



## The Need for Canopy Thinning

As the glaciers receded from our region over 12,000 years ago, Native Americans moved into the landscape and began shaping it with fire. They burned the woodlands, savannas, wetlands and prairies regularly to promote the growth of food plants and to attract game species. These fires ensured that fire-tolerant oaks and hickories dominated the landscape. The open canopy of these habitats allowed sufficient sunlight to reach the ground so that a diversity of fire-tolerant wildflowers, grasses and shrubs could thrive. These plants in turn supported a diverse array of wildlife including beneficial insects, songbirds, reptiles, amphibians and mammals.

Fire suppression during the past 170 years, deer overbrowse and human-created disturbances have caused many changes in these woodlands. Without fire, the woodlands have been invaded by aggressive, shade tolerant understory trees such as maple, ash, cherry, elm, basswood and box elder. These trees closed the canopy, creating a darker, more forest-like environment. Little light remained for oak seedlings and diverse ground layer plants. In addition, a growing deer population browsed the oak seedlings and native plants. These unbalanced ecosystems were ripe for invasion by non-native species such as buckthorn, honeysuckle and garlic mustard, which are not controlled by our native pests.

Our oak-hickory woodlands are now at a critical point. Deer browse and dense shade combine to create a situation in which oak seedlings have a difficult time sprouting and surviving; once the old trees die, the oak woodland will expire. In order to save our oak woodlands we must take an active role, including the removal of invasive species, thinning out aggressive native tree species, initiating a regular fire regime and reestablishing and promoting native woodland plants. This article will briefly discuss tree canopy thinning and the Village's innovative canopy thinning cost sharing program.

### **Canopy Thinning**

Thinning operations should be included in a woodland management plan and overseen by an arborist. The timing of thinning will depend on the species and rate of growth. Canopy coverage over an area should range from 30% to 80%, depending on the soil type, slope and aspect (compass direction) of the woodland being restored.

### **Visual assessment**

Each property requires individual assessment. A visual check will show where tree crowns are overlapping and thinning is needed. The aim should be to create a "ring of sky" around each tree that is retained, and into which it will spread. The woodland edge should normally be left

unthinned, to create dense, branching growth which shelters the woodland from the wind. Trees can be selected to give a variety of form and structure, and to break up planting lines.

### **Selective thinning**

This technique involves individually selecting trees for thinning, normally removing those that are weak, diseased, forked or dead, and retaining the strongest, straightest and healthiest trees. Where growth is good throughout a property, the removal of viable trees may be necessary. Selection of trees should be made in winter, when the crown and upper stem can easily be seen.

### **Village Cost Sharing Program for Canopy Thinning**

Our Village has established an innovative cost sharing program for residential property canopy thinning. The Village will reimburse property owners 50% of the cost of canopy thinning, up to a maximum reimbursement of \$2,000 per lot. There is a \$100 nonrefundable application fee. The intent of the Canopy Thinning Program is to provide for the removal of selected trees in order to reduce shade levels and competition for the desirable species that are present on a property or that will be planted on a property.

This program requires an assessment of the existing conditions on the property and the preparation of a plan that includes marking the trees to be removed. The resident must hire a qualified contractor to remove the specified trees. Village approval and a permit must be obtained prior to scheduling the work. Please see details and the application form on the Village's website at [www.villageofriverwoods.com](http://www.villageofriverwoods.com) under "Forestry Cost Share."