*See the SCWA web site for more resources*

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## Membership and Renewal Form

Membership year is from January-December.
Dues should be paid by the first of the year.
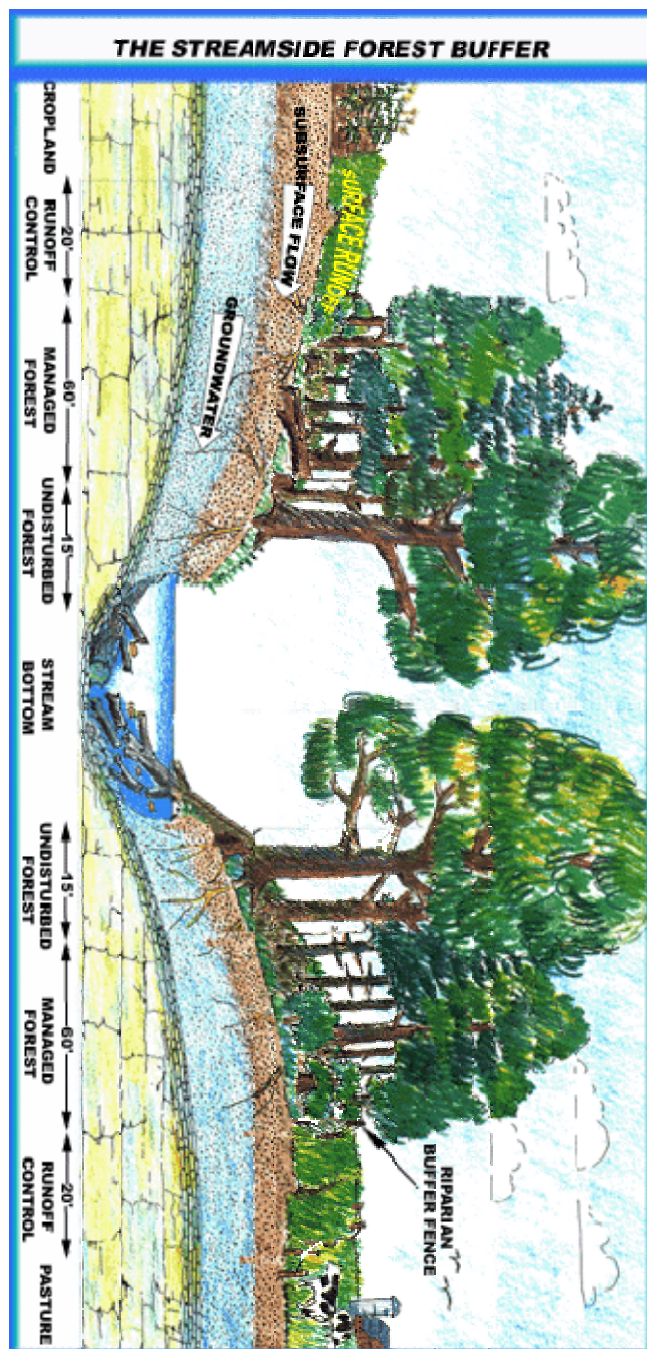
Name _____
Address _____
City/State/Zip _____
Phone _____ Email _____

Individual — $10 ☐    Group/Org — $25 ☐
Family — $15 ☐    Sponsor — $100 ☐

**Mail to:** SCWA, Treasurer
P.O. Box 991, Berkeley Springs, WV 25411

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THE STREAMSIDE FOREST BUFFER

CROPLAND · RUNOFF CONTROL · 20' · MANAGED FOREST · 60' · UNDISTURBED FOREST · 15' · STREAM BOTTOM · UNDISTURBED FOREST · 15' · MANAGED FOREST · 60' · RUNOFF CONTROL · 20' · PASTURE

SUBSURFACE FLOW · SURFACE RUNOFF · GROUNDWATER · RIPARIAN BUFFER FENCE

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## Good Plant Choices for Riparian Buffers

| | Common Name | Scientific Name |
|---|---|---|
| **Trees** | River Birch ☀ | *Betula nigra* |
| | Black Willow ☀ | *Salix nigra* |
| | Sycamore ◗ | *Platanus occidentalis* |
| | Swamp White Oak ◗ 💧 | *Quercus bicolor* |
| | Silver Maple ◗ | *Acer saccarinum* |
| | Pin Oak ☀ | *Quercus palustris* |
| | Black Gum ◗ | *Nyssa sylvatica* |
| | Shadbush ◗ | *Amelanchier arborea* |
| **Shrubs & Vines** | Red Chokeberry ◗ | *Aronia arbutifolia* |
| | Buttonbush ☀ 💧 | *Cephalanthus occidentalis* |
| | Silky Dogwood ◗ | *Cornus amomum* |
| | Witch-hazel ◗ ⬤ | *Hamamelis virginiana* |
| | Smooth Alder ☀ 💧 | *Alnus serrulata* |
| | Elderberry ◗ | *Sambucus canadensis* |
| | Maple-leaf Viburnum ⬤ | *Viburnum acerifolium* |
| | Virgin's Bower ◗ | *Clematis virginiana* |
| **Flowers** | New England Aster ☀ ◗ | *Aster novae-angliae* |
| | Cardinal Flower ◗ 💧 | *Lobelia cardinalis* |
| | Swamp Milkweed ☀ 💧 | *Asclepias incarnate* |
| | Marsh Marigold ☀ 💧 | *Caltha palustris* |
| | Blue Vervain ☀ | *Verbena hastata* |
| **Ground Cover** | Interrupted Fern ⬤ 💧 | *Osmunda claytoniana* |
| | Switch Grass ☀ | *Panicum virgatum* |
| | Soft Rush ☀ 💧 | *Juncus effusus* |
| | Blue-joint Grass ☀ ◗ | *Calamagrostis canadensis* |

