



**2024**

**Massachusetts Rights-of-Way  
Vegetation Management  
Yearly Operational Plan**

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## **SUMMARY**

The purpose of this Yearly Operational Plan (hereafter referred to as “YOP”) is to outline the National Grid USA Electric Companies’ (hereafter referred to as “National Grid”) 2024 program for managing vegetation with herbicides on the included rights-of-way. This program and YOP have been developed in compliance with 333 CMR 11.00, Rights-of-way Management regulations administered by the Massachusetts Department of Agricultural Resources (MDAR).

In compliance with 333 CMR 11.06 and 11.07 and Chapter 85 of the Acts of 2000, the YOP and notification process provides for a 45 day public review and comment period which starts when MDAR publishes a notice in the Environmental Monitor, a 21 day review period for the municipal notification letter (may run simultaneously), and a 48 hour newspaper notice. These review periods give communities an opportunity to provide information that help identify additional areas that may require specific precautions or protection.

Under the supervision of our professional foresters, herbicide applications are part of an Integrated Vegetation Management (IVM) program that also uses mechanical and natural controls and takes into consideration the cultural use of the landscape. This IVM program is outlined in our Five-Year Vegetation Management Plan (VMP), copies of which are available upon request or at:

[https://www9.nationalgridus.com/transmission/c3-8\\_standocs.asp](https://www9.nationalgridus.com/transmission/c3-8_standocs.asp)

National Grid retains independent, experienced contractors to perform the treatment applications using herbicide and mechanical control methods. Herbicides are only applied by trained, licensed applicators using hand-held equipment under the direct supervision of certified supervisors/foremen.

Any comments on this YOP should be directed to the contact person listed in Section 9.

## **1. INTRODUCTION**

In compliance with 333 CMR 11.00, Rights-of-way Management, National Grid's Yearly Operational Plan (YOP) outlines their 2024 vegetation management program on selected electrical transmission and sub-transmission rights-of-way. This YOP is consistent with the terms and procedures set forth in National Grid's 2024-2028 Vegetation Management Plan (VMP); with the Massachusetts Pesticide Control Act (Chapter 132B); with all pertinent clauses in Chapter 85 of the Acts of 2000; with the Massachusetts Endangered Species Act (MESA; MGL c. 131 A) and regulations (321 CMR 10.00); Wetlands Protection (310 CMR 10.00) and Drinking Water (310 CMR 22.00) regulations of the Massachusetts Department of Environmental Protection, and with all state and federal acts and regulations that apply to right-of-way vegetation management in the Commonwealth of Massachusetts.

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 (333 CMR 11.01).

333 CMR 11.00 (Appendix 1) is the most comprehensive rights-of-way regulation in New England. It requires an Integrated Pest Management (in this case IVM) approach to right-of-way vegetation management; the establishment of standards and procedures to prevent unreasonable risks to humans or the environment, and a multi-layered system of public and municipal notification that requests input about environmentally and culturally sensitive areas. All of this is outlined in National Grid's VMP and annual YOPs, the vehicles for establishing and implementing IVM programs, which serve as guides for the public, state and municipal officials, vegetation management contract personnel and National Grid.

National Grid's IVM program is carried out over the course of a three to five year maintenance cycle on the company's 1,500 miles of rights-of-way throughout the Commonwealth. These transmission and sub-transmission electric line rights-of-way cover a range of terrain types from remote countryside to the middle of busy population

centers. In all locations, the rights-of-way must be kept clear of vegetation that may interfere with the safe, reliable delivery of electric services. To achieve this goal, National Grid utilizes the IVM program described in the VMP and summarized below in Section 3.

## **2. LOCATION OF PROPOSED HERBICIDE TREATMENTS IN 2024**

The rights-of-way proposed for herbicide treatments in 202 are listed in Appendix 2 and the rights-of-way listed to facilitate “touch up” on segments treated in 2023 are listed in Appendix 3. The municipalities, through which they pass, are listed in two tables in Appendix 4, one for the municipalities for 2024 lines and one for the municipalities for 2023 “touch-up” lines (some municipalities are listed in both tables). Please note that the proposed ROWs may change due to workplan constraints.

## **3. INTEGRATED VEGETATION MANAGEMENT, INCLUDING ALTERNATIVE CONTROL METHODS**

National Grid’s selective use of herbicides for vegetation management is done within the context of the IVM program outlined in our VMP. In brief: IVM is a combination of mechanical, chemical and natural controls that minimize the disadvantages and maximize the benefits of each. The integration of all three controls creates a well-balanced program that reduces the negative impact on compatible vegetation while controlling incompatible vegetation. IVM is an environmentally responsible means of intentionally managing succession by maintaining vegetation below heights that interfere with the delivery of electrical service.

Mechanical and chemical controls are the direct techniques used to target incompatible vegetation (for example, mowing, hand-cutting, selective pruning and herbicide applications, as described in Section 6 of the VMP). Natural control is the process of working with the cycles of plant succession and interspecies competition to facilitate the spread and stabilization of early succession plant communities that discourage the establishment of taller, woody vegetation. Natural controls are the result of the conscientious, selective use of mechanical and chemical controls. All three

controls depend upon each other in a continuous cycle that employs the unique advantages of each.

The cultural component of the IVM program is not technically a control method. Cultural controls are recognizing and managing landscape changes along the right-of-way that prescribe the choice of IVM techniques and adapting or limiting the specific control methods to suit the management situation. These are areas of a right-of-way in which geologic, geographic, climactic, environmental and legal factors along with economic, agricultural, social and recreational uses of the landscape affect the application of IVM management techniques to the existing vegetation.

Within an IVM program, inspections, timing of applications and avoiding fixed schedules maximizes control while minimizing herbicide use. The rights-of-way scheduled for mechanical and chemical treatments in 2024 have incompatible vegetation heights that average from six to ten feet and/or low to moderate densities. Where herbicides are applied by trained, licensed and certified applicators using hand held equipment, applicators will walk to each incompatible plant and apply the minimal effective amount of herbicide (selective herbicide applications).

Mechanical control methods will be used where regulatory, cultural and/or National Grid policy restrictions require hand cutting and/or mowing, including but not limited to the following situations:

1. All vegetation over 12 feet in height will be cut or mowed and when appropriate the stumps treated with herbicides to prevent re-sprouts.
2. All conifers less than two feet in height are not treated.
3. Non sprouting conifers taller than two feet are hand-cut or mowed without herbicides applied to the stumps.
4. Pitch Pine stumps which re-sprout are cut and treated with herbicides.

5. Hand cutting and/or mowing are used in “no-spray” *sensitive areas* (see Appendix 6).
6. Mowing and/or hand cutting are used in areas where easement, National Grid policy and/or landowner agreements preclude herbicide applications.
7. Right-of-way sections devoid of trees: areas where compatible, low growing, shrubs, ferns and grasses make up the vegetative cover; wet areas where a high water table prevents trees from growing; and areas where land use prevents the establishment of trees are not treated with herbicides.

#### **4. IDENTIFICATION OF INCOMPATIBLE TARGET VEGETATION**

The primary target “pest” on an electric right-of-way is woody vegetation, primarily trees that are capable of interrupting the safe delivery of energy products to our customers. Other incompatible vegetation includes dense woody vegetation, vines, noxious, nuisance and poisonous vegetation, and all vegetation that interferes with access around structures, access roads & trails, substations and anywhere in which vegetation prevents access to the right-of-way for inspections, maintenance, repairs and emergency access to the lines.

With a few exceptions, all incompatible species will be removed or controlled during a treatment operation. Within the cleared width of the right-of-way, all incompatible species, except conifers less than two feet tall, will be removed or controlled.

Tree species are identified as woody plants that mature at heights exceeding 15 feet. These trees must be removed because they are capable of growing tall enough to grow into or fall onto the lines. In rare isolated instances, such as in steep ravines and on severe slopes, the electric lines are high enough off the ground so that mature trees will not interfere with the operation of the line and, therefore, trees may be left.

Except in no-spray sensitive areas (see Section 5), hardwoods over 12 feet tall are hand cut and the stumps treated with herbicides. Hardwoods less than 12 feet tall



and woody plant species that present safety problems are treated with herbicides using either low volume foliar or basal application methods. As mentioned above, Pitch Pine is the only conifer species treated with herbicides.

Trees that need to be removed will be identified visually by trained treatment crews and include, but are not limited to:

Ash	Cherry	Maple
Aspen	Hemlock	Oak
Beech	Pine	Willow
Birch	Poplar	

All woody vegetation (trees, shrubs, vines) on or encroaching upon existing roads or pathways or immediately adjacent to line structures or equipment will be treated by mechanical or herbicide control methods. If no access along the right-of-way exists, a pathway will be created and maintained in a suitable location by treating all woody vegetation within the selected route. Woody vegetation must be treated in these areas to ensure access to and along the right-of-way, and access to line structures for safe and efficient inspection, maintenance, and repair operations.

Other plant species to be controlled include shrub and vine species and vegetation that because of heavy thorn growth or dermal toxicity may be hazardous including, but not limited to:

Alder	Grapevines	Poison Ivy
Bittersweet	Greenbriar	Sumac (poison)
Blackberry	Hawthorne	Viburnums
Buckthorn	Japanese Knotweed	Virginia Creeper
Bush Honeysuckle	Multiflora Rose	Winterberry

Not all vegetation on the right-of-way are considered incompatible species, in fact, most species are compatible. Compatible plant species that provide the natural controls in our IVM program include, but are not limited to:

Azaleas	Mountain Holly	Spirea
Buttonbush	Mountain Laurel	Sumac
Chokeberry	Privet	Sweet Fern
Common Juniper	Rhododendron	Sweet Pepperbush
Dogwoods	Sedges	Viburnums
High & Low Bush Blueberries	Shadbush	Ferns
Huckleberry	Sheep Laurel	Grasses & Herbaceous sp.

