

TOWN OF WILMINGTON
DEPARTMENT OF PUBLIC WORKS



VEGETATION MANAGEMENT
YEARLY OPERATIONS PLAN
CALENDAR YEAR 2014

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REVISED NOVEMBER 6, 2013.

INTRODUCTION

The Town of Wilmington has developed a five year Vegetation Management Plan (VMP) to ensure compliance with Rights of Way (ROW) management regulations 333CMR11 for the control of hazard, detrimental, nuisance, and invasive vegetation in order to promote safe travel. The methods proposed by the VMP include mechanical, chemical, cultural (good housekeeping techniques), and developmental control (through ongoing Community Development Technical Review Committee reviews of proposed site projects throughout Town). The number one priority of the plan is public safety. The 5 Year VMP was approved in December of 2013 for years 2014 – 2018.

The VMP proposes an integrated approach whereby priority areas are identified for control, control methods are implemented in an environmentally responsible manner, and ongoing monitoring is performed in order to alter the treatment plans as needed.

This Yearly Operations Plan (YOP) was developed to comply with the requirements of 333CMR11 and to further define specific control strategies for calendar year 2014. A YOP must be submitted to the Massachusetts Department of Agricultural Resources (MDAR) every year herbicides are intended for use to maintain rights-of-way.

Upon receipt of this YOP, the MDAR publishes a notice in the Environmental Monitor for public comment. The Town must provide a copy of the proposed YOP and Environmental Monitor notice to the Board of Health, Conservation Commission, and the Town Manager's Office. The MDAR allows a 45-day comment period on the proposed YOP.

Public notification of herbicide application to the ROWs is made at least 21 days in advance of the treatment by a separate notice. Notice is made to the MDAR, Town Manager's Office, Board of Health, and the Conservation Commission in the Town of Wilmington.

A Request for Determination of Applicability (RDA) was filed with the Wilmington Conservation Commission to approve the wetlands boundary along Rights of Way pursuant to the requirements of 310CMR10.05. A public meeting for the RDA was held on November 14, 2013 and the Commission approved the GIS delineation with the understanding that it would be used only for the purposes of the VMP and that the Conservation Agent would have the option to walk areas of proposed treatment during pre-mark efforts to fine-tune delineation lines. A copy of the sensitive areas map has been included at the end of this YOP.

IDENTIFICATION AND QUALIFICATIONS OF APPLICANT / INDIVIDUAL SUPERVISING PLAN

**Jamie M. Magaldi, PE, MCA
Operations Manager / Tree Warden
Wilmington Department of Public Works
121 Glen Road
Wilmington, MA 01887
978-658-4481**

Mr. Magaldi currently serves as the Operations Manager for the Town of Wilmington Department of Public Works (DPW) and is charged with co-managing the Department's six operational divisions (Highway, Parks & Grounds, Tree, Cemetery, Garage, and Water & Sewer) consisting of approximately forty employees, five of whom are licensed pesticide applicators. Mr. Magaldi also serves as project manager for many of the DPW's internal projects and was appointed Tree Warden for the Town of Wilmington in 2013.

Mr. Magaldi is a professional civil engineer registered in Massachusetts and is also a Massachusetts Certified Arborist. He is a member of the Massachusetts Tree Wardens and Foresters Association, American Public Works Association, Massachusetts Highway Association, Massachusetts Arborists Association and the Society of Municipal Arborists. Mr. Magaldi holds a Bachelors of Science degree in Civil Engineering from Merrimack College of North Andover, MA.

MUNICIPAL DEPARTMENT PERFORMING HERBICIDE TREATMENT

Wilmington DPW employees and potentially private contractors* will perform the herbicide treatment. Applicators are licensed by the Massachusetts Department of Agricultural Resources in the applicator category. The Town will have an individual on site with a category 40 endorsement (rights-of-way).

Certified Applicators: Various
Company or Department: Wilmington DPW
Address: 121 Glen Road, Wilmington, MA 01887
Telephone Number: (978)658-4481

*Private contractors are not expected to be used in 2014 but the Town reserves the right to use them if it is in the best interest of this YOP. Any private contractor who is utilized for application will be an applicator licensed through the State of Massachusetts.

PROPOSED HERBICIDES

Herbicides & Adjuvants	Active Ingredient	EPA Registration Number(s)	Mix Concentration (per 100 gals. water)
Accord Concentrate or Rodeo	Glyphosate	62719-324	1-5%
Round-Up Pro	Glyphosate	524-475	Lowest labeled rate
Oust Extra	Sulfometuron Methyl and Metsulfuron-Methyl	352-622	10 oz.
Induce, Clean Cut, or equivalent surfactant	not applicable	n.a.	0.125%-1%
Point Blank, Stay Put Plus or equivalent drift retardant	n.a.	n.a.	4-16 oz.

