Determining an Appropriate Buffer Width

Determining the width of riparian buffers depends on the purpose of the buffer. Many studies have been conducted analyzing the effectiveness of buffers. Unfortunately, a consensus has not been reached on an "ideal" buffer width to achieve the greatest level of protection or how to best delineate and manage a buffer.

One of the most important factors in determining the effectiveness of a buffer is its size or width. Site specific variables should also be taken into consideration. To determine a minimum buffer width, set several priorities to attain the desired set of functions. The US Forest Service recommends the following minimum width ranges, based on specific functions of buffers. The illustration below also provides a generalized range of minimum widths to achieve specific objectives.

Buffer Width Ranges for Meeting Specific Objectives

Streambank Stabilization and Aquatic Food Web Processes: 10' - 50'

Water Temperature Moderation: 10' - 60'

Mutrient Removal: 30' - 140'

Sediment Control: 40' - 155'

Flood Control: 60' - 200'

Wildlife habitat: 40' - 300'

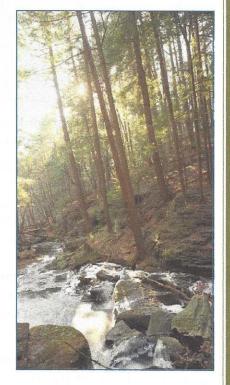
Recommended Minimum Buffer Widths to **Achieve Specific Objectives** Streambank Stabilization and Aquatic Food Web Water Temperature Moderation Nutrient Removal Sediment Control Flood Control /irginia Dept of Forestry Wildlife Habitat 50 100 150 200 250 300 Buffer Width in Feet

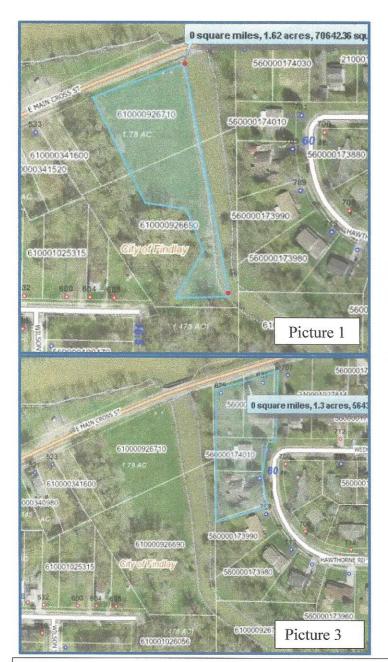


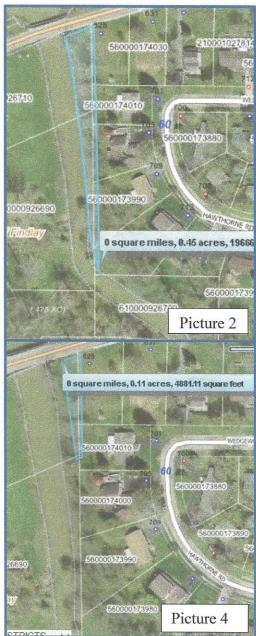
Four criteria are generally discussed when determining the adequate width of riparian buffers for protection of streams. They include:

- 1. Existing or potential value of the resources to be protected
- 2. Site, watershed, and buffer characteristics
- 3. Intensity of adjacent land use
- 4. Specific water quality and/ or habitat functions desired

The Chesapeake Bay Riparian Handboo







Area for the Riparian Buffer PHASE I. To be Completed in 2013

Picture 1 shows the main area proposed for the riparian buffer. Due to the Maintenance Contract on Lye Creek, trees must be located at least 25 feet from the top of the creek. The length of Lye Creek between the two red dots in Picture 1 is approximately 600 feet. When the 25' easement is multiplied by the length of Lye Creek 15,000 sq. ft. are encompassed by the area or .34 acres. This leaves 1.28 acres to be included in the wooded riparian buffer on the west side of Lye Creek.

Picture 2 shows the area owned by the City of Findlay on the east side of Lye Creek. Picture 4 shows the area owned by the City of Findlay that is outside of the maintenance easement. The total area in the wooden riparian buffer is 1.39 acres. Lye Creek covers nearly 0.75 acres.

PHASE II.

Picture 3 shows an area owner by the Hancock County Commissioners and the City of Findlay. The 1.3 acres might be a wooded riparian buffer in 2014.