

# WAPITI SAND DUNES

## LAND USE ZONES

June 1998

# Wapiti Sand Dunes - Land Use Zones

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## INTRODUCTION

This document provides direction for the future use and management of the public lands known as the Wapiti Sand Dunes - a unique ecosystem and important public recreation area located south of the city of Grande Prairie. It updates and clarifies the management direction contained in the Wapiti-Grande Prairie Sand Dunes (1978) and Bear River-Wapiti (1986) Integrated Resource Plans.

This planning initiative was undertaken at the request of the County of Grande Prairie. Both the County<sup>1</sup> and AFRD-Public Lands, the provincial government agency responsible for managing the area, recognized the need for an updated land use zoning to reflect current conditions and demands and to provide clear direction for assessing land use and resource development proposals.

The land use zoning was developed in consultation with the County of Grande Prairie, the City of Grande Prairie<sup>2</sup>, and a public stakeholder group; it also reflects input from relevant provincial government agencies. The following considerations were taken in developing the land use zones.

1. The need to protect the integrity of the unique sand dunes ecosystem, including its wildlife populations.
2. The increasing importance of the area in providing a wide range of outdoor recreation opportunities.
3. The economic importance of the area's gravel deposits and the need to reclaim old pit areas to a desired end use.
4. The need for flexibility in allowing for future industrial and infrastructure development.
5. Provincial policy and legislation relevant to the planning area (see Appendix 1).
6. Coordination with municipal government planning.
7. Existing land use commitments; the management objectives contained in the integrated resource plans; the suitability of lands for their intended uses; and future trends and demands for use of the land and resources.

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<sup>1</sup> The County of Grande Prairie is the approving authority for development on private lands as well as for private development on public lands within the County.

<sup>2</sup> The Wapiti Sand Dunes planning area is located within the Joint City/County General Municipal Plan.

## LAND USE ZONES

The land use zones are shown on the Map. Along with an overall statement of intent, key management objectives are indicated for each zone; compatible, discretionary and incompatible activities for each zone are presented in the Table.

### I. FACILITY-BASED RECREATION

This zone consists of existing<sup>3</sup> recreation and miscellaneous leases that support facilities used for both commercial and non-commercial purposes; it also includes areas with potential for such use in the future.

Three blocks of land have been identified as suitable for future facility-based recreation; these involve lands that are least sensitive to disturbance (non-dune plain, small dunes and ridges, reclaimed lands), and can support buildings and related infrastructure.

1. SW 1/4 of Sec. 31, Twp. 70, Rge. 5 - W6: this quarter-section is currently held under reservation by the County of Grande Prairie to accommodate future expansion of Evergreen Park; this quarter-section will be added to their recreation lease.
2. Portion of the NW 1/4 of Sec. 26, Twp. 70, Rge. 6 - W6 located north of the County road.
3. Reclaimed lands: facility-based recreation and/or general recreation are the recommended end-uses related to reclamation of the existing sand and gravel extraction area (see Sand and Gravel Extraction).

#### Management Direction

**Intent:** Provide opportunities for commercial and institutional recreation that require the development of facilities.

#### Objectives:

1. Allocate future commercial or institutional leases to potential sites based on land suitability and compatibility with adjoining uses.
2. Utilize the natural environment and minimize the amount of land disturbed in the design and location of facilities.
3. Allow for the purchase of land required for commercial recreation ventures.

**Compatible Activities:** see Table

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<sup>3</sup> Each lease has been identified by number on the Map, Appendix 2 presents a brief description of the recreation and miscellaneous leases.

## II. NON-MOTORIZED RECREATION

The portion of the planning area west of Highway 40 is the zone of influence of the Wapiti Nordic Ski Club; the ski club operates a lodge facility and a network of cross-country ski trails which extend north of its recreation lease. This trail network is also used in the summer months for hiking, jogging, and mountain biking; such use is not compatible with use of the trails by motorized recreation vehicles such as snowmobiles or quads.

