

ATHABASCA RIVER SANDHILLS
ACCESS and PROTECTION PLAN

Approved by
the Minister of Environmental Protection

on January 16, 1997

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Edmonton

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1.0 INTRODUCTION

On March 2, 1994, the Athabasca River Sandhills Local Integrated Resource Plan (LIRP) was released to the public by the Local Member of the Legislative Assembly, Ken Kowalski. The LIRP provides the direction to prepare the more detailed access and protection plan. This Access and Protection Plan was prepared in response to the recommendation contained in the LIRP to accommodate the various user groups' concerns through the development of such a plan.

1.1 Purpose of the Plan

The Athabasca River Sandhills Access and Protection Plan was initiated to reconcile, in consultation with the public, the demands of motorized and non-motorized recreational users with the need to protect significant portions of areas outlined in the LIRP. Within the context of the Access and Protection Plan, final boundaries and allowable activities for each protected area are to be established. Designation of trail systems including entrance and exit points and travel corridors for off-highway vehicles (OHVs), snow-mobiles, equestrian and other recreational users are to be identified to reduce conflict between users. During implementation of this plan, trail systems and staging areas will be identified, developed and designated through cooperation with the various user groups. Possible locations for additional road access, staging areas and facility nodes for commercial/tourism opportunities will also be identified. One of the ultimate objectives of this plan is to develop methods to enforce access management strategies.

1.2 Planning Area Overview

The Athabasca River Sandhills Access and Protection Planning Area, based on the LIRP, is located near the hamlet of Fort Assiniboine (Figure 1) and encompasses approximately 320 km² (123.6 mi.²) (Figure 2).

The planning area includes the following Access and Protection Areas (APAs) (see Figure 3).

1. Holmes Crossing Sandhills Ecological Reserve
2. Holmes Crossing Forest Land Use Zone
3. Fort Assiniboine Sandhills Wildland Park
4. Timeu Off-Highway Vehicle Recreation Area
5. Vega Natural Area

