

A G E N D A
JAMES CITY COUNTY CHESAPEAKE BAY BOARD
SPECIAL MEETING
County Government Center, Building D
101 Mounts Bay Road, Williamsburg, VA 23185
March 22, 2021
2:00 PM

A. CALL TO ORDER

B. ROLL CALL

C. PRESENTATIONS

1. Proposed Wetlands Guidance
2. Proposed CBPA Amendment - Trees
3. Proposed CBPA Amendment - Climate Change

D. ADJOURNMENT

ITEM SUMMARY

DATE: 3/22/2021
TO: Wetlands Board
FROM: Michael Woolson, Chesapeake Bay Board and Wetlands Board Secretary
SUBJECT: Proposed Wetlands Guidance

ATTACHMENTS:

	Description	Type
☐	Draft Guidelines, March 2021	Backup Material

REVIEWERS:

Department	Reviewer	Action	Date
Chesapeake Bay Group	Secretary, ChesBay	Approved	3/21/2021 - 11:11 AM



DRAFT
WETLANDS GUIDELINES

Promulgated by the
Virginia Marine Resources Commission

Prepared by the
Habitat Management Division

with
contributions from the
Virginia Institute of Marine Science

Developed Pursuant to Chapter 13 Title 28.2, Code of Virginia

March 2021 Update

Section I

Introduction

The purpose of this document is to revise the existing Wetlands Guidelines to provide “minimum standards for the protection and conservation of wetlands” and to “communicate to stakeholders and regulatory authorities that it is the policy of the Commonwealth to support living shorelines as the preferred alternative” for shoreline stabilization as directed in §28.2-104.1 of the Code of Virginia. This document will aid citizens and local decision makers in making on-site jurisdictional determinations, explain the risks and benefits provided by various shoreline treatments, and identify preferred shoreline management options.

Importantly, implementation of the guidelines must be coordinated with the implementation of new Department of Environmental Quality regulations required for the consideration of climate change and sea level rise under amendments to the Chesapeake Bay Preservation Act adopted by the General Assembly in 2020. Further, implementation of the guidelines must be consistent with the Virginia Coastal Master Plan and Planning Framework authorized by Executive Order 24 (November 2018), including by using the National Oceanic and Atmospheric Administration 2017 Intermediate-High sea level rise projection (or, in the future, any updated projection based on the best available science and selected through the Coastal Master Plan process) in evaluation of all permit applications.

The Local Wetlands Boards have served the Commonwealth well since they were established in 1972 with the passage of the Wetlands Act. The public hearing process provided by the Wetlands Ordinance allows each applicant the opportunity to present their facts to the board for consideration and for the board to evaluate any public comment. These are essential elements of any permit decision along with the requirements of the ordinance, as well as the guidelines and standards that are provided in the following document. These guidelines are a key tool in performing this citizen-based administration of the program, which aims to effectively balance wetlands preservation with protection and use of private property.

Originally adopted in 1974, the Wetlands Guidelines were formally amended to include nonvegetated wetlands in 1982. The Wetlands Mitigation-Compensation Policy was added to the Guidelines when they were reprinted in 1993, following their adoption in 1989. The last amendment to Virginia’s tidal wetlands guidance was an update to the Mitigation-Compensation Policy in 2005. Through this policy, the Commission encourages the compensation of all permitted tidal wetland losses provided all mitigative measures have been considered to avoid any impact. The need to compensate for all permitted wetland losses is emphasized by the Commonwealth’s commitment to the restoration of the Chesapeake Bay. In 2000, Virginia, as a Chesapeake Bay Program partner, committed to “achieve a no-net loss of existing wetlands acreage and function in the signatories regulatory programs.”

In addition to tidal wetlands, Virginia's coastal zone is composed of many different but highly interrelated ecological systems. These include the Commonwealth’s State-owned submerged lands, which are vitally important as fish and shellfish feeding, spawning and nursery habitat, non-tidal wetlands and the adjacent riparian buffer. The latter two provide key roles in the

filtering of stormwater runoff, nutrient uptake and maintenance of water quality in the Chesapeake Bay. Tidal wetlands equally provide critical habitat in support of the Commonwealth's recreational and commercial fisheries and vital ecological services required for a healthy Chesapeake Bay. Preservation of existing tidal wetlands and management strategies necessary to ensure their continued existence, therefore, is paramount given the daily stressors associated with the use or development of wetlands coupled with the added risks associated with sea level rise and climate change.

