

Recommended Land Use Guidelines for Protection of Selected Wildlife Species and Habitat within Grassland and Parkland Natural Regions of Alberta

Wildlife Land Use Guidelines

Purpose

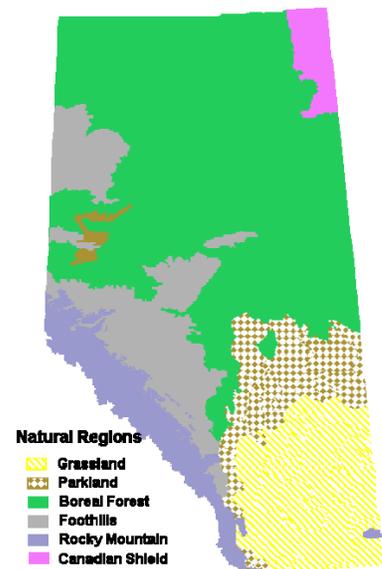
These guidelines are designed to help land users minimize, or avoid, potential adverse effects on selected wildlife and wildlife resources when conducting activities on public and private lands within the Grassland and Parkland natural regions of Alberta.

The guidelines should be applied with judgment that considers the specific physical and vegetative characteristics of the site, the types of existing land use at the site, and the types of land use proposed by the development.

Background

Many land use activities can have negative impacts on the quantity and quality of wildlife and wildlife habitat. To retain healthy, functioning ecosystems in Alberta, both now and in the future, it is important to manage the timing and location of human developments and resource extraction activities in ways that minimize adverse effects. Activities that cause a lasting physical alteration to vegetation, soils, and surface/subsurface waters are of particular concern.

The Fish and Wildlife Division of Alberta Sustainable Resource Development (SRD) has developed setback distance guidelines to provide effective management for selected wildlife species within the Grassland and Parkland natural regions of Alberta. With the exception of a few minor changes, these timing and setback guidelines have been used as the basis for Fish and Wildlife Division input to the Public Lands Division land use referral system since 1996.



The guidelines presented here focus on species within the prairie and parkland natural regions in Alberta that have been identified as:

- at risk of extirpation
- may be at risk of extirpation
- sensitive and requiring special attention

These classifications are based on the General Status of Species in Alberta. For details, search for General Status of Alberta Wild Species on the SRD website: www.srd.alberta.ca

The present guidelines are general in nature because they apply throughout all of the Grassland and Parkland natural regions. In addition, industry can continue to play a vital role by conducting predevelopment surveys for wildlife species included in the table below, and by supporting wildlife research that will help to develop better guidelines.

Wildlife Legislation and Regulation in Alberta

The Government of Alberta has the responsibility and authority for the protection and management of wildlife on all land in Alberta, irrespective of whether these lands are owned by the Crown or by private interests. Land and resource users should be aware of these legislated and regulatory provisions under the *Wildlife Act* and *Wildlife Regulation*.

The Minister responsible for Fish and Wildlife Management has the authority under the *Wildlife Act* to influence and control human activities that may have direct adverse effects on the populations and habitat of wildlife species. The *Wildlife Act* [Sec. 103 (1) (u)] enables the Minister to establish regulations, "...respecting the protection of wildlife habitat and restoration of habitat that has been altered, and enabling the Minister to order persons responsible for the alteration to restore the habitat and to charge them with the cost of it if they have failed to effect the restoration."

Section 36(1) of the *Wildlife Act* states that: A person shall not willfully molest, disturb or destroy a house, nest or den of prescribed wildlife or a beaver dam in prescribed areas and at prescribed times.

Section 96 of the *Wildlife Regulation* states: Section 36(1) of the Act applies

- (a) to the nests and dens, so far as applicable, of
- (i) wildlife animals that are endangered animals, throughout Alberta and throughout the year
 - (ii) migratory game birds, migratory insectivorous birds and migratory nongame birds as defined by the Migratory Birds Convention Act (Canada), throughout Alberta and throughout the year, and
 - (iii) snakes, except prairie rattle snakes, and bats, throughout from September 1 in one year to April 30 in the next,
 - (a.1) to the dens of prairie rattle snakes used as hibernacula, throughout Alberta and throughout the year
- (b) to the houses and dens of beaver, on any land that is not privately owned land described in section 1 (1)(m)(i) or (ii) of the Act throughout the year, and
- (c) to the houses, nests and dens of all wildlife, in a wildlife sanctuary throughout the year, and
- (d) to the nests of game birds, in a game bird sanctuary throughout the year.

The *Wildlife Act* and *Wildlife Regulation* can be viewed in their entirety at the Queens Printer website. Search the Laws Online/Catalogue at: www.qp.alberta.ca.

Information in the Table

The guidelines presented in the table below were developed to identify general set back distances and timing restrictions that should apply to various land use/surface disturbance activities, including resource exploration and development, within the Grassland and Parkland natural regions of Alberta. These guidelines were created based on a combination of literature review and extensive consultation with

- wildlife managers
- wildlife species experts
- endangered species recovery teams, and
- other biologists from industry, government, and academia with field experience in managing sensitive wildlife

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The present guidelines will be refined over time on the basis of ongoing experience in the application of the guidelines, plus consultations with other stakeholders and the acquisition of new research information as it becomes available. If you would like more information on any the recommendations presented in the Table, please contact your local FWD office.

