



**CHICAGO
REGION
TREES
INITIATIVE**

Our Trees.
Our Communities.
Our Future.

Ordinances and Policy Tools
Lake Michigan Watershed – Chicago Region

Preface for Perspective



Source: American Public Works Association

Lake Michigan
Watershed

1887 Reversal of
the Chicago
River

Protect
Chicago's Water

Perspective



“Mr. T’s 1987 Lake Forest Chainsaw Massacre”



Understand Why Trees Are Important



<http://chicagorti.org/PriorityMap>

Tool Box

- an ordinance is the actual box!



Source: Grainger



Different types of ordinances

General Provisions
Administration
Boards and Commissions
Business and Licensing
Health and Sanitation
Building Regulations
Zoning
Land Use and Development
Public Ways and Property
Tree Preservation
Police
Motor Vehicles
Misdemeanors
Sign Control
Stormwater
Conservation
Special

Regulations
around trees
are distributed
throughout the
entire code!

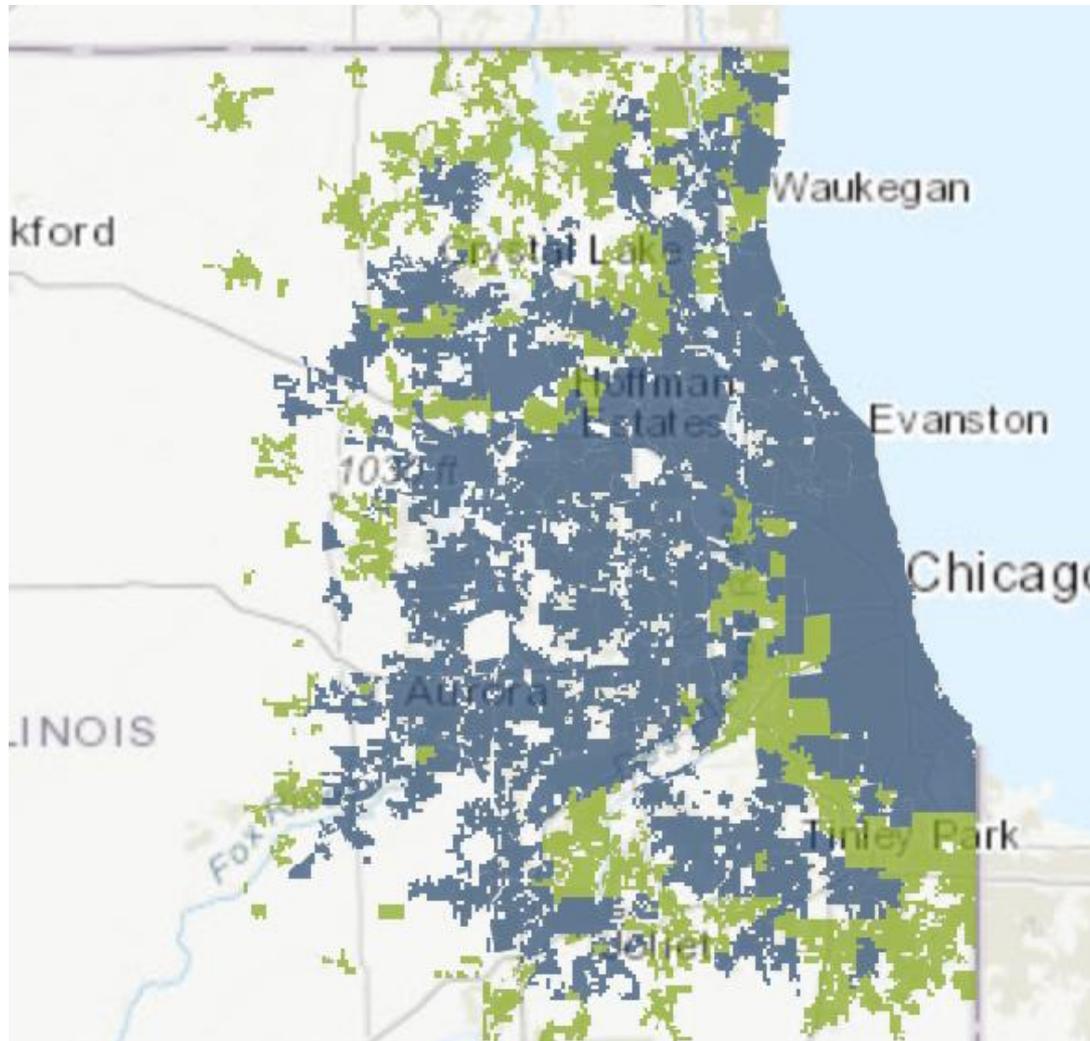


Trees are infrastructure like roads, sewers, waterlines

Should be regulated, protected and maintained on public and private land – because services cross boundaries

Source: USFS Northern Research Station

Capacity Survey



- Professionalism
- Ordinances
- Mgmt. Plans
- \$ Allocated
- Inventory
- Pruning
- Etc.

<http://chicagorti.org/PriorityMap>

Templates – Tree Preservation



Source: UK Healthcare

Bronze – public property ordinance includes practices that would be included in a management plan