The intent is to manage these lands for non-motorized recreation use. Such a designation is also compatible with the activities associated with the Sugeema Boy Scout Camp and the Pineridge Church Camp.

### Management Direction

**Intent: Non-motorized recreation**

#### Objectives:

1. **Limit motorized vehicles to access roads leading to the recreation lease facilities and for that necessary for operation and management of the leases.**
2. **No new recreation leases will be granted in this zone (this does not preclude development of new facilities on the existing leases).**
3. **Protect the sensitive land areas (large dunes and ridges, river valley breaks) and wildlife habitat.**
4. **Protect the trumpeter swan nesting area (NW 1/4 of Sec. 27); maintain present surface access restrictions on resource development on this quarter-section.**

**Compatible Activities: See Table**

## III. GENERAL RECREATION

This zone includes all public lands located to the north of the present gravel extraction area and between Highway 40 and Resources Road, exclusive of those lands zoned for facility-based recreation, industrial, or country residential. This zone also includes lands located between Resources Road and the natural area, exclusive of the leases associated with Evergreen Park.

Much of the terrain in this zone is sensitive to disturbance - large sand dunes and ridges interspersed with wet organic soil areas. The zone contains numerous roads, trails, and utility rights-of-way, and is heavily used for a wide range of motorized and non-motorized recreation activities. Problems associated with illicit tree cutting, inappropriate use of OHVs, dumping of garbage and old vehicles, and random camping or squatting are prevalent.

Nine seasonal residences (cabins) are located along the southern boundary of this zone on the river terrace between Highway 40 and Resources Road. These residences are held under Miscellaneous Permits. An active grazing lease exists in the South ½ of Sec. 6, Twp. 71, Rge. 5 – W6, between Bear Creek and Evergreen Park. This lease is non-assignable and will terminate when the lessee stops active use of the land. Neither seasonal residential use nor livestock grazing will be appropriate uses for this zone in the long-term.

Recreation user groups have been strong advocates for better management and protection of this area. Coordinated trail development by organized user groups could enhance protection of the area. Staging areas and trail systems may be developed by user groups and/or municipalities by obtaining dispositions from the provincial government.

This zone will likely assume increasing significance as a recreation area, green belt or natural buffer between the industrial and facility-based recreation zones and the country residential areas. Also, the zone has potential for future municipal parks, with campsites operated and supervised by user groups in partnership with the municipal or provincial government.

### **Management Direction**

**Intent: Provide for a wide range of dispersed recreation activities consistent with maintaining the area primarily in a natural state.**

#### **Objectives:**

- 1. Enhance protection of the area and promote cooperation and joint stewardship efforts with volunteers and recreation user groups.**
- 2. Allow for use of trail systems and appropriate camp/picnic or staging areas to enhance the quality of recreational use and protection of the area.**
- 3. Retain the policy, as outlined in the Wapiti-Grande Prairie Sand Dunes IRP (1978), to phase out, in the long-term, the existing Miscellaneous Permits for seasonal residences (cabins).**

**Compatible Activities: See Table**

## **IV. SAND AND GRAVEL EXTRACTION**

The gravel deposits located on the Wapiti River terraces are of economic significance to the region; the development of this scarce resource will likely continue for some time in the future.

The sand and gravel extraction zone consists of the current operating area and a reserve area for future gravel extraction.

Current operations are on surface material leases held by private companies and on areas assigned for use by Alberta Transportation and by the County of Grande Prairie. There is an urgent need for coordinated action by all the operators, private or public, to reclaim several old pits to a desired end use. The river terrace and valley breaks are an attractive landscape; effective reclamation could provide a valuable area for facility-based and general recreation use in the future.

The east Wapiti gravel reserve is located on a terrace along the river in the southeastern portion of the planning area (see Map). This deposit is estimated to contain over 2 million cubic metres of coarse sandy gravel, with an estimated depth of 5 metres and with 0.5 metres of overburden (ARC, 1980). No extraction of any surface material has taken place to date and the area remains inaccessible to conventional motor vehicles.