For a complete list of compatible vegetation species and incompatible vegetation species refer to Appendix 7.

## **5. SENSITIVE AREAS**

The general definition of sensitive areas regulated by 333 CMR 11.04 is as follows:

*...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.*

National Grid also has its own designated sensitive areas including landowner agreements and easement restrictions. Protecting these sites is accomplished by defining specific areas and establishing limited spray and no-spray areas and treatment restrictions within these borders based on the sensitivity of each site and the requirement to minimize any unreasonable adverse impacts within that area.

Sensitive areas regulated by 333 CMR 11.00 include the following:

Water Supplies:

- Zone I's
- Zone II's
- IWPA's (Interim Wellhead Protection Areas)
- Class A Surface Water Sources
- Tributaries to a Class A Surface Water Source
- Class B Drinking Water Intakes
- Private Wells

Surface Waters:

- Wetlands
- Water Over Wetlands
- The Mean Annual High Water Line of a River
- The Outer Boundary of a Riverfront Area
- Certified Vernal Pools

Cultural Sites:

- Agricultural Areas
- Inhabited Areas

Wildlife Areas:

- Certified Vernal Pool Habitat
- Priority Habitat

These sensitive areas consist of no-spray areas in which herbicide use is prohibited, larger limited spray areas where herbicide use is allowed under certain conditions, and/or areas that require special treatment recommendations. Appendix 6 includes diagrams and a table detailing these conditions. Treatment in limited spray areas requires the use of herbicides from the *Sensitive Area Materials List* and application restrictions in 333 CMR 11.04 or in the case of Priority Habitat of State-listed species, approval of the YOP by the Natural Heritage and Endangered Species Program (NHESP) of the Massachusetts Division of Fisheries & Wildlife.

For the purpose of identification, sensitive areas are also separated into readily identifiable in the field and not readily identifiable in the field designations:

1. Sensitive areas “readily identifiable in the field” will be treated and marked according to all applicable restrictions listed in 333 CMR 11.00 and National Grid’s VMP. These areas include but are not limited to rivers and streams, surface waters, wetlands, inhabited areas, agricultural areas and road buffers.

2. Sensitive areas “not readily identifiable in the field” are identified by the use of the data marked on our maps and additional data collected in the YOP and notification processes before the time of treatment. These areas include, but are not limited to public ground water supplies, public surface water supplies and tributaries, private wells, Priority Habitats, certified vernal pools, landowner agreements and easement restrictions.

Sensitive areas will be identified using the appropriate resources and methods from the following list (some of which are already included in National Grid’s records):

1. National Grid right-of-way maps, records and institutional knowledge,
2. Massachusetts Department of Environmental Protection water supply maps and/or GIS mapping layers available through MassGIS,
3. MDAR, Municipal Board of Health maps and lists, and National Grid records of identified private wells along the right-of-way,
4. Correspondence, meetings and input from municipalities within the 45 day YOP and 21 day municipal right-of-way notification letter review and comment periods and the 48 hour newspaper notification (under 333 CMR 11.06 & 11.07 and Chapter 85 of the Acts of 2000),
5. Correspondence and meetings resulting from National Grid's abutter notification procedure,
6. A point person who verifies identified sensitive areas and any additional areas that may require special precautions,
7. United States Geological Survey (USGS) topographical maps,
8. Information from contractor’s knowledge and records,
9. Information from MassGIS,
10. Confidential information from NHESP, and
11. A copy of the YOP and VMP.

As appropriate, sensitive areas will be identified and marked in the field by either National Grid personnel, trained and experienced vegetation management contract personnel, and/or by individuals trained in the identification of sensitive areas.

### **Priority Habitat of State-Listed Species**

In compliance with 321 CMR 10.14, Massachusetts Endangered Species Act Regulations, Part II Exemptions, National Grid has submitted this YOP for approval by the NHESP.

Under the approval process, details about the Priority Habitat of State-listed species that our activities might affect and management recommendations are shared with National Grid under strict confidentiality agreements. Using this data and best management practices, National Grid and contract personnel will follow the appropriate vegetation management treatment methods within these sensitive areas. To identify Priority Habitats, National Grid and vegetation management contract personnel are trained to recognize Priority Habitats using one of the following tools: paper maps, GPS coordinates and/or GIS systems. Particularly sensitive State-listed species will be reviewed and identified in the field for protection by NHESP approved biologists.

### **Treatment of Wetlands**

Pursuant to 333 CMR 11.04(4)(c) based upon the results of two right-of-way wetland impact studies, the Massachusetts Department of Food and Agriculture (now MDAR) in consultation with the Department of Environmental Protection and the Right-of-way Advisory Panel, made a determination that utilities may treat incompatible plant species, except pines, selectively with herbicides in wetlands, under the guidance of an IVM program and with sensitive area approved herbicides except within ten feet of standing or flowing water.

## **6. DESCRIPTION OF MAP(S) LOCATING THE RIGHTS-OF-WAY**

YOP map(s) locating the right(s)-of-way and sensitive areas not readily identifiable in the field will be sent to the appropriate municipal officials.

The maps will include the most current data available at the time of printing. To ensure that applicable sensitive areas are identified on the maps, National Grid is requesting municipal verification of areas currently mapped and the identification of any areas not mapped.

The maps are resources and a tool for the public and vegetation management crews, therefore, they contain the data needed to identify, mark and treat sensitive areas appropriately. At the time of treatment, additional sensitive area information that is collected will be added to the information utilized by National Grid's vegetation management contractors. Please note that Zone II's are included on the maps, however, National Grid only uses herbicides approved for use within this type of limited spray sensitive area.

## **7. PROPOSED HERBICIDES, CARRIERS, ADJUVANTS and RATES**

Only Commonwealth of Massachusetts recommended herbicides for use in sensitive areas will be used on the full length and width of National Grid's right-of-way corridors. National Grid may utilize any materials noted in the Rights of Way Sensitive Area Materials List (<https://www.mass.gov/info-details/rights-of-way-sensitive-area-materials-list>). Current proposed herbicide labels are in Appendix 8 and herbicide fact sheets developed and/or approved by MDAR are in Appendix 9.

The following tables outline the proposed herbicides, tank mixes, application methods and estimated application rates:

Table 1: Tank Mixes for Low Volume Foliar Applications				
Herbicides & Adjuvants	Active Ingredient	EPA Registration Number(s)	Mix Concentration (per 100 gals. Water)	Estimated Application Rate of Active Ingredient Per Acre
Krenite S*	Ammonium Salt of Fosamine	42750-247	6-10%	32-128 oz.
Escort XP or Patriot	Metsulfuron-Methyl	432-1549 or 228-391	2-4 oz.	0.125-0.8 oz.
Rodeo, Aquaneat, Roundup Pro, or Roundup Custom, Ranger Pro, GlyphoMax Plus	Glyphosate	62719-324, 228-365 524-475, 524-343, 524-517, 62719-322	3-5%	16-128 oz.
Arsenal Powerline, or Polaris**	Isopropylamine salt of Imazapyr	241-431 228-534	0.125%-1%	2-8 oz.
Milestone	Triisopropanolammonium salt of 2-pyridine	62719-519	0.1-0.5%	4-7 oz.
	carboxylic acid			
Vastlan***	Triclopyr choline acetic acid, choline salt	62719-687	2-7%	16-128 oz.
Induce, Cleancut, or Aqua Fac or other equivalent surfactant****	not applicable	not applicable	0.125%-1%	1-16 oz.
Thinvert (carrier)*****	Mixed with:	62719-324	per label rate	5 gal.
	Rodeo (Glyphosate)			
	Polaris (Imazapyr)	228-534		
	Escort XP (Metsulfuron-Methyl)	352-439		
	Milestone	62719-519		
Point Blank or other drift retardant	not applicable	not applicable	6-16 oz.	1-2 oz.
Carrier: Water	not applicable	not applicable	not applicable	not applicable
* Rodeo or Krenite S are often applied in combination with Escort and Arsenal Powerline or Polaris.				
** Imazapyr will not be applied on the same right-of-way in two consecutive years.				
***Vastlan will only be utilized if the product is added in 2024 to the MA ROW Sensitive Area Materials List				
**** Equivalent surfactants, drift retardants and basal oils will only be used in case those				
listed are no longer available or more effective alternatives become available.				
***** Will be mixed in accordance with manufacturer's label.				

**Table 2: Tank Mixes for Cut Stump Treatment (CST) Applications**

Herbicides & Adjuvants	Active Ingredient	EPA Registration Number(s)	Concentration (per 100 gals. Water)	Application Rate of Active Ingredient Per Acre
Rodeo, Aquaneat, Roundup Pro, or Roundup Custom	Glyphosate	62719-324, 228-365 524-475, 524-343	40%-50%	Per density of target stems
Garlon 4 Ultra	Triclopyr	62719-527	15%-30%	0.5-3 pints
Arsenal Powerline or Polaris**	Isopropylamine salt of Imazapyr	241-431 228-534	3%-5% (mixed with Rodeo)	Per density of target stems
Carriers: Water or Windshield Washing Fluid	not applicable	not applicable	not applicable	not applicable

\*\* Imazapyr will not be applied on the same right-of-way in two consecutive years.

