’s parks and protected areas network within the Foothills Parkland Natural Subregion (Figure 9) and the third largest (after Waterton Lakes National Park, and OH Ranch Heritage Rangeland). The Foothills Parkland is one of the most underrepresented natural subregions in the park system
- GRPP protects representative examples of four natural landscape types in the Foothills Parkland Natural Subregion all of which are significant gaps in the system: Fluvial Deposits (2nd largest; 42% of all protected), Moraine (3rd largest), Glaciolacustrine Deposits (2nd largest; 1 of 5; 45 percent of all protected), and Major River (2nd largest).

SPECIAL FEATURES (GEOMORPHIC)

Assesses the significance, extent and diversity of special landforms and features within the site.

- no rare, uncommon or outstanding landforms mapped
- noted: springs and seepages identified, not mapped.

SPECIAL OR UNIQUE HABITATS

Assesses whether the site contains focal habitat elements (required for a species for a specific function or life-stage e.g., bat or snake hibernacula, waterfowl staging and foraging areas), legally or policy defined critical habitat, other special habitats (unique habitats, Key Biodiversity Areas, or Environmentally Significant Areas) and their significance, extent and diversity. Also assesses tracked (rare) ecological communities as defined and mapped by the Alberta Conservation Information Management System (ACIMS) where an S1 ranking is the most conservative and S5 is the least⁴.

- Focal habitats: four or more including roosts for little brown bat (endangered, nationally significant) (balsam poplar riparian); red-sided/common garter snake hibernacula (sensitive); nesting habitat for Sprague's Pipit (sensitive) (rough fescue / Parry oat grasslands with intermediate height and density, moderately grazed); sensitive raptor range (golden eagle, bald eagle, prairie falcon)
- Special habitats: Springs /seepage-fed graminoid communities including ephemeral ponds; coulees with running water and waterfalls; badlands
- 76 percent of site identified as Environmentally Significant Areas (**Error! Reference source not found.**) for wide range of species, and intactness of the landscape and streams
- Ecological Communities - three rare including little bluestem-sand grass (rank S2), northern wheatgrass-needle and thread (rank S2), water birch grassland riparian shrubland (rank S2S3)
- Fescue native grassland (more wholistic) – several community types outside the range – sensitive to disturbance

SPECIES OF CONCERN

*Assesses significance, viability and diversity of tracked species (species of conservation concern), both plants and animals, that are included on the Alberta Conservation Information Management Systems (ACIMS) tracking lists (**Error! Reference source not found.**). Assesses the presence, status, viability and diversity of listed species, degree of endemism (uniqueness) of tracked species or ecological communities, the extent to which the site contains species or communities that are at the edge of their range of distribution (range extension), and extent of remnant or disjunct (isolated) species or communities and their significance (regional, provincial, national).*

- 10 Tracked Species: - Macoun's Cinquefoil (most significant - S1 tracked species), two lichen species, two butterfly species (Pacific Forktail, Western Red Damsel), narrowleaf umbrellawort, fern (smooth cliffbrake – S2); hairy-leaved beardless moss, widgeon-grass, low braya species.
- Two Endangered Species (i.e. "Listed" under Provincial or Federal legislation): Little Brown Myotis (Endangered, S3S4); Limber Pine (Endangered, S2)

⁴ S1: Known from five or fewer occurrences or especially vulnerable to extirpation because of other factor(s). S2: Known from twenty or fewer occurrences or vulnerable to extirpation because of other factors. S3: Known from 100 or fewer occurrences, or somewhat vulnerable due to other factors, such as restricted range, relatively small population sizes, or other factors. S4: Apparently secure; taxon is uncommon but not rare; potentially some cause for long term concern due to declines or other factors. S5: Secure - taxon is common, widespread, and abundant.

- Seven Listed Species (under Provincial or Federal legislation): American Badger (Sensitive, not tracked); Great Blue Heron (Sensitive, not tracked); Sprague's Pipit (Threatened, S3S4); Barn Swallow (Special concern, S4B); Western Bumblebee (Threatened, S2S3); Yellow-banded Bumblebee (Special Concern, not tracked); Suckley's Cuckoo Bumblebee (Threatened, not tracked)
- Unknown: Occurrences of Range Extension Species or Remnant Species/Communities
- Knowledge Gap: viability of these species within the site are unknown; and the extent of special/focal habitats that exist outside the protected area

SPECIES COMPOSITION

Assesses species diversity, species that have been lost (extirpated) from the site, keystone species, trophic cascades and apex consumers. Also assesses the extent that the site contains areas for in-situ conservation of genetic material.

- Species diversity (# of species) trend considered same for most taxonomic groups from when park established
- Species loss from site is unknown (e.g., Grizzly bear)
- Three keystone species (viable populations): Richardson's ground squirrels, Beaver, Pileated woodpeckers
- Seven top apex consumers (viable populations): coyotes, badgers, black bears, ferruginous hawk/golden eagle (occasional), bald eagle, potential for bobcat and cougar, hawk owl/great horned
- Not identified as important area for forest or fish genetic conservation generally, although there are three limber pine in the park)

ECOLOGICAL FUNCTION

Assesses succession/retrogression (historic range of variation for vegetation types by age class), extend and significance of movement corridors, and source/sink dynamics.

- Unknown state of succession/retrogression (i.e. distribution of vegetation age class within the natural historic range of variation)
- Two or more identified Wildlife Movement Corridors for wide-ranging wildlife. Significance is unknown.

DISTURBANCE REGIMES

*Assesses insect cycle, flooding (**Error! Reference source not found.**), and herbivory and the extent to which these disturbance regimes within the site reflect historic cycles.*

- Current grazing regime is meant to mimic natural disturbance regime of grasslands within Foothills Parkland Natural Subregion. Unknown: age structure of grassland – relative to natural. Range health assessment being conducted in 2024.
- Knowledge gaps: Insect, flood, fire disturbance cycles are unknown.

HYDROLOGIC FUNCTION

Assesses watershed integrity including watershed naturalness (amount of disturbance in relation to total area of the site) and watershed completeness (size of watershed unit(s) i.e. HUC 8, within the site in relation to size of entire watershed unit). Assesses lotic (flowing water) connectivity.

- GRPP protects a very small proportion of its watershed (2.8 percent of the complete HUC 8 watershed unit) and only 31 percent of the watershed is considered natural and undisturbed (**Error! Reference source not found.**).
- Flowing water is moderately unimpeded in the park (medium 50-74 percent lotic connectivity (i.e. few barriers or blockages of streams). Unknown influence of the Bearspaw Dam.

CLIMATE CHANGE RESILIENCE

Assesses elements of geography and ecology of landscapes for resiliency related to refugia (areas relatively buffered from climate change impacts) including cool water refugia, backward climate velocity refugia, and biotic refugia; and carbon storage and capture, both below ground (soil) and above ground (tree).

- Native grasslands in the park are recognized as important - highly effective / efficient for carbon storage and sequestration.
- Knowledge gaps: presence of refugia, above/below ground carbon storage; bioclimatic envelope change.

PARK DESIGN RISKS

Assesses factors that may make the site more susceptible to stressors and threats including naturalness (extent of site “undisturbed” by human development) through the Alberta Biodiversity Monitoring Institute (ABMI) human footprint layer, size of the site relative to being able to meet the natural disturbance regime for the site and/or natural subregion, shape of the site in terms of how well the boundary conforms to natural landscape features, potential impacts from adjacent land uses, and if there are replicate reserves within the same Natural Subregion.

- Naturalness = very low risk. The area within the park is considered largely natural (97 percent undisturbed based on ABMI). Note: naturalness in this context refers to current development footprints. The landscape throughout GRPP has experienced hundreds of years of human modification and disturbance and contains known historic features i.e. Glenbow Village, Glenbow Quarry, etc.
- Size = low risk. The park protects a large land base relative to the size of natural disturbance regimes within the Foothills Parkland Natural Subregion
- Shape = high risk. Less than 20 percent of the boundary shape follows natural features and there are many “inholdings” (privately-owned land) that fragment the park resulting in high edge effects.
- Adjacency = very high risk. Adjacent land is highly disturbed with few buffers or connectivity to undisturbed areas nearby. Highway, railway, and urban development are significant wildlife barriers

Human Dimension Values

The term human dimensions refers to the attitudes, behaviors, connections, engagement, and responses of people in relation to natural environments. It covers a variety of ideas and practices including cultural, social, and economic values; individual and social behaviour; demographics; legal and institutional frameworks of management; communication and education; and, decision-making processes of management (Decker, Brown, & Siemer, 2001).

GRPP’s human dimension values relate to how people use the park and engage with the visitor services and park programming. GRPP is an Urban Signature site in the provincial parks system, intended to connect visitors to nature and build an understanding of the purpose and value of the Alberta’s provincial parks system. It is one of the few places where visitors can go front-country cycling in a park but it also supports a wide variety of other non-motorized activities, like hiking, birding and picnicking. GRPP is not a typical park; it has functions of a working ranch with grazing cattle rotated through the landscape, as well as providing many park-typical interpretive and educational learning opportunities. The park’s provincially unique natural attractions include scenic vistas, trails through native grassland, and wildlife viewing. The trail system, visitor centre, and day use area provide recreation features appropriate to the front-country and mid-country recreation opportunities settings. Visitors are mostly locals travelling from within 100km away, and the park is often marketed as part of regional tourism promotions.

