2026-2030
Right-of-Way
Vegetation Management Plan (VMP)
For

Brookfield Renewables Bear Swamp Project

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I. INTRODUCTION

This Vegetation Management Plan (VMP) describes the Brookfield Renewables Bear Swamp Project integrated vegetation management program for their 0.82 mile double 230 kV transmission ROW including the lower yard and the Fife Brook Feeder roadside 34.5 kV ROW. This plan covers the 5-year period from 2026 through 2030 in compliance with the Commonwealth of Massachusetts 333 CMR 11.00, Right of Way Management regulations. These Facilities are all part of Brookfield Renewables Bear Swamp Project located in the towns of Florida and Rowe, Massachusetts.

ABOUT THE BEAR SWAMP PROJECT

The Bear Swamp Project (FERC No. 2669) is located along the Deerfield River in Berkshire and Franklin counties, in the Commonwealth of Massachusetts towns of Rowe and Florida. The project was commissioned and placed into service in 1974 and includes both the Bear Swamp Pumped Storage Development and the Fife Brook Development.

Bear Swamp Pumped Storage Development

The Bear Swamp Pumped Storage Development generally consists of:

- An upper reservoir retained by four dikes and an emergency spillway.
- A submerged inlet/outlet structure and associated tunnel which bifurcates into two penstocks.
- An underground powerhouse containing two reversible Francis-type pump-turbine units and motor-generator units with a combined capacity of 600 megawatts.
- Two tailrace tunnels leading to an inlet/outlet structure in the lower reservoir; and
- A lower reservoir (Fife Brook impoundment) formed by the Fife Brook Dam on the Deerfield River.

Fife Brook Development

The Fife Brook Development generally consists of:

- The Fife Brook Dam and impoundment, which is common to both the Bear Swamp Pumped Storage and Fife Brook developments.
- A tainter gate spillway structure.
- A concrete intake structure; and
- A single penstock leading to a concrete powerhouse containing one conventional Francis turbine-generator unit with a capacity of 10 megawatts.

II. GOALS AND OBJECTIVES

This section summarizes the goals and objectives of this vegetation management plan.

A. Goals of Vegetation Management Plan

The primary goal of this Vegetation Management Plan (VMP) is the control of vegetation and establishment of standard operating procedures to ensure the maintenance of safe and uninterrupted electric service through its transmission line rights-of-ways and hydroelectric facilities. Physical and visual access must also be assured in order to permit routine and emergency line maintenance and operations, which are essential to preserve safety, continuity and reliability of service.

This plan is a guiding document which provides structure and sensibility to the Yearly Operational Plans (YOP's). A YOP will be prepared each year to describe the detailed vegetation management operation for the calendar year consistent with the terms of the VMP.

B. Objectives of Vegetation Management Plan

The principal objective of the VMP is to selectively eliminate that woody vegetation which may potentially short circuit overhead conductors or significantly restrict physical or visual access on the right-of-way. This management program will accomplish that objective at the lowest cost with due regard for worker safety, protection of public health and without unreasonable adverse effects on the environment (including the protection of sensitive areas). Selective control benefits wildlife habitat for many species of animals by encouraging plant communities that provide food and cover. The program is also designed to maintain an acceptable appearance of the right-of-way and to minimize erosion by allowing the development of low shrubs and ground cover. The low shrubs and ground cover inhibit the re-establishment of target tree species.

The foregoing will be accomplished in full compliance with all applicable state and federal laws and regulations.

C. Sensitive Areas

Special protection is afforded sensitive areas in which public health, environmental or agricultural concerns warrant special protection to further minimize risks of unreasonable adverse effects. Herbicide use is limited near public and private water supplies, standing or flowing water, wetlands, and agricultural and habitat areas.

D. Public Involvement

Public involvement is imperative to the development of a vegetation management plan. Regulatory procedures have been established which guarantee all interested parties ample opportunity for input and review. In total, this vegetation management plan provides a comprehensive and integrated framework which protects the environment and the health, safety and welfare of the Citizens of the Commonwealth.

E. Location of Bear Swamp Project

The Bear Swamp Project (FERC No. 2669) is located along the Deerfield River in Berkshire and Franklin counties, in the Commonwealth of Massachusetts towns of Rowe and Florida.

III. IDENTIFICATION OF TARGET VEGETATION

Electric Transmission ROW's

The primary objective of electric utility vegetation management is the selective control of those woody plants capable of growing tall enough to interfere with the conductors, access and or inspection. This section identifies this tall growing, "target vegetation" by plant growth characteristics as related to its location on transmission or distribution rights-of-way.

A. Plant Species

For the purposes of electric utility vegetation control, plant species are generally divided into two groups, undesirable species capable of interfering with the conductors or access, and desirable species which normally cannot. It is the contractor's responsibility to be knowledgeable about and to instruct his crews in the identification of desirable and undesirable species and the various control techniques necessary for integrated vegetation management. Brookfield Renewables personnel will manage the contractors performing woody vegetation control and ensure that contract conditions are met. These groups are defined below:

1. Undesirable Species

   Undesirable species include trees, tall maturing shrubs, and vines. Trees are woody plants normally maturing at 20 feet or more in height, usually with a single trunk, un-branched for several feet above ground and with a definite crown. Tall maturing shrubs are woody plants maturing over 12 feet but less than 20 feet in height and presenting a generally bushy appearance because of their several erect spreading or prostrate stems. Undesirable tree species include, but are not limited to, poplar (Populus spp.), white pine (Pinus alba) and red maple (Acer rubrum) which are capable of growing into the conductors. Tall maturing shrubs include, but are not limited to, sumac (Rhus spp.), speckled alder (Alnus ruqosa), and buckthorn (Rhamnus spp.). Woody vines such as wild grape (Vitis spp.) and oriental bittersweet (Celastrus orbiculatus) are also controlled when they risk electric reliability by climbing structures, poles, and guy wires.

2. Desirable Species

   Desirable species include low maturing shrubs, ferns, grasses, and herbs. Low maturing shrubs are woody plants normally maturing no taller than 12 feet in height and presenting a generally bushy

appearance because of their several erect spreading or prostrate stems. Most shrubs such as mountain laurel (Kalmia latifolia,), highbush blueberry (Vaccinium corvmbosum) and hazelnut (Corvlus americana) usually cannot grow into the conductors and are normally preserved and encouraged to grow. Non-woody plant species such as ferns, grasses, herbs, and wildflowers benefit from the reduced competition for space and are allowed to flourish.

The following is a partial list of the most common shrub species that are normally preserved.

Hazelnut	Gray Dogwood	Juniper SPP
Viburnum SPP	Sweetfern	Bayberry
Spicebush	Huckleberry	Lowbush Blueberry
Pinxterbloom	Azalea	Mountain laurel
Redosier	Dogwood	Highbush Blueberry

Target Vegetation for Electric Generation Facilities and Equipment Yards

There are some instances, for example in rip rap areas and in electric facility yards, where there is a zero tolerance for any vegetation and all vegetation will be controlled in these areas.

Roadside Vegetation

Achieving a long-term, low maintenance vegetation management program requires the ability to identify incompatible plant species and to understand why they are targets. Incompatible vegetation along roadsides can interfere with electric service by growing into the overhead lines and areas around poles and guy wires. In addition, vegetation is managed along the roadside to allow access for routine line maintenance, inspections, and service restoration efforts during storm events.

IV. METHODS OF VEGETATION MANAGEMENT AND RATIONALE FOR USE

This section describes the intended methods of vegetation management and rationale for use, including vegetation control techniques, equipment proposed for use, timing and other control procedures. An integrated approach to vegetation management has been developed which minimizes the use of herbicides through a balanced mix of cultural practices, mechanical control, and a carefully planned program of chemical control. State of the art techniques, time tested methods, and a low input approach to vegetation control are incorporated into an innovative and interdisciplinary plan. Above all else, a major commitment is made to the protection of human health and safety, and the prevention of unreasonable adverse effects on the environment. Vegetation control is scheduled so the right-of-way is maintained as necessary to ensure the integrity of the electrical system.

A. Foliar herbicide

Description: A herbicide mixture is applied to leaves of individual, undesirable plants. Application is usually made with hand-pump or motorized "backpack" low-pressure sprayers. Since less herbicide mixture is used in the "low volume foliar" method than in the "foliar" method, the mix contains a higher concentration of herbicide. However, an equal amount of the active ingredient is applied to the target plants in order to maintain the minimal herbicide label rate to control the target plants.

Uses: Useful in general and some sensitive areas on individual targets less than 12' in height, and where terrain precludes the use of heavy equipment.

Pros: Efficient, effective method of selectively controlling individual plants.

Cons: Limited application season (apply when plants are in full leaf), weather dependent, efficiency is lost in areas with a high density of undesirable plants.

B. Basal herbicide

Description: A herbicide and carrier is applied to lower 12" of individual stems. Applications are made with hand operated low pressure backpack equipment.

Uses: Used in general and some sensitive areas.

Pros: Applications can be made year-round if the root collar is exposed, little or no spray drift.

Cons: Basal applications are generally inefficient in medium to high stem-density areas. Volatility may be a problem in summer heat.

C. Cut stump herbicide

Description: A herbicide is applied directly to the cambium layer of freshly cut stumps. Applications may be made with a hand-held spray bottle, hand-operated sprayer, or a paint brush. Usually done in conjunction with manual or mechanical cutting.

Uses: Used in general and some sensitive areas (especially where aesthetics is a concern), where undesirable brush has been mechanically cut.

Pros: Applications can be made year-round, little or no spray drift, no visual impact (no brownout).

Cons: Not effective in high density areas where cut stumps are small or cannot be found.

D. Mowing

Description: Brush is mechanically cut using a (large) machine with a cutting head attached to a large all-terrain rubber tired or tracked vehicle

Uses: Used in areas accessible to large, motorized vehicles, especially in areas of high density and/or tall undesirable stems.

Pros: Can be performed year-round, excellent way to re-establish control of overgrown areas.

Cons: Poor visual impact (debris and mangled roots/stems left), not good in rocky, hilly, residential, or wet areas, tends to be non-selective (cuts desirable weeds/shrubs/grasses as well as undesirable species), eliminates wildlife habitat, does not control root system, promotes aggressive re-sprouting.

E. Hand-cutting

Description: Targeted vegetation is mechanically cut using chain saw, brush saw or hand tools.

Uses: Used in inaccessible, residential, and some sensitive areas.

