

ONTARIO MINISTRY OF ENVIRONMENT AND ENERGY
BUFFER ZONE GUIDELINES FOR AERIAL APPLICATION OF PESTICIDES IN
CROWN FORESTS OF ONTARIO

February, 1992

The following distances constitute minimum buffer zones recommended for aerial spray programs in Ontario Crown forests for the purpose of foliage protection and/or forest renewal.

A buffer zone is defined as an area that is not assumed to be pesticide free, but rather an area which is not directly sprayed as part of the target area with pesticides, and where minimal spray deposits may fall as a result of adjacent spray operations. It is designed to prevent the deposition of spray materials onto *Areas Requiring Protection*. Further, any residues that enter the buffer zone must not cause unacceptable phytotoxic (eg. plant damage) or zootoxic (eg. wildlife poisoning) damage in the buffer zone. The buffer zone must not occupy any part of an *Area Requiring Protection*.

Increased buffer zones may be considered in specific situations such as communal and municipal water supplies, registered beeyards, and terrestrially sensitive areas.

Traffic control is required on public roads adjacent to treatment areas during the period of application.

It will be the Ministry of Natural Resource's (MNR) responsibility to identify and indicate all areas requiring protection in the project description for each spray program, in particular lakes which possess or may possess fisheries values.

DESIGNATED AREAS **	HERBICIDES ¹	OTHER THAN HERBICIDES ²	<i>BACILLUS THURINGIENSIS</i> (Bt)
SIGNIFICANT AREA ***	60 metres ^{1a}	120 metres	no buffer zones
SENSITIVE AREAS ³	120 metres	240 metres	no buffer zones
HUMAN HABITATION ⁴	120 metres	240 metres	no buffer zones

** See Appendix 1 for descriptions of some Designated Areas.

See Appendix 2 for definitions of some *Areas Requiring Protection*.

*** In locations where critical fish habitat is likely to occur, and where survey data have not yet been collected, those areas should be treated as sensitive i.e. buffer increased to 120m.

1 2,4-D, glyphosate, hexazinone (see footnote 1a).

1a Hexazinone - SIGNIFICANT AREA: 100 metre buffer.

Velpar L, P.C.P. #18197, can be aerially applied for site preparation in woodland management. A "site" is defined as an area that constitutes a continuous monoculture (i.e. all site preparation) without break in cultural practice or management stage. Within such a continuous stage, a maximum of 500 ha can be treated under the Woodland Management category. Furthermore, a continuous site of 10,000 ha, for example, cannot be divided arbitrarily into several blocks of 500 ha to be treated individually.

- 2 Aminocarb, fenitrothion, carbaryl.
- 3 Existing Ministry of Natural Resources guidelines re: noise and disturbance around endangered or sensitive species habitats (e.g. eagle nests) will be adhered to.
- 4 Written notification of Crown Land spraying programs is required.

NOTE: These buffer zones distances were developed in consultation with the Ontario Ministry of Natural Resources and in keeping with timber management practices occurring both in northern and southern Ontario, as well as the Timber Management Guidelines for the Protection of Fish Habitat (MNR) and its associated policy. These MOEE guidelines apply to aerial pesticide spraying on Crown land only and should not be confused with buffer zones required for other timber management practices, such as harvesting operations.

APPENDIX 1

DESCRIPTION OF DESIGNATED AREAS

SIGNIFICANT AREA is defined as: lakes with surface area equal to or greater than 10 hectares which have permanent surface drainage to a lake or river system; lakes less than 10 hectares which possess or may possess significant fisheries values (fisheries value is determined by MNR fisheries biologist); streams which appear as permanent streams on a topographic map of scale 1:50,000

SENSITIVE AREA is defined as: critical fish habitat e.g. spawning areas, wetlands, headwaters, migration areas, nursery areas, intermittent streams that provide spawning habitat for fish; fish sanctuaries; fish hatcheries; stocked lakes and rivers; endangered species habitat; patented land (reduction of buffer zones may be considered with written notification to the owner).

HUMAN HABITATION is defined as: permanent and/or occupied: homes, cottages, logging camps, development areas in provincial parks; (reduction of buffer zones may be considered with written notification to the owner; in the case of provincial parks, written notification to campers is required).

Note: For further information or clarification of these guidelines please contact MOEE Regional or District Pesticide Officers (see attached list of names) **OR** the Pesticides Section, Standards Development Branch, Toronto, Ontario.

APPENDIX 2

AREAS REQUIRING PROTECTION - DEFINITIONS*

CRITICAL FISH

HABITAT: Is habitat judged to be of critical importance to the maintenance of a healthy fish population (includes: migration areas; nursery areas; and spawning areas).

WETLANDS: Are lands that are seasonally or permanently covered by shallow water as well as lands where the water table is close to, or at the surface; in either case the presence of abundant water has caused the formation of hydric soils, and has favoured the dominance of either hydrophytic or water tolerant plants. The general term, wetlands, includes specific land types that are known as marshes, bogs, swamps, fens, etc.

HEADWATER AREA: Is the area starting at the lake highest up in the watershed which requires protection under the guidelines (either greater than 10 ha or with a known fisheries value) and continues up each inflow to this lake until the top of the stream occurs, or there is a wetland, lake, or beaver pond with significant retention capacity.

FISH SANCTUARY: Is a waterbody (or a portion of a waterbody) in which fishing for all species is prohibited for a specified period of time and is identified in the annual Ontario Sport Fishing Regulations, which is published by MNR.

FISH HATCHERY: Is a designated area of fish rearing.

ENDANGERED SPECIES

HABITAT: Is the sum total of environmental conditions of a specific place occupied or potentially occupied by an endangered species (as designated in Regulations of the Ontario Endangered Species Act) or a population of such species.

PATENTED LANDS: Are defined as lands whereby the title is registered at the Land Registry Office and where the title was transferred from the Crown to another party, such as a mining claim, some cottage lands or veteran land grants.

* This list is not a complete list outlining the *Areas Requiring Protection* but a partial list to provide clarification for some terms.