The need to incorporate additional standards, necessary for the protection and coastal resilience of Virginia's tidal wetland acreages, was addressed by the General Assembly with the passage of living shorelines legislation in 2011 and 2020. Senate Bill 964 (2011) and the resulting legislation established living shorelines as the preferred alternative for stabilizing tidal shorelines in the Commonwealth. More recently, Senate Bill 776 and the resulting 2020 legislation requires the Virginia Marine Resources Commission to promulgate and periodically update minimum standards within the Guidelines for the protection and conservation of wetlands and to approve only living shoreline approaches to shoreline stabilization, unless the best available science shows that such approaches are not suitable.

The resulting 2021 revision of the Wetlands Guidelines, therefore, incorporates scientific principles emerging since the 1993 revision. Policy and management developments over this time that are, in large part, based on those advances in tidal wetlands science are thus integrated into this document. Although management progressed generally in parallel with estuarine and wetlands science over the previous half century, the policy stated by the legislature when it passed the vegetated wetlands act in 1972 remains as relevant a guiding statement today as it was then:

"Therefore, in order to protect the public interest, promote the public health, safety and the economic and general welfare of the Commonwealth, and to protect public and private property, wildlife, marine fisheries and the natural environment, it is declared to be the public policy of this Commonwealth to preserve the wetlands, and to prevent their despoliation and destruction and to accommodate necessary economic development in a manner consistent with wetlands preservation."

Section II

Wetland Types and Properties

In the pages that follow, wetlands are re-described by type as required in the Virginia Code. The original Wetlands Guidelines recognized twelve types of vegetated wetlands (marshes) and five types of nonvegetated wetlands (tidal flats and beaches). The revised Guidelines now recognize two tidal wetland types, nonvegetated and vegetated wetlands:

Nonvegetated Wetlands

Between the mean high tide line and the mean low tide line are found the non-vegetated intertidal flats and beaches. These areas, though uncovered and seemingly devoid of life during a portion of each tidal cycle, provide important habitat for a host of different marine organisms, aquatic birds and certain mammals. They also contribute to marine primary productivity and the attenuation of wave energy.

Vegetated Wetlands

Vegetated tidal wetlands (i.e. marshes) exist at, and upslope of mean sea level. Marshes provide the valuable ecological functions of high plant primary productivity and detritus availability; direct habitat, nursery, and refugia for aquatic fauna; water quality enhancement; and erosion control. In Virginia, tidal wetlands jurisdiction extends from mean low tide to mean high tide where no emergent vegetation exists, and from mean low tide to 1.5 times the mean tide range where marsh is present.

These newly recognized wetland types incorporate state-of-the-science understanding of wetland communities as they subsist based on tidal hydrology and their ability to provide ecological and resilience functions within the shorescape. Science has shown the multifaceted importance of tidal wetlands, regardless of landscape position, to natural ecosystems and mankind. Although distinct wetland communities exhibit varied levels of select functions, tidal wetlands show inherent consistency in their contributions to estuarine and riparian ecological health. Vegetated and non-vegetated wetlands are known to work collaboratively to provide the full suite of ecosystem functions necessary to sustain habitat, primary production, water quality, and coastal resilience. Wetlands types, therefore, should not be viewed as a method of grading importance, but only as functional categories.

The importance of understanding each tidal wetland type as worthy of equal protection to maintain comprehensive functional integrity is an accepted scientific principle. Nonvegetated and vegetated wetlands serve as a buffer between the estuary and the upland; interacting with both. Therefore, all tidal wetlands should be viewed as and managed holistically within the subaqueous to riparian buffer continuum.

Section III

Criteria for Determining Wetlands Jurisdiction and Evaluating Alterations of Wetlands

This section addresses the methods for determining tidal wetlands jurisdiction, followed with a description of activities that can adversely affect tidal wetland functions. General and specific criteria that can assist in evaluating these activities against tidal wetland alterations are included.

