

**NextEra Energy Transmission New York, Inc.**

**(NEETNY)**

**Empire State Line**

**Case 18-T-0499**

**Appendix E**

**Long-Range Right-of-Way Management Plan**

**July 2020**



LONG-RANGE RIGHT-OF-WAY  
MANAGEMENT PLAN FOR THE  
NEETNY ELECTRIC TRANSMISSION  
SYSTEM

September 8, 2020

## TABLE of CONTENTS

INTRODUCTION .....	1
I. DESCRIPTION OF NEXTERA ENERGY TRANSMISSION NEW YORK, INC.....	2
A. ROW Management Structure & Organization for Planning and Operations .....	2
B. Key Positions in Vegetation Management Program and General Functions.....	2
C. Description of NEETNY Transmission Right-of-Way System.....	4
1. System Location.....	4
2. Components of the Transmission System.....	4
3. Right-of-Way Width .....	4
4. Right-of-Way Acreage.....	5
D. Transmission Right-of-Way Ownership.....	5
1. Vegetation Management Restrictions .....	5
2. Work Notification Procedures .....	6
II. RIGHT-OF-WAY MANAGEMENT POLICIES AND PRACTICES .....	7
A. Past Practices and Policies .....	7
B. Practices and Policies.....	7
C. Wire Zone I Border Zone Concept of Integrated Vegetation Management .....	8
III. GOALS OF THE RIGHT-OF-WAY MANAGEMENT PLAN .....	9
A. Maintain the Transmission System Free from Tree-Caused Interruptions.....	9
B. Minimize Long-Term Vegetation Management Costs by Encouraging the Development of Naturally Occurring, Relatively Stable, Low-Growing Plant Communities That Are Capable of Effectively Inhibiting Invasion by Tall- Growing, Undesirable Trees, Thereby Reducing the Density of Undesirable Tall- Growing Species Over Time .....	9
C. Maintain The Rights-of-Way in A Manner That Does Not Compromise the Quality of the Environment .....	9

- D. Manage The Rights-of-Way in Harmony with Existing Land Uses .....9
- E. Minimize Long-Term Vegetation Management Costs.....9
- F. Minimize Herbicide Use .....9
- IV. TRANSMISSION RIGHT-OF-WAY VEGETATION MANAGEMENT PROCEDURES .....10
  - A. Implementation of the Wire Zone / Border Zone Method .....10
    - 1. The Wire Zone .....10
    - 2. The Border Zone .....11
    - 3. Undesirable Tall Growing Species .....11
    - 4. Woody Shrubs .....12
  - B. Selection of Vegetation Management Techniques .....13
  - C. Definition of Vegetation Densities .....14
  - D. Description of Vegetation Management Techniques and Conditions of Use.14
    - 1. Conventional Stem Foliar Technique .....15
    - 2. Low Volume Foliar Technique .....16
    - 3. Basal Technique .....17
    - 4. Cutting and Stump Treatment Technique .....18
    - 5. Cutting/Trimming Technique (with no herbicide treatment).....19
    - 6. Mechanical Mowing Technique .....20
  - E. Danger Tree Program .....21
    - 1. Danger Tree Identification .....21
    - 2. Danger Tree Removal .....22
    - 3. Budgeting for Danger Tree Removal .....23
- V. PLANNING THE ANNUAL VEGETATION MANAGEMENT PROGRAM.....24
  - A. Maintenance Cycle and Relationship to Goals .....24
  - B. Determination of Rights-of-Way to Be Treated .....24
    - 1. Right-of-Way Treatment Determinations Based on Electrical Clearance Criteria .....24
  - C. Line Patrols.....25

1.	Annual Patrols .....	26
2.	Emergency Patrols .....	26
D.	Detailed Right-of-Way Inventory and Management Criteria.....	26
1.	Work Prescriptions .....	27
2.	Prescription Types and Identification .....	27
3.	Quantity of Work.....	27
4.	Prescriptions Work Types.....	27
5.	Site Location .....	27
E.	Budget Development .....	27
F.	Program Review .....	27
VI.	IMPLEMENTING THE ANNUAL VEGETATION MANAGEMENT PROGRAM.....	28
A.	Selection of a Contractor .....	28
B.	Program Monitoring .....	28
1.	Scheduling .....	28
2.	Specific Instructions .....	28
3.	Work Reports .....	28
4.	Monitoring of Work in Progress.....	29
5.	Landowner Inquiries and Concerns .....	29
C.	Quality Control and Guarantee .....	29
1.	Completion.....	29
2.	Guarantee.....	29
D.	Record Development .....	29
VII.	REGULATORY REQUIREMENTS.....	31
A.	U.S. Environmental Protection Agency .....	31
B.	New York State Department of Environmental Conservation.....	31
1.	Bureau of Pesticide Management .....	31
2.	Bureau of Lands and Forests.....	31
C.	New York State Public Service Commission .....	32

- D. New York Independent System Operator (NYISO) .....33
- E. North American Electric Reliability Corporation (NERC).....33
- F. Other Regulatory Contacts .....33
- VIII. GENERAL BUDGETING REQUIREMENTS.....34
- IX. PLANEVALUATION, REVIEW AND UPDATING .....35
  - A. Evaluation .....35
    - 1. Maintain the Transmission System Free from Tree-Caused Interruptions: 35
    - 2. Minimize Long-Term Vegetation Management Costs by Encouraging the Development of Naturally Occurring, Relatively Stable, Low-Growing Plant Communities That Are Capable of Effectively Inhibiting Invasion By Tall- Growing, Incompatible Trees, Thereby Reducing the Density of Undesirable Tall-Growing Species Over Time.....35
    - 3. Maintain The Rights-of-Way in A Manner That Does Not Compromise the Quality of the Environment .....35
    - 4. Manage The Rights-of-Way in Harmony with Existing Land Uses .....36
    - 5. Minimize Long-Term Vegetation Management Costs.....36
    - 6. Minimize Herbicide Use .....36
  - B. Review and Updating.....36

APPENDIX A	Map of the NEETNY Service Area & Transmission System
APPENDIX B	Component Lines of the NEETNY Transmission System
APPENDIX C	Detailed Specifications for Transmission Right-of-Way Vegetation Maintenance
APPENDIX D	ROW Maintenance Worker Training and Protection of Sensitive Areas
APPENDIX E	NEETNY Right-of-Way Inventory and Treatment Form
APPENDIX F	NERC Vegetation Management Standard FAC-003-4
APPENDIX G	Line Patrol Reports & Interruption Report
APPENDIX H	NPCC Regional Reliability Plan (Section 9.1, Vegetation Related Outages)
APPENDIX I	Large Tree List
APPENDIX J	Small Tree List
APPENDIX K	Herbicide Treatment Form
APPENDIX L	Vegetation Outage Report
APPENDIX M	Company Contact List for Notifications

## INTRODUCTION

This Long Range Right-of-Way Management Plan for the NextEra Energy Transmission New York, Inc. (NEETNY) Electric Transmission System (Plan) is organized to meet the specific requirements of the New York Codes, Rules and Regulations, Title 16, Chapter I, Subchapter F, Part 84 requiring the development of a long-range right-of-way (ROW) management plan for electric transmission systems. In accordance with these requirements, the Plan is intended to be a working guide for NEETNY personnel who work on various aspects of the transmission vegetation management program. It sets forth the basic procedures and practices that NEETNY uses in planning, implementing, and controlling its ROW vegetation management program on approximately 20 miles of transmission line ROWs in New York.

The intention of the Plan remains that it be long-range in nature. However, changes and revisions will be made as necessary.



## I. DESCRIPTION OF NEXTERA ENERGY TRANSMISSION NEW YORK, INC.

### A. ROW Management Structure and Organization for Planning and Operations

The management structure for NEETNY's ROW vegetation management program is shown on the organization chart on the following page. Overall vegetation management responsibilities reside in the Power Delivery Business Unit. Personnel in this department establish the Company-wide policies, procedures, techniques and coordination for the program. It also provides most of the operational implementation of the program, with the vegetation specialist providing guidance and oversight.

### B. Key Positions in the Vegetation Management Program and General Functions

Responsible for general administration and coordination of the program, including procedures and techniques to implement the program.

Manager of Field Operations – Responsible for budget oversight and reviewing contract services.