The Human Dimensions Values and Design Risk Assessment (HuVA) tool in the protected area management effectiveness evaluation is designed to systematically catalogue a range of human dimension values and design and use risks of a park or protected area in relation to its natural environment and the network in Alberta. Although a significant proportion of management effectiveness values are recreation-oriented, the HuVA tool covers a variety of other ideas such as historic, cultural, social and economic values. This is in addition to individual and social behaviors, communication and education, demographics, nature appreciation, research, stewardship and related decision-making processes of management. The tables below summarize the results from the HuVA for the categories listed below:

- System Representation – Nature-based Recreation Framework

- Site Experience
- Site Attractions and Special Features
- Other Local Community / User / Human Dimension Site Values
- Other Site Functions
- Park Design Risks
- Other Capacity Risks

System Representation – Nature-based Recreation Framework

Assesses recreation framework site settings and activities including diversity of site settings (front-country, mid-country, backcountry and remote backcountry), diversity of activity categories (out of 48 possible setting/activity categories e.g., biking, camping, day use, fishing, etc.), how well settings and activity categories are represented in relation to the natural region as a whole, rarity of activities, atypical activities, and type of visitor experience.

- GRPP is one of 20 “core” park sites in the Parkland Natural Region of Alberta and is one of only 10 protected areas in Alberta’s provincial parks system in this Natural Region that enables onsite opportunities for visitors to experience and connect with Parkland ecosystems
- Identified Urban Signature site – intended to function as stewardship centre for Alberta’s provincial parks system - focus on connecting visitors with nature and understanding Alberta’s provincial parks system through interpretation and education programming, increasing environment literacy and role of parks
- GRPP offers a range of day-use recreation opportunities in two recreation settings: front-country and mid-country
- Park offers a third of all possible activities enabled by Alberta’s provincial parks system within the Parkland Natural Region including day use, hiking, biking, (fishing) and non-motorized winter activities in both settings.
- Presence of three recreation opportunities that are rare in Alberta’s provincial parks system: front-country biking (one of seven in the Natural Region), mid-country day use (viewpoints, supporting amenities) (one of six in the Natural Region), and mid-country biking opportunities (one of six in the Natural Region).
- Atypical opportunities: Experience of working ranch (passive/bystander interaction or formal activity); golf cart educational tours)
- Knowledge gaps: use of the site for fishing, paddling, aerial/kite sports – paragliding over/in the park

Site Experience

Assesses range of factors related to experience including attractiveness of a site, the type of visitor experience offered, presence of exemplary experiences, and significance of experiences.

- Attractiveness: Site is highly accessible and attractive overall to a broad range of visitors – and is one of the best places to view wildlife in the region
- Overall site experience is provincially significant – proximity to urban centre and accessibility of nature experiences that are atypical and/or unique
- Three exemplary experiences in Alberta’s provincial parks system: Scenic vistas; walk through native grassland; TransCanada Trail / paved trail (future) connecting Calgary and Cochrane
- Knowledge gap: potential of the site to function as part of a multi-site tourism or adventure experience (birding, Trans Canada Trail, close to Big Hill Springs Provincial Park)

Site Attractions and Special Features

Assesses diversity and significance of special recreation and cultural features and natural attractions, trails, cultural and historic values, and traditional use.

- Programs: Both personal and non-personal interpretive/education programming offered by the Glenbow Ranch Park Foundation – some may be unique and highly desirable
- Trail system in place – not yet connected to regional trails system/network
- Five+ special recreation features (built): visitor centre and education building (provincially significant), trail system, TransCanada trail (nationally significant), sunshades, day use area
- Five+ special natural attractions (provincially significant): native grasslands landscape, Bow River, birdwatching habitat, wildlife viewing, scenic vistas, flowering grassland (viewing)
- Four+ special cultural features (provincially significant): historic quarry, historic townsite, accessibility of working cattle ranch; railway, historic, Indigenous campsites with stone circles ('tipi rings')
- Site contains variety of sites identified as significant historic resources (archaeological, paleontological) that will likely or may require impact avoidance (Historic Resource Values 3 and 4)
- Knowledge gap: importance for current Indigenous traditional use

Other Local Community / User / Human Dimension Site Values

Assesses presence of other human dimension values that have not already been captured.

- GRPP is also known to be important for the following values/uses:
 - Pastures/grazing, economic (jobs, amenity values), sustainable tourism, health benefits (mental and physical), artistic inspiration and expression, science, stewardship and volunteerism, naturalness (quiet and solitude), scenic or aesthetic values, soundscapes, multi-generational history and shared experiences (family), sense of place, social gathering place, other (memorial programs)

Other Site Functions

Assesses value of the site as a tourism destination or part of a larger tourism destination area, seasonality of a site, interpretive and educational program value, and significance for scientific research.

- Currently supports tourism / tourism opportunities as part of a regional product
- Site functions year-round, but provision of opportunities is not deliberate (e.g. winter activities)
- Site is significant as an interpretation/education anchor: could be functioning as a provincial anchor/hub for environmental, historic, and cultural interpretive and education programming (as an urban signature site) in Alberta's provincial parks system
- The Foundation has collaborated with Indigenous communities and organizations on education programs and events.
- Site is significant for scientific research: actively occurring and supported, but lacks a coordinated research program, (potential to be supported as a protected areas research node)

Park Design Risks

Assesses the site based on factors such as size and shape and how they impact visitor experience and human dimension values, intensity of use, the quality of the site (naturalness, condition, disturbance level) and access relative to the setting, the availability of appropriate enabling infrastructure and trails.

- Boundary: The boundary configuration is problematic as it will be challenging to manage informal access and off-trail use of visitors from surrounding residential developments.
- Intensity of Use: Visitation is likely to grow by orders of magnitude with trail connections and urban growth
- Setting condition and naturalness: Site mostly functions as mid-country setting
- Access: Current access and use is adequate, but there may be some gaps and future development will increase risk. Changing use and access patterns likely to change with trail connectivity
- Enabling trails: Most necessary trails are in place, appropriately designed (some issues) and maintained to support activities and settings, with some resolvable issues

Other Capacity Risks

Assesses visitation (day use and overnight) levels, capacity of the site to support the intended recreation experience relative to the setting, and trail capacity.

- Current use capacity (day use, bookable group day use) assessed as low risk i.e., appropriate/moderate
- Special Events, Guided Groups, and Interpretive / Education Programs
- Overall Site Setting and Trails capacity: Amount and type of use was assessed as mostly appropriate with some minor issues

Indigenous values

Indigenous values were not assessed as part of the initial PAME assessment and will be raised directly with Indigenous communities as part of the management planning process. We recognize there is a strong relationship between Indigenous values and other human-use values just as there is between Indigenous values and conservation values. The artificial separation here is intended to ensure a respectful process and full participation occurs.

Park Pressures

As discussed in Section 7, a PAME evaluation was completed for GRPP as part of the management planning process which included an assessment of the conservation and human dimension values for the park (above). This section summarizes the threats assessment that was completed to identify and assess threats to the park and identify any knowledge gaps to be addressed in the short- and long-term.

Threats to conservation values

As an urban signature site located within the most densely populated natural region, the most significant known threats on the conservation of GRPP come from adjacent land-use activities and development outside the park boundary impacting wildlife movement corridors, watershed naturalness, and species composition. Within the park boundary, the most significant threats to the conservation values are roads and railways, which impact wildlife movement corridors.

Threats on conservation values were assessed using the protected area management effectiveness Conservation Threat Assessment (CTA) calculator. The CTA looks at the current primary threats to the conservation values identified in Section 7, including processes, species, and ecosystems, of a park or protected area, using standard nomenclature and methods. The CTA is based on an open-source calculator developed by NatureServe that has been used across North America to evaluate data for species and ecosystems of concern. The [threat categories and definitions](#) are standardized and are maintained and updated by NatureServe. Threats are assessed by their spatial scale, severity of impact and longevity of impact (or timing). These factors are combined to estimate a total threat impact rating (see Table 4). Additional measures include seasonality, periodicity, and trend.

Table 4 Conservation Threat Assessment Categories and Total Impact Ratings

Spatial Scale (Percentage of park area)	Severity of Impact	Longevity of Impact (Timing)	Trend	Threat Impact Rating
Widespread (71-100 percent)	Extreme	Permanent	Increasing	Very High
Extensive (31-70 percent)	Serious	Long-term	Same/Stable	High
Localized (11-30 percent)	Moderate	Medium-term	Decreasing	Medium
Restricted (1-10 percent)	Slight	Short-term	Unknown	Low
Negligible (<1 percent)	Negligible	Unknown		Unknown
	Neutral or Potential Benefit			
Unknown	Unknown			

The table below identifies the standardized threat categories and total impact rating on the conservation values both inside and outside the park boundary as well as the trend (whether the pressure is stable or whether it is increasing or decreasing).

