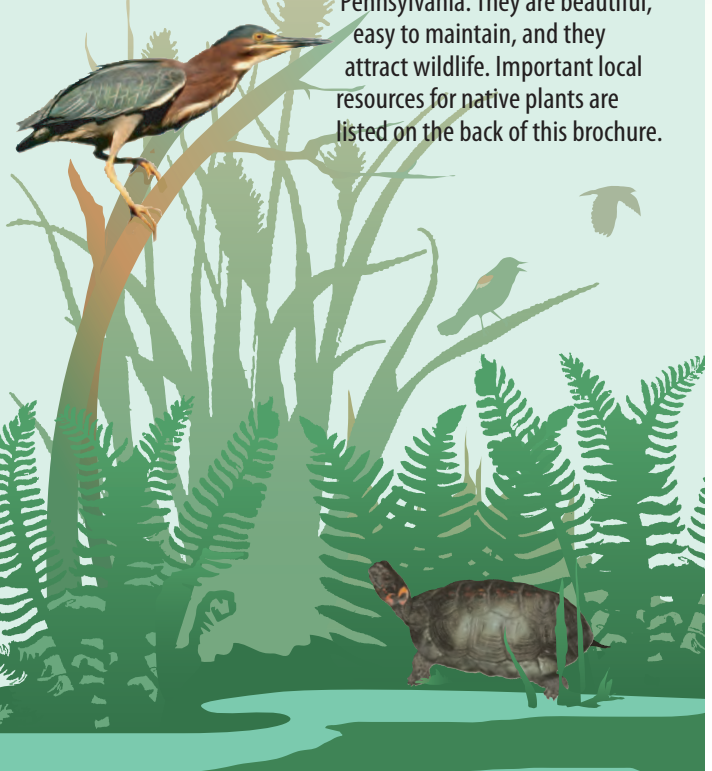
The Benefits of a Native Landscape

Native plants and animals sustain the environment on which we ourselves depend. By planting native species in your wetland, you are providing an excellent opportunity for our native birds, insects and other wildlife to thrive in the habitat they need. Seeds from your native species can travel throughout the watershed, promoting a healthier community environment.

Furthermore, native plants are much better adapted to our specific environment — the climate and conditions of this area. Natives are therefore easier to grow and require far less maintenance than their non-native counterparts.

Native plants can provide year-round color and texture in your wetland area or garden. Vibrant flowers in the spring, colorful berries in the summer, deep colors in the fall, and contrasting bark and branch patterns in the winter are just some of the diverse characteristics of the many native plants available.

Use the chart of plants inside this brochure as a guide to select species that are ideal for your wetland and native to Pennsylvania. They are beautiful, easy to maintain, and they attract wildlife. Important local resources for native plants are listed on the back of this brochure.



For more information contact:

pennsylvania environmental council
www.pecpa.org

WATERSHED COALITION OF THE LEHIGH VALLEY

Watershed Coalition of the Lehigh Valley
P.O. Box 3407, Wescosville, PA 18106
www.watershedcoalitionlv.org

To find your county conservation district:
http://pacd.org/your-district/find-your-district/

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MAXFIELD DESIGN

Caring for your Wetlands

Wetlands

have been misunderstood for centuries; over a span of 200 years (1780 to 1980), over half a million acres of wetlands in Pennsylvania were filled in as people developed the landscape to suit their needs, unaware of how critical wetlands were to the health of both natural and human ecosystems. Today, wetlands are recognized as valuable habitats and are afforded legal protection, but they are still in danger of nearby land clearing and construction activities. Understanding these ecosystems is important to ensure their protection.

One of the most vital functions of this swampy ecosystem is its ability to remove pollutants from the waterways; by storing water on a temporary basis, pollutants settle out and are absorbed by the vegetation. This keeps drinking water sources safe and allows the fish and other aquatic life to continue thriving in the streams.

Wetlands are also key factors in reducing the frequency and intensity of flooding events. As development increases throughout a watershed, a greater amount of runoff water from impervious surfaces (driveways, parking lots, roofs, and roads) drains into the stream systems at a faster rate. This excess water creates conditions that become hazardous for those living in the floodplain. Wetlands help to retain a large portion of the runoff (just one acre of wetlands can absorb and hold 1 to 1.5 million gallons of water) and consequently, lessen the destructive forces of flooding.

Wetlands provide habitat to a unique array of wildlife species such as northern dusky salamanders, eastern box turtles, spring peepers, osprey, great blue herons, and red-headed woodpeckers. Wetlands are also full of colorful hydrophilic or "water-loving" plant species such as swamp milkweed, red maple, highbush blueberry, winterberry, cinnamon fern, and red osier dogwood. Overall, wetlands offer incredible scenic beauty, so put on some boots and enjoy them!

Wetlands are unique habitats characterized by wet soils, hydrophilic (water-loving) vegetation and the presence of standing water.

Vernal Pools

are temporary wetlands. They are primarily found in forested areas and are most often wet in the winter and spring but dry up during the warm summer months. These seasonal shallow pools contain no fish or moving water, but provide a critical place for many species of amphibians to breed and mature. Salamanders, like the Jefferson, Spotted or Marbled, Spring Peepers and Wood Frogs are commonly found in vernal pools.

Transform Backyard Wet Spots

Most wetlands in the Lehigh Valley region are found within the floodplains of area's numerous stream channels; however, as drainage patterns have shifted with development, many landowners may have these saturated areas on their property and struggle to keep them mowed.