Manager of Vegetation Management - Responsible for general administration and coordination of the program

Leader of Vegetation Management Operations –

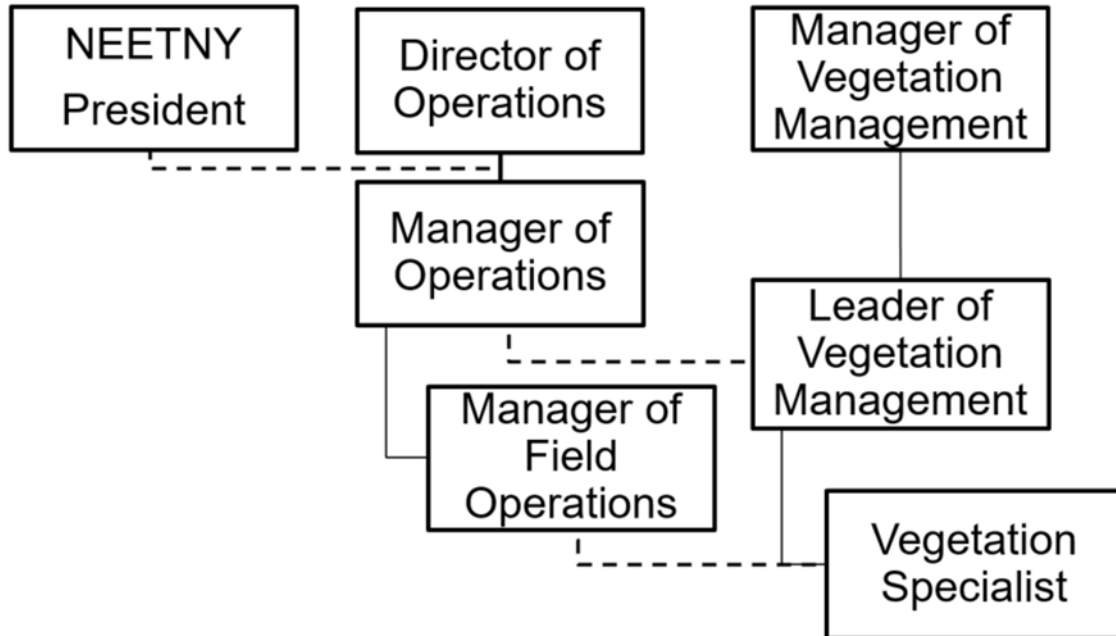
- Responsible for general administration and coordination of the program, including procedures and techniques to implement the vegetation program.
- Supervises the vegetation specialist to assure that the vegetation management program is implemented effectively and prudently. Responsible for addressing customer issues to minimize Public Service Commission (PSC) complaints and improve customer satisfaction.
- Responsible for verification that quality assurance/quality control activities are implemented comprehensively and in a consistent manner to ensure that regulatory requirements are fully complied with.

Vegetation Specialist –

- Develops specifications, standards, work procedures, and materials for program utilization.

- Conducts annual inspections, quality assurance audits across the transmission system.
- Performs planning, initiates work, contract crew oversight and customer conflict resolution.

**Vegetation Management Staff**



C. Description of NEETNY Transmission Right-of-Way System

1. System Location

The NEETNY transmission system within New York State is comprised of an approximately 20-mile 345-kilovolt (kV) voltage transmission line, and is shown on the NEETNY Transmission System Map in Appendix A. This map also includes transmission facilities of other utilities in New York.

2. Components of the Transmission System

Transmission Pole Line Mileage	
Voltage	Total Mileage
345 kV	20

3. Right-of-Way Width

Widths of ROWs generally vary according to the voltage and type of supporting structure. A range of widths is given to account for variations in the types of supporting structures (e.g., single pole v. H-frame).

Typical Transmission ROW Widths

<u>Voltage</u>	<u>ROW width</u>
345 kV	100 feet to 205 feet

Although the ROW widths usually fall within the ranges listed above at the stated voltages, there are situations in which the ROW width will vary on a given line segment. For example, the ROW width may be greater than normal for clearance when a span is extra-long. Conversely, the ROW width could be less than normal where the line is routed through a sensitive area requiring special construction design and ROW clearing. These locations must also receive special consideration for ROW management.

4. Right-of-Way Acreage

<b>County</b>	<b>Total ROW/Easement Acreage</b>	<b>Wooded ROW/Easement Acreage</b>
<b>Niagara County</b>	70.18	1.68
<b>Erie County</b>	310.84	28.21

D. Transmission Right-of-Way Ownership

NEETNY will acquire property rights to erect, operate, and maintain its transmission system through the acquisition of easements from the property owners. These easements leave the ownership of the land in the hands of the owner, so that they can continue to use the land, subject to certain restrictions that ensure the owner’s and the public’s safety, while also permitting the operation and maintenance of the NEETNY transmission facility. NEETNY’s rights include, among others, the right to initially clear vegetation from the ROW to facilitate construction, and to subsequently perform operations that will control vegetation to provide for the safe and reliable operation of the transmission line.

In the event easements are not acquired, ROWs may be owned in fee by NEETNY or, in the case of ROWs across public lands, rights are secured by way of permits. These permits generally provide NEETNY the same rights as those in an easement; however, there are sometimes special conditions that may include an annual fee paid to the entity issuing the permit.

1. Vegetation Management Restrictions

Any landowner or land user restrictions that may impact ROW vegetation management are incorporated at the time of initial ROW conveyance into the legal document and/or agreement, which grants NEETNY the right to erect, operate, and maintain its facilities. These restrictions are incorporated into all work specifications to assure compliance. Landowner or land user requests to NEETNY for modification of vegetation management practices are analyzed and considered. The analysis considers such factors as the economics, environmental impact, safety, operational feasibility, and practicality of the request.

2. Work Notification Procedures

NEETNY, at a minimum, performs contacts to notify the landowner of planned vegetation management operations in the following situations:

- When easement restrictions require prior notification;
- When the work effort involves lands that are off the ROW either for access or for tree removals; and
- When State law requires notification pursuant to herbicide applications.

## II. RIGHT-OF-WAY MANAGEMENT POLICIES AND PRACTICES

### A. Past Practices and Policies

NEETNY's affiliates have the experience and a long history of vegetation management on transmission ROWs across the United States and Canada using integrated vegetation management practices to manage vegetation to control compatible and non-compatible vegetation in a cost effective and safe manner. The same experience and practices that have been used to meet the varying regulations and guidelines required in other states will be utilized to ensure NEETNY meets the goals of managing ROWs free from interruptions caused by vegetation.

### B. Practices and Policies

The primary goal of the NEETNY ROW management program is to maintain the transmission system essentially free from interruptions caused by trees falling on or growing into the conductors. There are numerous methods and materials available to the leader of vegetation management operations that can be used to accomplish this objective. It is NEETNY's policy to accomplish this objective while minimizing long-term vegetation management costs and maintaining the environmental quality of the area through management practices that are in harmony with existing land uses. NEETNY employs a vegetation management staff of professionals trained in the biological sciences whose job it is to implement this policy on the transmission system. Implementation is carried out through a prescription process whereby a treatment method is selected on a site-by-site basis that will maintain the reliability of the facility at the lowest long-term cost in a manner that is compatible with both on-site and adjacent land uses.

Methods available for maintaining the reliability of the system can be generally categorized as chemical and non-chemical. NEETNY realizes through experience that long-term vegetation management costs are minimized through a program that employs chemical methods of control. This is due to the previously described ability of herbicides to root-kill undesirable vegetation, as opposed to mechanical non-chemical methods, which only temporarily retard growth, and often encourage regrowth at an accelerated rate. Selective vegetation management practices protect and encourage shrub and herbaceous plant communities that are aesthetically pleasing and provide food and cover for many wildlife species.

NEETNY's use of herbicides in an environmentally compatible manner begins with the selection of herbicides to be used as part of the program. Only products that are registered and labeled for use on ROWs by the U.S. Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC) are used as part of the program. The NEETNY vegetation department monitors the scientific

literature and attends workshops and seminars focusing on herbicides and vegetation management to stay current on information concerning these materials.

