MUNICIPAL ROADWAY VEGETATION MANAGEMENT PLAN

This Municipal Roadway Vegetation Management Plan submitted to the Massachusetts Department of Agricultural Resources pursuant to the Rights of Way Management Regulations (333 CMR 11.00) has been reviewed and is recommended for adoption in the below named municipality. The undersigned hereby acknowledges the conditions of the Municipal Roadway Vegetation Management Plan will be adopted and complied with.

MUNICIPALITY:	**Town of Bolton**
PLAN TYPE:	**Yearly Operational Plan (YOP)**
PLAN AUTHOR:	**Harold Brown**
DEPARTMENT:	**Department of Public Works**
ADDRESS:	**12 Forbush Mill Road – Bolton, MA 01740**
PHONE:	**(978) 779-6402**
FAX:	**(978) 779-0301**
EMAIL:	**dpw@townofbolton.com**

SIGNATURES:

PLAN AUTHOR:	
BOH CHAIRPERSON:	
CONSERVATION CHAIRPERSON:	
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 the submitted Yearly Operational Plan (YOP).

Massachusetts Department of Agricultural Resources
Pesticide Bureau – Right of Way Program
251 Causeway Street – Suite 500
Boston, Massachusetts 02114-2151

MUNICIPAL
YEARLY OPERATIONAL PLAN

EFFECTIVE YEAR:

2013

This Yearly Operational Plan approved by the Department of Agricultural Resources pursuant to the Rights of Way Management Regulations (333 CMR 11.00) has been adopted by the following roadway vegetation management program of the named municipality. The undersigned hereby acknowledges that the conditions of the Yearly Operational Plan will be adopted and complied with.

MUNICIPALITY:	Town of Bolton
NAME:	Harold Brown
AGENCY:	Department of Public Works
ADDRESS:	12 Forbush Mill Road – Bolton, MA 01740
PHONE:	(978) 779-6402
FAX:	(978) 779-0301
EMAIL:	dpw@townofbolton.com
SIGNATURE:	
DATE:	
WETLAND DELINEATION:	

Signature & Title of the Conservation Commission official acknowledging that Wetlands in the municipality have been delineated.

A municipality will be considered to have an approved Yearly Operational Plan only when a completed copy of this page is submitted to the Department of Agricultural Resources at least 45 days prior to any proposed herbicide treatment and a copy of this cover page and the Yearly Operational Plan is sent to the Conservation Commission, Board of Health, and chief elected official.

I. Individual Supervising Yearly Operational Plan (YOP)

Individual supervising implementation and conditions of the YOP

NAME & TITLE:	Harold E. Brown – Director of Public Works
DEPARTMENT:	Town of Bolton Department of Public Works
ADDRESS:	12 Forbush Mill Road – Bolton, MA 01740
PHONE:	(978) 779-6402
FAX:	(978) 779-0301
EMAIL:	dpw@townofbolton.com
SIGNATURE:	

II. The Municipal Department or Company Which Will Perform Herbicide Treatment

Municipal employees or subcontractors will perform herbicide treatment. Applicators are certified by the Department of Agricultural Resources in the applicator category "Right-of-Way Pest Control".

DEPARTMENT:	Town of Bolton Department of Public Works
ADDRESS:	12 Forbush Mill Road – Bolton, MA 01740
PHONE:	(978) 779-6402
FAX:	(978) 779-0301
EMAIL:	dpw@townofbolton.com
CONTACT(S):	Harold Brown / Shelly O'Toole

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III. Herbicides Proposed Including Application Rates, Carriers, Adjuvants

Herbicides that may be used on municipal roadways are limited to the following. Refer to the VMP for additional information.

