SHEEP RIVER PROVINCIAL PARK and BLUEROCK WILDLAND PROVINCIAL PARK MANAGEMENT PLAN

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PREFACE

The Sheep River Provincial Park and Bluerock Wildland Provincial Park Management Plan provides a long-term vision and day-to-day guidance for stewardship of Sheep River Provincial Park and Bluerock Wildland Provincial Park. Alberta's Parks preserve representative examples of Alberta's natural and cultural diversity while providing appropriate outdoor recreation, heritage appreciation and tourism opportunities. They are special places where Albertans and visitors can experience, learn about, understand and enjoy our natural and cultural heritage.

This plan was prepared within the context of existing legislation and regulations. It outlines how resources will be protected as well as the type and extent of outdoor recreation and tourism opportunities, and the facilities and services to be delivered. The plan was prepared with stakeholder and public input and will be reviewed and revised periodically to reflect the current thinking of Albertans about how our natural and cultural heritage will be preserved for present and future generations. First Nation's Treaty Rights will be respected and consultation consistent with the "Government of Alberta's First Nations Consultation Policy on Land Management and Resource Development" and related guidelines will be conducted.

The Assistant Deputy Minister responsible for the Parks Division will authorize the implementation of the approved management plan and retains the authority to amend or interpret its provisions.

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SHEEP RIVER PROVINCIAL PARK AND BLUEROCK WILDLAND PROVINCIAL PARK

1. INTRODUCTION

1.1 Background

Sheep River Provincial Park and Bluerock Wildland Park together cover 18,910 hectares (189 square km) in the Bow River watershed approximately 80 kilometres south west of Calgary (see Map 1). Sheep River Provincial Park consists of one large parcel along with three nearby former provincial recreation areas. The large parcel includes the Sheep River Wildlife Sanctuary. Sheep River Provincial Park and Bluerock Wildland Provincial Park were established in 2001 based on the recommendations of a volunteer Local Committee under the Special Places program.

Sheep River Provincial Park together with Bluerock Wildland Park and adjacent Elbow Sheep Wildland Park, occupy a significant portion of the Sheep River watershed in Kananaskis Country. These parks and others within Kananaskis Country are managed in a coordinated manner by Alberta Tourism, Parks and Recreation (TPR). As well, good working relations are maintained with Alberta Sustainable Resource Development (SRD) to manage these provincial parks in a coordinated way with surrounding forest reserve lands within Kananaskis Country.

1.2 Area Description

These two provincial parks are located in the high foothills of the Rocky Mountains. They are bordered on the west by the Elbow Sheep Wildland Park. On the north, south and east, they are bordered by Forest Reserve lands (see map 1) which are managed for multiple uses on an integrated basis as part of the Kananaskis Country Forest Land Use Zone. Agricultural lands within the Municipal District of Foothills are adjacent to a small portion of these provincial parks along the east Kananaskis Country boundary. Elevations vary from 1400 m (4340 ft) in the eastern end of the Sheep Valley to over 2700 m (9,150 ft) at the peak of Bluerock Mountain in the west end. The varying slopes and aspects along with prevailing winds, sunshine, and moisture create highly diverse vegetation regimes and faunal habitats, as well as high scenic qualities. These two provincial parks include good examples of the Rocky Mountain Natural Region and the Montane subregion. They include several important habitat areas for bighorn sheep and other ungulates, cougars, wolves and other carnivores. These parks also include important local and regional movement corridors for a variety of wildlife. The dynamic predator prey relationship between abundant cougars and ungulates found here is significant. Species of rare lichens and other plants are found in these parks. Important scenic features of both parks include impressive views of the Rocky Mountains, a striking foothills canyon and river vista including waterfalls and an attractive mix of open grassland, aspen and conifer forests in foothills terrain. Popular recreation activities include camping, picnicking and trail recreation for horse riders, hikers and mountain bikers. Known cultural resources include a number of archaeological sites, the remains of two small coal mining operations and evidence of early logging. Summer cattle grazing has occurred here since the early 1900's. Extensive wildlife research has been conducted in Sheep River Provincial Park for many years mainly through the R.B. Miller research facility, a satellite of the University of Calgary's facility at Barrier Lake.

1.3 Access

The main public road access is via SR 546 and the Sheep River Road west of Turner Valley (see Map 1). This road is closed to public vehicle traffic between December 1st and May 15th



Map 1: Sheep River Provincial Park and Bluerock Wildland Provincial Park

annually at the Sandy McNabb recreation area. This protects important winter range for bighorn sheep, elk and other wildlife. The same seasonal closure also occurs on the Gorge Creek Trail, a gravel road that provides access to Gorge Creek Trailhead from the Sheep River Road and to Ware Creek Trailhead from SR 549. (see Map 1).

Authorized vehicle access (for servicing/inspections only) is permitted to the Junction Mountain Fire Lookout from Indian Oils Day Use site as well as to the former Burns Mine property from Junction Creek Day Use site.

1.4 Purpose and Scope of Management Plan

This plan guides management of Sheep River Provincial Park and Bluerock Wildlands Provincial Park consistent with current legislation and policies. It provides a statement of management intent and objectives for the area. In addition, it identifies allowable public recreation activities and related facilities as well as guidelines for their future management/development. It also recognizes existing dispositions as well as the desirability of maintaining viable recreation/tourism business opportunities in the area. While this plan focuses on the management of Sheep River Provincial Park and Bluerock Wildland Provincial Park, regional perspectives have been considered to ensure proper integration and coordination across jurisdictional boundaries. Existing jurisdictional roles and boundaries will be respected. The plan will be reviewed from time to time to ensure that it remains consistent with legislation and policy.

1.5 Public Involvement

Public involvement began when over 100 interested individuals or groups were provided with draft terms of reference at the beginning of this management planning process. Two public open houses were held, one in Turner Valley and one in Calgary. All written comments received were carefully considered in finalizing the terms of reference, which has guided the preparation of this plan. The draft plan was distributed to all interested groups and individuals for their review and comment. It has been revised in line with public comments and other input received.

2. ROLE IN ALBERTA'S NETWORK OF PROTECTED AREAS

2.1 Legislation and Classification

Provincial Parks are established under the *Provincial Parks Act* to protect provincially significant natural history, cultural features and recreation opportunities. They offer a range of outdoor recreation, heritage appreciation and tourism opportunities, so that visitors can explore, enjoy and appreciate the natural, cultural and recreational opportunities.

Wildland Provincial Parks are also established under the *Provincial Parks Act* to preserve and protect natural heritage and provide opportunities for backcountry recreation. They are generally large, undeveloped natural landscapes with good potential for eco-tourism and adventure activities such as backpacking, trail riding, backcountry camping, wildlife viewing and hunting.

Regulations under the Parks Act allow for the enforcement of measures to protect natural and cultural features and ensure safe and enjoyable recreational experiences. The approved management plan will be implemented and enforced under the authority of this Act.

Provincial policies and guidelines that direct the management of these provincial parks and surrounding public lands include the Kananaskis Country Recreation Policy (1999), A Policy for Resource Management of the Eastern Slopes (1984 rev.), the Kananaskis Country Subregional Integrated Resource Plan, the Kananaskis Country Architectural Theme Guide, and the Voluntary Helicopter Guidelines for Canmore/Kananaskis Country.

2.2 System Objectives

The following four broad program objectives are the cornerstones of Alberta's system of protected areas. They apply to differing degrees in each of the different categories of protected areas throughout the province.

Preservation

To preserve and protect in perpetuity a system of representative, special and outstanding natural landscapes and features as well as landscape-related prehistoric, historic and cultural resources of Alberta.

Heritage Appreciation

To provide opportunities to explore, understand and appreciate the natural, historical and cultural heritage of Alberta, and to enhance public awareness of our natural environment and our relationship to and dependence on it.

Outdoor Recreation

To provide a variety of intensive and dispersed outdoor recreation opportunities and related facilities and services.

Tourism

To encourage residents and visitors to discover and enjoy the natural, historical and cultural resources of the province through a variety of recreation opportunities, facilities and accommodation services.

2.3 Natural Regions and Themes

The Natural Regions, Subregions and Natural History Themes landscape classification system was adopted in Alberta to describe the province's natural diversity and provides the backbone and scientific framework for understanding the parks and protected areas network as a whole. Alberta's network of over 500 parks and protected areas represent all of the province's six Natural Regions and twenty-one Subregions, helping to preserve the natural diversity of the province.

Beyond the Subregion level, each park or protected area in the network is also evaluated for representativeness and/or uniqueness based on an evaluation of its natural history themes. Described by broadly recognizable landscape types such as wetlands, sandy upland, or valley floor, natural history themes are the key working levels of the landscape classification system, providing a practical scale for describing the full range of Alberta's natural diversity. Although three hierarchical levels of natural history themes are employed, the focus for

completing the parks and protected areas network has been on level I natural history themes because of their close linking of landforms and dependent life forms. Preservation targets for each of the level I natural history themes have been set for the network as an indication of the total area required to adequately preserve examples of Alberta's biodiversity across all the Subregions and Natural Regions. The rationale for and a complete description of this landscape classification system is contained in "Natural Regions, Subregions and Natural History Themes of Alberta, A Classification for Protected Area Management" (Alberta Environmental Protection, 1994).

Sheep River Provincial Park and Bluerock Wildland Park are located entirely within the Rocky Mountain Natural Region, and contains three subregions: the Montane, Subalpine and Alpine. Within these subregions, the parks contain nine level 1 natural history themes, which are listed in Appendix 2. Typical of this hilly and mountainous Natural Region, the majority of these two provincial parks are classified as slope, with over 90% contributing to the "ridge/valley wall" theme, with smaller areas of the biodiversity-rich "floor/stream" theme. Protecting broad landscapes like the soaring mountain slopes of the "ridge/valley" wall theme in the subalpine subregion, in turn provides protection and representation of the specialized vegetation and wildlife that rely on these landscapes for their survival. This ranges from bighorn sheep and grizzlies to alpine forget-me-nots and the distinctive krumholtz trees.

2.4 Guiding Principles

The Government of Alberta's Parks Division is committed to managing its land base consistent with existing legislation and policies so as to protect and maintain natural, cultural, recreational, and tourism values for the benefit and enjoyment of all Albertans.

Besides this more general goal, an ecosystem-based management approach will be applied in Sheep River Provincial Park and Bluerock Wildland Provincial Park. This approach calls for establishing and maintaining common goals and positive long term working relationships among land managers, stakeholders, neighboring jurisdictions and visitors. The goal is to strike the right balance between protection and human use in the planning area considering the broader regional landscape. This ecosystem-based approach is often characterized as follows:

- Ecosystems extend beyond park boundaries. While management on neighboring lands may affect wildlife, air, water, vegetation and visitor experience within a park, likewise management within a park may also affect adjacent lands. Ensuring good communication and collaboration among land managers and stakeholders including neighboring jurisdictions is essential.
- Alberta Parks recognizes environmental screening and assessment as a necessary tool for anticipating, evaluating, mitigating and reducing the impacts of human activity. Screening and assessment includes a visual/scenic component.
- People are a fundamental part of the ecosystem. Alberta Parks and other government agencies will work with visitors, residents and stakeholders to provide high quality, sustainable recreation and tourism opportunities within the planning area while protecting ecological, scenic and cultural heritage. Understanding the relationship between people and the environment is the foundation of good management decisions.

