

## **Skidmore College Campus Tree Care Plan**

### **Purpose**

The purpose of the Skidmore College Tree Care Plan is to outline general tree care and management and procedures to maintain the integrity of our forest community and natural ecosystems. The plan will:

- enhance species diversity and improve resiliency among Skidmore's tree community;
- provide educational opportunities for our community members;
- maintain and/or enhance the natural aesthetics of the Skidmore College campus; and
- ensure campus trees are maintained using informed management practices that reinforce the safety of the campus community and the health of College-owned trees and shrubs.

### **Responsible Party**

The Skidmore Grounds department under Facilities Services will lead the maintenance of most campus tree work or will consult with contractors to ensure the policies and procedures outlined in this plan are understood and followed. The Tree Campus Advisory Committee will be responsible for guiding and updating the policies set in this plan.

### **Tree Care Practices and Policies**

#### **Planting**

Tree and shrub species will be selected using a variety of criteria and will adhere to the College's commitment to planting non-invasive species on the developed portions of campus. We will plant trees in accordance with ANSI A300: Tree, Shrub, and Other Woody Plant Maintenance- Standard Practices (Planting and Transplanting). Plants will be selected from USDA hardiness zone five from the list of recommended species in Appendix A. The College will aim to plant a wide variety of species to enhance the diversity and resiliency of our tree and shrub communities.

#### **Landscaping**

Newly planted trees will be mulched within 48-hours of initial planting, and in accordance with the ANSI A300: Tree, Shrub, and Other Woody Plant Maintenance- Standard Practices (Planting and Transplanting). No mulch will be placed within four inches of the tree or shrub trunk, nor will mulch be left on sidewalks, roadways, curbs, or other structures.

#### **Maintenance**

The Skidmore College Grounds Department will oversee the regular maintenance of the College's trees and shrubs, or will delegate the work to a certified contractor. The Grounds Department will be responsible for surveying and inspecting campus trees and shrubs and developing maintenance schedules. Routine maintenance includes watering and fertilizing recently planted trees or shrubs.

### **Pruning**

All pruning will follow the ANSI A300: Tree, Shrub, and Other Woody Plant Maintenance- Standard Practices (Pruning). Pruning will be conducted as needed and will be prioritized using data collected from campus trees and shrub surveys.

### **Removal**

Skidmore will remove trees that have been identified as a hazard to public safety or pose a significant risk to property as soon as possible. Trees will be removed below grade and the area will be restored.

Trees or shrubs with health or pest concerns will be removed as budget allows, and priority will be assigned to those that pose the greatest risk to the health and safety of our campus and plant communities. If a tree or shrub is removed due to poor health or pest related issues, all material will be transported or remediated.

### **Catastrophic Event Management**

In the case of a major weather event that causes severe or significant tree damage such as high wind, ice, heavy snow, trees will be categorized, prioritized, and removed based on its proximity to high use areas, the level of risk it poses to people or structures, and the severity of damage. Once safety issues have been addressed, the Grounds Department or certified arborist will assess and recommend a plan that includes removal and restoration of damaged trees. This plan will be implemented after consultation with the Grounds Department and the Campus Tree Advisory Committee (time permitting) as soon as practical and affordable.

### **Protection and Preservation**

Skidmore will protect trees in construction or renovation zones if the health and condition of the tree warrant protection. Transplanting may be considered, but will be determined by the size, age, condition, and value of the tree, and as funding allows. Trees will be protected using the ANSI A300: Tree, Shrub, and Other Woody Plant Maintenance- Standard Practices (Site Planning, Site Development). Trees that must be removed due to construction or renovation will be replaced as space and budget allow.

Before construction, a site walk-thru will be scheduled between the Head of Grounds (or a representative of Facilities Services) and the contractor to determine protection expectations and to assess pre-construction site conditions. The Skidmore College representative and contractor are expected to discuss potential issues related to overhanging branches and storage/staging of construction materials and equipment within a protected zone.

All excavated material in a protected zone shall be backfilled with only clean, viable soil. If possible, native soil from the site will be returned. If native soil cannot be returned, the replacement soil should match the existing soil profile.

Contractors should immediately notify the Head of Grounds or a Facilities Services representative if a protected plant is impacted in violation of the agreed upon protection zone. Failure to communicate promptly could result in fines.

### **Prohibited Practices**

The following prohibited practices should be followed by contractors and Skidmore College members, including employees, students, and visitors:

- moving or removing tree protection barriers;
- nailing or screwing items into plants, unless authorized by the College;
- chaining, bolting, or locking items, including machinery, bicycles, or other equipment to plants, unless authorized by the College;
- storing materials or equipment within protected zones;
- unauthorized excavation or trenching within protection zones;
- unauthorized filling within protection zones;
- dumping construction materials or waste;
- unauthorized cutting, removal or scraping of bark, or breaking of branches;
- unauthorized transplanting or removal of plants.

### **Communication Strategy**

We will share Skidmore's participation in the Tree Campus USA program and during campus tours and by publishing announcements in Skidmore College News and the Sustainability Bulletin. The College's membership in Tree Campus USA will be made visible on the College's sustainability website.

We will share the Tree Care Plan with all project managers, and the policies, practices, and procedures set in this plan will be considered during project development.