As previously stated, wetlands managers are charged by Code with the preservation of tidal wetlands, while accommodating necessary economic development in a manner consistent with wetlands preservation. This coupled with the new legislative mandate to permit only living

shoreline approaches to shoreline management, unless such approaches are deemed not suitable, complicates the process of providing definitive guidance in a single document for every shoreline treatment scenario likely to arise in Tidewater Virginia. When needed, jurisdictional-specific and project-specific assistance is available at request from the Virginia Marine Resources Commission's Habitat Management Division and the Virginia Institute of Marine Science's Office of Research and Advisory Services. Localities may also additionally utilize the Department of Conservation and Recreation's Shoreline Erosion and Advisory Service (SEAS) site-specific advice, if provided, and rely on the additional online tools and research provided by the VIMS Shoreline Studies Program and the Center for Coastal Resource Management (CCRM). **The totality of the aforementioned programs' research, written advice, and online tools shall constitute the best available science, on a case-by-case basis, when either the Commission or the local wetland board is attempting to determine the suitability of a living shoreline design or treatment. Additionally, all newly emerging wetlands science shall contribute to the Commission's or local wetlands boards' consideration of best available science.**

Determining Wetlands Jurisdiction

Determining accurate tidal wetland jurisdictional boundaries is critical for fair and proper management, and must be clearly delineated and understood prior to evaluating the proposed use and development of tidal wetlands. Jurisdictions are defined in §28.2-1302 of the Virginia Code. Jurisdictional nonvegetated wetlands must be contiguous to mean low water and are located between mean low water and mean high water. Vegetated wetlands also must be contiguous to mean low water, support one or more of the plant species named in §28.2-1302, and extend "from mean low water to an elevation equal to the factor one and one-half times the mean tide range at the site of the proposed project." Jurisdictional vegetated wetlands include those that are regularly flooded and some or all of those that are irregularly flooded as described in § 28.2-1302 of the Code of Virginia. Jurisdictional boundaries can be determined by conducting onsite elevation surveys with reference to the predicted normal low and high tide lines, can be estimated using natural shoreline features and indicators, can be accurately estimated for vegetated wetlands using (if present) the saltbush community location, can be established by state regulatory and academic personnel, but often is provided by the applicant/agent using the methods just described. Regardless of method, it is highly recommended that all involved parties agree on jurisdictional boundaries prior to application development and/or processing.

General Criteria

The reader is reminded that many proposed uses of the shoreline can be accommodated with little or no loss of wetlands if the following criteria are applied. The conscientious application of these criteria will materially reduce adverse environmental impacts of anthropogenic activities on the shoreline.

A. Provided marine fisheries, wetlands and wildlife resources, flood protection, and water quality are not detrimentally affected nor does a proposed use contribute to cumulative, net losses of tidal wetlands, alteration of the shoreline or construction of shoreline facilities may be justified in order to:

1. Gain access to navigable waters by:
 - a. Commercial, industrial, and recreational interests for which it has been clearly justified that waterfront facilities are required and the interest is water dependent;
 - b. Owners of land adjacent to waters of navigable depth or waters which can be made navigable with only minimal adverse impact on the environment.
2. Protect property from significant damage or loss due to erosion or other natural causes.

B. Alteration of the shoreline is *not* justified:

1. For purposes or activities that are non-water dependent;
2. For purposes of creating waterfront property from lands not naturally contiguous to tidal waters or for purposes of accessing waterfront property by the placement of fill material not justified by A.1 above.
3. When damage to properties owned by others is a likely result of the proposed activity.
4. When the alteration will result in the drainage or discharge of effluents or stormwater which impair wetlands, water quality or other marine resources.
5. When there are alternatives which can achieve the given purpose without adversely affecting water quality, marine fisheries, wildlife, marshes, oyster grounds or other natural resources.

Rationale: These criteria recognize riparian rights and reserve the shoreline for those uses or activities which require water access. These criteria also point out that activities such as dredging into the fastlands for housing developments often have a significant and long term adverse impact on the marine environment through such effects as changed upland hydrology, sedimentation, changes in water current patterns near the shoreline, and the introduction of pollutant discharges which frequently lead to closure of shellfish grounds. The dredging of channels into fastlands may also lead to deterioration of ground water by salt water intrusion into aquifers.