The traditional relationship of First Nations to these provincial parks will be respected and will help to guide management.

• Decisions are based on the best available ecological, visual, cultural, economic and social information.

- The precautionary principle will be applied when potential consequences are uncertain.
- Monitoring, research and adaptive management are key components of an ecosystembased approach.
- Providing high quality volunteer opportunities as well as visitor information, interpretation and environmental education programs is essential.
- Where it becomes desirable to maintain or restore ecosystems through reclamation or other actions, local native species, patterns and processes will be used wherever possible.
- Alberta Parks and Alberta Sustainable Resource Development will work towards the establishment of more precise monitoring targets and/or indicator species through ongoing research and regional planning activities.

2.5 Zoning

The zoning framework for Alberta's parks and protected areas consists of seven zones that range from strict preservation of ecosystems and species to other zones that accommodate and/or enhance heritage appreciation, outdoor recreation and heritage tourism opportunities. Zones can also account for existing land use commitments within a site. The seven zones are described in Appendix 1. Those zones proposed for Sheep River Provincial Park and Bluerock Wildland Provincial Park are described in Section 5.0 of this plan.

3. OVERVIEW OF SHEEP RIVER PROVINCIAL PARK & BLUEROCK WILDLAND PROVINCIAL PARK

3.1 Features

3.1.1 Geology/Landforms/Climate/Soil

These two provincial parks in the Sheep Valley area consist of foothills terrain with the elevations from 1400 metres (4350 ft) in the Sheep River valley (valley bottom) to over 2000 metres (6600 ft) on a ridge at the west end of the Bluerock Wildland Park. Landforms consist of mostly foothill bedrock ridges of cretaceous age sandstones, shales and siltstone overlain by colluvium on the slopes or glacial debris in valley bottoms. In the main Sheep River valley, terraces are present which were formed during the most recent glaciation. The other main landforms are scenic canyons which the Sheep River and several tributary creeks (e.g. Gorge Creek) have carved out of the softer shales and sandstones. There are occasional coal outcroppings here as well.

The provincial parks are in the transition zone between a Cordilleran (mountain) and Continental climate type with moderate precipitation in both summer and winter and moderate temperatures. The nearest long term climate records have been kept for the Town of High River while seasonal records have been kept for the nearby Junction fire lookout and the Elbow office of Sustainable Resource Development. While the climate within the provincial parks will vary from that in the Town of High River due to their higher elevation, proximity to the mountains and more diverse topography, it is expected that annual averages will be quite close. The annual temperature profile follows a typical pattern for this latitude, with the lowest average temperatures in January (-8.4 C), and the highest in July (15 C). The average annual precipitation in High River is 518 mm with May, June, July and August being the wettest months and March having the most snow. Average annual snow accumulations in the foothills are generally deeper and longer lasting than in High River. Prevailing winds are westerly and southwesterly with Chinooks a common occurrence in the winter period.

Within these provincial parks, the vegetative pattern is strongly influenced by climatic factors especially frequent strong winds as well as the foothills topography and aspect.

Soils in the Sheep River Provincial Park and Bluerock Wildland Provincial Park are predominantly eutric brunisols which are common under coniferous and mixed wood forests. Soils found on steep, dry south facing slopes such as the ones directly to the north of the former Bighorn Ranger Station terrace are regosols. They tend to have low productivity as they are shallow and poorly developed due to the unstable terrain. More developed chernozemic soils are found on terraced grasslands. On glacial - fluvial terraces, orthic dark brown chernozems dominate while rego dark grey chernozems are common under grasslands. Aspen invasion on chernozemic grassland soils causes a transition to dark gray luvisols.

3.1.2 Aquatic Resources

Protection of foothill and mountain watersheds has long been recognized as critical for maintaining water for the prairies as well as plants, animals and people that exist in or near the Forest Reserve. Policies and regulations designed to minimize damage and disturbance were put in place in the 1920s with the establishment of the Rocky Mountains Forest Reserve. Subsequent provincial legislation and policies have carried this intent through to modern times.

Aquatic resources are managed subject to the Federal Fisheries Act, the Water Act (Alberta), and the Fisheries Act (Alberta) along with related regulations, policies and guidelines. The Federal Fisheries Act protects fish habitat and riparian areas from unauthorized disturbances. Approval under this Act and the Water Act (Alberta) is required before any activities occur that might disturb the bed and shores of a water body. Alberta's water management strategy, "Water for Life", applies to all water bodies in the province and is intended to ensure safe, secure drinking water, healthy aquatic ecosystems and reliable quality water supplies for a sustainable economy. The Sheep River and tributaries are an important source of drinking water for downstream users and must be managed to maintain existing flows and high water guality. Alberta Environment no longer accepts applications for new water allocations in the Bow, Oldman and South Saskatchewan River Sub-basins. In future, the Minister of Environment may specify how water not currently allocated is to be used through a Crown Reservation. A Crown Reservation is a tool under the Water Act (Alberta) that allows the Minister of Environment to specify the purposes for which any unallocated water can be used. Any approvals for work (e.g. bridge building) in or near water bodies are subject to strict measures designed to minimize or eliminate impacts on the water and fish habitat. Approvals under the Water Act (Alberta) and the Federal Fisheries Act cover the effects of the proposed work on the water and fish while approvals for access to the site and any work/disturbance of the bed and shore of the stream are issued under the authority of the Provincial Parks Act and the Public Lands Act if it is in effect on a given shoreline area. Any approvals under the Public Lands Act would, however, only be issued if Alberta Parks approves of the proposed work.

These parks encompass a section of the upper portion of the Sheep River drainage, which is a tributary of the Bow River watershed. The lower portions of Bluerock, Gorge and Dyson Creeks enter the Sheep River within the provincial park. Aquatic habitat in this section of the Sheep River is characterized by pristine, cold, clear water.

Historically, the Sheep River upstream of Sheep River Falls was barren of fish while the river and tributaries downstream of the falls contained native westslope cutthroat trout, bull trout and mountain whitefish. In the mid 1900s, cutthroat trout and non-native rainbow trout and/or brook trout were stocked into the Sheep River, both above and below the falls, and many of its tributaries. However, since 1971, only native cutthroat trout have been stocked in the Sheep River upstream of the falls to try and establish a self-sustaining population. Indications are that these trout are surviving but more assessment is required. Junction Creek, which enters the river upstream of Sheep River Falls, contained brook trout in the early 1980s (Monenco 1982) but now only has cutthroat.

Bluerock Wildland Park encompasses a short section of the Sheep River upstream of Junction Creek and downstream of Coal Creek, as well as the lower portions of Junction, Bluerock and Coal Creeks, the headwaters of Gorge Creek, and the headwaters of several tributaries to the Threepoint Creek watershed (Ware, Link and Death Valley Creeks). Dyson Creek only supports fish in its lower reach, which contained bull and rainbow trout in 1981 (Monenco 1982). Threepoint Creek's tributaries contain rainbow and cutthroat trout.

The Sheep River and tributaries upstream of the Gorge Creek confluence have been closed to angling since 2001 to protect the key spawning and rearing area for the Sheep River's fluvial bull trout population. The Sheep River between Gorge Creek and Sheep River Falls has the largest known concentration of spawning bull trout in the Bow River watershed downstream of the Kananaskis River. Closure of the river to angling upstream of Sheep River Falls was designed to improve survival of the cutthroat trout stocked in this section of the river in 2000 and 2002 and the chances of them establishing a self-sustaining population. Mountain whitefish spawning also occurs in the lower portion of the Sheep River within the provincial park.

Fish and fish habitat in this area have been managed in accordance with the Alberta Tourism, Parks and Recreation /Alberta Sustainable Resource Development Memorandum of Understanding – Fisheries Appendix, the Alberta Fish Conservation Strategy and Federal Department of Fisheries and Oceans guidelines. These include the *"no-net-loss"* goal for fish habitat and the conservation of fish with an emphasis on ecologically sound management of native fish, where possible.

3.1.3 Vegetation

Sheep River Provincial Park and Bluerock Wildland Provincial Park are dominated by a montane vegetation pattern with areas of sub-alpine flora found along their western edges. Several small areas of the alpine sub region exist at the western end of Bluerock Wildland Provincial Park.

The grassland and shrubland community types in the Sheep River valley are strongly representative of the Montane subregion in this area. Many of the grass species associated with the Montane (rough fescue, Parry oatgrass and Idaho fescue) are associated with the grassland community types within the Sheep River valley. On wet, imperfectly drained lower slopes the grass and shrubland communities are very similar to the water sedge, tufted hairgrass, bog birch and willow dominated communities described by Willoughby and Alexander (2006). On gentler south-facing slopes at lower elevations with mesic moisture regimes, rough fescue, sedge and Richardson needle grass dominate the grassland community types. In contrast at higher elevations on steeper slopes hairy wildrye replaces sedge and Richardson needlegrass as the co-dominant species with rough fescue (Willoughby and Alexander 2006). Heavy grazing pressure on these grasslands causes rough fescue to decline and allows sedge and hairy wildrye to dominate the community. On moist sites heavy grazing pressure allows Kentucky bluegrass and timothy to invade (Willoughby and Alexander 2006).

Deciduous communities are common on southerly aspects in the Sheep River valley. These communities are often dominated by aspen, rose and pinegrass. Seepage areas tend to have an abundance of balsam poplar and cow parsnip. Heavy livestock grazing of these community types often leads to a community dominated by Kentucky bluegrass and clover in the understory (Willoughby and Alexander 2006).

There are three zones of conifer-dominated communities in the Sheep River Valley. These include the Pine, Spruce-Fir and Upper Subalpine zones (Strong and Leggat 1992). The Pine zone is the lowest elevation zone and is dominated by lodgepole pine and shows little evidence of succession to Engelmann spruce. The Spruce-Fir zone is located altitudinally above the Pine zone and displays succession from lodgepole pine to Engelmann spruce and subalpine fir. The Upper Subalpine zone is characterized by open canopied vegetation that is dominated by Engelmann spruce, alpine fir, whitebark pine and alpine larch (Strong and Leggat 1992).

The sub-alpine zone in this area is dominated by lodgepole pine resulting from past fires along with smaller stands of Engelmann spruce on north and east facing slopes and alpine fir at the upper ends of valleys where fires have not occurred within the last 200 years. Some grasslands can be found at higher elevations along with aspen stands on southern aspects. Grassland composition can vary significantly across the zone depending on land form, moisture regime and grazing pressure. Rough fescue, wheat grass, blue grass, needle grass and wild rye dominate.

The small pockets of alpine terrain found on the western edges of Bluerock Wildland Provincial Park are dominated with small alpine fir and Englemann spruce krummholz stands. Coniferous trees in this zone rarely exceed ten metres in height. Alpine larch, milk vetch, alpine forget-me-nots, and grouseberry are common here along with alpine bluegrass, wild rye, shrubby cinquefoil and willow (Anderson in Komex International 1994).