Table 5 Threats to Conservation Values: Total Impact Rating and Explanation

Categories	Total Impact Rating and Trend Inside and Outside Park Boundary	Explanation
Residential and Commercial Development <ul style="list-style-type: none"> Housing and urban areas Commercial and industrial areas Tourism and recreation areas 	<p>Inside: High - Increasing</p> <p>Outside: High-Very High - Increasing</p>	<p>On-site facilities related to visitor use, maintenance, trails, and grazing as well as the proposed pedestrian bridge have relatively small footprint but are permanent so will always have an impact on conservation values.</p> <p>Park is surrounded by existing and planned residential developments, commercial developments, and recreation areas that will impact wildlife and water movement, habitat quality and quantity, and the naturalness of the watershed.</p>

Pollution		
• Excess energy	Inside: Unknown - Increasing	Light pollution from buildings and potential night-time recreation use and noise from railway (trains run every hour) and roads impacts sensitive nocturnal species like amphibians, bats, owls, and nesting birds.
	Outside: Unknown - Increasing	Adjacent urban development including highways, roads, and residential areas emit light, pollution, and noise which have unknown impacts on wildlife.
Climate Change		
• Ecosystem encroachment	Inside: Unknown - Increasing	Not well understood but climate change may impacts fire and flooding regimes and increased risk of fire. Adaptive management needed for grazing.
	Outside: Unknown - Increasing	Same as inside park.

Threats to human dimensions values

Threats to the human dimension values were assessed using the protected area management effectiveness Human Dimensions Threat Assessment (HuTA) calculator. The HuTA is used to assess the current primary threats to human dimensions identified on page 24 including recreation activities, education uses and others. The tool uses standard nomenclature and methods and is similar in approach to the CTA calculator. Spatial scale or extent of impact, scope of impact (how and which users are impacted), severity of impact, and trend are all measured to determine the total impact rating of low, medium, high, or very high.

Table 6 Human Dimensions Threat Assessment Categories and Total Impact Ratings

Spatial Scale (Percentage of park)	Severity of Impact	Longevity of Impact (Timing)	Trend	Threat Impact Rating
Widespread (70-100 percent)	Very High - Affects all human values	Permanent	Increasing	Very High
Extensive (31-70 percent)	High - Affects most human values	Long-term	Same/Stable	High
Localized (11-30 percent)	Moderate - Affects only a few values	Medium-term	Decreasing	Medium
Restricted (1-10 percent)	Low - Affects a specific value	Short-term	Unknown	Low
Negligible (<1 percent)	Negligible	Unknown		Unknown
Unknown	Unknown			

The table below identifies the standardized threat categories and the rating of total impact on human dimension values of GRPP as well as the trend (whether the threat is stable or whether it is increasing or decreasing).

Table 7 Threats to Human Dimensions Values: Total Impact Rating and Explanation

Category: Physical / Site Conditions (internal)	Total Impact Rating and Trend ⁵	Explanation
Enabling infrastructure <i>Visitor infrastructure (signs, bathrooms, picnic tables, shade shelters)</i>	High - Increasing	Recreation infrastructure in the park, like signs, bathrooms, and sun shades, need to be maintained or visitor experience will be degraded.
Condition of supporting infrastructure <i>Management infrastructure (office space, maintenance)</i>	High - Increasing	Operational infrastructure like staff offices and maintenance storage need to be upgraded and increased in capacity.
Accessibility / standard of supporting infrastructure (appropriate to setting) <i>Visitor and management infrastructure, trails</i>	High - Increasing	The proposed residential development adjacent the park is likely to increase demand for new park access points and could affect the mid-country experience in the park.
Site access <i>Roads, trails, parking, bridge</i>	High - Increasing	The proposed adjacent residential development and pedestrian bridge from Cochrane, which will likely lead to new access points and an increased volume of visitors to the park.
Trail conditions and/or design (designated) <i>Designated trails</i>	Very high - Increasing	Some segments of trails need improvements to address design and maintenance issues such as steep grades, poor sightlines, and erosion as well as temporary closures due to ice and cattle movement.
Informal trails <i>Undesignated trails (to-from river, single track bike trails)</i>	High - Increasing	Off-trail use will likely increase with adjacent residential development and can lead to the creation of informal trails, damage to vegetation, slope erosion, and wildlife disturbance.
Category: Recreation Use (Internal)	Level of Impact and Trend	Trend
User or inter-activity conflict <i>High-speed cyclists</i>	High - Increasing	User conflicts exist between activity types particularly where there is a differential speed. Concern about future interest in single track mountain biking once there is increased access into the park from new residential areas.
Intensity of use (group size, number of users) <i>Large groups and parking, local residents (future)</i>	High - Increasing	Although not currently a major issue, large groups can interfere with the quiet enjoyment of the park by other visitors. An increase in visitation to the park from residents of nearby residential areas is expected.
Changing demand / expectations (views, perceptions) <i>Sense of place (cattle ranching, conservation value, rural), urbanization</i>	Very High - Increasing	With the growth of the surrounding communities and the proposed adjacent development, new users will be coming to GRPP with potentially different expectations for their recreational experience. The park may see increasing off-leash dog use, and users may have a lack of understanding of the conservation values and cattle ranching operations in the park.

⁵ Trend: whether the pressure is stable or whether it is increasing or decreasing

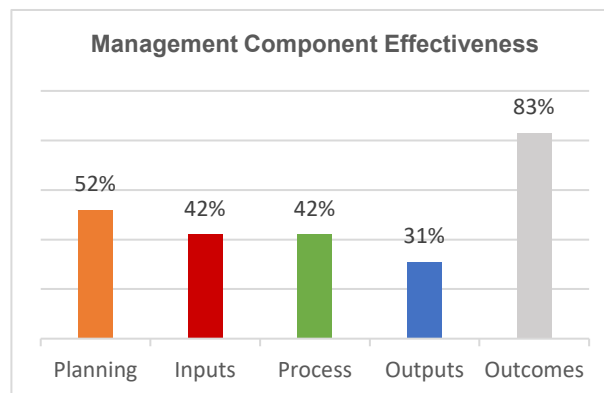
Category: Protected Area Capacity (Internal)	Total Impact Rating and Trend	Trend
Information availability (e.g. lack, misinformation) <i>Website, social media</i>	Very High - Increasing	Accessible and accurate information is important to manage visitor use and expectations (see previous category). Park information online and onsite, in general and about particular places in the park, needs to be updated and augmented regularly.
Parks staff presence (or lack) <i>Front and mid-country staff presence</i>	High - Increasing	With potential increase in users and new access points into the park, there will be expectations for increasing visitor services presence and enforcement.
Category: Ecological Management (Internal)	Total Impact Rating and Trend	Trend
Grazing <i>Trail closures, exemplary experience</i>	Unknown – Same/stable	The livestock grazing regime, the primary method of maintaining the grassland ecosystem in the park, may be affected by changing recreation use in the park. As the current grazing permit holder uses GRPP and adjacent parcels for grazing, changes to the adjacent land uses may require adjustments to the ranching operation.
Category: Natural Factors (External)	Total Impact Rating and Trend	Trend
Climate change <i>Drought, heat</i>	Unknown - Increasing	Climate change and relative extreme weather events such as flooding and unpredictable natural disturbances such as regional forest fires, may alter the recreational opportunities or preferences of users. Recreationalists may need to adjust activities to account for risks from heat-related illnesses, poor air quality from forest fire smoke, human disease vectors like ticks and mosquitos, and a longer pollen season, which will affect people suffering from allergies and asthma.
Category: External Activities	Total Impact Rating and Trend	Trend
Residential <i>Viewscape, visitation</i>	High - Increasing	Increasing volume of visitors from nearby residential developments may impact recreational experiences in the park including the scenic views and fewer opportunities for solitude. Changing demographics of visitors may mean different user expectations about opportunities and park management.
Tourism development (pressure to develop) <i>Pedestrian bridge, proposed developments</i>	Unknown - Increasing	In addition to the proposed pedestrian bridge, it is expected that as the nearby communities grow, that there will be increasing interest in tourism developments within or adjacent the park.
Water control structures <i>Stormwater ponds, reservoir</i>	Medium - Unknown	Stormwater ponds may need be established in the park to manage water from the adjacent residential neighborhoods in Rocky View County.

Management Effectiveness Evaluation Summary

Table 8 Management Effectiveness Evaluation Summary

Site Name:	Glenbow Ranch Provincial Park
Evaluators:	Management planning teams, Glenbow Ranch Park Foundation staff and volunteers
Date:	March 13, 14 and 16, 2023
Evaluation Tool:	Canadian modification of the Management Effectiveness Tracking Tool An assessment of conservation and human dimension values and threats (summarized in Table X and X) preceded and informed the evaluation survey.
Overall Grade:	64% - Basic Management

Scoring Level Standard	
A	Sound Management (67%-100%)
B	Basic Management (51%-66%)
C	Basic Management with Significant Deficiencies (34%-50%)
D	Clearly Inadequate Management (0- 33%)



Planning: <i>Where do we want to be?</i>		Explanation of Component
Grade: 52%		Evaluation of the design features of a protected area or system including the physical, legal and institutional factors which determine whether its management will be relatively straightforward or complicated. Assesses policies, objectives, management plan, work plan, and research and survey work.
Summary: The values and threats that were identified in assessments will be addressed in the management plan. Existing management direction includes internal Interim Development Strategy (2010). Research and regular work planning occurs but is not connected to management objectives. Lands outside of boundary to be considered for transfer and incorporation into park.		