C. Utilization of open-pile type structures for gaining access to adequate water depths is required unless the construction of solid structure, dredging or filling is shown to be necessary.

Rationale: The construction of solid structures, or the conduct of dredging and filling operations, often causes irretrievable loss of wetlands through their direct displacement or by indirect effects of sedimentation or altered water currents. Open-pile type structures permit continued tidal flow over existing wetlands and subtidal areas, avoid potential sedimentation problems, future maintenance dredging, and have less effect on existing water current patterns.

D. Shoreline alterations should be designed and constructed to resist coastal storm-level hydrological energy that may reasonably be expected at the project site.

Rationale: High intensity storms of marine origin are frequent in the mid-Atlantic region and Chesapeake Bay. Shoreline alterations that are generally proposed to address coastal resiliency and control active erosion should ensure that the stabilizing objectives address the most erosive conditions predictable to the project site. This will reduce the likelihood of future adverse environmental impacts from storm events associated with structural failure, reduce maintenance and repair costs, and decrease or eliminate added shoreline disturbances.

E. Living shorelines should be considered the first alternative as an approach to address shoreline stabilization and tidal wetlands sustainability in response to sea level rise.

Rationale: It is critical to maintain tidal wetland resources and thus their important functions as sea level rises. Properly designed and constructed living shorelines provide a platform for future landward migration.

Specific Criteria

The following specific criteria are established for use in the design, evaluation or modification of individual projects. Specific strategies should attempt to incorporate environmental protection and resiliency as elements of the landowner's desired project objectives.

A. Shoreline Protection Strategies

1. Living shoreline considerations. Numerous hydrological and geological factors, and shoreline energy potential need to be assessed when evaluating and determining if the shoreline situation is conducive to supporting a living shoreline approach. If considered to be an effective shoreline stabilizing method, the proper dimensions and design require thorough planning to address site-specific conditions that include bank height and condition, upland structure proximity and vulnerability, offshore water depth and sediment consistency, presence and proximity of submerged aquatic vegetation, potential maximum storm wave conditions, conditions of adjacent shorelines, and sunlight availability. Please see *Living Shoreline Design Guidelines for Shore Protection in Virginia's Estuarine Environments*.

Rationale: When properly chosen as a viable stabilization strategy, located, designed, and constructed, living shorelines can address shoreline stabilization objectives while providing an opportunity for resource sustainability. Not only should there be considerations specifically for tidal wetlands vegetation, submerged aquatic vegetation and riparian communities (which need room to migrate with rising sea levels) also play important roles in estuarine water quality, habitat, and wave attenuation and thus require integration with living shoreline strategies.

2. The placement of offshore breakwater or submerged, nearshore sills parallel to a portion of shoreline, that elevate the height of an existing beach and retain the sand

nourishment or create a protected living shoreline between the structures and the shoreline, is a reasonable strategy consideration in higher hydrological energy shoreline situations. Both breakwaters and sills must be specifically designed for the shoreline segment in question.

Rationale: Properly located, designed, and constructed breakwaters and sills are effective at attenuating wave energy and supports the sustainability of the landward beach or living shoreline. Depending on the dimensions of the beach and living shoreline, they can also function to dampen storm waves.

3. Shoreline protection structures are justified only if there is active, detrimental shoreline erosion which cannot be otherwise controlled by use of a living shoreline or if there is a need to retain sand nourishment or support natural beach accretion. If hardening the shoreline, or a portion of the shoreline, is deemed necessary then incorporation of living shoreline elements into the project design should be done where possible and functional.

Rationale: A structural approach to shoreline stabilization may be necessary in response to hydrological and geological shoreline factors, and/or to sufficiently address erosion control. However, hardened shorelines typically result in direct and/or indirect adverse impacts to tidal wetlands and adjacent subaqueous bottomlands. They also create barriers to tidal wetland migration with sea level rise. The Commonwealth discourages the unnecessary use of riprap and bulkheading and views shoreline hardening as an alternative only when absolutely necessary. Shoreline modification to address upland and landscape issues other than stormwater runoff is highly discouraged.