Active Ingredient Use Restrictions	**Product Names** (EPA #) Registrant	
Glyphosate Lowest Labeled Rate for all Glyphosate products	**Round Up Pro** (524-475) Monsanto **Razor (228-366)** **Razor-Pro (228-366)** **Riverdale AquaNeat Aquatic Herbicide** (228-365) Nu Farm Americas	**Accord SP** (62719-322) **Glypro-Plus** (62719-322) **Accord Concentrate** (62719-324) Dow AgroSciences
	While Accord Concentrate, Rodeo, Glyphosate VMF and Aquaneat all have aquatic uses, approval for their use as sensitive materials does NOT mean that they can be used for aquatic weed control, or directly applied to water, as part of a rights of way management program. Products are subject to the no-spray and limited spray provisions of 333 CMR 11.04.	
Metsulfuron Methyl Lowest Labeled Rate for all Metsulfuron Methyl Products*	**Escort** (352-439) **Escort XP** (352-439) El Dupont	**Riverdale Patriot Herbicide,** (228-391) Nu Farm Americas
Sulfometuron Methyl Lowest Labeled Rate for all Sulfometuron-Methyl Products*	**Oust XP** (352-601) El Dupont	**Riverdale Spyder Herbicide,** (228-408) Nu Farm Americas
Metsulfuron Methyl **Sulfometuron Methyl** Lowest Labeled Rate*	**Oust Extra** (352-622) El Dupont	
Ammonium Salt of Fosamine Lowest Labeled Rate*	**Krenite S** (352-395) El Dupont	
Imazapyr 3 pints/acre every 3rd year OR 2 pints/acre every other year for all Imazapyr Products	**Arsenal** (241-346) **Arsenal Railroad Herbicide** (241-273) BASF	**POLARIS HERBICIDE** (241-346-228) **POLARIS RR HERBICIDE** (241-273-228) NU FARM AMERICAS
Triclopyr, Butoxy Ethyl Ester The lowest of the following rates: 1. Between 10 feet and 50 feet of the resource: Lowest labeled rate* or 0.5 pints per acre 2. Between 50 feet and the boundary of the limited spray zone: Lowest labeled rate* or 3 pints per acre	**Garlon 4** (62719-40) Dow AgroSciences	**Riverdale Tahoe 4E Herbicide,** (228-385) Nu Farm Americas

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

We will use Round-Up Pro.

Control Method:	hand-held low pressure foliar spray
Herbicide Mixture:	4%
Carriers or Adjuvants:	none
Application Rate / Acre:	2 ounces / acre

IV. Herbicide Application Techniques and Alternative Control Procedures

Roadway vegetation management will involve mechanical methods (hand cutting, selective trimming and mowing) and chemical control (foliar herbicide treatments and cut stump treatments). The particular method(s) chosen will be based on a variety of factors to establish an easily maintainable, stable plant population that will not interfere with vehicles or pedestrians. Emphasis will be given to the control tactic that will address the vegetation problem in the most environmentally sound manner and in a way to minimize vegetation control in the long term. The method chosen for a given vegetation problem will attempt to achieve a long term, low maintenance vegetation management program through the encouragement of a stable herbaceous community.

Alternative control measures can include programs to encourage growth of desirable grasses and wildflowers.

Chemical controls include foliar treatments and cut stump treatments, mechanical controls, hand cutting, mowing and selective trimming. Refer to 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 type of target vegetation, refer to the VMP.

Target Vegetation	Mechanical Control	Chemical Control
Public Nuisance Vegetation poison ivy and other "poisonous" vegetation growing within 10 feet of the roadway	n/a	Low Volume / Low Pressure foliar spray.
Nuisance Grass stem density and height impedes movement or hampers visibility	selective trimming & mowing	n/a
Vegetation Posing a Risk to Safety vegetation hampers visibility or impedes movement along roads and trails.	hand-cutting & selective trimming	n/a

VI. Flagging Methods to Designate Sensitive Areas on the Right-of-Way

Sensitive areas are identified as public ground water supplies, public surface water supplies, private drinking water supplies, surface waters, wetlands, habitated 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 readily identifiable in the field.\

Sensitive areas not readily identifiable in the field include public groundwater supplies, wetlands, private water supplies and public surface water supplies. These will be flagged or marked as "No Spray Zones" in the following manner.

Process of I.D. of sensitive areas:

1) Areas to be sprayed were walked to determine sensitive areas.
2) Questionable areas were checked by the Conservation Commission.
3) Board of Health records were reviewed to locate wells of older homes that do not conform to current setback requirements. Homeowners were contacted in cases where no records were available.

