

## **SS 600-30 - Riparian Corridor Management**

- A. In order to protect and improve water quality, a Riparian Buffer Easement shall be created and recorded as part of any subdivision or land development that encompasses a Riparian Buffer
- B. Whenever a pond, watercourse, stream, or intermittent stream as identified in the Soil Survey of Montgomery County is located within a development site, it shall remain open in its natural state and location and shall not be piped.
- C. Unless otherwise described in the Zoning Ordinance[1] , or required by Pa-DEP Chapter 102, a Riparian Buffer Easement shall be provided for the greater of either 35 feet from each bank of the water body or the limit of the 100-year Floodplain. as well as along all intermittent or perennial watercourses and ponds. This buffer area will be known as the "riparian corridor." No removal of vegetation, except for removal of dead trees and shrubs or periodic mowing of existing lawns or fields, shall take place within this buffer area without the specific permission of the Borough.
- D. The existing points of natural drainage discharge onto adjacent property shall not be altered without the written approval of the affected landowners.
- E. No stormwater runoff or natural drainage shall be so diverted as to overload existing drainage systems, or create flooding or the need for additional drainage structures on the other private properties or public lands. In cases where additional stormwater flows will overload adjacent structures, the applicant shall be responsible for enlarging the facilities.
- F. Within any riparian corridor, no construction, development, use, activity, or encroachment shall be permitted unless a corridor management plan is submitted and approved by Borough Council and the effects of such development are mitigated by the implementation of the corridor management plan. The corridor management plan shall meet the following requirements:
  - (1) Plan contents. The corridor management plan shall contain the following information:
    - (a) Existing conditions, including the corridor boundaries, steep slopes, swales, wetlands, streams, ponds, floodplains, woodlands, other vegetation, and existing structures. A written description of unusual or significant conditions should also be included.
    - (b) Management goals for the entire tract and long-range goals for the riparian corridor.
    - (c) Proposed activities, including a plan drawn to scale that shows all proposed activities within and adjacent to the corridor. The plan shall differentiate areas that will be disturbed from those that will be protected and preserved.
    - (d) Proposed management, including an explanation of how the goals will be met given the proposed activities. The plan shall specify when the construction, planting, or other activities are to begin and end and shall address long and short-term maintenance, mitigation, and improvement activities necessary for preservation of the corridor, including application of herbicides, removal of invasive plants, spacing and types of

newly planted trees and shrubs, mowing schedules, farming practices, and other related functions.

- (2) Management, mitigation, and restoration measures. The proposed management plan shall comply with the following management, mitigation, and restoration measures:
  - (a) Management practices. The following management practices shall be integrated into the management plan:
    - [1] Existing woody and other vegetation should be preserved to the greatest extent possible.
    - [2] Whenever practicable invasive vegetation shall be actively removed and the Riparian Buffer Easement shall be planted with native trees, shrubs and other vegetation to create a diverse native plant community appropriate to the intended ecological context of the site.
    - [3] Fallen branches and other organic material should be allowed to remain where they have fallen, provided that they do not create a hazard.
    - [4] Stream crossings should be done at a 90° angle to the stream.
    - [5] Stream banks should be stabilized in accordance with "A Streambank Stabilization and Management Guide for Pennsylvania Landowners," by PADEP.
    - [6] Degraded landscapes should be restored or converted to a more effective landscape for maintaining water resources.
- (3) Mitigation measures. Disturbance of vegetation within the riparian corridor shall be mitigated by at least one of the following measures, with a total amount of mitigated area, measured horizontally, that is equal to or greater than the total amount of disturbed area, measured horizontally:
  - (a) Increasing the width of the corridor. The width of the riparian corridor, measured from the defined edge of a watercourse, is increased to at least 75 feet.
  - (b) Converting to a more effective landscape. The existing landscape is converted to a more effective landscape. The following landscapes are listed in order of effectiveness, from most effective to least effective: woodland, meadow, shrub, old-field, lawn.
  - (c) Increasing the effectiveness of the corridor. In existing degraded wooded areas or proposed new wooded areas, the riparian corridor is planted with three distinct layers of vegetation:
    - [1] Canopy trees, such as oak, hickory, maple, gum, beech, sycamore, spruce, pine, and fir.
    - [2] Shrubs that provide an understory, such as elderberry, viburnum, azalea, rhododendron, holly, laurel, and alders.