Silver -- public property ordinance based on a management plan

Gold – public and private property ordinance based on a management plan



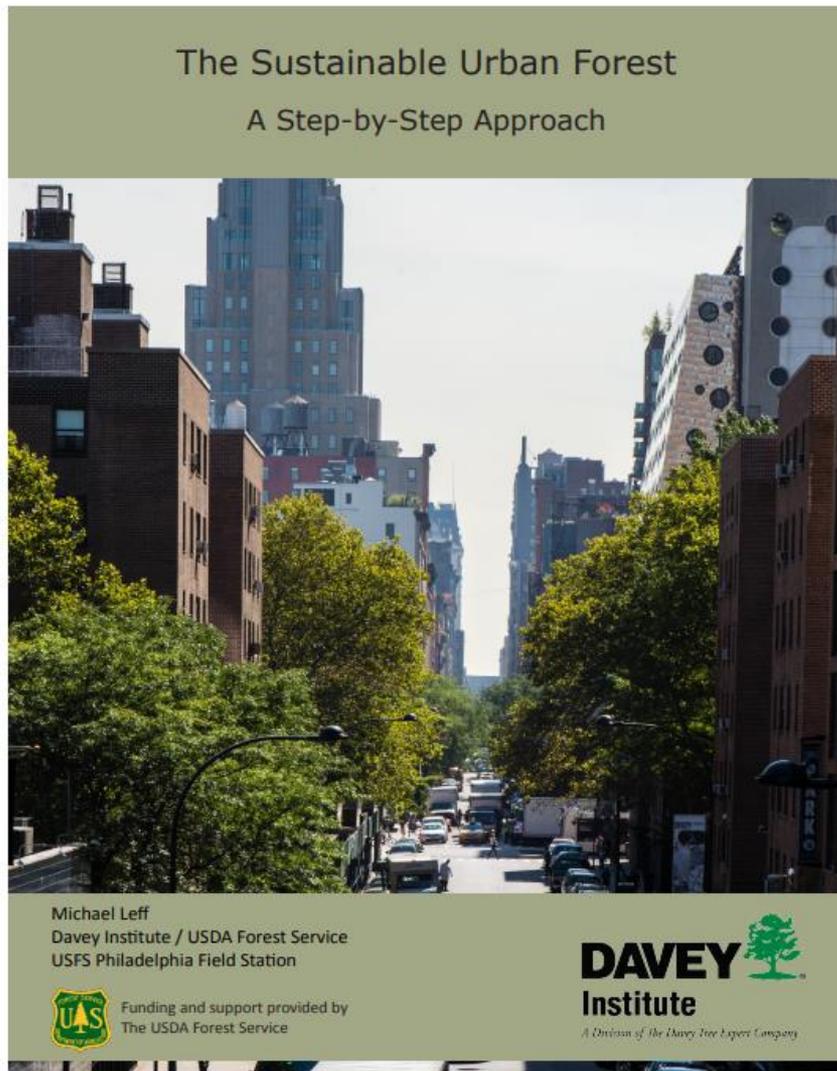
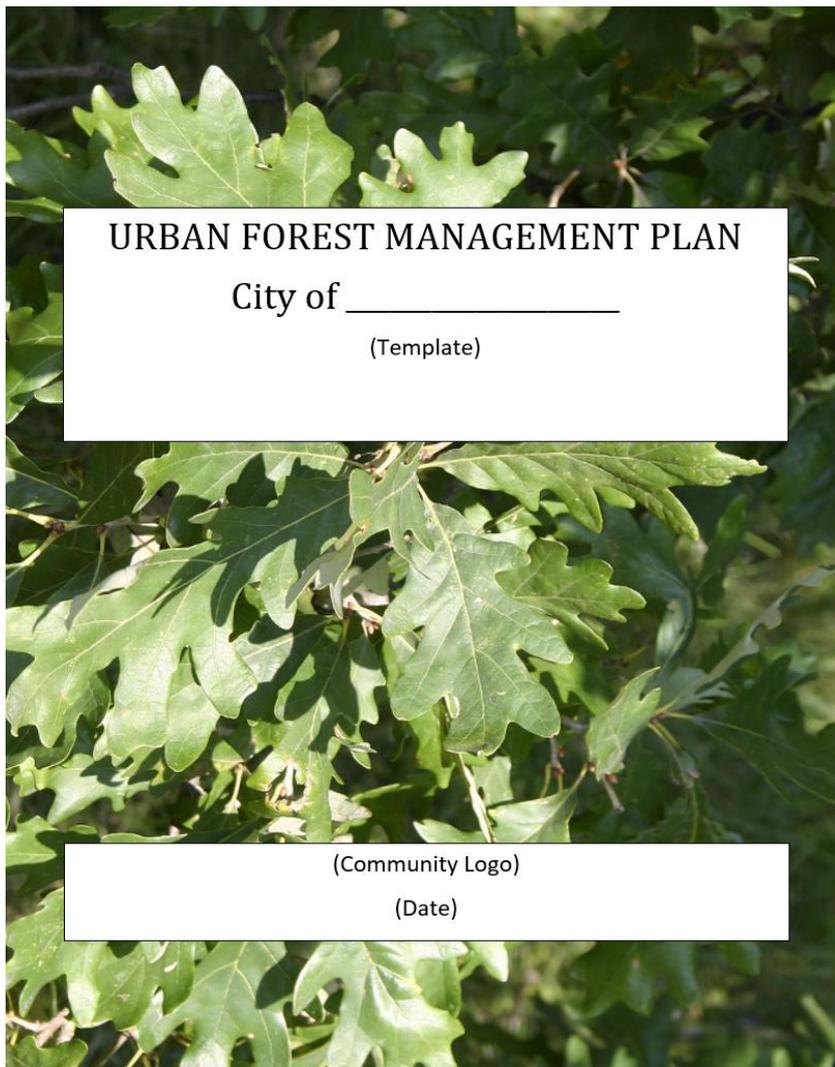
Basic Sections “Tools”

- Statement of Purpose
- Definitions
- Standards and Specifications ANSI etc.
- Preservation
- Legacy Trees
- Tree Protection
- Conditions for Removal
- Replacement
- Credits
- Invasive Species
- Diversity 5:10:15
- Naturalized/Conservation Areas
- Tree Board
- Tree bank
- Permitting
- Enforcement

**Urban Forest
Management Plan**
foundation for
ordinance or
content included
in ordinance



Urban Forest Management Plan



Inventory



CRTI Forest Canopy Summaries

Chicago Urban Forest Summary



The Chicago Region Trees Initiative (CRTI) goal is that, by 2050, the Chicago Region will support and host

a healthier urban forest, comprised of a diversity of tree species and ages, appropriately distributed across land use types in the region. The forest will provide the region improved environmental, economic, and social benefits. In order to achieve that goal CRTI works with a wide variety of people who work with and manage trees. This document is intended to help municipalities understand their urban forest, and identify strategies that they can use to make it better.

The *urban forest* is comprised of all of the trees in an urban setting, regardless of who owns or manages them. It is made up of street trees, forested natural areas and even the trees in resident's back yards. These trees are all included in the urban forest, because they all provide benefits that municipalities depend on. They improve air and water quality, reduce flooding and the urban heat island effect, and reduce energy use by shading buildings. Trees provide habitat for wildlife and improve residents' quality of life by reducing crime rates, increasing property value and boosting social cohesion in neighborhoods.

The magnitude of benefits that trees provide correlates with the size, structure and location of their canopy. Understanding the extent of tree canopy is critical for urban planning. Canopy maps can be used to quantify the benefits that their trees provide, identify where new plantings would have the greatest impact and to develop priorities and strategies for expanding the canopy.

