



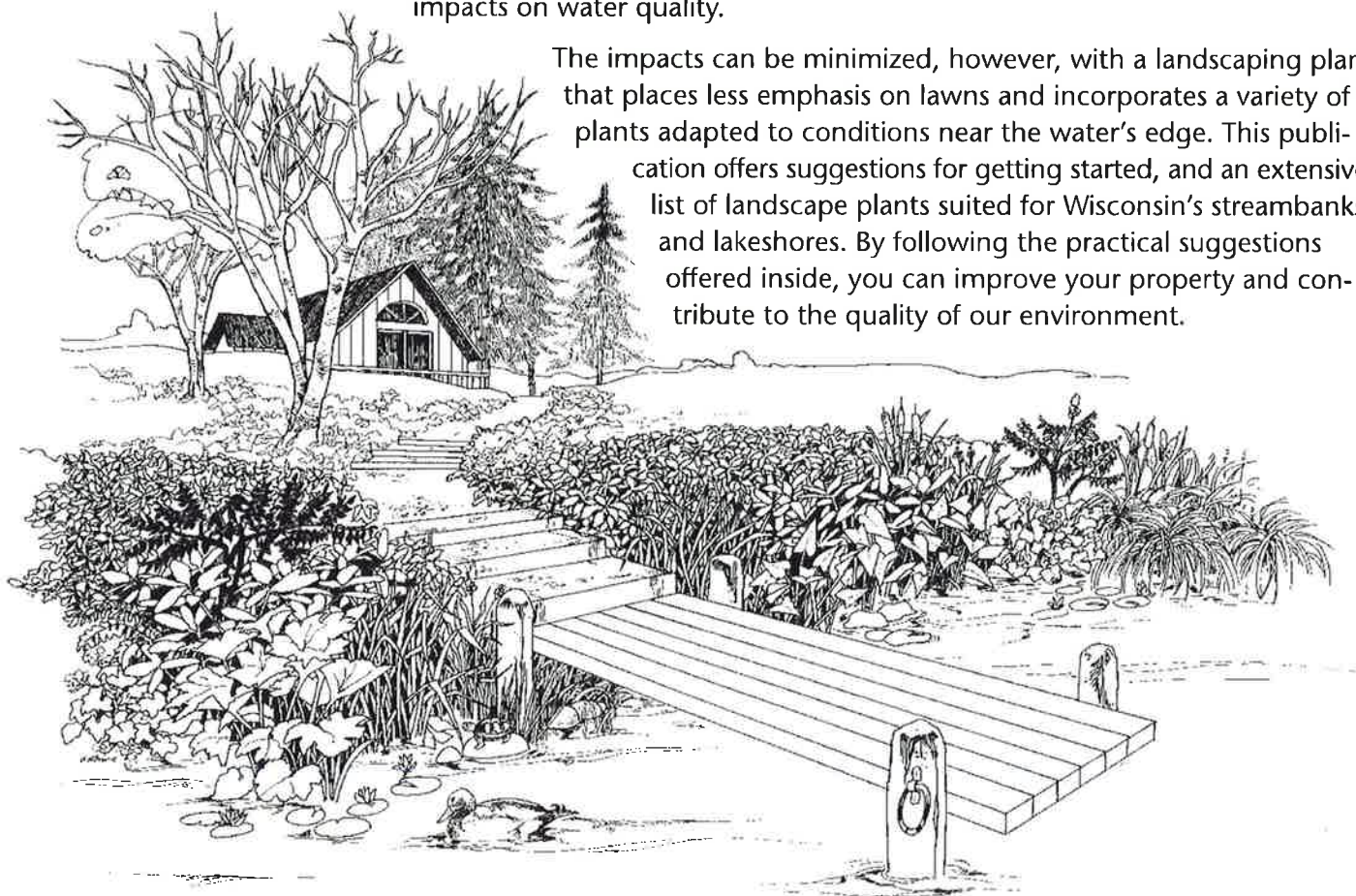
Shoreline Plants and Landscaping

A SERIES OF WATER QUALITY FACT SHEETS FOR RESIDENTIAL AREAS

Wisconsin's lakes and streams offer an escape for residents and visitors alike. From northwoods flowages to southeastern glacial lakes laced throughout the state, our waters provide abundant recreational opportunities, as well as a chance to simply get away from the sights and sounds of an urbanizing society.

The escape has become so popular that many lakeshores and streambanks are now growing more houses than trees, often with more consequences than meet the eye. Soil exposed during construction can wash into the water, and the development itself permanently alters a portion of the natural landscape. Buildings and access drives replace vegetation, increasing the amount of storm water runoff and pollutants entering the lake or stream. Owners of the new home often bring with them traditional landscaping ideas centered on the conventional yard. Too often that means manicured lawns extending to the water's edge, along with the fertilizer and pesticide applications that are the norm in the cities and villages left behind. Over time, and combined with other sources of pollution, shoreline development can have profound impacts on water quality.

