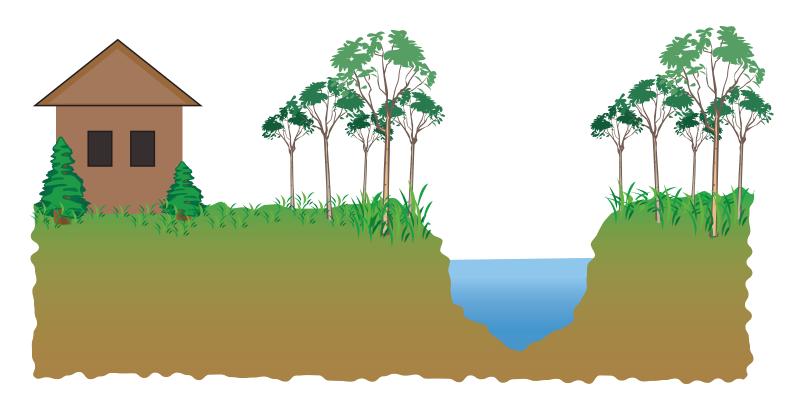
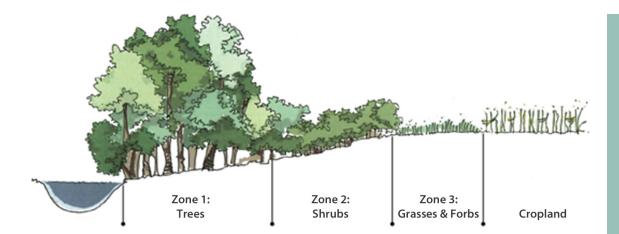


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entucky has more than 90,000 miles of rivers and streams and thousands of ponds, lakes, reservoirs, and wetlands. You can improve your surroundings and the quality of your stream, pond, or lake by planting an area called a riparian buffer or buffer zone.



Buffer zones are areas along the bank of a water body. When planted with trees, shrubs, and deep-rooted grasses, they protect the water from litter, fertilizers, sediment, and bacteria.

The roots of the plants trap and filter pollutants before they reach the water. Riparian buffers, or buffer zones, are often called "sponges" because they help soak up pollutants before they enter our streams, ponds, and lakes.

Why should I plant a buffer zone?



- Improves water quality by trapping sediment and pollutants that flow off the land
- Creates habitat for birds and other wildlife
- Provides shade to reduce temperatures in streams and other water bodies
- Assists in soaking up excess runoff from yards after large rains or snowfalls



Ideas for making a buffer zone

- **Create a no-mow area** around the water's edge.
- Use native plants, trees, and shrubs.
- Plant trees in fall and spring.
- **Plant trees** closest to the water, shrubs next to the trees, and grasses and wildflowers next to the shrubs.
- Prevent livestock from grazing in buffer zones.
- Protect larger plants and trees with fabric mats or tree cylinders.
- Contact KY 811 to locate all local utility lines two days BEFORE digging or planting.

What plants should I use?

These native Kentucky species are commonly used for buffer zones.

Shrubs and small trees

Arrowwood viburnum (Viburnum dentatum)

Buttonbush (Cephalanthus occidentalis)

Eastern redbud (Cercis canadensis)

Rough-leaf dogwood (Cornus racemosa)

Silky dogwood (Cornus amomum)

Spice bush (Lindera benzoin)

Grasses

Big bluestem (Andropogon gerardii)

Deer tongue grass (Dichanthelium clandestinum)

Eastern gamagrass (Tripsacum dactyloides)

River bank wild rye (Elymus riparius)

River oats (Chasmanthium latifolium)

Switchgrass (Panicum virgatum)

Perennial wildflowers

Cardinal flower (Lobelia cardinalis)

Great blue lobelia (Lobelia siphilitica)

Grey goldenrod (Solidago nemoralis)

Grey-headed coneflower (Ratibida pinnata)

Joe Pye weed (Eupatorium fistulosum)

New England aster (Aster novae-angliae)

Purple coneflower (Echinacea purpurea)

Swamp milkweed (Asclepias incarnata)

Trees

American sycamore (Platanus occidentalis)

Bald cypress (Taxodium distichum)

Black walnut (Juglans nigra)

Black willow (Salix nigra)

Bur oak (Quercus macrocarpa)

Eastern cottonwood (Populus deltoides)

Pin oak (Quercus palustris)

Red maple (Acer rubrum)

River birch (Betula nigra)

Swamp chestnut (Quercus michauxii)

Swamp white oak (Quercus bicolor)

Tupelo gum (Nyssa sylvatica)

White oak (Quercus alba)

Yellow buckeye (Aesculus flava)

Yellow poplar (Liriodendron tulipifera)

What plants should I avoid?

Avoid using invasive plants. These plants do not grow naturally in the area and may keep native plants from thriving.

Common invasive species of Kentucky

Bush honeysuckle (Lonicera maackii)

Chinese privet (Ligustrum sinense)

Common reed (Phragmites australis)

English ivy (Hedera helix)

Garlic mustard (Alliaria petiolata)

Japanese honeysuckle (Lonicera japonica)

Japanese knotweed (Fallopia japonica)

Japanese stiltgrass (Microstegium vimineum)

Kudzu (*Pueraria lobata*)

Multiflora rose (Rosa multiflora)

Purple loosestrife (Lythrum salicaria)

Reed canary grass (Phalaris arundinacea)

Tree-of-heaven (Ailanthus altissima)

Winter creeper (Euonymus fortunei)



Kudzu (Pueraria lobata)

Additional information

The following websites provide information about common native Kentucky species and invasive species control.

- Kentucky Division of Forestry (https://eec.ky.gov/Natural-Resources/Forestry)
- Kentucky Department of Fish and Wildlife Resources (http://fw.ky.gov)
- Office of Kentucky Nature Preserves (KNP) (https://eec.ky.gov/Nature-Preserves)

Revised by Lee Moser and Katherine Bullock.

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Cooperative Extension Service

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