Inputs: <i>What do we need?</i>		Explanation of Component
Grade: 42 percent		Assessments of protected area effectiveness repeatedly suggest that the level of resources available for management often has a major impact on effectiveness. This component attempts to evaluate inputs by developing a clear and unbiased picture of the inputs available and to identify gaps and shortfalls.
Summary: Information gaps exist related to endangered species, visitor use, and Indigenous use, culture and history. There are significant staff capacity challenges to enforce park regulations		

and carry out monitoring and visitor programming. A site-specific ecologist is required to support management of complex park values. Robust volunteer program. Management facilities are inadequate to support park's role as operation hub for the region. Budget planning needs improvement and current budget insufficient to meet management needs.	Assesses regulations, law enforcement, resources, staff numbers and training, budget, management equipment and facilities, and fees.
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Process: <i>How do we go about it?</i>		Explanation of Component
Grade: 42 percent		Managers deal with a range of issues and sound management practices are needed to ensure protected areas are managed effectively. This component evaluates the processes that are in place to guide management.
Summary: Regulations and policies in place but some gaps (cycling) and there are challenges to implement and enforce due to limited enforcement capacity (dogs off leash) and limited site access (south side of river). Ministerial closures not well communicated and encroachment occurring on south side of river. Research and monitoring occur ad hoc and not connected to management objectives, external research based on interest of external organizations. Budget changes from year-to-year and can lead to reactive management as it is not well-connected to management needs. More consideration needs to be given for budget planning at the site level. Consideration for adaptive management needed to integrate strategies that account for climate change and prevent carbon loss. Management of park values is challenged by significant gaps in knowledge (e.g. critical habitat mapping, tracked ecological communities) and by external influences (urban development, agriculture, boundary issues) and there could be improved communication with adjacent landowners and users. Relationships with Indigenous and local communities needs improvement to inform management decisions. Local communities have some input into management decisions (e.g. Rotary Club, municipal planning) but some gaps exist (no Indigenous representation at the park level).		Assesses the protection system, monitoring and evaluation, resource management, broader land and water planning, budget, education, stakeholder and indigenous community engagement, conflict resolution, and management actions to achieve identified values.

Outputs: <i>What were the results?</i>		Explanation of Component
Grade: 31 percent		This component evaluates whether protected area managers achieved what they set out to do.
Summary: The Park Boundary is not well demarcated and the shape of the park is based on legal lines rather than geographical contours with some features extending outside of boundary - will need to continue to work closely with neighbours to protect values. Ministerial Orders protect sensitive values but not well communicated to the public. Cattle grazing and an invasive species program needs to be connected to monitoring and management concerns. Visitor facilities and services need improvement to manage expectations and better accommodate range of visitors (visitor centre expansion, parking, interpretive signage). Benefits to local and Indigenous		Assesses site design and boundary, visitor facilities, resource management actions, interactions with commercial tour operators, impacts on local and/or Indigenous communities, and how threats are being addressed.

communities subjectively assessed as being low, although difficult to measure (e.g. employment, tourism draw, impacts on site values are known and are being addressed through the management plan development process.	
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Outcomes: <i>What did we achieve?</i>		Explanation of Component:
Grade: 83 percent		This component evaluates whether management is maintaining the core values for which the protected area was established. Assesses condition of identified values (conservation, human dimension, and Indigenous) since the park was established.
Summary: Condition of conservation and human dimension values are mostly being protected but could be improved with monitoring. The condition of the Indigenous values are unknown.		

Appendix A Studies with GRPP

DATE	DOCUMENT NAME	AUTHOR
ARCHIVED STUDIES		
2002	Ecological Overview	Douglas M. Collister & John L. Kansas
2007	GRPP - Fisheries / Aquatics Reconnaissance Survey	Cal McLeod
2002	Geotechnical Review - Project 'H'	McIntosh-Lalani Eng. Ltd.
2007 (November)	GRPP - Tourism Potential Assessment	Kevin Crockett, Tourism, Parks, Recreation and Culture
2008	GRPP - 2007 Vegetation and Range Resource Inventory	High Range Ecological Consultants
2002 (November)	Historical Resource Overview - Project 'H'	Bison Historical Services (Thomas Head & Sharon Hanna)
2008	Riparian Health Assessment	Cows & Fish
2002	Ecological Overview	URSUS Ecosystem Management Ltd.
2002	Geotechnical Review	URSUS Ecosystem Management Ltd.
2002	Historical Resource Review	Bison Historical Services Ltd.
CULTURAL RESOURCES		
2009 to 2013 and 2015	Glenbow Town and Quarry Mapping Project	Archaeological Society of Alberta (Calgary Centre)
2013	The Integration of GRPP and GPA	Catherine Berris Assoc. Inc.
2008	Glenbow Ranch Provincial Park Preliminary Archaeological Assessment 2007	Alberta Culture and Community Spirit
2016	Cochrane, Matthew Henry, Dictionary of Canadian Biography	Jacques Ferland
2005 - 2016	Maunsell, Edward Herbert, Dictionary of Canadian Biography	Hugh Dempsey
2005 - 2016	McEachran, Duncan McNab, Dictionary of Canadian Biography	Denis Goulet and Frédéric Jean
2016	History and Culture of Glenbow Ranch	Glenbow Ranch Park Foundation

2013	Ranching History	Canadian Encyclopedia
2017	2017 Glenbow Town and Quarry Project, investigations at sites EgPo-18, EgPo-22 and EgPo-26	Archaeological Society of Alberta (Calgary Centre)
2022	"Alberta's Cornerstone: Archaeological Adventures in Glenbow Ranch Provincial Park"	Sheri Peyerl
PARK MANAGEMENT AND PLANNING		
2010	GRPP Interim Development and Management Strategy	Alberta Parks
2013	GRPP Planning Strategy and Communications Plan (v.3.2)	Alberta Parks
2013	Glenbow Ranch Park Foundation Annual Report 2013	Glenbow Ranch Park Foundation
2008	GRPP Pre-Planning: Significance Statement & Summary Document (v3)	Alberta Parks
1997	Fish Creek Park Management Plan	Alberta Parks
2006	Ecosystem-based Management in Small Protected Areas	J. Gilson
2012	Kananaskis Country & Bragg Creek PP Management Plan	Alberta Parks
2010	OH Ranch Heritage Rangeland Management Plan	Alberta Parks
2008	Sheep River PP & Bluerock Wildland PP Management Plan	Alberta Parks
2009	Plan for Parks	Alberta Parks

DATE	DOCUMENT NAME	AUTHOR
SOCIAL RESEARCH		
2010	Calgary / Cochrane Park Usage and Reaction to GRPP - Focus Group Report - Draft 1	ResearchWorks Inc. for Glenbow Ranch Park Foundation
2010	Calgary / Cochrane Park Usage and Reaction to GRPP - Community Leader Interview Report - Draft 2	ResearchWorks Inc. for Glenbow Ranch Park Foundation
2010	GRPP - New Canadian Survey - Results - Draft 1.2	ResearchWorks Inc. for Glenbow Ranch Park Foundation
2010	GRPP - Park Usage Study - Results - Draft 2	ResearchWorks Inc. for Glenbow Ranch Park Foundation
2010 (August)	2010 GRPP Market Research - Summary of 4 Studies - Draft 2	ResearchWorks Inc. for Glenbow Ranch Park Foundation
2009	Visitor Services Development Plan for Glenbow Ranch Provincial Park	EcoLeaders Interpretation and Environmental Education
2014	Everyone Belongs Outside	Alberta Parks
2013	Sport Tourism in the Kananaskis Region: A Needs Assessment of Sport Event Hosting	Alberta Tourism, Parks and Recreation
2010	Calgary / Cochrane Park Usage and Reaction to Glenbow Ranch Provincial Park	Researchworks Inc
VISITOR SERVICES		
2009	Visitor Services Development Plan for GRPP (Glenbow Sections)	Alberta Parks
2009	Visitor Services Development Plan for GRPP (ALL Sections)	Alberta Parks
ECOLOGICAL RESOURCES		
2008 - 2013	Glenbow Ranch Provincial Park May Flowering Species County	Lancaster
2014	Assessment of Ice and Water Impact on Glenbow Ranch Provincial Park	Dana Naldrett
2012	GIS Mapping for Park Management - Brushwoods Analysis in Glenbow Ranch Provincial Park	Surya Magar, Gun Kim, Kinsun Kim, Matt Lee
2013	Evaluating Festuca campestris Plug Establishment Along Slope Environments	Glenbow Ranch Park Foundation
2013	Physical Soil Characteristics Observed within NW 5-28-25-3 W5M	TERA Environmental Consultants
2011 - 2014	Fossil Bearing Sites - Research Summary 2011 - 2014	Dr Craig Scott

