

# Vegetation Management Plan (VMP)

City of Worcester, MA

2019-2023



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# Table of Contents

<b>Title</b>	<b>Page No.</b>
Cover	
Table of Contents	
1.0 Statement of Goals and Objectives .....	1
2.0 Target Vegetation.....	1
3.0 Vegetation Management Methods & Actions to Minimize Herbicides.....	2
4.0 Justification of Herbicide Use.....	5
5.0 Identification of Sensitive Areas.....	6
6.0 Operational Guidelines for Applicators Relative to Herbicide Use.....	9
7.0 Qualifications of Individuals Developing & Submitting the Plan .....	10
8.0 Alternative Land Use Options .....	10
9.0 Remedial Plan to Address Spills and Related Accidents.....	10
10.0 Monitoring Plan .....	13
11.0 Notification Procedures .....	13
12.0 ALB Cooperative Eradication Program.....	13
<b>Tables</b>	
Table 1. Summary of Control Methods .....	5
Table 2. Sensitive Area Restrictions.....	7
<b>Appendix</b>	
MDAR VMP Approval	
Environmental Monitor Notice	
Determination of Applicability	
333 CMR 11.00 Rights-of-Way Management Regulations	

## **1.0 Statement of Goals and Objectives**

This Vegetation Management Plan (VMP) is intended to establish criteria for the City of Worcester to control vegetation along municipal Rights of Way (ROW) in compliance with the Rights of Way Management Regulations (333 CMR 11.00) as promulgated by the Massachusetts Department of Agricultural Resources (MDAR).

The primary objective of this VMP is to provide the public with safe and unobstructed ROWs while minimizing reliance upon herbicides. Vegetation maintenance is necessary along public ROWs, bikepaths, and trails to control unwanted vegetation that may pose a public nuisance, result in safety hazards or cause damage to structures and infrastructure. The goal of the program is to control undesirable vegetation while maximizing environmental protection and minimizing herbicide use. Only herbicides listed on the current ROW Sensitive Areas Materials List will be used. The VMP's success will be based upon periodic monitoring and inspection which is expected to result in:

- Protection of the public and environment;
- Control of target vegetation;
- Reduction in volume of chemical application;
- Reduction in frequency of chemical application;
- Ensure vegetation management activities are conducted in a safe, effective, and regulatory compliance manner; and
- Protection of sensitive areas.

This VMP will serve as technical guidance for individuals involved in ROW vegetation management and as an accessible source of information for residents and public officials.

Historically, the City has treated with herbicide approximately 24 lane miles of ROW.

## **2.0 Target Vegetation**

Target vegetation will be limited to species that pose a safety hazard, compromise infrastructure, are a public nuisance, or are invasive and may have detrimental effects on natural resources. The City of Worcester will submit a Yearly Operational Plan (YOP) for MDAR approval to specify the herbicide(s) to be used, target species and detail application locations.

### Hazard Vegetation

Hazard vegetation poses a risk to public safety and represents vegetation that impedes movement along public ways. Hazard vegetation may: obscure sightlines, obscure signs, obscure vehicular movement, create windfall hazards, and cause winter shading (causing ice/reduced melting). Hazard vegetation may include, but is not limited to, trees, tree limbs and shrubs.

### Nuisance Vegetation

This category includes nuisance vegetation that could cause problems to the general public, employees or contractors. It generally includes vegetation that is armed,

poisonous, poses a health risk, and/or causes dermatitis. Target vegetation in this category is primarily poison ivy and other nuisance vegetation within 10 feet of the edge of pavement.

#### Detrimental Vegetation

Detrimental vegetation includes grasses and woody plants that are destructive or compromise the function of infrastructure by growing in cracks along the roadway, pavement/bridge joints, medians/traffic islands, drainage structures/drainageways, trails and bike paths.

#### Invasive Vegetation

Invasive plants can colonize a space and virtually eliminate the biodiversity of an area. This can result in changes in wildlife due to habitat change, impede natural hydrologic function and cause an overall change in the natural functions of an area. Invasive plants can include those listed on the Massachusetts Prohibited Plant List located at <https://www.mass.gov/service-details/massachusetts-prohibited-plant-list>.

