

# PROTECTING WOODLANDS

Woodlands are an important natural resource, providing an enriched environment for people, animals, and plants. Benefits include:

- providing recreational and aesthetic opportunities,
- providing protection from flooding and high winds,
- stabilizing slopes and river banks,
- acting as a barrier to reduce noise,
- reducing erosion and sedimentation,
- filtering water percolating through the ground, and
- acting as a traffic calming device.

The *Water Quality Management Plan for Southeast Michigan* notes the importance of preserving woodlands as habitat as part of good watershed management. The Plan encourages communities to strive for a balance between protecting habitat and changing land use patterns, leading to a more sustainable region.

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## KEEPING IT CONNECTED

Woodlands offer numerous opportunities to communities, but one not so obvious is erosion protection. In agricultural areas, woodlands and hedge rows provide windbreaks that protect fields from wind erosion. They control soil erosion by reducing wind speed at ground level and by trapping snow, leaving soil less exposed during the winter months. Woodlands also prevent water erosion by stabilizing soils with its roots and capturing eroded soil as it passes through a woodland.

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## Planning and Regulatory Considerations

Indirectly, oversight of woodlands can be effected by the federal Endangered Species Act of 1973 (ESA). If a threatened or endangered species is located within a woodland area, this could result in limited disturbance and additional regulations. Also, some area woodlands could also be regulated if they are located within a state or locally regulated wetland area.

State and federal laws protecting area woodlands are limited. Thus, local planning and action is imperative for those desirous of protecting wetlands. The following section provides details on regulations and standards local communities can adopt to protect woodlands.

## Tools for Protecting Woodlands

Numerous tools exist for local communities to protect their area woodlands. This section discusses:

- Utilizing the master plan and recreation plan.
- Adopting tree/woodland regulations.

### Utilizing the master plan and recreation plan

The purposes of local woodland protection should be clearly identified in the master plan and recreation plan. Typical purposes include:

- preserving woodlands (and wooded wetland),
- protecting open space,
- preserving aesthetic/community character,
- replacing dead or diseased trees,
- maintaining natural green landscape,
- protecting wildlife habitat,
- component of storm water management, and
- noise buffering.

### Adopting tree/woodland regulations

Tree/woodland preservation ordinances acknowledge that trees are an important community resource for both environmental and aesthetic reasons. Trees in wetlands and around other water bodies play an important role of taking up large amounts of water, thus aiding in flood control and nutrient absorption.

The goal of tree and woodlands preservation ordinances is to encourage creative design and construction techniques that will preserve as many trees, both as individuals and as woodland areas, as possible. This tool sets up a permit process if taking trees is unavoidable, a replacement scheme, a permit fee schedule,



*Holliday Forest and Wildlife Preserve in Canton Township.*



Consider preserving landmark trees as part of woodland regulations. Above is a landmark Bebb Oak in Rochester Hills.

and penalties for illegally removing trees. It also identifies specific sizes for “Landmark Trees,” which are particularly large trees for the given species.

#### Guidelines for developing tree/woodland ordinances

**Conduct an assessment of the community’s tree and woodland resources.** This can be accomplished as a community project, or as properties are developed. The assessment should note the type and location of plant communities, including tree species and sizes, the presence of any unique ecosystems, and the location of large “landmark” trees.

**Establish priorities for preservation.** Once the assessment is completed, areas with significant trees or woodlands can be prioritized for preservation.

**Set goals for tree and woodland preservation.** This should address the different types of resources (such as woodland trees and understory plants, tree rows, landmark trees) that the community wants to preserve. Goals could include a maintenance program for existing trees, reducing tree loss during and after development, and providing for replacement trees.

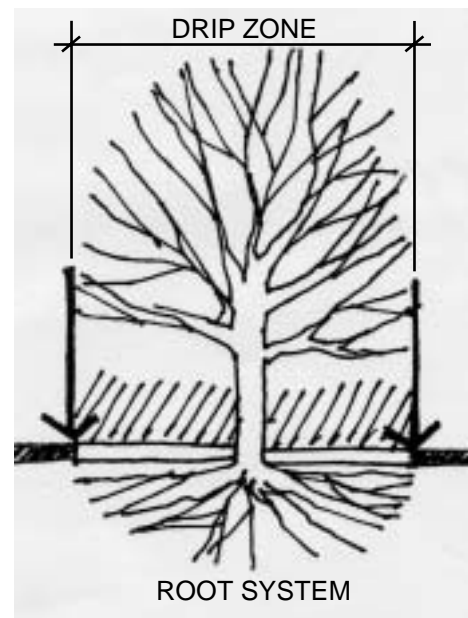
**Provide pre-construction, on-site monitoring, and post-construction maintenance.** Ordinance requirements for pre-construction meetings to discuss tree protection, and on-site monitoring during construction ensure that existing trees are protected as planned. Post-construction monitoring also ensures that trees impacted by construction receive the appropriate care.