When a mechanical or chemical technique is selected during inspection for use by NEETNY, the specifications are developed for safe and effective management on the ROWs. For chemical methods, the specifications always follow the product label and any state or federal environmental guidelines. Procedures for handling and application are designed to protect applicators, the public, desirable vegetation, and such areas as croplands, waterways, residential and recreational areas that may be sensitive to herbicide exposure. The specifications for ROW maintenance define the management tools that are available to the leader of vegetation management operations. The leader of vegetation management operations makes the final decision on which technique to employ – chemical or mechanical – based on site conditions on and adjacent to the ROW. It is the vegetation specialist's job to recommend vegetation management techniques and monitor the work, ensuring that it is completed satisfactorily in accordance with NEETNY specifications, in accordance with appropriate federal and State regulations, and in a manner satisfying the goals of the vegetation management plan. All herbicide applications on the NEETNY transmission system are performed under the on-site supervision of a New York State Certified Pesticide Applicator. (See Appendix D, ROW Maintenance Worker Training and Protection of Sensitive Areas.) NEETNY specifications for vegetation management of the transmission ROW system are included in Appendix C.

#### C. Wire Zone I Border Zone Concept of Integrated Vegetation Management

The wire security zone is a space around the conductor into which vegetation is not allowed to grow. The desirable species list for the wire zone consists of species whose mature height prevents them from growing into the wire security zone. The species list for the outer edges of the ROW, (a.k.a., the border zone), consists of taller species that cannot fall into the wire security zone.

Management of the center portion of the ROW (the wire zone) that utilizes a lower-height species list than the outer portion of the ROW (the border zone) is referred to as the wire zone/border zone concept. This concept has been successfully implemented in other states, and was recommended as a best management practice in the Federal Energy Regulatory Commission (FERC) report that was issued after the August 14, 2003, blackout.

The NEETNY voltage-specific wire security zones and the implementation of the wire zone/border zone concept are described in Section IV of this Plan.

### III. GOALS OF THE RIGHT-OF-WAY MANAGEMENT PLAN

#### A. Maintain the Transmission System Free from Tree-Caused Interruptions

Vegetation shall be managed so that it is not a limiting factor in the continuous operation of the transmission system. This is to be accomplished by carrying out a regular maintenance and patrol routine that will identify and correct vegetation conditions that could potentially lead to line interruptions.

#### B. Minimize Long-Term Vegetation Management Costs by Encouraging the Development of Naturally Occurring, Relatively Stable, Low-Growing Plant Communities That are Capable of Effectively Inhibiting Invasion by Tall-Growing, Undesirable Trees, Thereby Reducing the Density of Undesirable Tall-Growing Species Over Time

Site-specific prescriptions for attaining system reliability will be done in a manner that retains as much low-growing desirable vegetation as is physically and economically practical while removing undesirable tall-growing vegetation.

#### C. Maintain Rights-of-Way in a Manner That Does Not Compromise the Quality of the Environment

NEETNY ROW management practices will be implemented in such a way that appropriate measures are taken to minimize adverse impacts on the environment.

#### D. Manage Rights-of-Way in Harmony with Existing Land Uses

The vegetation management program will recognize and permit multiple uses of ROWs that are compatible with the reliable and safe operation of the transmission facilities.

#### E. Minimize Long-Term Vegetation Management Costs

Costs will be minimized by selecting the most economical, site-specific vegetation management techniques that will meet all other goals.

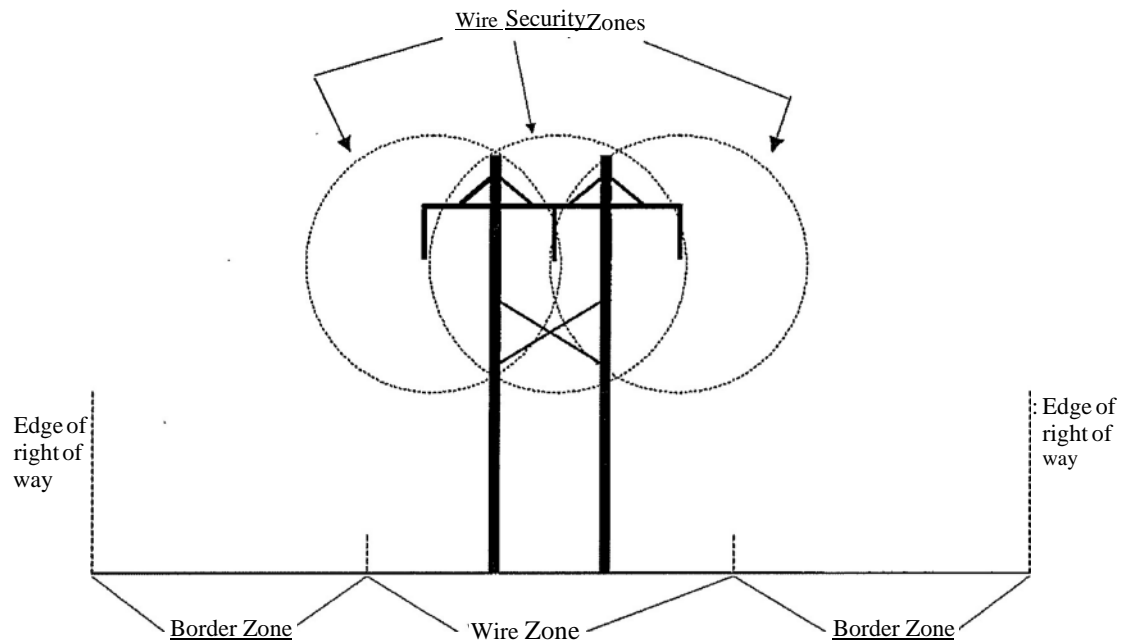
#### F. Minimize Herbicide Use

Overall herbicide use will be minimized by prescribing herbicides and methods of application that will effectively control undesirable species, maximizing retention of desirable species and also minimizing herbicide usage during future treatments.



#### IV. TRANSMISSION RIGHT-OF-WAY VEGETATION MANAGEMENT PROCEDURES

It is the responsibility of the NEETNY vegetation management staff to design and implement a program to accomplish the previously identified goals utilizing the methods and techniques described in this Plan.



##### A. Implementation of the Wire Zone/Border Zone Method

As previously described, this method consists of managing the ROW as two distinct zones. The center portion of the ROW or wire zone is defined as the floor of the ROW under the conductors, plus an additional 10 feet horizontally on either side. The border zone is the outer portion of the ROW floor, extending from the outside edge of the wire zone to the edge of the specified ROW clearing width.

##### 1. The Wire Zone

The wire zone will be managed to retain herbaceous vegetation and woody species that will not grow into the wire security zone. The wire security zone shall be defined as the clearance achieved at the time of vegetation management. The wire security zone clearances vary by voltage.

The NEETNY wire security zone clearance is as follows:

- 25 feet for 345 kV

Generally, the woody species that will be retained in the wire zone are those found on the list of woody shrubs (Item 5 of this section). Due to the variation in ground clearance for individual transmission lines, it may be necessary to remove certain species that appear on the list of woody shrubs, where the mature height of an individual specie would intrude into the wire security zone.

The wire zone will also be managed to provide for visibility and ease of movement within the wire zone as necessary. Desirable vegetation within the wire zone will not be allowed to form a solid contiguous barrier that prevents a visual inspection either across or along the ROW to allow for identification of escaped undesirable stems under the conductors. Openings for ease of movement are necessary so that vegetation management workers can reach undesirable stems for treatment. The goal will be to keep up to 30% of the wire zone open or free of woody vegetation that matures at over 5 feet in height.

Locations where wire security zone clearances cannot be achieved at the time of vegetation maintenance will be inspected and treated as necessary to achieve sufficient clearance for protection of the facility.

## 2. The Border Zone

The border zone, or the floor of the ROW extending from a point 10 feet outside the outside conductor to the edge of the cleared ROW, will be managed to retain herbaceous vegetation and all species found on both the list of woody shrubs (Item 5 of this section) and the list of tall shrubs and small trees (Item 4 of this section).

## 3. Undesirable Tall Growing Species

The following is a list of tall growing tree species that are considered undesirable in most ROW situations and should be removed from the ROW floor wherever practicable, to the extent permitted by landowner constraints and easement conditions. The primary objective of the Transmission ROW Management Program is to effectively remove and control the regrowth and reinvasion of these species.