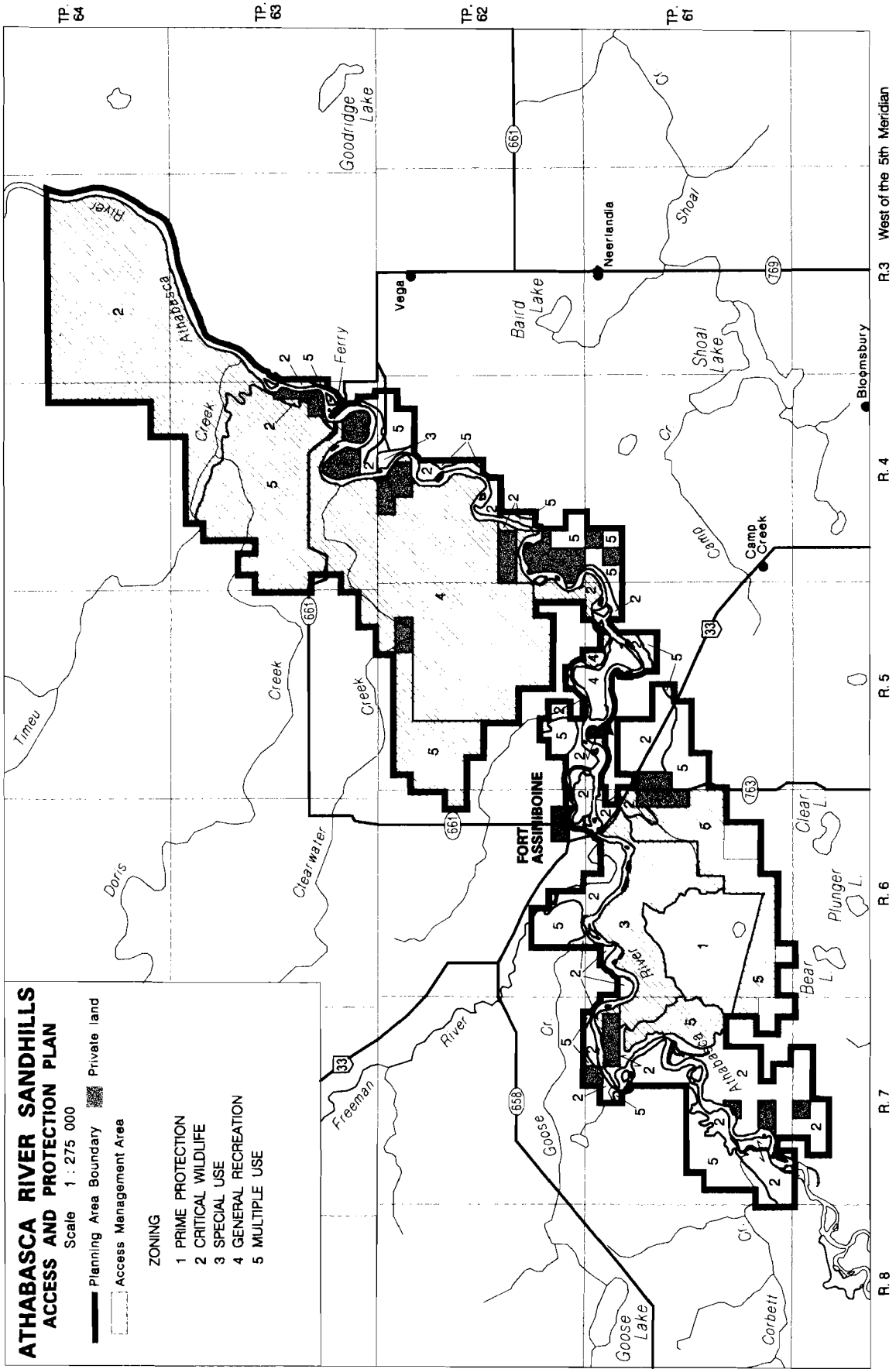


Figure 2: Athabasca River Sandhills Access and Protection Plan Planning Area

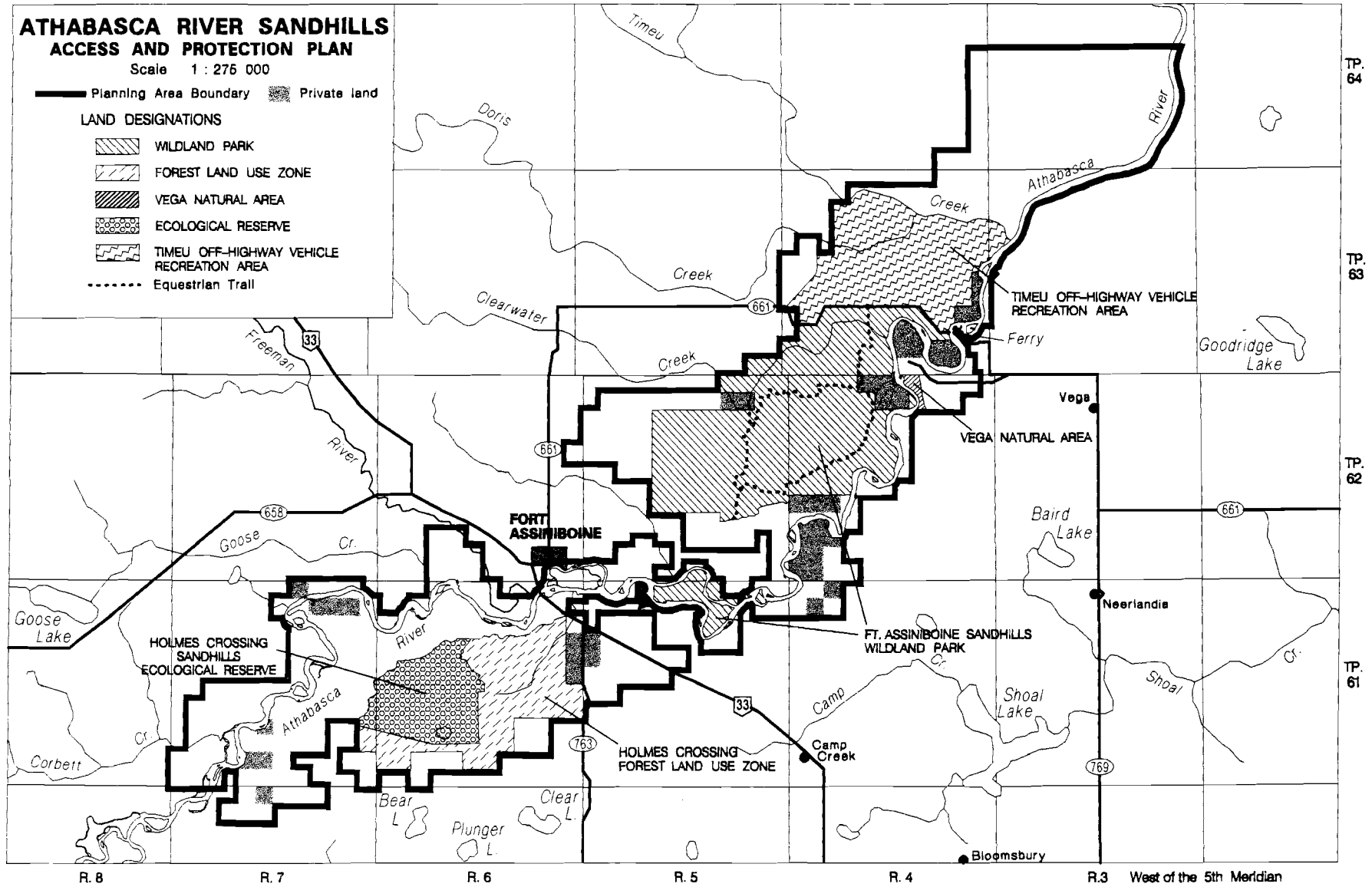


Figure 3: Athabasca River Sandhills Access and Protection Plan Land Designations

Areas adjacent to these APAs, such as lands north of Timeu Creek, have also been considered.

The plan applies to provincial public land and resources. It does not apply to private lands.

1.3 Planning Process and Participants

The general public input to the LIRP and that plan's guidelines and objectives were considered along with existing regulations/mechanisms and the policies of the Alberta Government. Classification systems and policies were incorporated where appropriate.

Process

The purpose of the planning process is to involve and take into consideration the needs and interests of all user groups. The process used for developing the Access and Protection Plan consists of the following steps:

1. The Athabasca River Sandhills Access and Protection Planning Team was established consisting of members from the Department of Environmental Protection, other government departments, the County of Barrhead No. 11 and the Municipal District (M.D.) of Woodlands No. 15. (Departments and Agencies listed on page 7).
2. The planning team then created the Athabasca River Sandhills Access and Protection Plan Public Advisory Committee. Membership included representatives from a number of special interest groups. (Participants list on page 8).
3. The Terms of Reference for the Access and Protection Plan were prepared by the planning team. The Terms of Reference presented a description of the planning area, the purpose of the plan, resource management concerns and protection issues, an explanation of the methodology, a schedule for completion of the plan and an explanation of the approval steps and agency implementation roles.
4. A formal public announcement of the initiation of the Access and Protection Plan was made in March 1994 in conjunction with the release of the LIRP. The draft Terms of Reference document was reviewed and revisions were made by the Athabasca River Sandhills Public Advisory Committee. The Terms of Reference were approved by the public advisory committee on March 2, 1994.
5. The Terms of Reference were then reviewed and approved in May, 1994 by the Northern East Slopes Environmental Resources Committee (formerly the Eastern Slopes Regional Resources Management Committee, a committee consisting of Regional Directors from various government departments).
6. The Terms of Reference were then forwarded to the Minister of Environmental Protection and to the Westlock-Barrhead MLA for their endorsement.

7. Public advisory committee meetings were held. The general public were encouraged to provide input through the appropriate advisory committee member.

A tour of the Fort Assiniboine Sandhills was held in conjunction with the public advisory committee meeting held August 5, 1994. This tour provided an opportunity for motorized and non-motorized user groups to demonstrate their current use patterns of the area. Various members of the public advisory committee showed other members of the committee the existing trails and possible staging areas for their groups activities. Department staff also noted sensitive natural features and disturbance patterns within the Fort Assiniboine Sandhills.

8. Data-gathering occurred during the planning process and continued during the development of the preliminary Access and Protection Plan. The Resource Information Division collected detailed biophysical information of the Fort Assiniboine Sandhills area. Other Environmental Protection staff spent time in the field assessing possible boundary designations, trail corridors and staging areas. Interdepartmental staff assisted in researching land management issues and legislative mechanisms for the development of protected area boundaries.
9. The public advisory committee reviewed the plan. The planning team completed a draft plan in March 1995. Consensus from the committee was sought (consensus in terms of the process is viewed as a general agreement, but does not necessarily reflect unanimity-the dissenting views are documented before decisions are finalized).
10. The planning team revised the draft Access and Protection Plan based on input from the public advisory committee.
11. The planning team submitted the draft Access and Protection Plan to the Northern East Slopes Environmental Resource Committee for approval to take to the general public for review.
12. Public meetings were held in Edmonton, Barrhead and Fort Assiniboine to review the draft plan and provide comments. Written submissions and completed questionnaires were received until May 31, 1995. A summary document of public feedback was prepared.
13. Revisions to the plan were made by the planning team based on the input received at the public meetings.
14. The Northern East Slopes Environmental Resources Committee and the Executive Committee (Environmental Protection) reviewed the Access and Protection Plan during the winter months of 1995/96.
15. The plan was forwarded to the Minister of Environmental Protection and the local MLA for their consideration and approval.

16. The plan was approved by the Minister of Environmental Protection on January 16, 1997. Documentation to establish formal legislation of the areas was prepared.
17. The new designated areas were announced by the Minister of Environmental Protection and the local MLA on February 3, 1997.
18. Management plans will now be developed for the appropriate designated areas. The sites will be monitored to ensure that the objectives for which the site was designated are met. Further refinements or changes will be addressed through the management plans for each designated area.

Participants

A planning team approach was used to develop the draft Access and Protection Plan. The team represented the following services of Alberta Environmental Protection and other governmental agencies:

1. Department of Environmental Protection: Natural Resources Service, Parks
2. Department of Environmental Protection: Natural Resources Service, Fish and Wildlife
3. Department of Environmental Protection: Land and Forest Service
4. Municipal District of Woodlands No. 15
5. County of Barrhead No. 11
6. Department of Energy, Mineral Operations Division
7. Department of Agriculture, Food and Rural Development, Public Lands
8. Department of Economic Development and Tourism
9. Department of Community Development
10. Department of Transportation and Utilities

Industrial Interests

The management guidelines for long-term recreation access for each APA were developed through consultation and coordination with local industry and other levels of government.

Coal Industry

Currently, there is no coal development within the planning area. The Department of Energy represented any possible future interests of the coal industry.

Trapping Industry

The affected trappers and the Alberta Trappers Association were consulted to ensure there would be no conflict with their trapping activities.

Timber Industry

The Fort Assiniboine Timber Operators Committee was consulted so that any operations could be coordinated within the planning area.

Oil and Gas Industry

There are several companies operating within the planning area whose interests were represented by the Department of Energy.

Quarrying Industry

At present, there are no quarry operations within the planning area. Surface materials are available outside of the planning area.

