TOWN OF ATHOL

2021 Yearly Operational Plan

Submitted by:
Town of Athol Department of Public Works

Prepared by:
Vegetation Control Service, Inc.

February 15, 2021

SUMMARY

A yearly operational plan (YOP) must be submitted to the Department of Agricultural Resources (MDAR) every year herbicides are intended for use to maintain public ways (rights-of-way). The YOP provides a detailed program for vegetation management including the methods used to identify target vegetation and sensitive areas, planned treatment methods, herbicides and herbicides mixtures and rates for the year.

A five year Vegetation Management Plan (VMP) is available for review at http://www.mass.gov/eea/agencies/agr/pesticides/vegetation-management-and-yearly-operation-plans.html , the office of the Department of Public Works, Board of Health, Conservation Commission and Board of Selectmen.

Upon receipt of this YOP, the MDAR publishes a notice in the Environmental Monitor. The Town must also provide a copy of the proposed YOP and Environmental Monitor notice to the Board of Health, Conservation Commission, and Chief Elected Official. The Department allows a 45-day comment period on the proposed YOP beginning with the publication of the notice and receipt of the YOP and Environmental Monitor notice. A one-page notice is also sent to all public water suppliers.

Public notification of herbicide application is made at least 21 days prior to the treatment(s) by a separate notice. This Notice is made to the Department of Agricultural Resources, Chief Elected Official, Board of Health, the Conservation Commission and the Municipal Public Water Supplier.

A Newspaper Notice will also be published at least 48 hours in advance of the treatment(s).

Any comments on this YOP should be made to the person designated herein as the person supervising the YOP or the person performing the treatment.

TABLE OF CONTENTS

	SUMMARY	ii
1.	INTRODUCTION	1
2	THE INDIVIDUALS THAT WILL PERFORM AND SUPERVISE THE HERBICIDE TREATMENT	2
3.	LOCATION OF INTENDED HERBICIDE TREATMENT(S)	2
4.	IDENTIFICATION OF TARGET VEGETATION	3
5.	DEFINITION, IDENTIFICATION AND TREATMENT OF SENSITIVE AREAS	3
6.	PROPOSED HERBICIDE TREATMENT METHODS	5
7.	PROPOSED HERBICIDES, CARRIERS, ADJUVANTS AND RATES	7
8.	HANDLING, MIXING AND LOADING HERBICIDE CONCENTRATES	9
9.	ALTERNATIVE CONTROL TECHNIQUES	9
10.	TREATMENT RECORDS	11
11.	REMEDIAL PLAN TO ADDRESS SPILLS AND RELATED ACCIDENTS	11

TABLES

TABLE 1	CONTROL STRATEGIES FOR SENSITIVE AREAS	4
TABLE 2	TANK MIXES FOR CURBING, CRACKS, GUIDERAIL, TRAFFIC ISLAND TREATMENTS	7
TABLE 3	TANK MIXES FOR POISON IVY, NOXIOUS AND INVASIVE SPECIES	8
TABLE 4	TANK MIXES FOR POISON IVY	8
TABLE 5	TANK MIXES FOR LOW VOLUME FOLIAGE APPLICATIONS	8
TABLE 6	TANK MIXES FOR CUT SURFACE TREATMENT (CST) APPLICATIONS	8
TABLE 7	TANK MIXES FOR LOW-VOLUME BASAL APPLICATIONS AND CUT SURFACE TREATMENT (CST) APPLICATIONS	9
TABLE 8	TANK MIXES FOR PGR	9
TABLE 9	HERBICIDE MANUFACTURERS	12
TABLE 10	STATE AGENCIES	13
TABLE 11	EMERGENCY SERVICES	13
TABLE 12	TOWN OF ATHOL CONTACTS IN THE CASE OF A SPILL OR ACCIDENT	13

APPENDICES

APPENDIX 1: MAP AND STREET LISTINGS
APPENDIX 2: HERBICIDE FACT SHEETS
APPENDIX 3: HERBICIDE LABELS
APPENDIX 4: HERBICIDE SPILL CHECK LIST

1. INTRODUCTION

In compliance with Commonwealth of Massachusetts' Rights of Way Management Regulations (333 CMR 11.00) the Town of Athol's Yearly Operational Plan (YOP) details our vegetation management program for 2021. This YOP is consistent with the terms and procedures set forth in Athol's 2020-2024 Five-Year Vegetation Management Plan (VMP); with the Massachusetts Pesticide Control Act (Chapter 132B); with all pertinent clauses in Chapter 85 of the Acts of 2000; and with all acts and regulations that apply to public-way (right-of-way) vegetation management.

Vegetation growing along curbing, within and around paved traffic islands, in cracks in the asphalt, under guiderails along roadways and in areas that cannot be mowed is a concern in Athol. These areas, along with Poison Ivy, Japanese Knotweed and other public nuisance vegetation, can be effectively controlled with the use of herbicide applications.

Herbicide applications will be done under the supervision of a certified applicator in compliance with 333 CMR 11.00 as detailed in the public way Integrated Vegetation Management (IVM) program and protocols described in Athol's VMP.