2008	Glenbow Ranch Provincial Park Features Inventory - Appendix 2 of the Heritage Appreciation Development Plan for Fish Creek District	Glenbow Ranch Park Foundation
2013	Calgary Area Nest-box Monitors - Annual Report 2013 - Section 1 + 2	Bill Taylor and Don Stiles
2012	Calgary Area Nest-box Monitors - Annual Report 2012 - Section 1 + 2	Bill Taylor and Don Stiles
2007 + 2013	Glenbow Ranch Provincial Park 2013 Vegetation and Range Resource Inventory	Tannas Conservation Services
2008	Glenbow Ranch Provincial Park 2007 Vegetation and Range Resource Inventory and Development of Range Management Recommendations	High Range Ecological Consultants for Alberta Tourism, Parks and Recreation
2010	Parks Division Science Strategy	GOA
DATE	DOCUMENT NAME	AUTHOR
INTERMUNICIPAL PLANNING + COLLABORATION		
2007	Calgary Regional Partnership Land Use Plan	City of Calgary
2010	City of Calgary 2010 Census Results	City of Calgary
2010	West Regional Context Study	McElhanney
2012	Glenbow Ranch - Bow River Pedestrian Bridge Concept Study	O2
2012	Cochrane Open Space Master Plan	Team ISL
2007	Land Use Best Practices - Growth Management Study	Team ISL
2007	Policy Context - Growth Management Study	Team ISL
2008	Background Economic Development Study - Growth Management Study	Team ISL
2008	Background Growth Management Study - Growth Management Study	Team ISL
2009	Economic Development Study - Growth Management Study	Team ISL
2009	Background Financial Planning Study - Growth Management Study	Team ISL
2009	Cost of Services Study - Growth Management Study	Team ISL
2011	Rocky View County Parks and Open Space Master Plan	AECOM

2011	Rocky View County / Calgary Intermunicipal Development Plan	Rocky View and City of Calgary
ENGINEERING STUDIES		
2010	Bearspaw - Glenbow Master Drainage Plan	WorleyParsons Resource & Energy
2010	Bearspaw - Glenbow - Water and Wastewater Servicing Strategy	ISL Engineering
2010	Highway 1A Transportation Functional Study	ISL Engineering
2012	Glenbow Ranch - CPR Crossings	Stantec