### **Management Direction**

**Intent: Sand and gravel extraction**

**Objectives:**

- 1. Reclaim existing gravel pits according to comprehensive reclamation plans<sup>4</sup> that would identify areas for immediate, medium, and long-term reclamation, and would specify how these areas are to be reclaimed to end uses compatible with the overall public vision for the Wapiti Sand Dunes.**
- 2. Delay development of the reserve area until significant and effective reclamation of pits has taken place in the current operating area (Appendix 3).**
- 3. Access to the East Wapiti gravel reserve should be along the north side of the river and through the Weyerhaeuser property; this would provide security for the private property and controlled access would mitigate the impact on wildlife populations. Weyerhaeuser will be directly involved in the planning of access through their property and implementation of security measures.**

**Compatible Activities: See Table**

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<sup>4</sup> To be developed cooperatively by the private operators, Alberta Transportation, and the County of Grande Prairie.



## **V. COUNTRY RESIDENTIAL**

A strip of land located on both sides of the County road in NE ¼ of 26-70-6-W6, and west of the existing subdivision on private land, is zoned for future subdivision for country residences. The terrain involved - non-dune plain, small dunes and ridges - is suitable for this type of development.

**Intent: Private land country residential**

### **Objectives:**

- 1. Development to take place according to the policies and criteria set out in municipal plans.**
- 2. Development plans should provide north-south public access through the future subdivision in conjunction with the existing and proposed trail system for the General Recreation zone.**

## **VI. MUNICIPAL**

**Intent: This is a special land use zone and includes lands held by the City of Grande Prairie for the operation of a water intake and treatment facility.**

## **VII. TRANSPORTATION AND UTILITY CORRIDORS**

**It is recommended that further major infrastructure development in the planning area be confined to three corridors - Highway 40, Resources Road, and the City of Grande Prairie's waterline.**

## **VIII. INDUSTRIAL**

Given the anticipated future growth of natural resource-based and other industry in the Grande Prairie area, it will be difficult to find suitable industrial sites (location, infrastructure) south of the city. In recognition of this need, two blocks of public land within the planning area have been zoned for private land industrial use.

- 1. A block of land located south of the Correction Line road (across from the County Industrial Park), and extending in a strip along the western side of Resources Road to the northern boundary of the Wapiti Shooters' Club recreation lease (see Map).**

Development of the northeastern corner of this block, which contains a wet organic soil area, will be contingent upon the maintenance of natural water flow patterns.

2. A block of land located immediately west of the Weyerhaeuser property between the railway and the Wapiti River.

This block contains considerable infrastructure - easements for roads, powerlines, pipelines; two wellsites; active surface material leases, and reservations on the land for surface material and quarriable mineral potential and for potential extraction sites.

### **Management Direction**

**Intent: Private land industrial development.**

#### **Objectives:**

1. Development to take place according to policies and criteria set out in municipal plans.
2. Maintain natural drainage patterns.
3. Protect the river break areas and thereby maintain a wildlife travel route.
4. Design development areas to maximize use of existing vegetation and to provide buffers along roadways and along the river.
5. Allow for the purchase of land required for industrial development ventures.

## **IX. NATURAL AREA**

All lands in this zone are reserved as a candidate Natural Area<sup>5</sup>. The primary landscape features are sand dunes, wet depressional areas (treed and shrub/sedge fens), small ponds, an undulating aeolian sand plain, and river valley breaks and terraces. This is a unique ecosystem, relatively intact and largely inaccessible; it is also fragile, with soils and vegetation highly sensitive to disturbance. It is also an important wildlife area, with diverse habitats for ungulates, furbearers, ducks, wading birds (sandhill cranes) and shorebirds.

The natural area is presently used for a variety of dispersed outdoor recreation activities, including hiking, nature appreciation, horseback riding, cross-country skiing, snowshoeing, hunting, primitive camping, berry-picking, snowmobiling and OHV use. Most recreational use, both motorized and non-motorized, occurs in the western portion of the area where most of the roads and trails exist. The natural landscape features, wildlife, and recreation potential of this area will likely assume an increasing importance and value due to its proximity to a rapidly growing urban centre.