In order of preference, an Integrated Vegetation Management program on public ways is a combination of cultural, physical, mechanical, and chemical management techniques that control undesirable vegetation in an ecologically sound manner. As with all IVM programs, this program is designed to maximize control of undesirable vegetation while minimizing any potential impact to the environment.

2. THE INDIVIDUALS THAT WILL PERFORM AND SUPERVISE THE HERBICIDE TREATMENT

The Town of Athol DPW will supervise the herbicide applications with the assistance of Vegetation Control Service, Inc. Town of Athol DPW and/or VCS, Inc. licensed applicators will perform the herbicide applications.

Supervisor: **Dick Kilhart**
Superintendent
Department of Public Works
584 Main Street
Athol, MA 01331
(978) 249-4542

Certified Applicators:

Department of Publics Works Employees
584 Main Street
Athol, MA 01331
(978) 249-4542
Contact: Dick Kilhart

Vegetation Control Service, Inc.
2342 Main Street
Athol, MA 01331
(978) 249-5348
Contact: Jonathan Kopera

3. LOCATION OF INTENDED HERBICIDE TREATMENT(S)

For 2021, the treatment areas include, but are not limited to, cracks in asphalt, along guiderails, along curbing, within and around paved traffic islands, between sidewalks and the adjacent curbing, and wherever vegetation is causing a public hazard within the legal right-of-way.

Known *Sensitive Areas* are included in the Athol map included in Appendix 1. An Athol street listing is also included in Appendix 1 to cover potential treatment locations for public nuisance and vegetation posing a risk to public safety. Predicting the location of all target vegetation along public ways in advance of the active growing season is not possible or practical. In an effort to limit the application of herbicides only to areas that require treatment, the town will, therefore, conduct patrols and treat only those areas in which vegetation poses a public nuisance and/or poses a safety risk to pedestrian or vehicular safety.

4. IDENTIFICATION OF TARGET VEGETATION

Target Vegetation:
Vegetation that poses a public nuisance and/or poses a safety risk to pedestrian or vehicular safety.

Nuisance Grass and Herbaceous Growth

In most instances grass is a desirable plant species. Along the shoulders of roads, grass growth is encouraged and maintained through mechanical mowing. However, in some instances, grasses and other herbaceous plants can be identified as targets in areas where they cause a safety risk. These areas include, but are not limited to along curbing, cracks in asphalt, along guiderails, within and around paved traffic islands, and between sidewalks and the adjacent curbing.

Public Nuisance Vegetation

Public nuisance vegetation includes but is not limited to poisonous and noxious plant species growing along public ways that pose a health hazard. Noxious vegetation poses a risk to safety and health because of heavy thorns, dense foliage and/or impenetrable stems; examples include but are not limited to Multiflora Rose, Common and Glossy Buckthorn, and Blackberries. Although not the only target species of concern, Poison Ivy is the dominant poisonous plant community along public ways that requires control.

Vegetation Posing a Risk to Safety

Vegetation that hampers visibility or impedes movement along public ways often poses a risk to public safety. M.G.L. Chapter 87, Section 5 authorizes tree wardens to have control of "all public shade trees, shrubs, and growths" along public ways. This includes woody plant species and invasive species. A short list of examples includes all tree species considered "street trees", all shrubs, vines and more specifically, invasive species, particularly Autumn Olive, Japanese Knotweed, Bittersweet and Multiflora Rose. Please note that only vegetation under twelve feet tall may be foliar treated.

5. DEFINITION, IDENTIFICATION AND TREATMENT OF 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.

Protecting these environmentally sensitive sites is accomplished by defining specific *Sensitive Areas* and establishing buffer zones and treatment restrictions within their borders according to the prescriptions in Table 1 below. These *Sensitive Areas* consist of no-spray zones

in which herbicide use is prohibited, and larger, limited spray areas where herbicide use is permitted under certain conditions.

Treatment in limited spray areas require the use of herbicides from the *Sensitive Area Materials List* available at:

http://www.mass.gov/eea/agencies/agr/pesticides/rights-of-way-sensitive-area-materials-list.html

and following the application restrictions in 333 CMR 11.04 which includes applying minimum herbicide application rates.

TABLE 1: CONTROL STRATEGIES FOR SENSITIVE AREAS

Table Compiled by Jeffrey M. Taylor, Vegetation Control Service, Inc.