**Table 3: Tank Mixes for Low Volume Basal Applications**

Herbicides & Adjuvants	Active Ingredient	EPA Registration Number(s)	Mix Concentration (per 100 gals. Water)	Application Rate of Active Ingredient Per Acre
Garlon 4 Ultra	Triclopyr	62719-527	15%-30%	0.5-3 pints
Arsenal, Poweline or Polaris**	Isopropylamine salt of Imazapyr	241-431 228-534	3%-5%	Per density of target stems
Carrier: Arborchem's low odor basal oil or equivalent	not applicable	not applicable	70%-85%	24-144 oz.

**Table 4: Tank Mixes for Dormant Stem Applications**

Herbicides & Adjuvants	Active Ingredient	EPA Registration Number(s)	Mix Concentration (per 100 gals. Water)	Application Rate of Active Ingredient Per Acre
Garlon 4 Ultra	Triclopyr	62719-527	2%	Per density of target stems
Arsenal Powerline or Polaris	Isopropylamine salt of Imazapyr	241-431 228-534	0.5	6 pints per acre or less
Milestone	Triisopropanolammonium salt of 2-pyridine carboxylic acid	62719-519	0.33%	7 oz/acre or less
Carrier: Arborchem's low odor basal oil or equivalent	Not applicable	Not applicable	2-4%	Per density of target stems

**Table 5: Tank Mixes for Tree Growth Regulator Applications**

Herbicides & Adjuvants	Active Ingredient	EPA Registration Number(s)	Mix Concentration (per 100 gals. Water)
Cambistat	Paclobutrazol	74779-3	9.10%
Induce, Cleancut, or Aqua Fac or other equivalent surfactant****	not applicable	not applicable	.125-1%



## **8. PROCEDURES AND LOCATIONS FOR HANDLING, MIXING, AND LOADING HERBICIDE CONCENTRATES**

National Grid retains independent contractors to accomplish all aspects of handling, mixing, and loading herbicide concentrates. As a contractual term, contractors are required to comply with all applicable laws, regulations, and rules pertaining to handling, mixing, and loading herbicide concentrates.

The majority of the handling, mixing, and loading of herbicide concentrates is done at the contractor's base location. If it is necessary to handle, mix, or load herbicide concentrates at any other location, the contractor is required to comply with herbicide label directions and existing regulations regarding setbacks from Sensitive Areas and safety precautions.

However, National Grid does expect that at a minimum, the following standards will be followed:

1. No handling, mixing, or loading of herbicide concentrates will be done on a right-of-way in the following situation:
  - a. within the buffer zones adjacent to any drinking water supplies or surface water,
  - b. within 100 feet of any other Sensitive Area.
2. All water to be used mixing herbicide solutions will be secured from a faucet or open bodies of water, that are not drinking water supplies.
3. If pumps are used they must be equipped with anti-siphoning devices.
4. Pumps and hoses used for water will not be used to pump or mix herbicides.

## **9. INDIVIDUALS SUPERVISING THE YOP**

Overall supervision of the YOP will be performed by:

Mariclaire Rigby  
Principal Specialist  
939 Southbridge Street  
Worcester, MA 01610  
(781) 290-8310

The New England Lead Vegetation Strategy Specialist is ultimately responsible for the preparation and implementation of this YOP including: work scheduling, procurement of necessary permits, municipal notifications, local and state officials, or other interested parties, and for ensuring overall compliance with the VMP and this YOP.

Coordination of the field application of the YOP, including prescription of herbicides, general application methods for each right-of-way, and contractor selection will be performed by National Grid Vegetation Operations:

Seth Bernatchez	Jonathan Duval	Eric George
Director	Forestry Supervisor	Forestry Supervisor
164 Viscoloid Ave	1250 Brayton Point Rd	1101 Turnpike St
Leominster, MA 01453	Somerset, MA 02725	North Andover, MA 01845
(978) 725-1493	(978) 840-3816	(978) 725-1046

## **10. CONTRACTORS THAT WILL PERFORM HERBICIDE TREATMENTS**

National Grid retains independent, professional, experienced contractors to perform the treatment applications. The contractor's supervisors and foremen are responsible for: field level implementation of this YOP, coordinating and observing the daily activities of the treatment crews, providing liaison between National Grid and landowners, local officials or other interested parties, and ensuring compliance with the VMP and YOP.

The following contractors may perform herbicide applications on National Grid's rights-of-way:

<b>Lewis Tree Service, Inc.</b>	<b>Stanley Tree</b>	<b>Vegetation Control Service, Inc.</b>	<b>Davey Tree Expert Co.</b>
300 Lucius Gordon Drive	662 Great Road	2342 Main Street	1500 N Mantua St
West Henrietta, NY 14586	North Smithfield, RI 02896	Athol, MA 01331	Kent, OH 44240
(585) 436-3208	(401) 765-4677	(978) 249-5348	800-445-8733
<b>Lucas Tree Experts</b>	<b>BluRoc</b>	<b>North Eastern Tree Service</b>	<b>Rainbow Treecare</b>
12 Northbrook Drive	15 Atwood Dr, Suite 301	1000 Pontiac Ave	11571 K-Tel Dr.
Falmouth, ME 04105	Northampton, MA 01060	Cranston, RI 02920	Minnetonka, MN 55343
(800) 339-8873	(413) 887-3653	(401) 941-7204	952-922-3810

## 11. REMEDIAL SPILL AND EMERGENCY PLAN

This section is offered as a general procedural guide for responding to chemical spills or related accidents (related accidents include, but are not limited to fire, poisoning and vehicle accidents). National Grid contracts with independent, professional, certified herbicide applicators that are responsible for the containment, clean up and reporting of chemical spills or accidents. The following is, therefore, only a guide to the minimum resources that shall be available to the treatment crew in the event of a chemical spill or emergency:

### Types of Chemical Spills that Require Action

Chemicals include, but are not limited to the following:

- |  |  |
|--|--|
| <input type="checkbox"/> <input type="checkbox"/> Herbicides                     | <input type="checkbox"/> <input type="checkbox"/> Diesel Fuel              |
| <input type="checkbox"/> <input type="checkbox"/> Bar and Chain Oil              | <input type="checkbox"/> <input type="checkbox"/> Gasoline                 |
| <input type="checkbox"/> <input type="checkbox"/> Motor and Hydraulic Oil/Fluids | <input type="checkbox"/> <input type="checkbox"/> Title 3 Hazmat Materials |

## Required Spill Response Equipment

As a minimum, the treatment crew should have available on the job site:

- |  |  |
|--|--|
| <input type="checkbox"/> YOP with Emergency Contact List       | <input type="checkbox"/> Shovel                  |
| <input type="checkbox"/> Safety Data Sheets (SDS)              | <input type="checkbox"/> Broom                   |
| <input type="checkbox"/> Product Label                         | <input type="checkbox"/> Flagging                |
| <input type="checkbox"/> Product Fact Sheets (when applicable) | <input type="checkbox"/> Leak Proof Container    |
| <input type="checkbox"/> Appropriate Absorbent Material        | <input type="checkbox"/> Heavy-duty Plastic Bags |

## Personal Contact

In the event of **Personal Contact** with hazardous chemicals:

- ☐ Wash affected area with plenty of soap and water
- ☐ Change clothing which has absorbed hazardous chemicals
- ☐ If necessary, contact a physician
- ☐ If necessary, contact the proper emergency services
  - ☐ If necessary, follow the procedures for Reportable or Non-Reportable Spills as outlined below
- ☐ Avoid breathing the fumes of hazardous chemicals.

## Clean-up Procedures

Education and attention will constantly be directed at accident and spill prevention, however, in the event of an unfortunate incident, a spill response check list is included below (Table 8) which can be filled out and used as a procedural guide.

## Reference Tables (information subject to change as necessary)

**Table 6: Herbicide Manufacturers**

MANUFACTURER	PHONE NUMBER
Albaugh Inc.	800-247-8013
Bayer Environmental Science	800-334-7577
BASF Corporation	800-832-4357
Corteva	800-992-5994
Nufarm	877-325-1840
Rainbow Treecare	877-272-6747

**Table 7: State Agencies**

State Agency	Telephone Number	Special Instructions
MDAR, Pesticide Bureau	(617) 626-1700	A.S.A.P. (within 48 hours)
Massachusetts Department of Environmental Protection, Emergency Response Section	Emergency Response Coordinator: (617) 292-5507	For emergencies involving reportable quantities of hazardous materials, call within 2 hours.
	Southeast Region: (508) 946-2700	<u>Required info:</u> City/town, street address, site name (if applicable), material, quantity released, environment impact
	Northeast Region: (978) 694-3200	
	Central Region: 508) 792-7650	
	Western Region: (413) 784-1100	
Massachusetts Poison Information Centers	800-682-9211	For medical emergencies involving suspected or known pesticide poisoning symptoms

**Table 8: Emergency Services**

Emergency Service	Telephone Number	Special Instructions
Massachusetts State Police	(508) 820-2121	Framingham, after hours number
Local Police/Fire Dept	911	
ChemTrec	(800) 424-9300	
Clean Harbors	(800) OIL-TANK	
Pesticide Hotline	(800) 858-7378	PST: 5:30 am - 4:30 pm web:www.NPIC.orst.edu