4. Rock revetments are the preferred alternative if a living shoreline would not achieve the project objectives.

Rationale: Vertical retaining structures tend to reflect wave energy that negatively impacts adjacent wetland and/or subaqueous natural resources. They can also create negative effects upon neighboring properties. Waves, whether from natural causes or from boat wakes, are better absorbed or dissipated by riprap revetments. In addition, the slope and open spaces in riprap structures provides suitable, but not optimal, habitat for crabs and small fish.

5. If an erosion control structure, such as a bulkhead or seawall, is deemed necessary over all alternative approaches, it should ordinarily be placed as far landward as possible. Placing the structure landward of tidal wetlands jurisdiction should be seriously considered.

Rationale: Landward placement reduces or eliminates direct impacts to tidal resources, but can promote secondary impacts from reflected wave energy and riparian hydrological exchange. Vertical structures also eliminate the ability of tidal wetlands to migrate landward in response to sea level rise.

6. The placement of a groin or series of groins on eroding shorelines in an effort to trap sand and build up a beach is justified primarily when there is sufficient sand in the littoral

drift system, but in certain shoreline circumstances sand can be artificially placed. Groins may also be a preferred option if properly functioning groins already exist in the section of shoreline in question. When groins are considered justified they should be low profile in design and only as long as is necessary to trap sand drifting in the littoral zone. Ideal groin length can be determined by examining the sand fillets in existing groins along the same shoreline reach or can be based on the width of the local beach.

Rationale: Groins are designed to trap sand and build beaches. When groins and groin fields function properly, they can provide a functional level of erosion control but can also deprive downdrift shorelines of sand and thus may accelerate erosion to adjacent properties. This is highly dependent on the amount of sand available in the system. The low-profile groin is designed to resemble the natural beach slope and allow sand to by-pass and thus nourish downstream properties once the groin has filled. Groins which are too long for the existing beach may shunt sand out to deeper water thus making it unavailable to downdrift properties. If sand availability is limited, groin cells may require continued placement of sand to maintain erosion control function. In these situations, alternative strategies should be considered.

7. The use of jetties at the entrance of a channel in order to maintain navigable depths or protect the entrance from wave attack is justified only when there is a clear and demonstrated need for such a structure and adjacent properties will not be significantly adversely affected.

Rationale: Jetties attempt to prevent the littoral drift from entering the channel by trapping sediment moving along the shoreline. Sand tends to accumulate on the updrift side of a jetty and sediments are transported away from the jetty on the downdrift side. This can often result in accelerated erosion of the downdrift shoreline.

Section IV

Minimum Standards – Protection and Conservation of Wetlands

Pursuant to § 28.2-1308 of the Code of Virginia, the Commonwealth's existing standards below currently apply to the use and development of wetlands and shall be considered by the Commission and any local wetlands board in the determination of whether any permit should be granted or denied:

1. Wetlands of primary ecological significance shall not be altered so that the ecological systems in the wetlands are unreasonably disturbed; and
2. Development in Tidewater Virginia, to the maximum extent practical, shall be concentrated in wetlands of lesser ecological significance, in vegetated wetlands which have been irreversibly disturbed before July 1, 1972, in nonvegetated wetlands which have been irreversibly disturbed prior to January 1, 1983, and in areas of Tidewater Virginia outside of wetlands.

In deciding whether to grant, grant in modified form or deny a permit, to ensure protection of tidal wetlands, shorelines and sensitive coastal habitats from sea level rise and coastal hazards, the following additional minimum standards shall also be considered by the Commission and all local wetland boards pursuant to § 28.2-1302.9 and § 28.2-1302.10.3 of the Code:

3. Applications proposing non-living shoreline erosion control projects which include removal of vegetation, construction access or land disturbance within the Resource Protection Area (RPA) shall not be considered complete and scheduled for a public hearing by the board until the receipt of an approved Water Quality Impact Assessment (WQIA) and erosion and sediment control plan, if required by the local government pursuant to the Chesapeake Bay Protection Act.

Where the proposed shoreline treatment is a living shoreline project or related activity, the locality otherwise approves of the project, the projects maintains or establishes a vegetative buffer inland of the living shoreline and minimizes land disturbance to the maximum extent practicable, the board may schedule the public hearing without the requirement of an approved Water Quality Impact Assessment.