Sensitive Area	Limited Spray or No-Spray Areas (feet)	Control Method	Time Limits Between Treatment(s)
Public Ground Water Supplies	400'	Mechanical Only	None
Primary Recharge Area	Designated buffer zone or 1/2-mile radius	Mechanical, Approved Herbicides*	24 months
Public Surface Water Supplies (Class A & Class B)	100'	Mechanical Only	None
	100'-400'	Approved Herbicides	24 months
Tributary to Class A Water Source, within 400' upstream of water source	100'	Mechanical Only	None
	100'-400'	Approved Herbicides	24 months
Tributary to Class A Water Source, greater than 400' upstream of water source	10'	Mechanical Only	None
	10'-200'	Approved Herbicides	24 months
Class B Drinking Water Intake, within 400' upstream of intake	100'	Mechanical Only	None
	100'-200'	Approved Herbicides	24 months
Private Drinking Water Supplies	50'	Mechanical Only	None
	50'-100'	Approved Herbicides	24 months
Surface Waters	10'	Mechanical Only	None
	10'-100'	Approved Herbicides	12 months
Rivers	10' from mean annual high-water line	Mechanical Only	None
	10'-200 '	Approved Herbicides	12 months
Wetlands	10'	Mechanical Only	None
	100' or with approved Wetlands Determination 10'-100' [per 310 CMR 0.05(3)(a) & 310 CMR 0.03(6)(b)]	Low-pressure Foliar, CST, Basal, Approved Herbicides	24 months
Inhabited Areas	100'	Approved Herbicides	12 months
Agricultural Area (Crops, Fruits, Pastures)	100'	Approved 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 approval	
Priority Habitat	No treatment outside the 4-foot paved road exemption without approval of the Natural Heritage Endangered Species Program (NHESP)		

*Massachusetts Approved herbicides for sensitive sites

Identification Methods

As appropriate, *Sensitive Areas* will be identified and marked in the field by trained and experienced individuals.

Two simple descriptions guide the complex identification of the *Sensitive Areas* defined in 333 CMR 11.04: *Readily identifiable in the field* and *Not readily identifiable in the field.* Readily identifiable in the field areas will be treated, identified and when appropriate, marked according to all applicable restrictions listed in 333 CMR 11.00. Not readily identifiable in the field areas will likewise marked and treated when appropriate, but they are identified using data marked on maps and collected in the YOP and notification processes before the time of treatment.

The individuals assigned the task of identifying and treating *Sensitive Areas* in the field will use the appropriate sources and methods from the following list:

- Town maps, records and institutional knowledge
- Massachusetts Department of Environmental Protection water supply maps and/or GIS (Geographic Information Systems) mapping layers available through Mass GIS (http://www.mass.gov/mgis/)
- Water Department, MDAR and Athol Board of Health maps and lists of identified private wells along the ROW
- Correspondence, meetings and input—from the chief elected official, board of health, conservation commission, public water suppliers and the public—within the forty-five day YOP and twenty-one 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)
- An advance point person who verifies, identifies and where appropriate marks *Sensitive Areas* and any additional areas that may require special precautions
- USGS topographical maps
- Information from Mass GIS
- When necessary, confidential information from NHESP
- A copy of the YOP and VMP.

6. PROPOSED HERBICIDE TREATMENT METHODS

Athol's VMP describes several proposed treatment methods, but for 2021 the herbicide program will consist of the following:

Chemical (Herbicide Applications) Methods

1. **Foliar Treatments:** the selective application of herbicides diluted in water, to the foliage of target vegetation. Two types of equipment for foliar treatments are used: backpack

and vehicle mounted. Both treatments use low pressure, below 60 pounds per square inch (psi) at the nozzle, for applications. Foliar applications take place when leaves are fully developed in the spring until early fall and the beginning of leaf abscission—i.e., when leaves begin dropping off the vegetation.

a. **Backpack sprayers** include hand pump or motorized backpack sprayer or squirt bottles. This technique is excellent for spot treatments, such as localized Poison Ivy infestations. It is not as effective as other vegetation management methods on tall, high density target vegetation.

b. **Vehicle mounted sprayers** use truck or tractor mounted equipment that delivers the herbicide solution through nozzles attached to a hose or boom-mounted apparatus. The herbicide solution uses a water-based herbicide mixture from a tank and pump on the application vehicle. This technique is used along roadways that have good access and where obstructions, terrain or site sensitivity do not exclude the equipment.

2. **Pre-emergent Treatments:** the use of pre-emergent herbicides using the same equipment described in the foliar treatments above. Pre-emergent applications are used where season long vegetation control requires "vegetation-free conditions" such as along curbing, sidewalks, under guiderails/guardrails and on paved traffic islands. Usually, pre-emergent treatments are used in conjunction with foliar applications, unless the goal is to prevent the growth of vegetation in the spring, to reduce the amount, of applied herbicides and applications. This method is used from the early spring to early fall.

3. **Cut Stump Treatment (CST):** the mechanical cutting of target species followed by an herbicide treatment to the phloem and cambium tissue of the stumps. CST treatments prevent re-sprouts, thereby reducing the need to re-treat the same vegetation. The CST mixture is diluted in water or a non-freezing agent and is ideally made to freshly cut stumps. Application equipment includes low-volume, backpack, hand-pump sprayers, handheld squirt bottles, paintbrushes, or sponge applicators. This method is used where maximum control is desirable, to reduce the visual impact of vegetation management treatments and/or to reduce the potential of adverse impacts to desirable vegetation because of its selectivity. CST may be used at any time of the year provided snow depths do not prevent cutting the stumps below three inches in height. It is best to avoid during the season of high sap flow, or in moderate to heavy rains. It is not practical in moderate to heavy stem densities.