**Table 9: National Grid Contacts in the case of a spill or accident**

Name	Telephone Number	Address
Jonathan Duval	(508) 730-4007	National Grid 1250 Brayton Point Rd Somerset, MA 02725
Eric George	(978) 725-1046	National Grid 1101 Turnpike Street North Andover, MA 01845
Seth Bernatchez	(978) 725-1493	National Grid 164 Viscoloid Ave Leominster, MA 01453

**Table 10: Remedial Plan to Address Spills****REPORTABLE SPILLS**

(Spills of a reportable quantity of material, in accordance with 310 CMR 40.0000):

FOLLOW STEPS 1-11 and contact the National Grid Transmission Forester

**NON-REPORTABLE SPILLS**

FOLLOW STEPS 1 - 4, 7 - 11 and contact the National Grid Transmission Forester

Order	ACTION		Done (v)
1	Use any and all PPE as directed by product label or SDS.		
2	Cordon-off spill area to unauthorized people and traffic to reduce the spread and exposure of the spill.		
3	Identify source of spill and apply corrective action, if possible stop or limit any additional amount of spilled product.		
4	Contain spill and confine the spread by damming or diking with soil, clay or other absorbent materials.		
5	Report spill of "reportable quantity" to the Massachusetts DEP and DAR:		
	Massachusetts MDAR, Pesticide Bureau	(617) 626-1700	
	Massachusetts Department of Environmental Protection, Emergency Response Section (appropriate region)	See Table 5	
6	If the spill cannot be contained or cleaned-up properly, or if there is a threat of contamination to any bodies of water, immediately contact any of the following applicable emergency response personnel:		
	Local fire, police, rescue	911	
	National Grid Transmission Forester	See Table 7	
	Product Manufacturer(s)	See Table 6 and/or Herbicide Label (Appendix 8)	
	ChemTrec	(800) 424-9300	
	<b>Additional Emergency Personnel</b>		
	If there is a doubt as to who should be notified, contact Massachusetts State Police.	(508) 820-2121 or 911	
7	Remain at the scene to provide information and assistance to responding emergency clean-up crews.		
8	Refer to the various sources of information relative to handling and clean up of spilled product.		
9	If possible, complete the process of "soaking up" with absorbent materials.		
10	Sweep or shovel contaminated products and soil into leak proof containers for proper disposal at approved location.		
11	Spread activated charcoal over spill area to inactivate any residual herbicide.		

## **APPENDIX 1**

### **33 CMR 11.00 RIGHTS-OF-WAY MANAGEMENT**

## 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)5,6, 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.

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)5,6 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 1/2- 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 10 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 10 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
- (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.

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) 10 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) 10 feet of any Wetlands or Water Over Wetlands
- (h) 10 feet of the mean annual high-water line of any river
- (i) 10 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 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.

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

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.

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.

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

- |                         |                     |
|-------------------------|---------------------|
| (a) Any bank,           | the ocean           |
| any freshwater wetland, | any estuary         |
| any coastal wetland,    | any creek           |
| any beach,              | bordering any river |
| any dune,               | on any stream       |
| any flat,               | any pond            |
| any marsh,              | or any lake         |
| or any swamp            |                     |

- (b) Land under any of the water bodies listed above
- (c) Land subject to tidal action
- (f) Riverfront area.

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) require 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 =  $(150 \times \log \text{ of pumping rate in gpd}) - 350$ .

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.
- (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.
- (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 10 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 1-2, 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:
  - 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 10 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 10 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 (3a and 3b), 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 10 feet of a Wetland or Water Over a Wetland, within 10 feet of the mean annual high-water line of any River, or within 10 feet of any Certified Vernal Pool.
- (b) No herbicide shall be applied on or within a distance of between 10 feet and 100 feet of any Wetland or Water Over a Wetland, within a distance of 10 feet from the mean annual high-water line of any River and the outer boundary of any Riverfront Area, or within a distance of 10 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) –(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 10 feet of a Wetland in accordance with the following conditions:
  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 10 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 10 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:

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.

#### 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 Department of Environmental Protection regulations at 310 CMR 10.03(6)(b) currently 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.
- (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 this subsection.
- (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; or
    - 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 herein 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 above 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 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;
- (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 herein 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 above 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(a) is required.
- (3) At least 48 hours prior to the application referred to in 11.07(a), 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 above mentioned 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: Rights 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 the regulations promulgated pursuant to 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. 132 B, § 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 Construction; and a representative of 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.

## **APPENDIX 2**

### **RIGHTS-OF-WAY PROPOSED FOR TREATMENT IN 2024**

*Note: Rights-of-way proposed for treatment may change due to workplan constraints.*

ROW #	2024 Municipalities					
1205	Somerset	Swansea	Rehoboth	Dighton		
1231	Ayer	Littleton	Westford	Chelmsford	Tewksbury	Billerica
1245	North Reading	Reading	Lynnfield			
1271	Dracut	Methuen				
1332	Rowe	Heath	Colrain	Shelburne	Greenfield	Gill
1401	Adams	North Adams	Clarksburg			
1435	Adams	North Adams	Florida	Monroe		
1437	Florida	Rowe				
1443	Salem NH	Methuen				
1517	Tewksbury	Andover	Lawrence			
1519	Dracut					
1536	Monroe	Rowe				
1537	Greenfield	Montague				
1581	Seekonk	Swansea	Somerset			
1585	Seekonk	Attleboro				
1633	Spencer	Leicester	Auburn	Millbury		
1635	Florida	North Adams	Adams			
1671	Grafton	Millbury				
4003	Leominster	Sterling				
4008	Whitman	Abington	Brockton	Holbrook	Avon	Stoughton
4010	Brockton					
4011	West Bridgewater	Brockton	Whitman	Bridgewater		
4015	Stoughton	Easton	Brockton			
4018	Bridgewater	Raynham	Taunton	Berkley		
4019	West Bridgewater	Brockton				
4048	East Bridgewater	Brockton				
4050	East Bridgewater					
4062	East Bridgewater	Whitman				
4070	Hanover	Pembroke				
4072	Pembroke					
4440	Uxbridge	Mendon	Hopedale	Milford		
4450	Seekonk					
5160	Methuen					
5180	Haverhill					
5200	Haverhill	North Andover				
5270	Chelmsford	Lowell	Dracut			
5430	Tewksbury					
6011	Lynnfield					
6050	Swampscott	Salem				
6072	Melrose	Saugus				
7211	Sturbridge					

*Note: Rights-of-way proposed for treatment may change due to workplan constraints.*

## **APPENDIX 3**

### **RIGHTS-OF-WAY TREATED IN 2023**

*Note: Rights-of-way proposed for treatment may change due to workplan constraints.*

ROW#	2023 Municipalities					
1107	Ayer	Groton	Tyngsborough	Dunstable		
1209	Wrentham	Medway	Franklin	Bellingham		
1241	North Reading	Wilmington	Andover	Tewksbury		
1243	Lynnfield	Saugus	Melrose	Wakefield		
1245	North Reading	Reading	Lynnfield			
1261	Milford	Upton	Grafton	Millbury	Sutton	
1277	Amesbury	Merrimac	West Newbury	Groveland		
1309	Dracut	Andover	Tewksbury			
1333	Barre	Petersham	New Salem	Wendell	Erving	
1421	Wendell					
1501	Saugus	Revere				
1503	Revere	Malden	Everett			
1511	Chelmsford	Lowell				
1523	Southborough	Marlborough	Hudson			
1526	Everett	Chelsea	Revere			
1527	Revere	Saugus				
1539	Lynn	Saugus	Revere			
1589	Rowe	Heath	Colrain	Charlemont	Buckland	Shelburne
1590	Weymouth					
1592	Weymouth					
1623	Shelburne	Colrain	Leyden	Bernardston		
1634	Belchertown					
1655	Sutton	Oxford	Webster	Douglas		
1695	Florida	Monroe				
2004	Swansea	Dighton				
2026	Swansea					
2028	Fall River	Somerset	Swansea			
2030	Swansea	Somerset				
4004	Northampton	Easthampton				
4008	Stoughton	Avon	Brockton	Abington	Whitman	Holbrook
4010	Brockton					
4015	Brockton	Easton	Stoughton			
4017	Stoughton					
4019	Brockton	West Bridgewater				
4052	Bridgewater	East Bridgewater				
4120	Westborough					
4260	Attleboro	Norton				
4262	Norton					
4320	Franklin	Wrentham	Plainville			
4340	Foxborough	Mansfield				
4430	Uxbridge	Millville				
5010	Andover					
5020	Andover					
5112	Andover					
5120	Lawrence	North Andover				
5150	Amesbury	Salisbury				
5180	Haverhill					
5190	Methuen	Lawrence				
5210	Georgetown	Boxford				
5230	Amesbury					
5410	Andover					
5510	Tewksbury					
6040	Boxford	Topsfield	Wenham			
6060	Lynn	Swampscott				
7210	Sturbridge	Southbridge				
7212	Southbridge					
7215	Webster					
7217	Webster					
7220	North Brookfield					
7341	Clinton					
7342	Clinton					
7440	Leominster					
7480	Leominster					
8210	Northampton					
8220	Northampton					
8240	Northampton					
8360	Williamstown	North Adams				
8410	Great Barrington	Stockbridge	Lee			
8420	Great Barrington	Sheffield				