Pros: Can be performed year-round low visual impact; highly selective.

Cons: High cost, does not control root system, promotes aggressive re-sprouting

F. Cultural Practices

Description: The development of stable, low-growing native vegetated communities to prevent the establishment of undesirable tree, shrub and invasive species

Uses: Any area where Integrated Vegetation Management (IVM) can effectively control the undesirable target vegetation and promote the low-growing native plant species.

Pros: Results in less maintenance in future years and reduces amounts of herbicide required for the desired level of control.

Cons: Requires adequate input of IVM to obtain the stable, low-growing state

V. JUSTIFICATION OF HERBICIDE APPLICATIONS

Brookfield Renewables VMP accomplishes the overall goal of continuous and reliable electrical service at a reasonable cost to its customers while placing primary importance on health, safety, and environmental protection. Herbicides used on rights-of-way reduce unreasonable adverse effects to health and the environment when used in accordance with label directions. These herbicides are regulated by the U.S. Environmental Protection Agency and approved for use in Massachusetts by the Massachusetts Department of Agricultural Resources (MDAR). Approved herbicides are applied by contractors that are licensed pesticide applicators and in accordance with herbicide label directions and precautions. In addition, Company policy requires compliance with all applicable federal and state laws and regulations.

This section compares the relative benefits of herbicide control with other methods and describes why herbicides are an essential part of an effective vegetation management program.

A. Regulation of Stem Density and Plant Composition

Selective herbicide application provides significant advantages in decreasing the density of target vegetation and encourages the development of lower growing, native plant communities. A long-term reduction in the number of tree stems can be achieved by selectively treating only those undesirable species capable of_ interfering with the conductors and access. Herbicides are used which normally provide total control of both the above ground portion of target vegetation and the root system to prevent re-sprouting.

Compatible plant communities are developed by controlling re-growth of trees and occasionally tall-growing or invasive shrubs and encouraging desirable species to dominate the right-of-way. Reducing undesirable plant competition for space allows low maturing shrubs, grasses, ferns, wildflowers, and herbs to spread into those areas previously occupied by target vegetation. The resulting dense low growing plant cover helps inhibit the germination and development of tall growing tree seedlings back onto the right-of-way. Compatible plant communities are thereby established which have an increased desirable species component and decreased undesirable component. In this manner, selective herbicide treatments tend to minimize the use of herbicides by generally reducing the number of target stems requiring control and potentially extending the time interval between treatments since the fastest growing, tallest maturing target species are controlled or eliminated.

B. Wildlife Habitat

Selective herbicide applications significantly enhance wildlife habitat through the development of complex, relatively stable plant communities. Selective use of herbicide develops an environment and edge habitat beneficial to a wide variety of wildlife species. Large and small mammals, songbirds, raptors, and a multitude of other animals are known to use these rights-of-way for food, cover, and natural corridors of travel.

C. Economics

Economics refers to the costs of the various management techniques and the effectiveness of a particular method in controlling target species. Since effective control of target species is paramount to a successful vegetation management program, optimum control is that which is most cost effective over the long term.

A vegetation management plan based solely on cutting is becoming cost prohibitive. Hand cutting or mowing without the benefit of herbicides allows the root systems of cut-off sproutable stumps to remain alive. Dormant or adventitious buds located on the root or stumps quickly develop into sprouts, often during the same year of cutting. Instead of a single stem which existed prior to cutting, a cluster of sprouts soon becomes established. Since a developed root system is already present, the growth rate of the newly formed sprouts is much faster than the normal growth rate of the tree. In fact, dense sprouts approximately 7-10 feet tall have occurred during the first full growing season immediately following cutting.

Hand cutting or mowing program require repeated re-clearing of brush due to re-sprouts with a one-time cost of approximately 1 to 5 times that for one herbicide application. This cost multiple is compounded further in that cutting must be performed 2 to 3 times more often than selective herbicide treatments. While warranted under certain conditions (e.g. in restricted sensitive areas, when weather is not appropriate, and when woody vegetation is too tall to herbicide treat effectively), the high per acre cost of cutting, lack of sprout control, and the necessity for more frequent maintenance reduce the long-term cost effectiveness of cutting without herbicide treatment.

D. Erosion Control

A well-established, low-growing plant cover as provided by selective herbicide use also serves to control erosion by holding soil against wind and water movement. Conversely, under certain site conditions continued non-selective cutting without the benefit of herbicides can leave the

ground bare and vulnerable to soil losses.

E. Noise and Air Pollution

Reliance on cutting methods would result in increased noise and air pollution as compared to herbicide control. Since crews have to return more frequently for cutting, noise pollution and exhaust from vehicles and brush cutting equipment are a normal consequence. Also, fuel consumption for equipment increases.

F. Social Benefits

A variety of social benefits may be attained by managing vegetation through selective herbicide control. Buffer zones may be left to screen the public's view of the right-of-way.

As discussed in Article V.A, Regulation of Stem Density and Plant Composition, selective herbicide treatment tends to reduce the number of target stems requiring control. An integrated vegetation management program including selective control, normally results in less alteration of the existing plant community as compared to non-selective herbicide treatment or mowing. This generally decreases the use of herbicides and minimizes the potential for adverse effects on human health and the environment.

An integrated approach to vegetation management, including the prudent use of herbicides where appropriate, provides multiple use benefits. Opportunities for wildlife, recreation, nature study and aesthetic values such as viewing plants and animals may coexist when they do not interfere with safety and the operation of the right-of-way. In addition, agriculture, residential, and industrial land uses extend onto the Company's rights-of-way.

G. Integrated Vegetation Management

While there are several methods of controlling target vegetation, under certain site conditions the use of herbicides is not appropriate and cutting operations are conducted without them. Also, hand-cutting and mowing have a certain range of site conditions under which they are applicable. Conditions which determine the control technique include sensitive areas, weather, visual aesthetics, time of year, height and/or density of vegetation, access, etc. Since these factors vary from one right-of-way to the next, the proper control technique must be suited to the actual site conditions. These factors are recognized in selecting the appropriate control technique applicable to the right-of-way. A full description of Brookfield Renewables Integrated Vegetation Management program is provided in Article VIII.

H. Safety

Most of the Right of Way is on a steep rocky slope. By using herbicides to control vegetation employees will not have to traverse this terrain with chain saws to cut vegetation that will re-sprout and need to be cut next cycle.

I. Historical Vegetation Management

Prior to 1998 the Bear Swamp project was owned by New England Power Company, part of New England Electric System which would later become National Grid. The transmission right of way was included in their YOP and managed with practices from their VMP. In 1998 the project with its rights of way was sold when New England Power Company sold all its generation assets. Between 1998 and 2005 there was no consistent maintenance plan for the rights of way. Since 2005 when Brookfield Renewable purchased the project, they have worked to maintain consistent management of their rights of way. This management has allowed for a reduction in herbicide use each season. In 2016, 32.14 gallons of end use mix per acre was needed to control target vegetation. In 2020 only 11.07 gallons of end use mix per acre was needed. The goal of Brookfield Renewables is to get the right of way back to a low growing plant community through sound IVM practices that can support beneficial habitats while coexisting with the delivery and production of electricity.

VI. IDENTIFICATION OF SENSITIVE AREAS AND CONTROL STRATEGIES PROPOSED FOR SENSITIVE AREAS

This section defines sensitive areas encountered along rights-of-way, provides references and sources for identifying sensitive areas, outlines the method used to identify sensitive areas, and lists the control strategies proposed for sensitive areas.

The Massachusetts Department of Environmental Protection (DEP) and MDAR have developed a list of recommended herbicides (See Appendix C) for use in sensitive areas within rights-of-way. These herbicides are characterized by their low: toxicity, mobility, and persistence. Brookfield Renewables will use only chemicals from this list when treating in sensitive areas.

In 1991, following a study of the impacts of right-of-way vegetation management on wetlands, MDAR determined that integrated vegetation management, using herbicides recommended for sensitive areas does not pose an unreasonable adverse impact to wetlands. In addition, MDAR required a second study for the purpose of collecting data on the environmental fate of herbicides. In 1995, MDAR issued its final determination that an integrated vegetation management program, incorporating the elements listed in VI.D.5.f. will "result in less impacts to wetlands than exclusive use of mechanical control methods".

A. Definition of Sensitive Areas

Sensitive areas are defined in 333 CMR 11.02 as "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:

(a) within the primary recharge area of a public drinking water supply well

(b) within four hundred (400) feet of any surface water used as a public water supply

(c) within one hundred (100) feet of any appropriately marked private drinking water supply well

(d) within one hundred (100) feet of any standing or flowing water

(e) within one hundred (100) feet of any wetland

(f) within one hundred (100) feet of any agricultural or habitat area."

The following table shows the "no herbicide treatment zone" and the surrounding "limited herbicide treatment zone" within each sensitive area

B. Reference and Sources for Identifying Sensitive Areas

Sensitive Area Restriction Guide (333 CMR 11.04)

Sensitive Area	No Spray Area	Limited Use Area	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		

Sensitive Area	No Spray Area	Limited Use Area	Where Identified
	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	Within 100 feet	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 references and sources may identify the location of public ground water supplies, public surface water supplies, private drinking water supplies, and the general location of wetlands. Standing and flowing water, and agricultural and habitat areas are readily identified in the field.

1. Massachusetts Department of Environmental Protection (DEP) Watershed Maps (scale 1:25,000) and/or digital data layers; delineates the perimeter of public watersheds and the location of public wells.
2. Massachusetts DEP Wetland Restriction Maps (scales usually 1:1,000); approximately 15% of the State has been mapped; available from DEP, Division of Wetlands and Waterways.
3. Municipal Maps and Records (scales vary).
4. Regional Planning Agencies' 208 Water Quality Survey Wetland Maps (scales vary); not all planning agencies have copies.
5. U.S. Army Corps of Engineers (COE) Wetland Maps (scales vary); prepared for specific COE projects.
6. U.S. Fish and Wildlife Service National Wetlands Inventory Maps (scales 1:24,000 and 1:25,000); available from University of Massachusetts at Amherst, Cartographic Information Research Services.
7. U.S. Geological Survey Topographic Maps (scale 1:24,000); identifies major wetland areas.
8. Natural Resource Conservation Service Maps (scales vary); available for most communities.
9. DEP Wetland Restriction Maps (when available for western Massachusetts).
10. Wetlands Conservancy Program or UMass color infrared (1:22,000 scale) and black and white (1:5,000 scale) orthophotographs.
11. Maps of Estimated Habitat of State Listed Species published by the Division of Fisheries and Wildlife Natural Heritage and Endangered Species Program (NHESP).