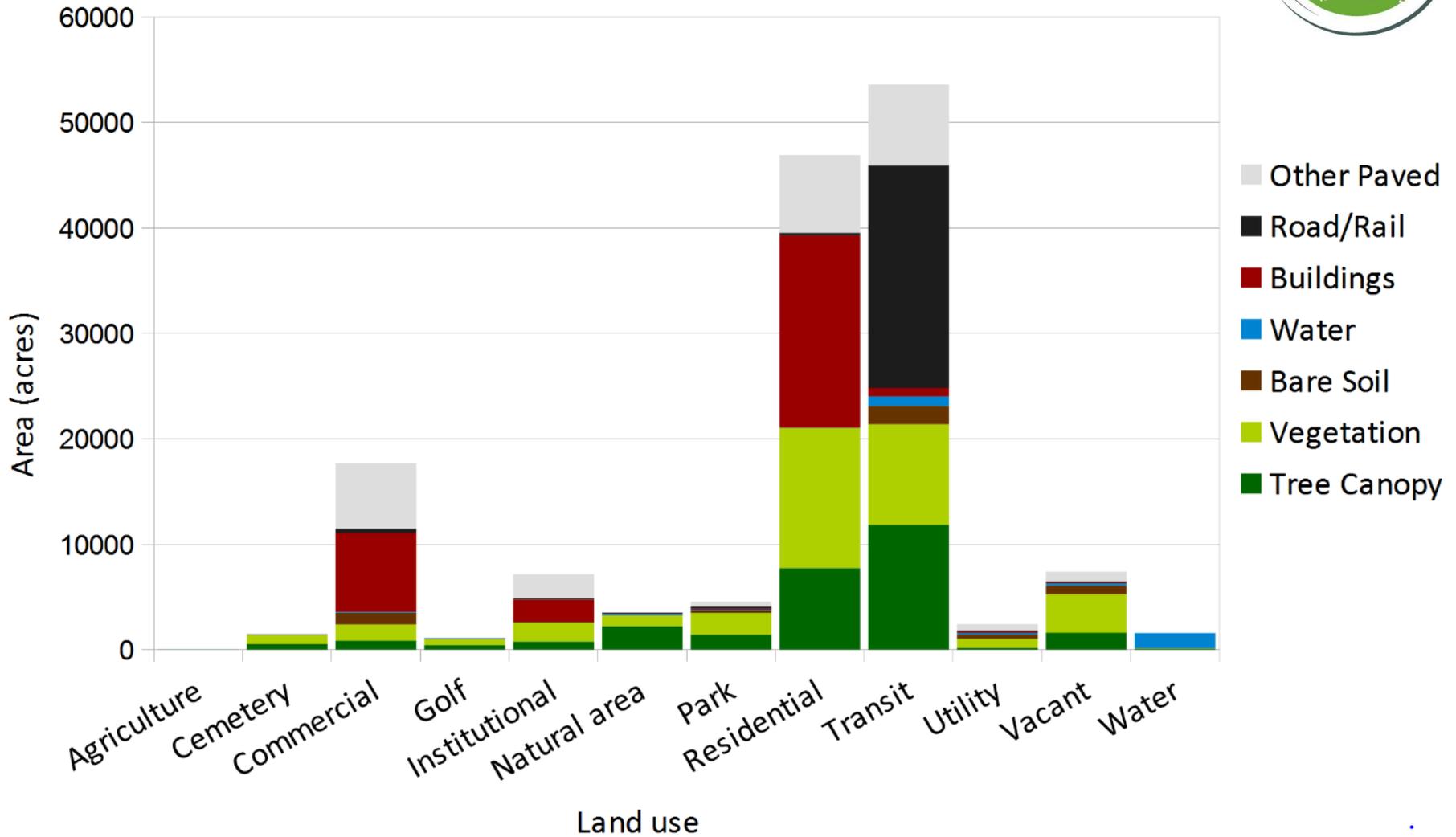
The Chicago Region Trees Initiative, USDA Forest Service, American Forests, and the University of Vermont mapped land cover across the seven-county Chicago Region. This project not only identifies tree canopy, but also other green infrastructure including vegetation under 10 feet tall, bare soil and water; and gray infrastructure including buildings, roads and rail and other paved surfaces like sidewalks and parking lots (Fig. 1). Here after, these seven layers will be referred to as *land cover types*.

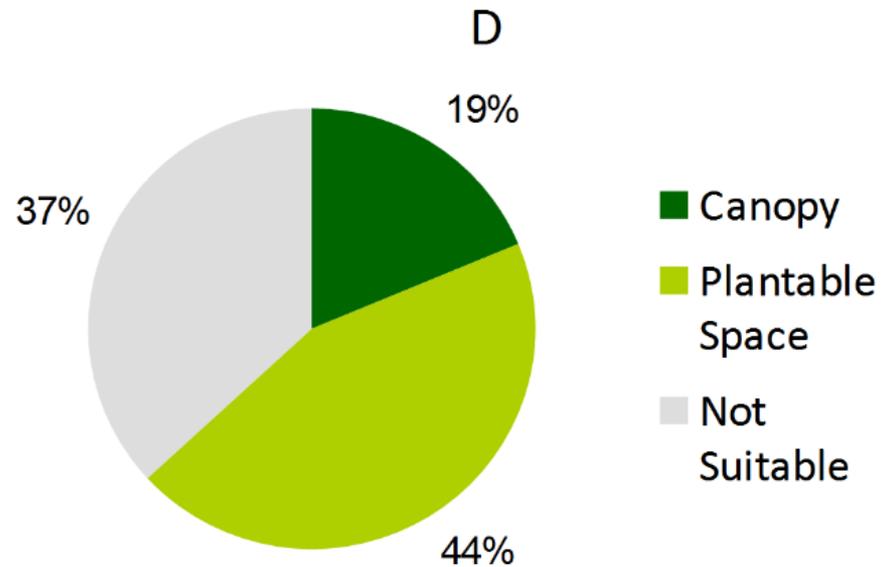
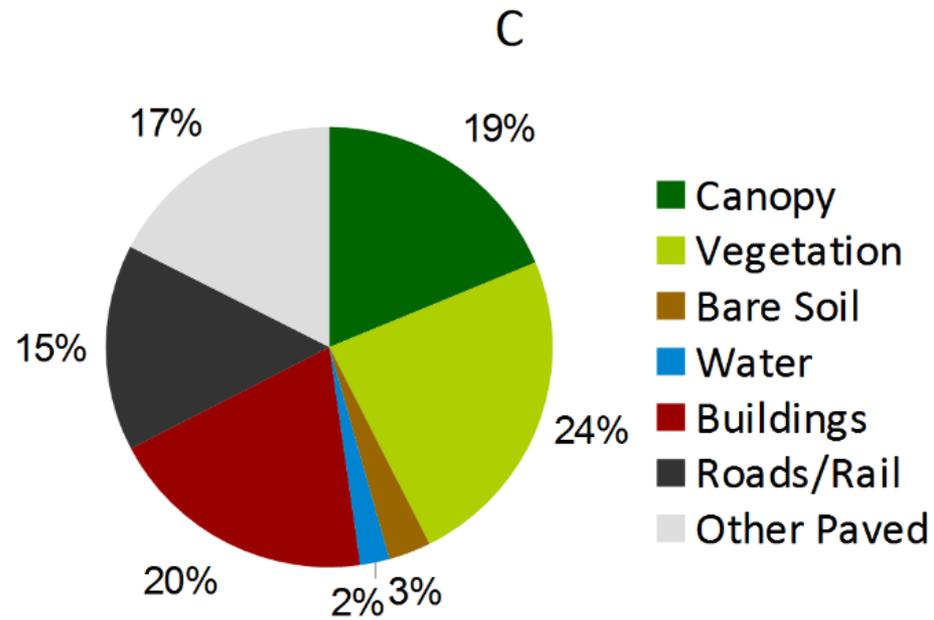


Fig. 1: Comparison of satellite image and land cover map. Seven types of gray and green infrastructure are in the land cover map.