*Note: Rights-of-way proposed for treatment may change due to workplan constraints.*

**APPENDIX 4**

**LIST OF MUNICIPALITIES FOR NOTIFICATION IN 2024**

**(INCLUDES 2024 MUNICIPALITIES AND**

**2023 POTENTIAL “TOUCH UP” MUNICIPALITIES)**

*Note: Rights-of-way proposed for treatment may change due to workplan constraints.*

2024 Municipalities						
Abington	Brockton	Grafton	Littleton	North Adams	Seekonk	Tewksbury
Adams	Chelmsford	Greenfield	Lowell	North Andover	Shelburne	Uxbridge
Andover	Clarksburg	Hanover	Lynnfield	North Reading	Somerset	West Bridgewater
Attleboro	Colrain	Haverhill	Melrose	Pembroke	Spencer	Westford
Auburn	Dighton	Heath	Mendon	Raynham	Sterling	Whitman
Avon	Dracut	Holbrook	Methuen	Reading	Stoughton	
Ayer	East Bridgewater	Hopedale	Milford	Rehoboth	Sturbridge	
Berkley	Easton	Lawrence	Millbury	Rowe	Swampscott	
Billerica	Florida	Leicester	Monroe	Salem	Swansea	
Bridgewater	Gill	Leominster	Montague	Saugus	Taunton	
2023 "Touch Up" Municipalities						
Abington	Chelsea	Franklin	Lynn	North Andover	Somerset	Webster
Amesbury	Clinton	Georgetown	Lynnfield	North Brookfield	Southborough	Wendell
Andover	Colrain	Grafton	Malden	North Reading	Southbridge	Wenham
Attleboro	Dighton	Great Barrington	Mansfield	Northampton	Stockbridge	West Bridgewater
Avon	Douglas	Groton	Marlborough	Norton	Stoughton	West Newbury
Ayer	Dracut	Groveland	Medway	Oxford	Sturbridge	Westborough
Barre	Dunstable	Haverhill	Melrose	Petersham	Sutton	Weymouth
Belchertown	East Bridgewater	Heath	Merrimac	Plainville	Swampscott	Whitman
Bellingham	Easthampton	Holbrook	Methuen	Reading	Swansea	Williamstown
Bernardston	Easton	Hudson	Milford	Revere	Tewksbury	Wilmington
Boxford	Erving	Lawrence	Millbury	Rowe	Topsfield	Wrentham
Bridgewater	Everett	Lee	Millville	Salisbury	Tyngsborough	
Buckland	Fall River	Leominster	Monroe	Saugus	Upton	
Charlemont	Florida	Leyden	New Salem	Sheffield	Uxbridge	
Chelmsford	Foxborough	Lowell	North Adams	Shelburne	Wakefield	

*Note: Rights-of-way proposed for treatment may change due to workplan constraints.*

**APPENDIX 5**

**LIST OF COMMUNITY WATER SUPPLIERS**

**2024 MUNICIPALITIES**

*Note: Rights-of-way proposed for treatment may change due to workplan constraints.*



CITY/TOWN	PWS NAME	MAILING NAME	MAIL ADDRESS LINE 1	MAIL TOWN	STATE	ZIP
ABINGTON	ABINGTON/ROCKLAND JOINT WTR. WORKS	ABINGTON/ROCKLAND JOINT WTR. WORKS	366 CENTRE AVENUE	ROCKLAND	MA	02370
AMESBURY	AMESBURY DPW WATER DIV.	AMESBURY WATER DEPT.	39 SOUTH HUNT RD	AMESBURY	MA	01913
ANDOVER	ANDOVER WATER DEPT	ANDOVER WATER DEPT	397 LOWELL ST	ANDOVER	MA	01810
ATTLEBORO	ATTLEBORO WATER DEPT	ATTLEBORO WATER DEPT	1296 WEST ST	ATTLEBORO	MA	02703
AVON	TOWN OF AVON	TOWN OF AVON	65 EAST MAIN STREET	AVON	MA	02322
AYER	AYER DPW WATER DIVISION	AYER DPW WATER DIVISION	25 BROOK STREET	AYER	MA	01432
AYER	DEVENS MASSDEVELOPMENT	DEVENS MASSDEVELOPMENT	33 ANDREWS PKWY	DEVENS	MA	01434
BARRE	BARRE MHP/WATERWHEEL VILLAGE	BARRE MHP INC. DBA WATERWHEEL VILLAGE	P.O. BOX 339	BARRE	MA	01005
BARRE	BARRE WATER DEPARTMENT	BARRE WATER DEPARTMENT	441 WHEELWRIGHT RD	BARRE	MA	01005
BELCHERTOWN	BELCHERTOWN WATER DISTRICT	BELCHERTOWN WATER DISTRICT	PO BOX 801	BELCHERTOWN	MA	01007
BELLINGHAM	BELLINGHAM DPW WATER SEWER DIV.	BELLINGHAM DPW WATER SEWER DIV.	26 BLACKSTONE ST	BELLINGHAM	MA	02019
BERNARDSTON	BERNARDSTON FIRE WATER DIST	BERNARDSTON FIRE & WATER DIST	PO BOX 176	BERNARDSTON	MA	01337
BOXFORD	FOUR MILE VILLAGE	FOUR MILE VILLAGE	50 FOUR MILE VLG	BOXFORD	MA	01921
BOXFORD	ANDREWS FARM WATER CO.,INC.	ANDREWS FARM	36 ANDREWS FARM RD	BOXFORD	MA	01921
BOYLSTON	BOYLSTON WATER DISTRICT	BOYLSTON WATER DISTRICT	74 MAIN ST	BOYLSTON	MA	01505
BRIDGEWATER	BRIDGEWATER WATER DEPARTMENT	BRIDGEWATER WATER DEPARTMENT	90 COTTAGE STREET	BRIDGEWATER	MA	02324
BRIDGEWATER	MCI BRIDGEWATER	MASS DEPARTMENT OF CORRECTION/DRM	50 MAPLE STREET	MILFORD	MA	01757
CHARLEMONT	WOODLAND MHP LLC	WOODLAND MHP LLC	P.O. BOX 2033	CHARLEMONT	MA	01339
CHARLEMONT	122 MAIN STREET	DISTINCTIVE HOMES REAL ESTATES, GREELISH	42 PACIFIC STREET	FITCHBURG	MA	01420
CHELMSFORD	CHELMSFORD WATER DISTRICT	CHELMSFORD WATER DISTRICT	20 WATERSHED LN	CHELMSFORD	MA	01824
CHELMSFORD	EAST CHELMSFORD WATER DISTRICT	EAST CHELMSFORD WATER DISTRICT	75 CANAL ST	CHELMSFORD	MA	01824
CHELMSFORD	NORTH CHELMSFORD WATER DIST	NORTH CHELMSFORD WATER DIST	64 WASHINGTON ST	NORTH CHELMSFORD	MA	01863
CHELSEA	CHELSEA WATER DEPT. (MWRA)	CHELSEA WATER DEPT.	500 BROADWAY SUITE 310	CHELSEA	MA	02150
COLRAIN	COLRAIN FIRE DISTRICT #1	COLRAIN FIRE DISTRICT #1	P.O. BOX 32	COLRAIN	MA	01340
COLRAIN	GRISWOLDVILLE WATER DISTRICT	RONALD VIGHT	22 CALL RD	COLRAIN	MA	01340
COLRAIN	FOUNDRY BROOK ASSOCIATION	FOUNDRY BROOK ASSOCIATION	P.O. BOX 181	COLRAIN	MA	01340