C. Method for Identifying Sensitive Areas and Wetlands

The following procedure will be used to identify right-of-way sensitive areas:

1. The appropriate references and sources will be consulted to determine the location of public and private water supplies.

2. Public water supplies will be designated on YOP maps.

3. Prior to application, the location of these public and private water supplies will be identified in the field with the aid of the Yearly Operational Plan, by a "point person" in advance of the treating crew.

4. Prior to application, the treating crew will identify standing and flowing surface waters, and agricultural and habitat areas in the field except as provided by Article 7. below.

5. Appropriate distances will be measured from sensitive areas to identify no herbicide treatment zones and limited herbicide treatment zones.

6. Public and private water supplies will be marked as specified in the Yearly Operational Plan. Sufficient distance will be maintained between the point person and treating crew to prevent any inadvertent application in sensitive areas. Application will cease in that area if adequate distance cannot be maintained.

7. The procedure listed in this article will be used to identify wetlands when non-sensitive area herbicides are used to control vegetation.

    a. The appropriate references and sources will be consulted to determine the general locations of wetlands. Precise boundaries must be determined in the field.

    b. Prior to application, individual(s) trained and experienced to be considered qualified to delineate wetlands will identify wetland boundaries based upon plant indicator species.

    c. Wetland boundaries will be kept in permanent Brookfield Renewables records indicating where 50% or more of the vegetation community consists of wetland plant species.

    d. A "point person" in advance of the treating crew will measure appropriate distances from wetland boundaries to

identify no herbicide treatment zones and limited herbicide treatment zones. These areas will be marked as specified by the Yearly Operational Plan. Sufficient distance will be maintained between the "point person" and treating crew to prevent inadvertent application in the wetland. Application will cease in that area if adequate distance cannot be maintained.

D. Control Strategies for Sensitive Areas

The following vegetation control strategies shall be used for sensitive areas.

1. General Provisions for Sensitive Areas and Non-Sensitive Areas

   a. Herbicides will be used in accordance with this Vegetation Management Plan and the Yearly Operational Plan. These documents will be carried at all times with the applicator.

   b. Herbicide treatment is made only by applicators that are appropriately certified or licensed by the MDAR.

   c. No foliar applications of herbicides will be used to control vegetation greater than 12 feet in height.

   d. No touch-up applications are carried out except under the following conditions:

2. Touch-up applications occur within twelve months of the date of approval of the YOP.

3. MDAR, Conservation Commission, Board of Health, and chief elected official of the municipality are notified by registered mail at least twenty-one days prior to any application.

4. No more than 10% of the initially identified target vegetation on the Company's right-of-way in any municipality is treated and the total amount of herbicide applied in any one year does not exceed the limits specified by the label or YOP.

5. Sensitive Area Restrictions

   a. A minimum of 24 months will elapse between herbicide applications in limited herbicide treatment zones of public ground water supplies, public surface water supplies, and private drinking water supplies.

b. A minimum of 12 months will elapse between herbicide applications in limited herbicide treatment zones of surface waters, wetlands, and habitat and agricultural areas.

c. No more than minimum labeled rate of herbicide appropriate to the site, pest and application method will be applied in sensitive areas.

d. Herbicides recommended for sensitive areas and guidelines for their use will be followed in accordance with MDAR's list of "Approved" herbicides for sensitive areas on rights-of-way.

e. All other limitations placed on sensitive areas will be followed as provided by 333 CMR 11.04.

f. Wetlands Restriction based on the results of two ROW impact studies:

6. An integrated Pest Management (IPM) system, also known as Integrated Vegetation Management (IVM), as described in the Vegetation Management Plan and Yearly Operational Plan is utilized in wetland areas. The IPM system must, at a minimum, place emphasis on encouraging low growth plant species to discourage unwanted vegetation and, minimizing the frequency and amount of herbicide use by only controlling specific non-conifer tree species which will impact transmission line operation and access to the right of way.

7. Herbicides may be applied by low volume foliar, basal, or cut stump methods in volumes not to exceed 5 gallons per application container. Foliar applications must include the use of appropriate drift reduction agents and must not result in the off-target drift to non-target species. Basal and cut stump treatments may be conducted in those situations where the size of the vegetation, potential for off-target drift, or other considerations preclude the use of low-volume foliar applications. Cut stump and basal applications shall be restricted, when practicable, to periods when static ground water levels are low or otherwise when conditions are less susceptible to potential contamination.

8. Herbicides are not applied to conifer species (pine, spruce, fir, cedar, and hemlock).

9. Carriers for herbicides do not contain any of the following petroleum-based products: jet fuel, kerosene or fuel oil. Carriers

will be subjected to review by MDAR and DEP through 333 CMR 11.04(1.d).

10. Only herbicides recommended by MDAR and the Environmental Protection Agency through CMR 11.04(1.d) may be used in sensitive areas.

11. Herbicides may only be applied by hand operated equipment containing no more than 5 gallons of diluent.

12. All other restrictions within sensitive areas remain in effect. In accordance with 333 CMR 11.04(1)(c), no person shall apply herbicides for the purpose of clearing or maintaining a right-of-way in such a manner that results in drift to any areas within 10 feet of standing or flowing water in a wetland or area within 400 feet of a public drinking water supply well; or area within 100 feet of any surface water used as a public water supply; or area within 50 feet of a private drinking water supply identified under 333 CMR 11.04(2)(c)(3).

13. A minimum of twelve months must elapse between herbicide treatments. Only touch-up applications may be performed between twelve and twenty-four months.

14. Approved Vegetation Management Plans and Yearly Operational Plans must be amended as needed to reflect the conditions of this determination.

E. Massachusetts Endangered Species Act

The Massachusetts Endangered Species Act, M.G.L. c. 131A, and regulations promulgated there under, 321 CMR 10.00, sets forth procedures for the listing of Endangered, Threatened, and Special Concern species native to Massachusetts, the designation of Significant Habitats for such species, and establishes rules and prohibitions regarding the activities which take species or alter their Significant Habitats.

To comply with the General Provisions, 321 CMR 10.00 Part 1, Brookfield Renewables will submit this VMP for review by the Division of Fisheries and Wildlife Natural Heritage and Endangered Species Program (NHESP). Brookfield Renewables YOP will be submitted to the NHESP for review upon request of the NHESP. Brookfield Renewables shall take all practicable means and measurers to modify right-of-way vegetation management procedures to avoid damage to state listed species and their habitats as per guidance and information provided by the NHESP.

Provisions of 321 CMR 10.00, Part II, allow NHESP to designate Significant Habitat on any land in the Commonwealth. Brookfield Renewables would be notified as an owner of interest in any Significant Habitat that incorporates right-of-way. No known designations have been made to date. Vegetation management activities within Significant Habitats require an Alteration Permit from the Director of the Division of Fisheries and Wildlife, 321 CMR 10.00, Part lll. Brookfield Renewables will, when it becomes necessary, seek such a permit under the Coordinated Permit Review process of the Regulations, Section 10.38.

VII. OPERATIONAL GUIDELINES FOR APPLICATORS

Brookfield Renewables policy requires contracted applicators to comply with all applicable federal and state laws and regulations. That includes 333 CMR 11.00 Right-of-Way Management.

The product label is the permit under which the product can be marketed. The label is periodically updated and provides the most current information which is essential to the safe handling and application of the product. Use inconsistent with the labeling is punishable by fine and/or imprisonment.

This section provides a partial summary of operational guidelines as specified by federal and state training manuals, laws, and regulations applicable to right-of-way applicators. The best guideline in applying herbicides is for applicators to use their own awareness, good judgment, and common sense.

A. Safety Precautions

The following general safety precautions should be taken when handling and using herbicides:

1. Transporting Herbicides

    a. Containers should be placed and secured so they do not tip over or bounce around, in an enclosed lockable compartment.

    b. Do not transport food, feed, or people near herbicides.

    c. Department of Transportation regulations and appropriate state and local laws and regulations must be followed when transporting herbicides across state lines.

2. Protective Clothing

    a. Some herbicides require no protective clothing, but common sense should be followed.

    b. Follow label precautions.

    c. Wear protective spray clothes including a closely woven long-sleeved shirt, pants, or coveralls, shoes, and socks.

3. Exposure

    a. Do not work in spray, drift, or run off unless thoroughly protected.

b. Wash thoroughly before eating, drinking, or smoking.

c. Work in pairs to help identify poison symptoms.

d. Keep unauthorized people and animals out of the treatment area while treating.

e. Use proper application rates.

4. Personal Hygiene

a. Immediately wash off any herbicide spilled on the body.

b. Change spray clothes daily.

c. Keep spray clothes separate from other clothing.

d. Wash spray clothes thoroughly.

e. Take a shower at the end of each day.

5. Herbicide Poisoning

a. Keep herbicides out of the reach of children.

b. Inform your doctor which herbicide you use.

c. A well-equipped first aid kit should be available at the work site in case of emergency.

d. If poisoned, call an ambulance or the Massachusetts Poison Information Center, (800) 222-1222 and administer proper first aid.

B. Filling and-Mixing

Applicators are most often exposed to harmful levels of pesticides during filling and mixing operations since concentrated forms are handled. The following steps should be taken to avoid accidental exposure to the applicator or harm to the environment.

1. Follow all label directions.

2. Keep animals and unauthorized people out of the filling/mixing area.

3. Herbicide concentrates may not be handled, mixed, or loaded on a right-of-way within 100 feet of a sensitive area.

4. Wear protective clothes, rubber gloves, hat, respirator, and goggles or face shield if specified on the label.

5. Change clothes immediately if concentrates are splashed or spilled on clothing.

6. Keep plenty of soap and water at your disposal for cleanup.

7. When pouring herbicides, keep your head well above the opening and position yourself so winds do not carry the pesticide into your face or body.

8. Carefully measure herbicides.

9. Use anti-siphoning devices such as check valves to prevent back flow of water into the filling source.

10. Do not allow the sprayer to run over when filling.

11. Triple rinse empty containers and utilize the rinsings whenever possible.

12. When mixing together two or more products, make sure they are compatible.

C. Equipment Calibration

The rate of delivery for each application technique is based primarily on the proper coverage of those plant parts specific to the treatment (i.e. uniform surface wetting without run-off for the basal technique). Proper rates of application depend upon the following parameters:

1. Proper herbicide mixture.

2. Proper distance between the sprayer and target plant.

3. Proper pump pressure.

4. Correct nozzle type and opening size.

Equipment should be kept in good working order. Leaking or faulty pumps, tanks, hoses, nozzles, and fittings should be repaired at once.

