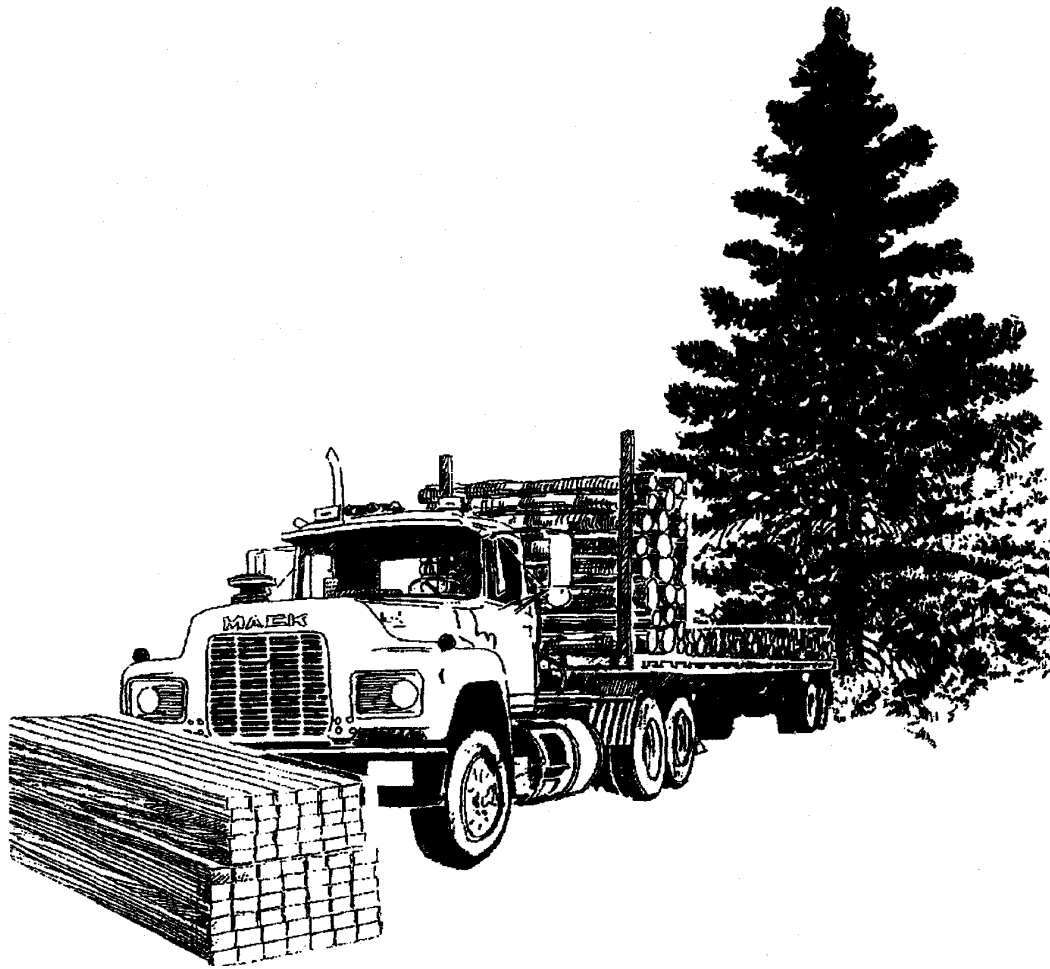


MANITOBA NATURAL RESOURCES

CONSOLIDATED BUFFER MANAGEMENT GUIDELINES



Manitoba
Natural Resources

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PREAMBLE

Manitoba Natural Resources realizes the need for clear and consistent buffer management guidelines. All existing buffer management guidelines have been reviewed and consolidated into this document. These consolidated buffer management guidelines will be applied consistently throughout the province.

Other Manitoba Natural Resources' guidelines are still in effect and will be applied in planning and conducting timber harvesting activities. For a complete list of MNR guidelines see Appendix 1.

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MANITOBA NATURAL RESOURCES CONSOLIDATED BUFFER MANAGEMENT GUIDELINES

INTRODUCTION:

Manitoba's forests contain a variety and abundance of natural resources. Timber is one important economic product but there are other valuable resources such as fish, wildlife and water. Forests provide Manitobans with intangible values such as wilderness environments, recreational opportunities, rare or special features and aesthetic enjoyment.