### **3.0 Vegetation Management Methods & Actions to Minimize Herbicides**

Vegetation management methods will include both non-chemical techniques and chemical application where necessary. Vegetation may involve the following methods:

- Cultural Control – use of ground cover, sustainable landscape methods.
- Physical Control – street sweeping, sealing cracks, resurfacing.
- Mechanical Control – hand cutting, mowing, selective trimming.
- Chemical Control – foliar herbicide treatments, cut stump surface treatment.

The control methods selected will be chosen based on a variety of factors and with the goal to achieve a long-term, low maintenance vegetation management program.

#### Cultural Control

Cultural control methods rely primarily on the use of groundcover where appropriate. These include the use of groundcovers that can help outcompete and/or crowd out target vegetation.

Another cultural control method includes sustainable landscape techniques. These include alternative methods for new development and reconstruction that minimize roadside maintenance and promote active planting of competing vegetation. This may include:

- Encouraging the use of seeding and planting specifications that require less maintenance.
- Planting of native trees, shrubs, wildflowers and grasses.
- Planting of native species to compete and replace undesirable species and allow private abutters to maintain ROWs, where applicable.
- Encouraging the use of Low Impact Development (LID) techniques including raingardens that are maintained by the owner.

- City participation in an Adopt-an-Island Program and Adopt-a-Hydrant Program where citizens and businesses maintain and remove unwanted vegetation from these areas.

LID is an environmental design approach based on a variety of techniques and methods with the goal to cost-effectively reduce negative impacts to surrounding natural resources. Through various methods, the City encourages the use of raingardens, bioretention areas and tree box filters. All of these methods aim to promote stormwater management, groundwater infiltration and help eliminate unwanted vegetation by reducing disturbance and promoting the use of native species to outcompete unwanted vegetation.

### Physical Control

Physical control methods will rely primarily on pavement maintenance. Pavement maintenance will consist of sealing cracks and general ROW repairs including resurfacing and installing new sidewalks. This helps to eliminate weeds by preventing access to both sun and soil for growth. The City also completes routine street sweeping. The build-up of sediment and other material can provide a medium for plant growth. Regular street sweeping can help eliminate this material from accumulating as a base for weed establishment.

### Mechanical Control

Mechanical control methods may include hand cutting, mowing and/or selective trimming.

#### *Hand Cutting*

Hand cutting consists of the mechanical cutting of target species using chain saws and brush saws. Target species are cut as close to the ground as practical. Hand cutting is used in order to protect environmentally sensitive sites. It is also used on target vegetation greater than twelve feet in height. Hand cutting is used on those restricted sites where terrain, site size or sensitivity renders mowing impossible or impractical. Hand cutting may be practiced at any time during the year.

#### *Mowing*

Mowing consists of the mechanical cutting of target vegetation using push mowers, large rider mowers, rear deck mowers, brush mowers, edgers and line trimmers. Selection of specific equipment is based on terrain, target vegetation size and equipment availability. Mowing will be used in areas where terrain and target stem size permit safe and efficient use of the above machinery. Mowing will be the principal method for vegetation control along road shoulders and where herbicide use is prohibited. Mowing will be conducted seasonally when weather conditions allow.

#### *Selective Trimming*

Selective trimming consists of the mechanical pruning of the tops of encroaching limbs of tall trees that may hamper roadway, sidewalk, trail and bike path access. Trimming will be accomplished using aerial lifts via trucks or tractors, or if terrain or obstruction prevents equipment access, by climbing crews.

## Chemical Control

### *Foliar Treatment*

Foliar treatments involve the selective application of an herbicide diluted in water, in accordance with manufacturers' directions, to the foliage. Several types of equipment for foliar treatments may be used. These could include: backpack sprayers, hand-held pump sprayers or a motorized truck-mounted sprayer. Foliar treatments with backpack and hand-held pump sprayers are used on low-density target vegetation. The herbicide solution will be diluted to the lowest possible percent that will provide effective control of target species. Motorized application equipment may be used for foliar treatment on areas where the vegetation density is high and the use of a backpack spray may not be as effective.

