# DRAFT RIPARIAN BUFFER OVERLAY DISTRICT

**BY AMENDING:**

**Chapter 18 Zoning**
Article I – General Provisions
Sec. 3.1 – Definitions

**BY ADDING:**

**Chapter 18 Zoning**
Article III – District Regulations
Section 30 – Overlay Districts
Sec 30.8 – Riparian Buffer Overlay District

## CHAPTER 18 – ZONING

### ARTICLE I – GENERAL PROVISIONS

#### Sec. 3.1 – Definitions

*Contiguous nontidal wetlands.* The term "contiguous nontidal wetlands" means nontidal wetlands that lie within or adjacent to a stream channel or within the flood plain of that stream channel so that there is a hydrologic connection between the stream and the wetland, and which include impoundments of water along a natural stream channel.[i]

*Development area*. The term "development area" means any portion of the County designated as such in the Comprehensive Plan.[ii]

*Intermittent stream.* The term "intermittent stream" means a natural stream or portion of a natural stream that has a defined bed and defined banks within which water flows in response to precipitation, through near surface groundwater flow, or from springs, and which is not a perennial stream.

*Mitigation plan.* The term “mitigation plan” as used in the Riparian Buffer Overlay District, means a plan that satisfies the requirements of Section 30.8.9.

*Natural stream.* The term "natural stream" means a tidal or nontidal watercourse that is part of the natural topography, that usually maintains a continuous or seasonal flow during the year, and is characterized as being irregular in cross-section with a meandering course. Constructed channels such as drainage ditches or swales must not be considered natural streams; however, channels designed using natural channel design concepts may be considered natural streams.[iii]

*Ordinary high-water mark.* The term “ordinary high-water mark” means that line established by fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving, changes in the character of soil; destruction of terrestrial vegetation; the presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding areas.[iv]

*Perennial stream.* The term "perennial stream" means any stream that is depicted as a continuous blue line on the most recent United States Geological Survey 7.5 minute topographic quadrangle maps (scale 1:24,000), which is determined by the program authority to be perennial following a site-specific evaluation using the guidance entitled "Determinations of Water Bodies with Perennial Flow," dated September 2003, issued by the Chesapeake Bay Local Assistance Department, or which is delineated as a perennial stream by the United States Army Corps of Engineers, the Virginia Department of Environmental Quality, or under the Virginia Water Protection program.[v]

*Streamside Management Zone.* The term "streamside management zone" means an area of reduced management activity on both sides of the banks of perennial and intermittent streams and bodies of open water where extra precaution is used in carrying out forest practices to protect bank edges and water quality.[vi]

*Supportive infrastructure.* The term “supportive infrastructure” means components of a site development necessary for the protection of the public health, safety, or welfare, and environmental features. They include, but are not limited to, drainage channels, structures and facilities, best management practices, access roads for emergency vehicles, and access roads to maintain stormwater management facilities or water-dependent facilities, or both.[vii]

*Water-dependent facility.* The term “water-dependent facility” means a development that cannot exist outside of the riparian buffer and must be located on the shoreline because of the intrinsic nature of its operation and which include, but are not limited to: (i) the intake and outfall structures of power plants, sewage treatment plants, water treatment plants, and storm sewers; (ii) public water-oriented recreation areas; and (iii) boat docks and ramps.

*Watershed.* The term “watershed” means a defined land area drained by a river or stream, karst system, or system of connecting rivers or streams such that all surface water within the area flows through a single outlet; provided that in karst areas, the karst feature to which water drains may be considered the single outlet for the watershed.

*Water supply protection area*. The term "water supply protection area" means those areas of land within the County that are within the watershed of a public water supply reservoir or water supply intake, and those areas consist of all land within the County that drains naturally to the South Fork Rivanna Reservoir, Beaver Creek Reservoir, Totier Creek Reservoir, Sugar Hollow Reservoir, Ragged Mountain Reservoir, the North Fork Rivanna River intake, and to any impoundment or water supply intake designated in the future by the board of supervisors as a public water supply reservoir.[viii]

**ADDING:**

**CHAPTER 18 ZONING**

## Article III – District Regulations

### Section 30 – Overlay Districts

### Sec 30.8 – Riparian Buffer Overlay District - RB

#### Sec 30.8.1 – Purposes and Intent.

The purposes and intent of this section 30.8 are to encourage and promote[ix]:

A. The protection of existing high-quality waters;

B. The restoration of all other waters to a condition or quality that will permit all reasonable public uses and will support the propagation and growth of all aquatic life, including game fish, which might reasonably be expected to inhabit them;

C. The safeguarding of the clean waters from pollution;

D. The prevention of any increase in pollution;

E. The reduction of existing pollution; and

F. Water resource conservation in order to provide for the health, safety and welfare of the present and future residents of Albemarle County and the Commonwealth of Virginia.

These standards are further intended to protect riparian buffers by limiting development and land disturbance adjacent to surface watercourses and wetlands, encouraging retention of native vegetation as necessary to protect public and private water supplies, trapping sediment and other pollutants in surface runoff, promoting bank stabilization, protecting wildlife habitat, providing for storm and flood mitigation, and preserving scenic and recreational resources.

#### Sec 30.8.2 – Applicability.[x]

Section 30.8 applies as follows:

A. *Relationship to other regulations.* The regulations in section 30.8 supersede any less restrictive conflicting ordinances and regulations. The regulations in section 30.3 that are more restrictive will apply to land that is within both the Riparian Buffer Overlay District and the Flood Hazard Overlay District.

B. *New uses and development.* On and after XX (RB adoption date), no land may be disturbed, no land may be developed, and no structure may be located, relocated, constructed, reconstructed, enlarged, or structurally altered except in full compliance with section 30.8.

D. *Pre-existing uses and development.* Any use or development lawfully existing on XX (RB adoption date) is nonconforming to the extent that it is not in compliance with section 30.8[xi].

## Sec 30.8.3 – Boundaries of the district.[xii]

A. The boundaries of the district extend from any applicable waterbody or wetlands to the farther of the following:

| | | |
|---|---|---|
| Development Area | Not within a water supply protection area | 100 feet wide on each side of any perennial stream and contiguous nontidal wetlands |
| | Within a water supply protection area | The wider of either i) 100 feet on each side of any perennial or intermittent stream and contiguous nontidal wetlands, or ii) the limits of the Flood Hazard Overlay District |
| Public water supply impoundments | 200 feet located adjacent to and landward of any such impoundment as measured horizontally from the limits of the Flood Hazard Overlay District | |
| All other locations | The wider of either i) 100 feet on each side of any perennial or intermittent stream and contiguous nontidal wetlands or ii) the limits of the Flood Hazard Overlay District | |

B. The edge of a stream is measured from top-of-bank. The areal extent of a pond or lake is measured at the ordinary high-water mark . The full riparian buffer area extends as designated notwithstanding the presence of any permitted uses, encroachments, and/or vegetation clearing in compliance with this section 30.8.

## Sec. 30.8.4 Determination of Riparian Buffer Overlay Boundaries[xiii]

A. The following terms apply to the use and interpretation of the Riparian Buffer Overlay District boundaries:

i. Designation of the boundaries listed in this section 30.8 is not subject to modification unless based on reliable, site-specific evaluation.

ii. As part of the zoning application or plan review processes, a reliable, site-specific evaluation may be required from the applicant. As a result of an evaluation, the district boundaries may be adjusted as deemed necessary by the Riparian Buffer Administrator.

iii. Any landowner or agent of the landowner may choose to submit a site-specific evaluation of the location of district boundaries certified by a professional engineer, land surveyor, landscape architect, soil scientist, or wetland delineator certified or licensed to practice in the Commonwealth of Virginia. This evaluation is subject to review and approval by the Riparian Buffer Administrator.

iv. The applicant must show the appropriate district boundaries, applying the criteria in section 30.8.3 and 30.8.4, on all plans of development submitted for review. Such boundary locations shown on plans of development may be approved, modified, or disapproved by the Riparian Buffer Administrator. The Riparian Buffer Administrator may require a site-specific evaluation from the applicant to confirm stream classification and the location of the district boundary shown on the plan of development.

v. Any person aggrieved by a decision of the Riparian Buffer Administrator as to the district boundaries may appeal such decision to the Board of Zoning Appeals.

### Sec 30.8.5 – Designation of Riparian Buffer Administrator; Powers and Duties.

The County Engineer is hereby designated as the Riparian Buffer Administrator and has all powers and duties authorized by law to administer section 30.8, including, but not limited to, the following: [xiv]

A. To delegate any duties and responsibilities set forth in section 30.8 to qualified technical personnel, plan reviewers, inspectors, and other employees.[xv]

2. To make interpretations, where needed, as to the exact location of the riparian buffer district.[xvi]

3. To make interpretations as to permitted uses.

4. In conjunction with the Zoning Administrator, who is authorized by section 31.1 to enforce this chapter, to enforce this section 30.8, investigate alleged violations, issue notices to comply, notices of violation, or stop work orders, as authorized by law, and require permit holders to take corrective action.

### Sec 30.8.6 – General Performance Criteria.[xvii]

A. Except for any uses, encroachments, and/or vegetation clearing authorized by sections 30.8.7 and 30.8.8, each riparian buffer must be managed as follows:

i. Native vegetation within the riparian buffer must not be disturbed or removed, regardless of the size of the area affected.

ii. Each riparian buffer must be maintained in as natural a condition as possible. The preferred vegetative cover is a native riparian forest with ground cover, shrub, understory, and tree canopy layers.

iii. When permitted land uses within the riparian buffer cease, the full buffer must be re-established and maintained. This does not apply to ongoing agricultural and silvicultural uses.

B. Any use, development, or redevelopment of land in the Riparian Buffer Overlay District must meet the following performance criteria:

i. No more land may be disturbed than is necessary to provide for the proposed use, development, or redevelopment.[xviii]

ii. Native vegetation must be preserved to the maximum extent practicable consistent with the use, development, or redevelopment proposed.[xix]

iii. Impervious cover must be minimized consistent with the use, development, or redevelopment proposed.[xx]

iv. Any land disturbing activity must comply with all applicable requirements of the County Code.

v. Structures and improvements must be constructed and surfaced to effectively control erosion.

vi. For developments providing common areas (including open space), riparian buffers must be located outside individual building lots, unless authorized by the Riparian Buffer Administrator. In those cases, a permanent easement or other legal instrument requiring preservation of the buffer must be provided in compliance with this section 30.8.[xxi]

vii. Where a development includes a riparian buffer, the developer must install signage to identify the landward boundary of the buffer. For purposes of this subsection, the term “development” means subdivision creating one or more lots or construction activity requiring a site plan, and does not apply to property principally devoted to *bona fide* agricultural production. The Riparian Buffer Administrator will evaluate the proposed development to determine the appropriate number, size, location and language for the signage.[xxii]

## Sec. 30.8.7 Permitted Uses.[xxiii]

Uses permitted within the Riparian Buffer Overlay District are limited to the following, provided that (i) any use must comply with section 30.8.6, (ii) all applicable Federal, State, and local permits have been obtained, and (iii) any use must be otherwise permitted by this Chapter:

A. Agricultural activity, other than structures.

B. Silvicultural activity conducted in compliance with the Virginia Department of Forestry's "Virginia's Forestry Best Management Practices for Water Quality," including the establishment of Streamside Management Zones.[xxiv]

C. The construction, installation, operation, and/or maintenance of utility and transportation improvements, including electric, gas, fiber-optic and telephone transmission lines, railroads, and activities of the Virginia Department of Transportation, and their appurtenant structures, provided such activities comply with the state Erosion and Sediment Control Law (Virginia Code § 62.1-44.15:51 *et seq*.) or an erosion and sediment control plan approved by the State Water Control Board.[xxv]

D. The construction, installation, and/or maintenance of public water and sewer lines by public agencies, including water and sewer lines constructed by private interests for dedication to public agencies.

E. Water-dependent structures or facilities, such as docks, boat launches, water wells, footbridges, and flood control structures, provided that (i) any non-water dependent component must be located outside of the buffer, and (ii) only a single point of access may be provided. Disturbance must be minimized to that necessary for the access.[xxvi]

F. Passive recreation access and facilities, such as boardwalks, educational signs and kiosks, and trails or paths, in accordance with the Virginia Department of Conservation and Recreation's Riparian Buffers Modification & Mitigation Guidance Manual. Paths serving individual residential lots must be no more than four feet wide except as necessary for ADA or emergency services accessibility.

G. Historic preservation and archaeological activities, as approved by the Riparian Buffer Administrator in conjunction with the Zoning Administrator.

H. Buffer management, including restoration projects, general woodlot management including removal of invasives, and creating sight lines and vistas; with a plan or narrative (i) approved by the Riparian Buffer Administrator and (ii) in accordance the Virginia Department of Conservation and Recreation's Riparian Buffers Modification & Mitigation Guidance Manual. Where trees or other vegetation are removed as permitted, they must be replaced with native vegetation that is appropriate to site conditions and equally effective in retarding runoff, preventing erosion, and filtering nonpoint source pollution from runoff, and in such a manner as to maximize the buffer function and to protect water quality. Mature trees must be preserved and trimmed or pruned in lieu of removal as site conditions permit. Removal of native vegetation should be limited to the least amount feasible.

I. Planting of trees, shrubs, or other native vegetation in accordance with the Virginia Department of Conservation and Recreation's Riparian Buffers Modification & Mitigation Guidance Manual.