If your property contains habitually water-logged soils, there are a few ways to get around the muck and the mosquitoes:

- **Avoid mowing.** Turf grass has a very shallow root system that will not improve the saturated conditions. Plants with deeper roots will stabilize the ground and uptake some of the water. Deeper-rooted plants will also filter out most pollutants that may runoff the landscape and potentially threaten groundwater sources.
- **Plant native hydrophytic (water loving) vegetation.** Enhancing the area will provide ideal habitat for wildlife watching and improve the aesthetics of your property.

Amphibians and insects that live in healthy wetlands and vernal pools, like the Red-spotted Newt and the Swamp Darner dragonfly feed on mosquitoes and their larvae, keeping the mosquito population naturally under control.

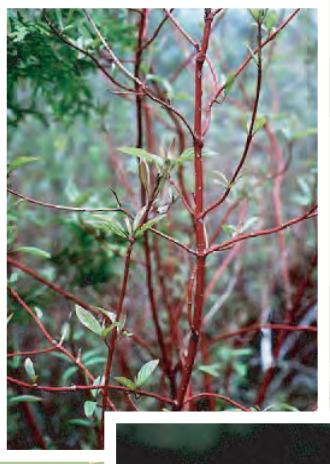
Caring for Wetlands — What to Plant?

The plants below represent just a limited selection of Pennsylvania's native species appropriate for planting throughout the state in wetland and vernal pools. Choose plants adapted for your soil conditions, and your wetland will thrive without the need for chemical fertilizers or pesticides. There are many resources to help homeowners with native plantings. For some help, contact one of the organizations on the back of this brochure, or visit one of the following websites: PA Department of Conservation and Natural Resources - www.dcnr.state.pa.us or PA Native Plant Society - www.pawildflower.org

Joe-Pye Weed
Eupatorium fistulosum
Blooms August to Sept.
Light shade
Wet to moist soils
Attracts beneficial insects
herbal uses
Zehr, Jeff

Swamp Milkweed
Asclepias incarnate
Blooms June to July
Light shade
Wet to moist soils
Attracts butterflies
Marcus, Joseph A.

Cinnamon Fern
Osumnda cinnamomea
Full sun to shade
Wet to moist soils
Cinnamon-colored fertile fronds; moist acidic soils
Mohlenbrock, Robert



Redosier Dogwood
Cornus stolonifera
Blooms May to July
Full sun Wet to moist soils
Very high wildlife value
Grey and silky dogwood shrubs are also good choices for wet areas
Very hardy, white flower clusters in spring, fast growers, berries for birds, and thick vegetation
www.co.washburn.wi.us

Grey Dogwood
Cornus racemosa
Blooms May to July
Full sun
Wet to moist soils
Very high wildlife value
Vick, Albert

Arrowwood
Viburnum dentatum
Blooms May
Full sun to full shade
Moist soils
Dark blue fruits in fall
High wildlife value
Loughmiller, Campbell and Lynn

Sedges
Carex stipata (awl sedge) and Carex stricta (tussock sedge)
Dense ground-cover, thrives in wet soil
Wildlife habitat and food source
Lavin, Matt

Nine Bark
Physocarpus opulifolius
Blooms May to July
Full sun to part shade
Wet to moist soils
Bloodworth, Stefan

Winterberry Holly
Ilex verticillata
Blooms late May to June
Part shade
Wet to moist soils
Showy berries in winter
High wildlife value; good colonizing shrubs for stream banks.
Bruso, George

Highbush Blueberry
Vaccinium corymbosum
Blooms late May to June
Light shade
Wet to moist soils
Multi-stemmed
edible berries; fall color
High wildlife value
Bruso, George

Pin Oak
Quercus palustris
Moderately large tree from 70 to 90 feet
Dark green to deep scarlet leaves in fall
High wildlife value
Mohlenbrock, Robert

Red Maple
Acer rubrum
Blooms late March to April
Full sun to full shade
Moist soils
Adapts to a range of moisture conditions; good fall color
Wasowski, Sally and Andy

Swamp White Oak
Quercus bicolor
Blooms in May
Light shade
Wet to moist soils
Large tree with very high wildlife value; good wetland oak
Mohlenbrock, Robert

Wetland Threats

Among others, the non-native plants below grow aggressively, dominating and crowding out healthy native wetland plants. Infestations can result in a sharp decline in biological diversity. As native food and cover plant species are completely crowded out, the life cycles of all of its inhabitants, from native plants to insects, birds and animals are threatened.

Effort and vigilance are required to prevent the domination by invasive plants of native vegetation. For more information on controlling invasive species, contact your local County Conservation District listed in the back of this brochure. Extreme caution is necessary for using any herbicides, particularly in sensitive riparian and wetland settings. Check with your local watershed specialist before applying any chemicals.

Purple Loosestrife
Lythrum salicaria
Prolific noxious weed
Angular stalks, square in outline
Leaves which are in pairs that alternate at right angle and are not serrated
Up to three million seeds from a single plant
Seeds germinate in moist soils after overwintering
Plant can also re-sprout from pieces of root left in the soil or water

Common Reed
Phragmites australis,
Tall, tasseled grass
Crowds out native species
Exudes a toxic acid from its roots that destroys neighboring plants

Kortrijk, K. (above)
Riet, L. (left)

Although nature has the ability to tolerate and even compensate for natural disturbances in a wetland ecosystem, there is a limit to the amount of stress it can endure before it collapses.

In addition to the introduction of non-native (exotic) plants, wetlands face major threats from draining, filling, clearing and polluting. The destruction of the vegetation results in loss of critical habitat and destroys the delicate balance of life in the wetland.

In Pennsylvania, wetlands are protected by state regulation. Contact your county conservation district before removing any vegetation or disturbing any soil around or in a wetland.