

This document supplies observations and recommendations that LORAX has previously submitted to the NYS PCS in Case 10-E-0155 regarding impacts on property owners and the environment due to recent (2008-2010) implementations of PCS-approved vegetation management guidelines. It is provided here as a submission to the FERC VM Roundtable so as to provide more detailed background data for the discussion. While we recognized that some of the observations and recommendations may relate to specific NY state transmission utilities and TVMP-impacted locations, LORAX believes that the general document provides a panoramic sweep over the issues facing both the utilities and the local communities situated along the transmission ROWs in the northern suburbs of New York City, and thus in other similarly densely populated areas around the nation.

**Observations on Existing Right-of-Way (ROW) Transmission Vegetation Management Program Practices by Electric Utilities and NYS PSC Regulation**

O1: The utilities' interpretation and implementation of the state PSC transmission ROW vegetation management requirements has resulted in the unreasonable cutting of trees, unnecessary clear-cutting, excessive and unsightly debris piles, and extreme vegetation removal that exposes bare soil in the entire easement area and beyond, resulting in unsightly visual impacts, unnecessary and uncontrolled erosion due to denuded land, and the virtual decimation of carefully planned and maintained noise, view shed and habitat buffers.

O2: The utilities have not provided adequate public notice of their plans to implement the state's requirements, including failure to properly survey and flag affected properties and failure to communicate with affected property owners regarding the work that is to be performed by their contractors. When communication occurred, it was often incomplete or misleading.

O3: A lack of an appropriate communication, complaint handling and escalation protocol between the utilities, their contractors, state PSC, local municipalities and the public has caused significant frustration and exacerbated the problem.

O4: The state PSC has failed to properly oversee the utilities' implementation of its Transmission Vegetation Management Plan ("TVMP"), resulting in unnecessary economic, environmental, and aesthetic harm to numerous property owners and communities.

O5: The state PSC requirements have not been accompanied by a fair and adequate environmental review, with little or no notification to the affected public.

O6: The state PSC requirements (circa 2005) remain unrevised, even though the North American Electric Reliability Corporation ("NERC"), under authority provided by Congress in the Energy Policy Act of 2005, has developed national transmission

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vegetation standard FAC-003-1 in 2007 and is presently reviewing a revised standard, FAC-003-2.

O7: The TVMP being employed by the utilities and/or the utilities' interpretation of the state PSC regulations, far exceed those steps reasonably required to protect the utilities' transmission assets and the legitimate public interest in maintaining an uninterrupted flow of power through the region.

O8: Based upon the size, species and location of many of the trees removed, the trees were not now, nor in the future, likely to reach or otherwise interfere with the utilities' transmission lines & towers.

O9: The utilities' TVMP, as it is being implemented in densely populated suburban communities, violates the real property rights of the immediately affected property owners and otherwise adversely affects the legitimate land use interests of these residents.

O10: There are equally important town, county and state laws that must be enforced and honored, which regulate land usage, zoning, permits, land preservation, easement agreements, and trespassing outside of legal easements and right-of-ways, that are being violated and ignored by the state PSC and the utilities in the adoption and implementation of TVMPs.

**Recommendations to Improve ROW Transmission Vegetation Management by  
Electric Utilities and Regulation by NYS PSC**

R1: Conduct public statement hearings in areas where ROW vegetation management (VM) will occur.

R2: Request state PSC commissioners to undertake an on-site tour of affected areas in order to obtain a firsthand knowledge of impacts.

R3: Require the immediate revision of all utility Transmission Vegetation Management Programs (TVMPs) and existing (approved) multi-year programs to implement needed changes.

R4: Require immediate and reasonable mitigation for past utilities' actions in vegetation management that have substantially harmed homeowners that abut the ROW. Such mitigation plans must have wide-spread public notice of availability and a fixed timetable for compliance/completion by the utility.

R5: Establish a negotiated rulemaking for state PSC requirements, open to affected property owners, as well as to general public in order to address the issues of adequate mitigation and/or restitution.

R6: Utilize a “tiered management” approach to wire zone - border zone ("wz-bz") methods which takes into account local site conditions and allows for increasingly taller vegetation in border zone (as distance from wire zone increases or based upon local terrain variation).

R7: Adhere to state permit requirements for the protection of water courses and wetlands, as well as for stormwater, erosion and sediment control during and post VM activities.

R8: Implement an integrated vegetation management (IVM) plan which does not rely solely on use of herbicides post-cutting, but which utilizes on-site survey by expert foresters to determine and mark vegetation to be targeted previous to any removal activity. The goal is to minimize vegetation and ground disturbances to deter the establishment and spread of invasive plants, combined with timely reseeding and re-planting of affected ROW areas.