D. Weather

Applicators must give weather factors due consideration in their decision to conduct spray operations on any given day or to continue when weather conditions become unsuitable. Rainwater not only washes herbicides from target vegetation and reduces its effectiveness, but the resulting runoff could pose harm to the environment. High wind speeds increase the chances for drift to non-target plants, sensitive areas, and the applicator. For these reasons, no herbicide shall be applied when the wind velocity is such that there is a high propensity to drift off target and/or during measurable precipitation.

E. Disposal

Surplus herbicides and empty herbicide containers shall be disposed of as described on the herbicide label.

To cut down on herbicide surplus, plan the spray operation so excess mix is not left over at the end of the day.

F. Record Keeping

The Occupational Safety and Health Act (OSHA) of 1970 requires employers of eleven or more employees to maintain records and prepare periodic reports concerning work related deaths, injuries, and illnesses. In the Commonwealth of Massachusetts, record keeping is required of all certified commercial applicators and licensed applicators. Operational records must contain the following information (as specified in 333 CMR 10.16):

1. Place of application
2. Date of application
3. The brand or registered name of the pesticide
4. The EPA registration number of the pesticide
5. The amount of pesticide applied
6. The purpose for which the pesticide was applied
7. Method of application
8. The persons certified or licensed by the MDAR who participated in the planning and execution of the application

9. Accidents or incidents resulting from use of a pesticide which caused pollution

10. The amount of liability insurance carried and the name of the insurer

11. Any illnesses or injuries caused by or suspected to have been caused by pesticides and reported to the applicator. -

G. General For All Herbicides

1. Label Instructions - follow all label instructions and the following:

a. Designation of Approved Herbicide Mixture

Designation of herbicide (including manufacturer and brand name), carrier and mixture to be used will be provided by the Owner's Representative before the work is started.

b. Restriction of Herbicide Treatment Application Due to Precipitation
In the event of precipitation, herbicide treating shall cease, and shall not resume until stems and foliage are dry.

c. Specifically as Applicable to Basal Applications
Treating shall be performed only when the stems are dry and clear down to the root collar.

d. Specifically as Applicable to Stem-Foliar Applications:
Restriction of Application Due to Precipitation - In locations which are not sensitive areas, any treating done within twelve (12) hours before the start of precipitation may be retreated.

e. Specifically as Applicable to Stump Treatment Applications:
Work Period - Do not apply during periods of precipitation.

VIII. INTEGRATED VEGETATION MANAGEMENT PROGRAM

Integrated Vegetation Management (IVM) operates on the principle that undesirable vegetation is best controlled through an interdisciplinary combination of chemical and non-chemical methods. This principle is put into practice on Brookfield Renewables rights-of-way through a specialized herbicide program and cutting strategies designed to achieve long term selective, cultural, and natural control at the lowest cost to the electric customer without unreasonable effects on the environment and public health. This section describes these integrated approaches used to minimize the use of herbicides and yet effectively control target plant populations.

A. Cutting Without Herbicide Treatment

As discussed in Section V, Integrated Vegetation Management, the use of herbicides is not appropriate under all conditions. Therefore, herbicide applications are not conducted in no herbicide treatment zones, and when weather conditions restrict herbicide application.

B. Cultural Control

Perhaps most importantly, electric utility integrated management seeks to culturally control vegetation by regulating species composition and stem density. Selectively removing target tree species while leaving desirable low maturing shrubs results in a higher ratio of shrubs to trees and a long-term reduction in tree stem counts. By leaving desirable shrub species, a conscious attempt is made to encourage these plants through the subsequent reduction in competition for carbon dioxide, water, nutrients, and sunlight. Concentrating growth on these plants and maintaining thrifty, vigorous growth encourages their spread across the right-of-way. Cultural control relies on the concept that ecological principles can be used to control the natural stages of plant development. The interrelationships of nature are utilized along rights-of-way to establish relatively stable plant communities that tend to maintain themselves.

Some plants limit the available growing space for competing species through a process known as allelopathy. The roots of these plants, e.g. huckleberry and goldenrod, produce chemicals that are toxic to other plants.

Creating low growing plant cover slows the natural progression of plant succession to a climax stage by preventing the invasion and development of undesirable tall growing trees. Desirable shrubs are also encouraged since they tend to be sun loving, shade intolerant plants which thrive in full sunlight. As low growing plant communities become denser, the number of undesirable stems will be lower and the need for constant

control of target vegetation is reduced.

The selection of desirable species allowed to remain on the site is another key to effective natural control. Control operations are based upon native species present and suited to the actual site conditions. For example, basal applications tend to favor low growing shrubs such as blueberry, while foliar applications favor ferns, grasses, and herbs. By managing existing relationships between various plants and the environment, control procedures can be prescribed to foster the natural development evident on the right-of-way.

C. Selective Application Techniques

Highly selective application techniques are used to apply diluted herbicide mixtures directly to target vegetation with precision. The basal techniques are used to apply small amounts of herbicides using sprayer wands held within inches of each individual stem. In the cut stump method, herbicide is applied only to the residual stump left after mechanical cutting. The amount of herbicide used in the foliar technique is minimized by proper spray nozzle pressure, large droplet size, spray adjuvants, and applications directed at individual tall-growing plants.

D. Selective Herbicides

A variety of selective herbicides are used which affect certain groups of plants with little or no effect on others. Limited spectrum herbicides are used to meet the particular vegetation and site conditions on the right-of-way. Some herbicides control broadleaved tree species while not affecting certain low maturing shrubs, grasses, and herbaceous plants. Other herbicides control broadleaved tree species but do not affect desirable grass species such as those found in lawns or some grain crops.

Adjuvants may be added to the herbicide mixture to help improve the performance of the active ingredient and reduce the chance of off-target drift.

Herbicides are normally mixed with a water or petroleum carrier and applied as a dilute mixture. In wetlands, either water or a refined petroleum product will be used as carriers. Fuel oil, jet fuel, and kerosene are not permitted for use as carriers in wetlands (See Appendix C).

E. Long Term Timing of Treatment

Proper timing of selective herbicide applications is important to the long-term planning of vegetation management. To ensure reliability, vegetation maintenance is scheduled to preclude encroachment of target

vegetation into the conductors as allowed by current funding levels.

The approximately 22 acres of cleared transmission line right-of-way will be maintained on a four-year treatment interval. With a touch up application the following the treatment years application if needed to achieve control. An assessment of the right-of-way is conducted to document the vegetation conditions (including the height and density of desirable and undesirable species), and other site conditions (such as environmental and visual sensitive areas) to determine if the vegetation maintenance schedule should be advanced or delayed.

F. Seasonal and Daily Timing of Treatment

Application crews adhere to strict procedures governing the seasonal and daily timing of selective herbicide applications. They include:

1. Basal techniques are used only when stems are dry and clear to the root collar. These methods are ineffective and consequently not used when the lower stem is either wet or covered with snow or ice.

2. Stumps are not treated during periods of precipitation.

3. Foliar techniques are normally used between June and early September after leaves are fully developed and while the plant is actively growing.

4. Herbicides are not applied when the wind velocity is such that there is a high propensity to drift off target and during measurable precipitation.

IX. ALTERNATIVE LAND USE PROVISIONS OR AGREEMENTS MINIMIZING THE NEED FOR HERBICIDES

This section describes the alternative land use options and agreements which minimize the need for herbicides on Brookfield Renewables rights-of-way. Brookfield Renewables continuously evaluates alternative vegetation management methods. A brief description of these methods follows.

A. Land Use Provisions

A portion of the right-of-way has no brush requiring control due to land usage. Herbicide treatment is not necessary where lawns, roadways, urban areas, industrial sites, and agricultural areas such as pastures, hayfields, and cornfields do not allow target species to interfere with the conductors or access.

B. Agreements

License agreements

This is an agreement between Brookfield Renewables and another party (an individual, state or local government agency, or corporation), regarding property owned by Brookfield Renewables. A party may enter into an agreement with Brookfield Renewables (through a Company Representative) which allows them to use Company owned land for their purpose (e.g., commercial or agricultural use) in exchange for some agreed to compensation. Certain land uses preclude or reduce the need for brush control. License agreements are negotiated on a case-by-case basis via Brookfield Renewables Land Agent.

X. REMEDIAL PLAN TO ADDRESS SPILLS AND RELATED ACCIDENTS

This remedial plan is offered as a guide to proper procedures for addressing pesticide accidents. Since every incident is different, applicators must weigh factors specific to the situation and use their own judgment to decide the appropriate course of action. Because applicators normally carry only small amounts of herbicides, the potential for serious accidents is relatively small.

Federal and state statutes establish emergency response procedures that must be followed by the companies and their contractors in the event of a spill or related accident. Under the Federal Environmental Pesticide Control Act, it is the applicators legal responsibility to clean up pesticide spills resulting from their use and handling of the product. Applicators are liable for damages, subject to penalties, and obligated to clean up and decontaminate areas resulting from pesticide spills.

The Comprehensive Environmental Response, Compensation, and Liability Act 1980 (CERCLA) 42 U.S.C. §9601 et. seq., and the Federal Water Pollution Control Act (CWA) 33 U.S.C. §1251 et. seq. are aimed at eliminating the accidental discharge of oil and hazardous substances into the environment, providing for the cleanup of such substances, and establishing responsibility for costs of cleanup. CERCLA and CWA are implemented by the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) 40 CFR §300 et. seq.

Massachusetts General Laws Chapter 21 E, the Massachusetts Oil and Hazardous Material Release Prevention and Response Act, Section 3 authorizes the Massachusetts Department of Environmental Protection (DEP) to act to secure the benefits of the CWA and CERCLA to the Commonwealth by promulgating and enforcing a Massachusetts Contingency Plan to "comport with and complement" the National Contingency Plan. The Massachusetts Contingency Plan, 310 CMR 40.000, establishes standards and procedures for the discovery of discharges, notification of DEP, assessment of the problem, and implementation of appropriate remedial response actions, as set forth in 310 CMR 40.500.

