

# Charles City County, Virginia

Department of Planning  
P.O. Box 66, Charles City, VA 23030  
Phone: 804-652-4707 Fax: 804-652-5819

## Water Quality Impact Assessment (WQIA) Application

### OFFICE USE ONLY

Application #: \_\_\_\_\_

Tax Map # \_\_\_\_\_ Surety Amount: \$ \_\_\_\_\_

Decision:  Approval  Denied

Conditions/Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ Environmental Program Administrator

\_\_\_\_\_ Date

### APPLICANT INFORMATION

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Cell: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

### PROPERTY OWNER INFORMATION

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Cell: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

### RESPONSIBLE LAND DISTURBER (Required if over 2,500 SF of land disturbance)

Name: \_\_\_\_\_ RLD# \_\_\_\_\_

Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Cell: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

**PROJECT INFORMATION**

**Tax Map Number:** \_\_\_\_\_ **E911/Street Address:** \_\_\_\_\_

Magisterial District: \_\_\_\_\_

Lot Size (in Acres): \_\_\_\_\_

Existing Land Use: \_\_\_\_\_

Purpose of Request: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**WATER QUALITY IMPACT ASSESSMENT**

**A. Total Lot Area (ft<sup>2</sup>):** \_\_\_\_\_

**B. Total Amount of Disturbed Area (ft<sup>2</sup>):** \_\_\_\_\_

**C. Total Amount of Clearing (ft<sup>2</sup>):** \_\_\_\_\_

**D. Total Amount of Grading (ft<sup>2</sup>):** \_\_\_\_\_

**E. Impacts on Existing Vegetation:**

**Total Amount of Underbrush Removed (ft<sup>2</sup>):** \_\_\_\_\_

**Number of Healthy Trees Removed:** \_\_\_\_\_

**Number of Dead/Dying/Diseased Trees Removed:** \_\_\_\_\_

**F. Proposed Erosion and Sedimentation Control Practices:**

- |                          |                             |                          |                                 |
|--------------------------|-----------------------------|--------------------------|---------------------------------|
| <input type="checkbox"/> | Silt Fencing                | <input type="checkbox"/> | Temporary Construction Entrance |
| <input type="checkbox"/> | Straw Bale Barrier(s)       | <input type="checkbox"/> | Inlet Protection                |
| <input type="checkbox"/> | Temporary/Permanent Seeding | <input type="checkbox"/> | Mulching                        |
| <input type="checkbox"/> | Tree Protection             | <input type="checkbox"/> | Sediment Trap                   |
| <input type="checkbox"/> | Other: _____                |                          |                                 |

**G. Proposed Mitigation Measures:** Attached mitigation plan showing location of vegetation.

Number of New Trees Proposed: \_\_\_\_\_ Min size: \_\_\_\_\_

Number of New Shrubs Proposed: \_\_\_\_\_ Min size: \_\_\_\_\_

Number/Amount of groundcover proposed: \_\_\_\_\_ Min. size: \_\_\_\_\_

**H. Proposed Best Management Practices (if applicable):**

- Vegetated Filter Strip(s)
- Grass Swale(s)
- Dry Well(s)
- Infiltration Trench(es)
- Other: \_\_\_\_\_

**PLAN DRAWING REQUIRED**

*A site drawing, in accordance with Section 111(H) of the Chesapeake Bay Preservation Ordinance, must be attached to this water quality impact assessment that shows the following:*

1. Location of the components of the RPA (streams, rivers, wetlands), including the 100-foot buffer area;
2. Existing structures
3. Property lines (When possible, provide information on a copy of survey or plat)
4. **Location and nature of any proposed encroachment into the buffer area, including, type of paving material; areas of clearing or grading; location of any structures, drives, or other impervious cover; and sewage disposal systems or reserve drainfield sites;**
5. Type and location of proposed best management practices to mitigate the proposed encroachment;
6. Type and location of proposed erosion and sedimentation control devices;
7. Location of existing vegetation onsite, including the number, size, type of trees and other vegetation to be removed in the buffer to accommodate the encroachment or modification; and
8. Type, size and location of replacement vegetation.
9. Attach photos depicting the vegetation to be removed. Photos may also be taken by county staff to include in the file.

**Definitions:**

Canopy tree: a tree that reaches 35 feet in height or larger when mature

Understory tree: a tree that matures to a height of 12 feet to 35'

Large shrub: a shrub that reaches 10 feet of height or greater at maturity

Small shrub: a woody plant that can reach up to 10 feet of height at maturity

**¼ acre or less of buffer**

Up to 10,890 square feet or less

For every 400 square-foot unit (20'x20') or fraction thereof plant:

*one (1) canopy tree @ 1½" - 2" caliper or large evergreen @ 6'*

*two (2) understory trees @ ¾" – 1 ½" caliper or evergreen @ 4'*

*or one (1) understory tree and two (2) large shrubs @ 3'-4'*

*three (3) small shrubs or woody groundcover @ 15" – 18"*

**Example:**

A 100-foot wide lot x 100-foot wide buffer is 10,000 square feet.