The natural vegetation mosaic of the mountain forests of Canada have been largely defined by wildfires for thousands of years. In the planning area, fire is essential to preserving the biodiversity and ecological integrity of vegetation communities and species that rely on them (Rogeau 2004).

Rogeau found that fire return intervals in the montane sub-region in Sheep River Provincial Park and Blue Rock Wildland Provincial Parks were relatively short and contributed to a very patchy vegetation mosaic. However due to the difficulty of accurately identifying historical fire boundaries in this region, existing fire history mapping is unreliable and requires significant additional field work to be a useful guide. Recent known fires of significance in this area include one that burned half of the Ware Creek watershed between 1925 and 1930, another that burned the Sheep River and Bluerock Creek areas in 1936 and a smaller fire near Dyson Creek in 1940 (Rogeau 2004).

In the sub alpine zone Rogeau found that vegetation was less complex with a longer fire interval and generally smaller fires. The exception to this is a fire from the early 1940s which burned a large area in Three Point, Rock and Volcano creek drainages (Rogeau 2004).

3.1.3.1 Grazing

Summer grazing of domestic cattle is a traditional activity occurring in both parks. Grazing allotments were first issued in the Sheep River Valley in 1917 and in 1919 the first vegetation range survey was conducted. The South Sheep Grazing association currently holds an allotment covering a total of 45,652 hectares, with approximately 17,587 falling within these provincial parks. The North Sheep Grazing Association currently holds an allotment covering

a total of 30,819 hectares, with approximately 935 hectares within the Bluerock Wildland Provincial Park. Current preference quotas for the South Sheep Allotment total 5305 Animal Unit Months (AUMs) while the North Sheep totals 3636 AUMs.

In April of 2007 under the terms of a Memorandum of Agreement signed March 2006 between Alberta Tourism, Parks and Recreation and Alberta Sustainable Resource Development, Parks Division took responsibility for issuing grazing permits in Kananaskis Country's provincial parks. Grazing is managed under the terms of a detailed grazing management plan prepared for each allotment. These plans limit the number of cows and calves within each allotment based on assessments of grazing capacity and condition as well as the requirement to leave a defined portion of forage carryover for area wildlife. Permit conditions may also include a prescription for the duration and intensity of grazing in various parts of the allotment and measures intended to reduce the impact of grazing on water quality. Ensuring that grazing is managed in a way compatible with provincial park objectives is an important component of this management plan. While the importance of grazing is recognized it is also understood that activities have changed significantly in this area over the past 80 years and some changes to traditional grazing practices may be required to protect the ecological integrity of the park, reduce conflicts with other users and protect park facilities.

3.1.4 Wildlife

Sheep River Provincial Park encompasses the Sheep River Wildlife Sanctuary. This Sanctuary was established in 1973 to protect Rocky Mountain bighorn sheep that historically winter in the area. Extensive open grasslands on south and southwest facing slopes contribute to the value of this area as prime wintering range for bighorn sheep. Frequent Chinooks and relatively low snowfalls make for mild winters and good access to forage. The size of the sheep herd has been as high as 153 in the mid 80s but recently has declined to around 60 animals. Traditionally, this herd has been a migratory one that departs the park in the spring and migrates west into the higher mountains following the Sheep River. Heavily utilized areas within the park include Windy Point, Missinglink Mountain, Dot Mountain, the large hayfield adjacent to the Sheep River canyon, and several smaller areas of open grassland along the top of the river canyon upstream of the Gorge Creek confluence. Many of the rams in this herd also migrate east along the Sheep River and spend time along the banks outside the east boundary of Kananaskis Country. One well known mineral lick is located in the Sheep River canyon upstream of the Gorge Creek confluence. This herd has been extensively studied since the late 70s and there is a wealth of long-term population information available.

Bighorn sheep that winter primarily in Sheep River Provincial Park use portions of Bluerock Wildland Provincial Park as migration corridors connecting winter and summer ranges. The Sheep River canyon is particularly important for this corridor function. This corridor connects the Sheep River Provincial Park winter range to the high summer mountain ranges of Junction Valley and Cliff Creek as well as serving as a movement corridor to the east of the Sheep River Provincial Park. Gorge Creek also is an important movement route connecting Mt Ware/Volcano Ridge ranges to the Sheep River Provincial Park. There is another important sheep winter range on the south facing slopes of Mt Rose that is within Bluerock Wildland Provincial Park.

The same ecological characteristics that make the area valuable to sheep also make it a valuable winter range for elk, mule deer, and white-tailed deer. All three of these ungulates use the area in high numbers. Moose have been observed in the area but are present in low numbers. Elk winter ranges within Bluerock Wildland Provincial Park are found along the south facing slopes of the ridges along the south side of the Sheep River as well as Mt Rose. Death Valley is the most significant wintering area for moose in Bluerock Wildland Provincial

Park although moose can be found in many other parts of the park. Mule deer and whitetailed deer are abundant.

A whole suite of large and small carnivores are present as well within both these provincial parks. Cougars, black bears, grizzly bears, coyotes, wolves, lynx, bobcat, and wolverine have all been observed.. Accurate population and distribution information for each of these species is not known. Cougar population dynamics, however, were the subject of an intensive research study during the 90s. This research indicated that this area has one of the highest densities of cougars found anywhere to date.

Upland game birds (ruffed grouse, spruce grouse, and blue grouse) occur in both parks and are cyclical in population density. A significant raptor migratory route occurs over the Windy Point-Foran Grade Ridge area each spring and fall. Extensive documentation of this migration and the species observed has been made annually between 1983 and 2002. Examples of uncommon species include peregrine falcons, gyrfalcons, golden and bald eagles, and turkey vultures. At least seven species of owl have been recorded including great horned, northern pygmy, barred, great gray, long-eared, boreal, and northern Saw-whet owls. Harlequin ducks have been observed along the Sheep River and Dyson Creek but only in small numbers.

The small mammal species typical of this ecosystem are widely abundant in these parks. Columbian ground squirrels are common in many of the open meadows and have been the subject of intensive research for many years.

There are three Registered Fur Management Areas (RFMAs 2281, 2700, and 1881) that include portions of Bluerock Wildland Provincial Park. Only a very small portion of this park is within RFMA 1881. All three areas have been actively trapped. There are two Registered Fur Management Areas (RFMAs 2281 and 2700) in the area that includes portions of the Sheep River Provincial Park. Trapping, however, was never permitted in those RFMA portions in the former Sheep River Wildlife Sanctuary and hence would not be considered a permitted activity in that area of the more recently established Sheep River Provincial Park. Limited use of OHVs for access to traplines is permitted.

3.1.5 Cultural Resources

Archaeological research in the Sheep River Provincial Park and Bluerock Wildland Provincial Park has been limited. The majority of sites were found in 1972 as part of a University of Calgary study of forest reserve lands. There have been six smaller subsequent studies, all related to transportation developments. As a result of this work, 32 archaeological sites have been recorded within these provincial parks, the majority along the Sheep River with others along Gorge Creek. The majority are prehistoric campsites with flaked stone tools, some bone, and associated hearths. One site has been subjected to extensive scientific investigation, indicating approximately 10,000 years of human occupation in the area. Of the 32 known sites, 23 are sufficiently intact and important that further studies would be required prior to any proposed disturbance.

Evidence of prehistoric use of these park areas has been found on fairly level and accessible terrain, usually close to water. The potential for finding additional archaeological sites in these areas is high. Other areas of level terrain have high to moderate potential, depending on the situation. Some high to moderate potential may also exist along high ridges and other locations with impressive vistas – such locations were used by aboriginal people for vision quests. Beyond archaeological evidence, it is anticipated that there are several sites or areas within these provincial parks that continue to have important cultural value to local aboriginal people.

There is also one historic cabin site on record, along with the Bighorn Ranger Station buildings near the junction of the Gorge Creek Trail. These have not been assessed for their historic designation potential.

3.1.6 Scenic Resources

The high scenic qualities of Sheep River Provincial Park and Bluerock Wildland Provincial Park are important values to be maintained or enhanced. The main visual characteristics include a variety of outstanding views west to the Rocky Mountains, striking shale canyons, clear river water and waterfalls, and an attractive mix of open grasslands, aspen and conifer forests. Visual preference studies indicate that the "mosaic" landscapes found in the montane portions of these provincial parks are highly preferred (Olson and Olson, 2000). However, fire suppression and other past activities may have altered the natural vegetative pattern and forest encroachment into former grassland areas is one example of this. Finding acceptable ways to move towards a re-establishment of a more natural pattern will be important. Opportunities to view wildlife are also important.

Presently, visible evidence of human activity is limited to the roadways, recreation facilities (campgrounds, day use sites, trails) and the old ranger station buildings. Less visible evidence includes a vegetation pattern altered by fire suppression, previous haying near the old ranger station, remains of old coal mining or timber harvesting activities. Some impacts of cattle activity are also visible. In addition, there are some signs of old coal mining activity (e.g. Indian Oils) and timber harvesting (e.g. Junction Creek and Bluerock Creek valleys).

Potential new facilities within parks are governed by the Provincial Parks Act, approved management plans and, within Kananaskis Country, the Kananaskis Recreation Policy 1999. Any additional buildings anticipated within Sheep River Provincial Park and Bluerock Wildland Provincial Park, must conform to Kananaskis Country Architectural Theme Guide (rev 2004) which ensures that public buildings blend in with the natural setting. Alberta Parks applies an environmental screening and assessment policy that includes consideration of the possible visual impacts of any activities in provincial parks (e.g. prescribed fires). More detailed and well established visual management practices and standards exist within other jurisdictions (e.g. Landscape Aesthetics: A Handbook for Scenery Management, USFS, 1995) and these can provide an interim framework for assessing alternatives.

3.1.7 Research

Research focusing on bighorn sheep, cougars, birds (upland game birds and passerines) and ground squirrels has occurred for many years in the planning area. The majority of the research work has been coordinated through the University of Calgary at the R.B. Miller Field Station. Staff of TPR and SRD are working with staff at the University to ensure that academic research is coordinated with park management objectives and priorities. Research in other fields is anticipated (e.g. Traditional Use Studies by First Nations).

Most researchers stay at the R.B. Miller Field Station. This facility is a rustic camp with one mobile home and five small cabins that serve as offices, bunkhouses and storage with one larger cabin that serves as a cook house. The camp is serviced with a power line, a pressurized surface water system and two outhouses with holding tanks. The station is used from April for ground squirrel studies and into December for sheep studies. The main access road into Sheep River Provincial Park is closed to unauthorized vehicle use from December 1 to May 15 for wildlife protection. Permission to use the closed road has been granted to researchers and is coordinated through Alberta Transportation. Currently the station is held under a reservation (by Fish and Wildlife Division) that needs to be updated to reflect the park status of the area as well as the role and responsibilities of the University of Calgary.

