



# Minor Water Quality Impact Assessment Application

Planning & Zoning Department  
412 Tazewell Avenue  
Cape Charles, VA 23310  
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Budget Code: PLANR 100-3100-1150

Revised 11/2025	
Taxes	✓ up to date
Violations	—
Fee	\$200
Decision	

### PART 1: APPLICATION NOTES

Per Cape Charles Zoning Ordinance Article 7.11 (C) of the Chesapeake Bay Preservation Area Overlay District a water quality assessment is required for any proposed land disturbances within the Resource Protection Area (RPA) and may be required for the Resource Management Area (RMA). The purpose of this assessment is to identify the impacts of the proposed project on water quality and lands within these environmentally sensitive areas. This assessment ensures that development in these areas will be the least disruptive, and specifies what mitigation is required to address water quality impacts.

This form is to be used for any development or redevelopment on a property totaling less than 5,000 square feet of land disturbance. If greater than 5,000 square feet of land disturbance will occur in the RPA or if encroachment will occur in the seaward 50 feet of the RPA, a Major Water Quality Impact Assessment is required instead of this form. Please be aware that certain land disturbing activities cannot be administratively approved by Town staff and may require an exception by the Board of Zoning Appeals.

If greater than 2,500 square feet of land disturbance will occur, a Land Disturbance Permit from the Building Department is required. Some projects may require review and approval by the Cape Charles Wetlands and Coastal Dune Board, Virginia Marine Resources Commission, Virginia Department of Environmental Quality and/or US Army Corps of Engineers. Evidence that those required permits have been obtained must be provided prior to commencement of land disturbing activities.

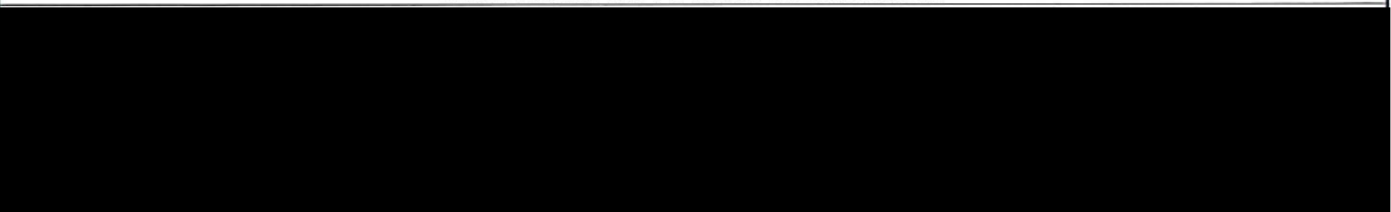
### PART 2: PROPERTY INFORMATION



Tax Map #: 8381-11-103

Year lot/parcel was created/platted:

### PART 3: PROPERTY OWNER INFORMATION



If owner is not the applicant, an Owner's Permission Affidavit must be attached.

**PART 3: PROJECT INFORMATION**

1) What type of development / redevelopment is proposed in the Resource Protection Area (RPA – lands within 100 feet of a perennial body of water or wetland)? [Check and complete all that apply.]

New principal Structure: Describe structure and provide square footage.

There is an existing paver patio that we are seeking approval to maintain.

Expansion or Addition to existing principal structure

Accessory Structure: 150 ft<sup>2</sup> – If so, what type:  Detached Shed  Garage  <sup>Paver</sup> Patio  Swimming Pool

Retaining Wall  Other \_\_\_\_\_

Road / Driveway: \_\_\_\_\_ ft<sup>2</sup>

Maintenance / Repair of existing structure in the RPA – Describe proposed work. \_\_\_\_\_

Other: \_\_\_\_\_

2) Will proposed development / redevelopment encroach into the seaward 50 feet of the 100-foot RPA buffer (the portion of the RPA buffer that is closest to the perennial waterbody or wetlands)?  YES  NO

3) Describe the existing condition of the RPA buffer vegetation below or on separate paper. What vegetation (trees, shrubs, groundcover, or turf grass) will be removed by the project? What impact will the project have on adjacent waters or wetlands? See Attachment

4) What is the total area (in square feet) of the proposed (new) encroachment into the RPA? 150 ft<sup>2</sup>

5) Determine vegetative mitigation required by project. Using the answer to Question 4, if the total area of encroachment is less than ¼ acre (up to 10,890 square feet), use “Restoration/Establishment Table A” (attached on page 4) to calculate required mitigation plantings. This table is typically used for construction projects that have a calculated total area disturbance.

If no new impervious surface is proposed by the project and only a small amount of vegetation will be removed, the attached “Vegetation Replacement Rates” table on page 4 may be used. This table is typically used for minor vegetation removal for sight lines, vistas, and access paths.