R9: Conduct mitigation planning at project onset and in response to post-VM issues reported by nearby property owners. Ensure any such planned or reported post-VM mitigation requirement is implemented by Transmission Operator (TO) within a reasonable time frame.

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R10: Encourage on-going pruning and ANSI A300-compliant maintenance of trees, rather than use of clear cutting, topping and herbicide application to reduce management costs. TOs should revise VM cycles, as appropriate, to allow these practices.

R11: Conduct more detailed environmental review of herbicide applications called for in vegetation management planning. When required for IVM programs, only herbicides approved by state for use along wetlands, watercourses and in potable watersheds should be used, and such herbicides should not be the sole mechanism for ROW maintenance. Furthermore, require compliance with state regulations for backpack herbicide applications only along or within sensitive water courses and wetland areas, when vegetation heights exceed 10' or when winds are above 10 mph.

R12: Provide better (clearer) notification of herbicide application through placement of more signs along ROW, left in place for a longer period of time.

R13: Require control of erosion and run-off that complies with state permit requirements and guidelines. Violations that have been reported to date include:

- use of hydro-ax for tree clearing on ROW in wetland areas.
- incursion into delineated wetlands and water courses.
- unrestricted use of truck sprayers – rather than backpack sprayers in sensitive areas.
- failure to properly install and maintain adequate erosion and sediment control practices.
- failure to clean up debris (logs, branches, piles of wood chips) in a timely manner.

R14: Require proper & timely removal and disposal of all debris generated by VM activities within three weeks of occurrence, including but not limited to the remnants of any tree cut or cleared from wetlands, water courses, easements or other right-of-ways. Wood chips must be spread to a depth not-to-exceed 3 inches if left in situ.

R15: Require on-going TVMP action to monitor the spread of, and remove and eliminate, invasive plants in the ROW and to manage white-tail deer population impacts due to ROW clearing.

R16: Preserve “non-offensive” (desirable) vegetation, including adoption of a “tiered” management scheme in and adjacent to ROW which takes into account local site conditions and allows for increasingly taller vegetation in border zone (as distance from wire zone increases or based upon local terrain variation).

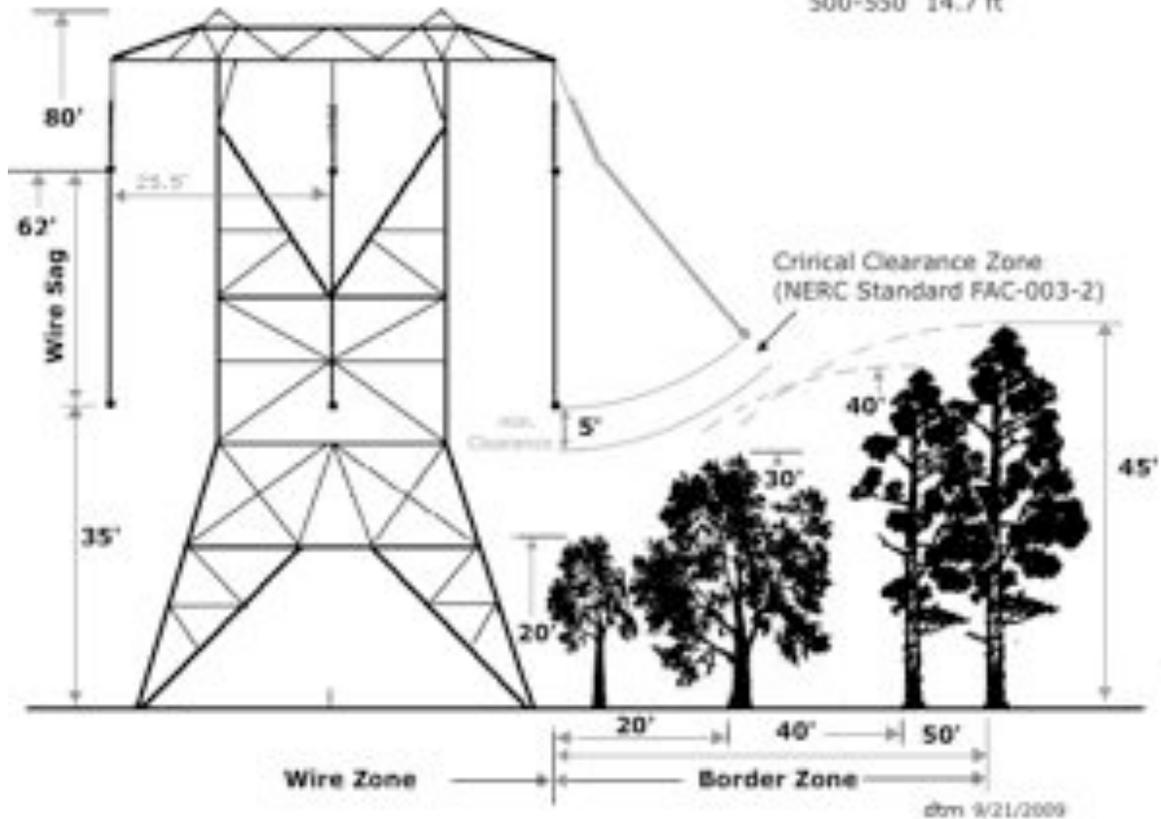
R17: Remove the “Priority Zone” loophole in state guidelines through stricter definition of the term. See diagram (below) for example of a tiered management approach which meets Federal regulations.