4. **Low Volume Basal Treatment:** the selective application of an herbicide, diluted in specially formulated oil, to wet the entire lower twelve to eighteen inches of the main stem of target plants. Using a hand pump backpack unit, the oil enables the herbicide solution to penetrate the bark tissue and translocate within the plant. Low volume basal treatments are extremely selective and used when vegetation density is low and in areas where extreme selectivity is necessary. For public way treatments it is primarily an option for invasive species control. It can be used any time of year except when snow is too deep, in extremely wet weather and/or during spring sap flow.

5. **Plant Growth Regulators/Broadleaf Control (PGR):** the selective application of herbicides to slow down the growth of grasses and remove broadleaf plant species. The principal use of this treatment method in Athol is to control broadleaf plant species—many of which are invasive or nuisance plants—where they are out-competing desirable grasses despite regular mowing on sites such as roadside embankments. PGR treatments have the advantage of controlling the target broadleaf species without damaging the desirable grass species. They are used in the same time frame as foliar treatments, using the same types of equipment.

   Final Note: Anti-drift Adjuvants are added to the mix or solution in foliage, pre-emergent and when appropriate, PGR applications because they help reduce the potential exposure to non-target organisms, reduce the break-up of sprays into fine droplets and increase selectivity and herbicide deposition onto target plants.

7. PROPOSED HERBICIDES, CARRIERS, ADJUVANTS AND RATES

Except for the application of plant growth regulators in non-*Sensitive Areas*, Commonwealth of Massachusetts recommended herbicides listed below for use in *Sensitive Areas*—pursuant to 333 CMR 11.04 (1)(d) will be used throughout the town. Complete information on these products is included in Appendix 2, Fact Sheets and Appendix 3, Labels.

Table 2: Tank Mix #1 for Curbing, Cracks, Guiderail, Traffic Island Treatments (General Weed Control)

Herbicides & Adjuvants	Active Ingredient	EPA Registration Number(s)	Mix Concentration (per 100 gals. water)
Rodeo	Glyphosate	62719-324	2-5%
Esplanade 200SC*	Indaziflam	432-1516	10 oz.
Induce, Clean Cut, or equivalent surfactant[1]	not applicable	n.a.	0.125%-1%
Point Blank, 41A, Clasp, or equivalent drift retardant[1]	n.a.	n.a.	4-16 oz.
Carrier: Water	n.a.	n.a.	n.a.

* Esplanade 200SC will only be used if the product is added to the Massachusetts Sensitive Materials list prior to the 2021 treatment.

[1] Equivalent surfactants, drift retardants and basal oils will used in case those listed are no longer available or more effective alternatives become available.

Table 3: Tank Mix #2 for Poison Ivy, Noxious and Invasive Species

Herbicides & Adjuvants	Active Ingredient	EPA Registration Number(s)	Mix Concentration (per 100 gals. water)
Rodeo	Glyphosate	62719-324	2-5%
Escort XP or Patriot	Metsulfuron-Methyl	432-1549 or 228-391	1.25-4 oz.
Induce, Clean Cut, MSO, or equivalent surfactant	not applicable	n.a.	0.125%-1%
Point Blank, 41A, Clasp, or equivalent drift retardant	n.a.	n.a.	4-16 oz.
Carrier: Water	n.a.	n.a.	n.a.

Table 4: Tank Mix #3 for Poison Ivy

Herbicides & Adjuvants	Active Ingredient	EPA Registration Number(s)	Mix Concentration (per 100 gals. water)
Garlon 4 Ultra	Triclopyr	62719-527	2-4%
Induce, Clean Cut, MSO, or equivalent surfactant	n.a.	n.a.	0.125%-1%
Point Blank, Clasp, or equivalent drift retardant	n.a.	n.a.	4-16 oz.

Table 5. Tank Mixes for Low Volume Foliage Applications (mixed in water)

Herbicides & Adjuvants	Active Ingredient	EPA Registration Number(s)	Mix Concentration (per 100 gals. water)
Rodeo	Glyphosate	62719-324	3-5%
Krenite S	Fosamine	42750-247	6-10%
Escort XP or Patriot	Metsulfuron-Methyl	432-1549, or 228-391	2-4 oz.
Polaris	Imazapyr[2]	228-534	0.125%-.5%
Induce, Clean Cut, MSO, or equivalent surfactant	n.a.	n.a.	0.125%-1%
Point Blank, Clasp, or equivalent drift retardant	n.a.	n.a.	6-64 oz.

Table 6. Tank Mixes for Cut Surface Treatment (CST) Applications

Herbicides & Adjuvants	Active Ingredient	EPA Registration Number(s)	Mix Concentration (per 100 gals.)
Rodeo	Glyphosate	62719-324	40% to 50%
Polaris	Imazapyr	228-534	3%-5% (mixed with Rodeo)
Carriers: Water or Windshield Washing Fluid	n.a.	n.a.	n.a.

[2]Imazapyr will not be applied on the same location in two consecutive years.