These foliar applications will take place when plants are in full leaf and actively growing, and in accordance with the product label. When used according to the City's herbicide application program, foliar treatments are an effective and efficient method to control the whole target plant. Controlling the whole target plant reduces the potential of resprout from live root systems.

### *Cut Stump Surface Treatment*

Cut stump treatments consist of mechanical cutting of target species using chain saws, and followed by herbicide treatment applied with a squirt bottle, a hand pump sprayer, or painted on the freshly cut surface of the stump. The cutting procedure is identical to that outlined in the Hand Cutting section of this VMP. Cut stump application can be effective during the dormant period, however, it may not be effective during times of sap flow (i.e., maple and birches during the months of February through early April), as flowing sap will limit the herbicide from being absorbed into the stump down to the roots. Certain types of herbicide formulations are limited to freshly cut stumps to be effective.

## Monitoring

All roadsides for potential treatment will be observed prior to any scheduled treatment program. Monitoring will be conducted by foot and/or by vehicle. Monitoring of areas may result from requests from the public. All monitoring records will be maintained by the City.

## Record Keeping

A log of areas surveyed will be maintained by the City for future planning and reference. Areas maintained either through physical repair, mechanical or chemical control will be recorded.

## Control Tactics

The decision to use one or a combination of vegetation control techniques will depend on the site-specific situation. The control tactics selected will control target vegetation in the most environmentally sensitive and efficient manner.

**Table 1. Summary of Control Methods**

Control Method/Target Vegetation	Grasses	Low-Growth Nonpoisonous <sup>1</sup>	Low-Growth Poisonous <sup>1</sup>	Tall Growth Nonpoisonous <sup>2</sup>	Tall Growth Poisonous <sup>2</sup>	Conditions
Sustainable Landscape	✓	✓				Where landscape, traffic and safety conditions allow.
Mechanical – Hand-Cutting		✓		✓		Where landscape prevents mowing; individual trees or branches.
Mechanical - Mowing	✓	✓				Where landscape, traffic and safety conditions allow.
Chemical – Foliar <sup>3</sup>	✓	✓	✓			Within cracks or joints; when safety concerns eliminate the use of mechanical methods.
Chemical – Cut-Stump <sup>1</sup>				✓	✓	When species are persistent and invasive.

<sup>1</sup>Low Growth – herbaceous growth (generally 3-4’ high, grasses, vines, short woody growth)

<sup>2</sup>Tall Growth – woody vegetation greater than 4’ in height

<sup>3</sup>Except in no-spray areas

#### 4.0 Justification of Herbicide Use

This plan focuses on the minimization of herbicide use within ROWs. Vegetation management along public ways is necessary to control unwanted vegetation that pose a public nuisance, obstructs views and creates a traffic or pedestrian hazard. By following the proposed vegetation management methods discussed in this plan, physical and mechanical treatment controls most plants that interfere with traffic, visibility and safety. Chemical controls are necessary in management situations where topography, access, growth rate, species specific factors, worker safety, or environmental concerns limit the potential for control by physical or mechanical methods.

Chemical controls are often the preferred method or only method of control for plants which pose a health hazard for the technician in the field, either directly or as a function of location. Poison Ivy, for example, is extremely hazardous to handle, biologically resistant to mechanical removal and can pose a serious threat. Individuals attempting to control curbside plants and weeds by pulling them or trimming them can also put a technician in danger from traffic and is generally not effective for long-term control.

In many situations, poisonous plant species, such as Poison Ivy cannot be effectively controlled by mowing. Due to the low growing nature of Poison Ivy, and the fact that it grows along stolons and reproduces both by fine and fibrous rhizomes as well as by berry, it is nearly impossible to control through cultivation, hand pulling or mowing at the height generally used in roadside mowing operations. Moreover, the climbing characteristics of this plant over stone walls, tree trunks and around guardrails, make mechanical control out of the question for safety and economic reasons.