The Farm Chemical Handbook (published by Meister Publishing Co., Willoughby, Ohio), U.S. Department of Transportation "1987 Emergency Response Guidebook" (available from UNZ and Company, Jersey City, New Jersey), herbicide labels, and material safety data sheets provide reference information for the chemicals being used. Applicators should carry equipment for emergency action including sand or other absorptive material, broom, shovel, and heavy-duty plastic bags or another leak-proof sealable container.

APPENDIX A

Identification and Qualification of Individual Developing and Submitting The VMP

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Edward is an International Society of Arboriculture Certified Arborist. He has been actively working in the field of utility arboriculture since 2012. He started working for Lewis Tree Service, Inc in 2014 where he supports line clearance crews throughout New England. He is a graduate of Paul Smith's College with an AAS in Forest Recreation and a BS from The University of Massachusetts Amherst in Forestry.

APPENDIX B

333 CMR 11.00: RIGHTS OF WAY MANAGEMENT

Section

11.01: Purpose

The purpose of 333 CMR 11.00 is to establish a statewide and uniform regulatory process which will minimize the uses of, and potential impacts from herbicides in rights-of-way on human health and the environment while allowing for the benefits to public safety provided by the selective use of herbicides. Specific goals of 333 CMR 11.00 are to:

(1) Ensure that an Integrated Pest Management (IPM) approach to vegetation management is utilized on all rights-of-way covered by 333 CMR 11.00.

(2) Establish standards, requirements and procedures necessary to prevent unreasonable risks to humans or the environment, taking into account the economic, social and environmental costs and benefits of the use of any pesticide.

(3) Ensure ample opportunity for public and municipal agency input on potential impacts of herbicide application to rights-of-way in environmentally sensitive areas.

(4) Establish a mechanism for public and municipal review of rights-of-way maintenance plans.

11.02: Definitions

For the purposes of 333 CMR 11.00, unless the context clearly requires otherwise, the following definitions shall apply:

Agricultural Area includes, but is not limited to, actively cultivated gardens, greenhouses, orchards, fields, pastures, and other areas under cultivation or agricultural management.

Applicant, any person representing any federal, state or local government or agency, utility, railroad or pipeline, that intends to maintain a right-of-way in the Commonwealth by application of herbicides.

Associated Surface Water Body, as identified on the most current available maps prepared by the Department of Environmental Protection, any body of water that is hydrologically

connected to a Class A surface water source.

Ballast, the coarse gravel or crushed rock on which the ties, tracks and switching, signaling and communication devices of a railroad are laid.

Broadcast, any non-selective herbicide application technique which results in application to all vegetation within a target area.

Certified Vernal Pool, a confined basin depression, certified and mapped by NHESP pursuant to the provisions of 310 CMR 10.57(2)(a)5. and 6., which, at least in most years, holds water for a minimum of two continuous months during the spring and/or summer, and which is free of adult fish populations.

Certified Vernal Pool Habitat, that vernal pool habitat which has been certified and mapped by NHESP pursuant to the provisions of 310 CMR 10.57(2)(a)5. and 6. or, in the event that such habitat has not been mapped, the area extending 100 feet horizontally outward from the boundary of any Certified Vernal Pool.

Class A Waters, waters which are designated as a source of public water supply, as defined in 314 CMR 4.05(3)(a).

Class B Drinking Water Intakes, intakes to Class B waters suitable as sources of public water supply with appropriate treatment, as defined at 314 CMR 4.05(3)(b) and as identified on the most current available maps prepared by the Department of Environmental Protection.

Department, the Department of Agricultural Resources.

FIFRA, the Federal Insecticide, Fungicide and Rodenticide Act, Public Law 92-516.

Foliar Treatment, any technique which applies herbicide to leaves of target vegetation.

Inhabited Area, any area where people generally live, work or gather, including, but not limited to, any residence, school, hospital, park or recreational facility.

Interim Wellhead Protection Area (IWPA), for public water systems using wells or well fields that lack a Department of Environmental Protection-approved Zone II, an interim wellhead protection area, as that term is defined in the Massachusetts drinking water regulations, 310 CMR 22.02, and as identified on the most current available maps prepared by the Department of Environmental Protection, shall apply. Generally, this is a ½- mile radius for sources whose approved pumping rate is 100,000 gallons per day or greater. For smaller sources, the radius in feet is determined by multiplying the approved pumping rate in gallons per minute by 32 and adding 400.

Limited Application Waiver, a waiver from the requirements of 333 CMR 11.05 and 11.06, granted at the Department's sole discretion pursuant to 333 CMR 11.03(14), when the reason for the application is emergency public health or safety or when the application is for one time only.

Limited Spray Area, any area that is both within a Right-of-Way and within:

(a) any Zone II or IWPA;

(b) a distance of between 100 feet and 400 feet of any Class A Surface Water Source;

(c) a distance of between ten and 200 feet of any tributary or associated surface water body where the tributary or associated surface water body runs outside the Zone A for the Class A surface water source;
(d) a lateral distance of between 100 and 200 feet for 400 feet upstream, on both sides of the river, of a Class B Drinking Water Intake;
(e) a distance of between 50 and 100 feet of any identified Private Well;
(f) a distance of between 10 and 100 feet of any Wetlands or Water Over Wetlands;
(g) a distance of between ten feet from the mean annual high water line of any river and the outer boundary of the Riverfront Area;
(h) a distance of between ten feet from any Certified Vernal Pool and the outer boundary of any Certified Vernal Pool Habitat; and
(i) a distance of 100 feet of any Agricultural or Inhabited Area.

Low Pressure, pressure under 60 pounds per square inch (psi).

Maps, United States Geological Survey maps of scale 1:25,000 or other maps, as determined by the Department, which are of such accuracy and scale to provide sufficient detail so that sensitive areas can be delineated.

NHESP, the Natural Heritage and Endangered Species Program within the Massachusetts Division of Fisheries and Wildlife.

No-spray Area, any area that is both within a Right-of-Way and within:
(a) any Zone I;
(b) 100 feet of any Class A Surface Water Source;
(c) 100 feet of any tributary or associated surface water body where the tributary or associated surface water body runs within 400 feet of a Class A surface water source;
(d) ten feet of any tributary or associated surface water body where the tributary or associated surface water body is at a distance greater than 400 feet from a Class A surface water source;
(e) a lateral distance of 100 feet for 400 feet upstream, on both sides of the river, of a Class B Drinking Water Intake;
(f) 50 feet of any identified Private Well;
(g) ten feet of any Wetlands or Water Over Wetlands;
(h) ten feet of the mean annual high-water line of any river; and
(i) ten feet of any Certified Vernal Pool.

Person, an individual, association, partnership, corporation, company, business organization, trust, estate, the Commonwealth or its political subdivisions, administrative agencies, public or quasi-public corporation or body, or any other legal entity or its legal representatives, agent or assignee, or a group of persons.

Person Aggrieved, any person who, because of an act or failure to act by the Department may suffer an injury in fact which is different either in kind or magnitude from that suffered by the general public and which is within the scope of the interests identified in 333 CMR 11.00. Such person must specify in writing sufficient facts to allow the Department to determine whether or not the person is in fact aggrieved.

Private Well, any private drinking water supply identified by the local Board of Health, the well owner or the Department of Agricultural Resources.

Private Well Registry, a registry of private wells located within 100 feet of a right-of-way which is maintained by the Department of Agricultural Resources. Homeowners must notify the Department by completing a registration form which is available directly from the Department or online at the Department website.

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

Public Ground Water Source, a source of water for a Public Water Supply System, as that term is defined in the Massachusetts drinking water regulations at 310 CMR 22.02.

Right(s)-of-way (ROW), any roadway, or thoroughfare on which public passage is made and any corridor of land over which facilities such as railroads, powerlines, pipelines, conduits, channels or communication lines or bicycle paths are located.

Rights-of-way Advisory Panel, a panel established to advise the Department on issues relating to 333 CMR 11.00 and to fulfill specific functions as detailed within 333 CMR 11.05 and 11.11.

River, a river as defined at 310 CMR 10.04 and as identified on the most current available maps prepared by the Department of Environmental Protection.

Riverfront Area, a riverfront area as defined at 310 CMR 10.58(2) and as identified on the most current available maps prepared by the Department of Environmental Protection. In general, this term shall mean the area between the mean annual high-water line of a perennially flowing river and a parallel line 200 feet away.

Selective Application, any application of herbicides, in such a manner that the delivery to the target vegetation is optimized and delivery to non-target vegetation and the environment is minimized.

Sensitive Areas, as defined in 333 CMR 11.04, any areas within Rights-of-Way, including No-Spray and Limited-Spray Areas, in which public health, environmental or agricultural concerns warrant special protection to further minimize risks of unreasonable adverse effects.

State-listed Species, any species on the Massachusetts list of Endangered, Threatened, and Special Concern Species as described in the Massachusetts Endangered Species Act (M.G.L c. 131A; 321 CMR 10.02).

State-listed Species Habitat, the Estimated Habitats of Rare Wildlife (310 CMR 10.59 and 10.37) and the Priority Habitats for State-listed Species (321 CMR 10.02) as shown on the most recent edition of the Massachusetts Natural Heritage Atlas prepared by NHESP.

Stem Treatment, any technique including, but not limited to, stump, basal, stem, injection, banding, frill, or girdle and any other technique which delivers herbicide at low pressure to the stump, base or stem of the target vegetation.

Surface Water Source, any lake, pond, reservoir, river, stream or impoundment designated as a public water supply in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00, as identified on the most current available maps prepared by the Department of Environmental Protection.

Target Vegetation, any plant species which has the potential to interfere with the operation

and safety of the right-of-way.

Touch-up Application, any limited application of herbicides following an initial treatment, which is necessary to achieve the desired vegetation control.

Tributary, as identified on the most current available maps prepared by the Department of Environmental Protection, any body of running, or intermittently running, water which moves in a definite channel, naturally or artificially created, in the ground due to a hydraulic gradient, and which ultimately flows into a Class A surface water source, as defined in 314 CMR 4.05(3)(a).

Vegetation Management Plan (VMP), a long term management plan for the applicant's right-of-way system which describes the intended program for vegetation control over a five year period.

Vernal Pool, *see* Certified Vernal Pool.

Water Over Wetlands, the ocean or any estuary, lake or pond as defined at 310 CMR 10.04.

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

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

(b) Land under any of the water bodies listed in 333 CMR 11.02: Wetlands(a); and

(c) Land subject to tidal action.