J. Installation of fence and sign posts or telephone and electric poles and other kinds of posts or poles.[xxvii]

## Sec 30.8.8 – Exceptions to Permitted Uses, When Approved by Riparian Buffer Administrator.[xxviii]

The following structures, improvements, and activities may be authorized by the Riparian Buffer Administrator in the circumstances described below, provided that (i) a mitigation plan satisfying the requirements of section 30.8.9 is approved by the Riparian Buffer Administrator, and (ii) said structure, improvement, or activity complies with section 30.8.6, (iii) all applicable Federal, State, and local permits are obtained, and (iv) said structure, improvement, or activity complies with and is otherwise permitted by all other applicable law. Facilities or improvements to provide best management practices that collect and/or treat runoff from an individual lot, some portion of a lot, or from a single development project may not be located within a riparian buffer.

A. Temporary erosion and sediment control measures within the landward 50 horizontal feet of a riparian buffer, provided that to the extent practical, as determined by the Riparian Buffer Administrator: (i) the control measures are located outside of the riparian buffer, (ii) the disturbance impacts are minimized[xxix], and (iii) the area is restored upon removal of the temporary measures, in accordance with this section 30.8.

B. Structures, improvements, or activities located within the landward 50 horizontal feet of a riparian buffer that are either:

   i. Supportive infrastructure necessary to allow reasonable use of the lot[xxx]; or

   ii. Located along an intermittent stream that lies within both a water supply protection area and a development area.

   In all cases under this subsection (B), any new building site or sewage disposal system must be located outside of the riparian buffer, except as allowed under subsection (F).

C. Lakes and ponds, or temporary ecological restoration projects, intended to restore the land or watercourse to an ecologically healthy state.

D. Stream crossings for roads, streets, or driveways (including associated sidewalks, utilities, and drainage facilities), provided they meet the following minimum criteria:

   i. Bridges and culverts must satisfy the following conditions:

      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.

ii. Stream crossings must be perpendicular to the stream, or otherwise aligned to minimize impacts to the buffer.

iii. Stream stabilization and energy dissipation measures below each bridge or culvert must be provided.[xxxi]

iv. 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[xxxii].

v. The stream bed and stream banks must be stabilized within seven days of the start of backfilling for the bridge or culvert.

vi. The owner must obtain and demonstrate all applicable State and Federal approvals associated with the stream crossing.

vii. Only one stream crossing may serve the owner's lot(s), as it/they existed on May 7, 2008, and all lots created therefrom on and after that date, unless additional crossing(s) is/are permitted under subsection (E).

E. Stream crossings for roads, streets, or driveways that would not satisfy the requirements of subsection (D), or stream crossings on a lot where the riparian buffer would prohibit access necessary for reasonable use of the lot as permitted in the underlying zoning district and under the applicable regulations of Chapter 14, as determined by the Riparian Buffer Administrator;

F. Water and sewer facilities or sewage disposal systems on lots of record lawfully existing prior to February 11, 1998, on which the necessary development in the riparian buffer would consist of the construction, installation, and maintenance of water and sewer facilities or sewage disposal systems, and the Riparian Buffer Administrator determines that the riparian buffer would prohibit all reasonable use of the lot.

G. On a lot that was of record prior to February 11, 1998, development of a single building site if:

   i. The riparian buffer would result in the loss of a building site, and there are no other available building sites outside the riparian buffer on the lot[xxxiii]; and

   ii. The site would allow redevelopment as permitted in the underlying zoning district, provided that impervious cover and further encroachment within the riparian buffer are minimized.

H. Flood control and stormwater management facilities that drain or treat water from multiple development projects or from a significant portion of a watershed, provided that:

   i. Such facilities are allowed and constructed in accordance with the Virginia Stormwater Management Act and applicable County ordinances;

   ii. The Riparian Buffer Administrator has conclusively determined that the proposed location of the facility within the riparian buffer both (a) is necessary for reasonable use of the subject property and (b) minimizes impacts to the buffer;

   iii. The size of the facility is the minimum necessary to provide necessary flood control or stormwater treatment, or both; and

   iv. The facility is consistent with a comprehensive stormwater management plan developed and approved in accordance with Virginia Stormwater Management Program (VSMP) regulations[xxxiv].

I. Stormwater management facility outfalls.

J. Passive recreation access and facilities with impervious surfaces, designed in accordance with the Virginia Department of Conservation and Recreation's Riparian Buffers Modification & Mitigation Guidance Manual.

K. Public Uses.

L. Any building or structure that existed on February 11, 1998 may continue in its location on that date. The continuance, repair, replacement, expansion or enlargement of any such building or structure may be allowed except as prohibited in sections 18-6 and 18-30.3.