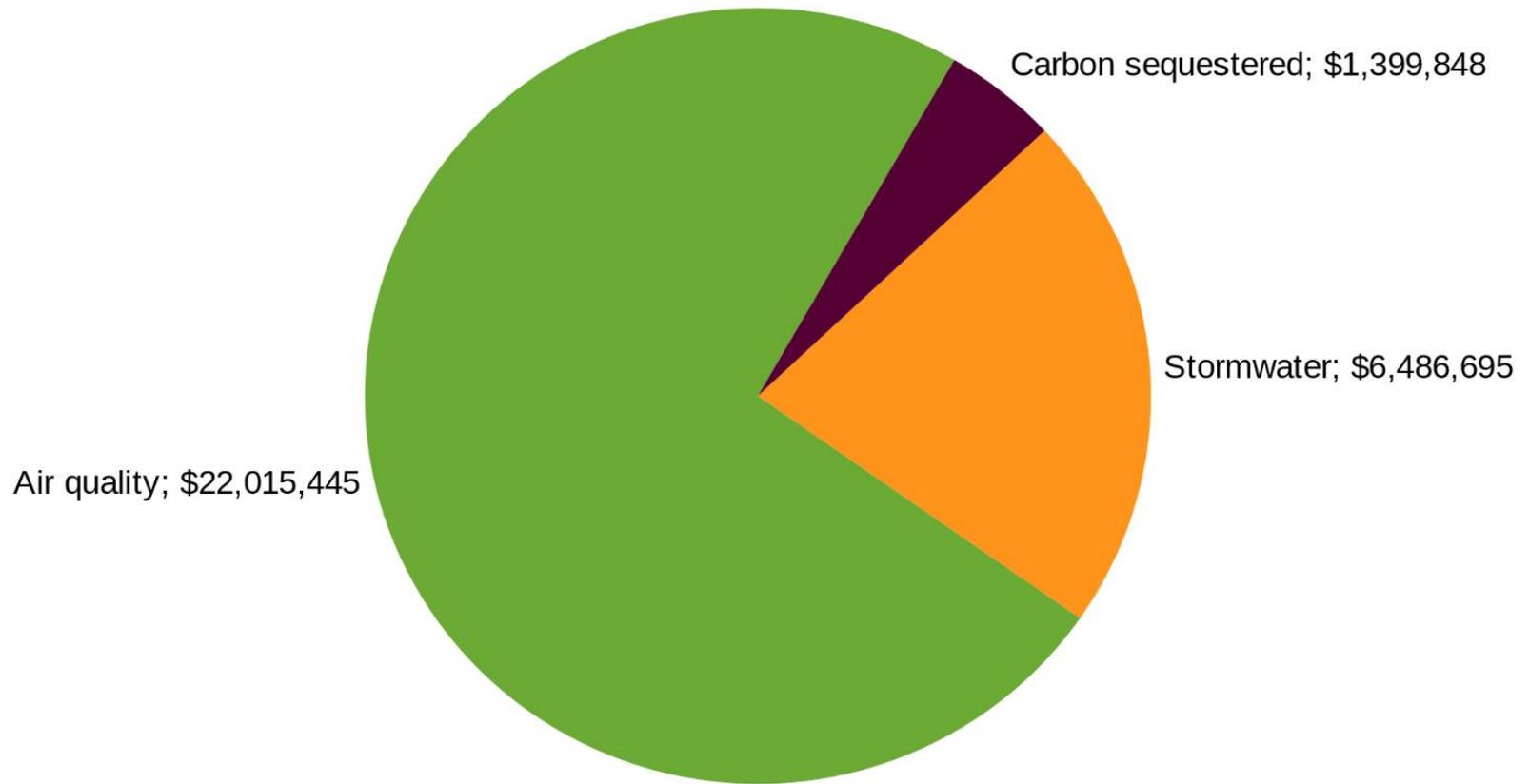


Land cover area by land use

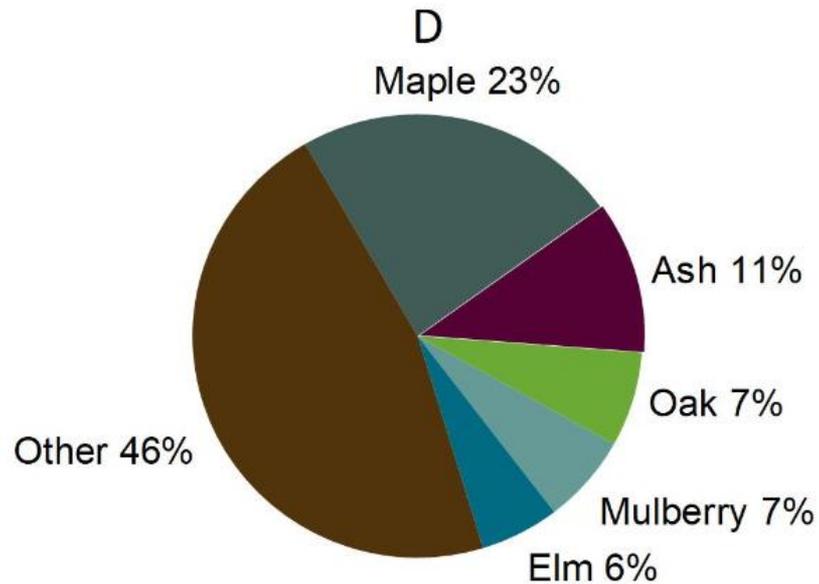
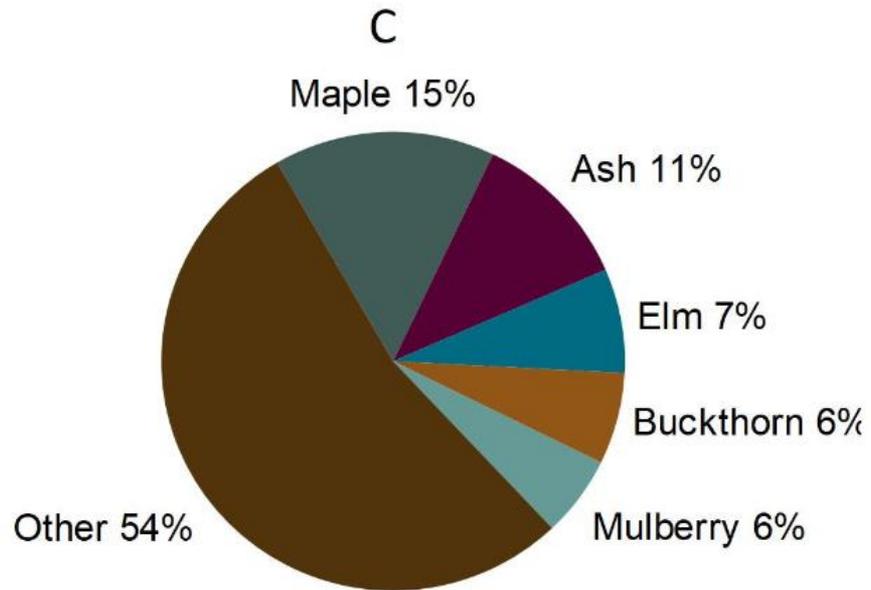