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**Tree heights conforming to distance requirement to avoid arcing for 242 kV lines.**

(IEEE) Standard 516-2003  
 (Guide for Maintenance Methods on Energized Power Lines)

Voltage	Clearance
230-242	5 ft
345-362	9.4 ft
500-550	14.7 ft



R18: Adjust ROW evaluation and VM plans to site-specific, local conditions as described in the “Modified WZ-BZ” approach. Prohibit unconstrained clear-cutting across the ROW in all circumstances.

R19: Retain and maintain sight lines and integrity of the residential appearance including benefits derived from adequate shade canopy.

R20: Retain and maintain vegetation providing headlight, wind & noise abatement, as well as any vegetation functioning as riparian buffers or specialized environmental function.

R21: Document on-site environmental resources including keystone habitats and species. Preserve woodland, riparian and wetland habitats to the greatest extent possible. Minimize disturbance of “wetland chains” which provide important amphibian habitat corridors.

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R22: State PSC must ensure clear understanding of, and compliance with, updated VM policy by all transmission utilities and contractors. TVMPs must clearly reflect most current state PSC policies.

R23: TOs must conduct stricter oversight, training and daily on-site management of subcontractors hired to implement the TVMP.

R24: State PSC must conduct stricter oversight of TVMP projects-in-progress (not just year-end summary reports) through on-site inspections during any on-going VM activities.

R25: Impose fines or other sanctions when a utility or its contractors fail to follow in detail the approved TVMP and local environmental mitigation plans. Such failure may result in a “stop work” order until required corrections have been made and approved at the site in question or within the VM project plan (taken as a whole).

R26: Require a clearly outlined incident escalation mechanism by which residents and municipal officials can contact responsible supervisory personnel – utility and state PSC - at any time (7 days a week, including holidays) during VM operations.

R27: Fund mitigation expenses (e.g., replanting) for past action out of utility profit margins rather than from electric rate increases. State PSCs have used such approaches when fining utilities for violations. This ensures that the excessive, unwarranted activities that necessitate mitigation will be minimized in TO VM activities. However, mitigation planning and implementation should be regularly factored into future ROW management activities, which would obtain regular funding from electric rates.

R28: Develop a program whereby ratepayers may contribute to a mitigation / replanting fund. This could be a simple optional \$1 “Re-Leaf” contribution checkbox on a monthly utility bill. Or, develop a utility contribution based upon ratepayer opt-in to electronic billing and payment. All such contributed monies would be directed to in-region (local) ROW restoration only.

R29: Create a scaled contribution funding approach that applies to larger energy consumers which is based upon actual energy usage. For example, if a customer spends \$5000-\$9999 per year, the monthly contribution rate would be \$10. A yearly rate of \$10,000-\$49,999 would contribute \$50 (and so forth.)

R30: Require TVMP plans to include mandatory replanting and restoration plans (on ROW or adjacent properties), whereby any significant tree removed as undesirable is replaced with a more desirable, preferably native, and right-of-way compatible species (and not by seedlings but rather more mature trees.) The goal is ecosystem / habitat recovery.

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R31: Require each TO to provide bonding for mitigation. Performance bond period of 2 years for plants, 3 years for construction/grading/drainage/hardscape. In some cases, a maintenance plan may be required, as well.

R32: Require TVMP plans to include immediate reseeded (with expert approved mixes providing high wildlife value) of all disturbed and/or cleared ground.

R33: Implementation of mitigation/compensation plans for all affected properties along ROW should occur and be completed within 6 months of VM activity.

R34: Require removal and disposal of all debris generated by recent VM activities. Require TOs to remove debris within 3 weeks of VM work.