Public Interests

Public Advisory Committee Consultation

Public consultation occurred primarily through the Athabasca River Sandhills Public Advisory Committee. The committee's role was to identify the special interest and recreational needs: information for trail design and implementation to determine access and appropriate designation of protection. The following organizations were asked to participate in the planning process:

1. Alberta Snowmobile Association
2. Alberta Trappers Association
3. *Alberta Wild Rice Growers Association
4. *Alexander First Nation
5. Barrhead Fish and Game
6. Barrhead Light Horse Club
7. Federation of Alberta Naturalists
8. Fort Assiniboine Agricultural Society
9. Fort Assiniboine and District Environmental Action Association
10. Fort Assiniboine Timber Operators Committee
11. Moose Wallow Tiger Lily Mystery Lake Agricultural Society
12. Northern Alberta OHV Association
13. Pembina Dirt Riders and Pembina Drift Busters
14. Prairie Dirt Riders
15. *Professional Outfitters Association of Alberta
16. Yellowhead Regional Planning Commission

* Indicates groups that chose not to participate.

General Public Input

Information about general public concerns with access and protection management was obtained through the extensive public involvement associated with the LIRP. This information was used to prepare the April 1995 draft of the Access and Protection Plan. Public meetings concerning this draft plan were held April, 1995 in Fort Assiniboine, Barrhead and Edmonton to obtain input from the general public. These meetings were well attended with over 500 participants in attendance. The format of the public meetings included a public workshop component which was very useful in bringing forward constructive comments. Approximately 100 written submissions and questionnaires were

received and were coordinated in the final draft plan. Many positive comments were received regarding the public meeting format. Planner's Updates have been used to keep the general public informed throughout the project.

1.4 Market Analysis

The need for the development of the Access and Protection Plan arose because of the pressures of increasing use of the area. The OHV use is high, primarily in the Holmes Crossing Sandhills and the Fort Assiniboine Sandhills areas (General Recreation, Zone 4). Snowmobile riders desire access to the Hamlet of Fort Assiniboine.

Equestrian users also frequent lands north of Fort Assiniboine along the Sandhills Trail and north of Secondary 661 (S.H. 661). Equestrian use is also prevalent in the south portion of the planning area in the vicinity of Holmes Crossing. A Commercial Trail Riding Permit was given to one commercial trail riding organization in the Holmes Crossing area for 1994.

Numerous user groups use the area to hold events to raise funds for charity.

Most of the random OHV activity, in the areas immediately north and south of S.H. 661, is primarily attributed to users from outside the Fort Assiniboine area, including many users coming from the Edmonton area. The OHV activity south of the Athabasca River and west of Highway 33 (Holmes Crossing Area) consists of mostly users living within 80 km of the area. Random campsites are heavily used on weekends from late April to mid-September. Staging areas are necessary to continue accommodation of OHV users. Organized OHV rallies have been held annually in the Klondyke Ferry area both north and south of S.H. 661. Organized rallies have been documented since 1984.

Random equestrian use is primarily attributed to local users, whereas major equestrian events attract provincial users. The area also receives considerable use by campers and hikers. Picnicking, berry-picking and nature appreciation occur randomly throughout the planning area.

The area receives most of its use during the summer months. Shoulder season use includes hunting in the fall and snowmobiling from December to March.

2.0 PLAN CONTEXT

2.1 Policy Context

The Athabasca River Sandhills Local Integrated Resource Plan (LIRP) presents the Government of Alberta's resource management policy for public land and resources for the Athabasca River Sandhills Planning Area (see Figure 2). The LIRP was approved by the Minister of Environmental Protection in April 1993. Upon release of this plan, direction was

given to prepare the Athabasca River Sandhills Access and Protection Plan, a more detailed operational-level plan that focuses on defining the boundaries of the protected areas and recreation areas. The resource management direction and suggested designations as outlined under the LIRP provided the context for the preparation of the Access and Protection Plan. Any resulting changes to the LIRP will be dealt with as a plan amendment.

Ecosystem Management

Within the planning area, there are a number of sensitive and significant resources. The area contains nationally significant landforms. Specifically the transverse dunes found in the Holmes Crossing and Fort Assiniboine areas are unique to Canada. The stabilized transverse and parabolic dunes were formed following the last ice age. The thin soil layer that has developed on top of these sand dunes is readily disturbed by human activities. Development of designated recreation trails and management guidelines is essential in mitigating the impacts affecting these resources. Retention of the natural vegetation cover along watercourses and in high elevation areas reduces soil disturbance and watercourse siltation, thereby maintaining a natural landscape quality. Protection of the watershed and sensitive soils contributes to maintaining a quality environment. Consequently, recreation users gain a rewarding back country recreation experience. The plan also recognizes that some sites with sensitive soils and vegetation should receive limited recreational use.

Recreation Management

The Access and Protection Plan recognizes that various users have different access needs and recreation interests; for example, management of back country motorized and non-motorized recreation activities ensures greater compatibility among users and mitigates degradation of environmentally sensitive landscapes. The plan identifies the extent of motorized recreational access (e.g., designated trails, designated corridors, seasonal use) in certain areas and, through the designation of various protected areas, regulates recreational use.

Heritage Resources Management

Throughout the Athabasca River Sandhills there is a wide range of historic resources including sites and corridors used by Aboriginal people, early explorers, fur traders and the Klondyke Gold Rushers. This plan identifies the need to protect these historic resources and to provide opportunities for heritage interpretation. The plan identifies the location of these historic sites and transportation corridors. Management guidelines have been developed for the preservation of these historic features within the planning area.

Tourism Management

The Access and Protection Plan identifies numerous outdoor recreational opportunities and tourism attractions within the area. The plan encourages private sector development of the necessary tourism infrastructure and support facilities. Commercial recreation and tourism development proposals will be directed to the designated staging areas/facility nodes within the planning area. Public land adjacent to the planning area may be available for lease by commercial developers. Private land both inside and outside the planning area and in the hamlet of Fort Assiniboine may also accommodate commercial recreation and tourism development related to the area.

3.0 DESIGNATED AREAS

3.1 *Classification Overview*

The Athabasca River Sandhills Access Protection Plan includes five designated areas (see Figure 3). The Province of Alberta has a number of different designation options for protection. Each of the different protected area classifications includes recommendations as to what activities are compatible. Classification as a protected area or as forest land use zones allows for the protection of the environment and management of access and recreational activities. A brief description of various types of legislative designations is as follows:

Ecological Reserves

Ecological reserves are areas selected as representative or special natural landscapes and features as defined under Alberta's natural regions and natural history themes to ensure the perpetuation of genetic materials and natural ecological units. An ecological reserve serves as an example of an ecosystem without modification, contains rare or endangered native plants or animals that should be preserved. Foot access only is permitted in ecological reserves. Average size is about 2,000 ha.

Natural Areas

Natural areas are selected as representative, special or sensitive natural landscapes and features of the province that are set aside to protect their natural values and provide opportunities for nature appreciation, education and low intensity recreation. Average size is about 150 ha.

Forest Land Use Zones

Forest land use zones have been used to manage recreational use of OHVs and snowmobiles. Forest land use zones provide legislative access and controls for the area. Regulations must be established for each Forest Land Use Zone.

Provincial Parks

Provincial parks protect provincially significant natural, historical and cultural landscapes and features and they also provide quality recreational and educational experiences. The purpose of provincial parks is met through four objectives: protection, heritage appreciation, outdoor recreation and tourism.

Protection- A provincial park protects provincially significant landscapes or environments that incorporate the greatest possible diversity of biophysical resources as described by Alberta natural regions and natural history themes, as well as landscape-related prehistoric and historical resources.

Heritage Appreciation- Provincial parks provide opportunities for exploration of natural, historical and cultural landscapes and features through a full range of interpretive and educational programs that reflect the diversity of resources and features to the extent that is compatible with the protection of the environment.

Outdoor Recreation- A provincial park provides facility-based camping, day use and associated opportunities in provincially significant natural, historical and cultural landscapes.

Tourism- A provincial park provides a variety of natural environment-based opportunities and services related to exploring and experiencing the distinctive natural, historical and cultural landscapes and features of Alberta.