DIGHTON	DIGHTON WATER DISTRICT	DIGHTON WATER DISTRICT	192 WILLIAMS STREET	NORTH DIGHTON	MA	02764
DIGHTON	NORTH DIGHTON FIRE DISTRICT	NORTH DIGHTON FIRE DISTRICT	340 FOREST ST.	NORTH DIGHTON	MA	02764
DIGHTON	INIMA USA / AQUARIA LLC	INIMA USA / AQUARIA LLC	PO BOX 1000	NORTH DIGHTON	MA	02764
DOUGLAS	DOUGLAS WATER DEPARTMENT	DOUGLAS WATER DEPARTMENT	P.O. BOX 624, 29 CHARLES ST.	DOUGLAS	MA	01516
DRACUT	DRACUT WATER SUPPLY DISTRICT	DRACUT WATER SUPPLY DISTRICT	59 HOPKINS ST	DRACUT	MA	01826
DRACUT	KENWOOD WATER DISTRICT	KENWOOD WATER DISTRICT	62 ARLINGTON ST RM 215	DRACUT	MA	01826
DUNSTABLE	DUNSTABLE WATER DEPARTMENT	DUNSTABLE WATER DEPT	511 MAIN ST	DUNSTABLE	MA	01827
EAST BRIDGEWATER	EAST BRIDGEWATER WATER DEPT	JTREPANIER@EASTBRIDGEWATERMA.GOV	49 DEAN PLACE	EAST BRIDGEWATER	MA	02333
EASTHAMPTON	EASTHAMPTON WATER DEPT	EASTHAMPTON WATER DEPT	109 HENDRICK ST	EASTHAMPTON	MA	01027
EASTON	EASTON WATER DIV	EASTON WATER DIV	417 BAY RD	EASTON	MA	02375
ERVING	ERVING WATER DEPT	ERVING WATER DEPT	12 EAST MAIN ST	ERVING	MA	01344
ESSEX	ESSEX WATER DEPT.	ESSEX WATER DEPT.	44 CENTENNIAL GROVE RD	ESSEX	MA	01929
EVERETT	EVERETT WATER DEPT. (MWRA)	EVERETT WATER DEPT. (MWRA)	19 NORMAN STREET	EVERETT	MA	02149
FALL RIVER	FALL RIVER WATER DEPARTMENT	FALL RIVER WATER DEPARTMENT	1831 BEDFORD ST	FALL RIVER	MA	02723
FOXBOROUGH	FOXBORO WATER DEPARTMENT	FOXBORO WATER DEPARTMENT	70 ELM STREET	FOXBOROUGH	MA	02035
FRANKLIN	FRANKLIN WATER DEPARTMENT	FRANKLIN WATER DEPARTMENT	257 FISHER STREET	FRANKLIN	MA	02038
GEORGETOWN	GEORGETOWN WATER DEPARTMENT	GEORGETOWN WATER DEPARTMENT	1 MOULTON ST	GEORGETOWN	MA	01833
GRAFTON	GRAFTON WATER DISTRICT	GRAFTON WATER DISTRICT	P.O. BOX 537, 44 MILLBURY ST	GRAFTON	MA	01519
GRAFTON	SOUTH GRAFTON WATER DISTRICT	SOUTH GRAFTON WATER DISTRICT	370 PROVIDENCE ROAD	SOUTH GRAFTON	MA	01560
GRAFTON	COUNTRYSIDE CONDOMINIUM	NORTHBORO PROPERTY MANAGEMENT	27 SOUTH STREET UNIT 1	NORTHBORO	MA	01532
GRAFTON	LAUREL HILL CONDOMINIUMS	LAUREL HILL CONDOMINIUM TRUST	168 UPTON STREET	GRAFTON	MA	01519
GREAT BARRINGTON	GREAT BARRINGTON FIRE DIST	GREAT BARRINGTON FIRE DIST	17 EAST ST	GREAT BARRINGTON	MA	01230
GREAT BARRINGTON	HOUSATONIC WATER WORKS	HOUSATONIC WATER WORKS	80 MAPLE AVE STE 1	GREAT BARRINGTON	MA	01230
GROTON	GROTON WATER DEPARTMENT	GROTON WATER DEPARTMENT	173 MAIN ST	GROTON	MA	01450
GROTON	WEST GROTON WATER SUPPLY DISTRICT	WEST GROTON WATER SUPPLY DISTRICT	309 TOWNSEND RD	GROTON	MA	01472
GROTON	STILL MEADOW	STILL MEADOW VILLAGE CONDOMINIUM TRUST	285 NASHUA ROAD	GROTON	MA	01450
GROVELAND	GROVELAND WATER DEPARTMENT	GROVELAND WATER DEPARTMENT	183 MAIN ST	GROVELAND	MA	01834
HAVERHILL	HAVERHILL WATER DEPT	HAVERHILL WATER DEPT	131 AMESBURY ROAD	HAVERHILL	MA	01830
HOLBROOK	HOLBROOK PUBLIC WORKS DEPT	HOLBROOK PUBLIC WORKS DEPT	50 NORTH FRANKLIN ST	HOLBROOK	MA	02343
HUDSON	HUDSON WATER SUPPLY	HUDSON WATER SUPPLY	1 MUNICIPAL DR	HUDSON	MA	01749
LAWRENCE	LAWRENCE WATER WORKS	LAWRENCE WATER WORKS	400 WATER STREET	LAWRENCE	MA	01841
LEE	LEE WATER DEPT	LEE WATER DEPT	32 MAIN STREET	LEE	MA	01238
LEOMINSTER	LEOMINSTER WATER DIVISION	LEOMINSTER WATER DIVISION	109 GRAHAM ST	LEOMINSTER	MA	01453
LOWELL	LOWELL REGIONAL WATER UTILITY	LOWELL REGIONAL WATER UTILITY	815 PAWTUCKET BLVD	LOWELL	MA	01854
LYNN	LYNN WATER AND SEWER COMM	LYNN WATER AND SEWER COMM	390 PARKLAND AVE	LYNN	MA	01905
LYNNFIELD	LYNNFIELD CENTER WATER DISTRICT	LYNNFIELD CENTER WATER DISTRICT	83 PHILLIPS RD	LYNNFIELD	MA	01940
LYNNFIELD	LYNNFIELD WATER DIST. (MWRA)	842 SALEM STREET	842 SALEM ST	LYNNFIELD	MA	01940
MALDEN	MALDEN WATER DIVISION (MWRA)	MALDEN WATER DIVISION (MWRA)	176 PEARL STREET	MALDEN	MA	02148
MANSFIELD	MANSFIELD WATER DIVISION	TOWN OF MANSFIELD, WATER DIVISION	SIX PARK ROW	MANSFIELD	MA	02048
MARLBOROUGH	MARLBOROUGH DPW WATER DIV. (MWRA)	MARLBOROUGH DPW WATER DIV. (MWRA)	135 NEIL STREET	MARLBOROUGH	MA	01752
MEDWAY	MEDWAY WATER DEPARTMENT	MEDWAY WATER DEPARTMENT	45B HOLLISTON STREET	MEDWAY	MA	02053
MELROSE	MELROSE WATER DIVISION (MWRA)	MELROSE WATER DIVISION (MWRA)	562 MAIN ST	MELROSE	MA	02176
MERRIMAC	MERRIMAC WATER DEPARTMENT	MERRIMAC WATER DEPARTMENT	4 SCHOOL ST 2ND FL	MERRIMAC	MA	01860
METHUEN	METHUEN WATER DEPT	METHUEN WATER DEPT	25 BURNHAM RD	METHUEN	MA	01844
MILFORD	MILFORD WATER DEPARTMENT	MILFORD WATER DEPARTMENT	66 DILLA ST	MILFORD	MA	01757
MILLBURY	AQUARIAN WATER COMPANY, MILLBURY	AQUARIAN WATER COMPANY, MILLBURY	24 PROVIDENCE ST	MILLBURY	MA	01527
MILLBURY	MILLBURY IND. PARK/ PARK HILL VILLAGE	MILLBURY IND. PARK HOMEOWNERS ASSOC.	12 LATI FARM ROAD	MILLBURY	MA	01527
MONROE	MONROE WATER DISTRICT	MONROE WATER DISTRICT	BOX 66	MONROE	MA	01350