Manufacture’s herbicide labels and the fact sheets for the above listed herbicides are attached to this YOP. Equivalent surfactants and drift retardants will used in case those listed are no longer available or more effective alternatives become available.

HERBICIDE APPLICATION TECHNIQUES AND ALTERNATIVE CONTROL PROCEDURES

The herbicide(s) will be applied in accordance with the instructions in the manufacturer’s label. Alternative control procedures, applicable at the designated “No Spray Zones” will consist of hand cutting, mowing, or selective trimming. Other alternative controls will include routine street sweeping along with crack and road repairs.

Wilmington DPW will generally utilize the two methods of herbicide application: foliar treatment and cut stump treatment.

Foliar Treatment is the application of water-diluted and drift controlled herbicides to fully developed leaves, stems, or blades of a plant. Proposed treatment used shall be low pressure, below 60 psi at the nozzle, and spray equipment will be calibrated according to the manufacturer’s label. Low pressure nozzles will be used to produce the largest possible droplet size and a drift control agent shall be added at the rate recommended on the label to keep spray drift to an absolute minimum. Areas include roadside, in pavement cracks, traffic islands perimeter, around drainage structures, sign posts and under and around guardrails. Applications will be made in accordance with manufacturer’s recommendations.

For vegetation over 12 feet in height which cannot be effectively controlled by foliar treatment, mechanical means will be used along with possible cut stump treatment. It is not expected that this type of herbicide treatment will be used frequently within the limits of Wilmington right-of-ways as much of the target vegetation is under 12 feet in height. However, when cut stump treatment is utilized, a portable pressurized container or hand-paint method will be used to apply the herbicide to

the freshly cut stump. Applications will be made in accordance with manufacturer's recommendations.

Foliar treatments will be made using a 100 gal hydraulic truck mounted sprayer, a 3-5 gal back pack style sprayer or 3.5 gal pump sprayers. The herbicide solution is applied to lightly wet the target plant.

All equipment used for vegetation management programs must be maintained in good working condition. Because the Town recognizes the vast variety and performance of herbicide application equipment, this YOP will not specifically dictate how the equipment should be calibrated. However, spray equipment will be calibrated per manufacturers' specifications to legally and effectively follow the requirements of 333CMR11 and the Town of Wilmington's VMP.

The Town of Wilmington will be responsible to ensure that vegetation management activities are conducted in a professional, safe, efficient manner, with special attention directed towards minimal environmental impact. All personnel applying herbicides in Massachusetts must be licensed in the Commonwealth and must work under the on-site supervision of a certified applicator. All Town and contracted personnel will also follow all Label instructions regarding Personal Protective Equipment (PPE).

Applicators will exercise good judgment and common sense during herbicide treatment activities, and will immediately cease operations if adverse conditions or other circumstances warrant.

Herbicides will NOT be applied during the following adverse weather conditions:

- A. During high wind velocity, per 333 CMR 11.03
- B. Foliar applications during periods of dense fog, or moderate to heavy rainfall
- C. Foliar applications of volatile herbicides during periods of high temperatures (90 plus degrees Fahrenheit) and low humidity
- D. Cut Stump applications when deep snow (i.e. 6 inches plus or ice frozen on stem or stump) prevents adequate coverage of target plants to facilitate acceptable control

The Town of Wilmington or its contractor will complete daily vegetation management reports that include:

- A. Date, name and address of applicator
- B. Identification of site or work area
- C. List of crew members
- D. Type of equipment used
- E. Method of application and description of target vegetation

F. Amount, concentration, product name of herbicide(s), adjuvants, and dilutants (EPA registration numbers must be on file)

G. Weather conditions

H. Notation of any unusual conditions or incidents, including public inquiries

IDENTIFICATION OF TARGET VEGETATION

Target vegetation along roadways falls into one or more of the following categories: hazard vegetation, detrimental vegetation, nuisance vegetation, and invasive vegetation.