Wildland Parks

Wildland parks are large areas of undeveloped land retaining their natural character. Human developments and interference with natural processes are kept to a minimum. They provide opportunities for back country experience. Access is by foot or the use of horses. The first two Wildland Parks, Kakwa and Elbow-Sheep were designated in 1996.

3.2 Holmes Crossing Sandhills Ecological Reserve

Resource Description

The Holmes Crossing Sandhills Ecological Reserve is representative of the Central Mixed Wood Subregion of the Boreal Forest Natural Region and covers 22 km² (8.5 mi.²) (see Figure 3). Within this portion of the planning area are some of the best examples of transverse dunes found in Canada (David 1977). This region is unique in having direct evidence that the primary dune forms were transverse. These sandhills are among the few occurrences of stabilized transverse dunes in Canada (David 1979). Within the area, there are several lakes with no known fisheries resource.

Rationale for Designation

Currently only 0.30 percent of the target for the Upland Dune theme within the Central Mixedwood Boreal Forest has been met [*Natural Regions and Natural History Themes: Targets for Alberta* (1992)]. This portion of the planning area offers further lands to be protected and was identified as a Prime Protection Zone by the LIRP. This area was recommended in the LIRP to be designated as a conservation natural area or as an ecological reserve. An Ecological Reserve designation offers considerably more protection than a Natural Area designation due to the strength of the regulations under this designation. Because of the national significance of the eolian landforms in the area, the greatest amount of protection is necessary. Thus, this area is designated an ecological reserve. The name given to an ecological reserve should reflect the natural features it protects. The name, Holmes Crossing Sandhills, was selected because it is consistent with how these sand dunes have been referred to in literature. The county road along the north and west edge and the trail on the east and the cutline on the south edge, all serve as readily defined boundaries for management purposes.

Activities/Uses

Compatible activities within the ecological reserve include natural heritage appreciation, photography, environmental education, wildlife viewing, hiking (foot access), scientific research and related collection activities (*under permit*), picnicking (no auto access) and berry-picking. Cross-country skiing and snowshoeing are compatible activities, *providing no facility development is required*.

The following activities/uses are not compatible within the Holmes Crossing Sandhills Ecological Reserve: auto access, designated camping, hunting, fishing, transportation and utility corridors, intensive recreation, equestrian use, OHV activity, logging, domestic grazing, coal development and exploration, minerals exploration and development, surface materials extraction, commercial development, industrial development, cultivation and backcountry shelter development. Petroleum and natural gas exploration and development are not compatible but existing leases will be honoured.

Management Guidelines

Management guidelines for the Holmes Crossing Sandhills Ecological Reserve will be to maintain and enhance the ecological integrity of the transverse dunes. No new trails *will be developed unless necessary for management purposes*. Existing trapping (Registered Fur Management Areas [RFMAs]) will be phased out. *No new lines or transfers will be permitted*. It is the intent that existing trapping will be relocated to another area. Alternatively, compensation may be considered by the Trapper Compensation Review Board. *No new RFMAs will be granted*.

The use of horses, OHVs and vehicles will be permitted for management purposes only. Existing leases for petroleum and natural gas *will be honored*. A “no surface access” addendum has been placed on all future petroleum and natural gas sales.

Volunteer stewards will be utilized to assist in the management of the ecological reserve. During the public consultation process a number of people expressed an interest in taking on this role. The Department of Environmental Protection staff will be responsible for enforcement of the legislation protecting ecological reserves. Volunteer stewards may provide some assistance in this area. Clear boundary markings are required to delineate the ecological reserve area and signs will be used for this purpose. A kiosk with a map showing the area and environmental education messages should also be developed.

3.3 Holmes Crossing Forest Land Use Zone

Resource Description

The Holmes Crossing area surrounding the Ecological Reserve encompasses approximately 40 km² (15.5 mi.²) of the south end of the planning area (see Figure 3). This area forms an outer ring around the Holmes Crossing Sandhills Ecological Reserve. A portion of this area is proposed to be designated as a Forest Land Use Zone primarily for equestrian use on designated trails. The Forest Land Use Zone will be designated on the crown lands south of

the county road to the south and east of the Ecological Reserve. The area consists of undulating landscape with steep slopes on the south and extending to the river breaks on the west.

Rationale for Designation

The L.I.R.P. recommended that portions of this area should be designated a recreation natural area or a provincial recreation area. Considering the varied intents of the various zones in the L.I.R.P., it was decided that a Forest Land Use Zone designation would best achieve the desired management of this area. Designation of a portion of the area as a Forest Land Use Zone provides an opportunity to separate two of the principle user groups in the area, ie. equestrian and motorized recreationists. The name Holmes Crossing is derived from the former ferry operator, William Holmes.

Activities/Uses

Within the Holmes Crossing Forest Land Use Zone (See Figures 2 and 3) compatible activities include photography, nature appreciation, berry-picking, fishing, hunting, hiking, scientific study and trapping. Equestrian use will be permitted on designated trails in designated areas. O.H.V. use will not be permitted other than snowmobiles on a loop trail during the winter months.

North of the County road the area will not be designated and will be available for ongoing O.H.V. use.

Uses not compatible for all zones include cultivation and residential subdivisions.

Within Zones 2 and 3 (See Figures 2 and 3) as shown on the 1993 I.R.P. map, figure 2, permissible activities include transportation and utility corridors, logging, trapping, hunting, serviced and primitive camping, petroleum and natural gas exploration and development, and surface materials extraction. All of these above activities are compatible in Zone 5 and also includes domestic grazing, minerals exploration and development, coal development and exploration and industrial development.

Commercial development is a permissible activity within Zone 3 and Zone 5 but not compatible within Zone 2.

The following activities are permissible to the breaks of the river and to the breaks of the unnamed creek but not compatible within Zone 3: domestic grazing, minerals exploration and development and coal development and exploration.

Industrial development is not compatible in either Zone 2 or Zone 3.

Management Guidelines

An ecosystem management approach should be used when managing these lands and lands adjacent to this area. Logging will follow *Alberta Timber Harvest Planning and Operating*

Ground Rules. In addition to the ground rules, logging techniques used near recreation sites, trails and all-weather roads will be those that minimize the visual impact of logging. In addition to the standard terms and conditions for all other activities, development of necessary infrastructure (i.e., signs, gates to well sites, etc.) to ensure safety of equestrian and OHV users will be required along designated trails. Trails for OHV's will be designated in the area to the north and west of the county road (see Section 5.1). Equestrian trails will be designated in the area south of the county road and east of the ecological reserve (see Section 5.2). Snowmobiling will be permitted on all trails during winter months provided adequate snow cover exists. Finalized staging areas and trails will be developed in conjunction with the various special interest groups. In development of the trails, attention will be given to sensitive features such as soil type, slope, and breaks of the Athabasca River valley to mitigate potential erosion and compaction problems. Trails will be developed in conjunction with key stakeholders and agencies. A brochure will be developed to clearly delineate the boundary of the area and the trails available for both equestrian and ATV use. This will be complemented with appropriate trail signage and posted maps.

3.4 Fort Assiniboine Sandhills Wildland Park

Resource Description

The wildland park covers approximately 66 km² (25.5 mi.²) including the Pemmanic Island Area (see Figure 3). Situated in the Central Mixedwood Subregion of the Boreal Forest Natural Region, the wildland area encompasses many diverse landscape features and vegetation communities. Landscape features include steep valley walls and river flats of the Athabasca River, parabolic and mixed transverse dunes, springs and wetlands. Forest communities within the wildland park include the older growth mixedwood and white spruce forests found on the slopes and valley floor of the Athabasca River, the closed and open jack pine/aspen forests on north and south facing dune slopes and the older-growth black spruce/tamarack forests of the larger wetlands on the western side. Within the Wildland Park there appears to be evidence of old caribou trails. Sandhill cranes, bears and many other types of wildlife frequent the area.