Table 7. Tank Mixes for Low-Volume Basal Applications or Cut Surface Treatment Applications (CST)

Herbicides & Adjuvants	Active Ingredient	EPA Registration Number(s)	Mix Concentration
Garlon 4 Ultra	Triclopyr	62719-527	20%-30%
Polaris	Imazapyr	228-534	2-5% (Mixed with Garlon 4 Ultra)
Carrier: Aqua Mix Oil or equivalent	n.a.	n.a.	70%-80%

Table 8: Plant Growth Regulators

Herbicides & Adjuvants	Active Ingredient	EPA Registration Number(s)	Mix Concentration (per 100 gals. water)
Tide Paclo 2SC[3]	Paclobutrazol	80697-4	16-48 oz.
Escort XP or Patriot	Metsulfuron-Methyl	432-1549, or 228-391	1/3-1/2 oz.
Induce, Clean Cut, Clasp, or equivalent surfactant	n.a.	n.a.	0.125%-1%

8. HANDLING, MIXING AND LOADING HERBICIDE CONCENTRATES

All herbicides will be handled, mixed and applied strictly according to *Label Instructions* and in compliance with all applicable federal and state laws and regulations. All herbicide mixing should be done at the DPW garage or contractor's facilities and extreme care shall be exercised during all mixing, handling and loading to prevent careless spills or splashes. No herbicide concentrates will be mixed, handled or loaded on a ROW within one hundred feet of a *Sensitive Area*.

Although it is expected that all the herbicide mixture will be used, any remaining will be stored in accordance with manufacturer's instructions.

9. ALTERNATE CONTROL TECHNIQUES

Vegetation management in Athol is a primarily mechanical treatment program, as described in the VMP. Decisions on the appropriate control techniques are made following the IVM Protocol and Summary of Control Table in the VMP. The alternate control agreement processes are likewise described in the VMP.

For convenience sake, the IVM Protocol which is based on following a public way integrated vegetation management program is repeated below:

[3] Tide Paclo 2SC is not on the *Sensitive Area Material List* and will not be used in *Sensitive Areas*, instead Escort will be used alone for PGR in *Sensitive Areas*.

***Monitoring**:* All public ways will be surveyed prior to any scheduled treatment program. Monitoring will be conducted by foot or by vehicle. Monitoring of areas may also result from public requests.

Maintenance: Roads will be cleaned using a street sweeper. Cracking asphalt and sidewalks and other defects will be repaired. Where appropriate, the use of ground cover will be encouraged to assist in the prevention of undesirable target vegetation growth.

Direct Control Methods: The decision to use one or a combination of IVM techniques will take into consideration the cultural uses of the landscape. The direct IVM management tactics selected will control nuisance vegetation in the most environmentally responsible and efficient manner:

A. Physical Controls

1. Sealing cracks
2. General right-of-way repairs
3. Use of ground cover where appropriate
4. Cleaning ditches
5. Street sweeping

B. Mechanical Controls

1. Hand Cutting
2. Mowing
3. Selective Pruning

C. Chemical Controls

1. Foliar Treatments
2. Pre-emergent Treatments
3. Cut stump treatments
4. Basal treatments
5. Plant Growth regulators/Broadleaf Control.

Record Keeping: A log of surveyed areas will be kept for future planning and reference purposes. Areas maintained either through physical repair, mechanical or chemical control will be kept by the DPW for at least 3 years.

10. TREATMENT RECORDS

The certified applicator must complete daily vegetation management reports that include:

A. Date, name and address of certified applicator(s)
B. Identification of site or work area
C. List of crew members
D. Type of equipment and hours used
E. Method of application and description of target vegetation
F. Amount, concentration, product name of herbicide(s), adjuvants, and dilutant (EPA registration numbers must be on file)
G. Weather conditions
H. Notation of any unusual conditions or incidents, including public inquiries
I. Recording and/or verification of sensitive areas on ROW maps.

11. REMEDIAL PLAN TO ADDRESS SPILLS AND RELATED ACCIDENTS

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). The following is, therefore, a guide to the items that will be available to the applicator on site in the event of a chemical spill or emergency.

Although education and attention will constantly be directed at accident and spill prevention, in the event of a spill, immediate action will be taken to contain the spill and protect the spill area (Appendix 4: *Herbicide Spill Check List* shall be available on-site to the applicator). Until clean, the spill area will be protected by placing barriers, flagging or crew members at strategic locations, as appropriate. If a fire is involved, care will be taken to avoid breathing fumes from any burning chemicals.

Minor spills will be remedied by soaking up the spill with adsorption clay or other adsorptive material and placed in leak proof containers, removed from the site and disposed of properly. Dry herbicides, such as granular, will be swept or shoveled up directly into leak proof containers for proper disposal. When applicable, all contaminated soil will be placed in leak proof containers, removed from the site and disposed of properly. When applicable, activated charcoal will be incorporated into the soil at the spill location at appropriate rates to inactivate any herbicide residue. Any spill will be reported to the MDAR Pesticide Division.