TARGET VEGETATION CATEGORIES

1. *Hazard Vegetation*. This category represents the highest priority target vegetation as it related directly to public safety. Hazard Vegetation includes vegetation obscuring sightlines, growing over guardrails, creating obstacles to signs or vehicular movement, interfering with critical utilities such as traffic signals, posing windfall hazard over vehicular or pedestrian ways, or creating winter shade leading to icing conditions. In the winter, shadows cast on roadways by evergreen trees can delay melting (especially in “low salt” areas) resulting in possibility of hazardous road conditions and an increase in the amount of de-icing chemicals (road salt) applied.
2. *Detrimental Vegetation*. Vegetation including weeds, grasses, and woody plants that are destructive to or compromise the function of highway structures, including grasses in pavement and bridge joints, medians barriers and traffic islands, as well as vegetation growing in and along drainage structures thus compromising and clogging drainage ways.
3. *Nuisance Vegetation*. Vegetation along roadways that could potentially affect the general public and/or DPW employees maintaining the ROW, such as Poison Ivy (*Toxicodendron radicans*). Poison Ivy and other nuisance vegetation growing within 30 feet of the edge of roadway pavement or sidewalk or other infrastructure requiring maintenance within a Town right-of-way is considered a hazard and will be prioritized accordingly.
4. *Invasive Vegetation*. Non-native species that have spread into native or minimally managed plant systems. Because they tend to be non-native species, there are few local diseases or pests to help control them. Invasive vegetation tends to spread quickly and thrive in disturbed conditions, outcompeting and displacing native species. Specific target invasive plants include but are not limited to Tree of Heaven (*Ailanthus altissima*), Japanese Knotweed (*Polygonum cuspidatum*), Multiflora Rose (*Rosa multiflora*), Oriental Bittersweet (*Celastrus orbiculatus Thunb.*), and Russian Olive (*Eleagnus angustifolia*).

TABLE 1 - SUMMARY OF CONTROL METHODS

TARGET	CONDITIONS	CONTROL METHODS
Grasses	Where terrain and traffic conditions allow	Mechanical (mowing)
Grasses And Low Growth	Under guardrail; or Pavement Cracks; or Joints Where: -Traffic volumes and speeds pose a hazard to motorists and maintenance employees or contractors	Chemical (foliar treatment)
Low Growth	-Terrain allows; and -species are not persistent or invasive	Mechanical (mowing)
Low Growth	-Terrain prevents mowing; and -Species are not persistent or invasive	Mechanical (hand cutting)
Low Growth	Terrain prevents mowing, species are persistent and invasive	Chemical (foliar treatment)
Poison Ivy	Poison Ivy that is within thirty feet of pavement, or any town structure or appurtenance	Chemical (foliar treatment)
Tall Growth	-Individual trees or branches	Mechanical (selective trimming)
Tall Growth	-Plants >12 feet; or -Terrain too steep; and -Species are not persistent or invasive	Mechanical (hand cutting)
Tall Growth	Plants >12 feet; and -Species are persistent and invasive	Chemical (cut-stump treatment)

DESCRIPTION OF METHODS USED TO DESIGNATE SENSITIVE AREAS

The sensitive areas that are easily recognizable in the field as described and will be marked in the street. Other sensitive areas not easily recognizable in the field will be identified with the use of the Sensitive Areas GIS Map attached to this YOP entitled "Preliminary Resource Area Map for ROW Vegetation Management RDA" revised November 6, 2013.

The Town of Wilmington will pre-mark "spray" and "no spray" areas along the curb line using white paint to mark "spray" areas and red or pink paint to mark "no spray" areas. Pursuant to the requirements of the Conservation Commission, the Conservation Agent will be invited to attend the pre-mark in order to fine tune "no spray" areas and help to identify sensitive areas that the GIS map may have misidentified.

SENSITIVE AREA RESTRICTIONS

According to 333 CMR 11.04, sensitive areas are defined as "any areas within ROWs, 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". These include, but are not necessarily limited to: public groundwater supplies, public surface water supplies, private drinking water supplies, surface waters, wetlands, rivers, inhabited areas and agricultural areas. A Sensitive Area Restriction Guide which defines specific areas follows.

