# MUNICIPAL YEARLY OPERATIONAL PLAN

# VEGETATION MANAGEMENT CONTROL PLAN

# TOWN OF ORLEANS

# 2022

Prepared and submitted by:

Ronald E. Trudeau Jr.

Department of Public Works

Town of Orleans

40 Giddiah Hill Road

Orleans MA 02653

February 20, 2022

## MUNICIPAL YEARLY OPERATIONAL PLAN

This yearly operational plan approved by the Massachusetts Department of Agriculture resources pursuant to the rights of way management regulations (333 CMR 11.00), has been adopted by the following vegetation management program of the town of Orleans. The undersigned hereby acknowledges the conditions of the municipal roadway vegetation management plan will be adopted and complied with.

| | |
|---|---|
| MUNICIPALITY: | Town of Orleans |
| NAME: | Ronald Trudeau |
| AGENCY: | Orleans Department of Public Works |
| ADDRESS: | 40 Giddiah Hill Road |
| | Orleans MA 02653 |
| TELEPHONE: | (508) 240-3790 |
| SIGNATURE: | _____ |
| DATE: | _____ |
| WETLAND DELINEATION: | _____ |
| | (Conservation Commission) |

# MUNICIPAL ROADWAY VEGETATION MANAGEMENT PLAN

This Municipal Roadway Vegetation Management Plan submitted to the Massachusetts Department of Agriculture resources pursuant to the rights of way management regulations (333 CMR 11.00) has been reviewed in this recommended for adoption in the below named municipality period the undersigned hereby acknowledges the condition of the municipal roadway vegetation management plan will be adopted and complied with.

MUNICIPALITY: Town of Orleans

PLAN TYPE: Yearly Operational Plan

PLAN AUTHOR: Ronald Trudeau, D.P.W. Operations Manager

DEPARTMENT: Public Works

ADDRESS: 40 Giddiah Hill Rd., Orleans MA 02653

PHONE NUMBER: (508) 240-3790

SIGNATURE, PLAN AUTHOR: _____

SIGNATURE, CHAIRPERSON, BOH: _____

SIGNATURE, CHAIRPERSON, CONSERVATION COMMISSION: _____

SIGNATURE, CHIEF ELECTED OFFICIAL: _____

A copy of this document should be kept on file in the municipality offices. Please send the original to the Massachusetts Department of Agricultural Resources with a submitted Vegetation Management Plan/Yearly Operational Plan. Massachusetts Department of Agriculture Resources, Pesticide Bureau, Right of Way Program, 251 Causeway Suite 500, Boston, Massachusetts 02114-2151.

## Introduction

The purpose of 333 CRM 11.00, rights of way management is to promote the implementation of integrated pest management techniques and to establish standards requirements and procedures necessary to minimize the unreasonable adverse effects on human health and the environment associated with the use of herbicides to maintain streets. These regulations establish procedure which guarantee ample opportunity for public and municipal agency review and input on the right of way maintenance plans.

A Yearly Operational Plan or YOP must be submitted to the Department of Agriculture Resources every year herbicides are intended for use to maintain right of ways. The YOP provides a detailed program for vegetation management for the year. A five-year Vegetation Management Plan (VMP) has been approved by the department and is available for review at the board of health, conservation commission, and office of the chief elected official of the municipality.

Upon receipt for this YOP, the department publishes a notice in the environmental monitor. The applicant must provide a copy of the proposed YOP and environmental monitor notice to the Board of Health, Conservation Commission, and the chief elected municipal official for the city or town in which the herbicide treatment is proposed. The department allows a 45-day comment period on the proposed YOP beginning with the publication of the notice in the environmental monitor and receipt of the YOP and environmental monitor notice by each municipality.

Public notification and herbicide application to the streets are made at least 21 days in advance of the treatment by a separate notice. Notice is made to the department of agricultural resources, the mayor, city manager, or chairman of the board of selectmen, the Board of Health, a Conservation Commission, and the water division of the municipality where the streets lie.

At least 48 hours prior to the application referred to in 11.07, the applicant must publish a conspicuous notice in at least one newspaper of general circulation in the city or town where the right of way lies. The notice shall contain the following information: the method and locations of pesticide application; The approximate dates and which the pesticide application shall commence and conclude, provided that the applications shall not commence more than 10 days before nor conclude 10 days after said approximate states; a list of potential pesticides to be used; A description of the purpose of the application; And the name, title, business address and phone number of a designated contact person representing the applicant from whom any citizen may request further information.

Any comments on this YOP should be directed to the contact person listed on page 6.

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   iii. Sensitive area restrictions guide (333 CMR 11.04)

C. Town Map (One page)

## I. Individual supervising implementation and conditions of the YOP

| | |
|---|---|
| Name and Title: | Ronald Trudeau Jr.<br>D.P.W. Operations Manager |
| Department: | Department of Public Works |
| Address: | 40 Giddiah Hill Rd.<br>Orleans MA 02563 |
| Telephone: | (508) 240-3790 |
| Signature: | _____ |

## II. Municipal Department Performing Herbicide Treatment

Orleans Department of Public Works

Municipal employees will perform herbicide treatment under the direct supervision of Ronald E. Trudeau Jr, D.P.W. Operations Manager License Number: 17093

Categories: #37 Turf and #40 Right of Way

Company: Town of Orleans D.P.W.

Address: 40 Giddiah Hill Rd.

Orleans MA 02563

Telephone: (508) 240-3790

Signature: _____

## III. Herbicides Proposed including Application Rates, Carriers, Adjuvants

Herbicides that may be used on municipal roadways are limited to the following:

| Trade Name | EPA Reg. No. | Active Ingredients | Guidelines |
|---|---|---|---|
| Finalsan | 67702-8 | Ammoniated soap Of Fatty acids | See Attached |

The names and active ingredients of the herbicides proposed in the names of any carriers, adjuvants, or additives to be used. Herbicide Fact Sheets for the herbicides proposed are found in appendix B.

| Control Method | Herbicide(s) Mixture% | Carriers or Adjuvants | Application Rate/Acre |
|---|---|---|---|
| Foliar Treatment | 1:9 (10% v/v) | NA | NA |

Control method will be one of the following: hand cutting, mowing, foliar treatments, or selective trimming.

## IV. Herbicide Application Techniques and Alternative Control Applications

Roadway vegetation management will involve mechanical methods (sweeping, hand cutting, selective trimming, and mowing) and chemical control (foliar herbicide treatments and cut stump

treatments). The particular method(s) shown will be based on a variety of factors to establish an easily maintainable plant population that will not interfere with vehicles or pedestrians. Emphasis will be given to the control tactic that will address the vegetation problems in the most environmentally sound manner and in a way to minimize vegetation control in the long-term period the method chosen forgiven vegetation problems will attempt to achieve a long term, slow maintenance vegetation management program.

Chemicals controlled include foliar treatments. Mechanical controls hand cutting, mowing, and selective trimming refer to page 10 of the VMP for detailed descriptions of these techniques.

## V. Identification of Target Vegetation

Target vegetation along roadways is limited to vegetation, which poses a public nuisance and or poses a risk to pedestrian or vehicular safety. Target vegetation and control methods intended are indicated below. For a full description of each target vegetation, referred to the VMP.

| Target Vegetation | Mechanical Control | Chemical Control |
|---|---|---|
| **Nuisance Grass and Weeds** | | |
| Stem density and height Impedes movement or hampers visibility | selective trimming and mowing | low pressure foliar spray |
| **Vegetation Posing a Risk to safety** | | |
| Vegetation hampers visibility or Impedes movement along roads and trails | hand cutting and selective trimming | |

## VI. Flagging Methods to Designate Sensitive Areas on the ROW

Sensitive areas are identified as public groundwater supplies, public service water supplies, private drinking water supplies, surface waters, wetlands, inhabited areas, and agricultural areas. For the purpose of identification, sensitive areas are separated into two categories: areas not readily identifiable in the field, and areas that are identifiable in the field.

Sensitive areas not readily identifiable in the field typically include public groundwater supplies, wetlands, private water supplies and public surface water supplies. In Orleans the public ways within the watershed are designated as "No Spray Zones".

The remaining areas will be flagged and marked as "No Spray Zones" in the following manner:

FLAGGING METHODS

orange pavement marking paint will be used to identify no spray zones on pavement, granite curbing, and sidewalks. They will be marked with the orange line and the letters NSZ.

Qualified public works personnel will flag the no spray zones prior to any spraying operation. Crews will be provided with street maps with no spray zones clearly marked.

Process of sensitive areas:

1. Areas to be sprayed were walked to determine sensitive areas.
2. Questionable wetland areas will be checked by the Conservation Commission.
3. Board of Health records will be reviewed to locate wells of older homes in areas not served by the public water supply system that do not conform to today's stringent set back requirements. Homeowners were contacted in cases where no records were available.