R35: Provide timely communication and notification in writing to property owners and impacted communities and an opportunity for public input prior to work commencing in a community. A good example is required notification in Massachusetts.

R36: Define an arbitration process at the local municipal level where alternatives to proposed TVMP plans may be considered and issues resolved (including both private and municipal stakeholders). The scope should include all envisioned or unexpected VM environmental, property, and aesthetic impacts.

R37: Require full public environmental review with associated dispute resolution, mitigation requirements and restitution measures in any revision of state PSC VM policy and for any current (on-going) or future line clearing policy or action.

R38: Require full survey and marking of ROW and adjacent property boundaries, delineation of wetlands, watercourse buffers, protected habitats (based upon bioassay of rare, endangered or protected species) or other special features, and marking of all affected vegetation before any removals occur, preferably as part of the notification process and before any environmental review.

R39: Require full environmental review of and calculation of impacts from state PSC requirements for Transmission ROW VM practices, including biological assessment of current ROW conditions, esp. regarding areas and buffers identified in R38 surveys (above), and assessment of other relevant environmental factors such as loss of carbon sequestration, loss of oxygen generation, reduced stormwater mitigation effectiveness, etc. The materials collectively describe the full impact on ecosystem services and thus must serve as the basis for required mitigation.

R40: Require on-going monitoring of sites post-VM so as to provide early detection of stormwater and erosion issues – or to detect failure of installed mitigation.

R41: Require re-planting mitigation by TO both off-ROW and on-ROW, assuming a palette of compatible native species is specified.

**Top 5 Fixes for Transmission Line Clearing Projects In NYS**

- 1) Restitution or mitigation for affected homeowners, businesses and municipalities for work along transmission ROWs (2008-2010).**
- 2) Public review and update of original PSC 2004 SEQR (State Environmental Review) filing & Case 04-E-0822 TVMP requirements.**
- 3) Modernization of Vegetative Management guidelines for ROW to include preliminary on-site expert environmental analysis and proposed mitigation plans.**
- 4) Advanced 60 or 90 notification of TVMP operations by utilities including written descriptions & public hearing.**
- 5) Improved supervision, training and Quality Assurance of line clearing contractors. Fines levied for improper or inadequate training, monitoring and work execution.**

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General view of deforestation along ROW.



Utility access road and asymmetrical clear cutting, leaving a much narrower margin on the right side of the ROW. Also shows excessively wide “priority zone” buffer on the left side of ROW. Vegetation management has not taken into account the varying terrain elevations vis-à-vis wire zone and overhead wires.

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Windrowing of clear cut debris along ROW edge.



Remaining single line of private trees along ROW edge. Abutting property owner later reported that several of these trees fell due to “blow down” effects during the winter storms of March 2010, resulting in extensive damage to improvements on his property.

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Diagram 1 – Original (pre Fall 2009) width of ROW clearance.



Diagram 2 – Estimated width of expanded ROW (post 2009) based upon onsite visual inspection.  
(Greenhouses can be seen on the left of these images.)

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Post clear-cut chipping of debris in Sprain Road area. Note that the wood chip piles shown in the lower image were measured to be 24" deep in some areas of the ROW.

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Area of ROW showing removal of wide woodland buffers, resulting in local residents' exposure to unfiltered highway noise, pollution and headlights.



Showing 3 newly planted trees intended to act as mitigation for the removed wooded buffers. Removal in this area occurred illegally on municipal easement without prior approval or notification.

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Replanting in the next to highway. Note that these trees have been planted on DOT easements. Note also that due to the small size of these evergreens, the intended mitigation for noise, headlight glare and exhaust pollution (etc.) from the highway on nearby residents will take years to become effective.

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ROW showing access road, piles of clear cut trees along the ROW edge and overly wide "priority zone" buffer clearing in regards to the transmission lines located on left.



Area (near Park) showing vegetation debris left in water course in violation of state stormwater requirements.

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Showing negative property value impacts due to excessive clear cutting of visual buffer along the ROW.  
(See diagram below for camera angle.)



Above aerial perspective (camera POV shown by white arrow). This is a small part of the overall clear cutting which occurred in this heavily residential area of transmission lines.



Showing a before (above) and after (below) view of impacts of green buffer removal.



Showing non-compliant pesticide notification posted along the ROW.

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Showing excessive erosion and runoff, documenting the lack of required state permit erosion and sediment controls that must be in place during construction or disturbance activity.



Showing increased runoff and flooding from the ROW (left of wall – lower frame) onto private property (right of wall – lower frame). The increase in stormwater runoff is directly traceable to clear cutting of the ROW. No mitigation for these excess stormwater impacts has been provided by the utility.