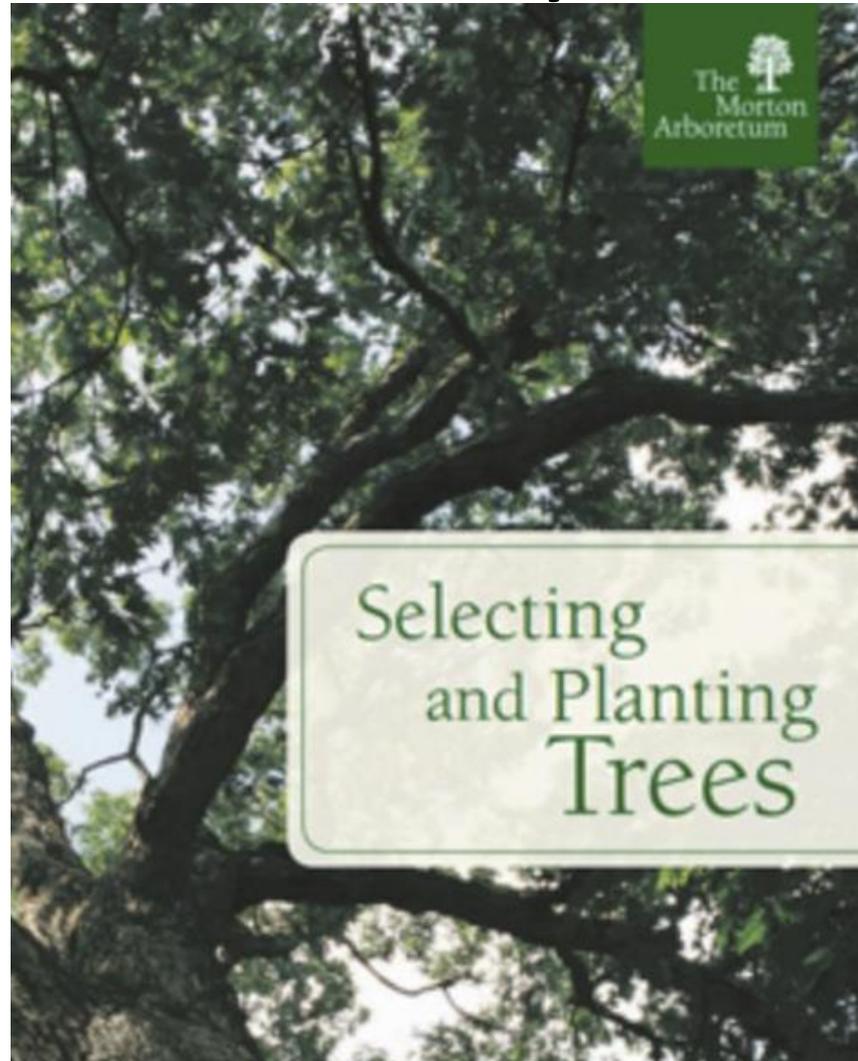
CRTI Forest Canopy Summaries



Species Composition



Species and Diversity



Resources



United States
Department of Agriculture

Forest Service

Northeastern Area
State and Private Forestry

NA-FR-04-07
November 2008



Tree Owner's Manual

for the
Northeastern
and
Midwestern
United States

www.treeownersmanual.info

Fact Sheets

PLANTING TREES

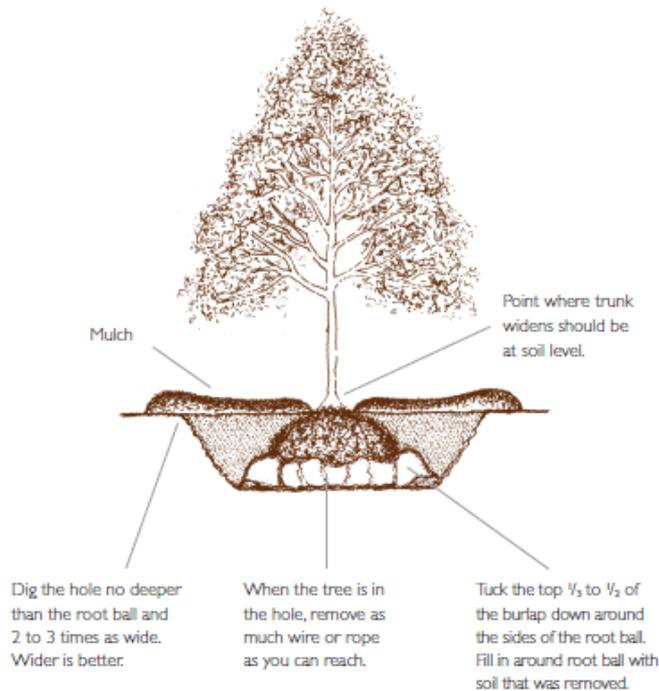


Plant a tree the right way so it has the best chance to thrive and will provide greater benefits throughout its life. Follow these tips to give your tree a good start. For more information and help selecting the right kind of tree, see mortonarb.org/plantadvice.

Trees are measured by the caliper inch, meaning the diameter of the trunk in inches.

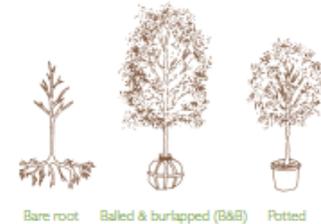
A wide hole, not too deep

A tree needs a wide, shallow planting hole so it can spread out new roots. Trees that are balled and burlapped lose between 70 and 90 percent of their root mass when they are dug up for transplanting.



Ways to buy trees

Trees from nurseries come one of three ways: bare root, balled and burlapped (B&B), or potted (containerized).



Bare root trees have exposed roots without any soil on them. The roots must be kept moist and covered because they can dry out quickly. Bare root trees are usually small—less than 2-inch caliper—and should be planted when dormant (late fall or early spring).

Balled and burlapped trees are dug up with some roots in a ball of soil that is then wrapped in burlap. The soil helps keep the roots moist.

Potted trees are becoming widely available. They can become rootbound, so remove the pot and carefully unwrap or even cut back circling roots when planting.