### **Goals and Targets**

1. Contribute to the development of a Lands Management Plan- The 2015 Skidmore College Campus Sustainability Plan calls for the development of a Lands Management Plan for the College's 800+ acres of woodlands, many of which have substantial educational and recreational opportunities. Skidmore anticipates that the work of the Tree Campus Advisory Committee will contribute to the efforts of the Lands and Grounds working group, which has been tasked with developing the Lands Management Plan.

The Lands and Grounds working group and the Tree Campus Advisory Committee have begun developing the College's Lands Management Plan for the college's undeveloped land. These groups have walked parcels of land that are relatively unfamiliar to help determine possible uses and inform management planning. Members have also toured and surveyed newly donated land to inform the stewardship planning process. These groups are now meeting regularly to share updated and draft a management planning document for specific college parcels.

2. Develop annual Arbor Day tradition- Skidmore will develop creative events around Arbor day to celebrate our commitment to tree care and sustainability. We will aim to hold an event near the end of April, around National Arbor Day. The event may include organized tree plantings, community service, or trail maintenance on campus land or within the greater Saratoga Springs community.

Complete. For the last four years, the Sustainability Office has organized Sustainable Service Day, which encourages and coordinates volunteerism on campus and within the Saratoga Springs community to support programs and organizations that are advancing sustainability. The effort has been expanded to both the spring and fall semesters as demand and participation grew.

3. Initiate tree inventory- Using GIS, we aim to map existing trees on the developed portion of campus.

Since the 2017 fall semester, the Sustainability Office, Environmental Studies and Sciences, and the Skidmore GIS Center partnered to complete the campus tree inventory. Over the course of each semester, student interns learn how to use sophisticated GPS units, identify tree species and measure DBH, assess tree health, and map campus trees using ArcView. After three semesters, we believe 100% of the trees on the developed portion of campus have been mapped. We expect to complete this project in 2019 as we look closely at the data to ensure it is accurate, make improvements to our tree map, and develop a tool for virtually exploring our campus trees.

4. Carbon sequestration analysis of campus woodlands- If time and resources allow, Skidmore would like to begin tracking carbon sequestration of its woodlands.

In 2017, students in the Environmental Studies and Sciences Program completed a senior capstone project, Put a Price on It: Measuring Ecological Value of a Diverse Landscape, which includes a thorough study of above- and below-ground carbon storage in portions of the College's undeveloped lands. Additionally, a faculty member in the Environmental Studies and Sciences Department has incorporated carbon sequestration measurements into curriculum and laboratory studies to support Skidmore's sequestration analysis. The Lands Management Planning Group, in conjunction with the Tree Advisory Committee, are considering how to incorporate carbon sequestration in the College's Land Stewardship Plan.

## Appendix A

### Recommended Species

Common Name	Scientific Name
Box Elder	<i>Acer negundo</i>
Red Maple	<i>Acer rubrum</i>
Silver Maple	<i>Acer saccharinum</i>
Sugar Maple	<i>Acer saccharum</i>
Black or Sweet Birch	<i>Betula lenta</i>
River Birch	<i>Betula nigra</i>
Gray Birch	<i>Betula populifolia</i>
Hornbeam	<i>Carpinus caroliniana</i>
Hackberry	<i>Celtis occidentalis</i>
Eastern Redbud	<i>Cercis canadensis</i>
Fringetree	<i>Chionanthus virginicus</i>
Flowering Dogwood	<i>Cornus Florida</i>
American Beech	<i>Fagus grandifolia</i>
Eastern Red Cedar	<i>Juniperus virginiana</i>
Sweet Gum	<i>Liquidambar styraciflua</i>
Tulip Poplar	<i>Liriodendron tulipifera</i>
Sweetbay Magnolia	<i>Magnolia virginiana</i>
Black Gum	<i>Nyssa sylvatica</i>
American Sycamore	<i>Plantanus occidentalis</i>
Eastern Cottonwood	<i>Populus deltoides</i>
Wild Plum	<i>Prunus americana</i>
Black Cherry	<i>Prunus serotina</i>
White Oak	<i>Quercus alba</i>
Swamp White Oak	<i>Quercus bicolor</i>
Scarlet Oak	<i>Quercus coccinea</i>
Pin Oak	<i>Quercus palustris</i>
Chestnut Oak	<i>Quercus prinus</i>
Red Oak	<i>Quercus rubra</i>
Black Oak	<i>Quercus velutina</i>
Black Willow	<i>Salix nigra</i>
Sassafras	<i>Sassafras albidum</i>
Basswood	<i>Tilia americana</i>
Northern Catalpa	<i>Catalpa speciosa</i>
Kentucky Coffeetree	<i>Gymnocladus dioicus</i>
Honeylocust	<i>Gleditsia triancanthos</i>
Ginkgo	<i>Ginkgo biloba</i>
Norway Spruce	<i>Picea abies</i>
Eastern Hemlock	<i>Tsuga canadensis</i>
Northern White Cedar	<i>Thuja occidentalis</i>
Crab apple	<i>Malus spp.</i>

**Prohibited Species:**

Common Name	<i>Scientific Name</i>
Norway Maple	<i>Acer platanoides</i>
Burning Bush	<i>Euonymus alatus</i>
Black Locust	<i>Robinia pseudoacacia</i>
Japanese Knotweed	<i>Reynoutria japonica</i>
Japanese Barberry	<i>Berberis thunbergii</i>

Any species currently on the New York State invasive species list.