Pemmanic Island is the largest of the many islands in this stretch of the Athabasca River covering approximately 5 km² (2 mi.²) (see Figure 3). Pemmanic Island is so named for the possible original location of the Pemmanic Post and for the large amount of pemmanic (dried meat) found on the island years ago. This large island in the Athabasca River is located northeast of the Hamlet of Fort Assiniboine and provides opportunities for both environmental education and historical interpretation. Pemmanic Island was created by the meandering of the Athabasca River. This historical transportation route is an excellent theme for heritage appreciation which provides opportunities for interpretation. A portion of the Klondyke Trail is located on the west side of the island. The island contains significant old-growth spruce stands. It is also believed that the North West Company Pemmanic Post was situated on the island.

Rationale for Designation

The residents of Fort Assiniboine and surrounding area first proposed a provincial park in 1971. The name, Fort Assiniboine Sandhills, was selected because the area has received that name in the literature. The original reservation for the provincial park included the majority of the lands in the Athabasca River Sandhills Access and Protection Plan Planning Area northeast of Fort Assiniboine (see Figure 2). Since the original park proposal, activity use has changed from non-motorized recreation to increasingly more motorized OHV use within the area. The LIRP recognizes both non-motorized and motorized recreational use of the area. The Access and Protection Plan determines what portion of the area will be designated as a Wildland Park. The Wildland Park classification was chosen over Provincial Park designation to reflect the minimal recreation and tourism development planned for the area. This park will be maintained primarily in a pristine condition with very little development. Various boundary options were discussed. The OHV user groups wished to see a portion of the area be designated as a provincial recreation area because lands designated as park would exclude OHV use. The LIRP identified the need for an adequate land base for a park as well as the public safety concern of OHV traffic on and unsafe entry to S.H. 661. The current illegal OHV use on S.H. 661 causes increased maintenance costs for the M.D. of Woodlands. With due consideration and review of all public feedback, the planning team recommended that the north boundary of the park follow the existing S.H. 661. The south boundary of the park follows the boundary between private and Crown land and then follows the local road (see Figure 3). The Athabasca River serves as a natural boundary to the east and the boundary to the west includes the wetland lakes. Boundaries that are marked by a natural feature such as a river or by an easily definable feature such as a road make management more effective and cost-efficient.

The wildland park contains an extensive areas of relatively undisturbed natural features. The park contains all the necessary management and operational elements for the effective delivery of four programs: protection, heritage appreciation, outdoor recreation and tourism. All of the islands in the Athabasca River adjacent to the wildland park including Pemmican Island are included in the Fort Assiniboine Sandhills park designation. The islands are relatively undisturbed and are representative of the valley and flood plain features of the Athabasca River.

Protection

The Wildland Park encompasses a land base that is of sufficient size and configuration for natural processes to reasonably function without being impacted or influenced by various types of human activity. The park boundary encompasses a wide range of landscape features including steep valley walls, flat river bed, wetlands, springs, and diverse vegetation patterns. Within the Wildland Park, there is lichen-covered upland black spruce/tamarack bogs, suitable habitat for caribou. It is suspected that woodland caribou used suitable habitat within the park in recent times since caribou are still occasionally observed in similar habitats to the north of Timeu Creek. With proper management within and outside the park (e.g., maintenance of travel corridors), it may be possible to again attract this species to the area.

Encompassed by the wildland park boundary is a significant portion of the hydrological system of the Fort Assiniboine Sandhills. The hydrological system is important in terms of the influence it has on wetland morphology and distribution as well as on the distribution of springs along the slopes of the river valley. It is important to retain a significant portion of this system and the widest range of wetland types. The wetlands range from moist willow-dominated meadow to sedge/grass fens to predominantly black spruce tamarack bogs. Most of the larger water bodies within the park are located near the park's western edge. These intermittent lakes feature considerable diversity, and consequently the patterns of vegetation succession are particularly well demonstrated.

Habitats of importance to breeding populations of sandhill cranes and other sensitive species are included within the park boundary. Sandhill cranes are known to use wetlands within the park for nesting and other purposes. Cooper's hawks are also known to nest in this area; it is a species at the northern limits of its range in Alberta. Species which favor old-growth forest (e.g., pileated woodpeckers, bay-breasted warblers, black-throated green warblers, magnolia warblers, and Cape May warblers), will also be protected within the wildland park. It is important that quality nesting and extensive habitats be retained for these species as well as for other important wildlife species in the area.

Excellent examples of dune features (e.g., parabolic dunes) and dune landscapes are located within the park. Also protected will be portions of the Clearwater Creek that containing important riparian habitats (e.g., willow communities, river alder communities, and meadows), which add considerably to the biodiversity of the park.

Heritage Appreciation

The park boundary affords protection to many significant historical resources. The Klondyke Trail and grave sites of the Gold Rush pioneers are included within the park. Adjacent to the Athabasca River, the park allows for the telling of stories of Native settlement, explorers and fur traders.

Outdoor Recreation

The configuration of the land contained in the wildland park allows for a variety of backcountry experiences and recreational opportunities within the capabilities of the surrounding natural environment. The islands to the northeast of Pemmican Island and along the river to the Klondyke Ferry Crossing are recommended for special event black powder and primitive weapons hunting.

Tourism

The designation of this area as a Wildland Park provides opportunities for ecotourism initiatives. Some examples include the provision of interpretive, hiking, equestrian, and cross-country skiing trail systems, wildlife-viewing developments such as viewpoints, signs, viewing platforms and guided nature appreciation tours. A contiguous land base will also provide opportunities for local business ventures (e.g., concessions, bed-and-breakfast establishments, and service facilities). Commercial recreation and tourism development proposals will be directed to the public and private lands adjacent to the

wildland area. Public land adjacent to the planning area may be available for lease by commercial developers. Private land outside the planning area and in the hamlet of Fort Assiniboine may also accommodate commercial recreation and tourism development related to the provincial park and entire planning area.

Activities/Uses

Compatible activities within the Wildland Park include scientific study, non-motorized recreation trails, fishing, primitive camping, equestrian staging area, boating, picnicking, primitive and auto access day use, berry-picking, wildlife viewing, nature appreciation and photography. Camping facilities will be minimal and confined to those required to minimize the impact of camping in the area.

The following activities/uses are not compatible with the wildland park designation: OHV activity, auto-access camping, logging, domestic grazing, coal development, coal exploration, surface materials removal, industrial development, residential subdivisions and cultivation. Although OHV activity would not be permitted in the wildland park, one corridor--the Sandhills Trail--will be designated for snowmobile use through the park if it is required to access the Hamlet of Fort Assiniboine and to provide a linkage to other snowmobile trail networks in the area. Petroleum and natural gas exploration and development are not compatible within the wildland park but existing leases will be honored.

Management Guidelines

An ecosystem management approach should be used when managing these lands and lands adjacent to this area. Existing Registered Fur Management Areas (RFMAs) will be honored. Transfer with the intent to phase out current RFMAs will be permitted. Attempts would be made to find suitable alternative fur management areas or, alternatively, compensation may be considered by the Trapper Compensation Review Board.

Parks Guidelines are as follows: no seismic activity within the park. Parks will normally request as required a 200-m buffer of undisturbed vegetation, handcutting to 100 m and handstringing of geophones to the boundary of the park. Exceptions will be considered if it can be shown that there will be no negative impact on the natural resources. *New drilling is not permitted on disused wellsites where reclamation has begun.* Normally, access is not permitted through the park to sites outside of the park. A "no surface access" addendum will be placed on future subsurface sales. Existing commitments prior to park designation will be honored. Rehabilitation of some heavily impacted areas will be required. Some existing trails will be closed to future use and some new trails may be required particularly to provide loops of varying lengths. Rehabilitation of the access road constructed without authority on the southeast side of the park will be undertaken. Signage and brochures will be developed to aid and educate the public regarding the various uses of the designated trails. This may include different seasonal uses of the same trails. Facility development will be low-key in nature and will primarily focus on management of existing concerns i.e. establish fire pits in safe locations, some vault toilets and garbage bins to be located at central points. No commercial development within the park will occur.