<b>Undesirable Tall Growing Species</b>		
Ash	Black Locust	Maple
Mountain Ash	Black Walnut	Oak
Balsam Fir	Butternut	Pine
Basswood	Catalpa	Poplar/Aspen
Beech	Cedar	Red Mulberry
Birch	Chestnut	Sassafras
Black Cherry	Cucumber Tree	Spruce
Choke Cherry	Elm	Tamarack/Larch
Domestic Cherry	Hemlock	Tree-of-Heaven
Pin/Fire Cherry Black	Hickory	Tulip/Yellow Poplar
Gum/Tupelo	Hophornbeam	Willow

#### 4. Tall Shrubs and Small Trees

The following is a list of tall shrubs and small trees that may be compatible in the border of the right-of-way. They should be removed from wire zone areas except where the mature height would not invade the wire security zone, or where local site conditions do not warrant removal. Any plant on the right-of-way that invades the wire security zone may be removed. These smaller tree species may be retained in buffer areas and other sensitive sites.

<b>Tall Shrubs and Small Tree Species</b>	
Apple	Pear
Buckthorn	Shadbush/Serviceberry
Alternate Leaf Dogwood	Shrub Willow
Flowering Dogwood	Speckled Alder
American Hornbeam	Staghorn Sumac
Smooth Sumac	Winged Sumac
Shrub Willow	Russian Olive
Hawthorne	Witch Hazel
Mountain Maple	Hercules Club
Shrub Oak	Nannyberry
Autumn Olive	Striped Maple

#### 5. Woody Shrubs

The following is a list of shrub species commonly observed on ROWs across the service territory. While they are nearly always compatible in the border zone, in the wire zone several may grow

tall enough to enter the wire security zone. Any plant that enters the wire security zone will be removed.

The conductor-to-ground clearances, the wire security zone requirements, and the mature height for each species will be key factors in determining which shrubs may be retained in the wire zone. For example, a bulk transmission line, with mid-span conductor-to-ground clearances of 38 feet and a wire security zone of 25 feet can have shrubs with a mature height of up to 13 feet in that site. Shrubs that have invaded the wire security zone will be targeted for removal. As shrub densities in the wire zone exceed 70%, by span, taller growing shrubs may be targeted for removal in an effort to maintain visibility and ease of movement and access in the wire zone.

<b>Woody Shrub Species</b>		
Barberry	Huckleberry	Sweetfern
Black Chokeberry	Honeysuckle	Arrowwood Viburnum
Red Chokeberry	Mountain Holly	Highbush Cranberry
Blueberry	Mountain Laurel	Mapleleaf Viburnum
Button Bush	New Jersey Tea	Witherod
Dewberry	Privet	Hobblebush
Red Osier Dogwood	Gooseberry	Winterberry Holly
Grey Dogwood	Multiflora Rose	American Yew
Silky Dogwood	Rubus spp.	Spicebush
Elderberry	Privet	Spirea
American Hazelnut	Azalea	Juniper
Beaked Hazelnut	Grape	Bittersweet

Note that some of the species on these lists can be classified as either exotic or invasive - particularly autumn and Russian olive. In addition, some of these species are noxious plants - particularly multiflora rose and poison sumac. In some situations, management objectives within and adjacent to the ROW may warrant the removal or reduction of these species. Future discussions with State and federal agencies to address invasive and exotic species on a landscape scale may require modifications of the current treatments for some species.

**B. Selection of Vegetation Management Techniques**

When selecting a technique, many factors are evaluated and their relative importance considered. These factors include:

- Height, density, and composition of undesirable vegetation;

- Susceptibility of undesirable vegetation to treatment techniques; and
- Density and composition of desirable vegetation.

Specific site conditions such as:

- Land use;
- Presence of water bodies;
- Presence of sensitive crops;
- Accessibility;
- Visual Sensitivity;
- Soil Sensitivity;
- Relative costs of using various techniques on the specific site;
- Past management activities;
- Conditions subject to governmental regulation; and
- Easement restrictions.

C. Definition of Vegetation Densities

The density of desirable and undesirable vegetation on the ROW is a very important factor when selecting a management technique. The following density classes, determined by a visual estimate, are used to describe woody vegetation:

<b>Class</b>	<b>Percent Ground Cover</b>
Very Light	Less than 100 stems/acre
Light	Up to 30% (100 to 1,000 stems/acre)
Medium	30% to 60% (1,000 to 2,000 stems/acre)
Heavy	> 60% (more than 2,000 stems/acre)

D. Description of Vegetation Management Techniques and Conditions of Use

Each technique currently used is described below, along with the ROW conditions for which that technique will typically be prescribed. The vegetation specialist uses their professional judgment to assess the site conditions and select one of these techniques.

Herbicide formulations that are utilized with the various techniques are included in the specification provided in Appendix C.

## 1. Conventional Stem Foliar Technique

Using this technique, the entire stem and foliage of the target plant is thoroughly wetted to the point of run-off. The spray formulation is normally made up of a systemic herbicide in a water carrier. The herbicide enters the target plant primarily through absorption and translocates throughout the plant. Stem foliar sprays are applied during the growing season, after full leaf development and before dormancy begins. Stem foliar spraying that employs the proper herbicide formulation can be very effective in obtaining root kill, especially of root suckering species.

Stem foliar sprays are normally applied with hydraulic sprayers, equipped with 200- to 500-gallon tanks and two spray guns attached to hoses that are at least 100 feet long. Sprayers are mounted on four-wheel drive or on all-terrain vehicles. Water is supplied to the spray vehicle with a 500- to 1,000-gallon supply truck. The supply truck is not used for mixing or for transporting chemicals, which ensures that sources of water used for spray operations will not be contaminated with herbicide. Stem foliar spray volumes normally range between 75 and 150 gallons of formula per acre. Over-spray is minimized by spraying at the lowest effective pressure from a distance no more than 10 feet from the target plant, by limiting applications to sites where that average height of undesirables is 15 feet or less, and by adding a drift control agent to the spray formulation. Some foliar spray formulations have the advantage of being selective in that they do not kill narrow-leaf herbaceous plants. The method is an efficient, economical technique for treating dense concentrations of undesirable vegetation. The stem foliar technique is utilized where brown-out of the vegetation is not a concern, and where:

- Densities of undesirable species are medium to heavy.
- Densities of undesirable species are light to medium, while desirable specie densities are scattered to light. This will result in smaller quantities of desirable vegetation being affected when utilizing the conventional stem-foliar technique.
- Undesirable species are primarily root-suckering types, which are most effectively controlled by foliar-applied techniques.

In addition, the following sites are not treated with the conventional stem foliar technique:

- Within 25 feet of any stream or water body, or within 100 feet of a regulated wetland without a permit as applicable, or where specifically instructed by the vegetation specialist.

- Within 100 feet of a potable water supply.
- Within any orchard, nursery, or crop planting.
- Within 10 feet of a fence that encloses an active pasture.
- Within any area restricted by the herbicide label.
- Any other special site identified by the vegetation specialist.

## 2. Low Volume Foliar Technique

Using this technique, a concentrated waterborne herbicide formulation is applied in a uniform pattern to the top and leads on all sides of the target plant. Coverage must be uniform so that most leaves are treated but not to the point of run-off. The herbicide enters the tree through the foliage and translocates throughout the plant. Low volume foliar sprays are applied during the growing season, after full leaf development and before dormancy begins.

Low volume foliar sprays are applied with a pump-up backpack sprayer or with a motorized backpack sprayer. Sprayers are equipped with at least two types of nozzles for treatment of trees of different heights. Low volume foliar spray volumes normally range between 5 and 10 gallons of formulation per acre.

Because of the low volume of spray that is applied, and the low pressure provided by the backpack sprayer, this method can be very selective. This technique requires a less precise application than selective basal sprays, allowing for greater production while at the same time giving the applicator the ability to be selective. This technique is an ideal method for treating undesirable vegetation up to 8 feet in height that is light to medium in density. Occasionally the technique is also used on taller target plants up to 12 feet in height, so long as the applicator is prudent in avoiding over spray. The low volume stem foliar technique is utilized where brown-out of vegetation is not a concern.

In addition, the following sites will not be treated with the low volume stem foliar technique:

- Within 15 feet of any stream or water body, or within 100 feet of a regulated wetland without a permit as applicable, or where specifically instructed by the vegetation specialist.
- Within 100 feet of a potable water supply.
- Within any orchard, nursery, or crop planting.
- Within active pastures unless the herbicide label specifically allows for this, and the property owner or farm operator

approves of the application.