Appendix B Maps

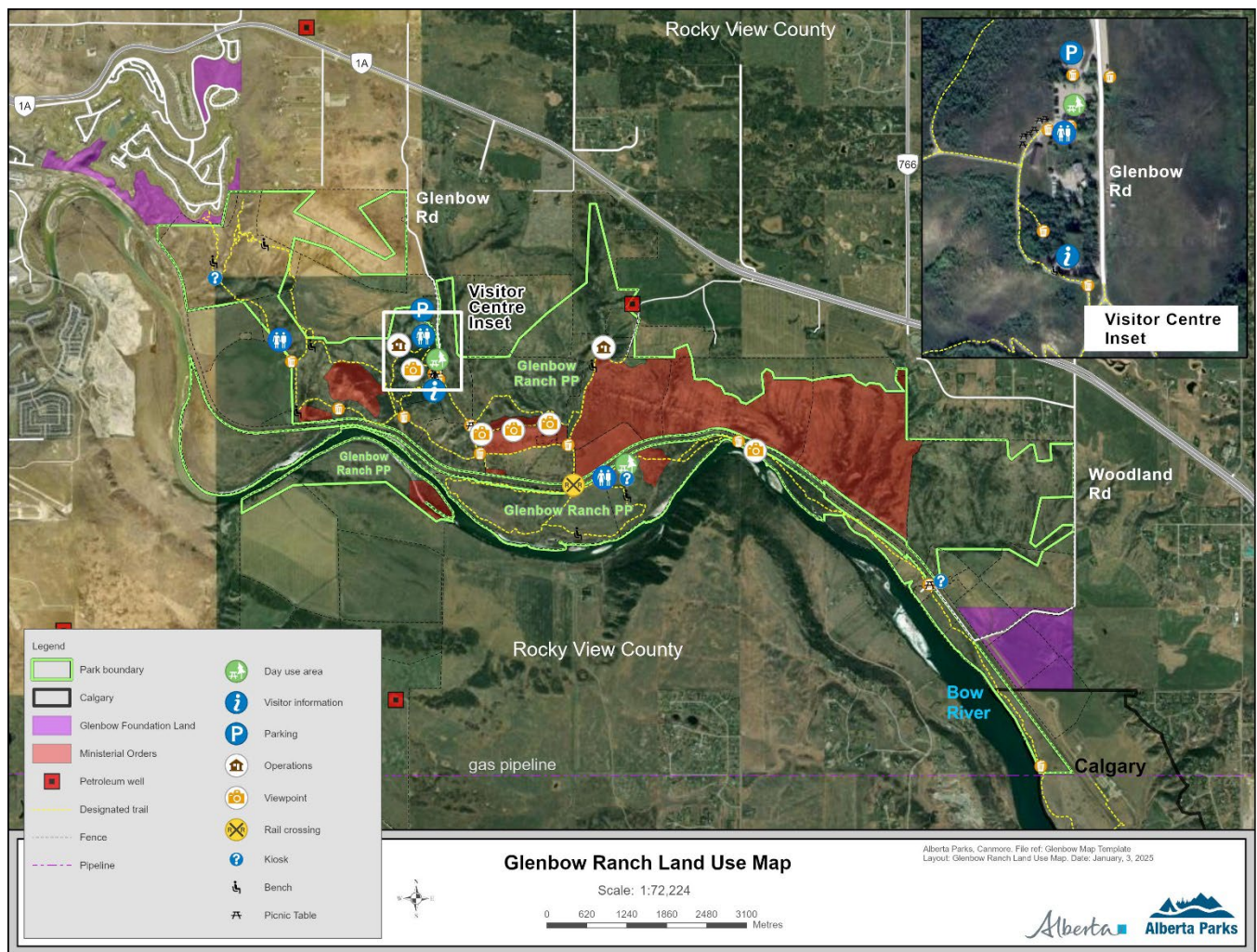


Figure 7 GRPP Land Use Map

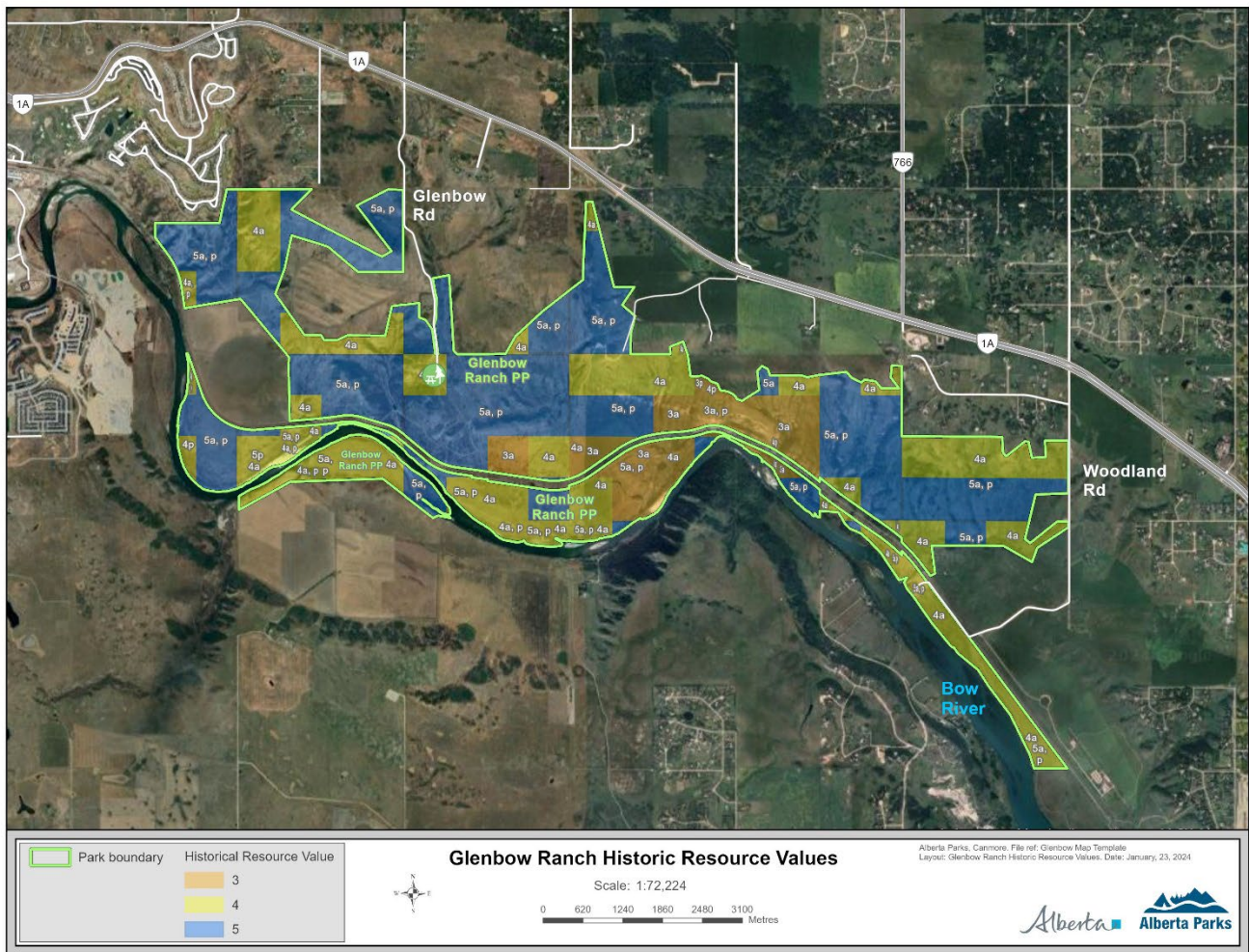


Figure 8 GRPP Historic Resource Values

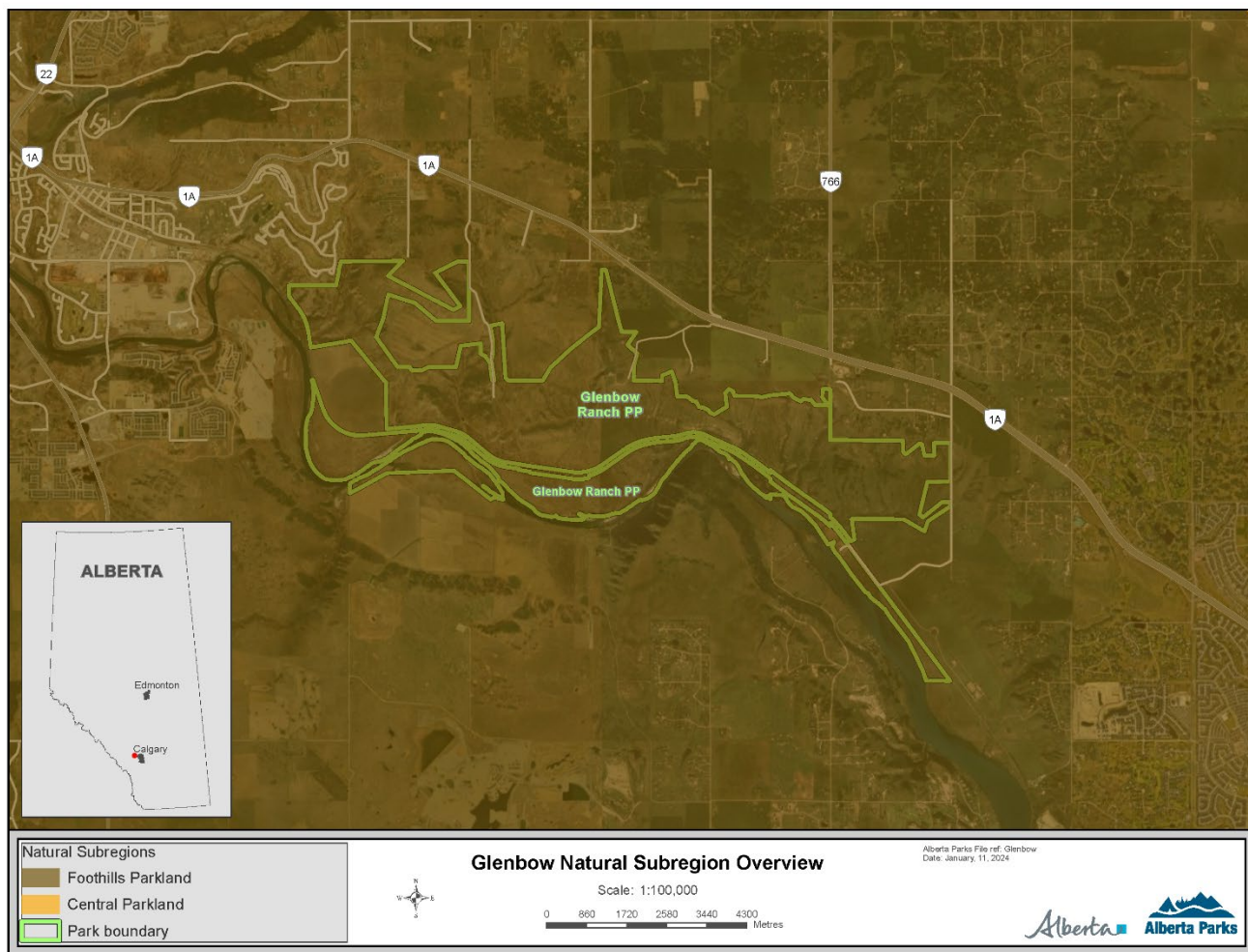


Figure 9 GRPP Natural Subregion Overview

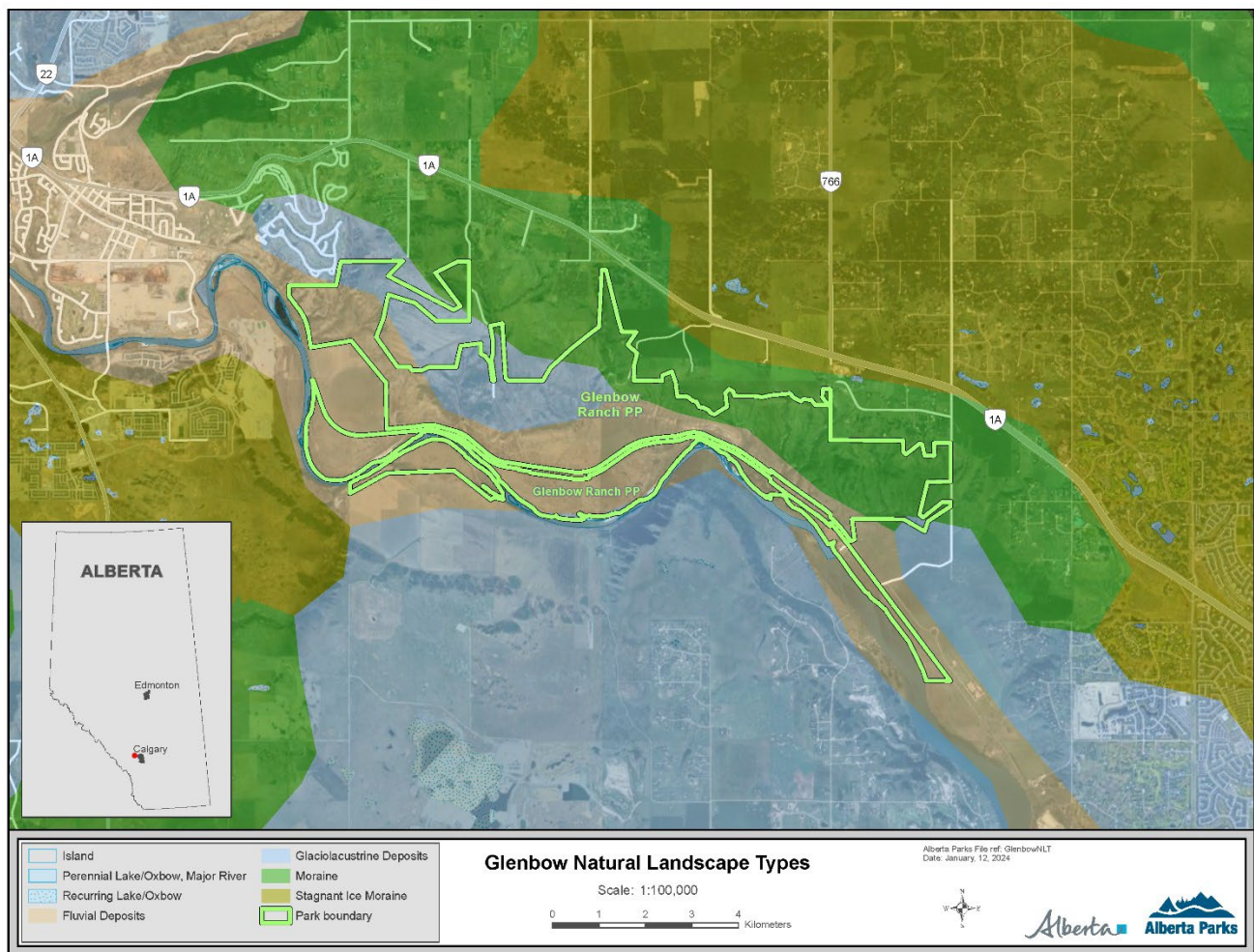