M. Removal of vegetation authorized by the Riparian Buffer Administrator because it poses a clearly demonstrable danger to buildings or other structures or otherwise is a danger to public health or safety.[xxxv]

## Sec. 30.8.9 - Mitigation plan; form, standards, content and bonding.

A. *Form.* A mitigation plan must address the standards and content of this subsection, in the form required by the Riparian Buffer Administrator.

i. For mitigation pertaining to the development of one single-family detached dwelling, the Riparian Buffer Administrator may accept information required on the mitigation plan with the building permit, in lieu of a separate mitigation plan.

ii. For mitigation pertaining to the remediation of a violation, the Riparian Buffer Administrator may accept a letter or other documentation in lieu of a mitigation plan.

B. *Standards*

Riparian buffers must be established and/or restored in accordance with the Virginia Department of Conservation and Recreation's Riparian Buffers Modification & Mitigation Guidance Manual. In the case of a violation resulting in the reduction of vegetation within the buffer, either through the direct removal of trees and/or shrubs, or indirectly as a result of grading or other construction activity, tree and/or shrub removal mitigation replanting will be required at a 1:1 ratio and with hardwood trees and shrubs, planted as provided in the most current version of Chapter 5.1, Restoration/Establishment Table A of the Virginia Department of Conservation and Recreation's Riparian Buffers Modification & Mitigation Guidance Manual.

C. *Content.* Except as otherwise provided in this section 30.8, each mitigation plan must:

i. Identify the impacts of the proposed development on water quality and lands within the riparian buffer, and specify the mitigation measures that will address water quality and riparian buffer impacts.

ii. Where any portion of a riparian buffer is disturbed, establish and maintain buffer vegetation with plantings within the buffer at a ratio of two square feet of restored riparian buffer for every one square foot (2:1 ratio) of riparian buffer that is disturbed. Buffer vegetation must be planted, established and maintained at the 2:1 ratio to the extent that the riparian buffer is fully vegetated, provided that establishing vegetation outside of the riparian buffer is not required in order to satisfy the 2:1 ratio. The Riparian Buffer Administrator may require that the owner provide for the ongoing maintenance of the plantings in the riparian buffer, and may require a bond with surety or other acceptable instrument.

iii. If more than one stream crossing is sought, demonstrate that the environmental impacts from the entire road, street, or driveway necessitated by a single stream crossing would be greater than the environmental impacts caused by an additional crossing and its associated road, street, or driveway. For the purposes of this

subsection, the environmental impacts considered by the Riparian Buffer Administrator include, but are not limited to, impacts to soil, soil erosion, stormwater quantity, water quality, loss of vegetated riparian buffer, impacts to stream beds and stream banks, the creation of impervious surfaces, and the disturbance of slopes of 25 percent or greater.

iv. Contain any additional information deemed necessary by the Riparian Buffer Administrator for a complete review of the plan.

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[i] Source: WPO
[ii] WPO
[iii] WPO
[iv] 9VAC25-210-10 Definitions
[v] WPO
[vi] WPO from VA Forestry BMP Technical Guide.
[vii] WPO
[viii] WPO
[ix] VA Code Sect. 62.1-44.2
[x] Section 30.3 FH Overlay
[xi] Based on FHOD and expanded to include additional riparian buffers
[xii] WPO 17-600
[xiii] Common language for guidance in interpreting zoning boundaries, as in Z.O. Sec. 1.7 ©
[xiv] FHOD
[xv] FHOD
[xvi] FHOD
[xvii] WPO 17-601 is basis, especially in A. Also Ches Bay Preservation Ordinance 118-3-2.
[xviii] 9VAC25-830-130 and Ches Bay Preservation Ordinance 118-3-2
[xix] 9VAC25-830-130
[xx] 118-3-2.(c )
[xxi] Powhatan County, VA Sec. 83-471 a 6
[xxii] Powhatan County, VA Sec. 83-471 a 7
[xxiii] WPO 17-602 and some of 17-603 is basis
[xxiv] 9VAC25-830-130

[xxv] WPO 17-602
[xxvi] Consistent with 9VAC25-830-140
[xxvii] Ches Bay Local Assistance Manual Chapter IV #12
[xxviii] WPO 17-604 is basis
[xxix] WPO 17-604 G
[xxx] WPO 17-604 A
[xxxi] WPO 17-604 c2
[xxxii] WPO 17-604 c 3

[xxxiii] WPO

[xxxv] Zoning Ordinance Sec. 4.3 c 1 Tree Cutting

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