The Benefits of a Native Landscape

Native plants and animals sustain the environment on which we ourselves depend. By planting native species in your streamside buffer, 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 streamside 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 as a guide to select ferns, flowers, grasses, shrubs and trees 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:

Delaware County Conservation District
Rose Tree Park — Hunt Club
1521 N. Providence Road
Media, PA 19063
610-892-9484
www.dekocd.org

Chester County Conservation District
688 Unionville Road Suite 200
Kennett Square, PA 19348
610-925-4920
www.chesco.org/conservation

Native plant sales in the region:
Bowman's Hill Wildflower Preserve
www.bhwp.org

Brandywine Conservancy/Brandywine River Museum
http://www.brandywinemuseum.org/

Scott Arboretum of Swarthmore College
www.scottarboretum.org

Tyler Arboretum
www.tylerarboretum.org

Brochure developed by Lehigh County Conservation District.
Streamside Buffers

Taking good care of a stream involves taking care of the land around it. A streamside buffer (or riparian buffer) is a planted area along the edge of the stream.

A well-planted streamside buffer:
- absorbs nutrients and pollutants
- stabilizes the bank and prevent erosion
- reduces floodwater damage
- filters out sediment
- helps control the temperature of the stream

Creating a Streamside Buffer

Begin with a “no mow” or “no graze zone” along your stream banks. A buffer of any width is more beneficial than grass. Make yours as wide as possible.

Plant trees and shrubs in your buffer area. They provide many long-lasting benefits and can be quite inexpensive to establish and maintain.

Using shrubs will give your buffer a quick start; many reach full size in just a few years.

Where you do have lawn, set your mower blades at least three inches high. Taller grass slows runoff, resists drought and needs less fertilizer.

Stabilizing Your Streambank

It is best to work with professionals when looking for the causes of and solutions to erosion problems. Where buffers alone aren’t enough, there are many new and innovative techniques to help solve the problem. Contact your regional office of the Pennsylvania Department of Environmental Protection (DEP) before making plans to alter a streambank. Permits are likely to be required.

Top Reasons Not to Mow

Promotes bank stability —
Deep rooted native plants hold soil in place and keep banks stable. Turf grass has roots only an inch or two deep - not very effective at preventing erosion!

Flood flow reduction —
Fully grown vegetation slows the velocity of overland flows by providing enough resistance to allow some of the water to infiltrate the soil. This helps to recharge groundwater and reduces flood damage downstream.

Water quality —
Natural vegetation removes pollutants and fine sediment from the waterway, leaving water cleaner and clearer.

Reduction of mosquito habitat —
Turf grass does not absorb water as well as full-height vegetation; consequently, ponding occurs which makes ideal habitat for mosquito breeding. Higher vegetation may absorb more water and decrease the opportunity for mosquitoes to breed.

Wildlife habitat —
Stream banks in a natural state provide habitat for a diversity of reptiles, amphibians, birds, and small mammals. Fish and aquatic insects are also protected by the purifying function of a buffer.

Reduce Pollution

Most stream pollution comes from manure, fertilizers, road salts, oil and other chemicals. Called non-point source pollution, these come from the entire watershed rather than from any one point. Together, these pollutants add up in the streams and become a big problem. Other accumulated pollution includes trash and yard debris that washes into the streams.

To protect a stream from pollution:
- don’t overuse fertilizers - more is not better - and don’t use fertilizer near streams.
- limit your overall use of pesticides and herbicides, and use extreme caution when using them near streams.
- compost, don’t bag, yard waste. Leave lawn trimmings in place for effective recycling of nutrients.
- don’t burn refuse near streambanks.
- don’t store or dump manure, garden waste, or grass clippings near streams.
- store firewood, trash, or other materials away from streams.
- never dump trash or chemicals into streams, storm drains or sewers.
- keep farm animals out of and away from the stream. Contact the county conservation office to find out about farm fencing programs.

Prevent Excess Sediment

Every stream carries with it, fine particles of soil. But too much soil can clog the streambed, covering rocks and gravel where fish lay their eggs. Excess sediment can choke out the life of a stream. A major source of silt and sediment is construction or any project that disturbs the soil. Farming activities can also cause soil runoff.

To protect the stream from silt:
- use hay bales or a special silt fence to prevent soil from washing off a work site.
- never store loose piles of soil near a stream
- cover piles of soil with tarps to protect them from rain
- use good farm practices like no-till cropping and planting winter cover crops to conserve soil.
- contact your local county conservation office if you see soil run-off from a construction site.
Caring for Streamside Buffers — What to Plant?