Figure 10 GRPP Natural Landscape Types

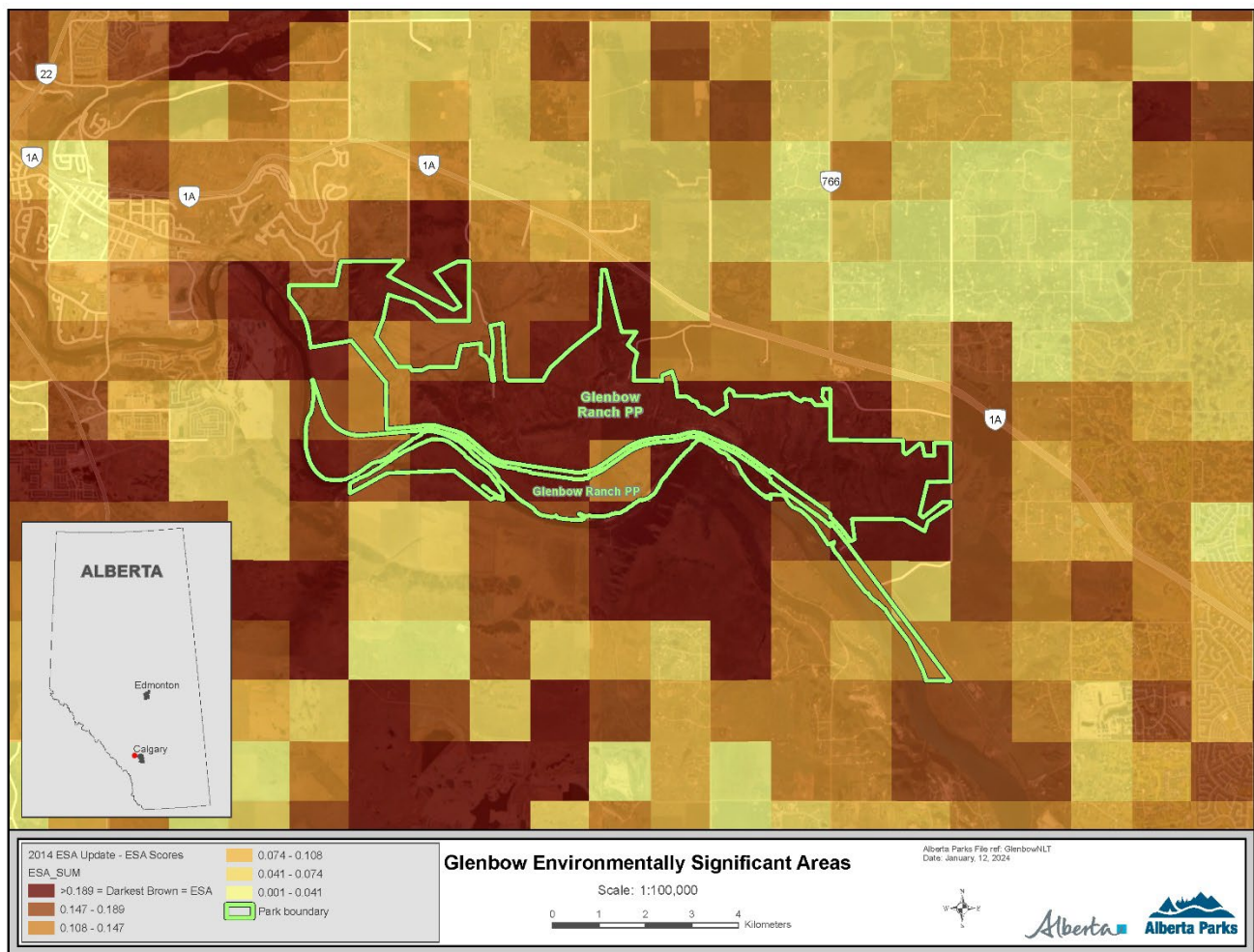


Figure 11 GRPP Environmentally Significant Areas

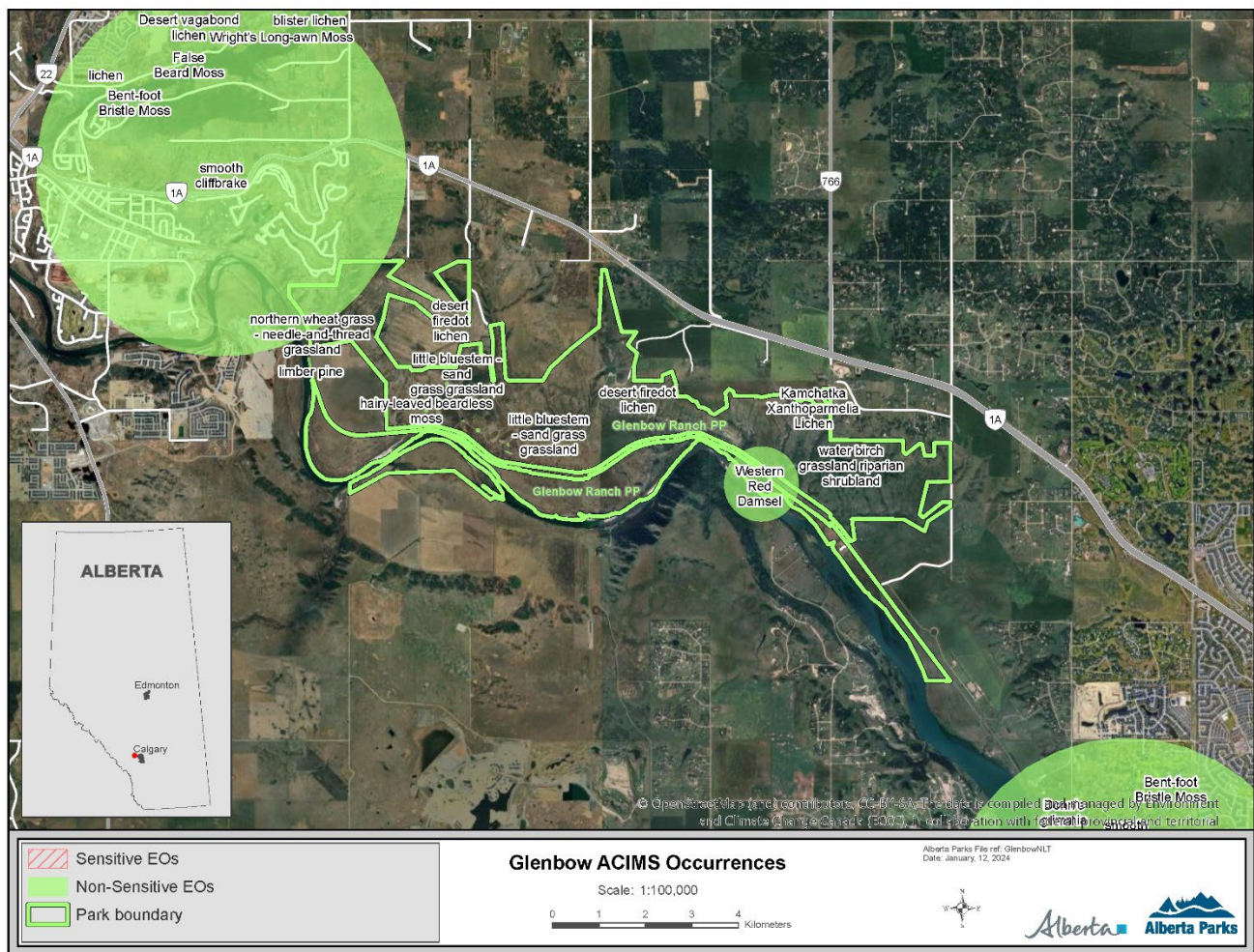


Figure 12 GRPP ACIMS Occurrences

Note: limber pine is in the park but has not yet been added to ACIMS database.