In all cases, mature trees should be preserved and utilized in the project design, to the maximum extent practicable, consistent with the best available technical advice and permit conditions or requirements.

4. Project review of any proposed uses or development of tidal wetlands shall include data derived from an onsite analysis, provided on scaled drawings, minimally to include the square footage of existing and resulting tidal wetland types, existing and proposed grade elevations and slope, mean high, mean low and the 10-year storm event water levels as calculated by NOAA and FEMA, existing bathymetric elevations to the minus 1-foot mean low water elevation and the current shoreline condition of adjacent properties to include any existing treatments. Additional consideration of shoreline variables shall also be given to fastland bank condition, bank height, bank composition, nearshore stability, upland land use/proximity to infrastructure/cover, width and elevation of backshore region, and boat wakes;

5. Project review of any proposed uses or development of tidal wetlands shall also include data derived from existing online advisory tools, engineering analyses or other online tools that facilitate the measurements of fetch, depth offshore, shoreline morphology, shoreline orientation, nearshore morphology, submerged aquatic vegetation (SAV), tide range, storm surge frequency, erosion rate, design wave determination, and sea level rise. Project review shall include the consideration of the statement required by Section 28.2-1302B of the Code of Virginia that thoroughly reflects and documents the analysis undertaken by the applicant *indicating whether use of a living shoreline as defined in §28.2-104.1 for a shoreline management practice is not suitable, including reasons for the determination*, which must be provided with any proposal. The public hearing may not be scheduled prior to the receipt of this information. Applications are considered incomplete until this information is provided as part of the application to the Commission or local wetland board staff.

In addition to the consideration of the aforementioned minimum standards deemed necessary to ensure the conservation and protection of tidal wetlands, the Commission or board shall evaluate all proposed shoreline treatments utilizing the best available science provided in the record, as previously defined in Section III of the Guidelines, and determine the site's *suitability* to be protected with a living shoreline treatment. To further guide the Commission and local wetland boards, a site shall be deemed suitable for a living shoreline treatment unless the applicant demonstrates, using the best available science, that such treatment would not effectively protect the property and natural resources in question. This determination must incorporate consideration of long-term sustainability and coastal resilience, and local geological and hydrological factors and other environmental factors contributing to erosion.

In those cases where the best available science identifies a living shoreline treatment as suitable but the applicant claims increased costs would prevent the use of such a treatment, the Commission or board shall work with the applicant to evaluate and reduce such costs, or to realign the project landward of the limits of tidal wetlands jurisdiction as defined by Section 28.2-1302.2 of the Code of Virginia. Should this latter approach be agreed to by the applicant during the public hearing, the matter shall only be removed from the Commission or board's further consideration as a non-jurisdictional request upon receipt of revised project drawings reflecting the modified alignment. Such projects would then be subject to the Commonwealth's statutory requirements of the Chesapeake Bay Preservation Act. If the applicant remains unwilling to use this approach, or to utilize a living shoreline treatment where suitable, the Commission or board shall deny the application.

Section V

Best Available Science Resources

Virginia Institute of Marine Science Office of Advisory Services

Virginia Institute of Marine Science Shorelines Studies Program

Virginia Institute of Marine Science Center for Coastal Resources Management

Department of Conservation Recreation – Shoreline Erosion Advisory Service (SEAS)

All newly emerging wetlands science

Glossary

In the course of considering applications for permits pursuant to the Wetlands Zoning Ordinance various terminology may be used. As such the following definitions apply.

Armor

Larger stone used as the outer layers of a revetment directly exposed to wave action (see also *Stone size*).

Bank height

Approximate height of the upland bank above mean low water.

Bathymetry

The topography, or contours, of a waterway correlated to water depths.

Beach

The shoreline zone comprised of unconsolidated sandy material upon which there is mutual interaction of the forces of erosion, sediment transport and deposition extending from the low water line landward to the uplands.

Best Management Practice (BMP)

Measures that have the combined effect of ensuring project integrity for the design life of the project while minimizing the potential adverse impacts associated with construction and maintenance.

Beach nourishment

Placement of good quality sand along a beach shoreline to raise the elevation of the nearshore area.

Breakwater

A structure usually built of rock positioned a short distance from the shore. The purpose is to deflect the force of incoming waves to protect a shoreline.