**Sensitive Area Restriction guide (333 CMR 11.04)**

| Sensitive Area | Limited Spray or No-Spray Areas (feet) | Control Method | Time Between Treatment(s) |
|---|---|---|---|
| Public Ground Water Supplies | 400' | Mechanical Only | None |

| | | | |
|---|---|---|---|
| Primary Recharge Area | Designated buffer Zone or ½ mile radius | Mechanical, Approved Herbicides* | 24 Months |
| Public Surface Water Supplies (Class A & Class B) | 100'<br><br>100'-400' | Mechanical Only<br><br>Approved Herbicides | None<br><br>24 Months |
| Tributary to Class A Water Source, within 400' upstream of water source | 100'<br><br>100-400' | Mechanical Only<br><br>Approved Herbicides | None<br><br>24 Months |
| Tributary to Class A Water Source, greater than 400'upstream of water source | 10'<br><br>10'-200' | Mechanical Only<br><br>Approved Herbicides | None<br><br>24 Months |
| Class B Drinking Water Intake, within 400' upstream of intake | 100'<br><br>100'-200' | Mechanical Only<br><br>Approved Herbicides | None<br><br>24 Months |
| Private Drinking Water Supplies | 50'<br><br>50'-100' | Mechanical Only<br><br>Approved Herbicides | None<br><br>24 Months |
| Surface Waters | 10'<br><br>10'-100' | Mechanical Only<br><br>Approved Herbicides | None<br><br>12 Months |
| Rivers | 10' from mean annual high-water line<br><br>10'-200' | Mechanical Only<br><br>Approved Herbicides | None<br><br>12 Months |
| Wetlands | 10'<br><br>100' or with approved wetlands determination 10'-100' [per 310 CMR 0.05(3)(a)&310 CMR 0.03(6)(b)] | Mechanical Only<br><br>Low-pressure Foliar, CST, Basal, Approved Herbicides | None<br><br>24 Months |
| Inhabited Areas | 100' | Approved Herbicides | 12 Months |
| Agricultural Area (Crops, Fruits, Pastures) | 100' | Approved Herbicides | 12 Months |
| Certified Vernal Pools | 10' | Mechanical only when water is present | None |
| Certified Vernal Pool Habitat | 10'-outer boundary of habitat | No treatment without approval | |
| Priority Habitat | No treatment outside the 4 foot paved road exemption without approval of the Natural Heritage Endangered Species Program (NHESP) | | |

*Massachusetts Approved herbicides for sensitive site

## VII. Procedures and Locations for Handling Mixing and Loading of Herbicide Concentrates

All mixing and loading of herbicides will be conducted at the operations garage. Only the amount of herbicide necessary as determined by monitoring results will be mixed to carry out the vegetation control the vehicle carrying out the spray operation will be equipped with a bag of absorbent, activated charcoal, leakproof containers, a broom, and a shovel in case of minor spills. A clipboard log of the herbicide carried on the vehicle will be kept in the vehicle. Herbicide labels and factsheets should be carried on-site by the applicator.

As soon as any spill is observed, immediate action will be taken to contain the spill and protect the spill area. The cause of the spill be identified and secured. Spill containment will be accomplished by covering spill with absorptive clay or other absorptive material or, for large spills, building clay or soil dikes to impede spill progress. Until completely clean, protection of the spill area will be accomplished by placing barriers, flagging or crew members at strategic locations. If a fire is involved, Care will be taken to avoid breathing fumes from any burning chemicals and the fire department notified.

Minor spills will be remedied by soaking up the spill with absorptive clay or other absorptive material and placing it in leak proof containers for proper disposal. Dry herbicide, such as granulars, will be swept up or shoveled up directly in leaf leap proof containers for proper disposal. All contaminated soil would be placed in leakproof containers, removed from the site, and disposed of properly. Activated charcoal will be incorporated into the soil at the spill location at a rate of seven pounds per thousand square feet to inactivate any herbicide residue. Any minor spill will be reported to the Pesticide Bureau.

Major spills will be handled in a similar manner as minor spills, except in cases where the spill cannot be contained and or removed by the crew. In this case the DEP Incident Response Unit and Pesticide Bureau will be contacted.

## VIII. Emergency Contacts

In the event of a spill or emergency, information on safety precautions, cleanup procedures may be gathered from the following sources:

herbicide label

herbicide fact sheet

herbicide material safety data sheet

herbicide manufacturer

| | |
|---|---|
| Nufarm Americas Inc. | (877) 325-1840 |
| Agrevo USA Co. | (800) 471-0660 |
| Massachusetts Pesticide Bureau | (617) 626-1781 |
| Massachusetts Department of Environmental Protection | (888) 304-1133 |
| Chemtrec | (800) 424-9300 |
| EPA Pesticide Hotline | (800) 858-7378 |
| Massachusetts Poison Control Center | (800) 682-9211 |
| Local Police | 911 |
| Local Fire | 911 |

# APPENDICES

# Appendix A

## Streets to be treated in 2022

**Main Street**

**Eldredge Parkway**

**Old Colony Way**

**Academy Place**

**Rt.28/Main Street Intersection**

**6A/ Main Street Intersection**

# Appendix B

## Herbicide Fact Sheets

1. Mass Department of Agriculture Resources
2. Finalsan Herbicidal Soap (label 2 pages)
3. Finalsan Herbicidal Soap (SDS -7 pages)
4. Sensitive area restrictions guide (333 CMR 11:04)

# Appendix C

# Town Map (1 Page)

# 333 CMR 11.00: RIGHTS OF WAY MANAGEMENT

Section

11.01: Purpose
11.02: Definitions
11.03: General Provisions
11.04: Sensitive Area Restrictions
11.05: Vegetation Management Plan (VMP)
11.06: Yearly Operational Plan (YOP)
11.07: Public Notification
11.08: Notice of Modification and Revocation
11.09: Right-of-appeal
11.10: Penalties
11.11: Rights-of-way Advisory Panel

## 11.01: Purpose

The purpose of 333 CMR 11.00 is to establish a statewide and uniform regulatory process which will minimize the uses of, and potential impacts from herbicides in rights-of-way on human health and the environment while allowing for the benefits to public safety provided by the selective use of herbicides. Specific goals of 333 CMR 11.00 are to:

(1) Ensure that an Integrated Pest Management (IPM) approach to vegetation management is utilized on all rights-of-way covered by 333 CMR 11.00.

(2) Establish standards, requirements and procedures necessary to prevent unreasonable risks to humans or the environment, taking into account the economic, social and environmental costs and benefits of the use of any pesticide.

(3) Ensure ample opportunity for public and municipal agency input on potential impacts of herbicide application to rights-of-way in environmentally sensitive areas.

(4) Establish a mechanism for public and municipal review of rights-of-way maintenance plans.

## 11.02: Definitions

For the purposes of 333 CMR 11.00, unless the context clearly requires otherwise, the following definitions shall apply:

Agricultural Area includes, but is not limited to, actively cultivated gardens, greenhouses, orchards, fields, pastures, and other areas under cultivation or agricultural management.

Applicant, any person representing any federal, state or local government or agency, utility, railroad or pipeline, that intends to maintain a right-of-way in the Commonwealth by application of herbicides.

Associated Surface Water Body, as identified on the most current available maps prepared by the Department of Environmental Protection, any body of water that is hydrologically connected to a Class A surface water source.

Ballast, the coarse gravel or crushed rock on which the ties, tracks and switching, signaling and communication devices of a railroad are laid.

Broadcast, any non-selective herbicide application technique which results in application to all vegetation within a target area.

Certified Vernal Pool, a confined basin depression, certified and mapped by NHESP pursuant to the provisions of 310 CMR 10.57(2)(a)5. and 6., which, at least in most years, holds water for a minimum of two continuous months during the spring and/or summer, and which is free of adult fish populations.

11.02: continued

Certified Vernal Pool Habitat, that vernal pool habitat which has been certified and mapped by NHESP pursuant to the provisions of 310 CMR 10.57(2)(a)5. and 6. or, in the event that such habitat has not been mapped, the area extending 100 feet horizontally outward from the boundary of any Certified Vernal Pool.

Class A Waters, waters which are designated as a source of public water supply, as defined in 314 CMR 4.05(3)(a).

Class B Drinking Water Intakes, intakes to Class B waters suitable as sources of public water supply with appropriate treatment, as defined at 314 CMR 4.05(3)(b) and as identified on the most current available maps prepared by the Department of Environmental Protection.

Department, the Department of Agricultural Resources.

FIFRA, the Federal Insecticide, Fungicide and Rodenticide Act, Public Law 92-516.

Foliar Treatment, any technique which applies herbicide to leaves of target vegetation.

Inhabited Area, any area where people generally live, work or gather, including, but not limited to, any residence, school, hospital, park or recreational facility.

Interim Wellhead Protection Area (IWPA), for public water systems using wells or well fields that lack a Department of Environmental Protection-approved Zone II, an interim wellhead protection area, as that term is defined in the Massachusetts drinking water regulations, 310 CMR 22.02, and as identified on the most current available maps prepared by the Department of Environmental Protection, shall apply. Generally, this is a ½- mile radius for sources whose approved pumping rate is 100,000 gallons per day or greater. For smaller sources, the radius in feet is determined by multiplying the approved pumping rate in gallons per minute by 32 and adding 400.