3.2 Visitor Use and Facilities

There are two vehicle access campgrounds and seven day use sites in Sheep River Provincial Park (see Map 1). The developed campgrounds are at Sandy McNabb and Bluerock. Sandy McNabb is the larger of the two, having a 77 site regular auto access campground, a 20 site equestrian auto access campground and two group camps. It also has three day use areas and an interpretive trail and trailhead. There is a playground in the regular campground and an informal amphitheater for summer interpretive programs. The area is serviced by a treated, pressurized summer water system. There are several equestrian/hiking/biking trails that are accessible from Sandy McNabb. In winter, the equestrian campground provides winter camping and trailhead parking for the Sandy McNabb cross country ski trails. There are 37 kilometres of ski trails that are groomed when conditions permit. Occasionally equestrian users ride horses on designated trails in winter. An ice rink is also maintained at the day use area and one group camp is open for winter day use. Recent average campground occupancy on two day summer weekends is 74% for the general campground and 60% for the equestrian campground. It is often full on sunny summer long weekends. Refurbishment of the facilities including the water system is scheduled. There is limited expansion potential at both equestrian and general campgrounds and present use levels do not justify expanding.

Bluerock Campground has 66 regular auto access campsites and 17 equestrian auto access campsites. Water is provided by hand pumps. The area is open from May 15th to the Labour Day weekend. Summer use levels are similar to those at Sandy McNabb. An interpretive loop trail extends from the end of the campground road up Bluerock Creek for approximately one kilometre. Several equestrian/hiking/biking trails leave from both the equestrian campground and nearby Junction Creek Day Use site. It is anticipated that renovation and modernization of the facilities at Bluerock will occur once upgrading at Sandy McNabb is completed. However, there is no expansion capacity at either the equestrian or general campground. Visitor information and sewage dumping facilities are provided at the Sheep River Park Office and maintenance compound.

There are seven day use facilities along Hwy 546 including Sandy McNabb (3), Missinglink, Bighorn, Indian Oils, Sheep River Falls and Junction Creek. There are three more along the Gorge Creek Road including Gorge Creek, Volcano Ridge and Ware Creek which provide access to the extensive and interconnected trail system in this part of Kananaskis Country. Most of these day use sites also offer opportunities for wildlife viewing, picnicking, interpretive trails and sight seeing. Sheep River Falls, Indian Oils and Junction Creek are the most popular. Missinglink Day Use site however receives almost no use. Volcano Ridge and nearby Ware Creek Day Use sites receive low use. Gorge Creek receives moderate levels of use. Sheep River Falls is popular for picnicking and viewing the falls. However, there is a public safety concern adjacent to the falls due to the presence of unstable rock and non defined pathways and viewing areas which needs to be addressed. Occasional congestion occurs at the upper level of Junction Creek trailhead but other trailheads have adequate capacity for current use levels.

There are approximately 70 kilometres of designated equestrian/hiking/biking trails within Sheep River Provincial Park and Bluerock Wildland Provincial Park. These connect to the more extensive trail system that exists in the eastern part of Kananaskis Country. Most are significant to trail recreationists as they are scenic and provide a longer season of use than trails further west. Only emergency maintenance of these designated trails has been possible over the last 10 years due to budget restraints. Some of these trails are in poor condition and require refurbishment. The more popular trails (e.g. Death Valley/Foran Grade) are loops providing a three- to four-hour trip with good scenic qualities and generally on better drained terrain. Others receive very little use, are mostly too long for day trips and are often on poorly drained ground. The less used ones include Wolf Creek, Phoneline, Junction Mountain (south of lookout), Link Trail (east of Volcano Ridge trailhead), South Gorge Creek and Missinglink trails. The cost of upgrading these trails will be very high due to the extent of poor drainage, difficult access and ongoing use by cattle. The benefits of upgrading would be lessened by their generally lower use levels. All trails in the Sheep area have been assessed to determine whether upgrading is worthwhile or whether some trails should be undesignated and, where feasible, alternative more sustainable trails developed. Proposed changes to the trail system are presented in section 6.2.

Threepoint Backcountry Campground is used by hikers, bikers and equestrian campers. It accommodates six individual tents and is lightly used. Facilities include a toilet, firepits, (firewood provided), tables, a food storage rack and hitching rails for horses. Most facilities here are in poor condition and require replacement. Wolf Creek Backcountry Campground receives almost no use.

A small amount of ski touring and hiking takes place west of the winter gate at Sandy McNabb. Some white water canoe, kayak and rafting activity occurs on the Sheep River during the spring run off. Fishing is a popular summer activity in the Sheep River and its tributaries downstream from Gorge Creek between June 16 and October 31. Hunting is not allowed in Sheep River Provincial Park but many hunters stage from the park into the Bluerock Wildland Provincial Park or forest reserve. Currently hunting is available in the area for all big game species except grizzly bear and mountain goat. Bird watching and wildlife viewing are also popular activities in the area.

Day use statistics have not been collected for several years. Long weekends and summer weekends with good weather will fill the campgrounds and make the day use areas quite busy. Otherwise, visitor use levels are low. Use levels in the winter are moderate on nice weekends with most people visiting Sandy McNabb to enjoy the skating rink, the cross country ski trails, or to have a picnic. There are few winter campers and these come mostly during the holidays and long weekends when the weather is favorable.

The regional population is expected to continue to grow in the future, and so it is expected that demand for camping and day use opportunities in the Sheep will increase. As facilities are upgraded to better meet current needs (e.g. campgrounds that better accommodate trailers), visitation rates are expected to increase. Likewise, the popularity of most day use trails is expected to increase

3.3 Public Safety

While wildfire is considered a natural disturbance process in Alberta, it is highly unpredictable, and catastrophic wildfire may threaten human safety and development. Consequently all wildfires within Sheep River Provincial Park and Bluerock Wildland Provincial Park are suppressed according to provincial wildfire suppression policy.

Management of problem wildlife-human conflict situations are handled in accordance with existing procedures. Trail or area warnings or closures are used to reduce conflict, public safety and impact concerns.

Periodic flooding of the Sheep River and its tributaries occurs within these provincial parks. Parks staff monitor flood conditions and take actions including temporary facility or road closures to maintain public safety. Search and rescue services are provided by trained Parks staff throughout Kananaskis Country and surrounding jurisdictions.

Avalanches are normally only a factor at the extreme western end of Bluerock Wildland Provincial Park and the risk there is very small due to very low winter visitation. Kananaskis Country monitors avalanche hazard levels, provides regular updates to the public and issues avalanche advisories when appropriate. This assists backcountry travelers to make informed decisions and minimize the risk of avalanche during their activities.

Vehicle collisions with wildlife and cows on Hwy 546 are an ongoing concern. Standard speed limits have been imposed but some additional measures should be considered.

Occasionally, cattle may die of natural causes during summer grazing in these provincial parks and, depending on the location, different actions are taken. Whenever possible the carcass is to be removed by the grazing association. If it is in the backcountry and impossible to move, the area may be temporarily closed to reduce the hazard from carnivores which feed on the animal.

3.4 Heritage Appreciation

Alberta Tourism Parks and Recreation provides a variety of interpretive, information, and educational services and materials about these parks. Both the Sheep River Provincial Park office and the Elbow Valley Information Centre (along with other Kananaskis Country information centres) provide maps, brochures and other products relating to these areas. As well, Alberta Parks maintains a Kananaskis Country website to ensure that current information is accessible. The Information Centre also provides backcountry campground reservation services and information regarding this and other areas of Kananaskis Country and the province.

Alberta Parks has a cooperating agreement with the Friends of Kananaskis Country to enhance educational materials and programs in these areas. The Environmental Education Coordinator for Kananaskis Country provides professional development workshops, school programs, and other services in the provincial parks that are keyed to issues and topics relevant to the Alberta Learning curriculum. As well, the Coordinator provides guidance and expertise for teachers to lead their own education programs in provincial parks. Permits for such educational group use within these areas are provided upon application.

Daytime interpretive activities and evening campground amphitheatre presentations are offered on summer weekends in Sheep River Provincial Park. Interpretive topics include the area's natural and cultural histories, management concerns, wildlife and human safety issues, and biodiversity. Four interpretive trails in Sheep River Provincial Park are used to increase visitor awareness of the area's natural and human history. Personal and non-personal interpretive messages are consistent with the approved conceptual themes and subconcepts as outlined in the Kananaskis Country Interpretive Development Plan.

3.5 Heritage Tourism

There are no commercial tourism facilities in Sheep River Provincial Park or Bluerock Wildland Provincial Park. Currently, 51 permitted guides use the area with guided equestrian trips being the most popular but hiking, mountain biking and paddling tours also occur. A variety of special events such as bike racing and orienteering occurs here and range in size from 25 to several hundred participants. Such events occur mainly during the summer. Special events as well as commercial filming require a permit issued under authority of the Provincial Parks Act to ensure that public safety, environmental impacts and conflicts are maintained at acceptable levels. Maximum group size limits have been established for all provincial park areas within Kananaskis Country including Sheep River Provincial Park and Bluerock Wildland Provincial Park.

3.6 Other Land Uses

Timber harvesting, coal mining and petroleum exploration used to occur on lands that are now within these provincial parks but there are no current commitments. There are several freehold mineral parcels in Bluerock Wildland Provincial Park but no crown dispositions and no mineral dispositions of any sort within Sheep River Provincial Park.

3.7 Infrastructure

There is minimal infrastructure development within these two provincial parks. The Sheep River administration area (see Map 1) has a visitor centre, offices and a maintenance building along with two accommodation trailers which house Alberta Tourism Parks and Recreation and campground operator staff. There are three serviced trailer pads and space for expansion if required. A horse corral, covered barn and pasture are also located nearby for sheltering and training horses used by conservation officers. Pressurized potable water systems serve both the administration area and Sandy McNabb Campground.

3.8 Adjacent Land Uses

Sheep River Provincial Park and Bluerock Wildland Provincial Park are bordered on the west by the Elbow Sheep Wildland Park and on the north, east and south by forest reserve lands. The Elbow Sheep Wildland Provincial Park is managed under an approved management plan in a similar fashion to the Bluerock Wildland Provincial Park. Forest reserve lands however are managed for multiple use including watershed protection, timber harvesting, summer cattle grazing and petroleum development. Timber and grazing are managed under terms of separate management plans which are subject to review and comment by TPR staff. As well, staff attend annual operational meetings and participate in referrals. The intent is to ensure good communication and coordination so that negative impacts and conflicts are minimized.

4. MANAGEMENT VISION, INTENT, AND OBJECTIVES

A. The vision for Sheep River Provincial Park and Bluerock Wildland Provincial Park is:

- > All natural, cultural, scenic and recreational values are protected.
- The richness of native species, communities and representative natural ecosystem processes are maintained or enhanced.
- > A more natural pattern of native vegetation is achieved.
- > Grazing is managed consistent with grazing needs and park objectives.
- Major predator-prey relationships continue to thrive and wildlife corridors remain functional.
- High water quality and natural flows are maintained in the Sheep River and tributaries and bull trout spawning continues to thrive.
- Cultural features continue to be identified, researched and protected and/or interpreted as appropriate.
- High quality interpretation, education and visitor information is easily accessible to visitors and nearby communities.
- > The parks are valued by the local community and visitors.
- An appropriate range of high quality, safe and enjoyable visitor experiences are available in well designed and maintained facilities.
- Research activities include important topics for park management and management of adjacent lands.

