

## **Corridor Vegetation Management Plan**

### **(Vegetation Maintenance of ROW Corridor)**

Progress Energy Carolinas (PEC) has long utilized an integrated vegetation plan for routinely and regularly managing vegetation within rights-of-way (ROW) and the adjacent “danger tree” areas. Because of the unique character and mission of the Blue Ridge Parkway, PEC has developed a Corridor Vegetation Management (CVM) plan for managing vegetation in the ROW corridor where it crosses the Parkway corridor. The CVM describes how PEC proposes to control vegetation within that corridor to ensure safe and reliable operation of the transmission line, while minimizing the visual and environmental impacts within the corridor. The four components of the CVM are described below.

#### **A. Routine Maintenance (“Cycle Maintenance”) Activities**

PEC ROW maintenance would be performed by qualified contractors using hand-clearing, machine cutting and herbicide applications, as appropriate. The CVM includes the following routine maintenance activities:

- Periodic foot and/or aerial patrols to document ROW conditions for work planning purposes;
- Hand cutting, machine cutting and/or herbicide control (see component “B”) within the ROW on a targeted 3-year cycle;
- Periodic side-trimming (cutting of “grow-ins”) of the ROW on a targeted 6-year cycle;
- Periodic reactive/emergent cutting (i.e., immediate response to identified threatening line reliability, including, but not limited to, reduced safety clearances, leaning or dead vegetation along side of the line, and similar immediate concerns); and
- Periodic cutting of “danger trees” (those trees outside the maintained ROW which can fall into or otherwise contact the electrical conductor) on a 5- to 18-year targeted cycle.

PEC conducts routine aerial (helicopter) patrols of every transmission line (currently twice annually, usually in the spring and fall). Aerial patrols are supplemented by foot patrols. Observations of vegetation on and adjacent to the transmission line ROWs are made to identify emergent conditions requiring immediate attention and for maintenance work planning purposes.

Routine maintenance would be conducted by qualified contractors, working under contract for a PEC forester. ROW maintenance would be performed on both the new 43-foot corridor and the adjacent existing 100-foot corridor at the same time, to minimize time spent on Parkway property. Because the existing 230kV line must comply with relatively new FERC/NERC continuity-of-service directives (mandatory reliability standards), which allow no discretion on which trees are cut, any vegetation adjacent to that line that could pose a risk or grow to a mature height of 12 feet or greater will have to be cut.

As indicated above, for routine cycle maintenance, PEC would use methods appropriate to the existing site conditions. Generally, vegetation would be controlled mechanically (e.g., cut with tractor-mounted rotary mowers) or controlled with herbicides. As part of this CVM, PEC would leave agreed-upon low-growing native species in the ROW. There would be no vehicle or equipment crossing of streams and wetlands during routine maintenance.

Where use of mechanical means is not feasible (e.g., excessively steep terrain), or where property owner (in this case, NPS) constraints or environmental considerations (e.g., certain sensitive habitats) necessitate, hand cutting (chain saws) would be utilized. When hand cutting is utilized, vegetation would be cut to near-ground level, and left in place. Larger vegetation would be cut into smaller sections and/or limbs lopped to achieve a lower profile. Cut vegetation would not be left in a position to block flow in any streams.

On a targeted six-year cycle, PEC would conduct side trimming along the ROW. Side trimming involves cutting limbs (or infrequently, entire trees) that grow into the regularly-maintained ROW from the edges, but which are not removed during the three-year maintenance cycle. Typically, this would involve higher-up limbs than can be cut by equipment used during the three-year cycle.

PEC would, as necessary, conduct additional aerial patrols following extreme weather events (e.g., snow/ice storms or heavy winds), or if there is a forced outage on a transmission line. Should any of these patrols identify a situation that has, or could, jeopardize normal operation of the transmission line (e.g., a new, previously unidentified hazard or danger tree is observed), the PEC forester would immediately contact the BRP representative to discuss the need to remove the risk to the line.

Generally, PEC cuts danger trees (as defined above) on a 5 to 18-year cycle. BRP utilizes a “hazard tree” definition, which addresses tree health and other issues. To ensure compliance with both PEC and BRP requirements and responsibilities, the PEC forester and BRP representative would meet every 5 years in the field to review those trees (whether meeting “danger tree” and/or “hazard tree” definition) which would be cut. Those trees identified to be cut would be marked with paint at the stump and the diameter-at-breast-height (dbh) heights. Cut trees would be left in place, and limbed to provide a flattened profile. Trees cut along the “Mountains to Sea Trail” would be limbed and the debris removed or chipped as appropriate to minimize impact to the trail and surrounding area.

“Blowout”, defined as the lateral swing of the conductor during windy periods, can result in certain trees outside the normal danger tree or hazard tree zones posing contact threat to the conductor. PEC and BRP agree that if any trees outside the normal zones pose hazards during blowout conditions, those trees may need to be removed. Both parties would meet on site to resolve.

## **B. Herbicide Control**

Herbicides would be used as an alternative or supplement to mechanical control of woody vegetation. Over time, targeted use of herbicides promotes the establishment of favorable low-growing, non-woody plants, such as grasses and other native plants.

Only registered herbicides would be used, in accordance with label instructions, and would be applied by personnel trained and certified, or under the direct supervision of such a person trained and certified, by the state. Herbicides would be applied by low-volume backpack sprayers, targeting woody vegetation and promoting the succession of a more herbaceous plant community within the ROW. The PEC forester would consult with designated BRP staff and agree on specific herbicides and concentrations prior to usage (Appendix G). PEC would provide 30 days prior notice to the BRP of any intended herbicide application. Herbicides would not be applied to stream/wetland buffer identified by the NPS, nor if the wind speed exceeds 10mph. For each application, PEC would record the name of herbicide, concentration, date of application, location and temperature. Foliar herbicides would be applied only during the period from June 1 – August 31.

## **C. Invasive/Exotics Species**

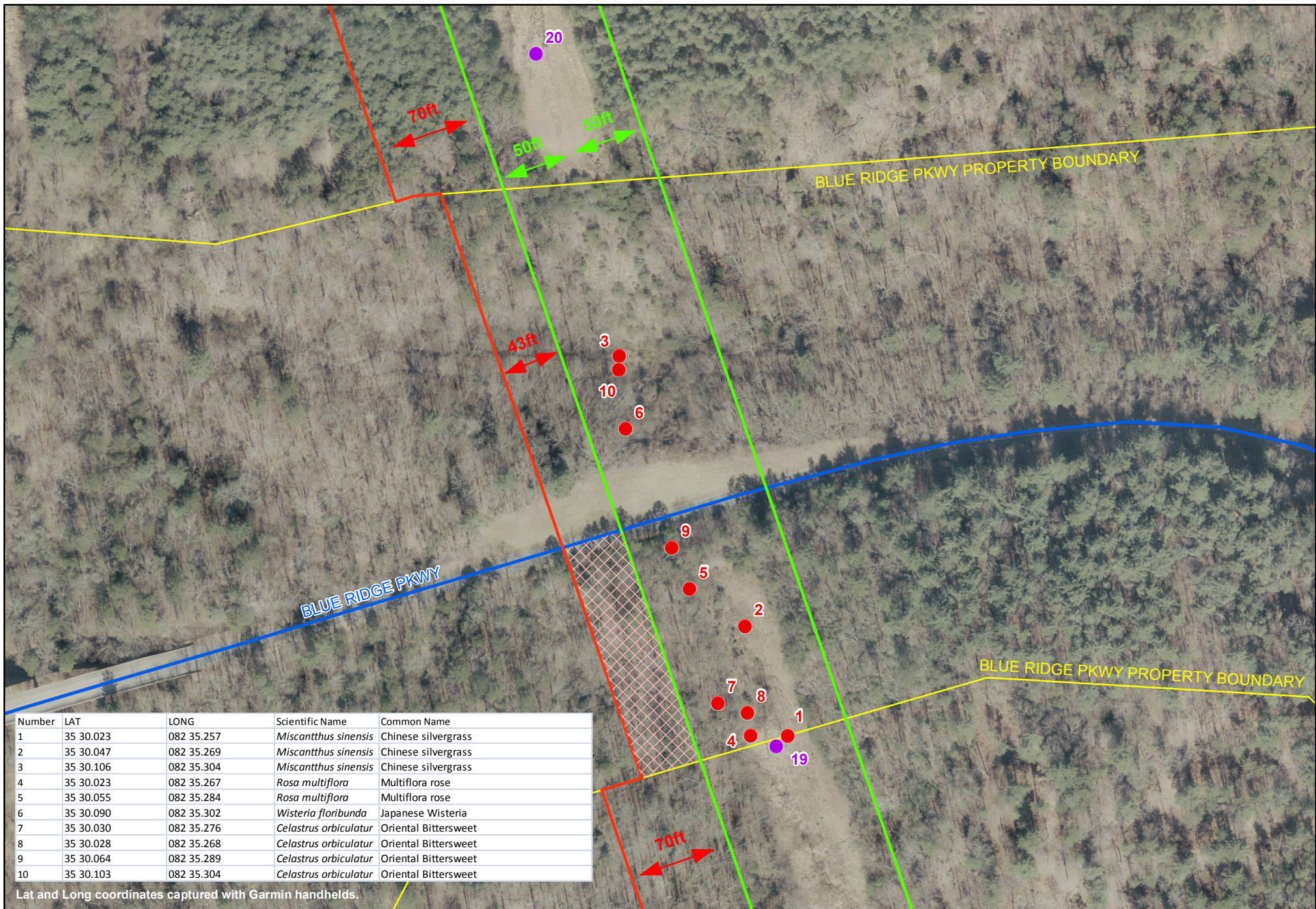
The species inventory conducted as part of the project Environmental Assessment documented several invasive species on the existing ROW (the attached Figure titled “Asheville Plant-Enka East and West Lines, Progress Energy Carolinas, Invasive Plant Locations” shows representative locations of the more frequently observed species). As one example, Oriental bittersweet (*Celastrus orbiculatus*) was found throughout the ROW, with vines growing up the main stem of trees, covering the limbs, and going down to the understory trees. Without control, these species would likely become established on the proposed ROW. PEC’s maintenance plan (the above-described combination of machine- and hand-cutting and/or application of herbicides on a targeted 3-5 year cycle) should effectively control the invasive plants. If the approved list of herbicides does not control the invasive species, NPS would identify other approved herbicides that PEC can use to control the invasive species.

## **D. Annual Plans**

Since an integrated vegetation management approach may result in vegetation management program deviations from target cycles, an annual plan would be developed that documents the planned work for the year.

Based on the practices identified in this CVM, PEC would provide the BRP with an annual plan that identifies the vegetation management activities proposed for the Parkway corridor that would be performed that year. The annual plan would not include reactive/emergent activities (which will be handled as they arise) or patrols (which will not impact the corridor).





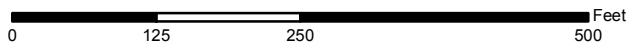
**Progress Energy**

**Legend**

- PEC Transmission Line
- Existing ROW
- Additional ROW

- PEC Structures
- Invasive Species

- Buncombe Parcels
- ▨ Oriental Bittersweet



## Asheville Plant-Enka East and West Lines

### Progress Energy Carolinas Invasive Plant Locations