The recommended guidelines in the accompanying table were designed to provide protection and maintenance of wildlife key areas/sites, and to provide for wildlife use of those key locations. Wildlife key areas/sites are defined as, "areas/sites that play an essential role in ensuring the continued survival of local and regional populations of the identified wildlife species or species group." Wildlife key areas/sites in the Grassland and Parkland natural regions are very strongly correlated with the occurrence of native prairie and parkland vegetation. Information on the location of native vegetation within the Grassland Natural Region can be obtained from the Alberta Prairie Conservation Forum website: www.albertapcf.org.

The restricted activity dates in the guidelines are based on existing knowledge and research about the seasonality of species' breeding, nesting, and rearing activities. Restricted activity dates are broad enough to accommodate most year-to-year climatic fluctuations and still provide adequate time for wildlife use of key areas/sites. However, in specific cases, where young are known to still be in burrows or nests outside the restricted activity dates that have been identified, the end date may need to be extended. Within each species, some individuals choose to breed or nest near existing disturbances. In these cases, it may be possible to reduce the setback distance that is required.

Setback distances are based on what experts believe are the thresholds at which human disturbance is likely to cause degradation and possible abandonment of key wildlife areas/sites. Wildlife species have variable tolerances for disturbance intensities, with higher levels of disturbance requiring greater mitigation. Human activities have been divided into three disturbance impact categories (low, medium and high) with setback distances increasing from low to high.

- Low impact disturbances are often infrequent, low-impact (e.g., land surveying), habitat is not being modified by the activities, and the duration of the activity is relatively short (i.e., hours).
- Medium impact disturbances are usually high in frequency, may use vehicles and other equipment, and may involve small habitat modifications (e.g., seismic drilling) and the duration is relatively long (i.e., days).
- High impact activities generally involve disturbances that are high in frequency, involve vehicles and machinery, permanently modify the habitat by altering vegetation, soils and perhaps hydrology (e.g., buildings, roads) and the impact is long term (i.e., more than 10 years).

Setback distances vary based on the degree to which vegetation and soils will be affected by the proposed development or resource extraction:

- Activities that either create permanent structures, or that affect soils, or that are expected to have long-term effects on vegetation or hydrology (long-term is defined as effects that persist for greater than ten years) have the largest setback distances.
- Activities that have little or no effects on vegetation or soils have the smallest setback distances.

To reduce the cumulative effects of developments on wildlife, attempts should be made to place all new human developments in locations that minimize vegetation, soil, and hydrology disturbance. This could include areas where the soils and vegetation have been disturbed by previous developments. In addition, developments should attempt to exceed the distances recommended below.

Based on existing vegetation, human development, and land uses in each specific area, resource managers may decide to allow human development or resource extraction closer to the wildlife key area/sites than the recommended below. However, if it is decided to allow activities closer than the setback distances recommended, a broad-scale, long-term, scientifically-rigorous monitoring program should be implemented to ensure that wildlife species are not detrimentally affected by these alternative management practices.

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Recommended Restricted Activity Dates and Setback Distances by Level of Disturbance					
Species	Location	Time of Year	Level of Disturbance		
			Low	Medium	High
Great Plains Toad and Plains Spadefoot	Class III wetlands on Native Prairie	Year round	100 m	100 m	100 m
Northern Leopard Frog	Breeding ponds	Year round	100 m	100 m	100 m
Eastern Short Horned Lizard*	Habitat	Year Round	100 m	100 m	200 m
Bull Snake, Western Hognose Snake, Prairie Rattlesnake	Hibernacula	Year around	200 m	200 m	500 m
	Rookery	March 15 th – October 31 st November 1 st - March 14 th	200 m 50 m	200 m 50 m	200 m 200 m
Greater Sage Grouse*	Leks	Year around	3200 m	3200 m	3200 m
	Habitat	Year-Round	1000m	1000 m	1000m
Sharp-Tail Grouse	Leks	March 15 th – June 15 th	500 m	500 m	500 m
		June 16 th – March 14 th	100m	100 m	500m
Peregrine Falcon, Bald Eagle, Golden Eagle, Prairie Falcon, Ferruginous Hawk	Nesting sites	March 15 th – July 15 th	1000 m	1000 m	1000 m
		July 16 th – March 14 th	50 m	100 m	1000 m
Burrowing Owl	Nesting sites	April 1 st – August 15 th	200 m	500 m	500 m
		August 16 th –October 15 th	200 m	200 m	500 m
		October 16 th – March 31 st	50 m	100 m	500 m
Colonial Nesting Birds: American White Pelican, Great Blue Heron*	Nesting sites	April 1 st – August 31 st	1000 m	1000 m	1000 m
		September 1 st – March 31 st	100 m	100 m	1000 m
Piping Plover waterbodies*	Nesting sites	April 15 th – July 31 st	100 m	200 m	200 m
		August 1 st – April 14 th	100 m	100 m	200 m
Ord's Kangaroo Rat**	Nesting sites (dens)	Year Round	50 m	100 m	250 m
Threatened and Endangered Plants	Habitat	Year Round	30 m	30 m	300 m
Swift Fox	Den	February 16 th – July 31 st	500 m	500m	500 m
		August 1 st – February 15 th	50 m	100 m	500 m
Long-billed Curlew Upland Sandpiper Mountain Plover Short-eared Owl Sprague's Pipit	Active nest and surrounding habitat	April 1 st - July 15 th	100 m	100 m	100 m

*These species habitats are mapped

** All activity should conclude before sunset and not use artificial illumination within 1000 meters of Ord's Kangaroo Rat range.

Fish & Wildlife Division recommends that there be no industrial activity within 100 m of water bodies (wetlands, ponds, creeks, rivers, lakes, including dry water bodies), or within 100 m of the crest of any coulee associated with riparian areas or unique geographical features like hummocky moraines, because of extensive wildlife use.