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<sup>5</sup> Natural Areas are parcels of land containing representative, special, or sensitive landscape features which are set aside to protect natural values and to provide opportunities for nature appreciation, education, and dispersed outdoor recreation activities.

This largely intact sand dunes/wetland complex was identified as an International Biological Program site in 1969. The level of protection was upgraded in 1984 with the placement of a reservation on the land for a Recreation Natural Area.

This reservation has allowed the area to be managed for the protection of its unique natural features and recreation potential. Petroleum and natural gas exploration and development activities such as seismic line cutting, well drilling, and pipeline construction have been subject to operational conditions designed to minimize disturbance of soil and vegetation, and to restrict the creation of new access. An active grazing lease extends into the Natural Area near the Wapiti River-Bear Creek confluence. The portion of this lease within the Natural Area is non-assignable; it will also terminate when the lessee stops active use of the land.

### **Management Direction**

**Intent: Maintain the area in a natural state**

#### **Objectives:**

- 1. Protect the unique and sensitive natural features by minimizing the disturbance of soil and vegetation.**
- 2. Maintain the current surface access restrictions on petroleum and natural gas exploration and development; Appendix 3 presents the recommended operating guidelines.**
- 3. Maintain or increase wildlife populations and diversity and minimize loss of key habitat.**
- 4. Provide opportunities for dispersed outdoor recreation activities with no expansion of the existing trail network (unless specified under strict guidelines in a detailed management plan).**
- 5. Recommend the designation of the natural area zone as a provincial Natural Area; following such designation, develop a management plan involving the public, the volunteer stewards, recreational users, municipalities and the province. The management plan should consider the size of the recreation<sup>6</sup> and conservation sub-areas<sup>7</sup>, and the designation of trails for OHV, snowmobile, and equestrian use; also guidelines for any further expansion or enhancement of trails.**

**Compatible Activities: See Table**

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<sup>6</sup> Conservation of the natural features remains a priority, but allows for extensive recreation that is not facility-based.  
The management emphasis is placed on the protection of the natural features.

## APPENDIX 1

### LEGISLATIVE AND POLICY FRAMEWORK

Various provincial government agencies administer policy and legislation and associated regulations to manage provincial public land and resources. The following policy and legislation is the most relevant to the Wapiti Sand Dunes planning area.

#### **Public Land Administration in Alberta**

Provincial public land is administered as White Area or Green Area. The Wapiti Sand Dunes planning area lies within the White Area.

#### **Public Lands Act**

#### **Forest Act**

#### **Municipal Government Act**

#### **Mines and Minerals Act**

#### **Wilderness Areas, Ecological Reserves and Natural Areas Act 1984**

#### **Environmental Protection and Enhancement Act 1994**

#### **Fish and Wildlife Policy for Alberta**

#### **Alberta Special Places**

#### **Forest and Prairie Protection Act**

#### **The Water Act**

#### **Wetlands Policy**

#### **Alberta Tourism Recreational Leasing (ATRL) Process**

## APPENDIX 2

### FACILITY-BASED RECREATION ZONE - EXISTING LEASES

1. Evergreen Park (Miscellaneous and Recreation leases)

Lessee: County of Grande Prairie

Type: Commercial non-profit

Purpose: fairgrounds complex - rodeo, concerts, horse racing, trade fairs

2. Wapiti Nordic Ski Club (Recreation lease)<sup>1</sup>

Type: Commercial non-profit

Purpose: Nordic ski facility - lodge, system of trails

3. Camp Tamarack (Recreation lease)

Lessee: Camp Tamarack Association

Type: Commercial non-profit

Purpose: Group outdoor recreation facility (including facilities for the disabled)