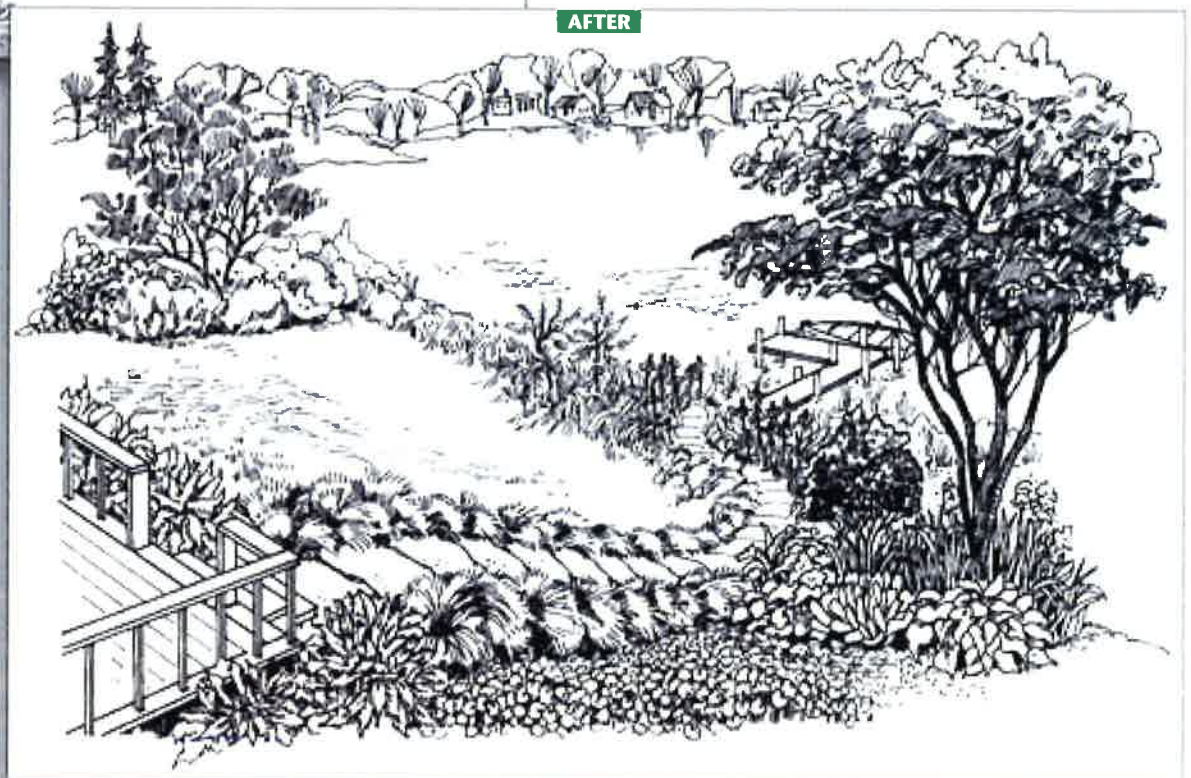
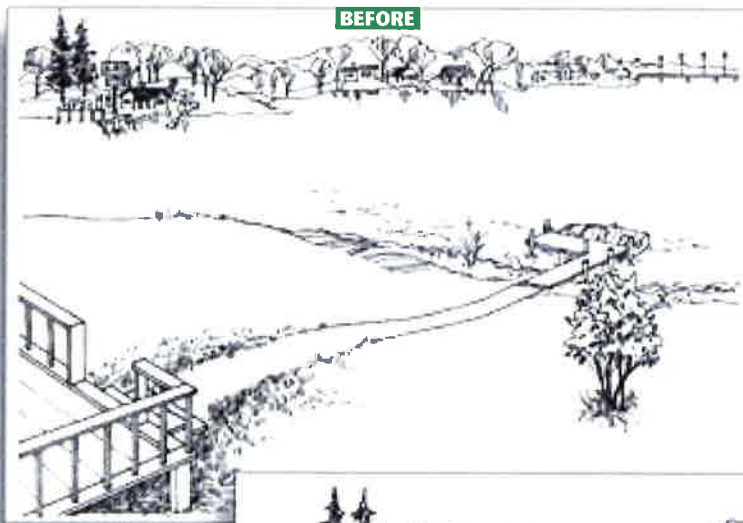
The impacts can be minimized, however, with a landscaping plan that places less emphasis on lawns and incorporates a variety of plants adapted to conditions near the water's edge. This publication offers suggestions for getting started, and an extensive list of landscape plants suited for Wisconsin's streambanks and lakeshores. By following the practical suggestions offered inside, you can improve your property and contribute to the quality of our environment.



BEFORE & AFTER: ALTERNATIVES TO THE TRADITIONAL LAWN

Grass planted to the water's edge (top illustration) is seldom the best choice, from either an esthetic or water quality standpoint. Why not try an alternative (bottom illustration)? Substituting a variety of plants for at least parts of the lawn has numerous advantages:

- ✓ Screens undesirable views while framing good ones.
- ✓ Reduces the time spent on lawn maintenance and reliance on fertilizers and other lawn chemicals.
- ✓ Helps filter pollutants that wash off roofs, driveways and other hard surfaces.
- ✓ Preserves the natural appearance of the shoreline.
- ✓ Offers better protection against shoreline erosion and requires less formal repair.
- ✓ Provides increased diversity and improved habitat for wildlife.



GETTING STARTED – LANDSCAPING AND PLANT SELECTION

Protecting the Water During Construction

With development comes bare soil, but careful planning can minimize erosion and the resulting water quality problems.

- The further the construction site is from the lake or stream and the less ground that is disturbed, the better for water quality. Greater setbacks from the water can also help overcome site limitations such as wet soils or steep slopes.
- Indiscriminate removal of trees during construction promotes soil erosion and is also a questionable practice from the standpoint of property values. A better alternative is to carefully trim trees to frame views of the lake and screen undesirable views.
- During construction, use filter fabric fences or straw bales as temporary sediment barriers along the shoreline.
- Immediately after construction of any soil-disturbing activity, the soil should be seeded, sodded or planted to natural vegetation and mulched. Once established, the vegetation becomes a permanent sediment filter. A fact sheet on Lawn Establishment (A3434) is available from county UW-Extension offices.

Landscaping for Established Yards

Proper landscape design and selection of plant material can greatly reduce the effects of shoreline development on water quality. Lawns groomed right up to the water's edge can be redesigned to allow a buffer zone along the lake or stream. Banks can be planted to stabilize the soil and eliminate lawn mowing and fertilizing.

Treatments can vary from low-cost, limited alterations to moderate-cost, significant changes. The specific treatment chosen depends on the site and desires of the property owner, but here are a few basics:

- Leaving a 35-foot (or wider) buffer of unmowed turf along shorelines is the first step in reducing runoff of soil, fertilizer and pesticides. The grasses

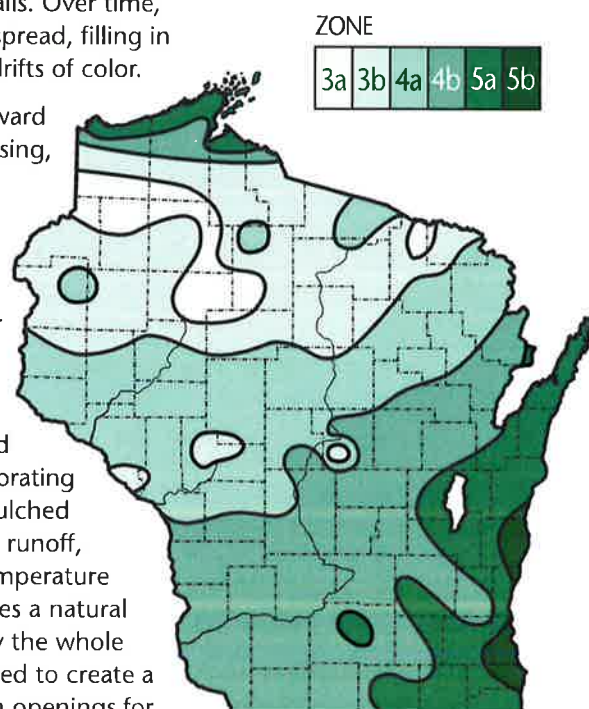
will grow 12-24" tall before going to seed. Mow the buffer zone's inland edge along a natural-looking curve. Also, use a smooth-flowing curve when mowing pathways through the buffer zone to the water's edge.