*If the total area of encroachment is more than ¼ acre (over 10,890 square feet), a different restoration and establishment table will be used (attached on page 5). Contact Town staff to request additional information.*

What mitigation planting is required?

Number of Canopy trees: \_\_\_\_\_

Type of Canopy trees: \_\_\_\_\_

Number of Understory trees: \_\_\_\_\_

Type of Understory trees: \_\_\_\_\_

Number of Small Shrubs or Woody Ground Cover: \_\_\_\_\_

Type of Shrubs: \_\_\_\_\_

Number of Grasses: \_\_\_\_\_

Type of Grasses: \_\_\_\_\_

If proposed mitigation will exceed requirements, or if requirements or not practical for the site, explain below:

We are very open to plantings but stopped because of the patio issue we are unclear on how to proceed.

Please see our proposed plan addressing question 6 below.

6) **Attach a landscaping/vegetation plan to demonstrate how and where the mitigation will be achieved onsite.** Indicate on the plan drawing the square feet of vegetation plantings to offset proposed RPA encroachment. All three layers of vegetation (groundcover, shrubs, and trees) should be clearly incorporated into the mitigation plantings, as practical.

**Include a site plan/survey, pictures, and/or drawings to depict the work being proposed.**

Native plants should be used as replacement vegetation. A list of native plants appropriate for this area is located at <https://www.dcr.virginia.gov/natural-heritage/document/riparian-nat-plants.pdf>.

The Eastern Shore Native Plant Guide dated December 2016 can be found at <https://www.capecharles.org/docview.aspx?docid=31248> and should be used in conjunction with Appendix A thru C - Plant Lists contained in the Riparian Buffers Modification & Mitigation Guidance Manual (<https://www.capecharles.org/docview.aspx?docid=31249>) by Department of Conservation and Recreation Chesapeake Bay Local Assistance and the Department of Environmental Quality.

I/We, the undersigned, certify that this application is complete, accurate and contains all required and requested information, documents, and other submittals, and that all statements made herein are, to the best of my knowledge, true and correct. I further certify that I have exercised due diligence to obtain the most recent, complete, and correct information available. I understand that any section not completed in its entirety may delay the processing of this application. I also understand that additional information may be required after the application is submitted.

Applicant's signature: \_\_\_\_\_

Date: \_\_\_\_\_

Owner's signature: \_\_\_\_\_

Date: \_\_\_\_\_

Zoning Administrator's signature: Kate M. Aug

Date: 3/27/2024

# RESTORATION/ESTABLISHMENT TABLE A

## A. ¼ acre or less of buffer

(Up to 10,890 square feet or less of buffer area.)

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.

## 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 @ ¼" - 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.

Source: Department of Conservation and Recreation Chesapeake Bay Local Assistance "Riparian Buffers Modification & Mitigation Guidance Manual" (reprinted 2006). [Riparian Buffers Manual link](#)

**Q3 Describe the existing condition of the RPA buffer vegetation below or on separate paper. What vegetation (trees, shrubs, groundcover, or turf grass) will be removed by the project? What impact will the project have on adjacent waters or wetlands?**

When we purchased the property mid-construction the dune was not growing indigenous grasses. It was full of garbage and debris we cleaned out the dune and left the indigenous grass that was there. In addition we planted four hundred additional indigenous grass (American Beach Grass *ammophila breviligulata*) started to help stabilize the dune and improve the water quality die filtering off runoff. The dune has performed better since we installed these native grasses. We left a buffer between the dune and the Bermuda grass area of the yard. If we can get approval our intention in that space is to continue planting indigenous plants with Oyster shells the plant species such as:

- American Beach Grass (*ammophila breviligulata*)
- Saltmeadow Cordgrass (*Spartina patens*)
- Sea Oats (*Uniola paniculata*)
- Bitter Seabeach Grass (*panicum amarum*)
- Seaside Little Bluestem (*schizachyrium littorale*)
- Wax Myrtle (*morella cerfera*)
- Groudsel Bush (*baccharis halimifolia*)
- Switchgrass (*panicum virgatum*)
- Marsh Hibiscus (*hibiscus moscheutos*)
- Beach Plum (*prunus maritima*)

**Q6) Attach a landscaping/vegetation plan to demonstrate how and where the mitigation will be achieved onsite. Indicate on the plan drawing the square feet of vegetation plantings to offset proposed RPA encroachment. All three layers of vegetation (groundcover, shrubs, and trees) should be clearly incorporated into the mitigation plantings, as practical.**

Include a site plan/survey, pictures, and/or drawings to depict the work being proposed.