Wetlands Determination, a written determination of the boundaries of Wetlands and boundaries of areas within 100 feet of Wetlands in accordance with the regulations of the Department of Environmental Protection (DEP) at 310 CMR 10.05(3)(a)1. and 2. 310 CMR 10.03(6)(b) requires applicants not eligible for a public utility exemption to submit these determinations with their VMPs if they will apply herbicides within 100 feet of wetlands and will not submit a Notice of Intent under M.G.L. c. 131, § 40, the Wetlands Protection Act. In order to obtain a Wetlands Determination, the applicant should submit a request to the conservation commission on maps of a scale that will enable the conservation commission or Department of Environmental Protection to find and delineate the boundaries of Wetlands and buffer zones within the vicinity of the right-of-way herbicide management area. To be considered “valid”, the Wetlands Determination should be made no sooner than six months immediately prior to the submission of the Vegetation Management Plan. The Wetlands Determination shall cover the period of the Vegetation Management Plan only and shall expire at the end of the five year period of that Vegetation Management Plan.

Yearly Operational Plan (YOP), the yearly operational plan which describes the detailed vegetation management operation for the calendar year consistent with the terms of the long term Vegetation Management Plan.

Zone A, as identified on the most current available maps prepared by the Department of Environmental Protection, the protective land area for a Surface Water Source, Class A water source, Tributary, or Associated Surface Water Body defined in 310 CMR 22.02 as:

(a) the land area between the Class A surface water source and the upper boundary of the bank;

(b) the land area within a 400 foot lateral distance from the upper boundary of the bank of a Class A surface water source, as defined in 314 CMR 4.05(3)(a); and

(c) the land area within a 200 foot lateral distance from the upper boundary of the bank of a Tributary or Associated Surface Water Body.

Zone I, as identified on the most current available maps prepared by the Department of Environmental Protection and as defined at 310 CMR 22.02, the protective radius required around a public water supply well or wellfield. For public water system wells with approved yields of 100,000 gallons per day (gpd) or greater, the protective radius is 400 feet. Tubular wellfields require a 250 foot protective radius. Protective radii for all other public water system wells are determined by the following equation: Zone I radius in feet = (150 x log of pumping rate in gpd) –350.

Zone II, as identified on the most current available maps prepared by the Department of Environmental Protection and as defined at 310 CMR 22.02, the aquifer recharge area for a public water supply well or wellfield.

11.03: General Provisions

(1) No person shall use an herbicide for the purpose of clearing or maintaining a right-of-way unless appropriately certified by the Department, or licensed by the Department and working under the on-site supervision of an appropriately certified applicator.

(2) No person shall use an herbicide for the purpose of clearing or maintaining a right-of-way except in accordance with a Vegetation Management Plan (VMP) and a Yearly Operational Plan (YOP) as approved by the Department. The YOP shall be available at the work site at all times during herbicide applications and be made available to the Department and municipal officials including the Conservation Commission and Board of Health upon reasonable request.

(3) No person shall handle, mix or load an herbicide concentrate on a right-of- way within 100 feet of a sensitive area.

(4) The perimeter of any sensitive areas which are not readily identifiable on the ROW shall be identified with a clearly visible marker system, consistent with the VMP, prior to any herbicide application.

(5) No foliar application of herbicides shall be used to control vegetation greater than 12 feet in height except for side trimming.

(6) No herbicide shall be applied when the wind velocity is such that there is a high propensity to drift off target and/or during measurable precipitation, and no person shall apply herbicides in such a manner that results in drift into any No-spray Area.

(7) No person shall apply herbicides by aircraft for the purpose of clearing or maintaining a right-of-way.

(8) No touch-up applications shall be carried out except under the following conditions:

(a) Touch-up applications must occur within 12 months of the initial application.

(b) All applicable public notification procedures of M.G.L. c. 132B, § 6B, as outlined in 333 CMR 11.07(1) and (3), are followed.

(c) No more than 10% of the initially identified target vegetation on the applicant's right-ofway in any municipality may be treated and the total amount of herbicide applied in any one year shall not exceed the limits specified by the label or Yearly Operational Plan.

(d) The Department may impose such additional restrictions or conditions on the use of herbicides as it deems necessary to protect public health and the environment.

(9) The Department will maintain mailing lists of individuals and groups desiring to obtain notices on various aspects of the Program.

(10) No person shall apply any herbicide identified as a Potential Ground Water Contaminant pursuant to 333 CMR 12.00 to a right-of-way.

(11) No person shall use an herbicide for the purpose of clearing or maintaining a right-of-way unless that person has obtained the most current available map of public ground water sources from the Department of Environmental Protection.

(12) No person shall use an herbicide for the purpose of clearing or maintaining a right-of-way unless that person has done one or more of the following:

(a) obtained a current list of identified Private Wells within 100 feet of the right-of-way from the Board of Health, or

(b) obtained a current list of all private wells, within 100 feet of the right of way from the Department of Agricultural Resources private well registry; or

(c) followed an alternative Private Well identification method outlined in an approved YOP.

(13) The applicator shall provide any employee of any state agency, or authority as defined in M.G.L. c. 3, § 39, when such employee is, within a right-of-way, using pesticides, supervising the use of pesticides, or present during the use of pesticides, with personal protective equipment and clothing. Applicators should note that other federal or state laws or regulations pertaining to pesticide applications may require this personal protective equipment to include protections according to Material Safety Data Sheets (MSDS's), the product label, and any other supporting technical data supplied by the manufacturer.

(14) Notwithstanding the provisions of 333 CMR 11.03(2) or other provisions of 333 CMR 11.00, the Department may, at its sole discretion, issue Limited Application Waivers to applicants wishing to apply herbicides to clear or maintain rights-of-way without VMPs or YOPs, but only under the following conditions:

(a) The applicant must demonstrate either:

1. that the application will not occur more than once in a five-year period unless a VMP and a YOP are prepared and all other requirements of 333 CMR 11.00 are met; or
2. that the application is necessary to protect public health or safety.

(b) The applicant must still adhere to all public notification requirements established at 333 CMR 11.07(1) and (3).

(c) The applicant must provide the Department with a letter establishing the concurrence of the chief elected official or board of selectmen of the municipality where the application is to be made.

(d) The applicant may only use herbicides on the Department's "Herbicides Recommended for Use in Sensitive Areas List."

(e) If the application could impact Wetlands, the Department recommends that the applicant send a copy of its application for a Limited Application Waiver to the Department of Environmental Protection's Division of Wetlands and Waterways no less than 21 days before the proposed application.

(f) It should be noted that, with certain exceptions for public utilities, wetlands regulations at 310 CMR 10.03(6)(b) currently require Wetlands Determinations prior to any application within 100 feet of a Wetland.

Limited Application Waivers shall be issued solely at the Department's discretion, and the Department may impose such additional restrictions or conditions on the use of herbicides as it deems necessary to protect public health and the environment.

11.04: Sensitive Area Restrictions

(1) General. In any sensitive area:

(a) No more than the minimum labeled rate of herbicide for the appropriate site, pest, and application method shall be applied.

(b) Herbicides shall only be applied selectively by low pressure, using foliar techniques or basal or cut-stump applications, or other method approved for use by the Department. (c) No person shall apply herbicides for the purpose of clearing or maintaining a right-of-way in such a manner that results in drift to any area within ten feet of standing or flowing water in a wetland; or area within 400 feet of a public drinking water supply well; or area within 100 feet of any Class A surface water used as a public water supply; or area within 50 feet of a Private Well.

(c) Only herbicides specified by the Department as acceptable for use in sensitive areas pursuant to the Cooperative Agreement executed between the Department of Agricultural Resources and the Department of Environmental Protection on July 1 and 2, 1987, or future amendments thereto, shall be used in sensitive areas. Applicants proposing to use an herbicide which has been registered for use on rights-of-way but has not yet been evaluated pursuant to the provisions of the Cooperative Agreement may request that such herbicides be evaluated pursuant to said provisions. For an herbicide that has been evaluated pursuant to the provisions of the Cooperative Agreement, applicants proposing to use such herbicide in a manner inconsistent with the terms and conditions of use imposed in the guidelines may request a modification or waiver of such terms or conditions. A request for such modification or waiver shall provide a detailed rationale for use, with all relevant data including but not limited to environmental fate, efficacy and human health effects of the

(d) proposed herbicide. Such herbicides and/or uses shall be subject to the evaluation standards adopted by the Departments of Agricultural Resources and Environmental Protection in the Cooperative Agreement.

(e) Commentary. Applicants not eligible for the public utilities exemption from the Wetlands Protection Act outlined at 310 CMR 10.03(6)(a), who wish to apply pesticides registered for use in Massachusetts to rights-of-way, may choose to apply herbicides determined to be suitable for use in sensitive areas in accordance

with the provisions of the Cooperative Agreement mentioned above or, alternatively, such applicants may proceed pursuant to the provisions of 310 CMR 10.00 as authorized by M.G.L. c. 131, § 40.

(f) The Department may impose such additional restrictions or conditions on the use of herbicides within or adjacent to sensitive areas as it determines necessary to protect human health or the environment. Such changes may be proposed by a municipal agency or individual during the public comment period.

(g) In the event of a question or dispute as to which setback applies to a sensitive area, the most restrictive setback shall apply.

(2) Water Supplies.

(a) Public Ground Water Sources.

3. No herbicides shall be applied within a Zone I.
4. No herbicides shall be applied within a Zone II or IWPA unless:
    a. A minimum of 24 months has elapsed since the last application to the site; and
    b. Herbicides are applied selectively by low pressure, using foliar techniques or basal or cut-stump applications.

(b) Class A Public Surface Water Sources, Associated Surface Water Bodies, Tributaries and Class B Drinking Water Intakes.

1. No herbicides shall be applied within 100 feet of any Class A public surface water source.
2. No herbicides shall be applied within 100 feet of any tributary or associated surface water body located within the Zone A of a Class A public surface water source, or within ten feet of any tributary or associated surface water body located outside of the Zone A of the Class A public surface water source.
3. No herbicides shall be applied within a lateral distance of 100 feet for 400 feet upstream of any Class B Drinking Water Intake.
4. No herbicides shall be applied within a distance of between 100 feet from any Class A surface water source and the outer boundary of any Zone A, or within a distance of between ten feet and the outer boundary of the Zone A for any tributary or associated surface water body located outside of the Zone A of a Class A surface water source, or within a lateral distance of between 100 and 200 feet for 400 feet upstream of a Class B Drinking Water Intake, unless:
    a. A minimum of 24 months has elapsed since the last application to the site; and
    b. Herbicides are applied selectively by low pressure, using foliar techniques or basal or cut-stump applications.