Healthy, sustainable tourism activities that complement park features and facilities and include quality heritage appreciation messages.

B. The management intent for Sheep River Provincial Park is:

"To preserve and protect natural and cultural heritage and provide opportunities for outdoor recreation, heritage appreciation and tourism that are dependent on and compatible with the natural values found here".

The management objectives are:

Preservation: to preserve or enhance natural ecological processes and features within the park. In particular, to protect aquatic and riparian habitats, critical ungulate and carnivore range, rare or uncommon plants and animals.

Heritage Appreciation: to provide opportunities for visitors to experience, understand and appreciate the natural and cultural resources of the park.

Outdoor Recreation: to provide opportunities for non-motorized recreational uses such as camping, hiking, equestrian use, mountain biking, cross country skiing and fishing *.

Tourism/Economic: to provide a range of opportunities to experience and enjoy the natural and cultural resources of the park *.

*Note: provision of any park facilities will be consistent with the Kananaskis Country Recreation Policy (1999), Kananaskis Country Architectural Guidelines (updated 2004) and the Alberta Tourism and Recreation Leasing process for review of commercial facilities.

C. The management intent for Bluerock Wildland Park is:

"To preserve and protect natural heritage, while providing opportunities for backcountry recreation and experiencing nature in an undisturbed state."

The management objectives for Bluerock Wildland Provincial Park are:

Preservation: to preserve or enhance natural ecological processes and features within the park including riparian and aquatic habitats and linkages.

Heritage Appreciation: to provide opportunities for visitors to experience, understand and appreciate the natural resources of the park.

Outdoor Recreation: to maintain opportunities for non-motorized recreational uses such as hiking, equestrian use, mountain biking, hunting, fishing and backcountry camping.

Tourism/Economic: to provide opportunities for low-impact tourism so visitors may experience and enjoy the natural features of the park.

5. ZONING

Consistent with the management intent and objectives for Sheep River Provincial Park and Blue Rock Wildland Provincial Park, a zoning scheme has been applied to both. This scheme is described in more detail in "Management Plan Format: Provincial Parks, Wildland Parks, Recreation Areas, Wayside and Access sites, Wilderness Areas, Natural Areas" which is included in the List of References. While Alberta Parks zoning scheme includes seven

Map 2: Sheep-Bluerock Zoning



candidate zones, five have been applied in the Sheep River Provincial Park and Bluerock Wildland Provincial Park (see Map 2). These are described below. These different zones recognize the differences in resource values as well as recreation and landscape capability in different parts of these parks.

"**Preservation**" zones have been applied to those areas that are known to be important as wildlife habitat (e.g. sheep range or cougar habitat) or contain rare or unique landforms and vegetation communities. Existing designated trails will remain in the preservation zones and except for the one new trail proposed to link Bluerock Creek Trail with Indian Oils Trail (see Map 3), no new designated trails, backcountry campgrounds or other facilities will be developed. Non-designated routes will be low standard, unsigned and not maintained. Within the Sheep River Provincial Park a preservation zone which encompasses the Sheep River Wildlife Sanctuary has been identified. This zone protects provincially significant Rocky Mountain bighorn sheep and cougar habitat.

"Wilderness" zones have been applied to areas that have both important natural and wilderness recreation values. Preservation of natural values will be the priority and facilities will be limited to trails, backcountry campgrounds and signage where necessary. Off-trail use will generally be allowed but not encouraged by signage, upgrading or regular maintenance. Resource management and visitor use controls may be implemented in order to maintain or enhance natural and wilderness values. Wilderness zones in the Bluerock Wildland Provincial Park will provide more remote backcountry trail and camping (Three Point backcountry campground) opportunities. Some new loop summer trail development will be allowed in this zone.

A "**Natural Environment**" zone has been applied where there are more intensive year-round trail recreation and camping opportunities along with learning and interpretive opportunities for visitors. A Natural Environment Zone in Sheep River Provincial park has been designated where potential future trail development will be considered and where higher standards of trails, such as groomed ski trails, are maintained.

"**Facility**" zones are those areas in the immediate vicinity of the existing Highway 546 corridor, campground, day use, and park administration facilities. The facility zone also includes the current location of the R.B. Miller research station. (See Map 2)

"Access" zones are applied to main public roadways within the provincial parks including Sheep River Road and the Gorge Creek Trail. Those portions of these roads west of Sandy McNabb are subject to a winter seasonal closure.

6. MANAGEMENT GUIDELINES

6.1 Resource Protection

6.1.1 Ecosystem Based Management

"Ecosystem-based management" has been defined as: "an integrated approach to management that considers the entire ecosystem, including humans. The goal of ecosystembased management is to maintain an ecosystem in a healthy, productive and resilient condition so that it can provide the services humans want and need. Ecosystem-based management differs from other approaches that usually focus on a single species, sector, activity or concern; it considers the cumulative impacts of different sectors. Specifically, ecosystem-based management:

- emphasizes the protection of ecosystem structure, function, and key processes;
- focuses on a specific ecosystem and the range of activities affecting it;

- explicitly accounts for the interconnectedness within systems, recognizing the importance of interactions between many target species or key services and other non-target species
- acknowledges interconnectedness among systems, such as between air, land and water
- integrates ecological, social, economic, and institutional perspectives, recognizing their strong interdependencies." (Marine Conservation Science, 2005)

An ecosystem-based management approach will be used in both the Sheep River Provincial Park and Bluerock Wildland Provincial Park.

Alberta Parks and Sustainable Resource Development staff will work to identify a suite of ecological indicators to monitor ecosystem processes and health. Based on monitoring needs and identified ecological issues, research programs will be implemented to collect data necessary to support management objectives. Management strategies will be developed to assist in the protection of known endangered, threatened or otherwise significant species.

Environmental review consistent with Alberta Parks policy will be required for all new activities and projects in Sheep River Provincial Park and Bluerock Wildland Provincial Park which have the potential to impact landscapes, natural processes or natural, scenic, historic and cultural features. This includes projects and activities undertaken by the Government of Alberta as well as any private citizen, organization or business.

6.1.2 Access

Existing public roads will continue to be the responsibility of Alberta Transportation and no new public roads are anticipated. The renovation and modernization of Sandy McNabb recreation facilities may require additional campground or service roads to be developed within the facility area of Sandy McNabb.

Staff of Alberta Parks, Sustainable Resource Development and Alberta Transportation assessed various options for the Gorge Creek Road, a portion of which was seriously damaged by flooding in spring of 2005. Each option was assessed considering the existing low levels of use on this road, low road standard and seasonal closure as well as relative costs and benefits for wildlife and recreation. This assessment indicated that the closure of the section between Gorge Creek and Ware Creek trailheads would have substantial wildlife benefits and add to existing backcountry recreation opportunities (similar to the old forestry road through the Elbow Sheep Wildland Provincial Park). The closed middle portion of the road will be gated and maintained for biking/horse/hiking use. Most existing trail opportunities will remain accessible on a day use basis from Gorge Creek and Ware Creek Trailheads. Alberta Tourism, Parks and Recreation staff will work with Alberta Transportation staff to coordinate this closure, gate placement and reclamation to trail status. In addition, Alberta Parks will investigate possible new day use trail opportunities in the vicinity of both Gorge Creek and Ware Creek Trailheads (see Map 3).

The winter road closure will be maintained from December 1 to May 15 inclusive, on the Sheep River Road west of the Sandy McNabb entrance road, as well as the Gorge Creek Road. This will reduce impacts on wildlife during the critical winter period. Parks staff will work with Transportation to coordinate ongoing road maintenance and standards on public roads and facilities. The snow will not normally be plowed from the winter gate to access facilities such as the Junction Lookout, R.B. Miller Field Station, the Burns property or the power line right-of-way. Access to government and authorized personnel will also be limited to emrgencies or high priority purposes during the winter closure.

There will be no public use of motor vehicles off road or use of OHVs in Sheep River Provincial Park or Bluerock Wildland Provincial Park. In order to reduce human impacts on important wildlife habitat, staff of Alberta Parks will work with Alberta Transportation to discourage vehicle parking along Sheep River Road between Windy Point and Gorge Creek Trail except in designated parking areas.

Alberta Transportation will continue to maintain the Junction Mountain Fire Lookout road including that part within Sheep River Provincial Park and Bluerock Wildland Provincial Park. It will also maintain the access road from Junction Creek day use site to the former Burns Mine site. Both these roads are closed to public vehicles and OHVs. Alberta Parks staff will coordinate with Alberta Transportation staff to ensure that those parts of these access roads that are part of the backcountry trail system are maintained at least to a trail standard. Limited access will be provided to government and authorized personnel. Authorized access (e.g. for research) requires the approval of Alberta Transportation in consultation with Alberta Parks and Sustainable Resources Development.

6.1.3 Aquatic Resources

The watercourses in Sheep River Provincial Park and Bluerock Wildland Provincial Park will continue to be managed using existing legislative, planning and regulatory tools as well as collaboration among stakeholders. Alberta Tourism, Parks and Recreation will work to maintain natural flows, high water quality and healthy aquatic ecosystems. Any activities that could potentially affect the waters within these parks will require approval from parks staff as well as Alberta Environment and/or the Department of Fisheries and Oceans, and Sustainable Resource Development as appropriate. Any approvals will include conditions to eliminate or minimize impacts on watercourses within these parks and downstream.

The Fish and Wildlife Division of ASRD will manage the fishery consistent with the terms of the Memorandum of Understanding with Alberta Tourism, Parks and Recreation. This will include monitoring and setting regulations, while consulting with stakeholders. Watercourses in the area will continue to be managed for native species. Opportunities will be assessed to remove non-native species from area water bodies where feasible.

6.1.4 Vegetation

The conservation of a high diversity of native montane and sub-alpine vegetation communities, representative of Alberta's east slopes ecosystems will be accomplished by undertaking an analysis of historic and current landscape conditions, and making recommendations on desired vegetation community structure for the planning area that falls within the long range natural vegetation pattern variability. This will consider important terrestrial and aquatic habitats both inside and adjacent to the parks. Where possible, natural processes of vegetative change will be permitted including wildfire, flooding, avalanche, and insect and disease infestations. Techniques such as prescribed fire, non-commercial selective logging and grazing may also be used to accomplish vegetation management objectives. Changes to vegetation communities will be monitored over time by Alberta Parks staff as well as assessments of the effects of these changes on park biota.

Structural and life form diversity found within Sheep River Provincial Park and Bluerock Wildland Provincial Park is highly desirable, both from an ecological standpoint and for maintaining scenic qualities. Management strategies should maintain plant community compositions and ratios within an historic range of variability.

Control of forest and brush encroachment may be necessary to manage succession through the removal of mature or immature stands which are encroaching onto grasslands. Removal will be through prescribed burning, conventional methods (i.e., brushing, mowing, and dragging), livestock management (i.e., stocking rates, and grazing times), and other suitable methods that may be developed. A plan will be required to ensure that vegetation removal objectives comply with the overall management guidelines for the area.