- Within any area restricted by the herbicide label.
- Any other special site identified by the vegetation specialist.

### 3. Basal Technique

Using this technique, the lower 12 to 18 inches of the stem of each target plant is thoroughly wetted with an oil-borne herbicide formulation. The purpose of the oil carrier is to facilitate bark penetration to carry the herbicide into the tree's system. To be effective, it is imperative that the treatment completely encircle the stem, and wet the root crown area and all exposed roots. Basal spraying is effective when applied at any time of the year, as long as snow or ice do not prevent spraying to the ground line. Since only the bottom 12 to 18 inches of each stem is treated and coarse sprays are used, this technique can be very selective with little chance of drift. The technique can also be very effective in achieving root-kill, except for several species that commonly root sucker after being top-killed. When performed during the dormant season, brown-out can be greatly reduced.

Hand-powered backpack sprayers are used to apply the formulations. In either case a wand or extension is attached to the spray gun, delivering the spray pattern directly to the target area and minimizing the size of the spray pattern. Historically, basal spraying has been more expensive than stem foliar spraying due to more intense labor requirements.

The selective basal spray technique is utilized where:

- Densities of the undesirable species are light.
- Densities of the undesirable species are light to medium, while the desirable densities are either light to medium or medium to heavy.
- Brown-out of the vegetation that would result from selective foliar sprays would be objectionable.
- The ROW agreement restricts the use of foliar techniques.
- Target vegetation is in a pasture and must be treated during the dormant season when livestock is not present.
- The site to be treated is inaccessible during the growing season due to the presence of crops and must be treated during the dormant season.



- The target vegetation is located in a hedgerow or other area that is too close to sensitive crops to utilize a foliar technique.
- Vegetation densities meet the criteria for foliar techniques; however, the average height of the undesirable species is greater than 15 feet.

In addition, the following sites will not be treated with the selective basal technique:

- Within 15 feet of any stream or water body, or within 100 feet of a regulated wetland without a permit as applicable, or where specifically instructed by the vegetation specialist.
- Within 100 feet of a potable water supply.
- Within any orchard, nursery, or crop planting.
- Within active pastures.
- Within any area restricted by the herbicide label.
- Any other special site identified by the vegetation specialist.

#### 4. Cutting and Stump Treatment Technique

Using this technique, individual stems are cut, and the resulting stumps and root collars are treated with an herbicide to prevent re-sprouting. Cutting is usually performed with a chainsaw or a brush saw. An oil-borne herbicide is applied to wet the outer perimeter of the stump, the bark, and all exposed roots. Water borne formulations are applied only to the cambium of the cut surface. The application equipment for oil borne formulations is the same as for the basal technique, described in the previous section. For water borne applications, a hand-held squirt bottle is used.

Stump treatment prevents the emergence of dormant buds from the stump and the root collar; however, stump treatment does not normally prevent root-suckering species from sprouting from dormant buds located along the root system.

Vegetation that is cut using this technique is disposed of using several methods, depending on the sensitivity of the site. The following methods are listed in order of increasing cost:

- Lop and Scatter - Vegetation is felled and cut up so that it is in close contact with the ground. Access roads or a swath under the conductors is kept free of such cut vegetation to ensure access is not hindered.
- Windrow - Vegetation is cut and piled away from structures and outside of the access road.

- Chipping - Vegetation is cut and then reduced to chips with a brush chipper. Chips are normally left on-site.
- Off-Site Disposal - Vegetation is completely removed from the site, although in some cases it may be moved to another site on the ROW.

Due to the additional labor required for cutting the vegetation, this technique is more costly than the basal technique. The cutting and stump treatment technique is utilized where:

- Standing dead stems would be objectionable due to aesthetic concerns.
- Clearance concerns exist where cutting is required to address the concern (i.e., the retention of tall treated stems that result from using one of the other methods would not leave adequate clearance).
- The ROW agreement requires that cut vegetation is to be removed.
- The presence of foliage that is potentially toxic to livestock requires that the vegetation either be cut during the dormant season, or cut and removed during the growing season.
- Vegetation to be removed is too tall to foliar spray (greater than 15 feet) and density is too high for cost effective basal spraying.

In addition, the following sites will not use the cutting and stump treatment technique:

- Within 5 feet of any stream or water body, or within 100 feet of a regulated wetland without a permit as applicable, or where specifically instructed by the vegetation specialist.
- Within 100 feet of a potable water supply.
- Within any orchard, nursery, or crop planting.
- Within active pastures unless the herbicide label specifically allows for this, and the property owner or farm operator approves of the application.
- Within any area restricted by the herbicide label.
- Any other special site identified by the vegetation specialist.

##### 5. Cutting/Trimming Technique (with no herbicide treatment)

Using this technique, undesirable vegetation is either cut down or partially removed by trimming those portions of the tree that are capable of reaching the wire security zone. Trimming is normally

performed by using the drop-crotch or natural trimming technique, meaning the limbs to be removed are cut back to the next lateral limb. Trimming is performed by the tree workers either manually climbing the tree, or with the assistance of aerial lifts.

Cut vegetation is disposed of in the same manner as the cutting and stump treatment technique, described in the previous section. Cutting and trimming are labor intensive techniques, and to control regrowth, they must be repeated on shorter rotations than techniques using herbicides. Hence this technique is less cost effective than techniques employing herbicides.

The cutting/trimming technique is utilized where:

- The target vegetation is located in a sensitive area such as residential lawn, park, etc.
- The ROW agreement restricts the use of herbicides.
- NEETNY specifications restrict the use of herbicides.
- A buffer zone is needed to screen the facility in a visually sensitive area.
- Side encroachment exists on a site where the ROW agreement will not allow for the total removal of the targeted vegetation.

#### 6. Mechanical Mowing Technique

Using this technique, the vegetation is cut with a large mowing machine attached to an all-terrain vehicle. The cutting swath is normally about 8 feet wide, making the technique relatively non-selective. Where the terrain allows for the use of this equipment, mechanical mowing is more cost-effective than hand cutting. If herbicides are not used in conjunction with mechanical mowing, the resulting regrowth will necessitate a short rotation, increasing the cost of using this technique compared to using other techniques that employ herbicides.

Mechanical mowing is utilized where:

- The terrain is accessible to mowing equipment, the use of herbicides is restricted, and the acreage is large enough to make the use of a mowing machine economically feasible.
- The density of the target vegetation meets the same criteria as the conventional stem foliar technique; however, the average height of the target vegetation is over 15 feet. Under these conditions, mechanical mowing would be followed up where possible either by a stem foliar application after resprouting

has occurred, or by using a mower that also applies herbicide to the cut surface of the mowed stubble.

#### E. Danger Tree Program

*In its “Order Requiring Enhanced Transmission Right-of-Way Management Practices by Electric Utilities” issued by the Public Service Commission on June 20, 2005 in Case 04-E-0822, the Commission has defined a “danger tree” as any tree rooted outside of the ROW that due to its proximity and physical condition (i.e., mortality, lean, decay, cracks, weak branching, root lifting, or other instability), poses a particular danger to a conductor or other key component of a transmission line. Danger trees falling into the lines present the greatest risk of tree-caused outages on transmission circuits. The risk is related primarily to two non-biotic variables: distance from conductor to the danger tree with consideration of landscape position and topographic features; and (2) conductor distance above the ground and three biotic variables: height of tree, tree species, and tree condition.*

*Prior to construction in a given area, danger trees will be marked in the field by the Project forester and will be reviewed and approved by DPS field Staff. Danger trees will be removed when such trees are observed to exhibit physical damage from storms or lightning strikes, conditions of disease, excessive lean, or other conditions which may cause a tree to fall and thereby have a reasonable risk of contacting a conductor. During the operation phase of a Project, NEETNY will continue to assess and remove danger trees as needed in accordance with applicable policy and the Long-Range Right-of-Way Management Plan in place at the time of work.*

##### 1. Danger Tree Identification

Individual danger trees are difficult to identify. Often trees that fall into the ROW that strike the conductors exhibit no outward characteristics that would have identified them as a danger tree ahead of time. In other instances, a large tree located far outside the ROW (10 or more feet) will fall and start a chain reaction that results in an otherwise sound or healthy tree along the edge to be pushed into the conductors.

The danger tree program starts at the time a line is built by clearing a ROW to a standard width that provides reasonable protection. The wider the ROW is initially cleared, the lower the probability that a tree falling into the ROW will hit the conductors.