Bulkhead

A vertical structure that acts as a retaining wall usually constructed parallel to a shoreline.

Buried toe

Trenched seaward toe of a revetment to help prevent scour and shifting of the structure.

Core stone

Smaller stone used as the base of a revetment to provide a stable base for armor stone.

Downdrift

The resulting direction material is carried as waves strike a shore and move “down” along a shoreline.

Ecosystem Services

Components of nature, directly enjoyed, consumed, or used to yield Human well-being.

Fetch

The distance along open water over which wind blows. For any given shore, there may be several fetch distances depending on predominant wind directions, but there is generally one fetch which is longest for any given shoreline exposure.

Filter cloth

Synthetic textile placed between bulkhead sheeting and backfill or underneath a revetment to prevent soil loss yet provide permeability.

Gabion

A basket or cage filled with stone, brick or other material to give it a weight suitable for use in revetments or breakwaters. In the marine environment, usually made with galvanized steel wire mesh with a PVC coating.

Groin

A rigid, vertical structure extending perpendicular to shore to trap transporting sand or other material down a shoreline.

Groin field

A series of several groins built parallel to each other along a shoreline.

Headland

A point of land jutting out into a body of water or a shoreline section less resistant to erosion process than adjacent shorelines.

Halophyte

A plant that naturally grows where it is affected by salinity in the root area or by salt spray.

Hydrophyte

Plants that have adapted to living in or on aquatic environments

Jetty

A structure similar to a groin, but typically designed to prevent shoaling of a navigation channel.

Joint Permit Application or JPA

The standard Joint Permit Application for shoreline stabilization structures and other activities conducted in wetlands and the marine environment. The applicant completes one form and submits to either local agency or VMRC, which is responsible for distributing to local, state and federal permitting and advisory agencies (e.g. VIMS, Dept. of Wildlife Resources, Dept. of Conservation & Recreation, Dept. of Environmental Quality, US Army Corps of Engineers).

Incidental effects

Indirect impacts of an activity or structure, such as those resulting from redirected wave energy, trapped sand or sedimentation.

Littoral transport

The movement of sand and other materials along the shoreline in the littoral zone, or the area between high and low watermarks during non-storm periods.

Low profile

The recommended design for groins with a channelward elevation no greater than mean low water to allow sand bypass to continue once the groin cell is filled, reducing the potential for adverse downdrift effects.

Marsh fringe

A band of marsh plants which runs parallel to a shoreline.

Marsh toe revetment

A low revetment built to protect an eroding marsh shoreline.

Mean low water

The average height of low waters over a nineteen year period. Virginia is a low water state, meaning private property extends to the mean low water line.

Mean tide range

The vertical distance between mean high water and mean low water.

Nearshore

A term referring to the area close to the shore but still partly submerged. This area is where sand bars and shoals often form.

Pressure treated

The process of preserving wood by impregnating it with chemicals to reduce or retard invasion by wood destroying organisms.

Reach

A discrete portion of a shoreline somewhat homogeneous in its physical characteristics and upon which there are mutual interaction of the forces of erosion, sediment transport, and accretion.

Resilience

The capability to anticipate, prepare for, respond to, and recover from significant multi-hazard threats with minimum damage to social well-being, health, the economy, and the environment.¹ Similarly, we define adaptation as adjustment in natural or human systems to a new or changing environment that exploits beneficial opportunities or moderates negative effects.

Return walls

Bulkhead end sections perpendicular to the shoreline to tie the bulkhead into the upland and prevent the bulkhead from being flanked as the shoreline continues to retreat on either side of the structure.

Revetment

A sloped structure constructed with large, heavy stone, often in two layers, used to anchor the base of the upland bank. The size of a revetment is dictated by the energy of the shoreline environment where it is proposed.

Riprap

Stone that is hard and angular that will not disintegrate from exposure to water or weathering.

Scarp

A low steep slope caused by wave erosion.

Seawall

A vertical wall or embankment, usually taller and larger than a bulkhead.

Shoal

A shallow area in a waterway, often created by nearby sandbars or sandbanks.

Shore orientation

The compass direction the shoreline faces. Some directions are more prone than others to the erosive forces of storm events.

