

Chapter 13:

Natural Landscaping



“I am not a lover of lawns. Rather would I see daisies in their thousands, ground ivy, hawkweed, and even the hated plantain with tall stems, and dandelions with splendid flowers and fairy down, than the too-well-tended lawn.”

(Hudson 1919)

The Hudson Valley landscape has been modified by humans for thousands of years. Native Americans set fires to maintain open areas for hunting and agriculture, yet the landscape remained largely forested. After European settlement, most of the forested valley and uplands were cleared for timber and agriculture, and as a result, have been changed by humans in some way. The transition from forest to open areas led to a change in the wildlife that live in the Hudson Valley. However, the habitat remained essentially connected, and wildlife could easily move to more suitable habitats. As habitat and as land across the valley has reverted to forest, many forest-dependent species returned.

Today, the Hudson Valley is becoming increasingly developed, with sprawling land-use patterns and more intensive use by people. Unlike the changes of 500 years ago, the habitat is changing in ways that do not allow sensitive species to adjust. Smaller natural areas are farther apart. Lawns and invasive plant species between natural areas make it more difficult for wildlife to find healthy habitat. Natural landscaping can help address this problem by providing some habitat, maintaining connections for wildlife, and reducing the spread of invasive plants.

How Can Natural Landscaping Help Protect Natural Areas and Wildlife?

Natural landscaping can benefit native animals, attracting colorful butterflies and moths and an array of songbirds that are essential components of healthy ecosystems and enhance our quality of life. It also can serve as a buffer for sensitive habitats in conserved areas. But natural landscaping cannot replace natural areas. Rather, this approach should complement other municipal efforts to conserve wildlife and habitat, like open space

conservation and enhanced project review. For example, the techniques described in this chapter can help maintain the connections between conserved natural areas.

Natural landscaping uses plants adapted to the local conditions (soil, climate, etc.), which are easier to grow and better protect downstream wetlands and watercourses. Native plants, unlike turf grass, can both improve the infiltration and filtering of rain and snow and stormwater runoff, and hold soil in place, thus greatly reducing erosion and siltation of waterbodies. Stands of native vegetation also require fewer chemical control agents—no fertilizers or pesticides, and minimal herbicide once established. Thus, natural landscaping can lead to improved water quality over conventional landscapes.

Smart Growth Strategies

Local governments can assist natural-area management and enhancement in two primary ways:

- Maintain as much natural vegetation as possible. The habitat quality of the Hudson Valley is good overall and leaving natural vegetation is the best way to keep it healthy.
- When it is necessary to have landscaping, favor native plants adapted to local conditions. The predominant landscaping material in the Hudson Valley is the turf-grass lawn. The lawn is borrowed from the heavily grazed, short-grass pastures and formal gardens of Europe. Though turf grass provides recreational space and some aesthetic appeal, it offers little with respect to biodiversity and it is expensive and polluting to maintain.

Local governments can lead by example by applying these principles to their own lands. They can also encourage usage of the principles on private lands, particularly for developments reviewed by local boards.

Identifying natural areas is an important initial step to prioritizing management needs and natural landscaping opportunities (Chapter 4). When a community knows what habitats and connections it wants to maintain, it



will be better able to apply the following techniques where they will have the most benefit for wildlife.

Encourage the Use of Native Plants for Private Landscaping

Natural landscaping also can be encouraged or required for certain components of new development or redevelopment. In particular, natural landscaping could be required in drainage swales, around stormwater



ponds, and along the edges of streams, lakes, and wetlands. Other potentially important sites for the establishment of natural landscapes and habitats are large landholdings, including institutional sites, commercial and industrial sites (e.g., industrial and office parks), houses of worship, and senior housing complexes. Privately owned golf courses and parks can also be encouraged to use natural landscaping. When approving a site plan, a town could require natural vegetation as a buffer to protected areas and stream corridors. Agricultural land also can benefit from using native plants for windbreaks, swales, and streamside buffers.