Sensitive Area Restriction Guide (333 CMR 11.04)

Sensitive Area	No Spray Zone	Limited Use Zone	Where Identified
Wetlands and Water Over Wetlands	Within 10 feet (unless provisions of 333 CMR 11.04(4)(c) are followed)	10 – 100 feet; 12 months must elapse between applications; Selective low pressure, using foliar techniques or basal or cut-stump applications	YOP Maps and identify on site
Certified Vernal Pool	Within 10 feet	10 feet to the outer boundary of any Certified Vernal Pool Habitat; 12 months must elapse between applications; Selective low pressure, using foliar techniques or basal or cut-stump applications	YOP Maps and identify on site
Public Ground Water Supply	Within 400 feet (Zone I)	Zone II or IWPA (Primary Recharge Area); 24 months must elapse between applications; Selective low pressure, using foliar techniques or basal or cut-stump applications	YOP Maps
Public Surface Water Supply	Within 100 feet of any Class A public surface water source	100 feet to the outer boundary of the Zone A; 24 months must elapse between applications; Selective low pressure, using foliar techniques or basal or cut-stump applications	YOP Maps
	Within 10 feet of any tributary or associated surface water body located outside of the Zone A	10 feet to the outer boundary of the Zone A; 24 months must elapse between applications; Selective low pressure, using foliar techniques or basal or cut-stump applications	
	Within 100 feet of any tributary or associated surface water body located within the Zone A of a Class A public surface water source		
	Within a lateral distance of 100 feet for 400 feet upstream of any Class B Drinking Water Intake	Within a lateral distance of between 100 - 200 feet for 400 feet upstream of intake; 24 months must elapse between applications; Selective low pressure, using foliar techniques or basal or cut-stump applications	
Private Water Supply	Within 50 feet	50 – 100 feet; 24 months must elapse between applications; Selective low pressure, using foliar techniques or basal or cut-stump applications	In YOP well list and identify on site

Sensitive Area	No Spray Zone	Limited Use Zone	Where Identified
Surface Waters	Within 10 feet from mean annual high-water line	10 feet from the mean annual high water line and the outer boundary of the Riverfront Area; 12 months must elapse between applications; Selective low pressure, using foliar techniques or basal or cut-stump applications	YOP Maps and identify on site
Agricultural and Inhabited Areas	N/A	0 – 100 feet 12 months must elapse between application; Selective low pressure, using foliar techniques or basal or cut-stump applications.	Identify on site
State-listed Species Habitat	No application within habitat area except in accordance with a Yearly Operational Plan approved in writing by the Division of Fisheries and Wildlife		YOP Maps

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

All mixing and loading of herbicides will be conducted at the central facility where the herbicides are stored. 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, leak-proof containers, a broom and a shovel in case of minor spills. A clipboard log of the herbicides on the vehicle will be kept on the vehicle. Herbicide labels and fact sheets 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 must be identified and secured. Spill containment will be accomplished by covering the 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.

In the event of a spill, information on safety precautions and clean up procedures may be gathered from the sources found in the "Emergency Contact List".

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 herbicides, such as granules, will be swept up or shoveled up directly in leak proof containers for proper disposal. All contaminated soil will be placed in leak proof 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 handles 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 the Pesticide Bureau must be contacted.

VIII. Emergency Contacts

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

Herbicide Label

Herbicide Fact Sheet

Herbicide Material Safety Data Sheet

Herbicide Manufacturers

DuPont	(800) 424-9300
Monsanto	(314) 694-4000
Massachusetts Pesticide Bureau	(617) 727-3020
Massachusetts Dept. of Environmental Protection	(617) 292-5500
Chemtrec	(800) 424-9300
EPA Pesticide Hotline	(800) 858-7378
Massachusetts Poison Control Center	(800) 682-9211
Bolton Police Department / Communications Center	(978) 779-2276

APPENDICES

A. Herbicide Fact Sheets as approved by the Department

B. Maps locating the Right-of-Way and Sensitive areas not readily identifiable in the field including private drinking water wells.