

**Proposed Amendments to the Design Standards Manual (to accommodate the Riparian Buffer Protection Standards Regulations)**

**1. Buffer Replacement and Restoration**

- A. Buffer replacement and restoration is subject to a plan or narrative approved by the Riparian Buffer Administrator that is in accordance the Virginia Department of Conservation and Recreation's Riparian Buffers Modification & Mitigation Guidance Manual.
- B. Buffer plantings must be vegetative species native to Albemarle County. The Virginia Department of Conservation and Recreation has identified Piedmont Virginia as the Native Plant region including Albemarle County. Species to be planted in the buffer must be listed in any one of the following: (1) the "Native Plants for Conservation, Restoration & Landscaping (Virginia Piedmont Region) brochure, published by the Virginia Department of Conservation & Recreation (DCR); (2) the "Native Plants for Conservation, Restoration & Landscaping: Virginia Riparian Buffer Zones" brochure, published by DCR; or (3) listed in another native-plant list approved by the Riparian Buffer Administrator.

**2. Permitted Landcover Change Matrix**

Potential changes to landcover within the Riparian Buffer are permitted as follows.

P: Permitted

P\*: Permitted in compliance with the standards in section 4.23.7(B). Removal of existing forested buffer vegetation is not permitted for activities such as landscaping or clearing for views. For a list of permitted uses in the riparian buffers, refer to Section 4.23.7.

N: Not permitted

Permitted management of existing vegetation is listed for each vegetation type as follows:

|   |                                                                                                                                         |
|---|-----------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Maintenance of native riparian buffer that includes canopy, understory, shrub, and herbaceous layers; invasive-species removal/control. |
| 2 | Maintenance of native vegetation; invasive species removal/control                                                                      |
| 3 | Uses permitted in compliance with Sec. 4.23.7 (B); invasive species removal/control                                                     |
|   |                                                                                                                                         |

|                                |                                                                                           | Proposed Landcover Within Riparian Buffer |                                    |         |                          |      |             |      |             |
|--------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------|---------|--------------------------|------|-------------|------|-------------|
|                                |                                                                                           | Conservation Management                   |                                    |         | Forestry                 |      | Agriculture |      | Other       |
|                                |                                                                                           | Hardwood or mixed forest                  | Native grassland, Piedmont prairie | Wetland | Hardwood or mixed forest | Pine | Pasture     | Crop | Landscaping |
|                                | <b>Existing Landcover Within Riparian Buffer</b>                                          |                                           |                                    |         |                          |      |             |      |             |
| <b>Conservation Management</b> | Hardwood or Mixed Forest<br>Management: 1, 3                                              | P*                                        | N                                  | P       | P*                       | P*   | P           | P    | N           |
|                                | Native grassland, Piedmont prairie<br>Management: 2                                       | P                                         | P                                  | P       | P*                       | P*   | P           | P    | N           |
| <b>Forestry</b>                | Hardwood or mixed forest<br>Management: 3                                                 | P*                                        | P                                  | P       | P*                       | P*   | P           | P    | N           |
|                                | Pine<br>Management: 3                                                                     | P                                         | P                                  | P       | P*                       | P*   | P           | P    | N           |
|                                |                                                                                           |                                           |                                    |         |                          |      |             |      |             |
| <b>Agriculture</b>             | Pasture                                                                                   | P                                         | P                                  | P       | P*                       | P*   | P           | P    | N           |
|                                | Crop                                                                                      | P                                         | P                                  | P       | P*                       | P*   | P           | P    | N           |
| <b>Other</b>                   | Landscaping (lawn, grass, mowed lawn with trees/shrubs, mowed or bush-hogged field, etc.) | P                                         | P                                  | P*      | P*                       | P    | P           | P    | P           |

### 3. Stream Crossings

- A. For crossings of perennial streams: bridges, arch culverts, or box culverts may be used for the stream crossing and must be sized to adequately convey peak flow from the ten-year storm event (or the 25-year storm event if the design standards in either sections 14-410 or 18-32.7.2.1 apply) without backing water onto upstream properties. Bridges or arch culverts must either leave the stream section, consisting of the stream bed and the stream bank, undisturbed or allow the stream to return to a natural stabilized cross-section upon completion of installation. The lowest interior elevation (invert) of a box culvert installation must be a minimum of six inches below the stream bed. Culvert walls and bridge columns should be located outside the stream banks wherever possible.

- B. For crossings of intermittent streams: Bridges or culverts may be used for the stream crossing and must be sized to adequately convey peak flow from the ten-year storm event (or the 25-year storm event if either sections 14-410 or 18-32.7.2.1 apply) without backing water onto upstream properties.
- C. Stream crossings must be perpendicular to the stream, or otherwise aligned to minimize impacts to the buffer.
- D. Stream stabilization and energy dissipation measures below each bridge or culvert must be provided.
- E. Stream crossings must not disturb more than 30 linear feet of stream for driveways or 60 linear feet for roads or streets, provided that the Riparian Buffer Administrator may allow additional length of stream disturbance where fill slopes or special conditions necessitate additional length.
- F. The stream bed and banks must be stabilized within seven days of the start of backfilling for the bridge or culvert.
- G. The owner must obtain and demonstrate all applicable State and Federal approvals associated with the stream crossing.