Use Natural Landscaping on Public Properties

Local governments can work with school districts, park departments, and highway departments to promote the use of natural landscaping on public properties. Municipalities can use native vegetation around buildings and parking lots to enhance aesthetics, reduce maintenance costs, and reduce stormwater runoff. Municipalities also can use native vegetation to remediate landscaping and erosion problems along stream channels and detention basins, as well as along highway and road parkways, ditches, medians, and vacant meadows and open areas. Rights-of-way, such as utility corridors, provide more opportunity for the use of native landscaping (McElfish 2004). Using

natural landscaping in these corridors can help provide continuity and linkages among disjointed habitats.

Natural landscaping by school districts, park departments, and colleges provides a unique educational opportunity. Establishing or maintaining natural areas also provides a hands-on learning tool for students and volunteers.

Invasive Plants

Some plant species introduced into this country from Europe or Asia can become very aggressive and replace our native species in the landscape. Some common invasive plant species include Japanese barberry (*Berberis thunbergii*) and Tree-of-heaven (*Ailanthus altissima*) in woodlands, and purple loosestrife (*Lythrum salicaria*) and water chestnut (*Trapa natans*) in wetlands. Though invasive plants can crowd out native plants and make habitat unsuitable for some wildlife species, they are not devoid of habitat value. Further, removal of invasive species can sometimes make problems worse. If you think invasive species are causing a habitat problem in your community, contact a qualified biologist for assistance and possible removal. A more manageable goal is to prevent invasive species introduction and remove invasive plants when populations are small and still manageable.

Towns and landowners can help prevent invasive plants from taking hold. Invasive plants specialize in disturbed landscapes, so completely clearing a site of all vegetation

encourages their growth. Maintaining natural vegetation on construction sites may help. Many invasive species were introduced as ornamental plants, which is why so many of them are attractive.

Planting native plants in our public areas

and encourage native planting on private lands is an important action local governments and landowners can take to prevent the spread of nonnative plants.



Provide Public Education

Local governments can partner with others to provide information about natural landscaping to citizens, business owners, developers, and civic organizations. Important topics include environmental benefits, plant types, sources, and landscape setbacks at property lines. There are several organizations in the Hudson Valley that specialize in natural-landscaping education (see page 78). Grants may be available for demonstration projects. See Chapter 6 for more information on developing an education program.



Summary of Benefits

Lower maintenance cost.

Natural landscapes require much less time, money, and effort to maintain once they are established. Long-term needs for irrigation, fertilizers, pesticides, and herbicides are virtually eliminated.

Conservation education and scientific study.

Natural-habitat management puts people in touch with nature close to home, work, and other nearby locations. Municipalities, school districts, park districts, and conservation districts can use natural landscaping as an educational tool.

Beautification and property enhancement. Natural landscapes provide aesthetic richness with seasonally changing color and texture that significantly contribute to the beauty of sites and communities.

Maintaining your community's "sense of place."

High-quality natural features such as river corridors and woodlands are part of the identity of a community or neighborhood. Distinctive natural landscaping that preserves the unique characteristics of your community is a unique community asset.

Reduced cost of stormwater management. Native vegetation and topsoil enhances infiltration and slows and reduces the amount of stormwater runoff. This helps reduce infrastructure costs and downstream

flooding, and replenishes groundwater. Stormwater conveyance and detention facilities that simulate natural systems are generally less expensive to build and almost always more economical to maintain.

Reduced soil erosion. If sites are not completely cleared of vegetation and topsoil during construction, less sediment will leave the site. Native plants appropriately used on sloped sites, stream banks, drainageways, and shorelines can effectively hold the soil and reduce erosion due to their deep and fibrous root systems.

