

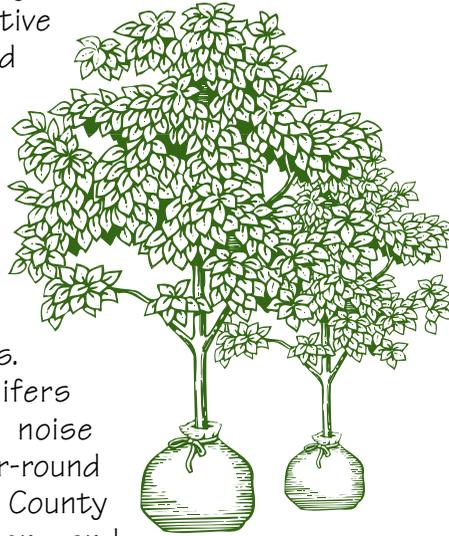
may then be quickly remediated.

At the completion of a project, workers should remove all leftover fencing, signage and building materials. Old and new landscaping should be watered and treated as necessary.

## PLANT NEW TREES

Planting new trees will complement any woodland preservation effort and enhance sites with sparse vegetation. When selecting trees

to plant, opt for native species. They demand less care than nonnative trees and are more tolerant of local climate extremes. The species chosen should depend on a property's soil, slope, and hydrology as well as the owners' goals. For instance, conifers promote privacy and noise reduction by offering year-round foliage. The Monmouth County Shade Tree Commission and Rutgers Cooperative Extension Service can provide a list of planting suggestions.



## CONCLUSION

Preserving and planting trees provides many benefits to a neighborhood and the larger community. By planning ahead, taking precautions during construction, and reforesting cleared areas, owners of residential and commercial sites and host municipalities can make a significant positive impact on the beauty and ecologic health of a community and the well-being of its residents.

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National Association of Home Builders  
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1-800-368-5242

### References:

*Tree Conservation Ordinances.*  
Scenic America and American Planning Association,  
PAS Report 446.

*Building Greener Communities: Planning for Woodland Conservation.* North Jersey RC&D Council and Hunterdon County Planning Board. 2003.

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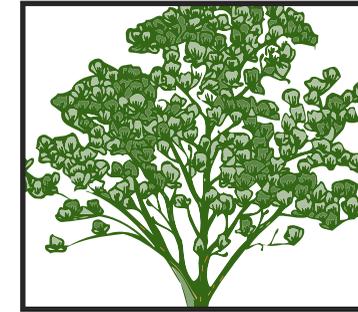
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## MONMOUTH COUNTY PLANNING BOARD'S



## ECO-TIPS: TREE PRESERVATION

## INTRODUCTION

You've seen the ads. A number of new housing developments are being built in your area. The names sound familiar: The Woodlands, Timber Ridge, Forest Glen, The Oaks, Maple Estates. Ironically, many of these new developments are devoid of trees. Perhaps the homes are being constructed on former farmland with little woody vegetation. Perhaps the sites have been cleared in an attempt to make construction and access easier. Yet, the absence of trees in these developments is unfortunate. Trees make a valuable economic, ecologic and psychologic contribution to a community. These benefits make trees well worth the effort to preserve.

## THE VALUE OF TREES

Trees provide innumerable services and economic benefits to a community. For instance, trees moderate temperature by blocking wind and providing shade. This, in turn, saves energy and reduces air conditioning and heating bills. In urban areas where there is an abundance of asphalt, concrete and steel, trees minimize the "heat island effect" which otherwise raises city temperatures by as much as 6-8°F on a warm summer day. Similarly, trees control sun glare on parking lots and streets, keeping vehicle temperatures comfortable and making driving safer.

Tree roots hold soil in place, and tree leaves, needles and bark intercept raindrops. These are actions that prevent erosion and the subsequent siltation of our waterways. Trees filter and soak up stormwater, reducing flooding and the need for costly drainage structures. Trees also cleanse the air of pollution by absorbing carbon dioxide and other gases and trapping dust and pollen.

Trees provide food and shelter to countless species of wildlife. Moreover, trees can significantly reduce noise from streets, highways, and neighboring properties. Trees also increase privacy and enhance the scenic beauty and aesthetic appeal of a neighborhood. As a result, healthy, mature trees add to a property's value.



## ENACT ORDINANCES

In addition to encouraging sound stewardship and construction practices, a municipality may enact a tree removal and protection ordinance. Such ordinances seek to preserve the greatest number of mature trees on a development site. For example, the ordinance may require a property owner to obtain a permit if more than 10% of the trees greater than 4" in diameter are to be removed

from a site. The ordinance may institute a fee structure based on the number of trees to be cleared. It may detail replacement requirements and outline standards for protection during construction. The Monmouth County Shade Tree Commission has prepared a model Tree Removal, Woodland Management, and Reforestation Ordinance. Several communities in the region, including Freehold Township, Interlaken, Neptune Township, Howell and Manalapan, have instituted tree protection ordinances.

## PLAN AHEAD

When undertaking a construction project, advance planning will help save existing trees. This demands good communication among municipal officials, architects, developers, equipment operators, and contractors. As the design phase of a project commences, property owners and their consultants should first analyze a site's terrain and topography. Buildings should then be situated to minimize the need to regrade the land, clear trees, and "prepare" the site. Buildings may also be clustered to maximize remaining woodland and open space. Walkways, driveways, and streets may curve around existing stands of trees. Aside from added attraction, such curves offer the added benefit of reducing driving speed. And, rather than clearing a large swath of land to create a detention basin, rain gardens and other stormwater management techniques that incorporate trees and woody vegetation may be used. In addition, installing brick, flagstone or gravel walkways encourages soil aeration and water penetration, promoting tree health.

As the site's design evolves, a forestry consultant or similar professional should conduct a tree survey. Afterwards, flagging may be used to mark the trees to be saved. Keep in mind that it may be possible to transplant trees elsewhere on the property. Signs throughout the work area, temporary fences around retainable trees, stakes around building envelopes and future driveways,

and clearly defined protected areas will help prevent inadvertent tree removal. In addition, parking areas for workers should be clearly delineated. Before the start of construction, an arborist may need to trim the limbs and prune the roots of certain trees. This will help clear the work area and prevent damage to the plants.

Project managers will need to work closely with utility companies so that utility lines are installed in locations with the least impact to mature trees. For example, lines may be placed under pavement or may be routed to bypass important trees. Also, utility contractors may be able to tunnel under tree roots rather than trench through them.

Education is another important means of preserving trees. Training workers about tree-saving techniques and practices will help ensure that conservation goals are met. The National Arbor Day Foundation and the National Association of Home Builders both offer courses related to tree preservation. The Cook College Office of Continuing Professional Education and the NJ Community Forestry Program also offer training.

## CAUTION DURING CONSTRUCTION

To limit damage to trees, precautions must be taken during the construction phase of a project. To minimize impacts to root systems, workers should limit compaction and excavation to predetermined areas. In areas slated for foot and vehicular traffic, several inches of wood chips may be spread to pad tree root systems. Large plank boards or thick plywood may be placed over the wood chips for added protection from heavy machinery. Never pile excess soil around a tree's trunk. It smothers the tree.

Workers must also carefully store and handle construction materials. Spilled or remnant oil, concrete, and toxic substances may kill desirable vegetation. Consistent monitoring of activities at a site will help catch any problems that arise. Any damage that occurs