Mowing will control most grasses. Herbicide applications, however, are used where mechanical control is not feasible due to location, stem density and/or height. Although

grass is more often a desirable vegetative cover along public ways, in areas where it is a target, it is difficult and sometimes dangerous to remove by mechanical treatment methods. These areas include, but are not limited to, cracks in asphalt, along guardrails, paved traffic islands, sidewalks and curbs. In these instances, grass can be identified as target vegetation.

Woody vegetation (low and high growth species) growing along the ROW that interfere with pedestrian or vehicle safety is controlled by a variety of techniques. Pruning or ground cutting using hand tools or chain saws primarily controls large woody vegetation. Depending upon the species of plant removed and its proximity to other vegetation, these stumps may be treated with an herbicide to prevent resprouting, although they often can be removed mechanically.

Small woody plants that are growing along the road shoulder in an accessible location will usually be mowed along with the roadside grass. Woody plants that are growing over obstacles that would impede the mower, or have a viney growth habit and are not practical to hand cut or chip, or that grow very rapidly, can be controlled through the use of the foliar application of herbicides.

Finally, invasive species elimination is sometimes warranted to promote the growth of a more diverse mix of vegetative species, reduce sedimentation and improve natural drainage and wildlife habitat. Managing invasive species via mechanical means can be ineffective and/or detrimental depending on the species, making the colonization stronger. In these situations, the use of an herbicide may be necessary. Working in conjunction with the Conservation Commission, there may be opportunities to remove invasive material and encourage the growth of native species.

## **5.0 Identification of Sensitive Areas**

Sensitive areas are defined within 333 CMR 11.00 as areas within ROWs in which public health and environmental concerns warrant special protection to further minimize risks of unreasonable adverse effects of herbicides. These include public groundwater sources, Class A public surface water sources, associated surface water bodies, tributaries, Class B drinking water intakes, private wells, state listed species habitat, wetlands, waters over wetlands, riverfront areas, certified vernal pools, inhabited areas and agricultural areas. Sensitive areas will be identified through the use of existing data and verified when necessary in the field.

### Sensitive Areas Basemap

There are several readily available sources of information that can be used to develop a draft sensitive areas basemap. These sources include:

- Massachusetts Department of Environmental Protection (MassDEP) Water Supply Maps (1:25,000).
- Aerial photographs.
- MassDEP Wetlands Conservancy Maps (scale 1:1,000).

- Municipal maps and records including those from the Worcester Health Department to identify private water supplies.
- Regional Planning Agency maps and records.
- U.S. Fish and Wildlife Service National Wetlands Inventory Maps.
- Ortho photo Information – MassDEP (1:5,000).
- Massachusetts Division of Fisheries and Wildlife Natural Heritage and Endangered Species Program (NHESP).
- Available MassGIS maps.

Identification of Treatment Zones

With the draft sensitive areas basemap complete, Worcester Department of Public Works and Parks (DPW&P) staff will identify and mark the proposed treatment zones on the basemap. DPW&P staff will visually survey treatment zones in the field for any additional sensitive areas not already on the basemap. Sensitive areas identified in the field that are not already on the basemap will be added or adjusted as needed. Similarly, treatment zones located within sensitive areas will be adjusted according to the Sensitive Areas Restrictions listed in Table 2. An updated basemap will be developed as needed.

Field Verification of Sensitive Areas & Marking of Treatment Zones

With the draft sensitive areas basemap complete, Worcester DPW&P staff will deploy in advance of treatment crews to identify the treatment zones in the field. All treatment zones will be identified and marked on the sensitive areas maps. Sensitive areas in the vicinity of the treatment zones will be confirmed during this field effort, if possible, and any additional sensitive areas identified in the field or corrections will be applied to the basemap. Treatment zones located within no spray areas will be adjusted according to the Sensitive Areas Restrictions listed in Table 2.

<b>Sensitive Area</b>	<b>No Spray Areas</b>	<b>Limited Spray Areas</b>	<b>Where Identified</b>
Wetlands and Water Over Wetlands	Within 10 feet (unless provisions of 333 CMR 11.04(4)(c) are followed)	10 – 100 feet; 12 months must elapse between applications; Selective low pressure, using foliar techniques or cut-stump applications	Yearly Operational Plan (YOP) Maps and identify on site
Certified Vernal Pool	Within 10 feet	10 feet to the outer boundary of any Certified Vernal Pool Habitat; 12 months must elapse between applications; Selective low pressure, using foliar techniques or cut-stump applications	YOP Maps and identify on site
Public Ground Water Supply	Within 400 feet (Zone I)	Zone II or IWPA (Interim Wellhead Protection Area which is the Primary Recharge Area); 24 months must elapse between applications; Selective chemical, using foliar techniques or	YOP Maps

		cut-stump applications	
Public Surface Water Supply	Within 100 feet of any Class A public surface water source	100 feet to the outer boundary of the Zone A; 24 months must elapse between applications; Selective chemical, using foliar techniques or cut-stump applications	YOP Maps
	Within 10 feet of any tributary or associated surface water body located outside of the Zone A	10 feet to the outer boundary of the Zone A; 24 months must elapse between applications; Selective chemical, using foliar techniques or cut-stump applications	
	Within 100 feet of any tributary or associated surface water body located within the Zone A of a Class A public surface water source		
	Within a lateral distance of 100 feet for 400 feet upstream of any Class B Drinking Water Intake	Within a lateral distance of between 100 -200 feet for 400 feet upstream of intake; 24 months must elapse between applications; Selective chemical, using foliar techniques or basal or cut-stump applications	
Private Water Supply	Within 50 feet	50 – 100 feet; 24 months must elapse between applications; Selective chemical, using foliar techniques or cut-stump applications	In YOP will list and identify on site
Surface Waters	Within 10 feet from mean annual high-water line	10 feet from the mean annual high water line and the outer boundary of the Riverfront Area; 12 months must elapse between applications; Selective chemical, using foliar techniques or cut-stump applications	YOP Maps and identify on site
Agricultural and Inhabited Areas	N/A	0 – 100 feet; 12 months must elapse between application; Selective chemical, using foliar techniques or cut-stump applications.	Identify on site
State-listed Species Habitat	No application within habitat area except in accordance with a YOP approved in writing by the Division of Fisheries and Wildlife		YOP Maps <sup>1</sup>

<sup>1</sup>Includes Estimated Habitats of Rare Wildlife and the Priority Habitats for State-Listed Species as shown on the most recent edition of the Massachusetts Natural Heritage Atlas prepared by the NHESP

## 6.0 Operational Guidelines for Applicators Relative to Herbicide Use

As required by regulations, application to roadside ROWs must hold a valid Category 40 pesticide certification from the MDAR. The applicator(s) will be City staff and/or a certified contractor working under the supervision of the City of Worcester. All applicators and their supervisors will have a copy of the VMP and YOP with them at all times for reference during the herbicide application. A Daily Vegetation Management Report form will be filed at the end of each day with the individual supervising the YOP. This will include the following information:

- Applicator name and pesticide license #
- Weather conditions during application
- Identification of site/work area
- Type of equipment and hours used
- Method of application
- Target vegetation
- Herbicide, amount/concentration used
- Identification of adjuvants or dilutants and amount/concentration used
- Unusual conditions or incidents noted
- Public inquiries noted
- Recording/verification of sensitive areas
- Lane miles treated
- Total amount of herbicide used
- Man hours (actual spray hours) vs. total herbicide used.

In addition to the applicable rules and regulations, applicators will adhere to the following operational guidelines.