The transmission line is inspected for danger trees annually. The number of inspections is prioritized by voltage, with the bulk and critical lines

receiving the most inspections. Details of the inspection schedule are listed below in the ROW inspection schedule.

**RIGHT OF WAY INSPECTION SCHEDULE**

Voltage Class	Aerial Flyover (Late Summer)	Ground Patrol (Spring)
Bulk Lines: 345 kV	1 per year	1 per year

2. Danger Tree Removal

By definition, all danger trees represent a threat to line reliability. Danger tree removal is scheduled in accordance with the level of threat they represent. Some danger trees represent an immediate threat to the line, such as trees that are leaning toward the line as a result of wind storms, flooding, etc. Danger trees posing such a threat are likely to fail at any time, even without the influence of additional forces such as wind, ice, or snow load. Other danger trees represent a long-term threat, in that these trees may be dead and fail over time as they decay, losing their structural integrity; or they may have a defect or weakness that makes them vulnerable to failure during a storm event.

Immediate Threat - Danger trees that are deemed an immediate threat are cut as soon as possible; however, in most cases, a tree presenting such a threat will require that the line be deenergized before the tree can be cut safely without damaging the line. Once the danger tree is identified, Transmission Operations will determine whether to apply for a scheduled or emergency interruption. The time required to schedule the interruption will determine how quickly the tree can be removed.

Long-Term Threat - Danger trees that pose less than an immediate threat shall be cut as soon as arrangements can be made for removal, including a determination by Transmission Operations as to whether an interruption is necessary, scheduling a crew to do the removal, and securing the necessary rights if the easement does not have provisions for removing danger trees. In some cases, cutting may be deferred for a time to take advantage of an interruption that has already been scheduled for purposes other than the tree removal. In any case, danger trees shall be removed before the next scheduled patrol.

3. Budgeting for Danger Tree Removal

Removal of danger trees is considered to be critical to maintain reliability. Therefore, the cutting of danger trees that have been identified will not be deferred due to budgetary constraints. Even if it would be necessary to defer other, less critical activities, funds will be made available for danger tree removal.

V. PLANNING THE ANNUAL VEGETATION MANAGEMENT PROGRAM

The vegetation specialist will develop an annual vegetation management program based on the objectives and be reviewed by leader of vegetation management operations to ensure they are consistent with the long-term goals identified in this Plan.

A. Maintenance Cycle and Relationship to Goals

Because of its dynamic nature, ROW vegetation must be maintained on a periodic cycle to ensure the reliable operation of the transmission system. The length of the cycle should be established so that the interval between treatments prevents any vegetation from reaching a height that could threaten reliability.

B. Determination of ROW to Be Treated

The vegetation specialist identifies the ROWs to be included in the annual vegetation management program. ROWs to be treated will be identified after the ground inspection the year prior to treatment. This allows for adequate time to develop a cost estimate to include in the following year’s budgets. ROWs will be selected for inclusion in the annual program based on electrical clearance standards and with the objective of treating the ROW to maintain safety and reliability of the system.

1. Right-of-Way Treatment Determinations Based on Electrical Clearance Criteria

To ensure that the transmission system is free from tree-caused interruptions, minimum clearances must be maintained that will prevent arcing or an electrical flashover between the conductors and the vegetation that could result in a line interruption. To meet this reliability goal, the clearances identified in the table below shall be met. The clearances listed as Priority No. 1 shall also represent the minimum clearance distances required to bring this Plan into compliance.

Priority No. 1 Shall be cut within 72 hours after identification <sup>1</sup>	
Voltage (kV)	Clearance (from vegetation)
345	11.75 feet or less

Priority No. 2 Shall be cut before or during next growing season after identification	
Voltage (kV)	Clearance (from vegetation)
345	> 11.75 feet and < 20.67 feet
Priority No. 3 Shall be treated before or during second growing season after identification	
Voltage (kV)	Clearance (from vegetation)
345	> 20.67 feet

- (1) Immediately after identification, Operations, the Leader of vegetation management operations and the vegetation specialist will coordinate a plan for removal of the Priority No. 1 tree within 72 hours.

In addition to these basic electrical clearances, the following items are also factored into the determination of when to schedule treatment:

- The effect of wire sag during high conductor temperature.
- The effect of wire swing during high wind conditions.

The annual vegetation management program will include correcting all conditions that are identified as requiring treatment based on the above electrical clearance criteria. When the electrical clearance criteria require treatment at only a few scattered locations on a given ROW, those locations will be spot-treated. The remainder of the ROW will be scheduled for treatment based on the general condition of the remaining vegetation. When the electrical clearance criteria is violated at several locations, the entire ROW will be scheduled for treatment based on the priority ratings 1, 2, or 3. Except where emergency spot-treatment is required, ROWs will generally be treated from substation to substation, or in other contiguous segments defined by division boundary or from substation to junction with another ROW, etc.

C. Line Patrols

The transmission line is routinely patrolled, on an annual basis, by vegetation management personnel. Lines that lock out or trip for unknown reasons are patrolled on an emergency basis by Company personnel.



## 1. Annual Patrols

All transmission lines are patrolled twice annually. The first annual patrol is a ground patrol, done in the spring after foliage has matured to inventory and identify locations with Priority No. 1 and No. 2 clearances between trees and conductors, including any danger trees. The second annual patrol is an aerial patrol designed to identify danger trees along the ROW's edge

## 2. Emergency Patrols

Whenever an unexplained interruption occurs on a transmission line, an emergency patrol will be performed to identify the cause of interruption. Emergency patrols may be performed either by foot or by helicopter, depending on weather conditions, time of day, helicopter availability, and length of the line. The problem causing the interruption will be corrected as soon as possible after it is identified.

If it is determined that the problem causing the interruption is tree-related, the leader of vegetation management operations is notified by the construction department. The vegetation specialist or other company personnel will then investigate any such tree-caused interruptions, and submit a Transmission Vegetation Outage Report with vegetation management department to document the circumstances that led to the interruption.

## D. Detailed Right-of-Way Inventory and Management Criteria

After the ROWs that are to be included in the annual vegetation management program have been identified, the vegetation specialist conducts a detailed vegetation inventory of each ROW, determining the method of treatment to be employed on each site. All pertinent information concerning special conditions and restrictions will be reviewed and recorded by the vegetation specialist and factored into the annual work plan. Other special conditions that could impact ROW management are noted in the Transmission Vegetation Management Software (TVMS). These conditions will be reviewed and considered by the vegetation specialist during inspection. Special conditions may include:

- Article VII certification conditions
- Access agreements
- New York State Department of Health (NYSDOH) and NYSDEC specific ROW management recommendations

During this detailed review of the ROW, the following information is collected and recorded in the TVMS Geographic Information System (GIS) based work management system.

1. Work Prescriptions

A work prescription is identified work in the ROW with which can be treated using the same vegetation practice. When a change in condition warrants a change in the work prescription, a new work prescription is identified and created. Work prescriptions are assigned a work ticket, and location and relevant corridor information is recorded on each prescription.

2. Prescription Types and Identification

Work identified through the inspection process requires creation of a prescription in TVMS.

3. Quantity of Work

The area or unit of each work type calculated and recorded to the nearest hundredth of an acre or unit of work in TVMS.

4. Prescriptions Work Types

A prescription defines the method of each work type after considering the land use, ROW agreements, and guidelines for using various vegetation management techniques, as described in Section 2 of Appendix C.

5. Site Location

The location of each work prescription is recorded in geospatially in TVMS.

E. Budget Development

After the detailed inventory is completed, the prescribed work is summarized. This summary lists the total acreages of work to be performed, sorted by the vegetation management techniques prescribed. A cost estimate is then made, by multiplying these acreages by an estimated cost per acre for each vegetation management technique. Summing these costs for each vegetation management technique yields the total project cost. The estimates for all ROWs can then be totaled to get an overall annual cost estimate, to be included in the following year's annual transmission vegetation management budget.

F. Program Review

The annual work plan will be submitted to the vegetation management department for review. This submittal will include the budget and vegetation activities for the entire ROW.

The vegetation management department will review the annual work plan, ensuring its compliance with the Plan.