- Planting appropriate bulbs, perennial flowers, and groundcovers in the grasses of a buffer zone will add seasonal diversity. Working up small areas and mulching around new plantings will reduce competition from the grasses and reduce runoff of rainfall or melting snow.
- Native plants are best adapted to Wisconsin's climate and blend in well with the natural shoreline landscape.
- Planted through the grass in the buffer zone, native flowers can provide an ever-changing foreground to the view of the water. The buffer zone can be planted to native shore plants and prairie by gradually working up small areas (to reduce potential erosion) and seeding or transplanting shallow water plants or wet prairie grasses and forbs. UW-Extension's Prairie Primer (G2736) provides prairie restoration and maintenance details. Over time, the native plants will spread, filling in the buffer zone with drifts of color.

- Although the view toward the water is often pleasing, there may be visual elements that are unappealing. The noise of lake activities may also be disruptive. Trees and shrubs in the buffer zone can frame good views, screen poor views, and reduce sounds. Incorporating trees and shrubs in mulched planting beds reduces runoff, improves moisture/temperature conditions and provides a natural appearance. Gradually the whole shoreline can be planted to create a woodland setting with openings for visual and physical access to the water.

LANDSCAPE PLANT HARDINESS ZONES:

When selecting shoreline landscape plants from the list that follows, be sure they are identified as hardy for your area. While some plants may survive in a sheltered spot north of their recommended zone, it is usually best to plant reliable hardy species.



A Guide to Shoreline Landscape Plants

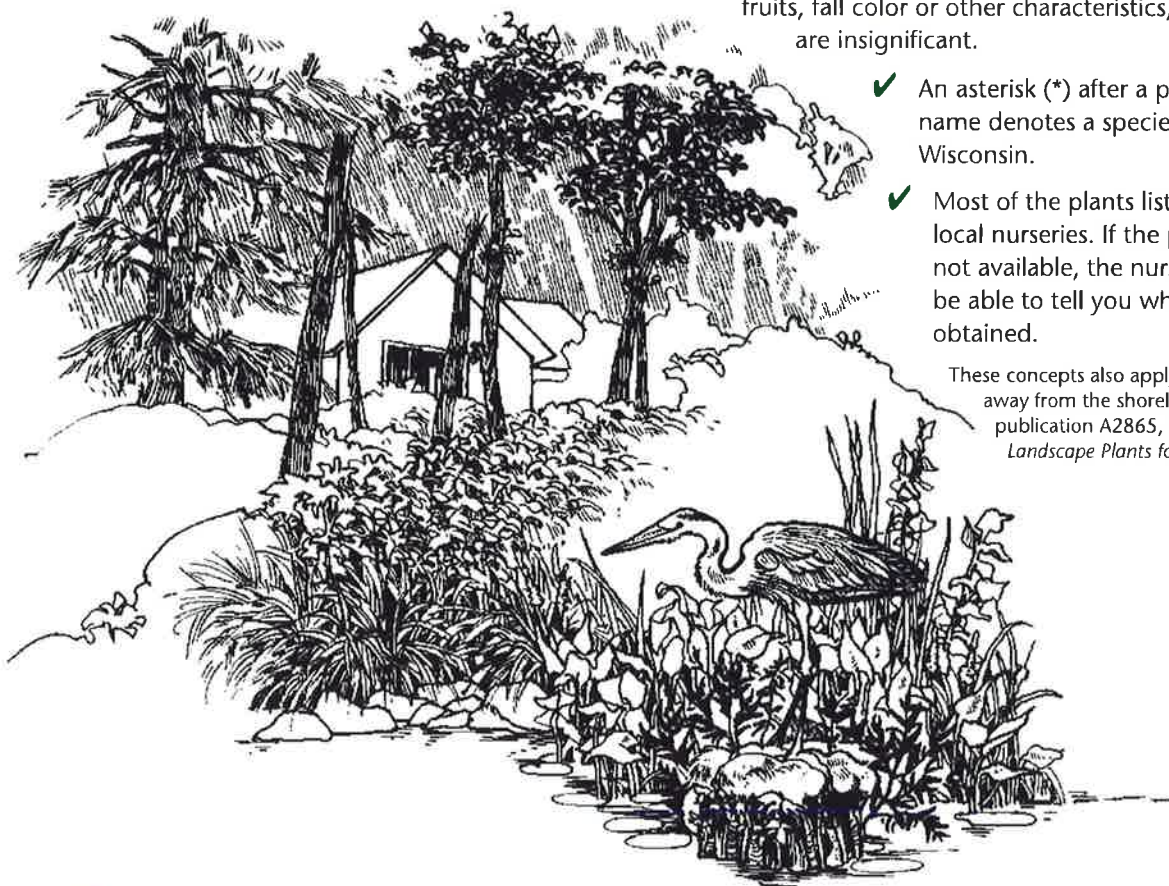
The list of plants on the following pages includes most of the better ornamental plant species and cultivars (cultivated varieties) that are usually available for sale in Wisconsin. The list includes the botanical and common names of recommended plants, growth rate (F = fast, M = medium, S = slow), hardiness zone and plant characteristics. When selecting plants, please keep the following points in mind:

- ✓ Wisconsin is divided into six zones based on minimum winter temperatures. (See map on previous page.) Always try to select plants that are hardy in your area.
- ✓ Be sure to review all the plant characteristics before you select trees, shrubs and ground covers for your situation. Many plants are sensitive to poorly drained soil conditions. Use only species tolerant of poor drainage in low, wet spots. Where shade is indicated as one of the plant characteristics, it refers to tolerance, not a requirement for shade.
- ✓ When selecting plants, one often tends to consider the flower display first. However, it is also important to consider the year-round interest the plant will provide in the landscape. Remember that a flower display often lasts only a week or two, while other interesting features such as the bark or fruits may be noticeable for several months. Where the list includes no mention of flowers, fruits, fall color or other characteristics, those features are insignificant.

✓ An asterisk (*) after a plant's botanical name denotes a species native to Wisconsin.

✓ Most of the plants listed are available at local nurseries. If the plant you desire is not available, the nursery dealer should be able to tell you where it can be obtained.

These concepts also apply to landscape plants away from the shoreline. Refer to Extension publication A2865, *A Guide to Selecting Landscape Plants for Wisconsin*.



— Evergreen Trees

The evergreen trees and shrubs listed on this page are recommended because they generally do well in moist or wet soil conditions. Some do best in sun; others do best in partial or full shade.