TABLE 2 – SENSITIVE AREA RESTRICTION GUIDE

<u>SENSITIVE AREA</u>	<u>NO-SPRAY AREA</u>	<u>LIMITED USE AREA</u>	<u>WHERE IDENTIFIED</u>
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 foliar techniques or by 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 application; selective, low pressure foliar techniques or by 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 foliar techniques or by cut-stump applications	Maps
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 foliar techniques or by cut-stump applications	YOP Maps and Identify on site
Agricultural & Inhabited Areas	N/A	0 - 100 feet: 12 months must elapse between application; Selective low pressure foliar techniques or by 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

TABLE 2 (Cont.) – SENSITIVE AREA RESTRICTION GUIDE

Private Water Supply	Within 50 feet	50 – 100 feet 24 months must elapse between applications; Selective low pressure, using foliar techniques or by cut-stump applications	In YOP well list and identify on site
Public Surface Water Supply	<p>Within 100 feet of any Class A public surface water source -----</p> <p>Within 10 feet of any tributary or associated surface water body located outside of the Zone A -----</p> <p>Within 100 feet of any tributary or associated surface water body located within the Zone A of a Class A public surface water source -- -----</p> <p>Within a lateral distance of 100 feet for 400 feet upstream of any Class B Drinking Water Intake -----</p>	<p>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 -----</p> <p>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 -----</p> <p>----- -----</p> <p>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</p>	YOP Maps

PROCEDURES / LOCATIONS FOR HANDLING, MIXING AND LOADING OF CONCENTRATES

The herbicide will be mixed in a controlled environment at the Wildwood Cemetery Garage, located at 233 Middlesex Ave, Wilmington, MA 01887, or at the contractor's facilities.

Although it is expected that all the mixed herbicide will be used, any remaining will be stored at the Cemetery Garage, or at the contractor's facilities in accordance with manufacturer's instructions.

The absorbent product "Speedi-Dri" will be available for use at the locations of application. If there is a leak in the hose, the pump will be immediately shutoff and equipment will be washed.

Herbicides will be handled and applied only in accordance with the label instructions. Town applicators and contractors will strictly adhere to all mandated safety precautions directed towards the public, the applicator, and the environment.

REMEDIAL PLAN TO ADDRESS SPILLS AND RELATED ACCIDENTS

All mixing and loading of herbicides will occur at the storage facility in amounts of herbicide necessary to carry out that day's work. This will minimize waste and the need of excess handling. The spray vehicle will be equipped with a clipboard log of the herbicides on board, a bag of adsorbent, absorbent booms, a broom and a shovel in case of a minor spill.

Major Spills

Major spills involve reportable quantities of hazardous materials as defined by the Department of Environmental Protection (DEP) 310 CMR 40.0000. Related accidents include fire, poisoning and automobile accidents. The following protocol will be followed for major spills and accidents:

1. Administer proper first aid and call an ambulance and/or Massachusetts Poison Information Center in cases involving injury due to poisoning.
2. Call the police and/or fire department in cases involving automobile accidents or fire.
3. Avoid breathing fumes of burning herbicides.
4. Put out all sources of fire. Do not light flares, cigarettes, etc. which can ignite certain herbicides.
5. If possible, control the spill by stopping the leak or source of spill.
6. Confine the spread of liquids with a dike composed of soil or other absorptive materials.
7. Call ChemTrec, Massachusetts Pesticide Bureau or chemical manufacturer for assistance (see phone listing below) if unable to handle the spill or the material is unfamiliar.

8. Notify the DEP if water bodies are contaminated, and for releases or threatened releases of reportable quantities of hazardous material.
9. Notify the District Hazardous Material Coordinator.
10. Clean up spill:
 - a. If the spill occurs in a public location, isolate the spill areas and deny unauthorized entry until cleanup is complete.
 - b. Absorb spilled liquids with sand, absorptive clay, spill control gel, vermiculite, pet litter, sawdust or other absorptive material. Wear proper protective clothing and equipment.
 - c. Sweep or shovel contaminated absorbent into a leak proof, sealable container for proper disposal.
 - d. Dry herbicides, such as dust, granular and pellets can be directly swept or shoveled into leak proof sealable containers without absorptive materials.
 - e. Speedy-Dry or equivalent absorbent material.
 - f. Dispose of contaminated material at an approved location.

Minor Spills

Minor spills involve less than reportable quantities of hazardous materials, but are treated similar in terms of personal exposure.

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

- Herbicide label
- Herbicide MSDS sheet
- Herbicide Manufacturers / Agencies

Dow (517) 636-4400
Dupont (800) 441-3637
Monsanto (314) 694-4000
American Cyanamid Co. (201) 835-3100
Massachusetts MDAR - Pesticide Bureau (617) 626-1700
Massachusetts DEP Incident Response Unit (888) 304-1133
ChemTrec (800) 424-9300
Massachusetts Poison Control Center (800) 682-9211
Massachusetts Department of Public Health (617) 624-5757
Wilmington Department of Public Works (978) 658-4481
Wilmington Public Safety (Police / Fire) (978) 658-5071