Wherever possible, re-vegetation and reclamation efforts will aim to return disturbed areas to a vegetation community structure representative of the montane and subalpine ecosystems in this region.

In partnership with the Alberta Natural Heritage Information Centre (ANHIC), Parks staff with the assistance from volunteers will identify, track occurrences and maintain an up-to-date inventory of rare or endangered species in the park.

6.1.4.1 Fire/Insects/Disease

Park facilities will be assessed for risk from wildfire and other natural hazards. Kananaskis Country staff, working in conjunction with Forestry Division of Alberta Sustainable Resource Development, will complete a wildland / urban interface assessment for all park facilities and implement a plan to reduce identified risks to park facilities. This may involve fuel modification to remove and reduce the fuel buildup around facilities and/or changing building materials through regular maintenance to reduce the flammability of the structures.

A fire management plan for the Sheep River Provincial Park and Blue Rock Wildland Provincial Park will be developed that sets specific targets for the application of both wildfire and prescribed burns in achieving landscape ecological, public safety and property protection targets. Under an approved fire management plan prescribed fire and logging may be permitted to simulate natural disturbance by wildfire where development or other factors have prevented or minimized the likelihood of stand-renewing wildfire. Fuel modification programs will be used in and adjacent to developed areas to reduce the risk of catastrophic fire and to improve fire suppression efforts by thinning the canopy and reducing ladder fuels. Alberta Tourism, Parks and Recreation and Alberta Sustainable Resource Development will continue to promote awareness of wildfire hazards and of appropriate actions that can be undertaken through the Fire Smart program.

Wildfires within these two provincial parks will be suppressed according to provincial wildfire suppression policy and the approved park fire management plan. A desired vegetative mosaic and a range of variability will be developed for the various ecosystems in the park. These will be achieved through the use of a variety of appropriate vegetation management tools.

The risk of major insect and disease infestations and damage will be assessed. High risk areas will be managed through the creation and maintenance of diverse native montane and sub-alpine vegetation communities. Control of insect and disease infestations that may threaten park facilities, key features or resources on lands adjacent to the parks will be accomplished by an ongoing program to monitor vegetation communities. Management options will be evaluated and tactics may include selective harvesting, prescribed burning, or single tree treatment (fall and burn or fall and peel). An assessment will be completed to identify stands that are of high risk. The use of pesticides will be minimized.

Mountain Pine Beetle outbreaks in Sheep River Provincial Park and Blue Rock Wildland Park will be monitored through annual surveys to identify both red attack (1yr+ old mortality) and green attack (same year attack) trees. Green attack trees in small numbers (<100) will be cut and treated (burned, processed at a mill or debarked) to kill active beetles prior to June 1st of the following year. Patches or stands of green attack trees greater than 100 will be reviewed

by the park management team to determine an appropriate course of action in conjunction with Forestry Division of Sustainable Resource Development.

Non-native vegetation, especially highly invasive plants and noxious weeds, will be controlled. An inventory of known non-native and noxious weeds will be maintained and a plan for treatment developed. The use of herbicides will be minimized. Control through the use of hand and mechanical methods is preferred. As well, provincial park guidelines will be developed to minimize the introduction of additional non-native species and noxious weeds. For example, equestrian users will be encouraged to use processed horse feed only rather than hay and appropriate seed mixes or other techniques will be used in reclamation projects and right-of-way management.

6.1.4.2 Grazing

Alberta Parks staff will work with permit holders and Sustainable Resource Development staff to manage grazing in a consistent manner across provincial park boundaries. Grazing permits within Sheep River Provincial Park and Bluerock Wildland Provincial Park will be issued under the authority of the Provincial Parks Act – Dispositions Regulation. Updated range management plans will be developed for each grazing disposition with input from disposition holders. These will identify sound range management practices that conserve soil, vegetation, and water for long-term sustained forage productivity, ecological and human health. Individual management plans will be 'adaptive' documents that can be modified and updated for the purpose of improving management. Formal reviews and updates will be undertaken as required. Grazing management will be based on long term monitoring and rangeland inventories. Inventories of riparian areas will be completed to establish a baseline for future ecosystem management. Management objectives will be reviewed annually so as to attain or maintain a healthy condition for rangeland plant communities. No permits will be issued for grazing of domestic goats or sheep unless authorized for park management purposes.

Alberta Parks in consultation with Alberta Sustainable Resource Development will establish and/or maintain ecological benchmark areas. These will be used to facilitate ecological classification and an understanding of ecological succession. The "Alberta Range Health Assessment protocols for Grassland, Forest and Tame Pasture" (see List of References) as well as "The Alberta Riparian Health Assessment for Lakes, Sloughs and Wetlands" (ref) will be used to assess ecological health and function. Additional monitoring such as photo points may be established to monitor broad scale vegetative changes, such as forest encroachment and will be highlighted in the detailed range management plan. Audits of individual grazing dispositions will occur at least once every five years. Audits will assess range health and overall grazing management (i.e. utilization, distribution, grazing systems, stocking rates and period of use).

Cultivation of native prairie will not be allowed. Land disturbances for the purpose of reestablishing native species on sites that presently contain non-native species will be considered if a favorable peer review of techniques warrants it. The mechanical harvesting of forages will not be allowed in these provincial parks except to control non-native species (e.g. timothy).

Rare plant sites will be recorded during range and riparian inventories and measures taken to protect them. The Alberta Natural Heritage Information Centre will be contacted prior to undertaking the inventories in order to obtain any existing information on rare plants for the area. The Centre will provide a procedure to assess and record sites.

Habitat maintenance and enhancement project plans will be reviewed and approved by Parks Division to ensure that they comply with the overall management guidelines for the area. Habitat enhancements may include fencing, off-stream water development, brush management, trail development, or other measures to improve livestock distribution or address a management concern.

Re-vegetation and reclamation projects will focus on careful topsoil management and the use of adaptive management actions to allow for natural recovery. Where seeding is necessary, native seed collected from local sources will be used. On erosion prone sites, the seeding of annuals that have been approved by the appropriate government agency may also be considered.

Permit holders will be responsible for control of noxious and restricted weeds associated with domestic grazing activities. This will be addressed in more detail in the detailed grazing management plans for each allotment.

Permit holders will be responsible for reporting and removal of dead cattle from provincial park lands. This is addressed in more detail in the Public Safety section (6.5) of this plan.

6.1.5 Wildlife

One of the highest priority management objectives for this plan is the protection of the diverse vegetation communities that contribute to wildlife habitat. Of particular importance are those components that make this area an important wintering range for numerous ungulate species. While bighorn sheep remain the most visible species, elk and both deer species also depend on the area.

Adequate winter forage must be available to support wintering ungulate populations in those areas utilized by these species. Impacts of domestic cattle grazing on forage biomass and range health need careful evaluation and monitoring to ensure an appropriate balance is achieved and overgrazing does not occur. Domestic sheep and goat will not be permitted in the parks under any circumstances, to forestall the spread of disease between domestic and bighorn sheep.

Habitat manipulation/enhancement opportunities to maintain vital habitat components (e.g. open grasslands important to wintering ungulates) will be investigated.

To protect wintering ungulates, seasonal closures or other restrictions will be maintained by authority of the Provincial Parks Act or other legislation and regulations. The winter closure (December 1 to May 15) on Highway 546 through the Sheep River Provincial Park and the Gorge Creek Trail will be maintained and enforced. Legislation related to dogs off-leash shall be strictly enforced under the Provincial Parks Act. High priority will be given to the protection of any nesting raptors from human activities.

Public safety needs to be balanced with conservation objectives. Managing human-wildlife conflicts involving bears, cougars, and coyotes will be a high priority in this area. Conflicts with bears will be managed according to the terms of the Kananaskis Bear Conflict Prevention Plan. This involves the use of tools such as caution notices, aversive conditioning, relocations and area closures.

Monitoring of bighorn sheep and elk populations in the park and surrounding area will continue on a periodic basis via helicopter and ground based winter surveys conducted by Alberta Sustainable Resource Development.

Reintroductions of native wildlife species will generally not be considered except where human influences have impacted valuable resources or disease outbreaks have negatively affected the viability of local populations. No exotic species will be introduced into these

provincial parks. Predator populations have the potential to impact the viability of ungulate populations. Under certain circumstances, the removal of specific predators will be considered if a serious threat exists to the viability of a species.

Parks staff in partnership with the Alberta Natural Heritage Information Center (ANHIC) and with assistance from volunteers will identify, track occurrences and maintain an up-to-date inventory of rare or endangered species in the parks.

6.1.5.1 Trapping

Trapping will continue to be a permitted activity in Bluerock Wildland Park using the existing boundaries of the current Registered Fur Management Areas (RFMA). Trapping was never permitted in those portions of RFMAs that fell within the former Sheep River Wildlife Sanctuary and will continue to be prohibited in the Sheep River Provincial Park. There is a small portion of an RFMA that was outside the Sheep River Wildlife Sanctuary (hence trapping permitted) that is now inside the Sheep River Provincial Park. Trapping will continue to be permitted in this small area of the Sheep River Provincial Park. All trapping activities in Bluerock Wildland Park will be subject to conditions outlined in the Program Policy on Managing Fur Trapping in Alberta's Parks and Protected Areas (September 10, 2003). Letters of Authority will be required for any off-highway vehicle use associated with trap line activities and Firearms Discharge Permits will be required.

6.1.5.2 Hunting

Recreational and aboriginal hunting will continue to be permitted within Bluerock Wildland Provincial Park subject to regulations under the Wildlife Act and Provincial Parks Act. Recreational hunting will continue to be conducted under special licenses in a limited entry system for elk, moose, white tailed deer, mule deer and non-trophy sheep. Recreational hunting will also be conducted under general licenses for trophy sheep, black bears, cougars, migratory birds and upland game birds. Hunting for wolf and coyote is presently allowed during their established seasons. Hunting for non-licensed species such as porcupine, rabbit, hare, skunk and raccoon is not permitted. All hunting will be managed to ensure the safety of non-hunting recreationists and firearms discharge permits may be required in the future. Dogs used for activities related to hunting must be restrained on a two metre leash at all times while within the wildland park. Hunting will not be permitted in Sheep River Provincial Park.

6.1.6 Cultural Resources

The cultural history information for the area will be included in the Kananaskis Country resource database and will continue to be integrated into interpretive programming or signage where appropriate and possible. Alberta Tourism, Parks and Recreation staff will continue to work with archaeologists and local aboriginal people to identify and manage any sites or features of interest as appropriate. In view of the area's high potential for additional sites, further archaeological and traditional land use research will be encouraged. Any proposed developments in these provincial parks will be screened and consultations and/or an Historical Resources Impact Assessment undertaken, as necessary.

The coal mining and logging history of the area will be interpreted at logical sites.

Parks Division will encourage an assessment of the old log Bighorn Ranger Station buildings and associated structures to determine their historical significance and appropriate action required.