(c) Private Wells.

1. No herbicides shall be applied within 50 feet of an identified Private Well.
2. No herbicides shall be applied within a distance of between 50 feet and 100 feet of an identified Private Well, unless:
    a. A minimum of 24 months has elapsed since the last application to the site; and
    b. Herbicides are applied selectively by low pressure, using foliar techniques or basal or cut-stump applications.

(3) State-listed Species Habitat.

(a) Any person proposing to apply an herbicide within any State-listed Species Habitat who does not have a current Yearly Operational Plan approved in writing

by the Division of Fisheries and Wildlife pursuant to 321 CMR 10.14(12), shall submit all necessary materials required for review pursuant to 321 CMR 10.18.

(b) The management of vegetation within existing utility rights-of-way shall be exempt from the requirements of 321 CMR 10.18 through 10.23, provided that the management is carried out in accordance with a Yearly Operational Plan approved in writing by the Division of Fisheries and Wildlife, pursuant to 321 CMR 10.14(12).

(c) No person shall apply an herbicide within State-listed Species Habitat unless the application is approved by the Division of Fisheries and Wildlife pursuant to 333 CMR 11.04(3)(a) and (3)(b), and such approval is submitted to the Department.

(4) Wetlands, Waters Over Wetlands, Riverfront Areas, and Certified Vernal Pools.

(a) No herbicide shall be applied on or within ten feet of a Wetland or Water Over a Wetland, within ten feet of the mean annual high-water line of any River, or within ten feet of any Certified Vernal Pool.

(b) No herbicide shall be applied on or within a distance of between ten feet and 100 feet of any Wetland or Water Over a Wetland, within a distance of ten feet from the mean annual high-water line of any River and the outer boundary of any Riverfront Area, or within a distance of ten feet from any Certified Vernal Pool and the outer boundary of any Certified Vernal Pool Habitat unless:

1. A minimum of 12 months has elapsed since the last application to the site; and
2. Herbicides are applied selectively by low pressure, using foliar techniques or basal or cut-stump applications.

(c) Notwithstanding 333 CMR 11.04(4)(a) and (b), public utilities providing electric, gas, water, telephone, telegraph and other telecommunication services (and other applicants, if consistent with all relevant provisions of the Massachusetts Wetlands Protection Act and its regulations in effect at the time of application) may apply herbicides on or within ten feet of a Wetland in accordance with the following conditions:

1. Submission of a study, the design of which is subject to prior approval by the Departments of Agricultural Resources and Environmental Protection, evaluating impacts of the proposed vegetation management program utilizing herbicides on or within ten feet of Wetlands, and comparing those impacts to those which would result if only non-chemical control methods were used in these areas. The study must detail vegetation management practices and use patterns specific to those used by the type of entity submitting the study; and
2. A finding by the Department, after consultation with the Rights-of-way Advisory Panel, that the proposed vegetation management program utilizing herbicides on or within ten feet of Wetlands will result in less impacts to the Wetlands than mechanical control.
3. Notwithstanding the above, no herbicides shall be applied on or within ten feet of any standing or flowing water in a Wetland.

(5) Inhabited and Agricultural Areas. No foliar herbicide shall be applied within 100 feet of any Inhabited Area or any Agricultural Area unless:

(a) A minimum of 12 months has elapsed since the last application to the site; and

(b) Herbicides are applied selectively by low pressure, using foliar techniques or basal or cut-stump applications.

(c)

11.05: Vegetation Management Plan (VMP)

(1) General.

(a) Unless otherwise specified by the Department, all VMPs should be submitted by the applicant no later than September 1st prior to the calendar year of the proposed first year of maintenance. All approved VMPs shall be effective for a five year period unless otherwise modified, or revoked by the Department.

(b) The VMP shall be presented on forms and/or format approved by the Department.

(2) Requirements. The VMP shall include, but not be limited to, the following:

(a) General statement of goals and objectives of the VMP.

(b) Identification of target vegetation.

(c) Intended methods of vegetation management and rationale for use, including vegetation control techniques, equipment proposed for use, timing of applications and alternative control procedures.

(d) Discussion of justification for proposed herbicide applications, including a description of the alternative control methods considered and the reasons that they were rejected.

(e) Methods, references and sources for identifying sensitive areas and control strategies proposed for sensitive areas. Applicants should note that the Department of Environmental Protection regulations at 310 CMR 10.03(6)(b) require Wetlands Determinations for applicants that are not eligible for a public utility exemption.

(f) Operational guidelines for applicators relative to herbicide use.

(g) Identification and qualifications of individuals developing and submitting a plan.

(h) A detailed description of the IPM Program, showing how it will minimize the amount and frequency of herbicide application.

(i) Description of alternative land use provisions or agreements that may be established with individuals, state, federal or municipal agencies that would minimize the need for herbicides, including the rationale for accepting or denying any reasonable request made by any individual.

(j) Description of a remedial plan to address spills and related accidents.

(k) For state agencies and authorities as defined in M.G.L. c. 3, § 39, a description of the applicant's policy to eliminate or, if necessary, reduce the use of pesticides for any vegetation management purpose along roadways, and a demonstration that, for the proposed application, the costs of non-chemical vegetation control significantly outweigh the benefits.

(3) Public Notice, Review and Comment.

(a) Upon receipt of the proposed VMP, the Department shall schedule and hold appropriate regional public hearings affording all interested parties the opportunity to comment, both at the hearings and in writing to the Department, on the proposed plan.

(b) At least 21 days prior to the public hearings, the Department shall publish notice of the hearings in the Environmental Monitor and regionally located newspapers, and send notice to municipalities covered by the plan and to the appropriate mailing list. The notice will include locations where copies of the VMP can be reviewed.

(c) The public shall have no less than 45 days, starting from publication of the *Environmental Monitor* notice, to comment upon proposed VMPs, unless the Department extends the comment period for good cause.

(d) Wherever a chief elected official, Board of Health or Conservation Commission in a municipality covered by the proposed VMP requests a copy of the proposed plan, the applicant shall, at least 21 days prior to the end of the public comment period, respond to this request. The response must either include a copy of the proposed VMP, or an Internet address where the VMP may be viewed and a note that a hard copy will be provided promptly upon further request.

(4) Disposition of VMP.

(a) 25 copies of the proposed VMP shall be submitted to the Department. The Department shall distribute copies of the proposed VMP to each member of the Rights-of-way Advisory Panel. The Department may, at its sole discretion, allow electronic presentation of the VMP in *lieu* of some or all of the 25 copies that would otherwise be submitted pursuant to 333 CMR 11.05(4).

(b) Within 30 days of the end of the public comment period unless extended for good cause, the Rights-of-way Advisory Panel shall review the VMPs and recommend in writing to the Department approval, denial or modification of each VMP; if necessary, the Advisory Panel may request additional information from the applicant.

(c) Within 21 days of the end of the Rights-of-way Advisory Panel review period, unless extended by the Department for good cause, the Department will notify the applicant and the Advisory Panel in writing one of the following:

1. request for additional information or modification;
2. denial of VMP; or
3. approval of VMP.

(d) The VMP may be modified, withdrawn or amended by the applicant through a written request sent by certified mail to the Department.

(e) Resubmission of a denied VMP, updating of a VMP, or a significant amendment to an approved VMP shall be processed according to 333 CMR 11.05.

(f) The applicant must send a copy of the approved VMP, or an Internet address where the VMP may be viewed and a note that a hard copy will be provided promptly upon further request, to the chief elected official, Board of Health, and Conservation Commission in each municipality covered by the plan.

(5) Time for Action. Non-action by the Department on a VMP within the time specified in 333 CMR 11.05 does not constitute approval of the submitted plan. In the event that the Department fails to notify the applicant of a decision within the time specified in 333 CMR 11.05(4)and upon written request from the applicant, the Commissioner must issue a finding within ten days of receipt stating the reason for the delay and providing an estimated completion date.

11.06: Yearly Operational Plan (YOP)

(1) General.

(a) The applicant is responsible for the accuracy and completeness of all information submitted with the YOP. The YOP shall be consistent with the objectives of the VMP and shall describe the intended operational program for that calendar year.

(b) The YOP shall be presented on forms and in a format approved by the Department.

(2) Requirements. The YOP shall include but not be limited to the following:

(a) Maps locating the rights-of-way and sensitive areas not readily identifiable in the field;

(b) Herbicides proposed including Environmental Protection Agency (EPA) Registration numbers, application rates, carriers and adjuvants;

(c) Herbicide application techniques and alternative control procedures proposed.

(d) The name, address and phone number of the company which will perform any herbicide treatment;

(e) Identification of target vegetation;

(f) The name, address and phone number of the individual representing the YOP applicant;

(g) Description of methods used to flag or otherwise designate sensitive areas on the rightof-way;

(h) Herbicide Fact Sheets as approved by the Department; and

(i) Procedures and locations for handling, mixing and loading of herbicide concentrates.

(3) Public Notice, Review and Comment.

(a) Upon submittal of the YOP for approval, the Department will publish a notice in the *Environmental Monitor*. Said notice shall be provided by the applicant and shall include the information on the municipalities through which the rights-of-way pass, a brief description of the intended program, and the procedure for public review and comment. The Department shall send notification of the publication to the applicant and the appropriate mailing list.

(b) Upon submittal of the YOP to the Department, the applicant shall provide by certified mail under separate cover to the Board of Health, Conservation Commission, chief elected municipal official, and where applicable, the Massachusetts Water Resources Authority and Massachusetts Department of Conservation and Recreation, a copy of the proposed YOP (or an Internet address where the proposed YOP may be viewed and a note that a hard copy will be provided promptly upon request) and the *Environmental Monitor* notice for the municipality or municipalities in which the herbicide treatment is proposed. Community water suppliers shall receive electronic information or a one page notification by mail which provides details about where to receive more information. The applicant shall maintain copies of the packet sent to municipalities and certified mail receipts. The applicant shall make copies of the packet, certified mail receipts, and any further correspondence regarding hard copies of YOPs in *lieu* of Internet viewing, available to the Department upon request.

(c) The Department shall allow a 45-day comment period on proposed YOPs, unless extended for good cause, commencing with the publication of the notice in the *Environmental Monitor* and receipt of the proposed YOP and *Environmental Monitor* notice by each municipality.

