

What is a Shoreland Packet?

A shoreland packet is a new offering from the DNR State Nurseries. It is similar to a Wildlife Planting Packet, but designed for shoreland areas in northern Wisconsin.

Why Shoreland Packets?

Interest in protecting and restoring natural shorelines has surged in recent years as studies have documented the importance of natural vegetative shoreland buffer zones. Buffer zone benefits include:

- Protecting water quality by filtering runoff and preventing shoreline erosion.
- Improving shallow water habitat for fish and other aquatic organisms by providing shade and cover with overhanging vegetation.
- Increasing habitat, food sources and nesting cover for native birds, mammals and other wildlife.
- Providing better visual screening of structures to preserve natural shoreline beauty.
- Enhancing sound screening for human activities both on and off water.



Where natural vegetation may once have been cleared down to the water's edge and well-fertilized lawns established, many waterfront property owners are now looking for opportunities to restore their shorelines to a more natural condition. Some counties have also included protection and restoration of shoreline buffer zones in their shoreland zoning ordinance requirements. Check with your County Zoning Department for current regulations.

Tips for Planting Shoreland Packets

Planting Time

Planting packets will be distributed by the DNR Nurseries in April or May. **Bare root seedlings must be planted as soon after delivery as possible.**

Late April and early May is generally tree planting time in northern Wisconsin. Plant after the frost has left the ground, but before buds break and shoots grow (late May).

Selecting the Planting Sites

Typically, natural buffer zones should cover the length of the shoreline in an area extending from the ordinary high water mark to at least 35 feet in depth. More depth is better when it comes to wildlife habitat and water quality protection.

Planting designs can allow for access to the waterway for recreation, provide for desirable views, screen unwanted views and enhance privacy. Small access areas maximize the benefits of the shoreland buffer.



Site Preparation

Small, bare-root seedlings will require protection from existing competing vegetation. Before planting, grass or weedy competition can be reduced by selective rototilling or smothering. Care should be given to avoid soil erosion impacts to the waterways.

Do not mow within the planted area after planting. To minimize competition from grasses and retain moisture, place a two-foot diameter ring of wood chip mulch four inches deep around each seedling.

Minimize disturbance of the soil as you plant the shoreland packets. Erosion control measures should be used if needed to keep exposed soil from running into the water.

Planting Guidelines

For restoration of shorelines, a dense planting of trees and shrubs is recommended for maximum sediment retention and filtration of runoff. Shrubs can be spaced about 5 feet apart, trees as close as 6-8 feet apart. With this spacing, a packet can cover 7,500 ft² of area or more. Spacing can be closer to create a cluster effect and simulate natural clumps.

Regular watering of seedlings for a few weeks after planting can be critical for survival, especially on steeper, sandier slopes.

Long term Maintenance

Hand weeding of competing plants is best in shoreland areas, to avoid the use of herbicides near waterways. A soil test, available through local UW-Extension offices, can determine if any fertilizers are needed. Generally, fertilization of native plants is not necessary. If fertilizers are needed however, use a non-phosphorus fertilizer.

Selective thinning of the trees and shrubs may be needed as the seedlings mature to allow for both understory and canopy growth. Many understory plants will often reestablish themselves on their own from seeds long buried in the soil or dispersed from nearby locations.



Which Packet to Select?

Two packets were developed for northern Wisconsin conditions -- the **Shoreland Packet for Sandy Soils** and the **Shoreland Packet for Moist Soils**. Both packets contain bare-root seedlings.

Shoreland Packet for Sandy Soils – This packet includes trees and shrubs best adapted to grow in well-drained and often dry areas. These sites may have coarse-textured or sandy soils.

Trees:

25 Northern Red Oak

25 Red Pine

25 White Pine

25 White Spruce

Shrubs:

100 Hazelnut

100 Red Osier Dogwood

Shoreland Packet for Moist Soils – Select this packet for finer/richer soils in shoreland areas that have some loam, silt or clay content. These soils also tend to have more organic matter which holds moisture better than the dry, sandy soils.

Trees:

25 Hemlock

25 Sugar Maple

25 White Pine

25 Northern Red Oak

Shrubs:

100 Hazelnut

100 Red Osier Dogwood

(All species may be planted in full sun. Hemlock, Sugar Maple and White Pine are more shade tolerant and may be planted in areas with partial sun as well. Although hardy in all areas, Red Osier Dogwood is adapted to wet sites.)

The shoreland packets are designed to be adaptable to a wide variety of sites throughout northern Wisconsin. However, not every species may be appropriate for your individual shoreline. To determine which species are most suited for your individual site, check along nearby natural shorelines to see what is growing well.

What is the Cost?

Each shoreland packet costs **\$102** plus sales tax. There may be a small charge for packets trucked to a county distribution location.

How to Order a Shoreland Packet

Application forms are available from all DNR offices, or contact the Griffith State Nursery at (715) 424-3700.

Packets must be preordered and are subject to availability of species. Plan to order your shoreland packet early!



What Else Can I Plant?

Some local nurseries also carry other native trees, shrubs, wildflowers, ferns and other plants that may be added to the restoration. These can greatly enhance the scenic beauty of the site, and provide many other benefits.

Native plants have the advantage of being better adapted to the region's soils and climatic conditions. They minimize the need for fertilizer, pesticides, water and maintenance. They also provide the most benefit to wildlife.

Check with the County UW-Extension office, County Land Conservation Department, or Wisconsin Department of Natural Resources for more information on types and sources of native plants.

Restoring Your Shoreland

A guide to shoreland planting packets



For more information, contact: