Increased Property Value

How does maintaining or improving a stream increase property value?

Studies have shown that:

The appraisal value of houses with natural streams is 3 times ***higher*** *than those with channelized streams.*

The closer a property is to a natural area, the higher the value.

60% of suburban residents enjoy wildlife viewing and are willing to pay a higher price for properties that are attractive to wildlife.

Who is responsible for what?

Every stream has two components: the water flowing in it, and the land beneath and around it.

Private individuals own the land that forms the stream channel on their property. However, because it is considered a "public good", the water in the stream is owned by the State of Ohio, or all of us! This means that property owners can use the water, but not in ways that infringe on the rights of others.

What many property owners may not realize is that "using" water properly also depends on what they do on their land. If, for example, a landowner decides to armor the stream bank, culvert the stream in a pipe, remove natural bed materials, or fill in a ravine, these land alterations can negatively affect :

How the stream water flows

The value of the property that was "protected" or "improved"

What the water contains

Erosion rates downstream

Whether the stream's inhabitants are healthy, or can even exist!

The landowner is ultimately responsible for any resulting changes downstream.

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Introduction to Stream Management

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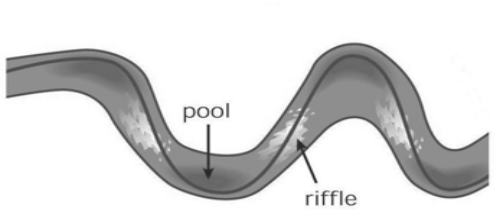
How Streams Work

In our area, undisturbed streams are composed of alternately spaced, deep and shallow areas called pools and riffles. Pools are deep areas that often contain fine materials such as sand, and a perfect resting spot for fish! Riffles are shallow, fast moving areas that often contain larger materials like cobbles and boulders. These areas provide important habitat for small aquatic animals and bugs, as well as areas for fish spawning. Another important component of streams is the floodplain. Active floodplains provide critical functions to the community and are essential for healthy streams because they:



Reduce downstream flooding by storing excess storm water.

Recharge and filter groundwater so streams can maintain flow in dry weather .

Reduce pollution by allowing sediment, bacteria, and fertilizers to settle out and be utilized by plants.

Reduce stream bank erosion by relieving energy in the channel.

Why do streams meander?

It's a balancing act! All streams transport water along with bed materials like soil and rocks. By meandering, streams can balance the work involved in carrying the bed materials and the energy of transporting the water.

How much will a stream meander?

The size of the meander is related to the slope of the stream and the size of the watershed (area of land draining to the stream). Steep mountain streams hardly meander at all, while large rivers in flat valleys often have large meanders.

Even water flowing through a pipe at low flow will meander!

What happens when a stream un-meanders?

Streams are not pipes. When we eliminate natural meanders in streams, and attempt to "nail" the stream into a straight line, the effects are often dramatic. Excessive energy often becomes trapped in the stream channel. Erosion increases as the stream attempts to recreate the missing meanders. Floodplains often become disconnected from the stream, and downstream landowners are at a greater risk of flooding and erosion.

Is stream bank erosion natural?

Even streams in balance erode, but usually not in a way that degrades the stream. In a healthy stream, the amount of material eroded equals the amount of material deposited. If a stream begins to erode excessively, it may be out of balance. Increased storm water runoff upstream may start a downward cutting process, which leads to unstable, eroding stream banks.

Don't Mow In The Buffer Zone

A stream's Buffer Zone (also called a Riparian Buffer Area) is the strip of natural vegetation along the banks that separates the stream from developed areas (farm fields, lawns, buildings, driveways, etc.) Mowing right to the stream edge may look nice and neat, but it's actually creating disaster, faster! You may be able to get away with it for awhile, but it will catch up with you. If you eliminate a Buffer Zone's natural plants and shrubs, you lose the valuable root systems that hold the soil in place. The result: the banks erode faster, they de-stabilize, they crumble and cave in, and you'll soon be living with this! Just think of all that valuable land just washing away.

Water can move mountains! Consider that the Appalachain Mountains were once higher than the Rockies! Maintaining a healthy buffer along the stream is insurance, protecting you from changes in the watershed upstream of your property.

How wide should a healthy buffer zone be?

Ideally, a healthy buffer zone should be large enough to accommodate a naturally meandering stream for many years to come, regardless of upstream changes in the watershed. Streams tend to meander within a predictable width, otherwise known as their "belt width". The size of the belt width is related to the size of the watershed draining to the stream.

Unfortunately, in urban areas, these recommended buffer widths often exceed the entire width of our properties! One rule of thumb often used in identifying a recommended buffer width is 3 times the width of the stream.

What do healthy buffer zones do?

Stabilize stream banks

Reduce erosion

Provide wildlife habitat

Increase beauty

Reduce sediment & chemicals from rainwater runoff

Provide shade to keep the stream at cooler temperatures for healthy aquatic communities

Increase property value

Don't Dump

It 's unacceptable to dump tires, machine parts, plastics, and other unnatural trash into our waterways — And "organic" material like leaves and grass too!

When yard waste (grass, leaves, pet waste, etc.) is deposited in the stream, it begins to rob the water of critical, life-giving oxygen. As a result, fish kills can occur while the stream becomes unsightly and foul smelling.

Dumping concrete and rocks in the stream to build artificial walls can **accelerate** stream bank erosion!