

**Massachusetts Department of Conservation and Recreation
Division of Urban Parks**

Yearly Operational Plan

2011



This Yearly Operational Plan has been developed in compliance with Rights-of-Way Management regulations (333CMR 11.00)

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Section 1: General Statement of Goals and Objectives

The Department of Conservation and Recreation (DCR) Division of Urban Parkway has developed this Yearly Operational Plan (VMP) for managing vegetation along its roadways and trails, and in its parks and land holdings, to create a safe environment for the general public. This plan is the implementation of DCR's Five Year Vegetation Management Plan and developed in compliance with Rights-of-Way Management regulations (333CMR 11.00) as promulgated by the Massachusetts Department of Agricultural Resources (DAR).

Vegetation encroaching on public parkways, roads, sidewalks, paths, and trails creates hazardous conditions for the general public including, but not limited to, blocking access, hiding signs and guard rails, limiting line of sight, noxious weed hazards, restricting drainage and deteriorating road and trail beds. Parklands are affected by invasive weeds, bio-diversity is threatened and rare and endangered species are losing habitat due to overgrowing vegetation.

The goal of this plan is to establish vegetation management methodology and practices that will result in the most effective treatment with the least environmental impact. DCR wants to be very restrictive and purposeful about its herbicide usage.

In order to achieve this goal several objectives need to be met:

- Determine the target vegetation
- Establish an Integrated Pest Management (IPM) strategy
- Determine the best control methodology and practices
- Develop operational guidelines

This document details the specifics of DCR's treatment plans for this year --- where the treatment areas are, what is going to be treated, and what chemicals will be used.

The implementation of this plan will greatly benefit the general public safety and enhance the environmental quality of these lands by a reduction in pesticide use, proper use of mechanical methods and the establishment of biological controls.

Section 2: Individual Representing the Applicant and Supervising the YOP

DCR Division of Urban Parks

Matt Thurlow
251 Causeway St. Suite 600
Boston, MA 02114
(617) 626-4944

Section 3: The Company Contracted to do the Herbicide Application for DCR

Northern Tree Service

PO Box 790
Palmer, MA 01069
Phone 800-232-6132

Contact Person: Mark Lacombe
Project Manager

Section 4: Herbicides Proposed (including application rates, carriers, adjuvants)

| Location / Target | Herbicide | Carriers or Adjuvants | Application Technique | Application Rate |
|--|-------------------------------------|------------------------------|----------------------------------|-------------------------|
| Roadside/Trailside Poison Ivy, Grass, Weeds | Roundup-Pro EPA Reg. No. 524-475 | None | Low Pressure Selective Foliar | 1-2 qts / Acre |
| | Escort EPA Reg. No. 352-439 | | | 2 oz / Acre |
| Roadside/Trailside Brush and Hard to Control Invasives | Roundup-Pro EPA Reg. No. 524-475 | None | Low Pressure Selective Foliar | 2-4 qts / Acre |
| | Arsenal EPA Reg. No. 241-346 | | | 1 pt / Acre |
| | Escort EPA Reg. No. 352-439 | | | 2 oz / Acre |
| Touch Up | Roundup-Pro EPA Reg. No. 524-475 | None | Low Pressure Selective Foliar | 1-2 qts / Acre |
| | Escort EPA Reg. No. 352-439 | | | 2 oz / Acre |

Section 5: Herbicide Application Techniques and Alternate Control Procedures

Types of application equipment or methods:

- Low pressure backpack selective foliar: A hand pumped or motorized backpack sprayer with a hand held gun or wand used to treat individual plants.
- Low pressure hydraulic pump utilizing hand gun: A gas or electric powered pump on a vehicle with a hose and gun the operator uses by hand.
- WeedSeeker® Low pressure hydraulic pump boom: A photoelectric vegetation sensing sprayer that only sprays green vegetation from a boom as it drives.

Alternative control procedures fall into two main categories, Mechanical and Biological:

Mechanical:

These methods will be employed where the use of herbicides are unacceptable due to environmental, regulatory or cost factors.

Mowing, cutting, grubbing, or otherwise removing an undesirable plant through purely mechanical means. A sub category of mechanical would be cultural controls, which include grazing, crops, and alternate land use.

Types of equipment that could be used, include but are not limited to: Flail mower, Brush hog, Chain saw, Brush saws, Root wrench, Hand saws, Loppers

Biological:

Biological control is the control of undesirable vegetation through natural means.