Improved water quality. Native vegetation in drainageways helps to filter stormwater to reduce contaminants. Naturally vegetated buffers along streambanks and shorelines intercept surface runoff and slow groundwater flow. The reduced use of fertilizers and other chemicals used for maintenance



Table 13-1. Alternatives to Invasive Ornamental Plants

invasive ornamental plants	native alternatives	attributes of native plant
Yellow Iris (<i>Iris pseudacorus</i>)	Blue Flag Iris (<i>Iris versicolor</i>)	Hardy, water tolerant, provides good shoreline protection. Deer tolerant.
Flowering Rush (<i>Butomus umbellatus</i>)	Swamp milkweed (<i>Asclepias incarnata</i>)	Herbaceous perennial that thrives in moderate to fine soils and wet to moist hydrology. Deer tolerant.
Japanese Barberry (<i>Berberis thunbergii</i>), Burning Bush (Winged Euonymus, Japanese Spindle Tree) (<i>Euonymus alata</i>)	Spicebush (<i>Lindera benzoin</i>)	Attractive fruiting shrubs with food source for birds. Deer tolerant.
Garlic Mustard (<i>Alliaria petiolata</i>)	Black Cohosh (<i>Cimicifuga racemosa</i>), Foamflower (<i>Tiarella cordifolia</i>)	Herbaceous perennials that attract butterflies and birds. Deer tolerant.
Multiflora Rose (<i>Rosa multiflora</i>)	Butterfly Weed (<i>Asclepias tuberosa</i>)	Colorful flowers that attract butterflies and birds. Deer tolerant.
Japanese Honeysuckle (<i>Lonicera japonica</i>)	Trumpet Honeysuckle (<i>Lonicera sempervirens</i>)	Attractive flowers and colorful foliage that attract butterflies and birds. Deer tolerant.
Japanese Knotweed (<i>Polygonum cuspidatum</i> or <i>Fallopia japonica</i>)	American Cranberry (<i>Viburnum trilobum</i>)	Cover for smaller mammals and seed source for birds. Deer tolerant.

Information from the Adirondack Park Invasive Plant Program, Alternatives to Invasive Garden and Landscape Plants in the Adirondacks (www.adkinvasives.com). Deer tolerance information from the Town of Pound Ridge Conservation Board (www.townofpoundridge.com)

are also important factors in protecting water quality and public health.

Other environmental benefits. Due to greatly reduced reliance on lawn mowers for maintenance, natural landscapes can reduce noise pollution and air pollution, including greenhouse gases.

Local Examples

Glacial Lake Albany Native Plant Restoration Project

The Glacial Lake Albany area, in Albany, Schenectady, and Saratoga Counties, has a unique native plant community dominated by pitch pine and scrub oak. The habitat is also home to the federally endangered Karner blue butterfly. The land managers of preserves in the region needed to soften impacts of development throughout the Glacial Lake Albany area to help protect the butterfly and its sensitive habitat. The project created a program to educate local landowners about natural landscaping and to work with towns to require natural landscaping in new development. Some new subdivisions have deed restrictions that prohibit invasive plants that would damage the unique habitat.

To make the program successful, a source of native plants was needed. The Nature Conservancy recruited wholesale and retail nurseries to grow and sell native plants, which are used for private landscaping and preserve restoration work. Seed is collected by volunteers in the preserves. For more information, contact the Albany Pine Bush Commission at 518 785-1800 or www.albanypinebush.org.



Westchester County "Go Native!"

Go Native! is a collaborative project between Westchester County Parks, the Native Plant Center, and the Federated Conservationists of Westchester. A county executive order in 2001 set the stage for the program: no invasive plants would be planted on county property and nonnative plants will be removed and replaced with native species. The program also encourages residents to plant native species that are locally grown and naturally produced. A list of Westchester's native plants can be found at the Native Plant Center web site.

Resources

Adirondack Park Invasive Plant Program (www.adkinvasives.com)

Invasive Plant Council of New York State (www.ipcnys.org [accessed December 2007])

Luttenberg, D., D. Lev, and M. Feller. 1993. *Native Species Planting Guide for New York City and Vicinity*. City of New York Parks and Recreation, Natural Resources Group. New York, N.Y.

Restoring NJ Riparian Forest Buffers (njaes.rutgers.edu/njriparianforestbuffers/ [accessed December 2007])

More natural landscaping resources can be found in Appendix 3.