☀ Full Sunshine    ◗ Partial Sunshine    ⬤ Shade    💧 Moist Soil
March—June and September—October are the best planting seasons in WV

*See the SCWA web site for more suitable species for planting in WV*

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# Sleepy Creek Watershed Association

*Protecting and Preserving Sleepy Creek in Morgan County, WV*

# How to Protect & Care for Your Riparian Buffer

**P.O. Box 991
Berkeley Springs, WV 25411**
*sleepycreekwatershedassociation.org*

# Sleepy Creek Watershed Association
P. O. Box 991, Berkeley Springs, WV 25411

## RIPARIAN BUFFER

One of the most important places on your property is the *riparian buffer*—the corridor of vegetation along the edge of the creek that protects the creek from floods, erosion, runoff of pollutants, and sediment. This sloping bank, 35'-100' wide, is a creekside ecosystem of plants, soils, and rocks that affect the creek. This area needs to be protected, stabilized, and cared for to slow the force of flood waters, and keep creekside soil porous so it absorbs rising flood water rather than sending it directly into the creek.


**Inadequate riparian zone along**

## PLANT IMPORTANCE

In a healthy Riparian Buffer, plants:

- Stabilize banks and reduce erosion,
- Reduce flooding during storms,
- Filter sediment and pollutants from runoff,
- Provide food and shelter for wild life,
- Enhance the habitat for fish,
- Provide fallen leaves, a food source for important beneficial aquatic life,
- Shade the stream in summer, cooling the water for you and the fish,
- Create pleasant areas for swimming, walking, and enjoying nature,
- Reduce time spent mowing,
- Improve privacy and tranquility, and
- Preserve and increase property values.

## BUFFER CONSERVATION

A buffer of trees, shrubs, and ground vegetation along your creek bank forms a network of roots that act as an anchor to hold creek bank soil in place. This buffer is a living filter, trapping sediments and absorbing pollutants before they enter the creek system. It also protects the creek from human activities which cause soil, sand, and gravel to erode from damaged

## Why are Riparian Buffers Important?

- WV waterways are a valuable resource worth protecting.
- Properly managed forested buffers can filter pollutants 15 times more effectively than mowed areas.
- 22.4% of WV streams have unstable banks - properly established buffers could stabilize these areas.
- The WV Wildlife Division has designated 254 aquatic organisms as "Species of Concern" which buffers could substantially aid by providing a more hospitable ecosystem.
- Uncontrolled runoff from residential areas and storm sewers damage West Virginia streams, but riparian buffers can significantly reduce this runoff and minimize damage.

streambanks known as *sedimentation*. Sedimentation is one of the most damaging human impacts on Sleepy Creek causing silt to spread through the creek covering the creek bed with a film that suffocates fish and beneficial aquatic


**SCWA volunteers planting trees during stream bank stabilization project**

insects. The water becomes cloudy or muddy with soil particles irritating fish gills and impeding fish feeding behaviors.

## FERTILIZER CONTROL



Fertilizing lawns and gardens can cause excess chemicals, such as nitrogen and phosphorus, to drain into the creek. This promotes rapid, extensive growth of algae that blocks sunlight to submerged plants which are essential to fish and other aquatic organisms. As the vegetation dies, the decaying process depletes oxygen in the water suffocating fish.

## HOW TO PROTECT YOUR RIPARIAN BUFFER

- **Do not mow or remove vegetation growing near the creek.** Tidying up, removing "unsightly" tangles, and clearing away underbrush destroys the very things that stabilize the creek. *Take it easy!* If you must clear the area, replace cleared vegetation with plantings that enhance the vista while preserving the buffer zone. To restore a mowed area, just stop mowing it and let it grow back!
- **Do not use the creek bank corridor for parking or storage** of machines or unwanted equipment.
- **Do not use heavy machinery along the creek** which compacts the soil and might overload the bank causing it to collapse.
- **Do not erect structures in the riparian buffer**.
- **Do not use motor vehicles**, especially ATVs, along the creek bank and nearby steep slopes. The damage caused by these vehicles tears up the bank and cannot be easily repaired.

- **Do encourage a wide (35'-100') vegetation buffer** — *any is better than none!*
- **Do protect the creek bank from wandering animals, *especially livestock*.** Livestock trample the creek bank in search of water. Install wire fencing along the outer edge of the buffer and develop watering troughs, springs, wells, and ponds for watering livestock.
- **If you prefer a view of the stream**, selectively thin a "window", leaving low growing shrubs and flowers that preserve the buffer and a corridor for wildlife.
- **Do create meandering paths to the stream.** Clear brush only along the paths and use mulch or gravel chips if you must pave the path.
- **Do use materials such as straw and rocks , rather than asphalt or concrete,** to improve the aesthetic appearance and value of your property.
- **Do plant live plants and trees**.
- **Do provide habitat which is inviting to pollinators** such as butterflies, hummingbirds, and bees to enrich and sustain the ecosystem.
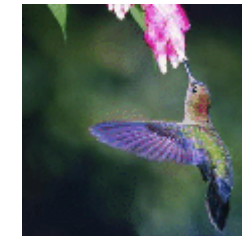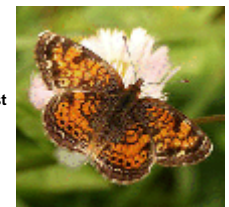
## *DO* use the creek bank area for...

**walking,**

**bird watching,**

**whistling,**

or


**Kayaking on Sleepy Creek**

**hang a hammock under the trees and listen to the creek, or read a book.**




**Ruby Throated Hummingbird Feeding**


**Monarch Butterfly, the West Virginia state insect**