This is done through natural plant competition, predators, and disease; this control method is accomplished by manipulating the environment in such a way that you create, or jump-start, the natural biological control. An example would be encouraging low growing shrubs to out compete tall growing species or using other proven natural means to create conditions that restrict or prohibit undesirable vegetation.

Section 6: Identification of Target Vegetation

Any vegetation that grows in such a way as to create an unsafe condition or threaten the welfare of the general public will be considered undesirable, and will be subject to control under this YOP.

The following are examples when vegetation would be considered undesirable:

1. Do they exceed an economic threshold? The economic damage they cause

is more than the cost to control them.

2. Do they cause an imminent hazard to the general public whereas a person could be injured as a result of where the vegetation is growing.

3. Does the vegetation cause a future hazard to the general public if it is allowed to continue to grow where it is?

4. Will the vegetation cause detrimental harm to the environment by where it is growing? This could be invasive plants crowding out rare and endangered species, disrupting biodiversity, and generally damaging the integrity of the environment.

5. Causing damage to the physical infrastructure and investment of the DCR.

Examples of Undesirable Vegetation:

Parkways:

Tall grass, weeds, and woody vegetation growing around guardrails, signs, and abutments.

Sidewalks:

Grass and tall weeds in cracks and on curbs.

Paths and Trails:

Vines and woody vegetation encroaching from sides.

All areas:

Noxious and invasive weeds like Oriental Bittersweet, Multi-Floral Rose, Poison Ivy.

Section 7: Flagging Methods to Designate Sensitive Areas on the ROW:

Sensitive Areas, as defined in the Rights-of-Way Management regulations (333CMR11.02) shall refer to any areas, within rights-of-way, including but not limited to the following, in which public health, environmental or agricultural concerns warrant special protection to further minimize risks of unreasonable adverse effects:

Sensitive Area Restriction Guide (333 CMR 11.04)

| Sensitive Area | No Spray Zone | Limited Use Zone | Where Identified |
|----------------------------------|--|--|---------------------------------------|
| Wetlands and Water Over Wetlands | Within 10 feet (unless provisions of 333 CMR 11.04(4)(c) are followed) | 10 – 100 feet; 12 months must elapse between applications; Selective low pressure, using foliar techniques or basal or cut-stump applications | YOP Maps and identify on site |
| Certified Vernal Pool | Within 10 feet | 10 feet to the outer boundary of any Certified Vernal Pool Habitat; 12 months must elapse between applications; Selective low pressure, using foliar techniques or basal or cut-stump applications | YOP Maps and identify on site |
| Public Ground Water Supply | Within 400 feet (Zone I) | Zone II or IWPA (Primary Recharge Area); 24 months must elapse between applications; Selective low pressure, using foliar techniques or basal or cut-stump applications | YOP Maps |
| Public Surface Water Supply | Within 100 feet of any Class A public surface water source | 100 feet to the outer boundary of the Zone A; 24 months must elapse between applications; Selective low pressure, using foliar techniques or basal or cut-stump applications | YOP Maps |
| | Within 10 feet of any tributary or associated surface water body located outside of the Zone A | 10 feet to the outer boundary of the Zone A; 24 months must elapse between applications; Selective low pressure, using foliar techniques or basal or cut-stump applications | |
| | Within 100 feet of any tributary or associated surface water body located within the Zone A of a Class A public surface water source | | |
| | Within a lateral distance of 100 feet for 400 feet upstream of any Class B Drinking Water Intake | Within a lateral distance of between 100 -200 feet for 400 feet upstream of intake; 24 months must elapse between applications; Selective low pressure, using foliar techniques or basal or cut-stump applications | |
| Private Water Supply | Within 50 feet | 50 – 100 feet; 24 months must elapse between applications; Selective low pressure, using foliar techniques or basal or cut-stump applications | In YOP well list and identify on site |
| Surface Waters | Within 10 feet from mean annual high-water line | 10 feet from the mean annual high water line and the outer boundary of the Riverfront Area; 12 months must elapse between applications; Selective low pressure, using foliar techniques or basal or cut-stump applications | YOP Maps and identify on site |
| Agricultural and Inhabited Areas | N/A | 0 – 100 feet 12 months must elapse between application; Selective low pressure, using foliar techniques or basal or cut-stump applications. | Identify on site |
| State-listed Species Habitat | No application within habitat area except in accordance with a Yearly Operational Plan approved in writing by the Division of Fisheries and Wildlife | | YOP Maps |