3.5 Timeu Off-Highway Vehicle Recreation Area

Resource Description

The Timeu Off-Highway Vehicle Recreation Area covers 38 km² (14.8 mi.²) (see Figure 3). This portion of the planning area contains sandhills and intermittent wetlands. The LIRP identified sensitive wildlife habitat, Zone 2-Critical Wildlife, along the Timeu Creek. The off-highway vehicle area abuts the Zone 2-Critical Wildlife Zone on the northern boundary.

Rationale for Designation

Inclusion of lands north of S.H. 661 in the Access and Protection Plan enabled the planning team to consider lands for OHV use. The northern boundary of the area is the Critical Wildlife-Zone 2 along Timeu Creek; the eastern boundary is the Athabasca River; and the western boundary is the local road. All serve as easily enforceable boundaries. Various options were discussed for the southern boundary, however, with the safety concerns relative to crossing S.H. 661, it was decided that the area should extend only to S.H. 661.

Activities/Uses

Compatible activities in this legislative area include the following: scientific study, hunting, fishing, trapping, designated and random camping, berry-picking, wildlife viewing, hiking, logging, domestic grazing, minerals exploration and development, petroleum and natural gas exploration and development, coal exploration and development, surface materials removal and extraction, industrial development and commercial development. Wild rice operations are a recognized use of the lakes in the area.

Permissible activities include cultivation, commercial development and residential subdivisions. Equestrian use and OHV activity will be permitted on existing routes to be designated in cooperation with the OHV associations.

Management Guidelines

The *Alberta Timber Harvest Planning and Operating Ground Rules* will apply. In addition logging near recreation sites, trails and all weather roads use techniques that minimize the visual impact of logging. Terms and conditions will be set through the standard provincial government referral process for the following activities: minerals exploration, petroleum and natural gas exploration and development, coal exploration and development and surface materials removal. In addition to the standard terms and conditions, *development of necessary infrastructure (i.e., signs, gates to well sites, etc.) will be required to ensure safety of OHV users.* Minimal facility development will be undertaken in this area. Designation of trails and any required barricades or fencing for safety purposes will be undertaken in cooperation with ATV users of the area. Staging areas will be developed only to the extent that meets the needs of existing users. Safety concerns have been expressed by some ATV users regarding the high use of the area. Trail designation, signage and brochures will be implemented to help alleviate these concerns.

3.6 Lands North of Timeu Creek

This area covers 70 km² (27 mi.²) (Figure 3) and will be managed for critical wildlife habitat. Motorized access for organized events during Moose calving season will be discouraged. Random access will be permitted. Access restrictions (e.g., gating, seasonal timing constraints) will be applied to industrial access within this area. At some future date a bridge crossing may be developed. Wild rice operations are a recognized use of the lakes in the area.

3.7 Vega Natural Area

This area, located on east side of the Athabasca River, which encompasses 1 km² (0.6 mi.²) (Figure 3), has been designated as a natural area. Public input obtained from the review of this Access and Protection Plan will provide direction for the management of this area. Reclamation of the site will begin with the removal of the refuse below the viewpoint on the banks of the Athabasca River. Additional barricades will be placed to limit access to prevent illegal dumping of refuse. This area has been considered a candidate natural area since 1980.

4.0 ROAD ACCESS

Existing roads to and through the planning area provide access to all protected areas and to the Forest Land Use Zone. Integration of existing roads with the trail network system will ensure ease of use and safe travel throughout the planning area.

4.1 Road Description

Primary Highway # 33 provides direct access to the Holmes Crossing Forest Land Use Zone and Holmes Crossing Provincial Recreation Area is also accessible from Highway #33. Highway 33, commonly called the Grizzly Trail, provides access to goods and services within the hamlet of Fort Assiniboine.

S.H. 661 intersects the Fort Assiniboine sandhills and acts as a well-defined boundary on the north edge of the Fort Assiniboine Sandhills Wildland Park.

4.2 Klondyke Ferry Crossing

The natural ground slopes of S.H. 661 to the Klondyke Ferry Crossing are unstable. The County of Barrhead and the M.D.s of Woodlands and Westlock are in agreement to move the ferry, if feasible, and ensure that S.H. 661 is maintained as a secondary highway. The ferry crossing may be relocated to SW 2-63-4 W5M but the road will not follow the original proposed realignment. The crossing would meet the County of Barrhead's upgraded road on the east side of the river and then a connector road may be built on the west side of the river following the edge of the field on private land to join the current S.H. 661.

5.0 TRAIL ACCESS SYSTEM

The Access and Protection Plan recognizes the need to develop a trail access system to reduce conflicts between motorized and non-motorized recreation users. Development of a trail access system will ensure safe exit and entry points to access the roads within the planning area. New trails will be developed where necessary to accommodate the needs of users. User safety will be a primary concern for any trail improvements. Signage will be utilized to aid in user safety and enjoyment of the trails.

5.1 Off-Highway Vehicle Trails

The OHV trails will be designated to the north and west of the local county road in the Holmes Crossing Area. In the Timeu Off-Highway Vehicle Recreation Area, OHVs will be encouraged to use existing trails as signed. It is the intent of the Department of Environmental Protection to work closely with municipalities/volunteer, nonprofit and other interest groups. Where possible, partnerships, cooperative associations and other joint ventures will be created to establish a safe and efficient trail network in all areas. Responsibilities to demarcate and sign trails for safety and to manage and maintain trails for high-quality recreational experiences will be shared with the cooperative association. A combination of working agreements, recreational leases and/or revolving funds will be implemented to ensure marked trails are maintained. Volunteers will be an integral part of trail development, maintenance and grooming. Partnerships with organized OHV groups will be sought to locate, sign and maintain the trail network in this area.

5.2 Equestrian Trails

Equestrian trails in the Holmes Crossing Forest Land Use Zone will be designated south of the county road and east of the ecological reserve. Alberta Environmental Protection staff will attempt to create partnerships with commercial trail operators and nonprofit societies for the development and maintenance of these trails.

Portions of the original Klondyke Trail that lie within the Wildland Park will be designated as an equestrian trail. The Sandhills Trail, on the east edge of the park, and the Klondyke Trail loop will be designated as equestrian trails. The Sandhills Equestrian Trail and the Klondyke Trail within Fort Assiniboine Sandhills Wildland Park will be maintained by Environmental Protection staff and any joint venture that can be established. Appropriate partnerships may be created with nonprofit equestrian groups and or commercial trail-riding initiatives. The Klondyke Trail may be managed through the development of a working agreement with an interested historical foundation or association. A portion of fees collected at the park will be reserved for a revolving fund for the delivery and provision of recreational opportunities within the park such as the maintenance of the Klondyke and Sandhills trails.

5.3 Snowmobile Trails

Snowmobile trails will be designated in the Holmes Crossing Forest Land Use Zones through an Order in Council under Section 46 of the *Forest Act*. One extensive trail loop will be developed around the Holmes Crossing Ecological Reserve to accommodate winter snowmobile use as required. A snowmobile trail will be designated from the current ferry crossing through the Wildland Park if it is required to access the Hamlet of Fort Assiniboine or to provide a linkage to other nationally recognized snowmobile trails. All trails designated as OHV trails will be available for snowmobiles for winter use provided adequate snow cover exists. Extensive snowmobile trails will also be available in the Timeu Off-Highway Vehicle Area during the winter months.