Limited Application Waiver, a waiver from the requirements of 333 CMR 11.05 and 11.06, granted at the Department's sole discretion pursuant to 333 CMR 11.03(14), when the reason for the application is emergency public health or safety or when the application is for one time only.

Limited Spray Area, any area that is both within a Right-of-Way and within:

(a) any Zone II or IWPA;
(b) a distance of between 100 feet and 400 feet of any Class A Surface Water Source;
(c) a distance of between ten and 200 feet of any tributary or associated surface water body where the tributary or associated surface water body runs outside the Zone A for the Class A surface water source;
(d) a lateral distance of between 100 and 200 feet for 400 feet upstream, on both sides of the river, of a Class B Drinking Water Intake;
(e) a distance of between 50 and 100 feet of any identified Private Well;
(f) a distance of between 10 and 100 feet of any Wetlands or Water Over Wetlands;
(g) a distance of between ten feet from the mean annual high water line of any river and the outer boundary of the Riverfront Area;
(h) a distance of between ten feet from any Certified Vernal Pool and the outer boundary of any Certified Vernal Pool Habitat; and
(i) a distance of 100 feet of any Agricultural or Inhabited Area.

Low Pressure, pressure under 60 pounds per square inch (psi).

Maps, United States Geological Survey maps of scale 1:25,000 or other maps, as determined by the Department, which are of such accuracy and scale to provide sufficient detail so that sensitive areas can be delineated.

NHESP, the Natural Heritage and Endangered Species Program within the Massachusetts Division of Fisheries and Wildlife.

11.02: continued

No-spray Area, any area that is both within a Right-of-Way and within:
(a) any Zone I;
(b) 100 feet of any Class A Surface Water Source;
(c) 100 feet of any tributary or associated surface water body where the tributary or associated surface water body runs within 400 feet of a Class A surface water source;
(d) ten feet of any tributary or associated surface water body where the tributary or associated surface water body is at a distance greater than 400 feet from a Class A surface water source;
(e) a lateral distance of 100 feet for 400 feet upstream, on both sides of the river, of a Class B Drinking Water Intake;
(f) 50 feet of any identified Private Well;
(g) ten feet of any Wetlands or Water Over Wetlands;
(h) ten feet of the mean annual high-water line of any river; and
(i) ten feet of any Certified Vernal Pool.

Person, an individual, association, partnership, corporation, company, business organization, trust, estate, the Commonwealth or its political subdivisions, administrative agencies, public or quasi-public corporation or body, or any other legal entity or its legal representatives, agent or assignee, or a group of persons.

Person Aggrieved, any person who, because of an act or failure to act by the Department may suffer an injury in fact which is different either in kind or magnitude from that suffered by the general public and which is within the scope of the interests identified in 333 CMR 11.00. Such person must specify in writing sufficient facts to allow the Department to determine whether or not the person is in fact aggrieved.

Private Well, any private drinking water supply identified by the local Board of Health, the well owner or the Department of Agricultural Resources.

Private Well Registry, a registry of private wells located within 100 feet of a right-of-way which is maintained by the Department of Agricultural Resources. Homeowners must notify the Department by completing a registration form which is available directly from the Department or online at the Department website.

Public Water Supplier, as defined at 310 CMR 22.02(1), any person who owns or operates a public water supply system.

Public Ground Water Source, a source of water for a Public Water Supply System, as that term is defined in the Massachusetts drinking water regulations at 310 CMR 22.02.

Right(s)-of-way (ROW), any roadway, or thoroughfare on which public passage is made and any corridor of land over which facilities such as railroads, powerlines, pipelines, conduits, channels or communication lines or bicycle paths are located.

Rights-of-way Advisory Panel, a panel established to advise the Department on issues relating to 333 CMR 11.00 and to fulfill specific functions as detailed within 333 CMR 11.05 and 11.11.

River, a river as defined at 310 CMR 10.04 and as identified on the most current available maps prepared by the Department of Environmental Protection.

Riverfront Area, a riverfront area as defined at 310 CMR 10.58(2) and as identified on the most current available maps prepared by the Department of Environmental Protection. In general, this term shall mean the area between the mean annual high-water line of a perennially flowing river and a parallel line 200 feet away.

Selective Application, any application of herbicides, in such a manner that the delivery to the target vegetation is optimized and delivery to non-target vegetation and the environment is minimized.

11.02: continued

Sensitive Areas, as defined in 333 CMR 11.04, any areas within Rights-of-Way, including No-Spray and Limited-Spray Areas, in which public health, environmental or agricultural concerns warrant special protection to further minimize risks of unreasonable adverse effects.

State-listed Species, any species on the Massachusetts list of Endangered, Threatened, and Special Concern Species as described in the Massachusetts Endangered Species Act (M.G.L c. 131A; 321 CMR 10.02).

State-listed Species Habitat, the Estimated Habitats of Rare Wildlife (310 CMR 10.59 and 10.37) and the Priority Habitats for State-listed Species (321 CMR 10.02) as shown on the most recent edition of the Massachusetts Natural Heritage Atlas prepared by NHESP.

Stem Treatment, any technique including, but not limited to, stump, basal, stem, injection, banding, frill, or girdle and any other technique which delivers herbicide at low pressure to the stump, base or stem of the target vegetation.

Surface Water Source, any lake, pond, reservoir, river, stream or impoundment designated as a public water supply in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00, as identified on the most current available maps prepared by the Department of Environmental Protection.

Target Vegetation, any plant species which has the potential to interfere with the operation and safety of the right-of-way.

Touch-up Application, any limited application of herbicides following an initial treatment, which is necessary to achieve the desired vegetation control.

Tributary, as identified on the most current available maps prepared by the Department of Environmental Protection, any body of running, or intermittently running, water which moves in a definite channel, naturally or artificially created, in the ground due to a hydraulic gradient, and which ultimately flows into a Class A surface water source, as defined in 314 CMR 4.05(3)(a).

Vegetation Management Plan (VMP), a long term management plan for the applicant's right-of-way system which describes the intended program for vegetation control over a five year period.

Vernal Pool, *see* Certified Vernal Pool.

Water Over Wetlands, the ocean or any estuary, lake or pond as defined at 310 CMR 10.04.

Wetlands, any of the following areas as defined in 310 CMR 10.02(1)(a), (b), (c) and (f):

(a) Any bank,
any freshwater wetland,
any coastal wetland,
any beach,
any dune,
any flat
any marsh,
or any swamp;

bordering on

the ocean
any estuary
any creek
any river
any stream
any pond
or any lake

(b) Land under any of the water bodies listed in 333 CMR 11.02: Wetlands(a); and
(c) Land subject to tidal action.

11.02: continued

Wetlands Determination, a written determination of the boundaries of Wetlands and boundaries of areas within 100 feet of Wetlands in accordance with the regulations of the Department of Environmental Protection (DEP) at 310 CMR 10.05(3)(a)1. and 2. 310 CMR 10.03(6)(b) requires applicants not eligible for a public utility exemption to submit these determinations with their VMPs if they will apply herbicides within 100 feet of wetlands and will not submit a Notice of Intent under M.G.L. c. 131, § 40, the Wetlands Protection Act. In order to obtain a Wetlands Determination, the applicant should submit a request to the conservation commission on maps of a scale that will enable the conservation commission or Department of Environmental Protection to find and delineate the boundaries of Wetlands and buffer zones within the vicinity of the right-of-way herbicide management area. To be considered "valid", the Wetlands Determination should be made no sooner than six months immediately prior to the submission of the Vegetation Management Plan. The Wetlands Determination shall cover the period of the Vegetation Management Plan only and shall expire at the end of the five year period of that Vegetation Management Plan.

Yearly Operational Plan (YOP), the yearly operational plan which describes the detailed vegetation management operation for the calendar year consistent with the terms of the long term Vegetation Management Plan.

Zone A, as identified on the most current available maps prepared by the Department of Environmental Protection, the protective land area for a Surface Water Source, Class A water source, Tributary, or Associated Surface Water Body defined in 310 CMR 22.02 as:

(a) the land area between the Class A surface water source and the upper boundary of the bank;

(b) the land area within a 400 foot lateral distance from the upper boundary of the bank of a Class A surface water source, as defined in 314 CMR 4.05(3)(a); and

(c) the land area within a 200 foot lateral distance from the upper boundary of the bank of a Tributary or Associated Surface Water Body.

Zone I, as identified on the most current available maps prepared by the Department of Environmental Protection and as defined at 310 CMR 22.02, the protective radius required around a public water supply well or wellfield. For public water system wells with approved yields of 100,000 gallons per day (gpd) or greater, the protective radius is 400 feet. Tubular wellfields require a 250 foot protective radius. Protective radii for all other public water system wells are determined by the following equation: Zone I radius in feet = (150 x log of pumping rate in gpd) –350.

Zone II, as identified on the most current available maps prepared by the Department of Environmental Protection and as defined at 310 CMR 22.02, the aquifer recharge area for a public water supply well or wellfield.