Manitoba's forests must be managed in a sustainable manner to meet the needs and demands of all Manitobans. When planning forestry operations, other resource values must be recognized and integrated into the planning and conducting of harvesting and renewal activities. Manitoba Natural Resources has developed several sets of resource specific guidelines in different documents. This document consolidates only the buffer management elements of those various guidelines. The other elements of those guidelines still apply. For a complete listing of applicable Natural Resources guidelines see Appendix 1.

DEFINITION AND PURPOSE OF RESOURCE BUFFERS:

A resource buffer is defined as a strip of land that is managed to reduce or eliminate the impacts of land use practices on sensitive areas or natural features. As such the primary objective of the Manitoba Natural Resources Buffer Management Guidelines is:

To provide field managers and the forest industry with the minimum standard buffer zone widths and the conditions for operating within buffers that maintain the integrity of sensitive areas or natural features.

As long as the integrity of the sensitive area or natural feature is maintained a buffer may be actively managed. A variety of management prescriptions are available and can be applied. These prescriptions will take into account such factors as vegetation, slope, soil, wildlife and fisheries values, unique features, line of sight, recreational interests, location, and time of year.

APPLICATION AND IMPLEMENTATION OF BUFFER MANAGEMENT GUIDELINES:

The forest industry is expected to adhere to MNR Buffer Management Guidelines in timber harvest planning and operations. Manitoba contains a wide range of forest types, site conditions and other features. The Buffer Management Guidelines provide flexibility to accommodate the various resource values and site conditions in Manitoba. In reviewing and approving the Annual Operating Plans, Integrated Resource Management Teams (IRMTs), may vary the guidelines based on site specific conditions.

TABLE #1: WATERCOURSE CLASSIFICATION

STREAM TYPE	PHYSICAL FEATURES	WATER REGIME	RESOURCE VALUES
CLASS 1 STREAM	<ul style="list-style-type: none"> - Gross drainage area of 50 sq. km or greater. - Would include smaller streams containing commercial or sport species. 	<ul style="list-style-type: none"> -Continuous flow 	<ul style="list-style-type: none"> - Important food production for fish. - Provide spawning, rearing and overwintering habitat for fish. - Wildlife habitat. - Recreational values.
CLASS 2 STREAM	<ul style="list-style-type: none"> - Small streams with gross drainage area of less than 50 sq. km. - Distinct banks and channel. 	<ul style="list-style-type: none"> -Continuous or seasonal flow. 	<ul style="list-style-type: none"> - Areas of fish food production. - Spawning habitat. - Riparian area provides wildlife habitat and wildlife travel corridor.
PRODUCTIVE LAKES	<ul style="list-style-type: none"> - Permanently filled water bodies. 	<ul style="list-style-type: none"> - Continuous flow through. - Surface usually frozen in winter. 	<ul style="list-style-type: none"> - Important fish bearing habitat. - Important wildlife habitat. - Recreational or aesthetics values.
SMALL LAKES AND PONDS	<ul style="list-style-type: none"> - Spring or runoff fed. - Frequently winter kills. - No large fish species. 	<ul style="list-style-type: none"> - Permanent or seasonal. - Generally freezes to the bottom in winter. 	<ul style="list-style-type: none"> - Very limited fisheries concerns, may provide limited spring spawning opportunities. - Wildlife habitat.
WETLANDS	<ul style="list-style-type: none"> - Areas of shallow standing water. 	<ul style="list-style-type: none"> - May completely freeze in winter. 	<ul style="list-style-type: none"> - Breeding, rearing habitat for waterfowl and other wildlife. - Habitat for aquatic wildlife species.

TABLE #2 RIPARIAN BUFFER MANAGEMENT GUIDELINES.

WATERBODY CLASSIFICATION	RIPARIAN ZONE BUFFER WIDTH	ROADS AND LANDINGS	CONDITIONS FOR OPERATING WITHIN BUFFERS
<p>CLASS 1 & 2 STREAMS</p> <p>PRODUCTIVE LAKES, SMALL LAKES AND PONDS.</p>	<p>-No disturbance or timber removal within 100 m of the normal high water mark.</p> <p>-May be wider if recreational values are high.*</p>	<p>none within 100 m of the normal high water mark.*</p>	<p>Where buffer management is approved:</p> <ul style="list-style-type: none"> - Selective harvest only. - Heavy machinery is not permitted within 15 m of normal high water mark. - Cutting restricted to well drained or frozen ground. - No trees to be felled into the watercourse. - Slash not to be left within 15 m of the high water mark. - Slash landing in watercourse to be removed manually
<p>WETLANDS</p>	<p>Established by the IRMT for special site wetlands.</p>	<p>-none within 100 m</p>	<ul style="list-style-type: none"> - Minimize machinery operations within the non woody vegetated area surrounding wetlands. - Machinery use should be limited to frozen ground conditions.
<p>VIEWSCAPES</p>	<p>200 m or view to horizon or viewing distance.</p>	<p>Preservation of viewscapes in Provincial Parks or other scenic locations.</p>	<ul style="list-style-type: none"> - Year round or seasonal