Divide by 400 square feet (20'x20' unit) to get:

25 units

<u>Units</u> x	<u>plant/unit</u>	<u>Number of plants</u>
25 units x	1 canopy tree	25 canopy trees
	2 understory trees	50 understory trees
	3 small shrubs	<u>75 small shrubs</u>
		150 plants

**VEGETATION REPLACEMENT RATES**

VEGETATION REMOVED	PREFERRED REPLACEMENT VEGETATION	ACCEPTABLE ALTERNATIVE VEGETATION
1 tree or sapling ½"-2 ½" caliper	1 tree @ equal caliper or greater	Or 2 large shrubs @ 3'-4' Or 10 small shrubs or woody groundcover *@ 15"-18"
1 tree ≥ 2 ½" caliper	1 tree @ 1½" - 2" caliper, or 1 evergreen tree @ 6' min. ht., per every 4" caliper of tree removed (ex: a 12" cal. tree would require 3 trees to replace it)	Or 75% trees @ 1½" - 2" and 25% large shrubs @ 3'-4' per every 4" caliper of tree removed. (ex: a 16" cal tree removed would require 3 trees and 1 large shrub) Or 10 small shrubs or woody groundcover @ 15"-18" per 4" caliper of tree removed (ex: a 8" caliper tree removed requires 20 small shrubs)
1 large shrub	1 large shrub @ 3'-4'	Or 5 small shrubs or woody groundcover @ 15"-18"

\* Woody groundcover is considered to be a woody, spreading shrub that remains close to the ground, to 18" high, such as a shore juniper, *juniperus conferta*. Vines may not be considered "woody groundcover" for the purpose of vegetation replacement.

**All mitigation plantings are to be native vegetation.**

## RESTORATION/ESTABLISHMENT TABLE B

### Greater than ¼ acre of buffer

More than 10,890 square feet

- A. Plant at the same rate as for ¼ acre or less.
- B. The waterside 50% of the buffer (from the waterline inland for the first 50 feet):  
For every 400 square-foot unit (20'x20') or fraction thereof plant:

*one (1) canopy tree @ 1½" - 2" caliper or large evergreen @ 6'*  
*two (2) understory trees @ ¾" - 1 ½" caliper or evergreen @ 4'*  
*or one (1) understory tree and two (2) large shrubs @ 3'-4'*  
*three (3) small shrubs or woody groundcover @ 15" - 18"*

#### **AND**

The landward 50% of buffer (from 50 feet inland to 100 feet inland):

either plant

Bare root seedlings or whips at 1,210 stems per acre<sup>1</sup>, approximately 6'x6' on center (Minimum survival required after two growing seasons: 600 plants)

**or**

Container grown seedling tubes at 700 per acre approximately 8'x 8' on center (Minimum survival required after two growing seasons: 490 plants)

- C. If the applicant is willing to enter into a five year maintenance and performance guarantee: 100% of buffer planted with:  
Bare root seedlings or whips at 1,210 per acre, approximately 6'x 6' on center (Minimum survival required after two growing seasons: 600 plants)  
**or**  
Container grown seedling tubes at 700 per acre approximately 8'x 8' on center (Minimum survival required after two growing seasons: 490 plants)

### 1 acre or more of buffer

With an evaluation from an arborist or forester or other professional, natural regeneration may be an acceptable method of buffer establishment, however, a forestry management plan must be in place prior to any vegetation being removed. A minimum of 35 feet next to the water must be left in forest and protected prior to any vegetation being removed. If over 20 percent of the vegetation must be removed for the health of the woodlot, within the 35 feet closest to the shoreline, vegetation must be reestablished by seedling plantings at the rates above.

<sup>1</sup> Palone, Roxanne S., and Al Todd, *Chesapeake Bay riparian handbook: A guide for establishing and maintaining riparian forest buffers*. May 1977. p. 7-20.

## APPLICANT STATEMENT

I hereby certify that I have the authority to make the foregoing application, that the information given is complete and correct to the best of my knowledge, and that development and/or construction will conform with the regulations as set forth in the Charles City County Chesapeake Bay Preservation Ordinance as written and also with the description contained in this application.

\_\_\_\_\_  
Applicant's Signature (if not Property Owner)

\_\_\_\_\_  
Date

## PROPERTY OWNER(S) STATEMENT

I hereby certify that I/we own the above described property, that the information given is complete and correct to the best of my knowledge, and that the above person(s), group, corporation or agent has the full and complete permission of the undersigned owner(s) to make application for WQIA Permit approval.

\_\_\_\_\_  
Property Owner's Signature

\_\_\_\_\_  
Date

## CONDITIONS

1. **This permit application is not valid unless all property owner(s) signatures are affixed and dated.**
2. **All permit application charges are nonrefundable, regardless of whether the permit application is approved or denied once submitted. All checks for payment should be made payable to Charles City County.**
3. **Any approval of a WQIA is issued on the basis of plans and applications being approved and authorizes only the use, arrangement and construction set forth in such approved plans and applications. Any deviations from the plans and applications submitted shall render an approved WQIA null and void.**
4. **Signing this application serves as authorization for the Charles City County Environmental Program Administrator or designated personnel and other agencies' staff as deemed necessary for review of proposed activity by Charles City County to enter upon property where approval is requested.**
5. **A Revolving Irrevocable Letter of Credit or Cash/Check Bonding is required prior to approval if a Certificate of Occupancy is desired prior to the completion of the required landscaping, stormwater management facilities or other specifications of an approved WQIA.**

**For Reference Purposes:** Every tree or sapling 1/2" – 2 1/2" caliper planted or to be planted requires a bonding amount of \$50.00. For every tree ≥ 2 1/2" caliper planted or to be planted requires a bonding amount of \$100.00. For each shrub planted or to be planted requires a bonding amount of \$40.00. Once all vegetation has been planted according to the approved mitigation plan, the Environmental Codes Compliance Officer or designated personnel will continue to complete site inspections for a period of 18 months prior to releasing the Bond.