300_07114_CACI_Roland 808_T_Indigo ©2014 The Morton Arboretum

Invasive Species Regulations

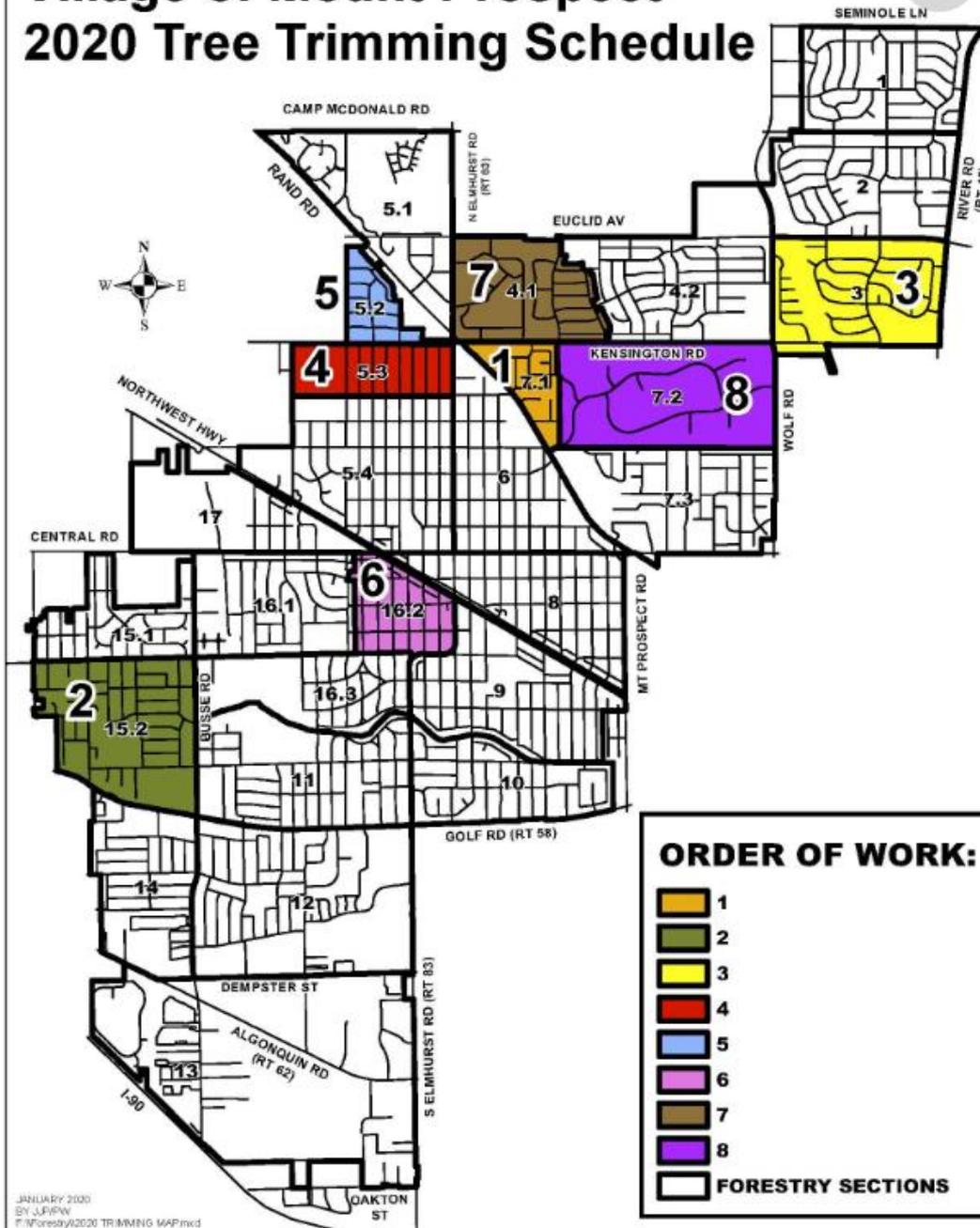


Source: IPAW.ORG

Source: Extension.umn.edu

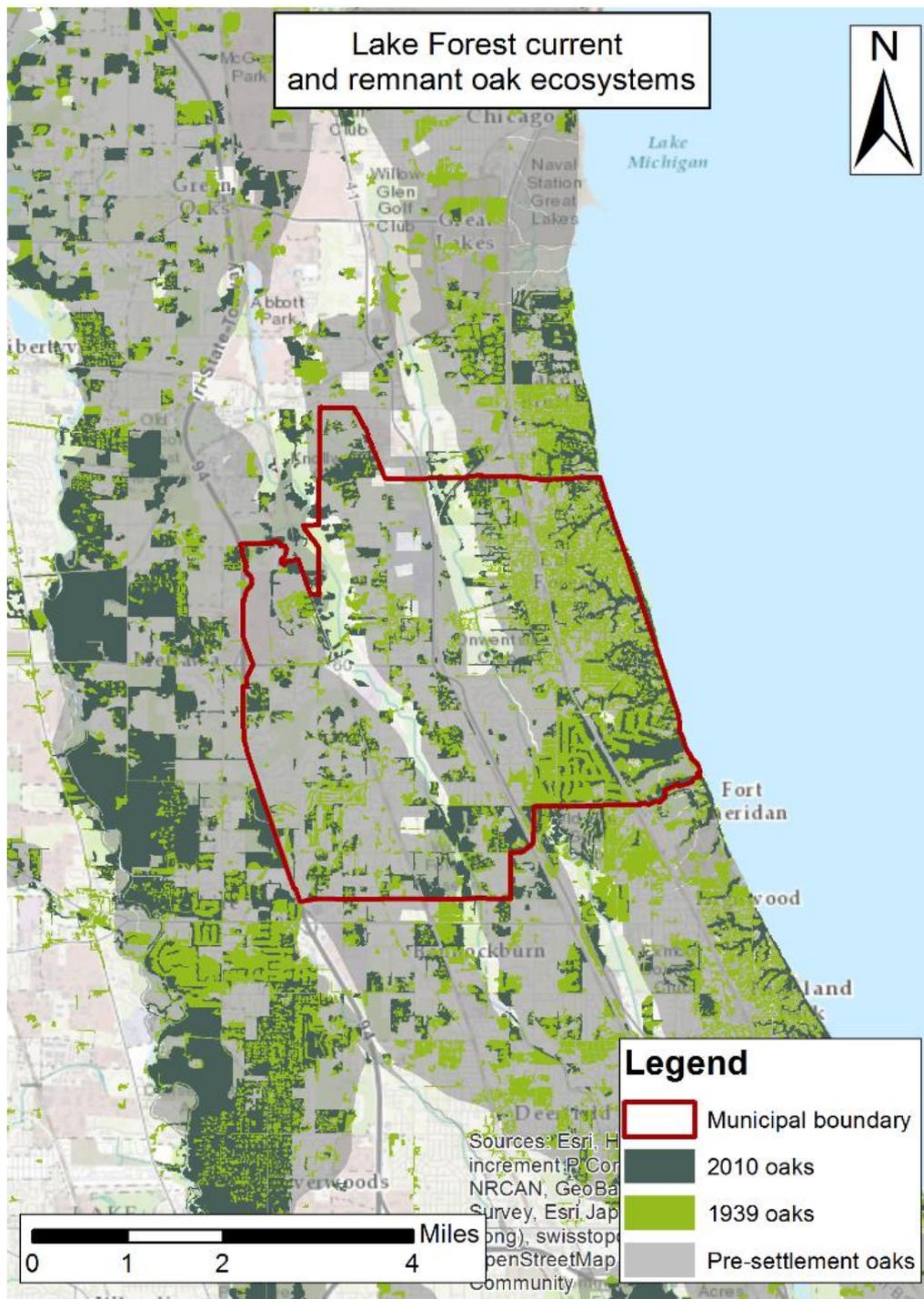


Village of Mount Prospect 2020 Tree Trimming Schedule

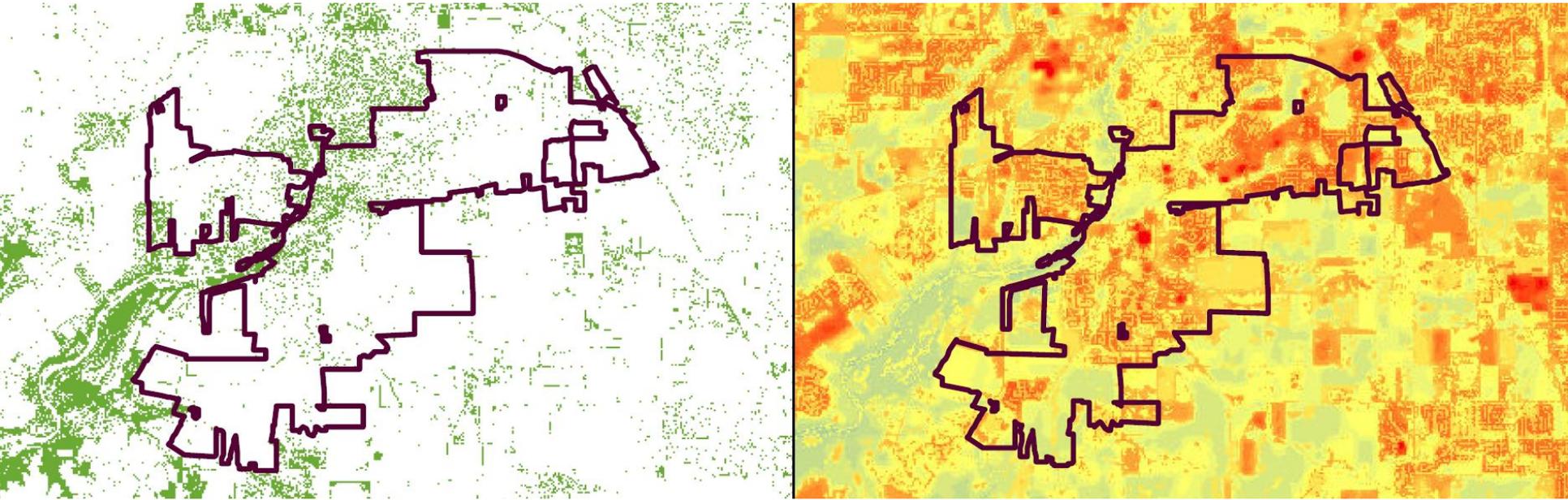


Critical Areas

- Protected
- Conservation
- Legacy Trees



Climate Change – Heat



Supporting Resources

- ANSI Standards
- Permit Triggers and Forms
- Basic Resources
 - Residents
 - Contractors
 - Developers
 - Utilities



TREE REMOVAL FORM



OAK REGENERATION RESOURCES

For more information:

OAK ECOSYSTEMS RECOVERY PLAN
(chicagowilderness.org)

CHICAGO REGION TREES INITIATIVE
(chicagorti.org)

THE MORTON ARBORETUM
(mortonarb.org)

EDDMAPS MIDWEST
(eddmaps.org)

Contact us:

 crti@mortonarb.org

 chicagorti.org

 630-719-5646

 @ChicagoRTI

 ChicagoRTI



Our Trees.
Our Communities.
Our Future.

The Morton
Arboretum

THE
CHAMPION
of TREES