5.4 Hiking/Cross Country Skiing Trails

Hiking and cross-country skiing will be accommodated throughout all of the designated areas. Hiking will be permissible throughout the Holmes Crossing Forest Land Use Zones on designated equestrian trails. Those trails designated for OHV use may be used by hikers at own risk and will be signed accordingly. Those portions of the Klondyke Trail not designated for snowmobile use will be available for cross-country skiing. Trails within the Wildland Park will be established for hiking. Some of these trails will be trackset for cross-country skiing in winter months.

5.5 Multiple Use Trails

The OHV trails may be used by equestrian users at their own risk. Equestrian trails within the Holmes Crossing Forest Land Use Zone and the Klondyke Trail and the Sandhills Equestrian Trail within the Wildland Park will also accommodate hiking in the summer. The trails will be available for snowmobiling in the winter. Mountain bike use is becoming increasingly popular and many of the trails in this area may be suitable for mountain bike use particularly in the Wildland Park. Unless specified, mountain bikes will be permitted on all trails.

6.0 SUPPORT FACILITIES--RECOMMENDATIONS

Minimal low-key campground and staging areas will be developed in conjunction with the trail network system to accommodate a variety of activities including OHV use, equestrian riding, hiking, picnicking, camping and other outdoor recreation activities. The development of these staging and camping areas will provide safe, enjoyable, outdoor recreation experiences and will help to mitigate the impact on the environment. Development of these facilities will be subject to budget constraints, however, they may be enhanced through partnership agreements.

6.1 Campgrounds

Although some camping areas will be available within the planning area, the Department of Environmental Protection will look to private operators to develop camping opportunities both inside and outside of the planning area (see Figure 3). The existing Holmes Crossing Provincial Recreation Area will remain open to accommodate both OHV and equestrian users. Other user groups such as those visiting the ecological reserve and stop-over motorists will also be welcome at this campground. The campground on the east side of the river currently operated by the County of Barrhead, will be operated as a group use area. The main campground for OHV users will be in the Timeu Off-highway Vehicle Recreation Area on the north side of S.H. 661. Primitive camping will be permitted on the islands northeast of Pemmican Island and southwest of the present Klondyke Ferry Crossing.

6.2 Day Use/Staging Areas

Staging areas will be developed and maintained as part of the working agreements established for each portion of the trail network.

Day Use Areas

One day use area will be developed within the wildland park for picnicking. A parking area will be included within the day use area.

Off-Highway Vehicle Staging Areas

There will be an OHV staging area in SW 29-61-6-W5M north of the Holmes Crossing Ecological Reserve for the unloading and loading of OHVs. Another such staging area will be developed in the Timeu Off-Highway Vehicle Recreation Area in S 1/2 16-63-4-W5M. A secondary staging area may be created in SE 17-63-4-W5M.

Equestrian Staging Areas

An equestrian staging area will be provided to the south of the county road in SW 26-61-6-W5M in the Holmes Crossing Area. Within the wildland park, possible sites for the equestrian staging area are north of the Clearwater Creek or at the south end of the equestrian

loop trail, midway between NW and NE 10-62-5-W5M. Final locations will be determined in cooperation with the affected parties.

Parking Areas

A parking area will be located in NW 20-61-6-W5M to accommodate hiking into the Holmes Crossing Sandhills Ecological Reserve. Another parking area will be located in NE 34-61-5-W5M to serve as a staging area for Pemmican Island. Consideration will be made for parking and access on the south side of the Wildland Park. Another staging area will be considered in NW-4-63-4-W5M.

6.3 Other Tourism Services

Appropriate commercial/tourism opportunities will be considered in the identified staging areas/facility nodes. These commercial operations will enhance accessibility into the Wildland Park, other designated areas, and forest land use zones.

Commercial operators will be encouraged to provide food, fuel, camping, and repair services for OHV and snowmobiles in or near the Timeu Off-Highway Vehicle Recreation Area staging area. Within the Wildland Park, opportunities for concessionaires will be limited to the provision of food concessions and firewood sales. The private sector will be encouraged to assist in the delivery of campgrounds within the planning area. Equipment rentals, bed and breakfast accommodations and other such operators will be directed to the staging areas/facility nodes or to public and private lands adjacent to the planning area. Other tourism services such as bird-watching/nature guiding, canoe outfitting and trail ride operations will be encouraged throughout the planning area.

7.0 PLAN IMPLEMENTATION AND MANAGEMENT

Now that designation of the protected areas and the forest land use zone is complete, designation and development of trails can begin. With the respective legislation in place, management of the protected areas and forest land use zones can also occur. To help manage these areas, the Government will seek to develop partnerships with local government and/or nongovernmental organizations.

7.1 Education

Education is a key component to the successful implementation of this plan. Programs that educate and encourage respect of the land will be encouraged. A good example of this would be the Tread Lightly program. Informing the public about changes to the management of the area will be important to the successful operation of this plan. Enforcement of the applicable

legislation will be carried out by the staff of Environmental Protection in cooperation with the local authorities.

7.2 Protected Area Designation and Management

Management of this area and implementation of this plan will occur through a variety of mechanisms (e.g. placement of signs, distribution of information, physical closures, enforcement and monitoring). Staff of the Department of Environmental Protection will ensure recreation users of the protected areas comply with the *Wilderness Areas, Ecological Reserves and Natural Areas Act* and *The Provincial Parks Act* and any subsequent management plans written for each respective area. There shall be no sale of Crown land within these designated areas. The forest land use zone and the designated Athabasca River Sandhills snowmobile trail will be monitored and enforced by staff of the Department of Environmental Protection. The effectiveness of the Access and Protection Plan will also be monitored on an ongoing basis by the participating land management agencies, non-government organizations (NGO's) who are volunteer stewards and the public-at-large.

7.3 Stewardship

Budgetary constraints and the Department of Environmental Protection's move to decentralize and regionalize services suggests the need to develop local partnerships and cooperative agreements to manage the protected areas, forest land use zone and the designated snowmobile trail. Applications will be accepted for Volunteer Stewards for the Holmes Crossing Sandhills Ecological Reserve and Vega Natural Areas. Similar stewards/partners will be sought to manage the other Access and Protection Areas. Where possible, stewardship of the protected areas and forest land use zones will be turned over to interested volunteer and other non-governmental agencies to reduce the involvement of the Alberta Government and to increase the role of local agents/authorities. User fee systems could be implemented to help generate revenue for maintenance and development of the areas.

General Administration

The Athabasca River Sandhills Access and Protection Plan will be implemented by the Northern East Slopes Environmental Resource Committee. The Department of Environmental Protection is responsible for the development of the recreation programs in the protected areas and forest land use zone and the ongoing management of these programs. Partnership agreements will be encouraged to assist in the management of the area.

The Access and Protection Plan will be reviewed on an ongoing basis to assess whether the plan's objectives are being met.

7.4 Amendment Procedures

Changes to any of the protected areas and any intents of the Athabasca River Sandhills Access and Protection Plan that would result in significant changes to the allowed resource uses or priorities will require amendments to the plan and the legislation of the affected area. An amendment to the plan may be required as the result of an annual review, government requests or a request from agencies or the public.

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GLOSSARY

Access and Protection Area An Access and Protection Area (APA) is an area where management of motorized recreational use must be considered in recognition of other concerns and an appropriate legislative mechanism is used to ensure protection and legitimize the intent, according to the Local Integrated Resource Plan, of that portion of the planning area.

Access and Protection Plan A plan to manage motorized vehicle access and use of a network of selected corridors through designation of trails and development of a system of legislative mechanisms to legitimize the intent of those zones outlined in the Local Integrated Resource Plan. An Access and Protection Plan would assess such items as types of vehicles, seasonal use and limits to motorized recreational access in an area. Planning would be done in consultation with the public.

Camping

Designated A designated-camping facility that is directly accessible by designated road or improved road and which may provide services such as electricity and pressurized water systems.

Primitive A camping area accessible only by non-motorized means.

Random An undesignated area used for camping that is accessible by any means.