PLANT NAMES		GROWTH RATE	HARDINESS ZONE	PLANT CHARACTERISTICS
botanical	common			
<i>Picea glauca</i> *	White Spruce	M	3a	Moist soil; sun. Insignificant flowers; fruits are 2" cones; 70' height; light green foliage.
<i>Pinus strobus</i> *	Eastern White Pine	M	3a	Moist soil; sun. Insignificant flowers; fruits are 5-8" cones; 75' height; picturesque; soft, green foliage; subject to blister rust.
<i>Thuja occidentalis</i> *	American Arborvitae	M	3a	Moist soil; partial shade. Insignificant flowers; fruits are ½" cones; 40' height; light green, soft, scale-like foliage.
<i>Thuja occidentalis</i> 'Techny'	Techny American Arborvitae	S	3b	Moist soil; partial shade. Insignificant flowers; fruits are ½" cones; 20' height; deep green foliage.
<i>Tsuga canadensis</i> *	Canadian Hemlock	M	3a	Moist soil; shade. Insignificant flowers; fruits are ¼" cones; 75' height; soft, feathery foliage.



— Evergreen Shrubs

PLANT NAMES		GROWTH RATE	HARDINESS ZONE	PLANT CHARACTERISTICS
botanical	common			
<i>Juniperus chinensis</i> 'Pfitzerana'	Pfitzer Juniper	F	4a	Dry soil; sun. No flowers or fruits; 6' height; wide spreading; green foliage.
<i>Juniperus chinensis</i> procumbens	Japanese Garden Juniper	M	4b	Dry soil; sun. No flowers or fruits; 18" height; creeping; blue-green foliage.
<i>Juniperus communis</i> depressa*	Oldfield Common Juniper	M	3a	Dry soil; sun. Insignificant flowers; light green fruits; 4' height; spreading; light green foliage.
<i>Juniperus horizontalis</i> *	Creeping Juniper	M	3a	Dry soil; sun. Insignificant flowers; light green to silvery fruit; 4"-18" height; creeping; gray-green to blue-green foliage.
<i>Taxus cuspidata</i> 'Espana'	Spreading Japanese Yew	M	4b	Moist soil; shade. Insignificant flowers; fruits; 6' height; spreading; dark green foliage.
<i>Thuja occidentalis</i> 'Hetz Midget'	Hetz Midget Arborvitae	S	3a	Moist soil; half-shade. Insignificant flowers; fruits; 18" height; globe; bright green foliage.
<i>Thuja occidentalis</i> 'Woodwardii'	Woodward Globe Arborvitae	M	3a	Moist soil; half-shade. Insignificant flowers and fruits; 6' height; globe; bright green foliage.



— Deciduous Trees

The deciduous trees and shrubs recommended here generally do well in moist or wet soil conditions. Some do best in sun, others do best in partial or full shade.

TALL DECIDUOUS TREES (40-100' HEIGHT)

PLANT NAMES		GROWTH RATE	HARDINESS ZONE	PLANT CHARACTERISTICS
botanical	common			
<i>Acer rubrum</i> *	Red Maple	F	3a	Moist, acid soil; tolerates poor drainage; sun to semi-shade. Red flowers; fruits are winged samaras; yellow, orange, or red fall color; salt sensitive.
<i>Acer saccharinum</i> *	Silver Maple	F	3a	Moist soil; tolerates poor drainage; sun. Red flowers; fruits are winged samaras; yellowish or no fall color; competitive roots; weak wooded.
<i>Acer saccharum</i> *	Sugar Maple	M	3a	Rich, moist soil; shade. Yellow flowers; fruits are winged samaras; yellow, orange, or red fall color; salt and stress sensitive.
<i>Fraxinus americana</i> *	White Ash	M	3a	Moist soil; tolerates poor drainage; sun. Insignificant flowers; fruits are winged samaras; orange to purple fall color; dioecious (male and female plants).
<i>Fraxinus pennsylvanica</i> *	Green Ash	F	3a	Dry to wet soil; tolerates poor drainage; sun. Insignificant flowers; fruits are winged samaras; yellow fall color; salt tolerant; weak wooded.
<i>Gleditsia triacanthos</i> *	Common Honeylocust	F	4a	Moist soil; tolerates poor drainage; sun. Dioecious; insignificant flowers; female produces seed pods; yellow fall color; thorns; salt tolerant.
<i>Quercus bicolor</i> *	Swamp White Oak	S	4a	Moist to wet soil; tolerates poor drainage; sun. Insignificant flowers; fruits are acorns; no fall color.
<i>Tilia americana</i> *	Basswood	M	3a	Rich, moist soil; sun or shade. Fragrant, tiny white flowers in early summer; nut-like pea-sized fruits; yellowish or no fall color; salt sensitive.



MEDIUM DECIDUOUS TREES (30-40' HEIGHT)

PLANT NAMES		GROWTH RATE	HARDINESS ZONE	PLANT CHARACTERISTICS
botanical	common			
<i>Alnus glutinosa</i>	European Alder	F	4a	Wet soil; tolerates poor drainage; sun to partial shade. Catkins; cone-like fruits; no fall color.
<i>Betula nigra</i> *	River Birch	M	4b	Wet to dry acid soil; tolerates poor drainage; sun. Catkins; small, cone-like fruits; yellow fall color; cinnamon-colored, peeling bark
<i>Betula platyphylla japonica</i> 'Whitespire'	Whitespire Birch	M	3a	Moderate soils; tolerates hot sites; sun. Catkins; small cone-like fruits; yellow fall color; resistant to bronze birch borer.
<i>Ostrya virginiana</i> *	Ironwood	S	3b	Dry to moist soil; shade. Catkins; hop-like fruits; yellowish fall color; elm-like leaves.

LOW DECIDUOUS TREES (15-30' HEIGHT)

PLANT NAMES		GROWTH RATE	HARDINESS ZONE	PLANT CHARACTERISTICS
botanical	common			
<i>Alnus rugosa</i> *	Speckled Alder	M	4a	Wet soil; tolerates poor drainage; sun. Catkins; small, cone-like fruits; no fall color.
<i>Amelanchier laevis</i> *	Allegheny Serviceberry	S	3a	Moist soil; partial shade. White flowers; edible red to blue-black fruits; orange to red fall color.
<i>Carpinus caroliniana</i> *	American Hornbeam	S	3b	Moist soil; shade. Catkins; fruits are small nutlets; orange fall color; smooth gray muscle-like trunk.
<i>Cornus alternifolia</i> *	Pagoda Dogwood	M	3a	Cool, moist soil; shade. White flowers; blue-black fruits on red stalks; maroon fall color.
<i>Crataegus species</i> *	Hawthorns	M	4a	Dry to moist soils; sun. White flowers; red fruits; yellow to orange fall color; thorns.
<i>Salix pentandra</i>	Laurel Willow	M	3a	Wet soil; sun. Catkins; insignificant fruits; yellowish fall color; dense habit.