### Weather

Herbicide application will be restricted during certain adverse weather conditions, such as rain or wind. Herbicide applications will not be conducted during periods of moderate or heavy rainfall. Foliar applications can be effective in light mist situations; however, any measurable rainfall that creates leaf runoff will wash the herbicide off target vegetation. If foliar applications are interrupted by unexpected rainfall, the treatment will not resume until the rain ends and active leaf runoff has ceased.

To minimize off-target drift, the applicator will comply with the following restrictions:

- During periods of wind, which are strong enough to bend the tops of the main stems of trees on the roadside, the applicator will periodically observe the application of the foliar treatment to ensure that there is no significant movement of the herbicide. If the applicator can see the herbicide moving off target, the application will immediately stop until the wind has subsided enough to permit further applications.

- Herbicide solution to be used for a foliage application may contain anti-drift agents. Anti-drift agents may be added to the foliage herbicide solutions as per the anti-drift agent label. In moderate wind conditions, as per label recommendations, more anti-drift agent may be added, at the discretion of the applicator to control increased drift.
- Foliar treatment will not be made to target vegetation that exceeds twelve feet in height.

#### Equipment Calibration

Foliar application equipment will be calibrated prior to application and in accordance with manufacturer's recommendations. Applicator nozzles will be adjusted to apply a coarse spray pattern.

Equipment will be adjusted to deliver an herbicide solution that minimizes herbicide overspray.

#### Sensitive Area Restrictions

In defined sensitive areas, there exists a no-spray area where herbicide use is prohibited and a zone where herbicide use is allowed under certain conditions. In places around sensitive areas where herbicide use is allowed, only the minimum labeled rate of application for the control of target species can be applied.

### **7.0 Qualifications of Individuals Developing & Submitting the Plan**

Mr. Matthew Labovites is Assistant Commissioner of Operations for the City of Worcester Department of Public Works & Parks. Mr. Labovites will oversee the implementation of the VMP and YOP.

Comprehensive Environmental Inc. (CEI) is a civil engineering and environmental science firm that has served municipal, state, and federal agencies throughout the New England area for over 30 years. Ms. Stephanie Hanson is a Project Manager and Principal Scientist at CEI, specializing in the areas of wetlands, water resources, stormwater, environmental permitting and resource area protection. Ms. Hanson is a Certified Ecologist with a B.S. in Environmental Geoscience and M.S. in Environmental Science.

### **8.0 Alternative Land Use Options**

Every effort will be given for alternative land use options. However, there are specific criteria to be met for adoption of alternative land use options. First, the alternative land use option must control the nuisance vegetation in a similar manner, environmentally and efficaciously, as allowed in this VMP.

### **9.0 Remedial Plan to Address Spills and Related Accidents**

All mixing and loading of herbicides will be conducted at the facility where the herbicides are stored. This will be a City facility if the application is completed by a City employee, or offsite, if the application is being completed by an outside contractor. Only the amount of herbicide necessary to carry out the vegetation control, based on monitoring results, will be mixed daily to ensure that there will be no waste and will

minimize potential problems. The vehicles carrying out the spray operations will be equipped with a bag of absorbent, activated charcoal, leak-proof containers, a broom and a shovel, in case of minor spills. A clipboard log of the herbicides on the vehicle will be kept on the vehicle. Herbicide labels and fact sheets will be carried on-site by the applicator.

Spills requiring action include: herbicides, fuels, oils, and other motor/hydraulic fluids. As soon as any spill is observed, immediate action will be taken to contain the spill and protect the spill area. The cause of the spill must be identified and secured. Spill containment will be accomplished by covering the spill with absorptive clay or other absorptive material or, for large spills, building clay or soil dikes to impede spill progress. Until completely remediated, the spill area will be protected by the placement of barriers and by the delineation of the spill area by crew members. If a fire is involved, care will be taken to avoid breathing fumes from any burning chemicals.

Minor spills of liquid herbicide will be remedied by soaking up the spill with adsorption clay or other adsorptive material and placing it in leak proof containers, removed from the site and disposed of properly. Minor spills involving dry herbicides, such as granulars, will be swept up or shoveled up directly in leak proof containers, removed from the site and disposed of properly. All contaminated soil will be placed in leak proof containers, removed from the site and disposed of properly. Any minor spill will be reported to the MDAR, Division of Crop & Pest Services.