(d) The Department may approve, deny or modify YOPs after the 45-day comment period has expired.

(4) Disposition of YOP.

(a) The applicant shall submit the YOP to the Department at least 90 days prior to the proposed commencement of application to allow completion of the comment and review period.

(b) The Department shall review the YOP to ensure that the YOP is consistent with the approved VMP. Any inconsistencies or deficiencies will be noted by the Department and returned with the YOP to the applicant.

(c) Where practical, the Department shall approve or deny the YOP within 90 days of receipt. The Department will provide notice of the decision to the applicant, municipal agencies and commentators in writing.

(d) The approved YOP in conjunction with the VMP shall govern the application of herbicide for a period not to exceed 12 months in accordance with other laws and regulations of the State and Federal governments and impose such conditions as necessary to minimize the risk of adverse effects on human health and the environment.

(5) Time for Action. Non-action by the Department on a YOP within the time specified in 333 CMR 11.06(4) does not constitute approval of the submitted plan. In the event that the Department fails to notify the applicant of a decision within the time specified and upon a written request from the applicant, the Commissioner must issue a finding within ten days of receipt stating the reason for the delay and providing an estimated completion date.

11.07: Public Notification

(1) At least 21 days in advance of application of herbicide to a right-of-way in any city or town, the applicant shall notify the Department, the board of health, and the local public water supplier and, by registered mail, the Mayor, City Manager or Chairman of the Board of Selectman, and the conservation commission in the municipality where the right-of-way lies. The notice shall include the following information: the approximate dates on which such herbicide application shall commence and conclude, provided however, that said application shall not commence more than ten days before nor conclude more than ten days after said approximate dates; the method and locations of application; a Department-approved Herbicide Fact Sheet on the active ingredient(s) of the herbicide(s) used; the EPA registration number(s) for the herbicide(s) used; the name, title, business address and phone number of the certified commercial applicator or licensed applicator, or the contractor, employer or employees responsible for carrying out the application. Where specific information required for this notice is already contained in the current YOP that is on file with the local official, the applicant may incorporate the appropriate pages of the YOP by reference in its notice to that official, indicating that these pages are also directly available from the applicant upon request.

(2) This public notice may run concurrently with the public notice and comment period in 333 CMR 11.06(3), provided that the notice is distributed at least 21 days prior to the herbicide application, and that, prior to the herbicide application, the public notice and comment period has closed and the Department has granted YOP approval without modifications. When the Department's final approval requires modifications or application dates are selected after YOP approval, separate notice under 333 CMR 11.07(1) is required.

(3) At least 48 hours prior to the application referred to in 333 CMR 11.07(1), the applicant must publish a conspicuous notice in at least one newspaper of general circulation in the city or town where the right-of-way lies. The notice must appear in the local section of the newspaper and measure at least four by five inches in size. The notice shall contain the following information: the method and locations of pesticide application; the approximate dates on which the pesticide application shall commence and conclude, provided that the applications shall not commence more than ten days before nor conclude ten days after said approximate dates; a list of potential pesticides to be used; a description of the purpose of the application; and the name, title, business address and phone number of a designated contact person representing the applicant from whom any citizen may request further information. The notice should apply only to the calendar year in which the notice is published. Upon request the notice must be made available to the Department.

11.08: Notice of Modification and Revocation

(1) The Department may suspend approval of any VMP or YOP, by written notice to the applicant and applicator, halting the application of herbicide to that right-of-way of the YOP. After 21 days if the applicant does not request a hearing, the Department may revoke or modify the VMP and YOP, if it finds:

(a) that the terms, conditions of restrictions thereof, are being violated or are inadequate to avoid unreasonable adverse effects on the environment or on human health; or

(b) that the applicant has made a false or misleading statement or has not provided information requested by the Department or Rights-of-way Advisory Panel; or

(c) that the applicant has violated any provision of the Massachusetts Pesticide Control Act or FIFRA, or any regulations, standards, orders or license issued under either.

(2) Upon notice of revocation or modification, the applicant may modify the YOP by written request to the Department. Applications to modify the YOP shall be submitted in the manner set forth in 333 CMR 11.06 and disposed of in the manner set forth in 333 CMR 11.06. The Department may waive all or part of the requirement if it determines that the proposed changes do not significantly change the terms of the approved YOP.

11.09: Right-of-appeal

Any person aggrieved by the decision of the Department to approve, deny, modify or revoke a VMP or YOP may request an adjudicatory hearing. The request for a hearing must be received by the Department within 21 calendar days after receipt of the decision. The request should state clearly and concisely the facts of the proceeding, the reasons the decision is alleged to be inconsistent with 333 CMR 11.00 and the relief sought by the adjudicatory hearing. The adjudicatory hearing before the Pesticide Board shall be conducted in accordance with the informal rules of adjudicatory proceeding as set forth in M.G.L. c. 30A.

11.10: Penalties

Any person who violates any provision of 333 CMR 11.00 shall be subject to the criminal and civil penalties set forth in M.G.L. c. 132B, § 14.

11.11: Rights-of-way Advisory Panel

(1) A Rights-of-way Advisory Panel shall be established to advise the Department on issues relating to 333 CMR 11.00 and to fulfill specific functions as detailed within 333 CMR 11.00.

(2) The Department shall request that the following members participate on the Rights-of-way Advisory Panel: the Commissioners/Secretaries or his/her designee of the Department of Environmental Protection, the Department of Public Health, and the Executive Office of Transportation; and a representative, respectively, from each of the following, all to be appointed by the Department Commissioner: the Massachusetts Association of Conservation Commissions, the Massachusetts Association of Health Boards, the Massachusetts Department of Conservation and Recreation, and an Environmental Advocacy Organization Representative, a member of the University of Massachusetts Extension who is well versed in weed science and Integrated Pest Management of weeds, a representative of the Massachusetts Railroad Association, a representative of a utility company and a commercial pesticide applicator.

(3) Non-agency representatives shall remain on the panel for a term of five years. Any member absent from two or more consecutive meetings may be removed from the Advisory Panel at the discretion of the Commissioner of the Department, and a replacement requested from the representative agency, industry group, or association.

(4) The Advisory Panel shall meet at least once each year, and shall hold further meetings upon the request of the Department of Agricultural Resources or at the request of any two members of the Advisory Panel.

(5) All Advisory Panel members shall serve without compensation.

REGULATORY AUTHORITY

333 CMR 11.00: M.G.L. c. 132B.

APPENDIX C

Rights of Way Sensitive Area Materials List

Products:

Active Ingredient Use Restrictions	**Product Names (EPA #)** Registrant	
Aminopyralid	**Milestone (62719-519)** (**Product Review**) **Opensight (62719-597)** (**Product Review**) Corteva Agriscience LLC	
Fosamine Ammonium Lowest Labeled Rate*	**Krenite S (42750-247)** Albaugh, Inc.	
Glyphosate Lowest Labeled Rate for all Glyphosate products	**Ranger Pro Herbicide (524-517)** **Round Up Pro (524-475)** Bayer Cropscience LP	**Glyphomax Plus (62719-322)** Corteva Agriscience LLC **Rodeo** Corteva Agriscience LLC
	Aquaneat Aquatic Herbicide (228-365) Nu Farm Americas	
	While Rodeo, and Aquaneat all have aquatic uses, approval for their use as sensitive materials does NOT mean that they can be used for aquatic weed control, or directly applied to water, as part of a rights of way management program. Products are subject to the no-spray and limited spray provisions of 333 CMR 11.04.	
Indaziflam	**Esplanade 200 SC (432-1516) (Product Review)** Bayer Environmental Sciences	

Metsulfuron Methyl Lowest Labeled Rate for all Metsulfuron Methyl Products*	**Escort XP (432-1549)** Bayer CropScience	**Patriot Selective Herbicide, (228-391)** Nu Farm Americas
Sulfometuron Methyl **Lowest Labeled Rate for all Sulfometuron-Methyl Products***	**Oust XP (432-1552)** Bayer CropScience	**Spyder Selective Herbicide (228-408)** Nu Farm Americas
Metsulfuron Methyl **Sulfometuron Methyl** Lowest Labeled Rate*	**Oust Extra (432-1557)** Bayer Environmental Science	
Imazapyr 3 pints/acre every 3rd year OR 2 pints/acre every other year for all Imazapyr Products	**Arsenal (241-346)** **Arsenal Powerline (241-431)**	**Polaris AC Complete Herbicide (228-570)** (**Product Review**) **Polaris Herbicide (228-534)** Nu Farm Americas
Triclopyr, Butoxy Ethyl Ester The lowest of the following rates: 1. Between 10 feet and 50 feet of the resource: Lowest labeled rate* or 0.5 pints per acre 2. Between 50 feet and the boundary of the limited spray zone: Lowest labeled rate* or 3 pints per acre	**Garlon 4 (62719-40)** Corteva Agriscience LLC **Garlon 4 Ultra (62719-527)** Corteva Agriscience LLC	
Paclobutrazol Lowest Labeled Rate*	**Cambistat (74779-3)** Rainbow Tree care	

* **Lowest labeled rate** the minimum labeled rate of the pesticide product for the appropriate site, pest and application method

Disclaimer

The Massachusetts Department of Agricultural Resources (MDAR) makes no endorsement of any companies, organizations, persons, products, trade or brand names referenced in this Rights of Way Sensitive Area Materials List ("the list"). Active Ingredients on the list are reviewed pursuant to a Cooperative Agreement between MDAR and the Massachusetts Department of Environmental Protection. Only environmental fate and toxicological data, including eco-toxicological data, are reviewed when evaluating an active ingredients suitability for inclusion on the list. Inclusion on the list does not represent any endorsement by MDAR as to the efficacy of the active ingredient for rights-of-way vegetation management.

APPENDIX D

Links to additional Information

333CMR 11.00
https://www.mass.gov/doc/333-cmr-11-rights-of-way-management/download.pdf.

Massachusetts Wetlands Protection Act
http://www.mass.gov/eea/docs/dep/service/regulations/310cmr10a.pdf

FAC -003-3
https://www.nerc.com/pa/Stand/Reliability%20Standards/FAC-003-3.pdf

Notification of Vegetation Management Activities on Transmission Rights of Way
https://www.mass.gov/doc/220-cmr-22-notification-of-vegetation-maintenance-activities-for-transmission-rights-of-way/download