Coal Development All activities and infrastructure development associated with the extraction and processing of known coal reserves.

Coal Exploration All activities associated with the search for coal reserves or seams.

Commercial Recreation and Tourism Development All activities and infrastructure associated with facilities for the general public, including fixed-roof accommodations such as lodges, hotels, apartments, bed and breakfasts, townhouses, cottages and commercial recreation activities involving facilities such as ski hills and golf courses, whether they are owned and/or operated by the public or private sector.

Cultivation Agricultural practices associated with preparing the soil for raising annual and/or forage crops.

Disposition A disposition is the authority granted by the Alberta Government to use public land for the purposes stated in the lease document. They may be long-term, as used with the sale of land, or may be more short-term as when rights to particular lands or resources, either surface or subsurface, are granted for a finite period of time. The most common uses of disposition are sale, lease, licence, permit or agreement.

Domestic grazing	All activities associated with the production and utilization of forage for domestic livestock.
Eastern Slopes Regional Resource Management Committee (<i>now referred to as Northern East Slopes Environmental Resources Committee</i>)	(I) This committee represents a regional director-level interdepartmental committee of provincial government agencies. The committee meets on a monthly basis.
Environmental Protection Executive Committee	An Assistant Deputy Minister-level committee of the services of Environmental Protection.
Eolian Deposits	Surface material transported and deposited by the wind.
Equestrian Use	Horseback riding on recreation routes that may or may not be maintained.
Extensive-dispersed-recreation (non-motorized)	Recreational activities that occur throughout a large area, which are not - confined to or require the repeated use of specific sites, and which do not require sustained management to maintain the recreational opportunity, e.g., wildlife viewing, backpacking, hunting, fishing, primitive camping.
Fire prevention (mechanized)	Activities that are intended to reduce the risk of a fire hazard or to minimize the destruction associated with a potential fire, e.g. fire breaks, ground clearing, access roads, controlled burn, plan, education.
Fishing	The removal of fish species, under a licence, for any purpose including commercial, recreational or domestic use and for management purposes.
Fishing (catch and release)	Sportfishing that requires, under regulations, the return of fish to the water source from which they were taken.
Forest land use zone (FLUZ)	Under section 46 of the <i>Forests Act</i> , the Lieutenant Governor in Council may make regulations (a) declaring any area of forest land to be a forest land use; (b) permitting, prohibiting, regulating or controlling uses of land in forest land use zones; (c) declaring any area of forest land to be a forest recreation area or forest recreation trail; (d) governing the use of forest recreation areas or forest recreation trails and prohibiting, regulating, or controlling activities in them; (e) establishing fees payable to the Minister for the use of forest recreation areas or forest recreation trails.
Grazing Lease (GRL)	Disposition area on public land which is suitable for the grazing of livestock. Leases are legislated under the <i>Public Lands Act</i> (RSA 1980, P-30) and are issued for public land in the Green and White Areas outside the Forest Reserve, usually for a term of 5 or 10 years. The lease allows the lessee exclusive use of the land for grazing purposes.

Guiding and outfitting	Licensed services (for gain or reward) provided by a guide/outfitter to clients wishing to fish, hunt or participate in a backcountry/wildland experience.
Hunting (non-motorized)	The stalking of any wild animal for recreational and management purposes or as a source of food. Motorized access is not permitted in the area.
Hunting (motorized)	The stalking of any wild animal for recreational and management purposes or as a source of food. Motorized access is permitted in the area.
Industrial access	Any industrial related road or route established for the exploration or development of resources. Industrial access may be temporary or permanent. Timing or access restrictions may apply.
Industrial Development	All activities and infrastructure associated with the development of an industrial base to accommodate the extraction, removal and processing of resources.
Insect and disease control	To monitor the forest resource and act upon early signs of insect infestation or disease; any activity used to prevent or control unwanted biological pests.
Intensive Recreation	High-density recreational use such as developed camping and picnic grounds, swimming beaches, ski hills, sky trams, golf courses and other sites or areas requiring continuous recreation management and other services to maintain the recreation opportunities.
Intensive-concentrated -recreation (non-motorized)	Recreational activities that require intensive or repetitive use of specific sites or require continuous management to maintain the recreational opportunity. These activities tend to be high-density in nature. Also included is any infrastructure or facility that provides or is required to support such activities. Examples include picnic grounds, play grounds, swimming beaches, ski hills, interpretive sites, recreational concessions, and staging areas.
Local Integrated Resource Plan (LIRP)	Policy level plans that address the management of provincial public land and resources. In integrated resource planning, the resource planning initiatives of various government agencies are compared and subsequently modified to achieve a planning product that is acceptable to all the involved agencies and the public.
Logging or Timber Operation	Any kind of activity involved in cutting, removing, manufacturing or marketing timber or primary timber products.
Minerals Exploration	All activities and infrastructure development associated with the development. The exploration, development and production of metallic and industrial minerals.

Motorized recreation (licensed vehicles)	Industrial access roads used by licensed highway vehicles, e.g. four-wheel drives, campers, motorhomes, trailers, trucks.
Mountain bikes	Use of non-motorized (non-mechanized) bicycles on, or off, recreation routes.
Non-motorized trails	Primitive and improved hiking and cross-country ski trails. These trails may be signed and maintained.
Non-Motorized Recreation	Recreational activities that occur throughout an area, which are not confined to or require the repeated use of specific sites, and which do not require sustained management to maintain the recreational opportunity, e.g., wildlife viewing, hiking, cross country skiing, snowshoes.
Off-Highway Vehicle (OHV)	Any motorized vehicle used for cross-country travel on land, water or snow, including four-wheel-drive vehicles, motorcycles, track vehicles and snow vehicles, but not motorboats (<i>Off-Highway Vehicle Act</i> , RSA 1980, c. 0-4).
Off-Highway Vehicle Activity	Use of motorized vehicles for cross-country travel on land, water or snow, including all-terrain vehicles, tracked vehicles, snow vehicles, motorcycles and hovercraft, but not motorboats.
Parabolic Sand Dune	A long scoop-shaped sand dune having a ground plan approximately the form of a parabola, with the horns pointing windward (upwind). Also known as a blowout dune.
Petroleum and Natural Gas	All activities and infrastructure development associated with the exploration, development or production of petroleum or natural gas.
Protective Notation	A restriction placed on public land by a government agency. Reasons for notations include surface resource management conservation, timber resource management, recreational resource management, fish and wildlife resource management, protection for adjacent land use, restriction of development areas, and study use. More than one agency may register a notation, but the most restrictive will determine the permitted land use.
Residential subdivisions	All activities and infrastructure associated with permanent housing subdivisions for residents.
Resource Management Area (RMA)	Areas used in integrated resource plans to divide a planning area into smaller units. An RMA has a common resource management intent.
Scientific study	Short- or long-term research requiring a protected study area.

Surface Materials	The commercial or local exploration, development and production of clay, marl, sand, gravel, silica sand, topsoil and peat.
Transportation and Utility Corridors	Linear land areas needed to concentrate roads and utilities (e.g., railways, pipelines, and communication and electrical transmission lines) and to provide access for resource use and development.
Transverse Sand Dune	A sand dune with a nearly straight ridge crest formed by the merger of crescentic dunes; elongated at right angles to the direction of prevailing winds, with a gentle windward slope and a steep leeward slope.
Trapping	The sustained-yield harvest of furbearing animals for commercial production of merchantable fur and for management purposes.
Volunteer Stewards	Non-government organizations may apply to become stewards for natural areas or recreation corridors on public land. This title recognizes them as caretakers of the corridor. Their role as a steward is to keep the trails clean and to assist government agencies in upgrading the corridor, when necessary. Volunteer stewards do not legally represent the Department of Environmental Protection in any capacity, and cannot assume any duties that place them in this position. Enforcement is the duty of those authorized to do so (e.g., Forest Officers, Fish and Wildlife Officers).