The following is a description of how the Sensitive Areas and No Spray Areas will be identified for protection:

- Consult the appropriate reference materials and sources to determine the precise location of these areas.
- Place the boundaries of these sensitive areas on USGS geographic maps, MassGIS Street maps or GIS drawings.
- Prior to the commencement of herbicide application operations, DCR will place yellow painted arrows that point towards a “no spray” zone on streets curbs or sidewalks as necessary, yellow arrows on stakes for dirt trials.
- DCR will deploy a qualified point person to assist in identification. For applications using a vehicle a single orange traffic cone will be placed by the yellow arrow to signify where to stop the herbicide treatment. Two cones will be placed at the next yellow arrow to signify where treatment can be re-started.

Section 8: Procedures for Handling, Mixing and Loading of Herbicides:

All chemicals will be handled in accordance with the manufactures label, state and federal laws. All mixing loading and storage will be done at secure DCR facilities with no mixing/loading done on site. All filling of tanks with water will be done with proper backflow devices in place.

Section 9: Emergency Plan:

DCR uses contractors who are licensed responsible entities that will comply with all local state and federal regulations. DCR contractors are required to carry spill kits.

Guidelines for Responding to a Spill:

1. Contain the Spill

- Wearing the appropriate PPE, identify the source and stop it if possible. Contain what has spilled or is spilling by creating a dike of soil or absorbent materials from a spill kit. Refer to MSDS and product labels for more information and contact numbers.

2. Report the Spill

- Once contained, or if you are unable to contain, control or absorb the spill properly **call 911** for the **local fire department**. They are the first responder in spill situations.

Report the spill to the appropriate authorities as necessary:

1. DEP 24-hour Spill Reporting

To report a release of oil or hazardous material, call the DEP 24-hour notification line toll-free **(888) 304-1133**

From the Boston area dial (617) 556-1133

2. DAR (Dept. of Agricultural Resources) Pesticide Bureau

Within 48 hours (617) 626-1700

3. DCR Division of Urban Parks

Matt Thurlow (617) 626-4944

3. Minor spills must be thoroughly absorbed, shoveled, swept up and put into a leak-proof container for disposal in a legal manner. Spread activated charcoal over area to inactivate any residual material.
4. In the event of personal contact with hazardous materials:
 - Remove clothing that is soaked with hazardous materials.
 - Wash affected area with sufficient soap and water.
 - Contact a physician or poison control center if necessary.
 - Do not breath fumes of hazardous materials.

Other Helpful Numbers:

Mass. Poison Center (800) 682-9211

Mass. Dept. of Public Health Center for Environmental Health Toxicology Program

For Questions about Exposure to Pesticides. (617) 624-5757

Mass. State Police, Central Office (617) 566-4500 or 911

Chem Trec (800) 424-9300

APPENDIX A:

List of DCR areas to be treated 2011: (subject to funding)

| Town | DCR Property South District | Treatment Target | Treatment Method |
|-------------|---|---|---|
| Boston | VFW West Roxbury Pkwy Enneking Pkwy Turtle Pond Pkwy | Grass and Weeds | Low pressure boom |
| | Boston Stony Brook Reservation Mother Brook Reservation Chestnut Hill Reservation | Brush and Invasives Poison Ivy | Low pressure backpack |
| Brookline | Lost Pond Reservation Hammond Pond Pkwy | Poison Ivy Grass and Weeds | Low pressure backpack |
| | Wellesley | Leo J Martin Golf Course | Poison Ivy Invasives |
| Weston | Leo J Martin Golf Course Norumbega Road | Grass and Weeds Poison Ivy Invasives | Low pressure backpack Low pressure boom |
| | Waltham | Charles River Reservation MetFern Cemetery | Poison Ivy Grass, Weeds |
| Dedham | Wilson Mountain Reservation Cutler Park Reservation Mother Brook Reservation | Poison Ivy Grass, Weeds | Low pressure backpack |
| Newton | Hammond Pond Reservation Saw Mill Brook Reservation Quinobequin Road Hammond Pond Pkwy | Grass and Weeds Poison Ivy/Invasives | Low pressure backpack Low pressure boom |
| | Needham | Needham Pathway Hemlock Gorge Reservation | Brush & Invasives Poison Ivy |