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HERE'S HOW YOU CAN HELP

- ▶ Clear out weedy trees and plants to let the sun shine in for oaks.
- ▶ Remove non-native invasive plant species.
- ▶ Plant oak trees in sunny areas on your property.
- ▶ Create a healthy home for trees, plants, birds, and other wildlife.
- ▶ Preserve and care for your oak trees and oak woodlands.
- ▶ Volunteer to plant and care for oak trees.

OAKS NEED YOUR HELP!

HOW HOMEOWNERS, LANDOWNERS,
AND INDIVIDUALS CAN CREATE A
BETTER FUTURE FOR OAK TREES

Key

Species in boxes are our top picks and are highlighted with a photo.

- W** = Tolerates wet conditions
- D** = Tolerates dry conditions
- S** = Prefers sunny locations
- ☀** = Prefers shade

<http://chicagorti.org/HealthyHedges>



Healthy Hedges

Recommended privacy screen replacements, following removal of European buckthorn

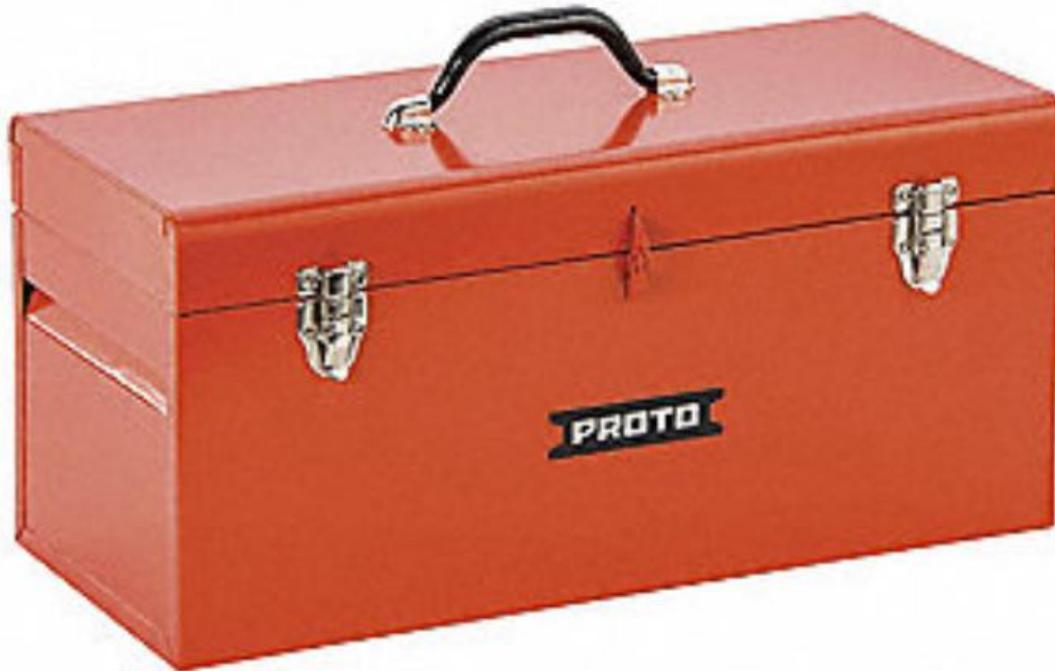
Grass, Ground, and Herbaceous | Shrubs | Understory/Small Trees | Canopy