11.03: General Provisions

(1) No person shall use an herbicide for the purpose of clearing or maintaining a right-of-way unless appropriately certified by the Department, or licensed by the Department and working under the on-site supervision of an appropriately certified applicator.

(2) No person shall use an herbicide for the purpose of clearing or maintaining a right-of-way except in accordance with a Vegetation Management Plan (VMP) and a Yearly Operational Plan (YOP) as approved by the Department. The YOP shall be available at the work site at all times during herbicide applications and be made available to the Department and municipal officials including the Conservation Commission and Board of Health upon reasonable request.

(3) No person shall handle, mix or load an herbicide concentrate on a right-of- way within 100 feet of a sensitive area.

(4) The perimeter of any sensitive areas which are not readily identifiable on the ROW shall be identified with a clearly visible marker system, consistent with the VMP, prior to any herbicide application.

11.03: continued

(5) No foliar application of herbicides shall be used to control vegetation greater than 12 feet in height except for side trimming.

(6) No herbicide shall be applied when the wind velocity is such that there is a high propensity to drift off target and/or during measurable precipitation, and no person shall apply herbicides in such a manner that results in drift into any No-spray Area.

(7) No person shall apply herbicides by aircraft for the purpose of clearing or maintaining a right-of-way.

(8) No touch-up applications shall be carried out except under the following conditions:
(a) Touch-up applications must occur within 12 months of the initial application.
(b) All applicable public notification procedures of M.G.L. c. 132B, § 6B, as outlined in 333 CMR 11.07(1) and (3), are followed.
(c) No more than 10% of the initially identified target vegetation on the applicant's right-of-way in any municipality may be treated and the total amount of herbicide applied in any one year shall not exceed the limits specified by the label or Yearly Operational Plan.
(d) The Department may impose such additional restrictions or conditions on the use of herbicides as it deems necessary to protect public health and the environment.

(9) The Department will maintain mailing lists of individuals and groups desiring to obtain notices on various aspects of the Program.

(10) No person shall apply any herbicide identified as a Potential Ground Water Contaminant pursuant to 333 CMR 12.00 to a right-of-way.

(11) No person shall use an herbicide for the purpose of clearing or maintaining a right-of-way unless that person has obtained the most current available map of public ground water sources from the Department of Environmental Protection.

(12) No person shall use an herbicide for the purpose of clearing or maintaining a right-of-way unless that person has done one or more of the following:
(a) obtained a current list of identified Private Wells within 100 feet of the right-of-way from the Board of Health, or
(b) obtained a current list of all private wells, within 100 feet of the right of way from the Department of Agricultural Resources private well registry; or
(c) followed an alternative Private Well identification method outlined in an approved YOP.

(13) The applicator shall provide any employee of any state agency, or authority as defined in M.G.L. c. 3, § 39, when such employee is, within a right-of-way, using pesticides, supervising the use of pesticides, or present during the use of pesticides, with personal protective equipment and clothing. Applicators should note that other federal or state laws or regulations pertaining to pesticide applications may require this personal protective equipment to include protections according to Material Safety Data Sheets (MSDS's), the product label, and any other supporting technical data supplied by the manufacturer.

(14) Notwithstanding the provisions of 333 CMR 11.03(2) or other provisions of 333 CMR 11.00, the Department may, at its sole discretion, issue Limited Application Waivers to applicants wishing to apply herbicides to clear or maintain rights-of-way without VMPs or YOPs, but only under the following conditions:
(a) The applicant must demonstrate either:
1. that the application will not occur more than once in a five-year period unless a VMP and a YOP are prepared and all other requirements of 333 CMR 11.00 are met; or
2. that the application is necessary to protect public health or safety.
(b) The applicant must still adhere to all public notification requirements established at 333 CMR 11.07(1) and (3).
(c) The applicant must provide the Department with a letter establishing the concurrence of the chief elected official or board of selectmen of the municipality where the application is to be made.

11.03: continued

(d) The applicant may only use herbicides on the Department's "Herbicides Recommended for Use in Sensitive Areas List."
(e) If the application could impact Wetlands, the Department recommends that the applicant send a copy of its application for a Limited Application Waiver to the Department of Environmental Protection's Division of Wetlands and Waterways no less than 21 days before the proposed application.
(f) It should be noted that, with certain exceptions for public utilities, wetlands regulations at 310 CMR 10.03(6)(b) currently require Wetlands Determinations prior to any application within 100 feet of a Wetland.

Limited Application Waivers shall be issued solely at the Department's discretion, and the Department may impose such additional restrictions or conditions on the use of herbicides as it deems necessary to protect public health and the environment.

11.04: Sensitive Area Restrictions

(1) General. In any sensitive area:
(a) No more than the minimum labeled rate of herbicide for the appropriate site, pest, and application method shall be applied.
(b) Herbicides shall only be applied selectively by low pressure, using foliar techniques or basal or cut-stump applications, or other method approved for use by the Department.
(c) No person shall apply herbicides for the purpose of clearing or maintaining a right-of-way in such a manner that results in drift to any area within ten feet of standing or flowing water in a wetland; or area within 400 feet of a public drinking water supply well; or area within 100 feet of any Class A surface water used as a public water supply; or area within 50 feet of a Private Well.
(d) Only herbicides specified by the Department as acceptable for use in sensitive areas pursuant to the Cooperative Agreement executed between the Department of Agricultural Resources and the Department of Environmental Protection on July 1 and 2, 1987, or future amendments thereto, shall be used in sensitive areas. Applicants proposing to use an herbicide which has been registered for use on rights-of-way but has not yet been evaluated pursuant to the provisions of the Cooperative Agreement may request that such herbicides be evaluated pursuant to said provisions. For an herbicide that has been evaluated pursuant to the provisions of the Cooperative Agreement, applicants proposing to use such herbicide in a manner inconsistent with the terms and conditions of use imposed in the guidelines may request a modification or waiver of such terms or conditions. A request for such modification or waiver shall provide a detailed rationale for use, with all relevant data including but not limited to environmental fate, efficacy and human health effects of the proposed herbicide. Such herbicides and/or uses shall be subject to the evaluation standards adopted by the Departments of Agricultural Resources and Environmental Protection in the Cooperative Agreement.
Commentary. Applicants not eligible for the public utilities exemption from the Wetlands Protection Act outlined at 310 CMR 10.03(6)(a), who wish to apply pesticides registered for use in Massachusetts to rights-of-way, may choose to apply herbicides determined to be suitable for use in sensitive areas in accordance with the provisions of the Cooperative Agreement mentioned above or, alternatively, such applicants may proceed pursuant to the provisions of 310 CMR 10.00 as authorized by M.G.L. c. 131, § 40.
(e) The Department may impose such additional restrictions or conditions on the use of herbicides within or adjacent to sensitive areas as it determines necessary to protect human health or the environment. Such changes may be proposed by a municipal agency or individual during the public comment period.
(f) In the event of a question or dispute as to which setback applies to a sensitive area, the most restrictive setback shall apply.

(2) Water Supplies.
(a) Public Ground Water Sources.
1. No herbicides shall be applied within a Zone I.
2. No herbicides shall be applied within a Zone II or IWPA unless:

11.04: continued

a. A minimum of 24 months has elapsed since the last application to the site; and
b. Herbicides are applied selectively by low pressure, using foliar techniques or basal or cut-stump applications.

(b) Class A Public Surface Water Sources, Associated Surface Water Bodies, Tributaries and Class B Drinking Water Intakes.

1. No herbicides shall be applied within 100 feet of any Class A public surface water source.
2. No herbicides shall be applied within 100 feet of any tributary or associated surface water body located within the Zone A of a Class A public surface water source, or within ten feet of any tributary or associated surface water body located outside of the Zone A of the Class A public surface water source.
3. No herbicides shall be applied within a lateral distance of 100 feet for 400 feet upstream of any Class B Drinking Water Intake.
4. No herbicides shall be applied within a distance of between 100 feet from any Class A surface water source and the outer boundary of any Zone A, or within a distance of between ten feet and the outer boundary of the Zone A for any tributary or associated surface water body located outside of the Zone A of a Class A surface water source, or within a lateral distance of between 100 and 200 feet for 400 feet upstream of a Class B Drinking Water Intake, unless:
   a. A minimum of 24 months has elapsed since the last application to the site; and
   b. Herbicides are applied selectively by low pressure, using foliar techniques or basal or cut-stump applications.

(c) Private Wells.

1. No herbicides shall be applied within 50 feet of an identified Private Well.
2. No herbicides shall be applied within a distance of between 50 feet and 100 feet of an identified Private Well, unless:
   a. A minimum of 24 months has elapsed since the last application to the site; and
   b. Herbicides are applied selectively by low pressure, using foliar techniques or basal or cut-stump applications.

(3) State-listed Species Habitat.