## VI. IMPLEMENTING THE ANNUAL VEGETATION MANAGEMENT PROGRAM

Due to the seasonal nature of vegetation management work, it is economically prudent for NEETNY to employ contractors to perform this work. These contractors are capable of providing specialized labor, equipment, materials, and supervision necessary to perform this work on an as-needed basis. Occasionally Company personnel are used to perform unscheduled emergency work.

### A. Selection of a Contractor

Contractors are selected through a competitive bidding process.

The contractor with the lowest overall estimated three-year price will be awarded the work. The successful bidders' unit costs will be incorporated into contracts, and will be used as the primary payment mechanism.

After the three-year contract duration is up, the work will either be bid again to determine the low bidder or a contract extension with the existing contractors will be allowed with new rates negotiated. The extension possibility will be based primarily on NEETNY's judgment of the contractors' overall satisfactory performance over the three-year duration, and on the economic viability of such an extension.

### B. Program Monitoring

The program is administered in the field by the vegetation specialist.

#### 1. Scheduling

The vegetation specialist works out scheduling with the contractor performing the work, to ensure all work is completed within seasonal and contractual parameters.

#### 2. Specific Instructions

The vegetation specialist ensures that all work is completed in compliance with the Company specifications and with any other specific instructions that apply to the job. Any significant change in work instructions is authorized by the appropriate vegetation specialist in writing.

#### 3. Work Reports

The contractor will complete the work tickets and report completion of work tickets by batch manifest weekly to the vegetation specialist. Any significant change in the scope of work will be reviewed with the vegetation specialist prior to beginning the work and the vegetation specialist will approve. When the work batch has been completed all records are submitted to the vegetation specialist and updated in TVMS.

#### 4. Monitoring of Work in Progress

To ensure the work is completed in compliance with the specifications, the vegetation specialist will spot check the work in progress. Particular attention is paid to handling and application of herbicides in relation to NEETNY specifications and all state and federal regulations. The vegetation specialist will assure that all spray personnel are familiar with and understand the work specifications and instructions.

#### 5. Landowner Inquiries and Concerns

Any ROW management inquiries or concerns from landowners that are received by the contractor shall be forwarded to the appropriate vegetation specialist. For any such inquiry or concern that cannot be promptly resolved by the contractor, the vegetation specialist will contact the landowner as soon as possible, attempting to address the inquiry or concern in a timely manner.

### C. Quality Control and Guarantee

#### 1. Completion

Before payment for any work is released, the responsible vegetation specialist must be satisfied that:

- All specified cutting has been satisfactorily completed; and
- All specified herbicide applications have been satisfactorily completed.

#### 2. Guarantee

By August 1 of the year following initial treatment, the contractor guarantees that the work has been completed in accordance with the specifications. (See Section 5 of Appendix C, NEETNY Specifications for Vegetation Management.)

### D. Record Development

Upon completion of the annual ROW management program, the responsible vegetation specialist and the leader of vegetation management operations will:

- Review the completed batch manifest for accuracy. Upon completion of this review, the batch manifest will be submitted to the vegetation management department to be included in the annual work plan so that it can be documented.
- Make a record of any changes in field conditions in the TVMS. The

leader of vegetation management operations will be advised of the proposed changes.

## VII. REGULATORY REQUIREMENTS

In carrying out the annual vegetation management program, regulations of the following federal, state, and local regulatory bodies will be complied with.

### A. U.S. Environmental Protection Agency

The EPA is the federal agency that administers the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The Act covers the manufacture, sale, and use of all pesticides. Herbicide applications on the NEETNY system are performed by contractors who, by law, are obligated to comply with FIFRA. The NEETNY vegetation management staff, in writing specifications, prescribing ROW treatments, and in supervising vegetation management operations, will ensure that all such operations are performed in compliance with FIFRA.

### B. New York State Department of Environmental Conservation

#### 1. Bureau of Pesticide Management

This bureau of NYSDEC is responsible to the EPA for the certification and enforcement of FIFRA and State rules and regulations (6 New York Codes, Rules and Regulations 325) relating to the manufacture, sale, and use of all pesticides within New York State. The NEETNY vegetation management staff, in writing specifications, prescribing ROW treatments, and in supervising vegetation management operations, will ensure that all such operations are performed in compliance with 6 NYCRR 325.

The Bureau also administers Article 33 of the Environmental Conservation Law, relative to applicator certification, herbicide notification and posting requirements for landowners and the general public. NEETNY complies with the requirements of Article 33 as they apply to utility ROWs, and through its specifications directs its contractors to be in compliance with the certification, notification, and posting requirements of Article 33.

#### 2. Bureau of Lands and Forests

This bureau of the NYSDEC is responsible for the protection of the forests of the State from fires and has declared certain towns within the State as fire towns. This law regulates the disposal of cut vegetation within these towns that may constitute a fire hazard. Within designated fire towns, the NEETNY vegetation management staff will dispose of cut woody vegetation in compliance with Environmental Conservation Law Sections 9-1105 and 9-1107.

C. New York State Public Service Commission

NEETNY shall prepare and file with the PSC, by March 31 of each year, a system-wide description of the vegetation maintenance program and schedule of work to be done in that year. Additionally, NEETNY shall file an herbicide application filing in a format to be provided by DPS Staff, including the amount and cost of herbicide applied, by acre and technique, for each application management type employed.

Article VII of the New York State Public Service Law - NEETNY has completed at least one maintenance treatment on all electric transmission lines that were licensed under Article VII of the Public Service Law. Vegetation management activities on these facilities have been subsumed into this Plan. Any specific restrictions or requirements that apply to vegetation management on these ROWs appear on the Plan and Profile Drawings and will be complied with during maintenance activities.

Order Requiring Enhanced Transmission ROW Management Practices by Electric Utilities

## Ordering Clause 7

NEETNY shall submit to the Secretary annually by March 31, or as the Secretary may require, for Staff's review, an original and two copies of a report, discussing the amount of "danger tree" work completed by line in the preceding calendar year. Reported data shall include line name or number, miles trimmed, and/or number of trees removed.

## Ordering Clause 8

NEETNY shall investigate, record, and submit to the Secretary, for Staff's review, an annual report by March 31, discussing each vegetation-caused outage in the preceding calendar year. Vegetation-related outages that result from vegetation falling into lines from outside the ROW that result from natural disasters shall not be considered reportable. Examples of disasters that could create non-reportable outages include, but are not limited to earthquakes, fires, tornadoes, hurricanes, landslides, wind shear, ice storms, floods, or major storms as defined by the PSC. Also, vegetation-related outages due to human or animal activity shall not be considered reportable. Examples of human or animal activity that could cause a non-reportable outage include, but are not limited to, logging, animals severing tree, vehicle contact with tree, arboricultural activities or horticultural or agricultural activities, or removal or digging of vegetation. Information for each

outage in voltage classes 69 kV and above shall include line number, location (i.e., tower number), tree location (i.e., inside or outside the ROW), species height, condition, distance from conductor to base of tree, slope, and weather condition at the time of the outage.

D. New York Independent System Operator

All vegetation related transmission line trips on lines 200 kV or higher and any other lower voltage lines designated by New York Independent System Operator (NYISO) to be critical to the reliability of the electric system will be reported to the NYISO within 14 calendar days of the outage in accordance with North American Electric Reliability Corporation (NERC) FAC-003-4.

E. North American Electric Reliability Corporation

The NEETNY transmission vegetation management program must be implemented in accordance with the requirements of the NERC Vegetation Management Standard FAC-003-4 as provided in Appendix F of this Plan.

F. Other Regulatory Contacts

On an annual basis, NYSDOH and NYSDEC are notified of all scheduled electric transmission vegetation maintenance projects that include herbicide applications. The NYSDOH county field offices and regional NYSDEC offices receive a specific list of the lines that are scheduled for treatment in their counties/regions. The list is supplied on an annual basis, and includes the herbicides planned for use, and a tentative schedule of when the work will be performed. These lists will provide both State agencies with an awareness of NEETNY's annual work locations, and aid them should the public approach them with any questions regarding NEETNY's work.

A second copy of the list of all scheduled electric transmission vegetation maintenance projects will be sent to the N Y S D E C 's Natural Heritage Program, for their review to see if these work locations relate to endangered and threatened species information they possess. Should they have any concerns based on the information provided, NEETNY. will work with the National Heritage Program to address those concerns. The information to be provided to the National Heritage Program will be provided in a GIS format when available.