Major spills will be handled in a similar manner as minor spills, except in cases where the spill cannot be contained and/or removed by the crew. In this case, the MassDEP Emergency Response Unit and the MDAR, Division of Crop & Pest Services must be contacted.

Emergency first responders (including, but not limited to, fire and police) should be immediately notified of a major spill and/or any size incident deemed a possible risk to public health, safety and the environment.

MassDEP will be contacted when there is a spill of a reportable quantity, regardless of major or minor spill status and in accordance with 310 CMR 40.0000 Massachusetts Contingency Plan.

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

- Herbicide label
- Herbicide Safety Data Sheet (SDS)
- Herbicide Manufacturer
  - DOW (800) 992-5994
  - Dupont (800) 441-3637
  - Monsanto (314) 697-4000
  - NuFarm (877) 325-1840
  - Bayer (866)-99-BAYER
- MDAR, Division of Crop & Pest Services
  - Clayton Edwards (617) 626-1700
- Massachusetts Department of Environmental Protection
  - Emergency Response (888) 304-1133
- MA Department of Public Health, Bureau of Environmental Health's Environmental Toxicology Program (617) 339-8351
- Massachusetts Poison Control Center
  - 24-Hour Hotline (800) 222-1222
- City of Worcester Department of Public Works & Parks 508-929-1300
- Worcester Fire Department (508) 799-3473 – non-emergency or 911
- Worcester Police Department (508) 799-1816 – non-emergency or 911
- Worcester Health Department (508) 799-8481
- Chem-Trec 800-424-9300
- National Pesticide Information Center 800-858-7378
- National Animal Poison Control Center 888-426-4435

## **10.0 Monitoring Plan**

On an annual basis, the City will evaluate the success of the Vegetation Management Program. The goal of this monitoring plan is to evaluate the relative success of vegetation control efforts. Following application after an appropriate period of time, treatment areas will be revisited. The survivorship or regrowth of nuisance vegetation will be recorded and evaluated at an annual meeting to determine whether the program is meeting its goals. Discussion items at this annual meeting will include where the herbicide was used, where it worked and how much herbicide was used per lane mile. Recommendations on location and use will be reflected in the next year's YOP as applicable.

## **11.0 Notification Procedures**

Once approved, a copy of the VMP will be provided to the City Manager of Worcester, Board of Health and Conservation Commission. Upon approval of the VMP and YOP and 21-days in advance of the application of herbicide to a ROW, the City will notify the MDAR, Board of Health, water supplier, City Manager of Worcester and Conservation Commission of the application. Notification will include: method and location of application, herbicide fact sheet, EPA registration number for herbicide and applicator contact information. Additionally, at least 48-hours prior to a ROW herbicide application, the applicant will publish in a local newspaper the following information: methods and location of pesticide application, approximate dates of herbicide application, name of herbicide(s) to be used, description/purpose of application and contact information for the designated individual representing the City whom citizens can contact.

## **12.0 ALB Cooperative Eradication Program**

In 2008, the U.S. Department of Agriculture confirmed the presence of the Asian longhorned beetle (ALB – *Anoplophora glabripennis*) in the City of Worcester. This invasive insect can infest tree species (including maple, horse chestnut, birch, poplar, willow, elm and ash) and eventually destroy the tree (host). In 2008, a portion of Worcester county was quarantined for ALB via Federal Order with several Amended Orders issued since then. Per this order, associated amendments and the MA Cooperative ALB Eradication Program, all contractors and staff completing work under this VMP shall be familiar with and follow local, state and federal ALB procedures currently in place regarding work with host species. This will include activities related to cutting, treatment, removal and disposal of infected or potential host species. A copy of the MA ALB Cooperative Eradication Program notice and ALB Pest Alert has been included in the Appendix. Specific ALB program information will be updated yearly, as necessary in the Yearly Operation Plan (YOP).