*Note: Rights-of-way proposed for treatment may change due to workplan constraints.*

CITY/TOWN	PWS NAME	MAILING NAME	MAIL ADDRESS LINE 1	MAIL TOWN	STATE	ZIP
NORTH ADAMS	NORTH ADAMS WATER DEPT	NORTH ADAMS WATER DEPT	59 HODGES CROSS ROAD	NORTH ADAMS	MA	01247
NORTH ANDOVER	NORTH ANDOVER WATER DEPT	NORTH ANDOVER WATER DEPT	420 GREAT POND RD	NORTH ANDOVER	MA	01845
NORTH BROOKFIELD	NORTH BROOKFIELD WATER DEPARTMENT	NORTH BROOKFIELD WATER DEPARTMENT	14 BELL ROAD	NORTH BROOKFIELD	MA	01535
NORTH READING	NORTH READING WATER DEPT.	NORTH READING WATER DEPT.	235 NORTH STREET	NORTH READING	MA	01864
NORTHAMPTON	NORTHAMPTON WATER DIVISION	NORTHAMPTON WATER DIVISION	125 LOCUST STREET	NORTHAMPTON	MA	01060
NORTON	NORTON WATER DEPARTMENT	NORTON WATER DEPARTMENT	P.O. BOX 1168	NORTON	MA	02766
OXFORD	AQUARION WATER COMPANY OXFORD	AQUARION WATER COMPANY	24 PROVIDENCE STREET	MILLBURY	MA	01527
READING	READING WATER DEPARTMENT (MWRA)	READING WATER DEPARTMENT (MWRA)	16 LOWELL STREET	READING	MA	01867
REVERE	REVERE WATER DIVISION (MWRA)	REVERE WATER DEPT. (MWRA)	281 BROADWAY	REVERE	MA	02151
SALISBURY	SALISBURY WATER DEPARTMENT	SALISBURY WATER DEPARTMENT	39 LAFAYETTE ROAD	SALISBURY	MA	01952
SAUGUS	SAUGUS WATER DEPT. (MWRA)	SAUGUS WATER DEPT. (MWRA)	515 MAIN ST	SAUGUS	MA	01906
SHEFFIELD	AQUARION WATER COMPANY	AQUARION WATER COMPANY	505 HUNTINGTON ST	SHELTON	CT	06484
SHELBURNE	SHELBURNE FALLS FIRE DISTRICT	SHELBURNE FALLS FIRE DISTRICT	121 STATE ST	SHELBURNE FALLS	MA	01370
SOMERSET	SOMERSET WATER DEPARTMENT	SOMERSET WATER DEPARTMENT	3249 COUNTY ST	SOMERSET	MA	02726
SOUTHBOROUGH	SOUTHBOROUGH DPW WATER DIVISION (MWRA)	SOUTHBOROUGH DPW WATER DIVISION (MWRA)	147 CORDAVILLE RD	SOUTHBOROUGH	MA	01772
SOUTHBRIDGE	SOUTHBRIDGE WATER DEPARTMENT	SOUTHBRIDGE WATER DEPARTMENT	185 GUELPHWOOD RD	SOUTHBRIDGE	MA	01550
STOCKBRIDGE	STOCKBRIDGE WATER DEPT	STOCKBRIDGE WATER DEPT	50 MAIN ST, PO BOX 417	STOCKBRIDGE	MA	01262
STOUGHTON	STOUGHTON WATER DEPARTMENT	STOUGHTON WATER DEPARTMENT	1748 CENTRAL ST	STOUGHTON	MA	02072
STURBRIDGE	STURBRIDGE WATER DEPARTMENT	STURBRIDGE WATER DEPARTMENT (VEOLIA)	P.O. BOX 975	STURBRIDGE	MA	01566
SUTTON	MANCHAUG WATER DISTRICT OF SUTTON	MANCHAUG WATER DISTRICT	P.O. BOX 173	MANCHAUG	MA	01526
SUTTON	WILKINSONVILLE WATER DISTRICT	WILKINSONVILLE WATER DISTRICT	P.O. BOX 173, 13A PROVIDENCE	SUTTON	MA	01590
SWAMPSCOTT	SWAMPSCOTT WATER DEPT. (MWRA)	SWAMPSCOTT WATER DEPT. (MWRA)	22 MONUMENT AVE TOWN BL	SWAMPSCOTT	MA	01907
SWANSEA	SWANSEA WATER DISTRICT	SWANSEA WATER DISTRICT	700 WILBUR AVE	SWANSEA	MA	02777
TEWKSBURY	TEWKSBURY WATER DEPARTMENT	TEWKSBURY WATER DEPARTMENT	999 WHIPPLE RD	TEWKSBURY	MA	01876
TOPSFIELD	TOPSFIELD WATER DEPARTMENT	TOPSFIELD WATER DEPARTMENT	279 BOSTON ST	TOPSFIELD	MA	01983
TYNGSBOROUGH	TYNGSBOROUGH WATER DISTRICT	TYNGSBOROUGH WATER DISTRICT	87 PROGRESS AVE UNIT 2, PO B	TYNGSBOROUGH	MA	01879
UPTON	UPTON DPW WATER/WASTEWATER DIVISION	UPTON WATER DEPT.	1 MAIN STREET SUITE 13	UPTON	MA	01568
UXBRIDGE	UXBRIDGE DPW, WATER DIVISION	UXBRIDGE DPW, WATER DIVISION	105 BLACKSTONE ST	UXBRIDGE	MA	01569
WAKEFIELD	WAKEFIELD WATER DEPT	WAKEFIELD WATER DEPT	1 LAFAYETTE ST	WAKEFIELD	MA	01880
WEBSTER	WEBSTER WATER DEPARTMENT	WEBSTER WATER DEPT.	P.O. BOX 793	WEBSTER	MA	01570
WENHAM	WENHAM WATER DEPT.	WENHAM WATER DEPT.	91 GRAPEVINE RD	WENHAM	MA	01984
WEST BRIDGEWATER	WEST BRIDGEWATER WATER DEPT	WEST BRIDGEWATER WATER DEPT	29 CYR ST	WEST BRIDGEWATER	MA	02379
WEST NEWBURY	WEST NEWBURY WATER DEPARTMENT	WEST NEWBURY WATER DEPARTMENT	381 MAIN ST	WEST NEWBURY	MA	01985
WESTBOROUGH	WESTBOROUGH WATER DEPARTMENT	WESTBOROUGH WATER DEPARTMENT	131 OAK ST	WESTBOROUGH	MA	01581
WEYMOUTH	WEYMOUTH WATER DEPARTMENT	WEYMOUTH WATER DEPARTMENT	120 WINTER STREET	WEYMOUTH	MA	02188
WEYMOUTH	SOUTHFIELD REDEVELOPEMENT AUTHORITY	SOUTHFIELD REDEVELOPEMENT AUTHORITY	223 SHEA MEMORIAL DRIVE	WEYMOUTH	MA	02190
WHITMAN	WHITMAN WATER SYSTEM	WHITMAN WATER SYSTEM	100 ESSEX ST	WHITMAN	MA	02382
WILLIAMSTOWN	WILLIAMSTOWN WATER DEPT	WILLIAMSTOWN WATER DEPT	675 SIMONDS RD	WILLIAMSTOWN	MA	01267
WILMINGTON	WILMINGTON WATER DEPT	WILMINGTON WATER DEPT	121 GLEN ROAD	WILMINGTON	MA	01887
WRENTHAM	WRENTHAM WATER DIVISION	WRENTHAM WATER DIVISION	P.O. BOX 658, 360 TAUNTON S	WRENTHAM	MA	02093

*Note: Rights-of-way proposed for treatment may change due to workplan constraints.*

**APPENDIX 6**

**SENSITIVE AREAS: TABLE AND ILLUSTRATIONS OF  
LIMITED SPRAY AND NO SPRAY AREAS**

## CONTROL STRATEGIES FOR SENSITIVE AREAS<sup>#</sup>

Sensitive Area	No-Spray and Limited Spray Areas (feet)	Control Method	Restriction Code
Public Ground Water Supplies	400'	Mechanical Only	None
Primary Recharge Area	Designated buffer zone or 1/2 mile radius	Mechanical, Recommended Herbicides*	24 months
Public Surface Water Supplies (Class A & Class B)	100'	Mechanical Only	None
	100'-400'	Recommended Herbicides	24 months
Tributary to Class A Water Source, within 400' upstream of water source	100'	Mechanical Only	None
	100'-400'	Recommended Herbicides	24 months
Tributary to Class A Water Source, greater than 400' upstream of water source	10'	Mechanical Only	None
	10'-200'	Recommended Herbicides	24 months
Class B Drinking Water Intake, within 400' upstream of intake	100'	Mechanical Only	None
	100'-200'	Recommended Herbicides	24 months
Private Drinking Water Supplies	50'	Mechanical Only	None
	50'-100'	Recommended Herbicides	24 months
Surface Waters	10'	Mechanical Only	None
	10'-100'	Recommended Herbicides	12 months
Rivers	10' from mean annual high water line	Mechanical Only	None
	10'-200'	Recommended Herbicides	12 months
Wetlands	100' (treatment in wetlands permitted up to 10' of standing water)**	Low-pressure Foliar, CST, Basal Recommended Herbicides	24 months
Inhabited Areas	100' (for high-pressure foliar only)	Recommended Herbicides	12 months
Agricultural Area (Crops, Fruits, Pastures)	100' (for high-pressure foliar only)	Recommended 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 written approval per 321 CMR 10.14(12)	
Priority Habitat	No treatment without written approval per 321 CMR 10.14(12)		

Restrictions "24 Months": A minimum of twenty-four months shall elapse between applications

"12 Months": A minimum of twelve months shall elapse between applications

\*Massachusetts recommended herbicides for sensitive sites

<sup>+</sup>Per "Decision Concerning the Wetlands Impact Study"

<sup>#</sup>Table Compiled by Jeffrey M. Taylor, Vegetation Control Service, Inc.

# Vegetation Control Strategies in Sensitive Areas

Required by 333 CMR 11.00 and/or approved Vegetation Management Program and Yearly Operational Plan.

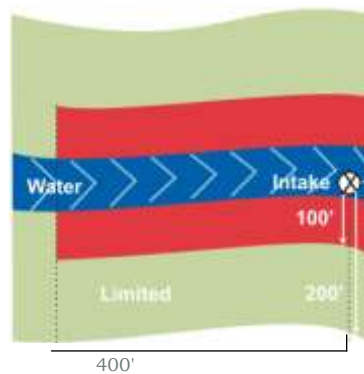
## Sensitive areas not readily identified in the field:

- ♦ Mapped on electronic USGS Topographic Maps.
- ♦ Contractor will be provided electronic and hard copy of maps with which to flag the boundaries of no-herbicide zones within the right-of-way (ROW) prior to herbicide application.

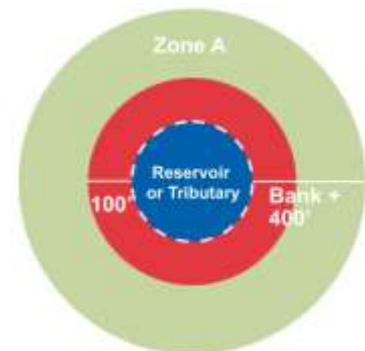
**Public Ground Water  
Supply Well  
Zone I**



**Drinking Water  
Intake  
Class B**



**Public Surface  
Water Source  
Class A**



**Identified Private  
Drinking Water  
Well**



Sensitive areas readily identifiable in the field:

- ◆ Consult USGS Topographic Maps
- ◆ Contractor will be provided electronic and hard copy of maps with which to flag the boundaries of no-herbicide zones within the right-of-way (ROW) prior to herbicide application.
- ◆ Contractor will mark additional areas not found on maps

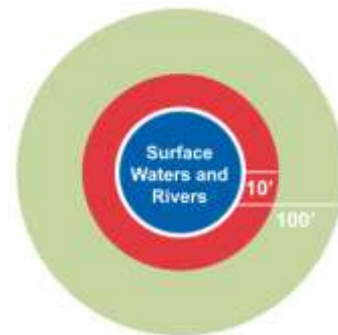
**Wetlands**

Defined by Chapter 131,  
Section 40



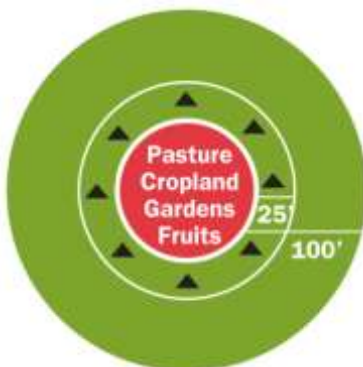
**Surface Waters and Rivers**

All surface water and water over wetlands.  
Mean high water for rivers.