### VIII. GENERAL BUDGETING REQUIREMENTS

NEETNY's annual budget is designed to include treatment of all locations where Priority No. 1 and No. 2 clearances have been identified. The budget required to perform this work is estimated based on costs experienced in past years, plus anticipated inflationary costs. The overall average cost per acre for the annual program will depend on the mix of methods prescribed for treatment. At all times, the method prescribed will be the most economical option that will accomplish the goals identified in this Plan.

## IX. PLANEVALUATION, REVIEW, AND UPDATING

### A. Evaluation

The success of the Plan is measured against the goal it is designed to accomplish:

1. Maintain the Transmission System Free from Tree-Caused Interruptions:

Assessment: Tree-caused interruptions are monitored by the Corporate Forestry Section. Each interruption is investigated and a determination is made as to whether it could reasonably have been prevented. The monitoring process will identify if there is a need to modify the Plan.

2. Minimize Long-Term Vegetation Management Costs by Encouraging the Development of Naturally Occurring, Relatively Stable, Low-Growing Plant Communities That Are Capable of Effectively Inhibiting Invasion By Tall-Growing, Incompatible Trees, Thereby Reducing the Density of Undesirable Tall-Growing Species Over Time

Assessment: The success of the Plan in accomplishing this goal is monitored over the long term by comparing vegetation inventories from one cycle to the next. Over the long term, the density of tall-growing target species should decrease or at least remain flat, while the densities of desirable species increase. As this occurs, costs per acre treated should decrease or at least remain stable, providing another method of evaluation.

3. Maintain the ROWs in a Manner That Does Not Compromise the Quality of the Environment

Assessment: The success of this goal will be judged by assessing the public comment or concerns received, and also in any regulatory action that potentially results from such concerns. Any feedback from PSC Staff that result from their annual field reviews will also be a measure of success. The Leader of vegetation management operations will make observations in the field, and review current literature, as part of an ongoing evaluation to assure that this goal is being met.

4. Manage the ROWs in Harmony with Existing Land Uses

Assessment: This goal will be measured primarily through assessing the comments and concerns received from property owners, property users, and the general public.

5. Minimize Long-Term Vegetation Management Costs

Assessment: This goal will be assessed by reviewing costs. Annual treatment cost records will be monitored and analyzed, both on a yearly basis, and on a cycle vs. cycle basis to assess the cost trends.

6. Minimize Herbicide Use

Assessment: This goal will be assessed by reviewing the quantity of herbicide applied per acre of ROW treated on an annual basis. Annual treatment application records will be monitored and analyzed, both on a yearly basis, and on a cycle vs. cycle basis.

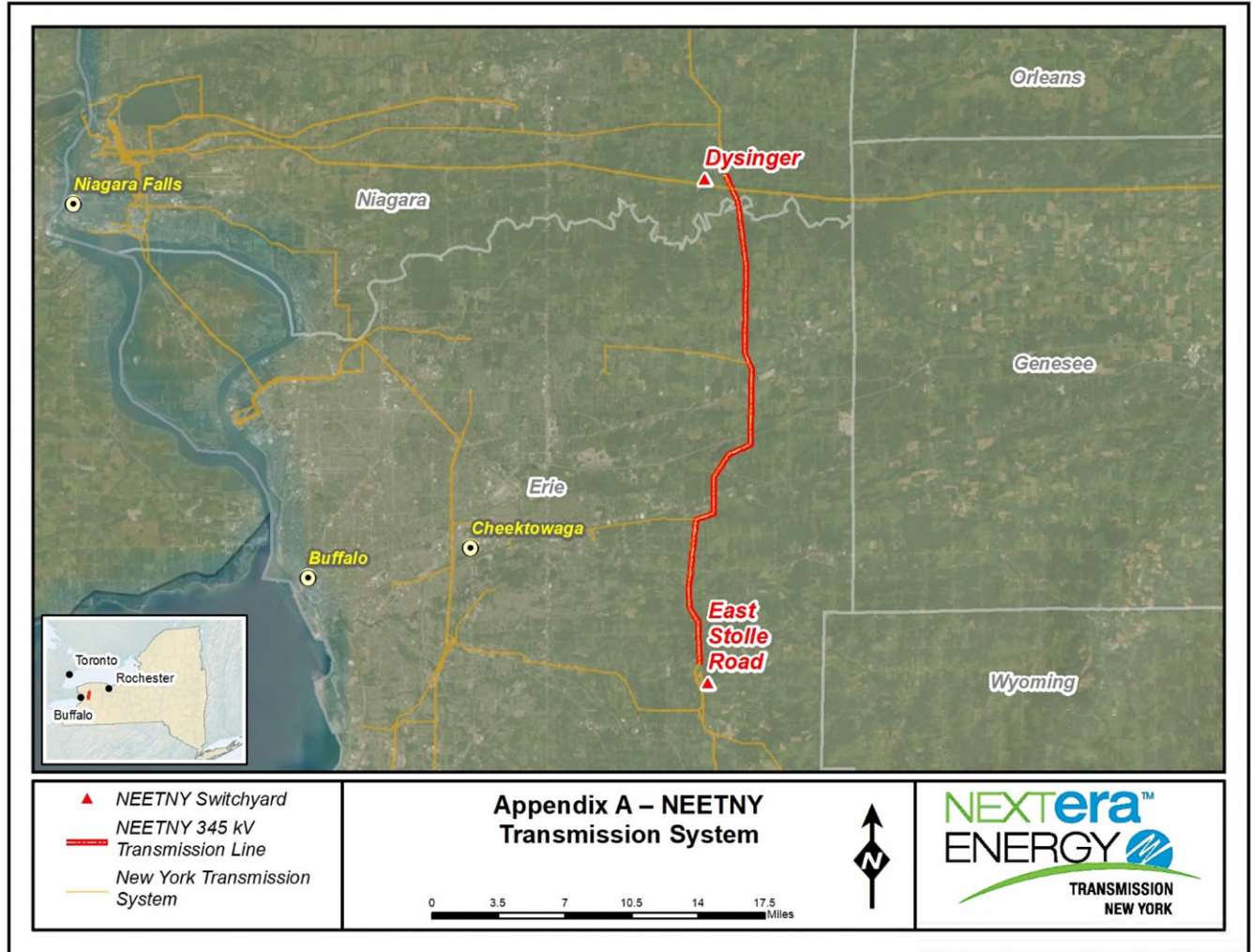
B. Review and Updating

NEETNY reviews its work specifications regularly to assure they are effectively meeting the program objectives. Whenever the NEETNY work specifications are modified, they are sent to the Commission Staff to likewise be considered an update of this Plan.

In addition, NEETNY will periodically review and assess the Plan at least every six years, or two complete cycles, whichever comes first. Subjects to be reviewed include but are not limited to reliability, cost, herbicide use, and customer concerns.

Any proposed changes to the Plan will be brought to the attention of the PSC Staff. Minor changes to the plan will have no significant adverse impact to reliability or to the environment (including public health). Minor changes to the Plan will be referred to the Commission Secretary by the PSC Staff. All other proposed changes would be considered major and will be referred to the Commission for action pursuant to the State Administrative Procedures Act.

APPENDIX A      Map of the NEETNY Service Area and Transmission System



APPENDIX B      Component Lines of the NEETNY Transmission System

Component Lines of the NEETNY Transmission System

County	Line Designation		Operating Voltage (kV)	Structure Type	Length (miles)
	From	To			
Niagara/Erie County	Dysinger	East Stolle Road	345	Steel Monopole	20.5
Niagara County	Dysinger	Somerset Tap	345	Steel Monopole	0.15
Niagara County	Dysinger	Somerset Tap	345	Steel Monopole	0.15

APPENDIX C Detailed Specifications for Transmission Right-of-Way Vegetation Maintenance



APPENDIX D      ROW Maintenance Worker Training and Protection of Sensitive Areas

APPENDIX E      NEETNY Right-of-Way Inventory and Treatment Form

APPENDIX F      NERC Vegetation Management Standard FAC-003-4

APPENDIX G      Line Patrol Reports & Interruption Report

APPENDIX H NPCC Regional Reliability Plan (Section 9.1, Vegetation Related Outages)

APPENDIX I      Large Tree List

APPENDIX J      Small Tree List

APPENDIX K      Herbicide Treatment Form



APPENDIX L      Vegetation Outage Report

APPENDIX M      Company Contact List for Notifications