| Town | DCR Property North District | Treatment Target | Treatment Method |
|-------------|--|-----------------------------|--|
| Belmont | Beaverbrook | Poison Ivy | Low pressure backpack |
| Arlington | Mystic Valley Pkwy Mystic River Reservation | Grass & Weeds | Low pressure boom |
| Somerville | Alewife Brook Pkwy Mystic River Reservation McGrath Obrien Hwy | Grass & Weeds | Low pressure boom |
| Winchester | Mystic Valley Pkwy Hillcrest Pkwy Mystic River Reservation | Grass & Weeds Poison Ivy | Low pressure boom Low pressure backpack |
| Lynn | Lynnway, Carroll Parkway Nahant Beach Blvd | Grass & Weeds | Low pressure boom |
| Milton | Blue Hills Reservation | Poison Ivy | Low pressure backpack |
| Medford | Fellsway East and West Mystic Valley Pkwy South Border Rd East Border Rd Woodland Rd | Grass & Weeds | Low pressure boom |
| Stoneham | Fellsway North Border Rd Woodland Rd Pond St. Ravine Rd Middlesex Fells Reservation | Poison Ivy | Low pressure backpack |
| Melrose | Lynn Fells Pkwy Middlesex Fells Reservation | Grass & Weeds | Low pressure boom |
| Saugus | Breakhart Reservation | Grass and Weeds | Low pressure boom |

| Town | DCR Property North District | Treatment Target | Treatment Method |
|-------------|---|-------------------------|-------------------------|
| Malden | Fellsway Fellsway East | Grass & Weeds | Low pressure boom |
| Everett | Revere Beach Pkwy | Grass & Weeds | Low pressure boom |
| Chelsea | Mary OMalley Park | Grass & Weeds | Low pressure boom |
| Revere | Revere Beach Pkwy Ocean Avenue Winthrop Pkwy | Grass & Weeds | Low pressure boom |
| Winthrop | Winthrop Shore Drive | Grass & Weeds | Low pressure boom |
| Boston | Constitution Beach Rd Storrow Dr Park Dr Fenway Soldiers Field Rd Birmingham Pkwy Nonantum Rd | Grass & Weeds | Low pressure boom |
| Boston | Charles River Reservation | Poison Ivy | Low pressure backpack |
| Cambridge | Memorial Drive Land Blvd Obrien Hwy Fresh Pond Pkwy Alewife Brook Pkwy | Grass & Weeds | Low pressure boom |
| Watertown | Charles River Rd Greenough Blvd Charles River Reservation | Grass & Weeds | Low pressure boom |

| Town | DCR Property North District | Treatment Target | Treatment Method |
|-------------|--|--|--|
| Hull | Hull Shore Drive Nantasket Beach Fort Revere | Grass & Weeds Poison Ivy | Low pressure boom Low pressure backpack |
| Hingham | Stodders Neck | Poison Ivy | Low pressure backpack |
| Quincy | Quincy Shore Dr Furnace Brook Pkwy Quincy Shore Reservation | Poison Ivy Grass & Weeds | Low pressure backpack Low pressure boom |
| Boston | Morton St Gallivan Blvd Morrissey Blvd Day Blvd Arborway Jamaica Way Boston Harbor Islands | Grass & Weeds Brush & Invasives Poison Ivy | Low pressure boom Low pressure backpack |

APPENDIX B: Labels

- Round Up Pro
<http://www.monsanto.com/products/Pages/roundup-pro-concentrate.aspx>
- Arsenal
<http://www.cdms.net/LabelsMsds/LMDefault.aspx?pd=70&t=>
- Escort
http://www2.dupont.com/Crop_Protection/en_CA/labels-MSDS/escort.html

APPENDIX C: Maps

See Attached Digital File

APPENDIX D: Fact Sheets

- Glyphosate
<http://www.mass.gov/agr/pesticides/rightofway/docs/Glyphosate2005.pdf>
- Imazapyr
<http://www.mass.gov/agr/pesticides/rightofway/docs/Imazapyr2005.pdf>
- Metsulfuron Methyl
http://www.mass.gov/agr/pesticides/rightofway/docs/Metsulfuron_Methyl2005.pdf

APPENDIX E:

