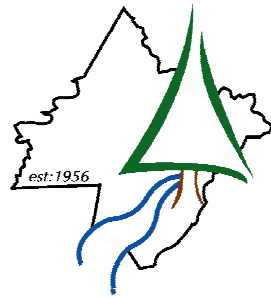


April 16, 2009



## **Conservation Horizons**

*Pike County Conservation District*

### **Floodplains - Nature's Safety Net**

Simply stated, a floodplain is the land that a stream or river (or “waterway”) will flow onto when water spills over banks during flooding events. By allowing a waterway to overflow unobstructed into its adjoining floodplain, the tremendous energy carried by floodwaters is spread out, thereby lessening flood damage.

Floodplains often contain wetlands and other areas vital to a diverse and healthy stream ecosystem. Floodplains provide many benefits, including water purification and groundwater recharge, erosion control, open space for recreation, as well as support for plants and wildlife that depend on floodplain habitat. However, these benefits are often lost when human activities result in “encroachment” on and development in floodplain areas. What happens in floodplains can have impacts to human uses and natural resources within your property as well as in areas located up or downstream.

The floodway is a part of the larger floodplain, and includes the stream channel and portions of the adjoining floodplain land. By regulation in Pennsylvania, the floodway, in areas that do not have detailed floodplain mapping (this includes many streams in Pike County), is assumed, absent evidence to the contrary, to extend 50 feet back from the top of the bank on both sides of the stream.

Historically, towns and villages were often located in floodplains that provided land for building homes and businesses, rich soils for growing crops, hydropower to drive water mills and, very importantly, access to adjacent waterways for transportation of people and goods. Although floodplains often still support agriculture, times have changed: water-powered mills have largely disappeared and transportation by road has replaced waterways travel.

Although many of the historic benefits of locating communities in floodplains no longer apply, building in floodplains still takes place. Building in floodplains can put a community and its people in harm's way and can result in the expenditure of millions dollars to restore flood-damaged areas. However, there are ways this problem can be addressed.

The ability of the floodplain to carry and store floodwaters should be preserved. Removing vegetation, compacting soil and placing fill or structures in floodplains all have the potential to diminish the flow capacity of floodplains, increase flow velocities in streams and raise flood levels so that areas formerly not at risk become endangered. Patterns of flow may also change, potentially increasing erosion and damaging infrastructure and streamside properties. By adapting our activities to the natural phenomenon of flooding, rather than trying to control floodwaters, we can maintain the invaluable services provided by these areas, reduce infrastructure and property damage, protect critical natural and cultural resources and promote sustainable development of our communities.

Preserving floodplains protects the benefits they provide, and critical to floodplain protection are ordinances adopted by municipalities. Currently, Pike County's thirteen municipalities have ordinances in effect that at least meet the minimum floodplain development standards required by state and federal floodplain insurance programs. However, local officials can go beyond minimum standards to identify critical floodplain areas that warrant stronger protection, implement a prohibition on structural development in critical floodplain areas, update floodplain maps, and obtain assistance through county, state and federal government programs.

### **What you can do**

Residents and potential home and property buyers can consider the following options to enhance floodplain protection:

- Attend public meetings or write letters supporting local officials in the enactment of floodplain regulations that go beyond minimum standards and enhance public and environmental protection.
- When purchasing a home, business or property enlist the services of a knowledgeable realtor and let them know you want to avoid floodplain areas.
- Being able to recognize and identify floodplain areas is important as they are not always an obvious feature of the landscape. Soil Survey maps (available at the Pike County Conservation District, telephone: 570-226-8220) and National Floodplain Insurance maps (Pike County Office of Community Planning, telephone: 570-226-6294) can also be useful, although they may not depict all areas prone to flooding, particularly on small streams. An on-line source for floodplain and soil survey maps is Penn State University's "Soil Map" web site at <http://soilmap.psu.edu/>.

Although it may remain dry for long periods, a floodplain is, in effect, an extension of a stream that will become inundated during periodic high water events. In recognition of the benefits they provide and the multitude of problems that arise when floodplains are developed, it makes sense to protect these highly valuable natural resources.

**March Question:** What is the difference between a floodway and a floodplain?

**March Answer:** Floodplains are lowland areas next to streams and rivers that collect water that spills over banks during flooding events. The floodway is a part of the larger floodplain, and includes the stream channel and portions of the adjoining floodplain land. Unless otherwise specified, the boundary of the floodway is as indicated on maps and flood insurance studies provided by FEMA. In an area where no FEMA maps or studies have defined the boundary of the 100-year frequency floodway, it is assumed, absent evidence to the contrary, that the floodway extends from the stream to 50 feet from the top of the bank of the stream.

**April Question:** Riparian buffers have many benefits – can you name four?