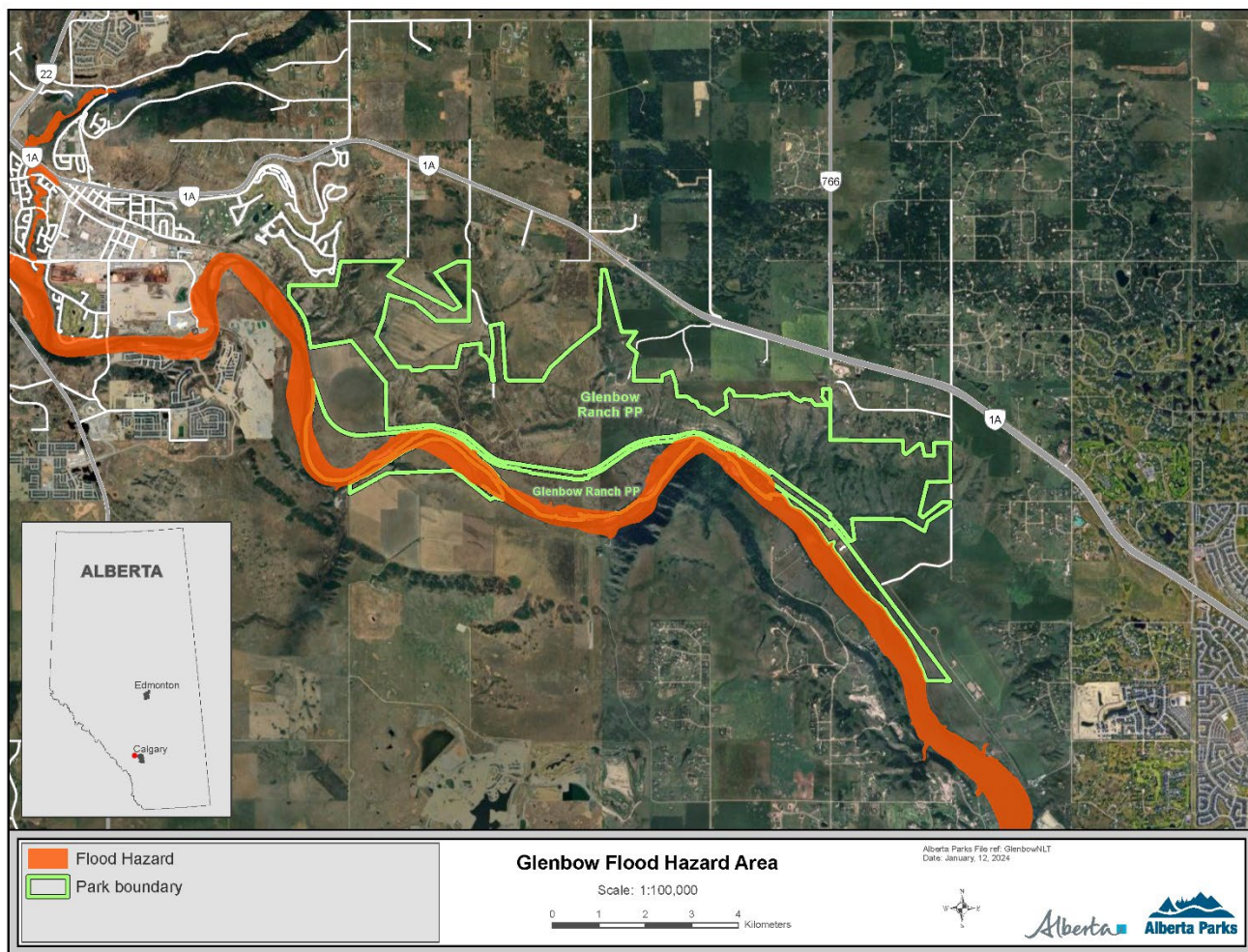


Figure 13 GRPP Flood Hazard Area

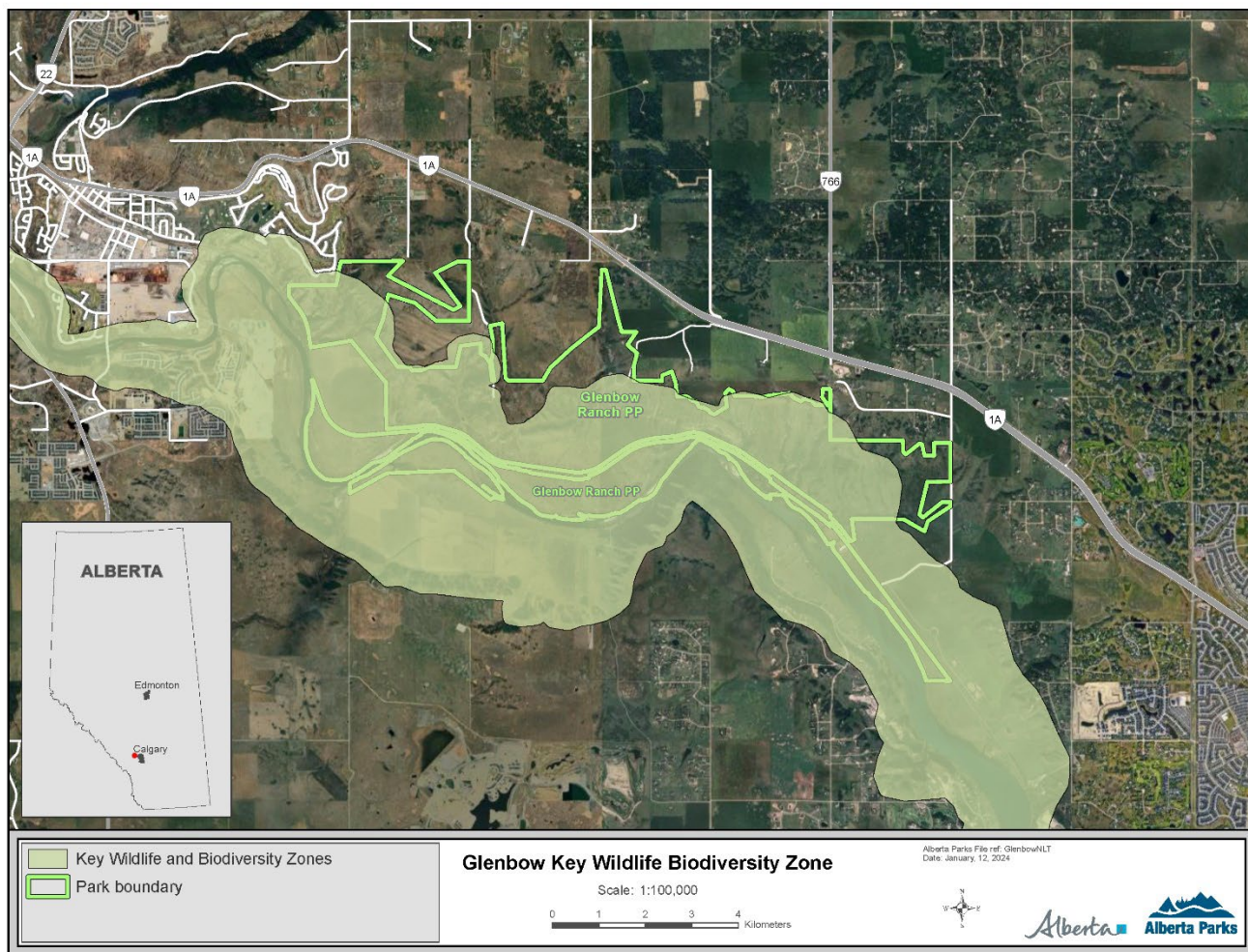


Figure 14 GRPP Key Wildlife Biodiversity Zone

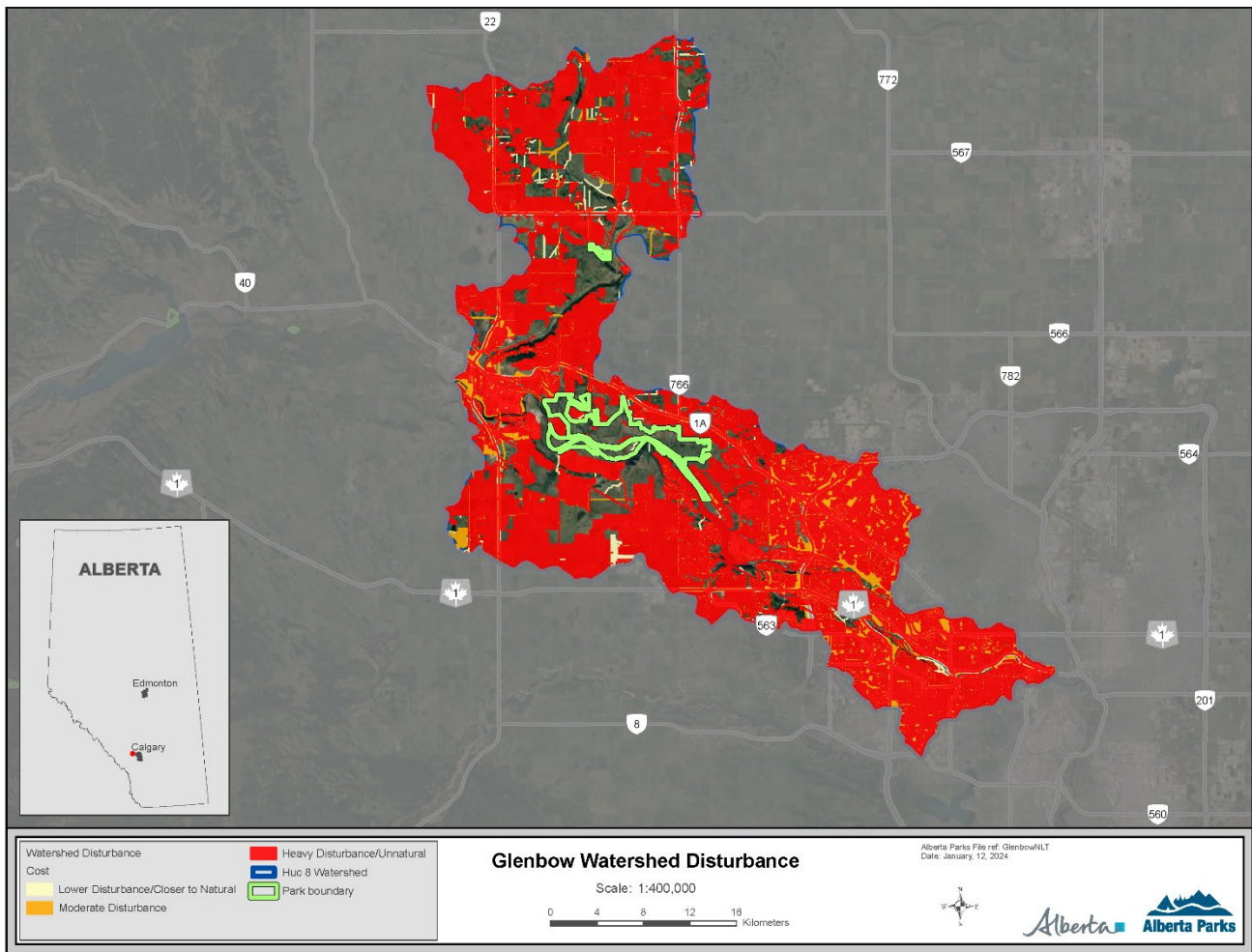


Figure 15 GRPP Watershed Disturbance