

***Historic and Recent Efforts by the Connecticut Botanical Society and Others to Protect the Environment in Utility Rights-of-Way (ROWs)***

**Connecticut Botanical Society, Ecology and Conservation Committee, October 2022**

The Connecticut Botanical Society (CBS) has a long history of working with electrical utility companies to develop sustainable vegetation management strategies in powerline corridors, also known as Rights-of-Way (ROWs). Here we summarize historic work by plant ecologists from the Connecticut Botanical Society (CBS) and others in developing these strategies, as well as recent efforts to mitigate ecological threats from changes in ROW management practices.

For many years vegetation in powerline corridors in Connecticut was managed by implementing a system of Integrated Vegetation Management (IVM) focused on the selective removal of tall growing “incompatible” trees to favor a stable shrub community. This system was based on periodic removal (complete killing) of individual trees and promotion of a persistent shrub layer resistant to the establishment of new trees. This IVM method was developed in the 1950s by plant ecologists including Frank Egler, William Niering and Richard Goodwin as an alternative to blanket spraying of herbicides. CBS established a ROW Vegetation Committee to work with utilities to implement the system. IVM was used successfully for decades, allowing for safe electrical transmission and providing valuable habitat to an array of plants and animals in ROWs. Read more about the history of IVM development in [Assessment of Changes in Vegetation Management on Powerline Corridors in Connecticut](#) by Robert Askins, Professor Emeritus of Biology, Connecticut College (2019).

While Eversource still uses the term “Integrated Vegetation Management” to describe how they manage powerline corridors, their recent approach is quite different. In particular, the broad scale and indiscriminate mowing of woody vegetation, often referred to as a “hard reset”, not only harms valuable habitat, but encourages the growth of unwanted tall growing trees. The other significant change in ROW management is the construction of large gravel work pads and wide roads to support the large equipment needed to replace wooden utility poles with metal ones.

The negative environmental impacts resulting from changes in vegetation and transmission line maintenance have not gone unnoticed. The Department of Energy and Environmental Protection (DEEP) provides a review of listed species as required by law for work in ROWs and requires that wetlands be protected, but other than this, no government entity appears to be designated for addressing adverse effects or making sure Eversource implements the promises in their petitions. However, beginning with newspaper publicity in 2016, environmental groups, land trusts and conservationists have taken steps to engage with Eversource, raise awareness, and suggest solutions.

***Response to Recent Changes in Powerline Corridor Management***

In March 2017, CBS provided comments to the Connecticut Siting Council on [Petition 1293](#), the request from Eversource for a ruling that no Certificate of Environmental Compatibility and

Public Need was required for replacement of utility poles – and associated construction roads and work pads – throughout the state. CBS asked the Council not to waive the requirement for a Certificate, raising concerns about habitat destruction, and to hold a public hearing to carefully examine the issues. CBS recommended “de novo” or comprehensive surveys within powerline corridors to identify critical habitat and rare, threatened and endangered species prior to any work. The Siting Council wrote back saying they would consider all comments, but declared on March 30, 2017 that Eversource did not need the Certificate.

CBS formed a ROW subcommittee later in 2017 to address ROW issues. In January of 2018, the subcommittee wrote a detailed comment to DEEP concerning rare plants occurring along a proposed ROW upgrade in Robbins Swamp Wildlife Management Area, North Canaan. Note that because significant work was planned in wetlands, a DEEP permit (401 Water Quality Certification) was required. This allowed for public comment. In fall 2018, CBS published a lengthy article explaining the concerns with changes in ROW management ([need link here](#)).

In 2019, the CBS ROW subcommittee reached out to other conservation groups and professionals concerned about changes in ROW management for different reasons. Joining CBS plant ecologists at the table were representatives from academia and research institutions with expertise in birds, mammals, herptiles, insects and plant ecology, officers from the CT Audubon Society, Audubon CT, and several large land trusts, and private citizens affected by recent work.

This greater group of conservationists met with representatives of Eversource in April 2019 to express their concerns and explore the possibility of using practices that were less damaging to the environment. At that meeting, Eversource presented their version of Integrated Vegetation Management (IVM) and their plans to expand the clear zone in ROWs. They explained that vegetation maintenance involves removing all trees considered to be “incompatible”, defined as species that can grow taller than 15 feet in the “Under Wire” zone, and greater than 25 feet in the “Border Zone”. Methods could include initial broad-scale mowing or clearcutting, followed by selective removal of incompatible trees in subsequent years. Clearing of the border zone was to be increased to 100 feet from the wire zone or the full width of a ROW, whichever was less. Sites would be revisited for maintenance every four years.

Representatives from CBS and other disciplines provided suggestions for less intrusive ROW management, pointing out the practical and ecological advantages of the former “stable shrubland” maintenance strategy. Dr. Robert Askins, Professor Emeritus of Biology, Connecticut College provided a position paper on historically successful IVM, and guidance for managing ROWs for shrubland birds and New England cottontail.

The CBS Ecology and Conservation Committee also authored a position paper, building on the Askins document, and bringing in the importance of unique and critical habitats, rare plants and ways to conserve them. In their document, CBS explained how stable shrub and herbaceous plant communities, adapted to Connecticut’s rocky acidic soils, limit natural tree colonization and provide outstanding habitat for unique and valuable plants, as well as shrubland birds, pollinators, snakes, turtles and other wildlife. In the conclusion of its position paper, CBS

expressed “hope that ROW owners and natural resource non-profits will help Eversource assess ROW stretches, to plan practical, site-specific, and ecologically sound management plans.” Eversource expressed a willingness to learn more about managing natural resources and cited its recent development of Best Management Practices for ROWs to protect New England cottontails in certain Focus Areas.

In August of 2019, the Connecticut Land Conservation Council (CLCC) and Eversource hosted a public meeting in Middletown, where Dr. Askins presented his position paper on the success of historic IVM practices in ROWs, and its benefits to shrubland birds and other wildlife. He and others, including CBS, emphasized how a stable shrub community can be maintained by selective and infrequent removal of tree saplings and certain invasives, whereas frequent mowing in ROWs with non-selective mowers can encourage tree growth and foster conditions for establishment of invasive plants.

That fall, CBS led an educational field trip for interested group members, including Eversource staff, to an excellent example of a stable shrubland ROW, managed by the local land trust in Groton.

### ***Broader Citizen Involvement***

Following these meetings, some land trusts, scientists, and property owners negotiated directly with Eversource to successfully protect ecological communities in particular ROW segments. However, Eversource’s overall ROW vegetation management did not significantly change.

The CT Agricultural Experiment Station (CAES) hosted a forum in March 2020, “Advocating for the Value of Your Local Right of Way”. It focused on citizens’ tools to use to minimize harm to ROW segments. Many land trust representatives took part, and some presented their experiences working with Eversource maintenance projects. Several reported a lack of clear communication on the extent of the work or the impact on the environment. Dr. Kimberly Stoner from CAES presented [“Advocating for Your Local ROW – Some Basics”](#). This talk focused on the process used by Eversource to get approval for replacing transmission poles (Petition 1293), how that work was supposed to be communicated to landowners and how landowners should respond and take action to protect their land from any adverse effects.

CBS has recently provided a Citizen and Land Trust Guide to Protecting the Environment in Utility ROWs ([link to document](#)).

### ***CBS ROW Vegetation Management Recommendations***

The Ecology and Conservation Committee of the Connecticut Botanical Society (CBS) published a detailed [guidance document](#) in September 2020 on ROW vegetation management, drawing heavily on a ROW case study in Glastonbury where work pads caused substantial harm. This document again recommended selective sapling removal, rather than non-selective mowing, at least in rocky, hilly terrain with acidic, infertile soil. Additional recommendations were made related to wood chips, invasive plant management and herbicide application.

Objectives of the CBS ROW Vegetation Management recommendations include the following:

- Minimize the establishment of undesirable, tall woody species in a ROW.
- Promote the establishment of low-growing pollinator and wildlife plants, both herbs and shrubs, adapted to open, well-lit habitats, and providing cover, food, nectar and pollen.
- Preserve Critical Habitats of uncommon and rare plants and key habitats for fauna.
- Minimize the extent of invasive species infestations in ROWs with ecologically sound approaches, including sanitation during maintenance work (i.e., washing the invasive propagules from other construction sites off of trucks; using invasive free topsoil).

The CBS guidelines have been endorsed by the Invasive Species Council, the Pollinator Advisory Council and the Pollinator Pathway groups. They can be useful to land trusts and landowners when negotiating with Eversource on how work will be done on a property.

The CBS recommendations were distributed to Eversource and other stakeholders in September 2020. Eversource responded, stating that they appreciated the work that went into the comprehensive guidelines. They assured CBS that many of the recommendations were already being implemented to the extent possible while complying with safety standards set by OSHA, NERC, and others, again citing the example of their implementation of New England Cottontail Best Management Practices in consultation with DEEP.

The next step is for landowners to communicate directly with Eversource to ensure that these guidelines are followed during management of ROWs on their property. For support, see the CBS Guidelines and other ROW Management Resources linked below.

## Step-By-Step Resources for Conserving Ecological and Environmental Integrity in Powerline Rights-of-Way (ROWs)

Know and document what is growing/living in the powerline ROW that you own. This can and should be done well in advance of proposed work.

1. [Request a report](https://portal.ct.gov/DEEP/NDDDB/Requests-for-NDDDB-Environmental-Reviews) of endangered, threatened or special concern species (“listed species”), and critical habitats on your property from the CT DEEP, <https://portal.ct.gov/DEEP/NDDDB/Requests-for-NDDDB-Environmental-Reviews>.
2. It is possible that listed species occurring on your property have not yet been documented. Contact a [qualified botanist](#) who can conduct a comprehensive botanical survey identifying rare and listed plants and critical habitats. Land Trusts can also contact CBS to request an initial scouting survey.
3. [Report listed and rare species found in the ROW](#) to the CT Department of Energy and Environmental Protection. Also notify the utility company, being sure to document your communication with them, <https://portal.ct.gov/DEEP/NDDDB/Contribute-Data-to-the-NDDDB>.
4. Refer to this list of [rare and “listed” species found in CT ROWs](#). ([update link to CBS site](#))
5. Read up on the classification and distribution of [twenty-five rare and specialized wildlife habitats](#) in the state.

**Understand the issues.** The first documents below provide an industry perspective on ROW vegetation management. The next two position papers provide background on historical ecologically sensitive management of ROWs, and how recent changes pose ecological threats.

6. [ROW vegetation management presentation by Eversource](#), August 12, 2019. Also see the [CLCC Resource website](#) for other Eversource documents and contact information.
7. [Report by the Federal Energy Regulatory Commission following major snowstorm-related outages in October 2011](#). This report makes recommendations for clearing hazard and tall trees from the border zone in ROWs that pose a threat to wires.
8. [Connecticut Botanical Society Position Paper on Right-of-Way Management](#), April 2019.
9. [Assessment of Changes in Vegetation Management on Powerline Corridors in Connecticut](#), Robert Askins, Professor Emeritus of Biology, Connecticut College, 4-11-2019.

**Use and encourage recommended conservation guidelines.** The documents below were developed by professional ecologists and provide detailed recommendations for ecologically sound ROW management.

10. [CBS Recommendations for Electrical Utility Right-of-Way Vegetation Management](#), provided to Eversource, September 2020.
11. [Guidelines for Managing Utility Rights-of-Way for Birds and New England Cottontails](#), Robert Askins, Professor Emeritus of Biology, Connecticut College, June 2019.
12. [Guidelines from the CT Invasive Plant Council](#) for preventing the spread of invasive plants through movement of topsoil and mulch.

13. [Best Management Practices for New England Cottontails](#) in ROWs (Eversource and CT DEEP)
14. [Integrated Vegetation Management Partners](#): a nonprofit liaison for industry, agencies and conservation that develops programs and provides education on vegetation management and conservation best practices.

**Know your rights.** If planning work on your property, Eversource is required to notify you, the town and abutters 30 days in advance. For replacement of utility poles and construction of roads and work pads, they will also provide a sub-petition document with detailed information about the proposed upgrades. The landowner has 30 days to notify the Connecticut Siting Council (CSC) of concerns or comments. For routine vegetation management, contact Eversource or whoever is indicated on the notice.

15. Connecticut Siting Council: <https://portal.ct.gov/CSC>.
16. Petition 1293: [https://portal.ct.gov/CSC/3 Petitions/Petition-Nos-1291-1300/Petition-No-1293Eversource](https://portal.ct.gov/CSC/3%20Petitions/Petition-Nos-1291-1300/Petition-No-1293Eversource). All detailed sub-petitions for pole replacement refer back to Petition 1293, which contains important provisions, namely that Eversource plans to “use existing access where possible, retain upland work pads unless the landowner requests removal, and remove matting from wetland areas after construction...” This implies the landowner can request that work pads be removed. It is recommended that landowners become familiar with Petition 1293. If they wish work pads to be removed, it is best to express this *before* work begins.
17. Slide presentation by Kimberly Stoner, CT Agricultural Experiment Station: [Advocating for your Right of Way Basics](#).

#### **Research, Reports and Other Useful Resources:**

18. 2019 Glastonbury Study by Rema Ecological Services (2020). The lead author is Sigrun Gadwa, ROW Committee Chair and a CBS Board member. Findings of the Glastonbury Study contributed substantially to the CBS ROW Guidelines, <https://caryaecological.com/wp-content/uploads/2020/04/Therrien-Lanata-ROW-Report-Plant-Communities-in-2019-Under-Several-Management-Regimes.pdf>. Appendices with data, <https://caryaecological.com/wp-content/uploads/2020/04/Attachment-C-Tables-1-3-Soil-Plant-Larval-Hosts.pdf>.
19. [Preliminary Recommendations with regard to Management of Eastern Red Cedar \(\*Juniperus virginiana\*\) on the Eversource Right-of-Way in Glastonbury, south of New London Turnpike, on the Therrien Property](#).
20. [Coming to a Right-of-Way Near You \(LINK NEEDED\)](#). Fall 2018 CBS Newsletter, Vol. 45, No. 2. This article lays out concerns with changes in ROW management and efforts by CBS to address the issue.
21. [A Transmission Right-of-Way as Habitat for Wild Bees \(Hymenoptera: Apoidea: Anthophila\) in Connecticut](#), 2014 David L Wagner, John S Ascher, and Nelson K Bricker.
22. Importance of transmission line corridors for conservation of native bees and other wildlife, July 2019, David L Wagner, Kenneth J Metzler, and Henry Frye. <https://www.sciencedirect.com/science/article/abs/pii/S0006320718318093#:~:text=In%20forested%20regions%2C%20electric%20transmission,otherwise%20targets%20of%20conservation%20efforts>.

An additional directory of resources is provided by the CT Land Conservation Council:  
<https://ctconservation.org/resources/information-on-powerline-right-of-way-vegetation-management/>.