The Massachusetts Department of Environmental Protection 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.

Types of Chemical Spills that Require Action

Chemicals include, but are not limited to the following:

- Herbicides
- Bar and Chain Oil
- Motor and Hydraulic Oil/Fluids
- Diesel Fuel
- Gasoline
- Title 3 Hazmat Materials

Required Spill Response Equipment

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

- YOP with Emergency Contact List
- SDS (Safety Data Sheet)
- Product Label
- Product Fact Sheets (when applicable)
- Appropriate adsorbent material
- Shovel
- Broom
- Flagging
- Leak Proof Container
- 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 Major or Minor Spills as outlined in Appendix 5
- Avoid breathing the fumes of hazardous chemicals.

Reference Tables (information subject to change as necessary)

Table 9: Herbicide Manufacturers

MANUFACTURER	TELEPHONE NUMBER	SPECIAL INSTRUCTIONS
Albaugh Inc.	(800) 247-8013	
BASF Corporation	(800) 832-4357	
Bayer Environmental Science	(800) 334-7577	
Corteva Agriscience	(800) 992-5994	
Nufarm	(877) 325-1840	Medical Emergencies
Zhejiang Tide Crop Science Co. Ltd.	(800) 424-9300	Medical Emergencies (Chemtrec)

Table 10: State Agencies

STATE AGENCY	TELEPHONE NUMBER	SPECIAL INSTRUCTIONS
Massachusetts Pesticide Bureau	(617) 626-1700	A.S.A.P. (within 48 hours)
Massachusetts Department of Environmental Protection, Emergency Response Section	Main Office: (888) 304-1133 Central Region: (508) 792-7650	For emergencies involving reportable quantities of hazardous materials; required info: City/town, street address, site name (if applicable), material
Massachusetts Dept of Public Health, Bureau of Env.Health Assessment Toxicology Program	(617) 624-5757	
Massachusetts Poison Information Centers	(800) 682-9211	For medical emergencies involving suspected or known pesticide poisoning symptoms

Table 11: Emergency Services

EMERGENCY SERVICE	TELEPHONE NUMBER	SPECIAL INSTRUCTIONS
Massachusetts State Police, Athol Barracks	(978) 249-2694	Framingham, after hours number
Chemtrec	(800) 424-9300	
Clean Harbors	(800) OIL-TANK	
Pesticide Hotline	(800) 858-7378	PST: 6:30 am-4:30 pm, web: www.NPIC.orst.edu

Table 12: Town of Athol contact(s) in the case of a spill or accident

Athol Fire/ Police Department	911
Athol Health Agent	617-584-9714 (cell) 978-366-1553 (pager)
Athol Public Works	978-249-4542