— Deciduous Shrubs

These deciduous shrubs are recommended because they generally do well in moist or wet soil conditions. Some do best in sun, others do best in partial or full shade.

TALL DECIDUOUS SHRUBS (8-14' HEIGHT, PLANT 5-7' APART)

PLANT NAMES		GROWTH RATE	HARDINESS ZONE	PLANT CHARACTERISTICS
botanical	common			
<i>Cornus racemosa</i> *	Gray Dogwood	F	3a	Dry to wet soil; partial shade to shade. White flowers; white fruits; purple fall color.
<i>Cornus sericea</i> *	Redosier Dogwood	F	3a	Moist to wet soil; tolerates poor drainage; sun. White flowers; white fruits; red twigs; purple leaves in fall.
<i>Euonymus atropurpurea</i> *	Eastern Wahoo	F	4b	Moist soil; shade. Tiny purplish flowers; bittersweet fruits; orange to purple fall color.
<i>Hamamelis virginiana</i> *	Common Witchhazel	F	4a	Moist soil; shade. Yellow flowers in October; insignificant fruits; yellow fall color.
<i>Physocarpus opulifolius</i> *	Eastern Ninebark	F	3a	Dry to moist soil, partial shade. White flowers; red, capsular fruits; yellowish fall color; shredded bark.
<i>Viburnum dentatum</i>	Arrowwood Viburnum	F	4a	Moist soil; shade. White flowers; blue fruits; maroon fall color.
<i>Viburnum lentago</i> *	Nannyberry Viburnum	F	3a	Dry to moist soil; sun or shade. White flowers; black fruits; maroon fall color.
<i>Viburnum prunifolium</i> *	Blackhaw Viburnum	F	4a	Dry to moist soil; partial shade. White flowers; black fruits; maroon fall color.
<i>Viburnum trilobum</i> *	Cranberrybush Viburnum	F	3a	Moist soil; shade. Lacy, white flowers; persistent, edible red fruits; maroon fall color.



MEDIUM DECIDUOUS SHRUBS (5-8' HEIGHT, PLANT 3-4' APART)

PLANT NAMES		GROWTH RATE	HARDINESS ZONE	PLANT CHARACTERISTICS
botanical	common			
<i>Aronia arbutifolia</i>	Red Chokeberry	F	4b	Wet soil; tolerates poor drainage; shade. White flowers; red fruits; red fall color.
<i>Corylus americana</i> *	American Filbert (Hazelnut)	M	3a	Dry soil; shade. Catkins; fruits are hazelnuts; orange fall color.
<i>Ilex verticillata</i> *	Winterberry	F	4a	Wet, acid soil; tolerates poor drainage; sun to partial shade. Dioecious; red fruits; yellowish fall color.
<i>Viburnum cassinoides</i> *	Withrod Viburnum	M	4a	Wet, acid soil; tolerates poor drainage; partial sun to shade. White flowers; pink-to-red-to-blue fruits; red fall color.

LOW DECIDUOUS SHRUBS (2-5' HEIGHT, PLANT 2½' APART)

PLANT NAMES		GROWTH RATE	HARDINESS ZONE	PLANT CHARACTERISTICS
botanical	common			
<i>Amelanchier stolonifera</i> *	Running Serviceberry	M	3a	Dry soil; shade. White flowers; edible red fruits; orange fall color; suckering habit.
<i>Aronia melanocarpa</i> *	Black Chokeberry	M	3b	Wet soil; shade. White flowers; black fruits red fall color.
<i>Rhododendron</i> x 'PJM'	PJM Hybrid Rhododendron	S	4a	Moist, acid soil; sun. Lavender flowers; insignificant fruits; evergreen leaves turn purple in fall.
<i>Ribes alpinum</i>	Alpine Currant	F	3a	Dry to moist soil; partial sun to shade. Insignificant flowers and fruits; yellowish fall color; good hedge plant.
<i>Spirea japonica</i> Little Princess	Little Princess Spirea	M	4a	Dry to moist soil; sun. Pale pink flowers; insignificant fruits; yellowish fall color; compact habit.
<i>Viburnum acerifolium</i> *	Mapleleaf Viburnum	M	3a	Moist soil; shade. White flowers; black fruits; maroon fall color.
<i>Viburnum opulus</i> 'Nanum'	Dwarf European Cranberrybush	M	3a	Moist soil; shade. No flowers or fruits; maroon fall color; twiggy.