4. Wapiti Shooters Club (Recreation lease)

Type: Commercial non-profit

Purpose: Shooting range, archery, picnic and camping

5. Grande Prairie Church of Christ (Recreation lease)

Type: Non-commercial

Purpose: Pineridge Church (Recreation lease)

6. McLaurin Baptist Church (Recreation lease)

Type: Non-commercial

Purpose: Camp Wapiti church camp

7. Sugeema Boy Scout Camp (Recreation lease)

Type: Non-commercial

8. Belford McKone Miscellaneous Lease

A 30-year old permanent residence on 3.5 ac. - current application for Private Land Sale

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<sup>1</sup> See non-motorized zone

## APPENDIX 3

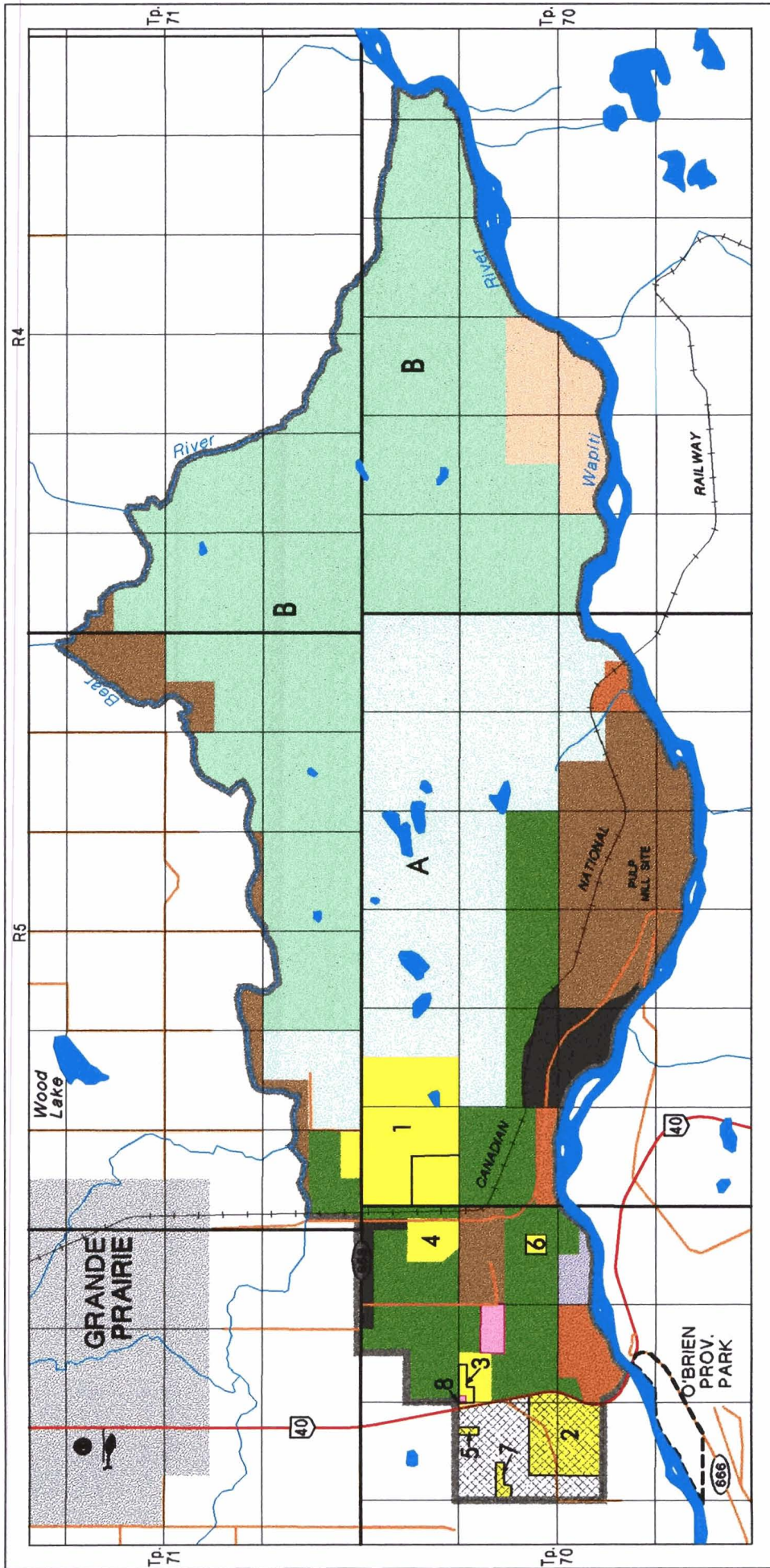
### RECOMMENDED OPERATIONAL GUIDELINES FOR PETROLEUM AND NATURAL GAS EXPLORATION AND DEVELOPMENT

