

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

Yearly Operational Plan

2014



This Yearly Operational Plan has been developed by Northern Tree Service Inc. to be 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 Parks in conjunction with Northern Tree Service have developed this Yearly Operational Plan (YOP) for managing problematic vegetation in order to create a safe environment for the general public on public parkways. This plan is the implementation of DCR's five-year Vegetation Management Plan (VMP) which was 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 unfavorable conditions for the general public. Hazards include but are not limited to, blocking access, obscuring signage or guard rails, limiting sight line, drainage restrictions and the deterioration of road or trail beds. Additionally, affected parklands often present with both noxious and invasive weeds. These plants serve to both restrict pedestrian access and negatively impact bio-diversity.

The goal of this plan is to establish an approach to vegetation management that will result in the most effective treatments 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 afford the general public increased safety while enhancing the environmental quality and accessibility of involved public lands. This effort seeks to reduce pesticide use through the proper use of mechanical techniques and the establishment of biological controls.

Section 2: Individual Representing the Applicant and Supervising the YOP

DCR Division of Urban Parks

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

Section 3: Herbicide Application Company Contracted by DCR

Northern Tree Service, Inc.

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	Rodeo EPA Reg. No. 62719-324	LI-700	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	Rodeo EPA Reg. No. 62719-324	LI-700	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	Rodeo EPA Reg. No. 62719-324	LI-700	Low Pressure Selective Foliar	1-2 qts / Acre
	Escort EPA Reg. No. 352-439			2 oz / Acre

Section 5: Herbicide Application Techniques and 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:

Mechanical treatments are defined as 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, cultivation, and alternate land use. These methods will be employed where herbicides are prohibited due to environmental, regulatory or cost factors.

Equipment may include but is not limited to a: Flail mower, Brush hog, Chain saw, Brush saw, Root wrench, Hand saws or Loppers

Biological:

Biological control is the management of undesirable vegetation through natural means. Examples of this alternative approach include: natural plant competition, predators, and disease; using other proven natural means to create conditions that restrict or prohibit undesirable vegetation. An illustration of this method would be to encourage low growing shrubs to outcompete tall growing species.

Examples of Undesirable Vegetation:

Parkways:

Tall grass, weeds, and woody vegetation growing around guardrails, signs, & 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, and Poison Ivy.

Section 6: Identification of Target Vegetation

Vegetation is deemed undesirable when growing in such a way as to create an unsafe condition which threatens the welfare of the general public. Qualifying plants and botanical communities 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.

Section 7: Sensitive Areas Designation:

Sensitive Areas, as defined in the Rights-of-Way Management regulations (333CMR11.02) shall refer to any areas, within rights-of-way, 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

Identification and demarcation of Sensitive Areas and No-Spray Areas:

- 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.
- Using GIS, Northern will generate local, large-scale color maps highlighting the sensitive areas detailed in the Sensitive Area Restriction Guide. Data comprising these maps will be harvested from MassGIS and will include data from the Natural Heritage and Endangered Species Program, Massachusetts Department of Environmental Protection, and the Executive Office of Energy and Environmental Affairs.

In accordance with MGL, Northern Tree Service will notify the Board of Health, Conservation Commission, and Mayor/Town Manager by certified mail return receipt for each municipality containing a DCR property slated for herbicide treatment. Northern will interpret a non-response as a Notice to Proceed.

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

All chemicals will be handled in accordance with the manufactures label as well as appropriate state and federal laws. All mixing loading and storage of herbicide products will be done at secure DCR facilities with no mixing/loading done on site. Additionally, 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. Consequently, all DCR contractors are required to carry spill kits.

Guidelines for Responding to a Spill:

1. Contain the Spill

- Wearing the appropriate Personal Protective Equipment (PPE), identify the spill source and, if possible, stop it. Contain what has spilled or is spilling by creating a dike of soil or absorbent materials from a spill kit. Refer to Material Safety Data Sheets (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.

Additional Notification Contacts:

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

Matthew 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 breathe 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 Intended to be Treated 2014:

(DCR will determine Actual Areas Treated based on available funding.)

Town	DCR Property South District	Treatment Target	Treatment Method
Boston	VFW	Grass and Weeds	Low pressure boom
	West Roxbury Pkwy		
	Enneking Pkwy		
	Turtle Pond Pkwy		
	Boston Stony Brook Reservation	Brush and Invasives	Low pressure backpack
	Mother Brook Reservation	Poison Ivy	
	Chestnut Hill Reservation		
Brookline	Lost Pond Reservation	Poison Ivy	Low pressure backpack
	Hammond Pond Pkwy	Grass and Weeds	
Wellesley	Leo J Martin Golf Course	Poison Ivy	Low pressure backpack
		Invasives	
Weston	Leo J Martin Golf Course	Grass and Weeds	Low pressure backpack
	Norumbega Road	Poison Ivy	
		Invasives	Low pressure boom
Waltham	Charles River Reservation	Poison Ivy	Low pressure backpack
	MetFern Cemetery	Grass, Weeds	
Needham	Needham Pathway	Brush & Invasives	Low pressure backpack
	Hemlock Gorge Reservation	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	Breakheart 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
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
Hingham	Stodders Neck	Poison Ivy	Low pressure backpack
Boston	Morrissey Blvd Day Blvd Arborway Jamaica Way	Grass & Weeds	Low pressure boom
	Boston Harbor Islands	Brush & Invasives Poison Ivy	Low pressure backpack

APPENDIX B: Herbicide Fact Sheets and Labels

Herbicide 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

Labels:

- Rodeo
<http://www.dowagro.com/vm/products/rodeo.htm>
- Arsenal
<http://www.cdms.net/LabelsMsds/LMDefault.aspx?pd=70&t=>
- Escort
http://www2.dupont.com/Crop_Protection/en_CA/labels-MSDS/escort.html