

## **Jamie King, Urban Forest Manager and University Arborist**

VT Facilities Department  
Sterrett Center, room 38C  
(540) 231-3718

# Old-Growth Forest Tree Risk Assessment Plan

## **OVERVIEW**

The trees in the Old-Growth Forest by Lane Stadium, commonly called the Old-Growth Forest, are a unique example of an old-growth forest located within the confines of an urban environment. Urban trees must be managed by qualified professional arborists to reduce risk and preserve them for future generations. Planning tree inspections on a scheduled cycle, per the Virginia Tech Tree Inspection Procedure, may help identify tree risk that may be mitigated before serious harm incurs to the health or structure of a tree and will help prevent risk to the public and property. If a routine tree inspection reveals a structural defect or other condition that requires further assessment, a tree risk assessment may be necessary, unless immediate mitigation is required as determined by the Urban Forestry Team. This plan establishes a routine inspection schedule the Urban Forestry Team shall initiate in the Old-Growth Forest to facilitate the preservation of trees and reduction of risk.

## **GOALS**

This plan:

- shall accompany the development of the Virginia Tech Tree Policy
- shall provide high-quality arboriculture practice on Virginia Tech's properties
- shall ensure trees with observable defects or conditions requiring investigation are assessed
- shall allow the Urban Forestry Team to mitigate risk in a timely manner
- shall assist with the preservation of trees in the Old-Growth Forest

## **SCOPE**

The Urban Forestry Team is responsible for all trees on the Virginia Tech campus in Blacksburg, Virginia. Tree inspections and tree risk assessments are conducted in accordance with the VTree Inspection Procedure and the VTree Risk Assessment Procedure. This plan concerns only the trees located in the Old-Growth Forest, designated with OGF as part of the Tree ID.

## **PROPOSED SPECIFICATIONS**

### **Qualified Practitioners:**

All tree risk assessments shall be performed by an ISA Qualified Tree Risk Assessor within the Urban Forestry Team or contracted by the team as necessary.

### **Risk Management:**

While all trees in the Old-Growth Forest pose some level of risk to the public, property, and tree assets, the level of risk associated with these trees may be managed to an acceptably low level through tree inspections and mitigation practices, as determined by the Urban Forestry Team, with the ultimate goal of low risk within and adjacent to the Old-Growth Forest and low risk of tree failure to assist with tree preservation.

The majority of the Old-Growth Forest is not accessible to pedestrians or vehicles and occupancy rates will be predictably low in these spaces. The areas in and around the Old-Growth Forest that have more frequent pedestrian and vehicular traffic include the paths on the east and west side of the forest, along the emergency egress road separating the north and south sections of the forest, areas directly adjacent to the rappelling tower, and along some of the primary pedestrian trails in the forest. Tree inspections may be focused on these areas to capture the trees that have the potential to pose the highest level of risk to the public and property. Tree inspections for the purpose of tree preservation may reveal conditions that could possibly lead to tree failure or death; these inspections should be conducted as needed.

Tree risk mitigation may include actions to reduce or eliminate pedestrian or vehicle traffic near specific trees, pruning to reduce limb or tree size, installation of supplemental support systems (including braces, cables, or props), or tree removal. Due to the ecological sensitivity and the historical importance of Old-Growth Forest, mitigation practices that limit disturbance to the health and structure of trees requiring corrective action should be utilized and should support preservation efforts. The creation of wildlife snags and salvaging tree wood for incorporation with the forest floor should be implemented whenever possible, as determined by the Urban Forestry Team.

### **Inspection Protocol:**

All tree risk assessments shall conform to ANSI Z133 and ANSI A300 standards unless authorized by the Urban Forestry Team.

Trees in direct proximity to (within falling distance) of the paths on the east and west side of the forest, the emergency egress road between the north and south sections of the forest, nearby the rappelling tower, and along some of the primary pedestrian trails in the forest shall be

inspected each year before the fall semester begins. Trees further away from these locations may need inspection on a less frequent basis and should be inspected as needed.

Tree inspections shall be scheduled directly after storms or other weather events that damage the trees in the Old-Growth Forest as needed.

As the Urban Forestry Team follows the Virginia Tech Tree Inspection Procedure some trees may show evidence of structural defects or health conditions that could pose unacceptable risk to the Virginia Tech Community. These trees shall be scheduled for tree risk assessment as soon as practical. A work order shall be filed with the tree ID logged.

## Tree Risk Assessment

When the Tree Inspection Procedure reveals trees that require Tree Risk Assessment, the VTree Risk Assessment Procedure shall be followed.

The level of tree risk assessment, level 1, 2, or 3 shall be dictated by the tree defects and conditions recognized by the arborist at the site.

**Level 1** – This is a limited visual assessment of an individual tree or population of trees. It can be performed as a “walk by” assessment in the case of many trees or even as a limited assessment as might be performed during maintenance planning.

**Level 2** – The Level 2 assessment is a 360-degree visual evaluation of a tree where the crown, trunk, trunk flare, above-ground roots, and site conditions are evaluated in regard to potential targets. The Level 2 assessment will often be carried out using the ISA Basic Tree Risk Assessment form.

**Level 3** – This category would include any risk assessment that would exceed the Level 2 category including aerial assessments, decay detection through drilling or tomography, and root crown examinations.

Most trees should require a level 1 or level 2 assessment but trees with observable defects or conditions that require specialized tools and techniques may necessitate a level 3 assessment.

Tree risk assessments must follow the ISA Tree Risk Assessment process. The Basic Tree Risk Assessment Form may not be required to collect data for level 1 or level 2 assessments, but the tree risk assessor shall utilize the form for all level 3 tree risk assessments.

In general, time frames for risk assessment in the Old-Growth Forest should be for 1 year, although assessment time frames shall be appropriate for the tree and the site, as determined by the tree risk assessor. Conditions or sites that present greater uncertainty to the tree risk assessor may require shorter time frames for the risk assessment.

Some trees may require witness interviews when collecting data. These interviews may provide the assessor with historical context and observations from the past; the Urban Forestry Advisory Committee should be consulted when assessing these trees. The majority of trees may not require witness interviews but the Urban Forestry Advisory Committee may be consulted as needed.

Tree risk assessment records shall be kept in the Urban Forestry Team, written notes and field documents shall be filed with annual field records and digital reports shall be filed with other preservation reports. Reports may be required for high risk/high profile/high-value trees and shall be shared with the Urban Forestry Advisory Committee.

Required mitigation practices or followup assessments shall be scheduled in HokieServe and completed as is practical, as determined by the Urban Forestry Team. Please see the Virginia Tech Tree Work Order Procedure.

## **PROJECTED OUTCOMES**

The Old-Growth Forest at Virginia Tech is of great value and is vulnerable to various biotic and abiotic pressures and stresses. Each tree in the forest (and the site where it grows) must be managed individually for risk management, good vitality, sound structure, and sustainability. This plan will ensure trees in the Old-Growth Forest are preserved to the highest degree possible through active management and that trees that may pose unacceptable risk to the public, property, or services are identified through the Virginia Tech Tree Inspection Procedure and facilitate the reduction of risk.