**Seismic:** All new seismic lines are restricted to a line of sight (maximum 0.5 m wide). No trees over 20 cm in diameter are to be cut. Portable hand drills or conventional heli-portable is permitted. Some limited tree removal using hand-cutting may be permitted at points necessary to facilitate heli-portable operations. Clearing access for heli-portable is restricted to limbing of trees. Conventional portable equipment on existing lines is permitted.

**Gravel:** The gravel deposit north east of Weyerhaeuser property may be developed once 50 percent of the total area of the existing private gravel leases within the planning area has been reclaimed. Access will need to be constructed from the southwest, entering the area through the Weyerhaeuser property in order to restrict new public access. A Conservation and Reclamation Plan will need to be submitted prior to any excavation.

**Wellsites:** Construction of preliminary access and wellsites will only be permitted under frozen ground conditions. No activity from February 1 to April 30 unless approved by the affected govt. agencies. Preliminary access is considered temporary and should take advantage of open muskeg or meadow areas, and existing trails. Access routes should be "frozen in" and may involve the construction of ice roads thick enough to support equipment travel. Access routes will not be upgraded without special approval from Public Lands and permanent access will be permitted for light traffic only. Entire wellsite area should be frozen down with clean water. Rigs and associated buildings and tanks should sit on impermeable liners. No sumps are permitted on site or within the planning area. All fluid should be retained in tanks. Any spills must be cleaned up immediately. Sites are to receive minimal topsoil stripping and grading. All woody debris is to be stockpiled and retained for future use. Size of wellsites may be reduced or their shape changed to fit the land contours, in all cases the area required for a well pad is restricted to the bare minimum necessary. Location of wellsites should be strategically selected to minimize impact both visually and physically. New wellsites will be encouraged to use existing pads.

**Pipelines:** Regulated pipelines are not permitted. Gathering lines for wells that are not located within the Natural Area are not permitted. Construction is permitted only during frozen ground conditions. Trees on the sand dunes are to be hand cleared and kept to as minimal width as possible. Rollback of woody debris will be required. Any blading should be above the ground surface. Dunes or ridges are to be crossed at their lowest point. Bore through dunes or ridges wherever possible. A tree screen should be maintained at sand dune crossings to minimize access and visibility. Sign all existing trail crossings while construction is in progress. Construct the pipeline to fit the contours of the land, ie. follow along muskeg edges rather than a straight line up and over a sand dune.



# WAPITI - SAND DUNES

## LAND USE ZONES

- Country Residential
- Municipal
- Industrial
- Natural Area
- A. Recreation
- B. Conservation
- Private Land

- Non - Motorized Recreation
- General Recreation
- Facility - Based Recreation
- Sand and Gravel Extraction
- Sand and Gravel Reserve

SCALE 1 : 100 000



Planning Area Boundary

Produced by: Alberta Environmental Protection, North West Boreal Region. © May 1998