[3] Herbaceous plants that serve as ground cover, including ferns, sorrel, trillium, violet, Virginia creeper, nettle, phlox, aster, and worts. All three layers shall be planted at a density sufficient to create a fully functioning, naturalized riparian corridor.

(4) Restoration and conversion of landscapes.

(a) Landscapes shall be restored by removing invasive vines, removing invasive trees, cleaning out trash, correcting soil erosion problems, planting appropriate plants, and properly maintaining all new plantings.

(b) Landscapes shall be converted to a more effective landscape by removing existing, incompatible vegetation, planting plants that are appropriate for the proposed landscape type and the site, and maintaining and protecting the plantings from invasive plants, deer, and other long-term problems.

G. Vegetation selection. To function properly, vegetation in the corridor management plan shall be selected from the Recommended Plant Materials List in Appendix 600-A.[2] Plants not included on the list may be permitted by Borough Council when satisfactory evidence is provided from qualified sources certifying their suitability. The Borough may require species suitability to be verified by qualified experts in the Montgomery County Conservation District, Natural Resources Conservation Service, Pennsylvania Fish and Boat Commission, the United States Fish and Wildlife Service, or state and federal forest agencies.

(1) Existing tree cover should be surveyed and inventoried to assess the need for any new plantings. Existing species included on the Pennsylvania Noxious Weed Control List should be removed where conditions warrant.

(2) Adjacent to the watercourse, dominant vegetation shall be composed of a variety of native riparian tree and shrub species and appropriate plantings necessary for stream bank stabilization.

(3) Away from the watercourse, dominant vegetation shall be composed of riparian trees and shrubs, with an emphasis on native species and appropriate plantings necessary to stabilize the soil.

(4) Disturbed areas shall be revegetated with riparian corridor plants, in compliance with an approved corridor management plan.

(a) Canopy tree and shrub plantings shall be located along the streambank to provide shade for the stream, soil erosion control and stormwater benefits, according to accepted streambank restoration practices.

(b) New canopy trees shall be planted at a minimum rate of 15 feet on center or one tree per 225 square feet in staggered naturalized rows or an equivalent informal arrangement within the area within 25 feet of the top of each bank of the stream. One new shrub or understory tree shall be planted for every four new trees required for riparian corridor revegetation.

(c) New trees shall be a variety of sizes ranging from a minimum four- to five-foot branched whip to an approximate 1 1/2 inch caliper balled and burlapped planting stock.(5) Areas that cannot be revegetated shall be restored using management practices accepted by experts qualified in riparian corridor management.

- H. The Riparian Buffer Easement shall be enforceable by the municipality and shall be recorded in the appropriate County Recorder of Deeds Office, so that it shall run with the land and shall limit the use of the property located therein. The easement shall allow for the continued private ownership and shall count toward the minimum lot area as required by Zoning, unless otherwise specified in the municipal Zoning Ordinance.
- I. Any permitted use within the Riparian Buffer Easement shall be conducted in a manner that will maintain the extent of the existing 100-year floodplain, improve or maintain the stream stability, and preserve and protect the ecological function of the floodplain.
- J. The following conditions shall apply when public and/or private recreation trails are permitted within Riparian Buffers:
  - 1. Trails shall be for non-motorized use only.
  - 2. Trails shall be designed to have the least impact on native plant species and other sensitive environmental features.
- K. Septic drainfields and sewage disposal systems shall not be permitted within the Riparian Buffer Easement and shall comply with setback requirements established under 25 Pa. Code Chapter 73.

## **ADD TO DEFINITIONS**

Riparian Buffer – A permanent area of trees and shrubs located adjacent to streams, lakes, ponds and wetlands.