Often, when left to grow up on its own, a streamside buffer will contain many weeds and other undesirable plants. One way to make sure this doesn't happen is to plant native plants. The plants below represent just a limited selection of Pennsylvania's native species appropriate for planting throughout the state, along streams and in adjacent floodplains. Choose plants adapted to your soil conditions, and your garden will thrive with less watering and 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.pawnetwork.org

Ferns

Wild Bergamot
Monarda fistulosa
Blooms May to September
Full sun to light shade
Moist to dry soils
Dry open woods, wet meadows, ditches, edges of woodlands and marshes

Blue Vervain
Verbena hastata
Blooms June to September
Full sun to light shade
Dry soils
Bright flowers; herbal uses; streambanks and moist meadows

Purple Coneflower
Echinacea purpurea
Blooms April to September
Full sun to light shade
Moss soils
Herbal uses

Blue Mist Flower
Conoclinium coelestinum
Blooms July to November
Full sun to light shade
Moss soils
Good border plant or colonizing ground cover, attracts butterflies

New England Aster
Aster novae-angliae
Blooms August to October
Full sun to light shade
Wet to moist soils
Wet meadow species

Switch Grass
Panicum virgatum
Blooms August to September
Conical, cone-shaped, woody, upright, dry soil
Clump grasses can help to control erosion
Sandy and river soils
Photo: Ann Libraries, Lady Bird Johnson Wildflower Center

Grasses

Sedge
Carex vulpinodes
Blooms Summer
Full sun
Consistently wet or saturated soils
Swampy areas

Arrowgrass
Vulpia octoflora
Blooms May
Full sun to full shade
Moss soils
Dark blue flowers in fall
Wildflowers; streambanks
Photo: Campbell and Camp Laughing Hearts, Lady Bird Johnson Wildflower Center

Nins Bark
Physocarpus opulifolius
Blooms May to July
Full sun to part shade
Wet to moist soils
Wet woodlands, sandy or rocky stream banks
Photo: Stefan Bloch, Lady Bird Johnson Wildflower Center

Garden Sage
Salvia anosmica
Blooms May to September
Full sun to part shade
Wet to moist soils
Blue-gray leaves
Photo: Kate M. Towers, Lady Bird Johnson Wildflower Center

Spice Bush
Lindera benzoin
Blooms March to May
Full sun to part shade
Wet to moist soils
Bark, high value
Photo: Michael Blum, Lady Bird Johnson Wildflower Center

Trees

American Beech
Fagus grandifolia
Blooms April to May
Full sun to full shade
Moss, but well-drained soils
Large tree with handsome bark; very high wildlife value
Photo: Bobbie Hock, Michigan State University

Swamp White Oak
Quercus bicolor
Blooms in May
Part shade
Wet to moist soils
Large tree with very high wildlife value
Photo: Bobbie Hock, Michigan State University

Black Gum
Nyssa sylvatica
Blooms April to May
Full sun to part shade
Moss soils
Small tree with wonderful fall color; high wildlife value
Photo: NextGen, Inc.

Red Maple
Acer rubrum
Blooms March to April
Full sun to full shade
Moss soils
Adapted to a range of moisture conditions; good fall color
Photo: Mike Erik

Shagbark Hickory
Carya ovata
Blooms in May
Full sun to part shade
Moss soils
Shaggy gray exfoliating bark; very high wildlife value
Photo: Keith K艾滋, Maine Forest Service

Pagoda Dogwood
Cornus alternifolia
Blooms May to June
Part shade
Moss soils
Small tree for moist woods and shaded ravines; dark red fruit
Photo: Robert Wing, USDA

American Sycamore
Platanus occidentalis
Blooms April
Full sun to wet soils
Large tree with shiny green heart-shaped leaves; good wildlife
Alluvial soils
Photo: Robert Wing, USDA

Red Maple
Acer rubrum
Blooms March to April
Full sun to full shade
Moss soils
Adapted to a range of moisture conditions; good fall color
Photo: Mike Erik

Page Dogwood
Cornus alternifolia
Blooms May to June
Part shade
Moss soils
Small tree for moist woods and shaded ravines; dark red fruit
Photo: Robert Wing, USDA

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Swamp White Oak
Quercus bicolor
Blooms in May
Part shade
Wet to moist soils
Large tree with very high wildlife value
Photo: Bobbie Hock, Michigan State University

Green Ash
Fraxinus pennsylvanica
Blooms April to May
Part shade
Wet to moist soils
Adult growth: dry fall color
Photo: Robert Wing, USDA

American Sycamore
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Part shade
Wet to moist soils
Adult growth: dry fall color
Photo: Robert Wing, USDA

River Birch
Betula nigra
Blooms May
Full sun to part shade
Wet to moist soils
Notable for its peeling bark, flexible branches, streambanks, wet woods, swamps
Photo: Shaven, USDA Forest Service