(a) Any person proposing to apply an herbicide within any State-listed Species Habitat who does not have a current Yearly Operational Plan approved in writing by the Division of Fisheries and Wildlife pursuant to 321 CMR 10.14(12), shall submit all necessary materials required for review pursuant to 321 CMR 10.18.

(b) The management of vegetation within existing utility rights-of-way shall be exempt from the requirements of 321 CMR 10.18 through 10.23, provided that the management is carried out in accordance with a Yearly Operational Plan approved in writing by the Division of Fisheries and Wildlife, pursuant to 321 CMR 10.14(12).

(c) No person shall apply an herbicide within State-listed Species Habitat unless the application is approved by the Division of Fisheries and Wildlife pursuant to 333 CMR 11.04(3)(a) and (3)(b), and such approval is submitted to the Department.

(4) Wetlands, Waters Over Wetlands, Riverfront Areas, and Certified Vernal Pools.

(a) No herbicide shall be applied on or within ten feet of a Wetland or Water Over a Wetland, within ten feet of the mean annual high-water line of any River, or within ten feet of any Certified Vernal Pool.

(b) No herbicide shall be applied on or within a distance of between ten feet and 100 feet of any Wetland or Water Over a Wetland, within a distance of ten feet from the mean annual high-water line of any River and the outer boundary of any Riverfront Area, or within a distance of ten feet from any Certified Vernal Pool and the outer boundary of any Certified Vernal Pool Habitat unless:

1. A minimum of 12 months has elapsed since the last application to the site; and
2. Herbicides are applied selectively by low pressure, using foliar techniques or basal or cut-stump applications.

(c) Notwithstanding 333 CMR 11.04(4)(a) and (b), public utilities providing electric, gas, water, telephone, telegraph and other telecommunication services (and other applicants, if consistent with all relevant provisions of the Massachusetts Wetlands Protection Act and its regulations in effect at the time of application) may apply herbicides on or within ten feet of a Wetland in accordance with the following conditions:

11.04: continued

1. Submission of a study, the design of which is subject to prior approval by the Departments of Agricultural Resources and Environmental Protection, evaluating impacts of the proposed vegetation management program utilizing herbicides on or within ten feet of Wetlands, and comparing those impacts to those which would result if only non-chemical control methods were used in these areas. The study must detail vegetation management practices and use patterns specific to those used by the type of entity submitting the study; and

2. A finding by the Department, after consultation with the Rights-of-way Advisory Panel, that the proposed vegetation management program utilizing herbicides on or within ten feet of Wetlands will result in less impacts to the Wetlands than mechanical control.

3. Notwithstanding the above, no herbicides shall be applied on or within ten feet of any standing or flowing water in a Wetland.

(5) Inhabited and Agricultural Areas. No foliar herbicide shall be applied within 100 feet of any Inhabited Area or any Agricultural Area unless:

(a) A minimum of 12 months has elapsed since the last application to the site; and

(b) Herbicides are applied selectively by low pressure, using foliar techniques or basal or cut-stump applications.

11.05: Vegetation Management Plan (VMP)

(1) General.

(a) Unless otherwise specified by the Department, all VMPs should be submitted by the applicant no later than September 1st prior to the calendar year of the proposed first year of maintenance. All approved VMPs shall be effective for a five year period unless otherwise modified, or revoked by the Department.

(b) The VMP shall be presented on forms and/or format approved by the Department.

(2) Requirements. The VMP shall include, but not be limited to, the following:

(a) General statement of goals and objectives of the VMP.

(b) Identification of target vegetation.

(c) Intended methods of vegetation management and rationale for use, including vegetation control techniques, equipment proposed for use, timing of applications and alternative control procedures.

(d) Discussion of justification for proposed herbicide applications, including a description of the alternative control methods considered and the reasons that they were rejected.

(e) Methods, references and sources for identifying sensitive areas and control strategies proposed for sensitive areas. Applicants should note that the Department of Environmental Protection regulations at 310 CMR 10.03(6)(b) require Wetlands Determinations for applicants that are not eligible for a public utility exemption.

(f) Operational guidelines for applicators relative to herbicide use.

(g) Identification and qualifications of individuals developing and submitting a plan.

(h) A detailed description of the IPM Program, showing how it will minimize the amount and frequency of herbicide application.

(i) Description of alternative land use provisions or agreements that may be established with individuals, state, federal or municipal agencies that would minimize the need for herbicides, including the rationale for accepting or denying any reasonable request made by any individual.

(j) Description of a remedial plan to address spills and related accidents.

(k) For state agencies and authorities as defined in M.G.L. c. 3, § 39, a description of the applicant's policy to eliminate or, if necessary, reduce the use of pesticides for any vegetation management purpose along roadways, and a demonstration that, for the proposed application, the costs of non-chemical vegetation control significantly outweigh the benefits.

(3) Public Notice, Review and Comment.

(a) Upon receipt of the proposed VMP, the Department shall schedule and hold appropriate regional public hearings affording all interested parties the opportunity to comment, both at the hearings and in writing to the Department, on the proposed plan.

11.05: continued

(b) At least 21 days prior to the public hearings, the Department shall publish notice of the hearings in the Environmental Monitor and regionally located newspapers, and send notice to municipalities covered by the plan and to the appropriate mailing list. The notice will include locations where copies of the VMP can be reviewed.
(c) The public shall have no less than 45 days, starting from publication of the *Environmental Monitor* notice, to comment upon proposed VMPs, unless the Department extends the comment period for good cause.
(d) Wherever a chief elected official, Board of Health or Conservation Commission in a municipality covered by the proposed VMP requests a copy of the proposed plan, the applicant shall, at least 21 days prior to the end of the public comment period, respond to this request. The response must either include a copy of the proposed VMP, or an Internet address where the VMP may be viewed and a note that a hard copy will be provided promptly upon further request.

(4) Disposition of VMP.
(a) 25 copies of the proposed VMP shall be submitted to the Department. The Department shall distribute copies of the proposed VMP to each member of the Rights-of-way Advisory Panel. The Department may, at its sole discretion, allow electronic presentation of the VMP in *lieu* of some or all of the 25 copies that would otherwise be submitted pursuant to 333 CMR 11.05(4).
(b) Within 30 days of the end of the public comment period unless extended for good cause, the Rights-of-way Advisory Panel shall review the VMPs and recommend in writing to the Department approval, denial or modification of each VMP; if necessary, the Advisory Panel may request additional information from the applicant.
(c) Within 21 days of the end of the Rights-of-way Advisory Panel review period, unless extended by the Department for good cause, the Department will notify the applicant and the Advisory Panel in writing one of the following:
1. request for additional information or modification;
2. denial of VMP; or
3. approval of VMP.

(d) The VMP may be modified, withdrawn or amended by the applicant through a written request sent by certified mail to the Department.
(e) Resubmission of a denied VMP, updating of a VMP, or a significant amendment to an approved VMP shall be processed according to 333 CMR 11.05.
(f) The applicant must send a copy of the approved VMP, or an Internet address where the VMP may be viewed and a note that a hard copy will be provided promptly upon further request, to the chief elected official, Board of Health, and Conservation Commission in each municipality covered by the plan.

(5) Time for Action. Non-action by the Department on a VMP within the time specified in 333 CMR 11.05 does not constitute approval of the submitted plan. In the event that the Department fails to notify the applicant of a decision within the time specified in 333 CMR 11.05(4)and upon written request from the applicant, the Commissioner must issue a finding within ten days of receipt stating the reason for the delay and providing an estimated completion date.

11.06: Yearly Operational Plan (YOP)

(1) General.
(a) The applicant is responsible for the accuracy and completeness of all information submitted with the YOP. The YOP shall be consistent with the objectives of the VMP and shall describe the intended operational program for that calendar year.
(b) The YOP shall be presented on forms and in a format approved by the Department.

(2) Requirements. The YOP shall include but not be limited to the following:
(a) Maps locating the rights-of-way and sensitive areas not readily identifiable in the field;
(b) Herbicides proposed including Environmental Protection Agency (EPA) Registration numbers, application rates, carriers and adjuvants;
(c) Herbicide application techniques and alternative control procedures proposed.
(d) The name, address and phone number of the company which will perform any herbicide treatment;

11.06: continued

(e) Identification of target vegetation;
(f) The name, address and phone number of the individual representing the YOP applicant;
(g) Description of methods used to flag or otherwise designate sensitive areas on the right-of-way;
(h) Herbicide Fact Sheets as approved by the Department; and
(i) Procedures and locations for handling, mixing and loading of herbicide concentrates.

(3) Public Notice, Review and Comment.
(a) Upon submittal of the YOP for approval, the Department will publish a notice in the *Environmental Monitor*. Said notice shall be provided by the applicant and shall include the information on the municipalities through which the rights-of-way pass, a brief description of the intended program, and the procedure for public review and comment. The Department shall send notification of the publication to the applicant and the appropriate mailing list.
(b) Upon submittal of the YOP to the Department, the applicant shall provide by certified mail under separate cover to the Board of Health, Conservation Commission, chief elected municipal official, and where applicable, the Massachusetts Water Resources Authority and Massachusetts Department of Conservation and Recreation, a copy of the proposed YOP (or an Internet address where the proposed YOP may be viewed and a note that a hard copy will be provided promptly upon request) and the *Environmental Monitor* notice for the municipality or municipalities in which the herbicide treatment is proposed. Community water suppliers shall receive electronic information or a one page notification by mail which provides details about where to receive more information. The applicant shall maintain copies of the packet sent to municipalities and certified mail receipts. The applicant shall make copies of the packet, certified mail receipts, and any further correspondence regarding hard copies of YOPs in *lieu* of Internet viewing, available to the Department upon request.
(c) The Department shall allow a 45-day comment period on proposed YOPs, unless extended for good cause, commencing with the publication of the notice in the *Environmental Monitor* and receipt of the proposed YOP and *Environmental Monitor* notice by each municipality.
(d) The Department may approve, deny or modify YOPs after the 45-day comment period has expired.

(4) Disposition of YOP.
(a) The applicant shall submit the YOP to the Department at least 90 days prior to the proposed commencement of application to allow completion of the comment and review period.
(b) The Department shall review the YOP to ensure that the YOP is consistent with the approved VMP. Any inconsistencies or deficiencies will be noted by the Department and returned with the YOP to the applicant.
(c) Where practical, the Department shall approve or deny the YOP within 90 days of receipt. The Department will provide notice of the decision to the applicant, municipal agencies and commentators in writing.
(d) The approved YOP in conjunction with the VMP shall govern the application of herbicide for a period not to exceed 12 months in accordance with other laws and regulations of the State and Federal governments and impose such conditions as necessary to minimize the risk of adverse effects on human health and the environment.

(5) Time for Action. Non-action by the Department on a YOP within the time specified in 333 CMR 11.06(4) does not constitute approval of the submitted plan. In the event that the Department fails to notify the applicant of a decision within the time specified and upon a written request from the applicant, the Commissioner must issue a finding within ten days of receipt stating the reason for the delay and providing an estimated completion date.

11.07: Public Notification

(1) At least 21 days in advance of application of herbicide to a right-of-way in any city or town, the applicant shall notify the Department, the board of health, and the local public water supplier and, by registered mail, the Mayor, City Manager or Chairman of the Board of Selectman, and the conservation commission in the municipality where the right-of-way lies. The notice shall include the following information: the approximate dates on which such herbicide application shall commence and conclude, provided however, that said application shall not commence more than ten days before nor conclude more than ten days after said approximate dates; the method and locations of application; a Department-approved Herbicide Fact Sheet on the active ingredient(s) of the herbicide(s) used; the EPA registration number(s) for the herbicide(s) used; the name, title, business address and phone number of the certified commercial applicator or licensed applicator, or the contractor, employer or employees responsible for carrying out the application. Where specific information required for this notice is already contained in the current YOP that is on file with the local official, the applicant may incorporate the appropriate pages of the YOP by reference in its notice to that official, indicating that these pages are also directly available from the applicant upon request.

(2) This public notice may run concurrently with the public notice and comment period in 333 CMR 11.06(3), provided that the notice is distributed at least 21 days prior to the herbicide application, and that, prior to the herbicide application, the public notice and comment period has closed and the Department has granted YOP approval without modifications. When the Department's final approval requires modifications or application dates are selected after YOP approval, separate notice under 333 CMR 11.07(1) is required.

(3) At least 48 hours prior to the application referred to in 333 CMR 11.07(1), the applicant must publish a conspicuous notice in at least one newspaper of general circulation in the city or town where the right-of-way lies. The notice must appear in the local section of the newspaper and measure at least four by five inches in size. The notice shall contain the following information: the method and locations of pesticide application; the approximate dates on which the pesticide application shall commence and conclude, provided that the applications shall not commence more than ten days before nor conclude ten days after said approximate dates; a list of potential pesticides to be used; a description of the purpose of the application; and the name, title, business address and phone number of a designated contact person representing the applicant from whom any citizen may request further information. The notice should apply only to the calendar year in which the notice is published. Upon request the notice must be made available to the Department.

11.08: Notice of Modification and Revocation

(1) The Department may suspend approval of any VMP or YOP, by written notice to the applicant and applicator, halting the application of herbicide to that right-of-way of the YOP. After 21 days if the applicant does not request a hearing, the Department may revoke or modify the VMP and YOP, if it finds:

(a) that the terms, conditions of restrictions thereof, are being violated or are inadequate to avoid unreasonable adverse effects on the environment or on human health; or

(b) that the applicant has made a false or misleading statement or has not provided information requested by the Department or Rights-of-way Advisory Panel; or

(c) that the applicant has violated any provision of the Massachusetts Pesticide Control Act or FIFRA, or any regulations, standards, orders or license issued under either.

(2) Upon notice of revocation or modification, the applicant may modify the YOP by written request to the Department. Applications to modify the YOP shall be submitted in the manner set forth in 333 CMR 11.06 and disposed of in the manner set forth in 333 CMR 11.06. The Department may waive all or part of the requirement if it determines that the proposed changes do not significantly change the terms of the approved YOP.

11.09: Right-of-appeal

Any person aggrieved by the decision of the Department to approve, deny, modify or revoke a VMP or YOP may request an adjudicatory hearing. The request for a hearing must be received by the Department within 21 calendar days after receipt of the decision. The request should state clearly and concisely the facts of the proceeding, the reasons the decision is alleged to be inconsistent with 333 CMR 11.00 and the relief sought by the adjudicatory hearing. The adjudicatory hearing before the Pesticide Board shall be conducted in accordance with the informal rules of adjudicatory proceeding as set forth in M.G.L. c. 30A.

11.10: Penalties

Any person who violates any provision of 333 CMR 11.00 shall be subject to the criminal and civil penalties set forth in M.G.L. c. 132B, § 14.

11.11: Rights-of-way Advisory Panel

(1) A Rights-of-way Advisory Panel shall be established to advise the Department on issues relating to 333 CMR 11.00 and to fulfill specific functions as detailed within 333 CMR 11.00.

(2) The Department shall request that the following members participate on the Rights-of-way Advisory Panel: the Commissioners/Secretaries or his/her designee of the Department of Environmental Protection, the Department of Public Health, and the Executive Office of Transportation; and a representative, respectively, from each of the following, all to be appointed by the Department Commissioner: the Massachusetts Association of Conservation Commissions, the Massachusetts Association of Health Boards, the Massachusetts Department of Conservation and Recreation, and an Environmental Advocacy Organization Representative, a member of the University of Massachusetts Extension who is well versed in weed science and Integrated Pest Management of weeds, a representative of the Massachusetts Railroad Association, a representative of a utility company and a commercial pesticide applicator.

(3) Non-agency representatives shall remain on the panel for a term of five years. Any member absent from two or more consecutive meetings may be removed from the Advisory Panel at the discretion of the Commissioner of the Department, and a replacement requested from the representative agency, industry group, or association.

(4) The Advisory Panel shall meet at least once each year, and shall hold further meetings upon the request of the Department of Agricultural Resources or at the request of any two members of the Advisory Panel.

(5) All Advisory Panel members shall serve without compensation.

REGULATORY AUTHORITY

333 CMR 11.00: M.G.L. c. 132B.

Finalsan

# FINALSAN
## HERBICIDAL SOAP

Additional Precautionary Statements, Directions for Use, and Storage and Disposal Instuctions on Back Panel

**ACTIVE INGREDIENT:**

Ammoniated soap of fatty acids.....22%
OTHER INGREDIENTS .....78%
TOTAL..... 100%

**KEEP OUT OF REACH OF CHILDREN**

**WARNING**

EPA REG. NO. 67702-8 EPA EST. NO. 48498-CA-1
NET CONTENTS: 2.5 GALLONS

- **Fast acting weed, grass, algae and moss killer.**
- **The active ingredient in this product is exempted from the requirement of a tolerance for residues in or on all food commodities when used in accordance with good agricultural practice.**
- **Won't stain bricks, concrete or asphalt.**

| FIRST AID | |
|---|---|
| **IF IN EYES** | Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. |
| **IF ON SKIN OR CLOTHING** | Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. |
| **IF SWALLOWED** | Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything by mouth to an unconscious person. |
| **IF INHALED** | Move person to fresh air. If person is not breathing call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice. |
| Have the product container or label with you when calling a poison control center or doctor or going for treatment. During other times, call the poison control center 1-800-222-1222. | |

### PRECAUTIONARY STATEMENTS
### HAZARDS TO HUMANS AND DOMESTIC ANIMALS. WARNING:

Causes substantial but temporary eye injury. Causes skin irritation. Avoid breathing vapor or spray mist. Harmful if inhaled. Do not get in eyes, on skin or on clothing.

**Personal Protective Equipment (PPE) Requirements:** Applicators and other handlers must wear: coveralls worn over short-sleeved shirt and short pants, socks, chemical-resistant footwear, waterproof gloves and protective eyewear. When cleaning equipment a chemical-resistant apron should also be worn. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

**User Safety Recommendations**

- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### ENVIRONMENTAL HAZARDS

This product may be hazardous to aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing equipment washwaters or rinsate.

### DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply this product in a manner that will contact workers or other persons, either directly or through drift. Only protected workers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation. Read and follow all applicable directions and precautions on this label before using.

**Agricultural Use Requirements**

Use this product in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), restricted-entry interval, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).
Entry-Restrictions: Do not enter or allow worker entry into treated areas during the restricted-entry interval of 24 hours.
PPE required for early-entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, wear: coveralls worn over short-sleeved shirts and short pants, socks, chemical-resistant footwear, waterproof gloves and protective eyewear.

**Non-Agricultural Use Requirements**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.
Keep unprotected persons out of treated areas until sprays have dried. For early reentry to treated areas and that involves contact with anything that has been treated such as plants, soil, or water, wear: coveralls, shoes, socks, and waterproof gloves.

**Application Directions:**

**Stand Alone Use:**

Shake well before using.

- For the control of perennial or more established weeds, mix one part FINALSAN with 5 parts water (16.7% v/v solution)
- For annual weeds and small, easy-to-kill weeds, mix one part FINALSAN with 9 parts water (10% v/v solution)
- For the control of moss and algae, mix one part FINALSAN with 19 parts water (5% v/v solution)

For the control of weeds and grass, apply the mixed solution at 75-200 gallons/acre (2 – 5 gallons/1000 $ft^2$). For the control of moss and algae, apply the mixed solution at 8.3-25 gallons/1000 $ft^2$. Spray weed thoroughly, using a coarse nozzle setting to reduce drift. Thorough coverage is extremely important. For spot treatment of individual weeds, apply the mixed solution to the center of plant to the point of runoff. Plant damage will be visible from a few hours to 2 days after spraying. Repeat treatment every 2 to 3 weeks to control new weeds growing from seed and re-growth from bi-annual and perennial weeds. Avoid spraying desirable plants. Thoroughly wash equipment after use.

**Tank Mixes:** FINALSAN may be combined with other pesticides to broaden the target spectrum, improve the level of control, and enhance coverage. When used as a tank mix, observe all directions for use, crops, use rates, dilution ratios,

precautions, and limitations, which appear on the tank mix product label. Follow the label directions for the most restrictive of label precautions and limitations. Do not mix this product with any other product that prohibits such mixing.
Always predetermine the compatibility of labeled tank mixtures of this product with other products in advance of application by mixing proportional quantities of all products and water in a container and watching for adverse reactions. When tank mixing, add formulations in the following sequence: (1) wettable powders; (2) flowable liquids; (3) emulsifiable liquids; (4) FINALSAN herbicide; (5) water soluble liquids; and (6) adjuvants.

**FINALSAN plus Glyphosate Herbicides:** FINALSAN is synergistic with certain postemergence herbicides. A mixture of this product and glyphosate has shown enhanced speed of top kill and improved control of numerous weed species. To enhance the activity of glyphosate-containing herbicides, and accelerate burndown of target weeds, use the necessary amount FINALSANto reach a final concentration of 5-16.7% v/v spray solution plus the labeled rate of the registered glyphosate product. Lower rates in the rate range will provide less visible burndown effect.

**Rate Table:**

| Desired Final Volume of Spray Solution (gallons) | Amount of FINALSAN in Spray Solution for Following Dilution Rate | | |
|---|---|---|---|
| | 1:19 (5% v/v) | 1:9 (10% v/v) | 1:5 (16.7% v/v) |
| 1 | 6.4 ozs. | 12.8 ozs. | 21 ozs. |
| 2.5 | 16 ozs. | 32 ozs. | 51 ozs. |
| 5 | 32 ozs. | 64 ozs. | 102 ozs. |
| 7.5 | 48 ozs. | 96 ozs. | 1.25 gal |
| 10 | 64 ozs. | 1 gal | 1.6 gal |

**Product Information:** FINALSAN is a fast-acting, non-selective weed, grass, algae and moss killer. This product is not translocated. It will burn only those plant parts that are coated with spray solution. The best results are obtained with young, actively growing weeds, less than 5 inches high. FINALSAN can be used any time during the year and works best during warm and dry conditions. Application during cold weather may delay appearance of plant damage. If rain falls within 3 hours of treatment, an additional spray may be required. FINALSAN controls many common annual weeds and suppresses the growth of some bi-annual and perennial weeds. It can be used in cultivated areas prior to planting grass, flowers and vegetables. Areas can be re-sown five days after treatment. Inadvertent overspray of FINALSAN does not stain concrete, pavement, stucco or wood.

**Use Sites:**
**Outdoors and Greenhouses**
**Terrestrial Food and Feed Crops:** Grapes, cereal grains, vegetable crops, orchards, fruit and nut trees, vines, field crops (e.g.: artichokes, beans, corn, cotton, ginseng, herbs, hops, peas, peanuts, potatoes, small fruits, sugarbeets, sunflowers, sweet potatoes, tobacco, tomatoes and yams), seedbed or site preparations, cultivated areas prior to the emergence of susceptible plant parts or as a directed spray avoiding desirable plants, fields after the crop has been harvested, and grass or non-grass forage/ fodder/hay.
**Terrestrial Non-Food Crops:** Ornamental herbaceous plants, ornamental lawns and turf, ornamental woody shrubs, vines, and ornamental shade trees.
**Terrestrial Non-Crop Sites:** Around and on buildings, sidewalks, fences, trees, bark mulch, driveways and other right-of-ways, patios, gravel, on structures holding flowers, trees, shrubs, vines and vegetables, landscaped areas, lawns, and on and around buildings and structures, such as benches, walls, floors, and roofs.

**Use Methods:**
**Vegetation Burndown:** General control of weeds, grass, algae and moss for site preparation and non-crop areas. Spot treatments may be used in crop and pasture situations. Applications may be made in and around desirable plants when contact of foliage and green bark is avoided.
**Directed and Shielded Sprays:** Applications may be made around desirable plants when contact of foliage and green bark is avoided.
**Prior to Emergence of Plants from Seed, Perennial Rootstocks, and Bulbs:** Ensure applications are made before new growth or crop emerges from soil or damage will occur. Areas can be re-sown five days after treatment.
**Sucker Control, Pruning and Trimming:** To burn back and control epicormic shoots, sucker growth, and other unwanted growth on woody trees, foliage growth on vines, excessive cane growth in brambles, or other listed use sites. Apply only to unwanted vegetative parts. Apply before suckers become woody.
**Harvest Aid and Desiccation:** To remove leaves of plants prior to harvest and/or burndown of weeds to facilitate harvest. Harvest aid and desiccation uses include applications to root and tuber vegetables, bulb vegetables and cotton only. Applications must be made no later than 24 hours prior to harvest.
**Post-Harvest Spray:** To control weeds, grass, moss and algae growing in fields after the commodity has been harvested.
**Structural and Building Applications:** To control weeds, grass, moss and algae in and around buildings and structures such as benches, walls, floors, and roofs.
**Over-seeding Burndown:** Apply a 10% v/v solution of FINALSAN at 1.8 gallons/1000 $ft^2$ to burn down grass before over-seeding, facilitate grass removal and disposal, and allow a more timely re-seeding process with labor, fuel and equipment savings.

**Pests:**
Weeds controlled or suppressed by FINALSAN include the following:

| | |
|---|---|
| • chickweed | *Stellaria media* |
| • corn spurry | *Spergula arvensis* |
| • dandelion | *Taraxacum spp.* |
| • groundsel | *Senecio spp.* |
| • lamb's-quarters | *Chenopodium album* |
| • mouse-eared chickweed | *Cerastium vulgatum* |
| • mustards | *Brassica spp.* |
| • plantain | *Plantago spp.* |
| • redroot pigweed | *Amaranthus retroflexus* |
| • round leaved mallow | *Malva spp.* |
| • sheep sorrel | *Rumex acetosella* |
| • shepherd's-purse | *Capsella bursa-pastoris* |
| • stinkweed | *Thlaspi arvense* |
| • thistle | *Cirsium spp.* |
| • annual bluegrass | *Poa annua* |
| • large crabgrass | *Digitaria sanguinalis* |
| • perennial ryegrass | *Lolium perenne* |
| • creeping red fescue | *Festuca rubra* |
| • hard fescue | *Festuca ovina* |
| • colonial bentgrass | *Agrostis tenuis* |
| • moss, algae, and lichens | |

**STORAGE AND DISPOSAL**
Do not contaminate water, food or feed by storage or disposal.
**PESTICIDE STORAGE:** Store this product in its original container and keep in a secure storage area out of reach of children and domestic animals.
**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available.

**BATCH CODE**

**NOTICE TO BUYER**
To the extent consistent with applicable law, seller warrants that this product conforms to the chemical description on this label and is reasonably fit for purposes stated on this label only when used in accordance with directions under normal use conditions. This warranty does not extend to use of this product contrary to label directions, or under abnormal use conditions, or under conditions not reasonably foreseeable to seller. Buyer assumes all risk of any such use. Seller makes no other warranties, either expressed or implied.