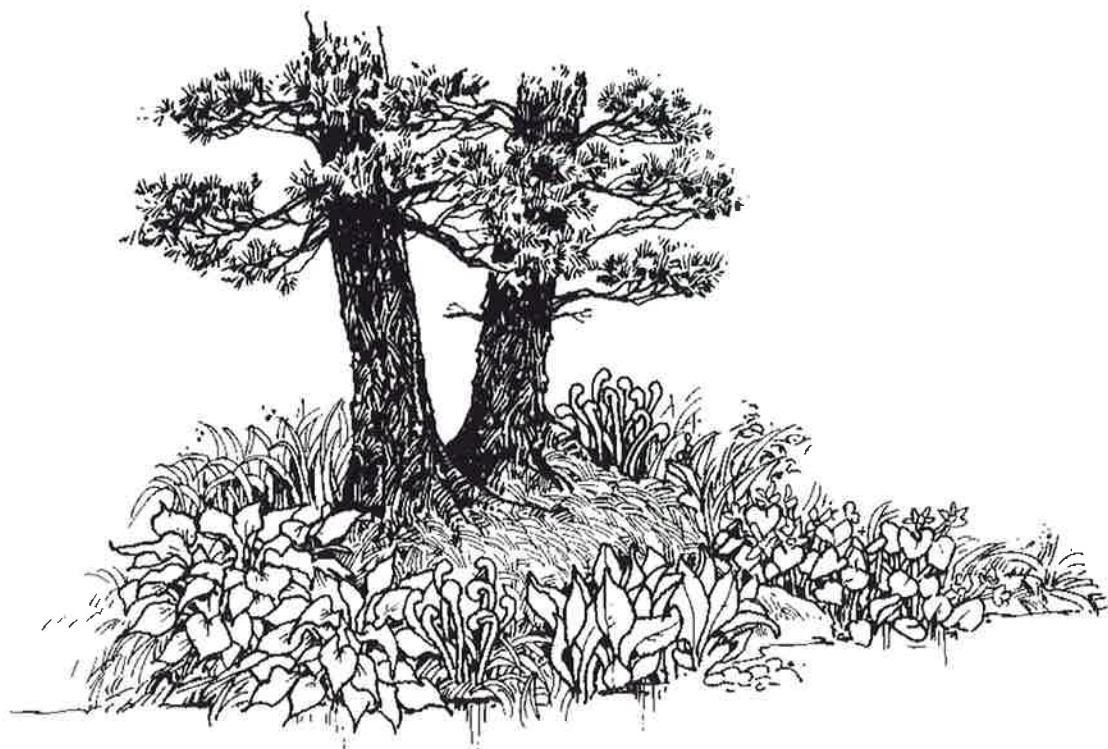
Wet Forest Groundlayer Plants

After a shade pattern is established by trees and shrubs, these plants can be incorporated in the ground layer.

PLANT NAMES		GROWTH RATE	HARDINESS ZONE	PLANT CHARACTERISTICS
botanical	common			
<i>Amphicarpa bracteata</i> *	Hog Peanut	—	3a	Moist soil; shade. Pea-like lilac flowers in late summer; fleshy one-seeded fruit pods; delicate twining vine.
<i>Arisaema dracontium</i> *	Green Dragon	—	4a	Moist soil; shade. Green flowers in spring; insignificant fruits; 1-4' height; leaves divided into 5-15 pointed segments.
<i>Aster lateriflorus</i> *	Calico Aster	—	3a	Moist soil; shade. White flowers with purple centers in fall; insignificant fruits; 1-4' height; coarsely toothed leaves.
<i>Caltha pulustris</i> *	Marsh Marigold (Cowslip)	—	3a	Moist soil; partial shade. Large yellow flowers in early spring; insignificant fruits; 1-2' height; glossy, roundish leaves; thick hollow stems.
<i>Geum canadense</i> *	White Avens	—	3a	Moist soil; shade. White flowers in summer; bristly seed receptacles; 1½-2½' height; lower leaves usually divided into 3's.
<i>Impatiens capensis</i> *	Spotted Jewelweed	—	3a	Wet soil; shade. Spotted orange pendulant flowers in summer; ripe seed pods pop when touched; 2-5' height; succulent, juicy stems.
<i>Matteuccia struthiopteris pennsylvanica</i> *	Ostrich Fern	—	3a	Moist soil; shade. Insignificant flowers and fruits; 4-5' height; large, coarse textured fronds.
<i>Menispermum canadense</i> *	Moonseed	—	4b	Moist soil; shade. Clusters of small white flowers in early summer; black fruits resemble grapes; woody climber; large variable leaves (nearly round to 3-7 shallow lobes).
<i>Mertensia virginica</i> *	Virginia Bluebells	—	3a	Moist soil; shade. Nodding trumpet-like blue flowers in spring; insignificant fruits; 1-2' height; smooth strongly veined, oval leaves; succulent stems.
<i>Onoclea sensibilis</i> *	Sensitive Fern	—	3a	Moist soil; shade to sun. Insignificant flowers and fruits; 1-2½' height; large leaflets on fronds.
<i>Pedicularis canadensis</i> *	Wood Betony	—	3a	Moist soil; shade. Yellow or red flowers in spring; insignificant fruits; ½ -1' height; long, soft-hairy, often reddish leaves.

(WET FOREST GROUNDLAYER PLANTS – CONTINUED)

PLANT NAMES		GROWTH RATE	HARDINESS ZONE	PLANT CHARACTERISTICS
botanical	common			
<i>Pilea pumila</i> *	Clearweed	—	3a	Moist soil; shade. Small green flowers in leaf axils in late summer; insignificant fruits; ½-1½' height; nettle-like (non-stinging) leaves; smooth translucent stems.
<i>Ranunculus septentrionalis</i> *	Swamp Buttercup	—	3a	Wet soil; shade. Yellow flowers in spring; insignificant fruit; 1-3' height; leaves in 3 segments; weak, hollow stems.
<i>Symplocarpus foetidus</i> *	Skunk Cabbage	—	3a	Wet soil; partial shade. Green/purple shell-like sheath covers green flowers in very early spring; insignificant fruit; 1-3' height; large, broad leaves appear after flowers; leaves have fetid odor if crushed.
<i>Viola pedata</i> *	Marsh Blue Violet	—	4a	Wet soil; shade. Dark violet flowers in spring; flower stems taller than leaves; insignificant fruits; ½-1' height; heart-shaped leaves.



— Groundcover & Bankcover Plants

Groundcover and bankcover plants can replace conventional grasses, and the fertilizing and mowing involved.

GROUNDCOVERS

PLANT NAMES		GROWTH RATE	HARDINESS ZONE	PLANT CHARACTERISTICS
botanical	common			
<i>Ajuga reptans</i>	Bugleweed or Carpet Bugle	—	4a	Moist soil; shade. White, red, purple, or blue flowers in late spring; 4-6" height; green to purplish evergreen foliage; ground cover.
<i>Arctostaphylos uva-ursi</i> *	Bearberry	—	3a	Dry, acid soil; sun to partial shade. Small, terminal, white flowers in spring; small red berry; 6" height; paddle-shaped, evergreen leaves; trailing shrub; ground cover.
<i>Asarum canadense</i> *	Canada Wildginger	—	3a	Rich, moist soil; shade. Ground-level, cup-shaped, 3-pointed red-brown flowers in spring; 6" height; large, heart-shaped leaves; ground cover.
<i>Convallaria majalis</i>	Lily-of-the-valley	—	3a	Moist soil; shade. Fragrant white flowers in spring; 8" height; dark green foliage; ground cover.
<i>Euonymus fortunei</i> 'Colorata'	Purpleleaf Wintercreeper	—	4b	Moist soil; shade. Insignificant flowers; 6-18" height; evergreen leaves turn purple in winter; only fully hardy in SE Wisconsin, needs shelter from winter sun and wind; ground cover.
<i>Hosta</i> cultivars	Hosta or Plantainlily	—	3a	Moist soil; shade. White or lavender flowers in summer or early fall; 6-24" height; green, blue, gold and variegated leaves; ground cover.
<i>Juniperus</i> species	Juniper	—	3-4	Dry soil; sun. Insignificant flowers; some have berry-like fruits; 6-24" height; needled evergreen; ground or bank cover.
<i>Lycopodium clayatum</i> *	Running Pine	—	3a	Moist, acid soil; shade. Insignificant flowers; 2-6" height; creeping or erect stems; ground cover.
<i>Pachysandra terminalis</i>	Japanese Pachysandra	—	4b	Moist soil; shade. White flowers in summer; 6-8" height; evergreen foliage; only fully hardy in SE Wisconsin, needs shelter from winter sun and wind; ground cover.
<i>Phlox subulata</i>	Moss Phlox	—	3a	Dry, infertile soil; sun. Small clustered, pink or white flowers in spring; 6" height; needle-like, semi-evergreen leaves; ground cover.
<i>Potentilla tridentata</i> *	Wineleaf Cinquefoil	—	3a	Dry soil; sun. White flowers in early summer; 6" height; wine-red fall color; ground cover.
<i>Rhus aromatica</i> 'Gro-Low'	Gro-Low Fragrant Sumac	—	3a	Dry soil; sun. Insignificant flowers; 30" height; fragrant foliage; orange-maroon fall color; ground or bank cover.
<i>Sedum</i> species	Sedum or Stonecrop	—	3-5	Dry, infertile soil; sun. White, yellow, pink, or purple flowers in spring, summer or fall; 2-10" height; succulent plant; ground cover.