LAND USE ACTIVITY	NATURAL AREA		FACILITY BASED RECREATION	NON - MOTORIZED RECREATION	GENERAL RECREATION	SAND & GRAVEL	MUNICIPAL	INDUSTRIAL
	RECREATION	CONSERVATION						
Non-Motorized Recreation <sup>1</sup>	✓	✓	✓	✓	✓	✓	✓	Conditional
Mountain Biking	✓	✓	Conditional	✓	✓	✓	✓	Conditional
Horseback Riding	✓	✓	Conditional <sup>2</sup>	✓	✓	✓	✓	Conditional
Snowmobiling	✓	✓	Conditional	X	✓	✓	✓	Conditional
OHV	✓	Conditional <sup>3</sup>	Conditional	X	✓	✓	✓	Conditional
Primitive Recreation Camping(short term) <sup>4</sup>	✓	✓	✓	✓	✓	✓	✓	X
Serviced Campgrounds	X	X	✓	X	Conditional	Possible End Use	X	X
Commercial Recreation Facility Development <sup>5</sup>	X	X	✓	✓	X	Possible End Use	X	X
Institutional Recreation Facility Development	X	X	✓	✓	X	Possible End Use	X	X
Hunting	✓ <sup>6</sup>	✓	Bow & Arrow	Bow & Arrow	Bow & Arrow	Bow & Arrow	Bow & Arrow	Bow & Arrow
Shooting	Conditional <sup>7</sup>	✓	X <sup>7</sup>	X <sup>7</sup>	X	X <sup>7</sup>	X	X
Trapping	Conditional	✓	X	X	X	X	X	X
Livestock Grazing	X	Conditional <sup>8</sup>	X <sup>2</sup>	X	Conditional <sup>8</sup>	X	X	X
Selective/Sanitation Logging	✓	✓	✓	✓	✓	✓	✓	✓
Seedling/Young Tree Transplants <sup>9</sup>	Conditional	Conditional	Conditional	Conditional	Conditional	Conditional	Conditional	✓
Linear Development Powerlines, Pipelines, etc	Conditional	Conditional	Conditional	Conditional	Conditional	✓	✓	✓
Petroleum & Natural Gas Exploration & Development.	Conditional	Conditional	Conditional	Conditional	Conditional	✓	✓	✓
Minerals	Conditional	X	X	X	X	✓	✓	✓
Coal	X <sup>10</sup>	X	X	X	X	✓	✓	✓
Sand & Gravel Extraction	X	X	X	X	X	✓	✓	✓
Peat Moss Extraction	X	X	X	X	X	✓	X	✓
Commercial Development-Subdivision <sup>11</sup>	X	X	X	X	X	X	X	✓
Industrial Development	X	X	X	X	X	X	X	✓
Residential Subdivision	X	X	X	X	X	X	X	X
Seasonal Residences - cabins/cottages <sup>12</sup>	X	X	X	X	X	X	X	X
Sanitary Landfill	X	X	X	X	X	X	X	Conditional <sup>13</sup>
Other Waste Disposal	X	X	X	X	X	X	X	Conditional <sup>13</sup>
Agriculture	X	X	X	X	X	X	X	X

COMPATIBLE ACTIVITIES BY LAND USE ZONE



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1. Includes hiking, nature appreciation, cross - country skiing, snowshoeing, picnicking, berry-picking.
  2. Horses are permitted on facility recreation leases but not for grazing purposes.
  3. Restricted to existing trails.
  4. No open fires are permitted without a permit from the County of Grande Prairie.
  5. Leasing of crown-owned land to private individuals or groups for commercial recreation (profit or non-profit).
  6. Hunting is restricted to bow and arrow in that portion of the planning area west of Range 4.
  7. No discharge of firearms is permitted in that portion of the planning area west of Range 4 with the exception of facilities associated with the Wapiti Shooters Club and the Wapiti Nordic Ski Club which provide for such use.
  8. Existing grazing leases will be honored but non-assignable.
  9. Removal of seedlings/young trees for transplanting purposes is allowed on linear rights-of-way.
  10. May be reviewed at a later date.
  11. Includes developments such as hotels, motels, townhouses, apartments.
  12. Existing seasonal residences (cabins) held under MLP will be phased out in the long-term.
  13. Subject to provision of existing environmental & public health legislation.