- **Note:** Riparian zone buffer widths less or greater than the guidelines, and roads and landings within the 100 m buffer guidelines may be allowed with IRMT approval. (The consolidated buffer management guidelines serve as the normal, minimum requirement.)

High water mark is defined as:

- 1 sharply defined bank: the top of the bank is the high water mark.
2. gentle sloped bank: that point where there is a change in water-based and ground based vegetation is considered the high water mark.

TABLE #3 BUFFER CONSIDERATIONS FOR OTHER SIGNIFICANT RESOURCE VALUES.

SPECIAL RESOURCE VALUE	BUFFER WIDTH*	OBJECTIVE OF BUFFER	CRITICAL PERIOD**
COLONIAL WATERBIRD NESTS	200 m	- Provide a visual barrier. - Protection from disturbance.	April 1 to July 31
MINERAL LICKS AND SPRINGS	200 m	- Provide a visual barrier. - Protect ground water and maintain soil stability.	April 1 to June 30
EAGLE OR OSPREY NESTS	200 m	- Protect nest tree. - Provide a visual barrier between the nest and worksite. - Maintain the site integrity.	April 1 to July 31
SPECIAL HABITATS AND AREAS (SUCH AS ENDANGERED SPECIES, PROTECTED SITES, ETC.)	200 m	- Protect the security of the habitat on a year round basis. - Maintain the long term existence of the habitat or area.	Year round
RECREATIONAL VALUES (SUCH AS, COTTAGES, CANOE ROUTES, ETC.)	200 m	- Provide a visual and sound barrier between recreational value and harvesting operations.	Seasonal to year round.

* **BUFFER WIDTH** may be varied after the critical period once reviewed by the IRMT based on site specific evaluations.

** **CRITICAL PERIOD** refers to that portion of the year where special resource values are most sensitive to disturbances.

ALL WEATHER FORESTRY ROAD BUFFER MANAGEMENT GUIDELINES:

Buffering may be required along all weather forestry roads to provide aesthetic and sound barriers, and site integrity where necessary. The buffer widths for these roads may be up to 150 m (section 4.b *The Forest Act* and Regulations of Manitoba). Buffer management will be determined by the IRMT on a case by case basis.

SEASONAL ROAD/TRAIL BUFFER MANAGEMENT GUIDELINES:

Buffering is generally not required along seasonal access trails if the life span of the trail is less than three years. If the life span is greater than three years the "ALL WEATHER ROAD BUFFER MANAGEMENT GUIDELINES" will apply.

APPENDIX 1

Existing Manitoba Natural Resources Guidelines

1. Forest Management Guidelines for Wildlife in Manitoba (1984)
2. Recommended Buffer Zones for Protecting Fish Resources in Lakes and Streams in Forest Cutting Areas (1990)
3. Timber Harvesting Practices for Forest Operations in Manitoba (1994)
4. Manitoba Stream Crossing Guidelines for the Protection of Fish and Fish Habitat. (1996)
5. Provincial Parks:

Grass River Provincial Park Management Plan	DNR Parks Branch December 1984
Whiteshell Provincial Natural Park Master Plan	DNR Parks Branch August 1983
Turtle Mountain Provincial Park Management Plan	DNR Parks Branch September 1985
Nopiming Provincial Park Interim Management Guidelines	DNR Parks Branch November 1988
Duck Mountain Provincial Park Interim Management Guidelines	DNR Parks Branch October 1988
Grand Beach Provincial Park Interim Management Guidelines	DNR Parks Branch March 1986
Beaudry Provincial Park Interim Management Guidelines	DNR Parks Branch November 1983
Clearwater Lake Provincial Park Interim Management Guidelines	DNR Parks Branch March 1986
Hecla / Grindstone Provincial Park Management Plan	DNR Parks Branch March 1992