DECIDUOUS BANKCOVER SHRUBS

PLANT NAMES		GROWTH RATE	HARDINESS ZONE	PLANT CHARACTERISTICS
botanical	common			
<i>Amelanchier stolonifera</i> *	Running Serviceberry	M	3a	Dry soil; shade. White flowers; edible red fruits; 3-4' height; orange fall color; suckering habit.
<i>Cornus sericea</i> *	Redosier Dogwood	F	3a	Moist to wet soil; tolerates poor drainage; sun. White flowers; white fruits; 8' height; purple fall color; red twigs; spreading habit.
<i>Diervilla lonicera</i> *	Dwarf Bushhoneysuckle	M	3a	Dry soil; shade. Yellow flowers; insignificant fruits; 3' height; mounded habit.
<i>Rhus aromatica</i> *	Fragrant Sumac	F	3a	Dry soil; sun. Greenish-yellow flowers; red fruits; 4' height; orange-maroon fall color; fragrant foliage; mounded habit.
<i>Rosa virginiana</i>	Virginia Rose	F	4a	Moist to dry soil; sun. Pink flowers; persistent red fruits (hips); 4' height; red stems; suckering habit.
<i>Salix repens</i> var. <i>nitida</i>	Silver Creeping Willow	F	4b	Moist soil; sun. Insignificant flowers and fruits; 2' height; silvery foliage; spreading habit.
<i>Symphoricarpos orbiculatus</i>	Indiancurrant Coralberry	M	3b	Dry soil; shade. White flowers; pink fruits; 3' height; suckering habit.

EVERGREEN BANKCOVER SHRUBS

PLANT NAMES		GROWTH RATE	HARDINESS ZONE	PLANT CHARACTERISTICS
botanical	common			
<i>Juniperus chinensis</i> 'Pfitzerana'	Pfitzer Juniper	M	4a	Dry soil; sun. No flowers or fruits; 6' height; rich green foliage; wide spreading.
<i>Juniperus chinensis procumbens</i>	Japanese Garden Juniper	M	4b	Dry soil; sun. No flowers or fruits; 18" height; blue-green foliage; creeping.
<i>Juniperus communis depressa</i> *	Oldfield Common Juniper	M	3a	Dry soil; sun to partial shade. Insignificant flowers; berry-like blue-green fruits; light green foliage turns brown in winter.
<i>Juniperus horizontalis</i> *	Creeping Juniper	M	3a	Dry soil; sun. Insignificant flowers; some have berry-like fruits; variable foliage color; subject to blight disease.
<i>Juniperus Sabina</i> 'Calgary Carpet'	Calgary Carpet Savin Juniper	M	3a	Dry soil; sun. No flowers or fruits; 8" height; soft green foliage; low spreading.
<i>Taxus cuspidata</i> 'Espana'	Spreading Japanese Yew	M	4b	Dry to moist soil; shade. Insignificant flowers; red fruits; 6' height; dark green foliage; only fully hardy in SE Wisconsin.



Grasses, Forbs & Aquatics

Most aquatic plants have not been extensively studied for landscape purposes. However, landowners can help establish stable, diverse plant communities by encouraging these plants along the water's edge.

MOIST SHORE AREAS (MOIST TO WET SOILS IN FULL SUN)

PLANT NAMES		GROWTH RATE	HARDINESS ZONE	PLANT CHARACTERISTICS
botanical	common			
<i>Andropogon gerardi</i> *	Big Bluestem Grass	—	3a	Flowers/seed heads branch into three parts, looks like a turkey's foot in fall; 3-8' height; lush green leaves turn to reddish fall color; stems blue/purple; most prevalent of all prairie grasses.
<i>Asclepias incarnata</i> *	Swamp Milkweed	—	3a	Pink flowers in midsummer; 2-4' height; narrow, lance-shaped, smooth-edged leaves.
<i>Aster novae-angliae</i> *	New England Aster	—	3a	Bright violet, rose, or magenta flowers with yellow centers in late fall; 3-6' height; important late-season nectar source for a variety of butterflies.
<i>Aster simplex</i> *	Panicled Aster	—	3a	White flowers in fall; 3-6' height; short, stalked willow-like leaves.
<i>Calamagrostis canadensis</i> *	Canada Bluejoint Grass	—	3a	Typical grass flowers and seeds in fall; 2-4' height; grows in heavy clumps.
<i>Cicuta maculata</i> *	Cowbane or Water Hemlock	—	3a	White flowers in large umbel in summer; 3-6' height; twice- or thrice-compound leaves; stem streaked with purple; poisonous.
<i>Dodecatheon meadia</i> *	Shooting Star	—	3a	Pink flowers with swept-back petals in spring; 1-2' height; leaves in rosette at ground level.
<i>Eupatorium maculatum</i> *	Spotted Joe-Pye Weed	—	3a	Flat-topped clusters of pale purple flowers in late summer; 4-6' height; stem is deep purple.
<i>Galium boreale</i> *	Northern Bedstraw	—	3a	Tiny white clustered flowers in early summer; 1-3' height; narrow leaves in whorls of four.
<i>Gentiana andrewsii</i> *	Bottle Gentian	—	3a	Bright blue flowers in late fall never fully open; 1-2' height.
<i>Hypoxis hirsuta</i> *	Stargrass	—	4a	Six-pointed star-like yellow flowers in summer; 3-7" height; narrow, grass-like leaves.
<i>Iris versicolor</i> *	Blue Flag (Wild Iris)	—	3a	Showy lavender flowers in late spring; 2-3' height; graceful, sword-like leaves.
<i>Lilium superbum</i> *	Turk's-Cap Lily	—	4a	Large, nodding, bright orange flowers with maroon-spotted petals in summer; 3-6' height.
<i>Panicum virgatum</i> *	Switch Grass	—	3a	Typical grass flowers and seeds in fall; 3-6' height; can be aggressive; thick stands make good winter and early spring wildlife cover.
<i>Phlox pilosa</i> *	Downy Phlox	—	3a	Pale purple flowers in late spring; 2-3' height; narrow, pointed leaves.
<i>Pycnanthemum species</i> *	Mountain Mint	—	3a	Flat-topped, branching clusters of white flowers in late summer; 1-3' height; square stems; mint-like odor if crushed.