APPENDIX 1:
MAP AND STREET LISTINGS

Town of Athol 2021 Yearly Operational Plan

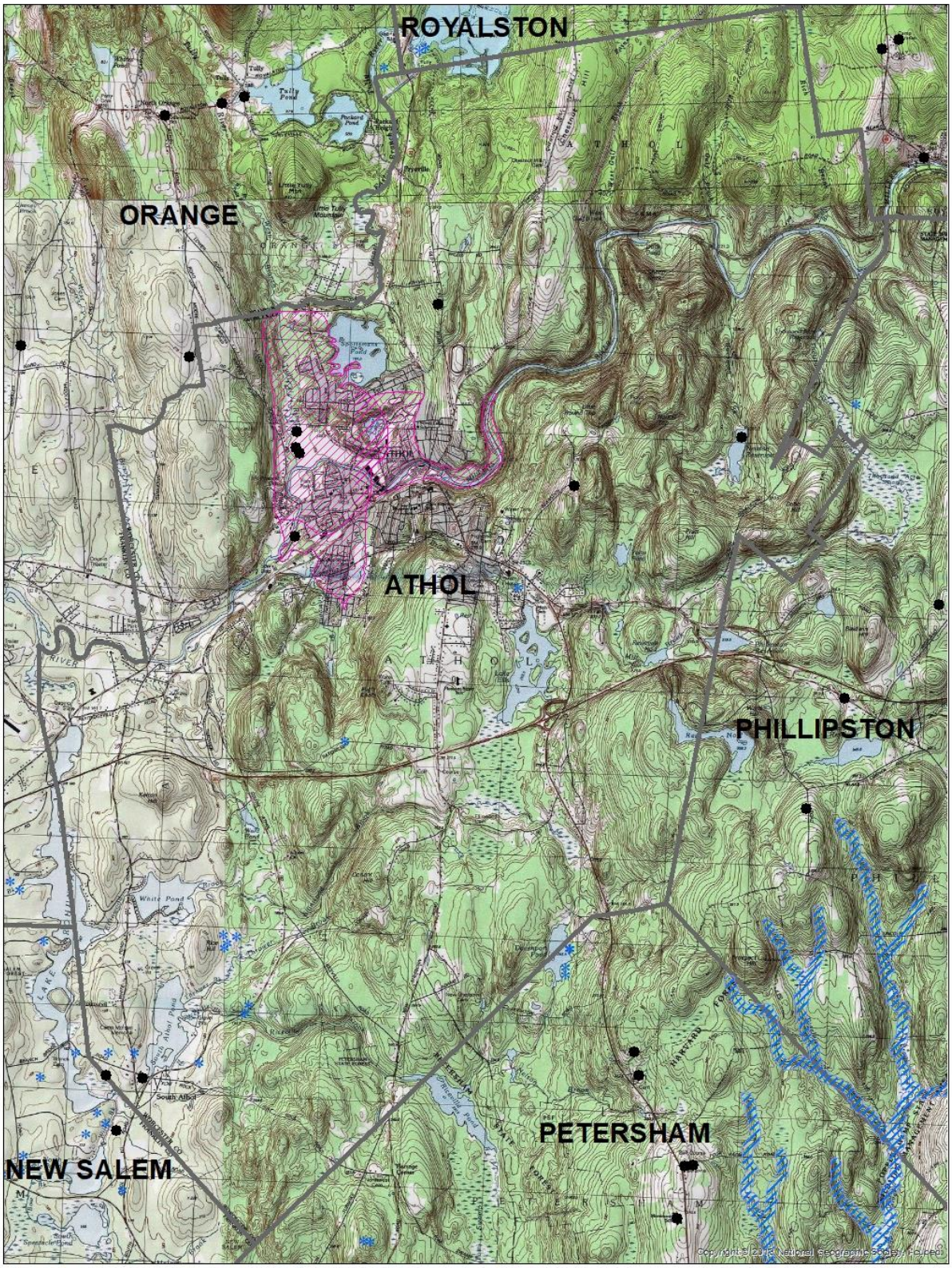
N
W E
S
1:42,000

0 0.5 1 2 Miles

Legend

- Public Wells
- NHESP Certified Vernal Pools
- Zone II
- Zone A

(Identifies surface waterbodies, tributaries and associated waterbodies, follow Sensitive Area treatment methods per 313 CMR 11.04)



Source: "Office of Geographic and Environmental Information (Mass GIS), Commonwealth of Massachusetts, Executive Office of Energy and Environmental Affairs".
Public Water Supply data provided by MA DEP Drinking Water Program, October 2019, DEP Public Water Supplies

January 27, 2021

ATHOL STREET NAMES			
Adah Street	Drury Avenue	Laurel Street	Raymond Place
Adams Drive	Dunbar Place	Lee Street	Rice Street
Adams Road	East River Street	Lenox Circle	Riceville Road
Alfred Avenue	Edward Street	Lenox Street	Rich Place
Allen Street	Electric Street	Leonard Street	Ridge Avenue
Anna Avenue	Elizabeth Street	Leroy Court	Ridge Road
Anzio Road	Ella Street	Lewis Street	Riverbend Street
Arlington Street	Ellsworth Street	Liberty Street	Riverview Avenue
Arthur Avenue	Elm Street	Lincoln Avenue	Roosevelt Avenue
Auburn Place	Emerald Street	Linden Park Street	Rose Avenue
Barrett Avenue	Ernest Avenue	Locke Avenue	Sally Fish Circle
Batchelder Road	Essex Street	Logan Road	Sanders Street
Beach Street	Estabrook Street	Lombard Avenue	School Street
Beacon Street	Euclid Street	Lord Street	Shore Drive
Bearsden Road	Everett Avenue	Lumber Street	Silver Lake Street
Bellevue Drive	Exchange Street	Lynde Street	Simonds Street
Bellevue Drive East	Fairbanks Street	Lyons Hill Road	Smith Street
Benton Place	Fairview Avenue	Main Street	South Athol Road
Bickford Drive	Fern Street	Malvina Avenue	South Main Street
Bigelow Road	Field Drive	Mann Court	South Royalston Road
Birch Street	Fielding Way	Maple Street	South Street
Blanchard Circle	Fish Street	Marble Street	Spring Street
Bliss Street	Flat Rock Road	Marshall Street	Starrett Avenue
Boyce Street	Fletcher Place	McGregor Street	Stevens Street
Bragg Street	Fletcher Street	Meadow Street	Stonehaven Drive
Brattle Street	Forest Avenue	Mechanic Street	Stratton Road
Brickyard Road	Franklin Street	Metropolitan Court	Summer Street
Bridge Street	Fredette Street	Miller Street	Summit Avenue
Briggs Road	Freedom Street	Mohawk Trail	Sunrise Terrace
Brooks Road	Froman Street	Monadnock Avenue	Sunset Avenue
Brookside Road	Gage Road	Moore Hill Road	Swansey Street
Brown Street	Garfield Road	Morgan Avenue	Taylor Street
Bryant Street	Gee Street	Morse Place	Templeton Road
Burbee Road	Gibson Drive	Morton Street	Terrace Avenue
Burma Road	Glen Street	Mount Pleasant Street	Thrower Road
Byrd Avenue	Glendale Avenue	Mountianview Road	Tom Swamp Road
C Street	Goddard Street	Myrtle Street	Townsend Road
Canal Street	Goodale Street	New Sherborn Road	Traverse Street
Carbon Street	Green Street	Newton Street	Tremont Street
Carlin Street	Greenwood Terrace	North Orange Road	Tunnel Street