Finalsan™ is a trademark of W. Neudorff GmbH KG, Germany.

**Manufactured for:**
W. Neudorff GmbH KG
An der Mühle 3
31860 Emmerthal, Germany

NEUDORFF®

# SAFETY DATA SHEET

## 1. Identification

**Product Identifier**

**Trade name: Finalsan Concentrate**
**Reg. No. 29017 P.C.P. Act**

**Details of the supplier of the safety data sheet**

**Registrant:**
W. Neudorff GmbH KG
11-6782 Veyaness Rd., Saanichton, BC V8M 2C2
info@neudorff.ca
250-652-5888 for product information
**Emergency Phone Number:** 1-800-858-7378

## 2. Hazard Identification

**Signal Word:** Warning

**Hazard Statements:**

| | |
|---|---|
| H303 | May be harmful if swallowed |
| H313 | May be harmful in contact of skin |
| H315 | Causes skin irritation |
| H320 | Causes eye irritation |
| H333 | May be harmful if inhaled |

**Pictograms:**

**Precautionary Statements (Prevention):**

| | |
|---|---|
| P280 | Wear protective gloves |

**Precautionary Statements (Response):**

| | |
|---|---|
| P303 + P352 | If on skin (or hair): Wash with plenty of soap and water. |
| P333 + P311 | If skin irritation or rash occurs: Call a Poison Center or doctor/physician. |
| P305 + P351 | If on eye: Rinse cautiously with water for several minutes. |

**Precautionary Statements (Storage):**

P403 + P235 Store in a well-ventilated place. Keep cool.

**Precautionary Statements (Disposal):**

P501 Dispose of contents/container to hazardous to special waste collection point.

## 3. Composition/information on ingredients

**Chemical characterization: Mixture**

| Hazardous Components | | |
|---|---|---|
| **Components** | **% (w/w)** | **Hazard Information** |
| Ammoniated soap of fatty acids | 22% | Eye irritant |

## 4. First-Aid Measure

**Description of first aid measures**

**Inhalation:** Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing.
**Skin:** In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Wash skin with soap and water. Take off contaminated clothing and was before reuse. If skin irritation occurs: Get medical advice/attention.
**Eye:** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
**Ingestion:** Do not induce vomiting. If person is drowsy or unconscious and vomiting, place on the left side with head down. Seek medical attention.
**Most important symptoms and effects, both acute and delayed**
No further relevant information available
**Indication of any immediate medical attention and special treatment needed.**
No further relevant information available.

## 5. Fire-Fighting Measures

**Extinguishing media**

**Suitable Extinguishing Media:** Regular foam, carbon dioxide, dry chemical, water.
**Special hazards arising from the substance or mixture:** No further relevant information available.

**Advice for firefighters**

**Protective equipment:** No special measures required.

## 6. Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions:** Wear appropriate protective equipment. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
**Environmental precautions:** Avoid run off to waterways and sewers

**Methods and material for containment and cleaning up**

**Containment/Clean-Up Measures:** Stop leak if can do it without risk. Absorb or cover with dry earth, sand or other absorbent materials and transfer to containers. .

## 7. Handling and Storage

**Precautions for safe handling**

**Handling:** No special precautions are necessary if used correctly.

**Conditions for safe storage, including any incompatibilities**

**Storage:** Store in ambient temperature, well-ventilated place away from excessive heat. Keep container closed when not in use. Keep away from incompatible materials.
**Incompatible Materials:** None known

## 8. Exposure Controls/Personal Protection

**Control Parameters**

**Components with limited values that require monitoring at the workplace:** Not required.

**Exposure controls**

**Personal Protective Equipment**

**Pictograms:**

**Respiratory:** In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 26 CFR 1910.134. Use a NIOSH/MSHA approved respirator if exposure limits are exceeded or symptoms are experienced.
**Eye/Face:** Wear safety goggles
**Hands:** Wear protective gloves
**Skin/Body:** Where extensive dermal exposure may be expected, either a chemical suit or a chemical apron will be needed.
**General Industrial Hygiene Considerations:** Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly with soap and water after handling and before eating, or drinking. Safety shower and eye wash should be available close to work areas.
**Environmental Exposure Controls:** Follow best practice for site management and disposal of waste. Avoid release to the environment.

## 9. Physical and Chemical Properties

**Appearance:** Clear to yellow liquid
**Odor:** Odour of soap and ammonia
**pH:** 8.40 ± 0.10
**Boiling Point:** Not determined
**Melting Point:** Not determined
**Flash Point:** Non combustible
**Flammability:** Product is not flammable
**Decomposition Temperature:** Not determined
**Heat of Decomposition:** Not determined
**Danger of Explosion:** Product does not present an explosion hazard
**Upper explosion limits:** Not determined
**Lower explosion limits:** Not determined
**Vapor Pressure:** Not applicable
**Vapor Density:** Not applicable
**Evaporation Rate:** Not applicable
**Density @ 20°C (68°F):** 1.00 ± 0.03 g/mL
**Water Solubility:** Soluble
**Partition coefficient (n-octanol/water):** Not determined
**Viscosity:** 1.2 ± 0.4 cPs (Brookfield LVF)

## 10. Stability and Reactivity

**Reactivity:** No dangerous reaction known under conditions of normal use.
**Chemical Stability:** Stable under normal temperatures and pressures.
**Possibility of Hazardous Reactions:** No dangerous reactions known.
**Conditions to avoid:** Exposure to excessive heat.
**Incompatible Materials:** None known
**Hazardous Decomposition Products:** $CO_2$, CO, $NH_3$, $NO_x$

## 11. Toxicological Information

### Information on toxicological effects

**Acute toxicity:** $LD_{50}$ (oral) (rat)>5000 mg/kg; $LD_{50}$ (dermal) >5000 mg/kg

### Routes of Entry

**Skin:** May be harmful in contact of skin. Causes skin irritation.
**Eyes:** Causes eye irritation.
**Ingestion:** May be harmful if swallowed
**Inhalation:** May be harmful if inhaled

### Carcinogenic Categories

**IARC (International Agency for Research on Cancer):** Substance is not listed
**NTP (National Toxicology Program):** Substance is not listed

## 12. Ecological Information

**Toxicity:** No further relevant information available.
**Persistence and Degradability:** No further relevant information available.
**Mobility in Soil:** No further relevant information available.
**Other Adverse Effects:** No studies have been found

## 13. Disposal Considerations

### Waste Treatment Methods

**Product Waste:** Dispose of content and/or container in accordance with local, regional, national, and/or international regulations
**Packaging Waste:** Dispose of content and/or container in accordance with local, regional, national, and/or international regulations

## 14. Transport Information

**DOT Classification:** Not regulated by US DOT Highway regulations.
**U.S. Surface Freight Classification:** NMFC item 155050, LTL Class: 70 Herbicide or NMFC item 50320 Sub 2, LTL Class 60
**UN Number:** Non-Hazardous. Not regulated.
**IMDG Class (sea):** Non-Hazardous. Not regulated.
**IATA Class (air):** Non-Hazardous. Not regulated.
**Marine Pollutant:** No.
**Packing Group:** Not regulated.
**Hazard Label(s):** Non-Hazardous. Not regulated.
**ADR Class (road):** Not regulated.
**Proper Shipping Name(s):** Not regulated.
**Reportable Quantity:** None

## 15. Regulatory Information

### Safety, Health, and Environmental Regulations/Legislation Specific for the Substance or Mixture

**SARA:** N/A
**Section 355 (Extremely Hazardous Substance):** Substance is not listed.
**Section 313 (Specific Toxic Chemical Listings):** Substance is not listed.
**TSCA (Toxic Substance Control Act):** Substance is not listed.

### Proposition 65

**Chemicals Known to Cause Cancer:** Substance is not listed.
**Chemicals Known to Cause Reproductive Toxicity for Females:** Substance is not listed.
**Chemicals Known to Cause Reproductive Toxicity for Males:** Substance is not listed.
**Chemicals Known to Cause Developmental Toxicity:** Substance is not listed.
**National Regulations:** Substance is not listed.
**State Right to Know:** Substance is not listed.

### Labeling requirements under P.C.P. Act

This chemical is a pesticide product registered by the Pest Management Regulatory Act and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for

safety data sheets, and workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

KEEP OUT OF REACH OF CHILDREN. Causes eye irritation. DO NOT get in eyes. Use only in well ventilated areas. For good hygiene practice, wear gloves when handling this product. Wear goggles or face shield (protective eyewear) during mixing/handling of the concentrate. Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools, and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature, application equipment, and sprayer settings. Avoid direct application to ponds, streams and lakes. DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes. If desirable vegetation is accidently sprayed immediately rinse with water. Treated areas may be slippery when wet.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at: www.croplife.ca.

## 16. Other Information

**Last Revision Date:** March 12, 2018
**Preparation Date:** December 1, 2014
**Disclaimer/Statement of Liability:** The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.
**Key to Abbreviations:**

# Appendix C

## Town Map (1 Page)