**Enforcement.** The ordinance should include an enforcement process with penalties for violations.

In addition, many woodland/tree regulations require:

- A permit before the removal or impact to any woody vegetation exceeding a specified trunk diameter (size varies, depending on the ordinance).
- A site inventory of trees greater than six inches in diameter, stating size, species, and location.
- A specific percentage of trees greater than a specified size in diameter be left intact on a parcel when development occurs (e.g., 50-90 percent). The portion of trees to be preserved is applied outside the building envelope.
- Minimum spacing or density requirements for on-site vegetation.
- Replacement guidelines to mitigate unavoidable loss of trees.
- Tree replacement list that includes native species of trees.
- Natural planting plans where appropriate.

Figure 27  
Protecting Trees During Construction



*It is important during construction to protect both the tree and the trees drip zone from construction activity. Typically, the drip zone is the area around the base of the tree that lies within the circumference of the crown and contains the majority of the trees root system. Damage to the root system, or compacting the soil above the roots, can lead to stunted tree growth or even loss of the tree. Ideally, there should be no disturbance within the drip zone. This means no grading, digging, trenching, paving, or operating/parking heavy equipment and vehicles on the area. In order to protect trees during construction, consider requiring fencing around the drip zone.*

Source: Oakland County Planning and Economic Development Services.

- Guidelines to encourage structures to blend with the natural setting of a woodlot.
- More stringent tree protection standards on sites with severe design limitations, such as steep slopes and highly erodible soils.
- Tree preservation areas (e.g., 35 feet in width) be established along front and side lot lines.
- Standards for specimen trees and/or landmark trees that are not allowed to be moved or transplanted. Landmark trees are those trees of significant size, depending on species, that stand out from other trees in the woodlot in form and size.
- Measures on construction sites to protect trees that are designated for preservation (e.g., protecting root systems from compaction or grading too close).
- Placing of guard fences prior to construction to protect remaining trees.
- Protecting the root zone of trees from stockpiling of soil, building supplies, or paints and other chemicals.
- Controlling placement of parking to protect tree root systems from inadequate water due to paved surfaces.
- Prohibiting changes in soil elevation within the dripline of trees that are not permitted to be moved.

Source: “Woodland Protection.” *Community Planning Handbook*. pp. VIII-55-VIII-58.

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## CASE EXAMPLE

### **Tree Protection Ordinance, Ordinance No. 60**

**Community:** Oakland Township

**Contact:** Mary Collins, (248) 651-4440

The township is a comprehensive tree protection ordinance containing 18 articles which clearly state the purpose and requirements for removing, altering,

relocating or replacing trees in the township on parcels of 25 acres or greater. The ordinance prohibits destroying, removing or transplanting any tree having a six inch or greater diameter at breast height (dbh) or any conifer greater than 25 feet in height, without obtaining a permit from the township. Historical trees or large trees of 36 inches or greater dbh are also protected.

The ordinance requires that any development subject to a tree removal permit must preserve a minimum of 40 percent of the total number of protected trees, except those trees within the designated building envelope or drainage retention area. The ordinance has minimum requirements for replacing both deciduous and coniferous trees and provides a list of tree species that can be used to replace trees that have been removed.

The ordinance also addresses tree harvesting, tree management, and tree removal related to agricultural use.

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### **Natural Features Guidelines**

**Community:** City of Ann Arbor

**Contact:** Karen Popek Hart, (734) 994-2800

The city adopted additional provisions to its Subdivision and Land Use Control Ordinance called “Land Development Regulations” (LDR). The purpose of the LDR is to specify the procedures by which land developers can obtain approval of proposed developments and to specify certain materials which must be prepared and submitted to assist the city in determining if the proposed development is in compliance with local ordinance and state and federal statutes. The regulations also include “Natural Features Guidelines.”

These guidelines encourage the continued existence of natural features by providing direction for protecting, managing, identifying, and using watercourses, wetlands, woodlands, hedgerows, landmark trees, and steep slopes.

## Additional Resources

Center for Watershed Protection. *Better Site Design: A Handbook for Changing Development Rules in Your Community*. 1998.

Oakland Township Woodlands Ordinance. 1990.

Planning and Zoning Center, Inc. “Tree Protection Regulations.” *Grand Traverse Bay Region Sample Regulations*. September 1992.

Planning and Zoning Center, Inc. “Woodland Protection.” *Community Planning Handbook: Tools and Techniques for Guiding Community Change*. Michigan Society of Planning Officials. 1991.