6.1.7 Scenic Resources

Key scenic qualities will be maintained largely by restricting any further developments and activities under the authority of the Provincial Parks Act. While very few additional buildings are anticipated, any new or upgraded existing buildings will conform to the Kananaskis Country Architectural Theme Guide (rev 2004). Activities that may have a visual impact will be subject to an assessment to determine effective mitigative measures. Any new trails will be designed to take advantage of existing scenic views. To maintain a landscape mosaic, the reintroduction of controlled fire on the park landscape will be considered where appropriate along with other techniques to mimic historic vegetation regimes. The impacts of fire or other man made disturbances on natural and recreational (including scenic qualities) will be assessed.

6.1.8 Research

Research and monitoring projects are key to understanding the ecological and cultural processes and features of Sheep River Provincial Park and Blue Rock Wildland Provincial Park. Parks Division will continue to support individuals and organizations doing research consistent with park objectives. All research and monitoring conducted in provincial parks must be done under an approved Alberta Parks Research and Collection Permit. Opportunities to form research partnerships will be pursued.

Research priorities in these two parks will include the following:

- 1. Effects of domestic grazing on park ecosystems and wildlife.
- 2. Monitoring of range health to assess the impacts of grazing and establish appropriate stocking rates and grazing management guidelines.
- 3. Fire regime and history analysis to develop a model and set targets for ecosystem restoration work.
- 4. Monitoring for Mountain Pine Beetle.
- 5. Visitor Satisfaction surveys.
- 6. Monitoring of facility and trail use to understand the patterns of visitor use in this area.
- 7. Completing biophysical inventories

Research activities will be permitted provided they have no significant adverse impacts on the site, other site users, or wildlife. Proposals involving animal capture, handling, and tagging will require protocol approval from the Animal Care Committee of Sustainable Resource Development prior to any issuance of Research and Collection Permits. Off-road vehicle use for research purposes will be discouraged. Use of the highway during the closed season will require written authorization from Alberta Transportation.

Parks Division will continue to support the University of Calgary, R.B. Miller Field Research Station as an important partner in park research and management. Parks staff will work with the University to relocate the facility to the park administration compound and bring it up to current infrastructure standards. This new location will require a disposition to be issued under the Parks Act which will provide the University with long term (25+ years) security for the site of its facility. When the facility is moved, the current site, power line easement and access road will be reclaimed. No further upgrading or expansion of the existing location will be permitted.

6.2 Outdoor Recreation

All vehicle access camping in Sheep River Provincial Park will continue to occur only at Sandy McNabb and Bluerock Campgrounds. Upgrading of these facilities will occur as resources permit. No expansion of facilities at Sandy McNabb is planned at this time but some campground expansion could occur in the future if demand warrants. Winter camping will continue to be provided at Sandy McNabb. No future expansion will occur at Bluerock or Bluerock Equestrian Campgrounds as there is no room available. Bighorn, Indian Oils, Sheep River Falls and Junction Creek day use sites will be upgraded as resources permit. Limited expansion room exists at these sites if future demand warrants. Redevelopment of Sheep River Falls site will address public safety and scenic viewing needs near the falls. Congestion at Junction Creek trailhead will be addressed by adjustments to layout or traffic flow, signage or other measures. Upgrading of Gorge Creek, and Ware Creek trailheads will also occur as resources permit. Facilities at Volcano Ridge Trailhead will be removed and the site reclaimed. Missinglink trailhead receives almost no use so the facilities will be removed and the site reclaimed.

Equestrian use will continue in Bluerock Wildland and Sheep River Provincial Parks on a year-round basis. Adjustments to trail layout, standards and signage will be made as appropriate and as resources permit. Areas where horses are not permitted would include any of the park facilities that are not specifically designated as equestrian facilities such as campgrounds, day use sites, interpretive trails, facility circulation trails or groomed cross country ski trails. Other areas including backcountry areas may also be prohibited to horses due to safety concerns, environmental concerns or to reduce user conflicts.

Map 3 indicates those trails in the Sheep area that are proposed to be upgraded, undesignated or added. Those proposed to be undesignated would remain in place but not have signage or receive maintenance. They will remain accessible for all non-motorized trail use similar to other "unofficial" trails. Those proposed to be added will require more detailed planning and assessment prior to approval. Those approved would be built as resources permit through a partnership approach with the Friends of Kananaskis Country. Whenever feasible, new trails will be constructed prior to undesignating nearby existing trails.

Backcountry camping and open fires outside of designated facilities are not allowed in Sheep River Provincial Park. Backcountry camping and open fires will not be allowed within one kilometer of a road in Bluerock Wildland Provincial Park. Random backcountry camping will continue to be permitted in Bluerock Wildland Provincial Park.

Wolf Creek Backcountry Campground sees almost no use and will be closed. The existing firepit, toilet and food rack will be removed and the lands will be transferred back to Forest Reserve status.

Threepoint Backcountry Campground will be refurbished as resources permit. This will include replacing the toilet, adding food storage lockers, replacing firepits and upgrading tent and activity pads.

The Sandy McNabb cross-country ski trail system will be groomed when conditions permit. While these trails are generally located so as to maximize snow retention, many are used in the summer as equestrian/hiking/biking trails. Summer trail use in the vicinity of these ski trails will be rerouted to higher and drier ground wherever necessary. Winter use of area trails by horses will be restricted to non groomed trails.

Map 3: Proposed Summer Trail Changes



Existing visitor and administrative facilities in Sheep River Provincial Park will be refurbished as resources permit to replace structures in poor condition, upgrade water supplies and better meet visitor needs. An interpretive amphitheatre will be built at Sandy McNabb. Recreation facilities at Sandy McNabb, Bluerock, Junction Creek, Sheep River Falls and the Park administration area will be fenced by Tourism, Parks and Recreation in collaboration with grazing permit holders to reduce conflicts with cattle.

Any new types of recreation or tourism activities will be assessed for their acceptability based in part on the potential to impact wildlife or wildlife habitat.

Staff will work with trail users to address impacts or conflicts as they arise. They will also work in partnership with the Friends of Kananaskis Country in publishing trail information, receiving donations for new trails or upgrades, organizing volunteer trail maintenance events or other kinds of trail support. Staff will work with users as well as map and guidebook producers to try and limit off trail use in sensitive areas. When temporary trail use restrictions are in place (e.g. bear closures), alternative trails will be suggested.

6.3 Heritage Appreciation

Kananaskis Country Information Centres, including the Sheep River Provincial Park Office and the Elbow Valley Information Centre, will provide visitors with a variety of information and materials about Sheep River Provincial Park and Bluerock Wildland Provincial Park. Information services include travel counseling, over-the-counter, and telephone information about trails, safety, recreation opportunities, and regulations. Backcountry campground reservations will continue to be available through the information centres as well as by telephone, and the department will continue to maintain the Kananaskis Country website to ensure that accurate and current information about these provincial parks is available online.

Alberta Parks staff will continue to offer educational services and materials to school boards and related groups, including teacher workshops and programs. Voluntary registration will be encouraged for educational groups within these provincial parks.

Resources permitting, summer interpretive presentations that meet high standards will continue to be offered at the Sandy McNabb Campground, and at various other locations in Sheep River Provincial Park. A campground amphitheatre will be built at Sandy McNabb. As well, existing interpretive trails in the Sheep will be upgraded and new signs installed. Additional interpretive signs may be placed near notable features in high public use areas.

Personal and non-personal interpretive messages will continue to be in accordance with the interdepartmentally-approved conceptual themes and subconcepts as outlined in the Kananaskis Country Interpretive Development Plan.

6.4 Heritage Tourism

Non-motorized commercial guiding activities including hiking, equestrian trips, mountain biking and paddling, will continue to be permitted in both Sheep River Provincial Park and Bluerock Wildland Provincial Park under permit. Group size limits as outlined in "*Kananaskis Country Guidelines for Group Size*" will be included as a condition of these permits. In future, the number of Guiding and Instruction Permits issued may be limited to reduce impacts and conflicts and to ensure a quality experience. No additional commercial trail riding permits will be issued for these Parks to reduce overlap in operations between operators. New permits for this activity will only be considered if the current number of trail riding operators is reduced

and a further need for this service is identified by the Department. Outfitter camps will be allowed in Bluerock Wildland Provincial Park but not in Sheep River Provincial Park.

All special events in these provincial parks will require a Special Events Permit. A group size maximum of 150 persons has been set for events using facility areas while in backcountry areas the maximum group size has been set at 50.

Commercial filming activity will continue to require a Letter of Authority with conditions from Alberta Parks. Filming on weekends is generally not permitted.

6.5 Public Safety

Wildfires within Sheep River Provincial Park and Bluerock Wildland Provincial Park will be actioned according to provincial wildfire suppression policy. Consideration could be given to allowing escaped minor wildfires to burn under appropriate conditions provided that there is an approved fire management plan for the area supporting such action. Fuel modification programs will be used in and adjacent to developed areas to reduce the risk of catastrophic fire and to improve fire suppression efforts by thinning the canopy and reducing ladder fuels. Prescribed fire and non-commercial logging may be used in certain areas to simulate natural disturbance by wildfire where development or other factors have prevented or minimized the likelihood of stand-renewing wildfire. Alberta Parks and Alberta Sustainable Resource Development will continue to assess appropriate actions under the Fire Smart program.

Management of wildlife-human conflict situations will be dealt with in accordance with current procedures. Temporary closures or selective vegetation alterations will be used to address conflict, public safety and impact concerns. Research to better define and protect both wildlife and the public will be done as resources permit.

Wherever possible, natural flooding events in these protected area lands will be regarded as part of the natural ecosystem. Any future facilities will be designed and sited to minimize their exposure to flooding. The government will continue to work with stakeholders and the Kananaskis Improvement District to ensure that any future flood protection measures undertaken in the vicinity will have little or no or minimal effect on these provincial parks. During flood events any threats to the roads and facilities will be closely monitored and warnings, closures or other measures will be implemented to maintain public safety.

Avalanche monitoring, reporting and control work will be maintained and enhanced where resources allow.

The incidence of vehicles and animals colliding on Sheep River Road is a concern. The present speed limit is 80 kilometres per hour. The speed limit will be reduced to 70 kilometres per hour and additional signs installed to make motorists aware of this safety hazard. In addition to this, Alberta Parks staff will continue to work with the South Sheep Grazing Association to find other ways to reduce the collision hazard. For example, cattle guards and fences should be designed to keep cattle from bunching up at these locations on the road.

Alberta Tourism, Parks and Recreation staff will also continue to work with the grazing associations to ensure that dead cattle on provincial park lands are managed to reduce the hazard of wildlife/human conflict. The grazing association members are to report any incident of dead cattle to Park staff who will assess the hazard and determine the safest course of action to be followed. Cattle that die near a facility, road or trail will be removed

from the park by the grazing association whenever possible. If it is not possible or necessary to remove the carcass or if a large carnivore is feeding on the carcass already, then a temporary area or trail closure may be imposed.

6.6 Infrastructure/Staff Housing

Water system upgrades to both the administration/housing and Sandy McNabb facilities will proceed and water supply to other recreation facilities will be brought up to standard.