ATHOL STREET NAMES			
Carpenter Road	Grove Street	Northern Avenue	Twichell Street
Cass Circle	Gulf Road	Oak Avenue	Union Street
Castle Avenue	Hackett Street	Oakland Avenue	Unity Avenue
Caswell Street	Hamlet Street	Old Keene Road	Upland Street
Central Street	Hampstead Place	Old Main Street	Vaughn Road
Charles Place	Hapgood Street	Oliver Street	Victoria Avenue
Chase Road	Harrington Street	Orange Street	Vine Street
Cheney Street	Harrison Street	Orchard Street	Wachusetts Avenue
Chester Street	Harugari Street	Paige Street	Waite Road
Chestnut Hill Avenue	Harvard Avenue	Park Avenue	Wallingford Avenue
Chestnut Street	Haven Street	Park Street	Walnut Street
Church Street	High Street	Parmenter Street	Ward Street
Colonial Drive	Highland Avenue	Partridgeville Road	Warwick Avenue
Columbian Avenue	Highland Street	Patrick Avenue	Washington Avenue
Common Street	Hill Circle	Pearl Street	Wellesley Street
Conant Road	Hill Street	Pequoig Avenue	Wellington Street
Concord Street	Hillcrest Road	Perry Road	Wendell Street
Congress Street	Hillside Terrace	Petersham Branch	West Chestnut Street
Cooke Place	Horrigan Avenue	Petersham Road	West Royalston Road
Coolidge Parkway	Hume Street	Philip Road	West Street
Coolidge Street	Humphry Place	Pierce Street	Western Avenue
Cottage Street	Intervale Avenue	Pike Street	Wheeler Street
Craigin Street	Island Street	Pine Avenue	White Pond Road
Crescent Street	Ivy Drive	Pine Court	Wilder Street
Cummings Road	J Street	Pine Ridge Road	Williams Avenue
D Street	Jones Street	Pine Street	Willis Road
Dana Street	Jordan Drive	Pinedale Avenue	Wilson Avenue
Danfred Street	Kelton Street	Pinedale Road	Winter Street
Daniel Shays Highway	Kendall Street	Pitman Road	Winthrop Street
Dawes Street	Kennebunk Street	Plantation Street	Wood Street
Dewey Street	King Road	Pleasant Street	Woodland Drive
Dike Road	Lake Ellis Road	Pond Street	Woodlawn Road
Dinsmore Street	Lake Street	Procter Avenue	Yale Avenue
Doe Valley Road	Lakeview Avenue	Prospect Street	
Dorset Road	Lakewood Drive	Radcliff Street	

APPENDIX 2:
HERBICIDE FACT SHEETS
LOCATED AT:

HTTP://WWW.MASS.GOV/EEA/AGENCIES/AGR/PESTICIDES/RIGHTS-OF-WAY-VEGETATION-MANAGEMENT.HTML

Appendix 3:
Herbicide Labels

Escort XP:
http://www.cdms.net/ldat/ldCFM000.pdf

Esplanade 200SC:
ldAB1004.pdf (cdms.net)

Garlon 4 Ultra:
http://www.cdms.net/ldat/ld7IN015.pdf

Krenite S:
https://s3-us-west-1.amazonaws.com/www.agrian.com/pdfs/Krenite_S_Label1i.pdf

Patriot:
http://www.cdms.net/ldat/ld6KH000.pdf

Polaris:
http://www.cdms.net/ldat/ld8KR002.pdf

Rodeo:
http://www.cdms.net/ldat/ld4TN001.pdf

Tide Palo 2SC:
http://www.cdms.net/ldat/ld8UT000.pdf

APPENDIX 4:
HERBICIDE SPILL CHECK LIST

APPENDIX 4:
HERBICIDE SPILL CHECK LIST

REPORTABLE SPILLS (Spills of reportable quantity of material): FOLLOW STEPS 1-10
NON-REPORTABLE SPILLS: FOLLOW STEPS 1, 2, 3, 4, 7, 8, 9, 10, & 11 as appropriate and contact the Athol representative.

Order	ACTION		Done (√)
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 amounts of spilled product.		
4	Contain spill and confine the spread by damming or diking with soil, clay or other absorbent materials.		
5	Report spills of "reportable quantity" to the Mass. DEP and MDAR:		
	Massachusetts MDAR, Pesticide Bureau	(617) 626-1700	
	Massachusetts Department of Environmental Protection, Emergency Response Section	Main Office: (888) 304-1133	
		Central Region: (508) 792-7650	
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	
	Athol Representative: Dick Kilhart	(978) 249-4542	
	Product manufacturer(s)		
	1	1	
	2	2	
	3	3	
	Chemtrec	(800) 424-9300	
	additional emergency personnel		
	If there is a doubt as to who should be notified, contact State Police, Athol Barracks	(978) 249-2694	
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 cleanup 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		