Planting: Natural Dune + Coastal Modern

From Natural Dune Ecosystems:

- Use native dune-building grasses for authenticity and resilience.
- Allow natural movement & irregularity—plants drift and mingle.
- Emphasize wind-shaped forms and soft texture.
- Keep the palette low, sand-colored, muted greens/blues.

## **From Coastal Modern:**

- Use clean masses of a single species for clarity and structure.
- Create bold linear plantings along paths and edges.
- Simple color palette with dramatic negative space (sand, stone).
- Use sculptural focal shrubs with architectural form.

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## **LAYOUT (Four Zones)**

### **Zone A – Shoreline / Primary Dune**

Goal: restore/stabilize dunes → airy, wild, ecological look.

Plant Palette:

- American Beachgrass (*ammophila breviligulata*)
- Bitter Panicgrass (*panicum amarum*)
- Coastal Little Bluestem (*schizachyrium scoparium* var. *littorale*)
- Beach Pea (*Lathyrus japonicus*)
- Seaside Goldenrod (*Solidago sempervirens*)

### **Planting Style:**

- Let grass grow in loose drifts, not rigid rows.
- Intermix Panicgrass + Beachgrass for multi-season texture.
- Use Beach Pea to knit sand in bare patches.
- Add Seaside Goldenrod as occasional vertical accents (4–6 ft spacing).

### **Modern Touch:**

- Keep a consistent height band (1–3 ft) along the water for visual calm.
  - Ensure that we are not blocking our neighbors' views.
  - Leave open sandy swales as minimalist "voids" between grasses.
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## **Zone B – Secondary Dune / Mid-Yard Transition**

Goal: shift from wild dune to stylized landscape.

### **Plant Palette:**

- Switchgrass (*Panicum virgatum* — coastal ecotype)
- Little Bluestem ('The Blues' or native ecotypes)
- Bayberry (*Morella pensylvanica*)
- Wax Myrtle (*Morella cerifera* — northern range)

### **Planting Style:**

- Create large, modern sweeps of a single species (20–40 sq ft blocks).
- Keep Bayberry and Wax Myrtle in geometric clusters (triangles or lines).
- Layer height gradually from low grasses → mid shrubs.

### **Modern Touch:**

- Sharp massing:
    - One large rectangle of Switchgrass
    - Adjacent oval of Little Bluestem
  - Repeat patterns for rhythm.
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## **Zone C – Foundation Planting (Near the House)**

Goal: simplified, tidy, sculptural background.

### **Plant Palette:**

- Inkberry (*Ilex glabra*) – evergreen structure
- Northern Sea Oats (*Chasmanthium latifolium*) – modern arching texture
- Blue Wild Rye (*Elymus glaucus*)

### **Planting Style:**

- Inkberry in a continuous hedge line (3 ft spacing).
- Sea Oats are evenly spaced in grid patterns for a modern look.
- Blue Wild Rye is used in rhythmic rows along walkways.

### **Modern Touch:**

- Use stone or shell mulch for clean surfaces.
  - Create breaks with an impervious wood pathway.
  - Strong horizontal lines to contrast the wild dune areas.
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### **Zone D – Paths, Entry, Outdoor Rooms**

#### **Plant Palette:**

- Beach Plum (*Prunus maritima*) – sculptural spring focal point
- Purple Lovegrass (*eragrostis spectabilis*) – airy, modern color
- Coastal Joe-Pye Weed (*eutrochium dubium*) – tall seasonal accent.
- Black-Eyed Susan (*rudbeckia hirta*) – spots of color

#### **Planting Style:**

- Beach Plum as minimalist focal shrubs (3–5 spaced widely).
  - Purple Lovegrass in low drifts lining pathways.
  - Joe-Pye placed sparingly for vertical contrast.
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### **SPACING & DENSITY**

<b>Plant Type</b>	<b>Spacing</b>
Dune grasses	12–18 in.
Mid-size grasses	18–24 in.
Low shrubs	3–4 ft
Medium shrubs	5–6 ft
Accent perennials	18–24 in.

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## **COLOR & TEXTURE PALETTE**

### **Natural dune:**

- Sandy beige
- Silvery blue
- Wind-blown textures
- Soft movement

### **Coastal modern:**

- Clean vertical spikes
- Monochrome plant masses repeatedly.
- Strong, architectural evergreen shapes

Combined effect: a landscape that feels native, wild, and authentic—but with modern clarity and intention.



Pink Muhly Grass

Little Bluestem

Seaside Goldenrod

Groundsel Tree

Virginia Beach Grass

Black-eyed Susan

Virginia Rose

Kentucky Bluegrass

Seashell mulch; seashell mulch; seashell mulch; seashell mulch