No expansion of utilities infrastructure is anticipated except a possible new water line between the park office and Sandy McNabb Campground, water and power associated with a modest expansion of Sandy McNabb Campground and buried powerline to a new amphitheatre when it is built. If additional seasonal staff housing is required at the existing site, then a small extension of utilities may be required.

When agreement is reached regarding the relocation of the R.B. Miller research facility, then appropriate infrastructure adjustments will be made.

Kananaskis Country has adopted a "Responsible Lighting Policy" based on the "Dark Sky Initiative" to minimize illumination of the night sky by lighting fixtures. Change or replacement of existing fixtures will occur as required to conform to this program.

7. DISPOSITIONS

Existing dispositions issued under other legislation (e.g. *Public Lands Act, Forest Reserves Act*) will be renewed under the authority of the *Provincial Parks Act*, and brought in line with disposition and fees regulations when the existing term expires or the disposition is renegotiated.

The best longterm location for the RB Miller Research Station will be determined and a new long term disposition (25 + years) under the authority of the Provincial Parks Act will be issued.

Grazing permits in Sheep River Provincial Park issued under the authority of the Forest Reserves Act will be issued under the Provincial Parks Act effective April 01st, 2007. Grazing permits in Blue Rock Wildland Provincial Park will continue to be issued under the authority of the Forest Reserves Act until legislative change allows these permits to be issued under the Provincial Parks Act.

The owners of existing privately held subsurface mineral rights can make application for surface access to explore or develop their rights and the application would be subject to a thorough review. Such a review would consider the potential for disturbance to protected area lands. No new subsurface dispositions will be issued in Sheep River Provincial Park or Blue Rock Wildland Provincial Park.

8. **REGIONAL INTEGRATION**

The management of Sheep River Provincial Park and Bluerock Wildland Provincial Park will be properly integrated with that of surrounding lands. The adjacent lands in the Elbow Sheep and Don Getty Wildland Provincial Parks are managed under the terms of their respective management plans by the same parks staff responsible for the Sheep River Provincial Park and Bluerock Wildland Provincial Park. Alberta Parks will work with Alberta Sustainable Resource Development and stakeholders to ensure that good communication and coordination occurs concerning activities on surrounding forest reserve lands and the provincial parks. Coordination will occur through referrals and direct communication between staff and stakeholders as well as through the Kananaskis Country Interdepartmental Consultative Committee (KCICC).

9. IMPLEMENTATION OF PLAN

The co-ordination of plan implementation and day-to-day management of these parks is the responsibility of Alberta Parks. Parks staff will communicate with other government agencies, Kananaskis Improvement District council, neighbouring jurisdictions, visitors, stakeholders and local residents in implementing this management plan. Alberta Parks will conduct periodic plan reviews or updates as the need arises.

Individuals or groups will be invited to assume a variety of responsibilities including stakeholder representation on planning advisory groups, protected area stewards or trail volunteering through the Friends of Kananaskis Country Trail Care Group. Management of volunteers will conform to the standards set out by the Department's Volunteer Program. Volunteer stewards will assist departmental staff in inspecting and reporting on the conditions of the provincial parks, as well as providing input to the ongoing management process. They will have no enforcement role and will only OBSERVE, RECORD AND REPORT. In addition, volunteers will continue to support a variety of programs such as public safety, research, monitoring and education. Alberta Parks will continue to work with a variety of interest groups and encourage the development of active partnerships to care for these provincial parks or educate and inform visitors.

9.1 Boundary Amendments

Those lands contained within the Wolf Creek Provincial Recreation Area to the south of Bluerock Wildland Provincial Park as well as those within the Volcano Ridge Trailhead (part of Sheep River Provincial Park) should be transferred back to Forest Reserve lands (Map 4) if agreed to by Alberta Sustainable Resource Development and any other affected Ministries. A similar sized parcel of land located to the north of Sheep River Road and west of the Sheep Administration portion of the Sheep River Provincial Park should be added to Sheep River Provincial Park (Map 4) at that time. This addition will create a more logical and easily located boundary on the ground and will act as a safety buffer near park facilities here during hunting season.

Map 4: Land Exchange Parcels



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APPENDIX 1

A. Alberta's Protected Area Zoning Framework (excerpts from "Management Plan Format: Provincial Parks, Wildland Parks, Recreation Areas, Wayside and Access Sites, Wilderness Areas, Natural Areas; November 1996; Alberta Environmental Protection)

Classification recognizes those individual sites within Alberta's overall network of recreation and preservation lands contribute in varying degrees to preservation, outdoor recreation, heritage appreciation, and tourism. Classification however, does not account for the variability of natural resources within a given site. All lands within a given site may not be of equal value from a preservation point of view, and all resources may not have equal capability from a regional perspective. Various components of our natural heritage require different management strategies if they are to be sustained over time.

Zoning spatially identifies areas according to their resource values and the types and levels of use and development that can be supported while fulfilling the objectives of the site as determined by its classification. Zoning is applied during management planning. Zoning takes into consideration the natural resources values and the stated objectives for preservation, outdoor recreation, heritage appreciation, and tourism. Zoning can also account for existing commitments that are to be honored as a condition of site establishment.

The zoning scheme used for Alberta's network of recreation and preservation land includes seven zones. Within the zoning framework sub-zones may be used where a greater sophistication of resource management is warranted. Each zone possesses distinct objectives and an identifiable role. The zones help to ensure a balance between resource protection and use.

Preservation Zone

The preservation zone is applied to landscapes where preservation of natural heritage values takes precedence over all other uses. Lands and waters in this zone are managed so that natural heritage values and ecological processes remain largely unaltered.

Wilderness Zone

The wilderness zone encompasses extensive natural landscapes that are capable of supporting non-motorized primitive wilderness recreation. In this zone, preservation of natural heritage values is the main consideration. Management guidelines focus on sustaining or enhancing wilderness recreation opportunities.

Natural Environment Zone

The natural environment zone provides opportunities for appreciation and enjoyment of natural heritage values through a variety of outdoor recreation, education and interpretive opportunities and programs. Activities that bring visitors into close contact with nature, such as walk-in camping, hiking, crosscountry skiing and nature appreciation programs, are encouraged. Much of the land base within provincial parks is typically included within the natural environment zone. In wildland parks, this zone is applied to areas where traditional grazing is part of the ongoing management regime.

Historical/Cultural Zone

The historical/cultural zone is used in wildland parks, heritage rangelands, natural areas and provincial parks to recognize lands and features that have significant historic, prehistoric or archaeological value. Historical features and structures within this zone are frequently stabilized and/or restored. The emphasis in this zone is on preservation.

Visitor Services & Facility Zone

This zone is used in provincial parks and provincial recreation areas and may include facilities and visitor services that support both day use and overnight accommodation, including auto-access campgrounds.

Access Zone

The access zone provides safe and convenient access to outdoor recreation opportunities and accommodates major transportation routes through a site.

Integrated Management Zone

The integrated management zone is applied only in provincial recreation areas to reflect non-conforming uses such as oil and gas activities and other industrial uses.

APPENDIX 2

Sheep River Provincial Park Natural History Region, Sub-regions and Themes

Sheep River Provincial Park is located entirely within the Rocky Mountain Natural Region, with significant areas in both the montane and subalpine subregions. Over 90% of this provincial park contributes to the "ridge/valley wall" level I natural history theme in both the montane and subalpine subregions, with just over six square km contributing to the floor/stream theme in the montane only.

	Valley/R	lidge	Wetland				
Sheep River PP	Floor / Stream	Ridge / Valley Wall	Mineral	Organic	Lake	Total Area (All Themes)	GIS Area of Site (sq km)
RM Montane	5.90	29.65	0.00		0.00	35.55	61.83
RM Subalpine	0.20	26.08	0.00	0.00	0.00	26.28	61.83
Total Themes Protected (sq km)	6.10	55.73	0.00	0.00	0.00	61.83	61.83

Total Area (All Themes)	GIS Area of Site (sq km)	Area of Site in NSR (sq km)	No. of Level I Themes
35.55	61.83	35.55	2
26.28	61.83	26.28	2
61.83	61.83	61.83	4

Bluerock Wildland Provincial Park Natural History Region, Sub-regions and Themes

Bluerock Wildland Provincial Park is also located entirely within the Rocky Mountain Natural Region, with the majority of the area in either the Montane or Subalpine Subregions. Only 5 sq. km. of Bluerock is considered within the Alpine subregion. Typical of these hilly and mountainous subregions, the majority of this park is classified as slope, with over 97% contributing to the Ridge/Valley Wall level 1 natural history theme in all three subregions represented (montane, subalpine and alpine). However, the river and stream bottoms are significant from a biodiversity perspective, with just over 3 sq. km. contributing to the floor/stream theme mostly in the subalpine subregion.

	Valley/Ridge		Wetland		
Bluerock WPP	Floor / Stream	Ridge / Valley Wall	Mineral	Organic	Lake
RM Montane	0.20	65.87			
RM Subalpine	3.00	52.99	0.00	0.00	0.00
RM Alpine	0.00	5.00	0.00	0.00	0.00
Total Themes Protected (sq km)	3.20	123.86	0.00	0.00	0.00

Total Area (All Themes)	GIS Area of Site (sq km)	Area of Site in NSR (sq km)	No. of Level I Themes
66.07	127.06	66.07	2
55.99	127.06	55.9883	2
5.00	127.06	5.0036	1
127.06	127.06	127.06	5

APPENDIX 3

Area of grazing distribution units of the North and South Sheep Grazing Allotments that falls within the Sheep River Provincial Park and Bluerock Wildland Provincial Park.

Devi	Distribution Hait	Total	Hectares in
Park	Distribution Unit	Hectares	Park
Bluerock Wildland	Canyon Creek DU	1748.67	75.01
Bluerock Wildland	Coal Creek DU	5062.22	984.84
Bluerock Wildland	Death Valley DU	3483.39	2367.84
Bluerock Wildland	Gorge Creek DU	5148.78	2648.13
Bluerock Wildland	Green Mountain D	4398.29	2795.87
Bluerock Wildland	Holding Field	261.13	1.34
Bluerock Wildland	Link Creek DU	1667.18	566.35
Bluerock Wildland	McIntyre Mtn. DU	339.25	225.15
Bluerock Wildland	Middle Sheep DU	14465.48	2019.44
Bluerock Wildland	Ranger Station F	1030.31	1.79
Bluerock Wildland	Upper Ware Creek DU	1579.52	368.75
Bluerock Wildland	Windy Point DU	814.04	417.03
Bluerock Wildland	Wolf Creek DU	2150.06	194.94
Sheep River	Canyon Creek DU	1748.67	1667.63
Sheep River	Death Valley DU	3483.39	1.53
Sheep River	Gorge Creek DU	5148.78	714.96
Sheep River	Green Mountain D	4398.29	827.89
Sheep River	Holding Field	261.13	0.61
Sheep River	Middle Sheep DU	14465.48	1615.56
Sheep River	Mud Springs DU	1803.56	2.39
Sheep River	Ranger Station F	1030.31	1025
Sheep River	Windy Point DU	814.04	299.52