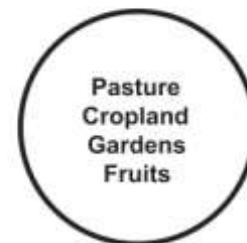


**Agricultural Areas**

Active - Growing Season



**Inactive Agricultural**



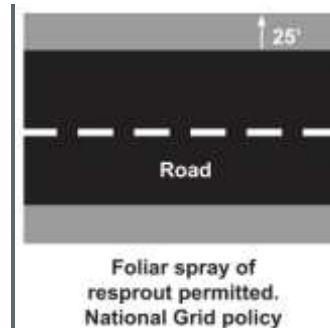
No Restrictions











Sensitive areas readily identifiable in the field: continued

- ◆ Consult USGS Topographic Maps
- ◆ Contractor will be provided electronic and hard copy of maps with which to flag the boundaries of no-herbicide zones within the right-of-way (ROW) prior to herbicide application.
- ◆ Contractor will mark additional areas not found on maps

**Inhabited Areas**

Where people live, work, or gather

**Road Crossings****KEY**

	= No Herbicide Use			= Limited Herbicide Use
	= Water			
	= Public Ground Water Supply Well or Private Well			
				1.) Herbicide recommended for use in sensitive area: per (333 CMR 11.04(1)(d)).
				2.) Cut stump, basal and <u>low</u> pressure foliar.
				3.)  24 months elapsed since previous treatment.
				 12 months elapsed since previous treatment.
				4.)  No herbicides applied to conifer species and carriers reviewed by DAR and DEP.
				5.)  Cut stump only.
				6.)  Cut stump and basal treatments. (Foliar application to resprouts is permitted.) No other conditions.

**APPENDIX 7**  
**LIST OF COMPATIBLE SPECIES AND INCOMPATIBLE**  
**SPECIES**



## EXHIBIT A:

### Capable Tall Growing Species

The following is a list of tall growing tree species that are considered undesirable in most right-of-way situations and should be removed from the right-of-way floor wherever practicable, to the extent permitted by landowner constraints and easement conditions. The primary objective of the Transmission Right-of-Way Management Program is to effectively remove and control the re-growth and reinvasion of these species.

In sites, due to terrain, conductor height, or other right-of-way variable, where a normally undesirable tall growing species will never reach the ATVM clearance distances, such tree may be retained on the right-of-way during routine maintenance as long as there is no undesirable affect or risk to access, construction, reliability or public safety. Such locations will be determined through a combination of field measurements, profile mapping or other technology and will also be routinely reviewed and verified during each inventory cycle.

Ash	ASH	Cucumber Tree	CUC
Mountain	MAS	Elm	ELM
Balsam Fir	BAF	Hemlock	HEM
Basswood	BAS	Hickory	HIC
Beech	BEE	Hophornbeam	HOP
Birch	BIR	Maple	MAP
Cherry		Oak	OAK
Black	BCH	Pine	PIN
Choke	CCH	Poplar/Aspen	POP
Domestic	DCH	Red Mulberry	MUL
Pin (Fire)	PCH	Sassafras	SAS
Black Gum/Tupelo	BGU	Spruce	SPR
Black Locust	BLO	Tamarack/Larch	TAM
Black Walnut	BWA	Tree-of-Heaven	THE
Butternut	BUT	Tulip/Yellow Poplar	TUL
Catalpa	CAT	Willow	WIL
Cedar	CED	Other	OTH
Chestnut	CHE		

## EXHIBIT B:

### Small to Medium Trees

The following is a list of small to medium trees that may be compatible along the edges of the right-of-way, except on narrower sub-transmission rights-of-way. They should be removed within the wire zone except where the mature height would not invade the National Grid Minimum Clearance Distance (Clearance 2) or local conditions do not warrant removal. Any plant on the right-of-way that invades the National Grid Minimum Clearance Distance (Clearance 2) may be removed. These smaller tree species may be preferred for retention in buffer areas and other sensitive sites rather than taller growing tree species.

<b>Species</b>	<b>Code</b>
Apple	APP
Autumn Olive	AUT
Buckthorn	BUC
Common Buckthorn	“
European Buckthorn	“
Dogwood	
Alternate Leaf	ADG
Flowering	FDG
Cedars	CED
American Hornbeam	
“Ironwood”	HOR
Hawthorne	HAW
Mountain Maple	MOM
Pear	PER
Russian Olive	RUS
Shadbush/Serviceberry	SHD
Shrub Willow	WIL
Speckled Alder	ALD
Staghorn Sumac	SUM
Witch Hazel	WIH

## EXHIBIT C:

### Woody Shrubs

The following is a list of shrub species commonly found on rights-of-way across the service territory. While they are nearly always compatible in the border zone, several may grow tall enough to enter National Grid Minimum Clearance Distance (Clearance 2).

<b>Species</b>	<b>Code</b>	<b>Species</b>	<b>Code</b>
American Barberry	BAR	Privet	PRI
Chokeberry		Gooseberry	RIB
Black Chokeberry	BCB	Rose	
Red Chokeberry	RCB	Domestic	DOR
Blueberry		Multiflora	MUR
Low	BLU	Rubus	RUB
Highbush	HBL	Blackberry	"
Button Bush	BTN	Raspberry	"
Dewberry	DEW	Silverberry	
Dogwood	DOG	American	SIL
Red Osier	"	Sumac	SUM
Stiff (similar to Red Osier)	"	Smooth	"
Grey	"	Winged	"
Silky	"	Common Spicebush	SPB
Roundleaf	"	Spirea	SPI
Elderberry	ELD	Sweetfern	"
Hazelnut	HAZ	Steeple Bush	"
American Hazelnut	"	Sweetfern	SWF
Beaked Hazelnut	"	Viburnum	VIB
Honeysuckle	HON	Arrowwood	ARR
Huckleberry	HUC	Highbush Cranberry	HCR
Juniper	GRJ	Mapleleaf	MVB
Dwarf	"	Nannyberry	NAN
Ground/Trailing	"	Northern Wild Raisin	RAI
Mountain Holly	MOH	Hobblebush	HOB
Mountain Laurel	MOL	Winterberry Holly	WIN
New Jersey Tea	NJT	American Yew	AMY
Northern Prickly Ash	NPA		
Shrub Oak	SOK	Climbing Vines	
		Bittersweet	CLB
		Grape	GRA

Note that some of these species can be classified as either exotic or invasive. In addition, some of these species are noxious plants – particularly Multiflora Rose and Poison Sumac. In most situations management objectives within and adjacent to the right-of-way may warrant the removal or reduction of these species. Future discussions with State and Federal agencies to address invasive and exotic species on a landscape scale may require modifications of the current treatment course of action for some species.

**APPENDIX 8**  
**HERBICIDE LABELS**

Herbicide Labels and SDS documents for the following herbicides can be found on National Grid's website:

[National Grid - Operations Documentation \(nationalgridus.com\)](http://nationalgridus.com)

Krenite S

Escort XP

Patriot

Rodeo

Aqua Neat

Roundup Pro

Roundup Custom

Ranger Pro

Glyphomax Plus

Arsenal Powerline

Polaris

Milestone

Vastlan

Garlon4 Ultra

Cambistat

**APPENDIX 9**  
**Herbicide Fact Sheets**

Massachusetts Herbicide Fact Sheets can be found on the Mass.gov website

[Rights of Way Sensitive Area Materials List | Mass.gov](#)

**APPENDIX 10**  
**NATIONAL GRID ENVIRONMENTAL POLICY**





# Environmental Sustainability Policy

*"It is essential to me as CEO that we operate in an environmentally sustainable way because we know it's the right thing to do – for society, the environment and our business."*

*Everyone at National Grid has a role to play in proactively supporting the environment in the way we work. We must also be honest and drive for better performance in the way we respond and learn when things don't go right".*

**John Pettigrew, Chief Executive**



For details on the minimum performance requirements for National Grid employees to meet this policy, see our Environmental Sustainability BMS standard in the National Grid book

Date: 14 March 2019. Version 1.0

We take our responsibilities for Environmental Sustainability very seriously. As a minimum, we will meet our compliance obligations. However, we aspire to world class performance.

## Scope

Our Environmental Sustainability Policy applies to you if you are employed by, or carry out work on behalf of any National Grid business.

## We commit to

- Identifying our environmental risks, including climate change, and developing plans to mitigate them.
- Protecting the environment by ensuring prevention of pollution is a key consideration in the design of all our assets.
- Using resources more efficiently by using sustainable materials and reducing waste.
- Identifying opportunities to use alternatives to hazardous materials.
- Seeking ways to enhance the natural value of the areas we work for the benefit of local communities and the environment.
- Ensuring all our employees have the training, skills, knowledge and resources necessary to achieve the requirements of our internal standards.
- Setting expectations of those who work on our behalf to demonstrate the same commitment to the environment as we do and working with our supply chain to contribute to the delivery of 'Our Contribution' targets.
- Continually improving the Environmental Management System by reviewing and challenging our performance using feedback from stakeholders and benchmarking against our contemporaries.

**nationalgrid**