<p>Canada Anemone W <i>Anemone canadensis</i> (1-2' H x 1-2' W)</p> <p>Wild Ginger <i>Asarum canadense</i> (8" H x 8-12" W)</p> <p>Butterfly Weed S D 3 <i>Asclepias tuberosa</i> (2-3' H x 2-4' W)</p> <p>One of the showiest milkweeds, it has orange clusters of flowers and long, narrow leaves. It is drought-tolerant, will not move around much in the garden, and is a host for many pollinators.</p> <p>Swamp Milkweed S W <i>Asclepias incarnata</i> (2-5' H x 2-3' W)</p> <p>Lady Fern 2 <i>Athyrium filix-femina</i> (2' H x 1' W)</p> <p>This hardy fern is great for perennial borders and woodlands.</p> <p>Hairy Wood Mint 1 <i>Blephilia hirsutus</i> (3' H x 18" W)</p> <p>Wild Hyacinth 1 <i>Camassia scilloides</i> (8-12" H x 12" W)</p>	<p>Palm Sedge W <i>Carex muskingumensis</i> (2-3' H x 1-2' W)</p> <p>Curly Wood Sedge 1 <i>Carex rosea</i> (12" H x 12" W)</p> <p>Beak Grass <i>Diarrhena obovata</i> (2' H x 1' W)</p> <p>Pale Purple Coneflower S <i>Echinacea pallida</i> (2-3' H x 1-2' W)</p> <p>Bottlebrush Grass 1 <i>Elymus hystrix</i> (3-4' H x 1' W)</p> <p>Purple Lovegrass S D <i>Eragrostis spectabilis</i> (1-2' H x 1-2' W)</p> <p>Big-leaf Aster 1 <i>Eurybia macrophylla</i> (1' H x 1' W)</p> <p>Wild Geranium S 3 <i>Geranium maculatum</i> (1' H x 1' W)</p> <p>Colony-forming forb with showy pink-purple flowers.</p> <p>Rough Blazing Star S D <i>Liatriis aspera</i> (2-3' H x 1-2' W)</p>	<p>Virginia Bluebells 1 <i>Mertensia virginica</i> (2' H x 1-2' W)</p> <p>Solomon's Seal S D <i>Polygonatum biflorum</i> (2-4' H x 1-2' W)</p> <p>Wild Petunia S D <i>Ruellia humilis</i> (1-2' H x 1-3' W)</p> <p>Little Bluestem S D <i>Schizachyrium scoparium</i> (2-4' H x 1-2' W)</p> <p>Prairie Dropseed S 1 <i>Sporobolus heterolepis</i> (1-2' H x 2-3' W)</p> <p>Dense tufts of sprawling narrow-leaved grass that turn golden in fall with a lovely sweet scent.</p> <p>Sky Blue Aster S <i>Symphotrichum oolentangiense</i> (2-3' H x 1-2' W)</p> <p>Golden Alexanders <i>Zizia aurea</i> (1-3' H x 2-3' W)</p>	<p>Lead Plant S D <i>Amorpha canescens</i> (1-3' H x 1-3' W)</p> <p>Shrub Indigo S W <i>Amorpha fruticosa</i> (10-15' H x 15-20' W)</p> <p>New Jersey Tea S 1 <i>Ceanothus americanus</i> (2-4' H x 2-4' W)</p> <p>Posies of white flowers transform into unique seed heads for winter interest on this densely rounded shrub.</p> <p>Buttonbush W <i>Cephalanthus occidentalis</i> (8-12' H x 12-18' W)</p> <p>Hazelnut S <i>Corylus americana</i> (5-8' H x 5-10' W)</p> <p>Witchhazel D <i>Hamamelis virginiana</i> (10-20' H x 15-20' W)</p> <p>Wild Hydrangea <i>Hydrangea arborescens</i> (3-5' H x 3-5' W)</p>	<p>Shrubby St. John's Wort D <i>Hypericum prolificum</i> (3-5' H x 3-5' W)</p> <p>Winterberry S W <i>Ilex verticillata</i> (6-12' H x 6-8' W)</p> <p>Spicebush <i>Lindera benzoin</i> (6-12' H x 6-12' W)</p> <p>Ninebark D <i>Physocarpus opulifolius</i> (5-10' H x 5-10' W)</p> <p>Fragrant Sumac S <i>Rhus aromatica</i> (5-8' H x 8-10' W)</p> <p>American Currant W 1 <i>Ribes americanum</i> (3-5' H x 3-5' W)</p> <p>Fast-growing shrub with arching stems. Drooping yellow flowers mature into sweet-tart, edible fruit. Fall foliage is a lovely red.</p> <p>Carolina Rose S <i>Rosa carolina</i> (3-8' H x 4-8' W)</p>	<p>Prairie Willow <i>Salix humilis</i> (5-8' H x 2-5' W)</p> <p>Elderberry W <i>Sambucus canadensis</i> (5-10' H x 5-10' W)</p> <p>Bladdernut W <i>Staphylea trifolia</i> (10-15' H x 8-12' W)</p> <p>Early Low Blueberry 5 <i>Vaccinium angustifolium</i> (2-3' H x 2-4' W)</p> <p>This is one tough little shrub. White flowers in spring attract insects. Fruits appear in June and attract birds when ripe.</p> <p>Nannyberry 7 <i>Viburnum lentago</i> (15-20' H x 8-10' W)</p> <p>Excellent privacy hedge replacement. Has clusters of white flowers in summer and lovely red foliage in fall.</p> <p>Blackhaw <i>Viburnum prunifolium</i> (12-15' H x 12-20' W)</p>	<p>Downy Serviceberry D <i>Amelanchier arborea</i> (15-25' H x 10-12' W)</p> <p>Allegheny Serviceberry W <i>Amelanchier laevis</i> (15-25' H x 15-25' W)</p> <p>Blue Beech 6 <i>Carpinus oaroliniana</i> (20-25' H x 15-20' W)</p> <p>Mid-sized trees with smooth, gray bark. This tree grows well in different soils and pH.</p> <p>Redbud 3 <i>Cercis canadensis</i> (20-30' H x 25-35' W)</p> <p>Attractive multi-stemmed tree with heart-shaped leaves. Magenta flowers in spring transform into unique peapods.</p> <p>Pagoda Dogwood <i>Cornus alternifolia</i> (15-25' H x 20-30' W)</p>	<p>Cockspur Hawthorn <i>Crataegus crus-galli</i> (20-25' H x 20-25' W)</p> <p>Downy Hawthorn 5 <i>Crataegus mollis</i> (20-30' H x 20-40' W)</p> <p>Hardy hawthorn with distinct lateral branching, soft fuzzy leaves, and showy white flowers followed by red fruits.</p> <p>Ironwood <i>Ostrya virginiana</i> (40-45' H x 20-30' W)</p> <p>Chokecherry <i>Prunus virginiana</i> (20-25' H x 15-20' W)</p> <p>Staghorn Sumac <i>Rhus typhina</i> (15-25' H x 15-25' W)</p> <p>Arborvitae 10 <i>Thuja occidentalis</i> (30-60' H x 10-15' W)</p> <p>This is a hardy, versatile evergreen. The narrow profile makes it a nice choice for windbreaks. It requires very little care when used as a hedge.</p>	<p>American Beech <i>Fagus grandifolia</i> (50-80' H x 50-70' W)</p> <p>White Pine <i>Pinus strobus</i> (80-120' H x 20-40' W)</p> <p>White Oak 8 <i>Quercus alba</i> (80-100' H x 100' W)</p> <p>Stately long-lived oak found in every county of Illinois. Features light gray bark and rounded leaves that turn a rich red in fall.</p> <p>Red Oak <i>Quercus rubra</i> (80-100' H x 100' W)</p> <p>Basswood/Linden <i>Tilia americana</i> (80-90' H x 30-80' W)</p> <p>Canadian Hemlock <i>Tsuga canadensis</i> (40-70' H x 25-35' W)</p>
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Provided by:

*Plants shown are not to scale and represent various seasonal characteristics.

Tool box is only as good as the tools inside!



Source: Grainger



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