(MOIST SHORE AREAS – CONTINUED)

PLANT NAMES		GROWTH RATE	HARDINESS ZONE	PLANT CHARACTERISTICS
botanical	common			
<i>Rudbeckia hirta</i> *	Black-eyed Susan	—	3a	Showy, big single yellow flowers with chocolate-colored center disks in summer; 1-3' height; easy to grow.
<i>Sorghastrum nuans</i> *	Indian Grass	—	3a	Flower clusters filled with short, soft, golden-brown hairs; typical grass seed head in fall; 4-8' height; grows rapidly.
<i>Spartina pectinata</i> *	Prairie Cordgrass	—	3a	Flowers and seed heads arranged on one side of stem in fall; 3-5' height; gracefully arching narrow leaves; bright yellow fall color.
<i>Thalictrum dasycarpum</i> *	Meadowrue	—	3a	Delicate white dioecious flowers in spring; 2-5' height; lacy bluish-green leaves.
<i>Veronicastrum virginicum</i> *	Culver's Root	—	3a	White tube-like flowers in mid-summer; 2-5' height; slender, sharp-toothed leaves in whorls of 3-7.
<i>Viola cucullata</i> *	Marsh Blue Violet	—	3a	Violet flowers taller than leaves in spring; 5-10" height.
<i>Zizia aurea</i> *	Golden Alexanders	—	3a	Tiny golden flowers in spring; 1-3' height; doubly compound leaves; red-tinged stems.

SHALLOW WATER TO WET SHORE PLANTS

PLANT NAMES		GROWTH RATE	HARDINESS ZONE	PLANT CHARACTERISTICS
botanical	common			
<i>Acorus calamus</i> *	Sweet Flag	—	3a	Flowers are spadix of small greenish-yellow florets in early summer; 1-4' height; rigid, sword-like leaves; flat, blade-like stem.
<i>Phragmites communis</i> *	Giant Reed Grass	—	4a	Graceful, plumed tan flowers and fruiting heads in late summer; 8-12' height; aggressive once established.
<i>Sagittaria latifolia</i> *	Arrowhead	—	3b	White flowers in whorls of three in summer; 1-3' height; lance-like to broad, arrow-shaped leaves.
<i>Scirpus species</i> *	Bulrushes	—	3-4	Solitary or clustered spikelet flowers in summer; 6-8' height; grass-like leaves at base of plant.
<i>Sparaganium eurycarpum</i> *	Giant Bur-Reed	—	3b	Green to brown flowers; fruits are bur-like balls; 4-6' height; linear iris-like leaves.
<i>Typha latifolia</i> *	Cattail	—	3a	Brown head of tightly packed flowers; fruits are attached to fluffy, cotton-like material; 3-9' height; erect, blade-like leaves.



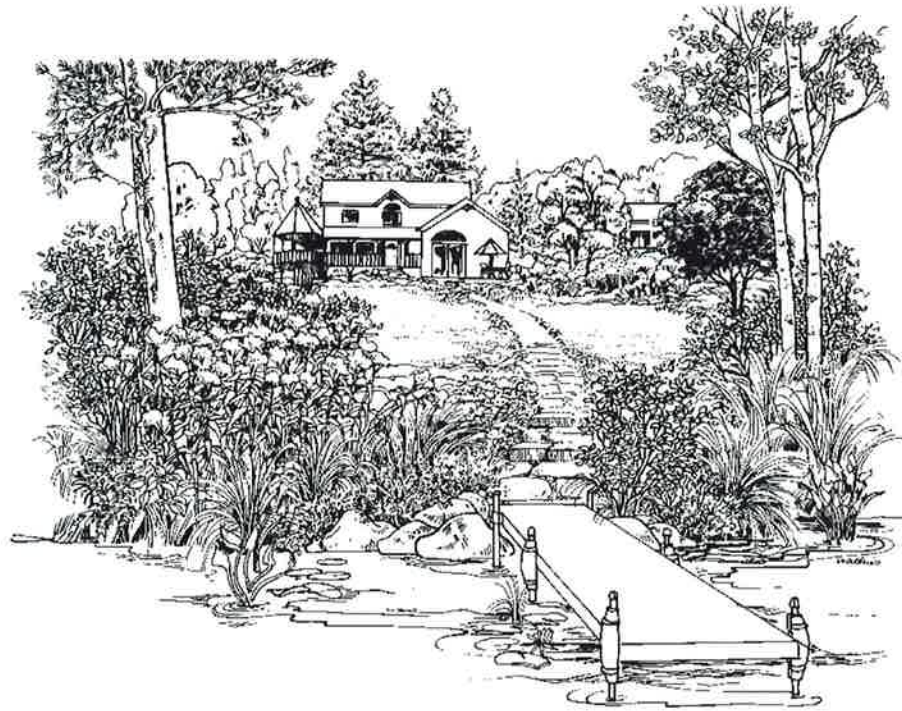
A FEW FINAL THOUGHTS

Some factors affecting shoreline development are beyond an individual's control. The property may have been developed and landscaped long ago; zoning code requirements may offer little flexibility for preserving vegetation on the lot; or options may be limited by surrounding properties. However, there are probably some shoreline landscaping or plant selection tips described inside that can improve both your property and water quality.

If you are proceeding with plans and permits to build, proper construction site practices are summarized in the fact sheet, *Erosion Control for Home Builders* (GWQ001), available in county UW-Extension offices.

Remember, most Wisconsin lakeshores started out being wooded, and such lots today are the ones often commanding high selling prices. If you want to maintain some conventional lawn away from the shoreline, refer to other facts sheets in the *Yard Care and the Environment* series for management suggestions.

If you have any questions about the suitability of a particular plant for your landscaping situation, contact your county UW-Extension office or a local nursery.



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