Protecting Your Stream

Stream Stewardship

As a streamside landowner, you have a special opportunity to positively influence the quality of your stream and promote local stream health. Stewardship is the means by which you can empower yourself, friends, and neighbors to take ownership of your stream to ensure that its waters remain clear and its banks stay well vegetated and free from severe erosion. Practicing stream stewardship is simple and easy to do. It can have a huge impact on the quality of your life and the life of the creatures that live in your stream. In fact, you may already be doing some of the practices listed below.

3 Simple Steps

Establish a Streamside Buffer:
One key component to stream health is allowing vegetation to grow along the stream bank. Designate a "No Mow" or "Conservation Zone" adjacent to the stream, at least 15-25 feet wide. The zone will encourage the growth of plants and reduce the impact of pollutants from stream bank erosion and surface runoff. Plant native trees and shrubs within the area to establish a vigorous root zone that will hold the soil in place. Keep in mind that more is always better with stream buffers.

Refrain from Dumping Yard Waste:
The placement of grass clippings, raked leaves, cut limbs, and other vegetative debris on the bank, or within the channel, contributes to stream bank erosion and poor water quality. Yard waste reduces available oxygen for fish and other aquatic life by depleting the oxygen in the stream as it decays. It also reduces stream capacity which will contribute to potential flooding of downstream property.

Use Only Recommended Amounts of Fertilizers and Pesticides:
Both fertilizers and pesticides contribute to poor water quality. It is important to calibrate your spreader according to the package label. Avoid spreading fertilizer near the bank and on side walks and driveways which can convey the chemicals directly into your stream. Again, avoid putting grass clippings in this area as they often have fertilizer on them which contributes to water quality problems.

Resources:
OhioStream Management Guides, ODNR-Div. Of Water.
Rainwater and Land Development, Dan Mecklenburg, ODNR – Div. of Soil & Water Conservation.
Streambank and Shoreline Protection, NRCS Engineering Field Hand, Chapter 16.
Streambank Protection Guidelines, Malcolm P. Keown, Waterways Experiment Station, MS

The Franklin SWCD and NRCS Field Office strive to serve all people equally.

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Common Questions

Why can't we just keep blue grass mowed to the stream?

Turf grass, like blue grass, does not grow roots deep enough to hold the soil in place. Vegetation can prevent stream bank erosion in three ways;

1. Plant roots hold the soil together and increase overall bank stability by forming a soil binding network.
2. The exposed stalks, stems, branches and foliage provide resistance to the stream and runoff flow causing the flow velocity to decrease.
3. The impact of rain drops on the soil initiates erosion. Tree and shrub foliage deflects rain drops, reducing their impact on the bank.

What if my neighbors think I am neglecting my lawn?

If your neighbors are concerned about weeds, a management plan can be developed to create a buffer with more desirable species.

Why use bio-engineering to help stabilize the stream bank?

Bio-engineering is the use of natural materials (living and non-living) to stabilize slopes and stream banks rather than using conventional hard armoring methods . A combination of boulders, tree roots and vegetation is used in a variety of ways to fortify eroding banks and re-establish natural, vegetated stability. There are many reasons to use bio-engineering. Vegetation is an inexpensive approach to stabilization and the construction methods are often simple with little equipment needed. The exclusive use of riprap (engineering stone), concrete and rock gabions does not promote a healthy stream. Bio-engineered stabilization projects are visually attractive while providing food, shelter, and cool clean water necessary for healthy stream function and good water quality.

What native trees and shrubs should we place near the stream?

Native trees, shrubs, and grasses that tolerate wet conditions should be grown near the stream. These include trees such as black, white, bankers and sandbar willow, green ash, eastern sycamore, red maple, swamp white oak and box elder. Suitable shrubs are silky dogwood and red osier dogwood.

What is a stream corridor?

A stream corridor, also know as a riparian corridor, is the area of land adjacent to and including a stream. It encompasses the stream channel, floodplain area, wetlands, forests, and grasslands associated with stream ecosystems. In urban areas some buildings, recreational facilities, parking lots, and water management systems may also exist within the riparian corridor. A healthy riparian corridor that includes intact floodplain areas and well established vegetation including trees, shrubs and grasses can provide exceptional opportunities to enjoy natural beauty and water quality benefits.

How big should the stream corridor be?

The recommended minimum width for water quality is 50 feet or 2.5 times the stream bank width, whichever is greater. Three hundred feet of corridor is recommended for good wildlife habitat. This number is different from what is posted on front, because in urban areas landowners often do not have that much space. However, try to establish this zone as wide as possible.

Doesn't the fertilizer on the side walks and driveways just go down the sewer and get treated?

No. Sidewalks, driveways, and roofs all drain to the storm drain which is drained into the stream. Fertilizers or nutrients can promote excessive algae growth that robs oxygen from fish and other aquatic life as it decays.

Questions

Need more details on how to plant or how a stream moves? Check out ODNR– Division of Water's publication series, Ohio Stream Management guides. They can be found on the web (www.dnr.state.oh.us) or by calling ODNR. If you have additional questions or need technical assistance please call the Franklin SWCD for more details.