Sill

An erosion protection measure that combines elements of both revetments and offshore breakwaters. Sills are usually built of stone, low in profile and built close to shore.

Sediment barrier or ***Silt screen***

Structures placed at the toe of a slope or in a drainageway to intercept and detain sediment and decrease flow velocities. Barriers may be constructed of posts and filter fabric properly anchored at the base or hay bales staked in place end to end.

Sheet pile

A wooden plank or steel sheet used in the construction of bulkheads and groins.

Slope

Degree of deviation of a surface from the horizontal; measured as a numeric ratio, percent or in degrees. When expressed as ratio, the first number is the horizontal distance and the second is the vertical distance.

Splash apron

A structural component, often of rock, used to prevent forceful waves from scouring out material from the top of a revetment or bulkhead.

Spur

A vertical structure normally used perpendicular to groins to redirect incoming waves to allow a sheltered area in the lee and promote the accumulation of sand.

Stone size

Classes of riprap stone based on weight per VDOT specifications

<i>Class A1</i>	25-75 pounds, ≤ 10% weighing more than 75 lbs, “man-sized”
<i>Class 1</i>	50-150 pounds, 60% weighing more than 100 lbs
<i>Class 2</i>	150-500 pounds, 50% weighing more than 300 lbs
<i>Class 3</i>	500-1,500 pounds, 50% weighing more than 900 lbs
<i>Type 1</i>	1,500-4,000 pounds, average weight 2,000 lbs
<i>Type 2</i>	6,000 – 20,000 pounds, average weight 8,000 lbs

Storm surge

The resulting temporary rise in sea level due to large waves and low atmospheric pressure created during storms.

Subaqueous or Submerged lands

The ungranted lands beneath the tidal waters of the Commonwealth extending seaward from the mean low water mark to the 3 mile limit.

Submerged aquatic vegetation (SAV)

Rooted plants found in shoal areas of Chesapeake Bay which provide important ecological roles, such as providing food, shelter and oxygen as well as trap sediment and dissipate wave energy.

Time-of-year restrictions

Restrictions that limit construction projects during periods of heightened sensitivity for species of concern, such as anadromous fish, nesting shorebirds, shellfish, submerged aquatic vegetation (SAV), and threatened and endangered species, such as the bald eagle and northeastern beach tiger beetle.

Tombolo

The area of accumulated beach material in the lee of a breakwater structure.

Wave climate

The average wave conditions as they impact a shoreline, including waves, fetch, dominant seasonal winds and bathymetry.

Wave energy

The force a wave is likely to have on a shoreline depending on environmental factors, such as shore orientation, wind, channel width, and bathymetry.

Wave height

The vertical measurement of a single wave from its base or trough to its top or crest.

Wetland type

A class of wetlands described by predominant vegetation, or in the case of nonvegetated wetlands, by substrate.

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ITEM SUMMARY

DATE: 3/22/2021

TO: Chesapeake Bay Board

FROM: Michael Woolson, Chesapeake Bay Board and Wetlands Board Secretary

SUBJECT: Proposed CBPA Amendment - Trees

ATTACHMENTS:

	Description	Type
☐	DEQ Background Information - Trees	Backup Material
☐	DEQ Proposed Regulations - Trees	Backup Material

REVIEWERS:

Department	Reviewer	Action	Date
Chesapeake Bay Group	Secretary, ChesBay	Approved	3/21/2021 - 11:25 AM



townhall.virginia.gov

Exempt Action: Proposed Regulation Agency Background Document

Agency name	State Water Control Board
Virginia Administrative Code (VAC) Chapter citation(s)	9 VAC 25-830
VAC Chapter title(s)	Chesapeake Bay Preservation Area Designation and Management Regulations
Action title	Amendment to incorporate additional requirements related to preservation of mature trees and replanting of trees into existing criteria.
Date this document prepared	November 9, 2020

Although a regulatory action may be exempt from executive branch review pursuant to § 2.2-4002 or § 2.2-4006 of the *Code of Virginia*, the agency is still encouraged to provide information to the public on the Regulatory Town Hall using this form. However, the agency may still be required to comply with the Virginia Register Act, Executive Order 14 (as amended, July 16, 2018), the Regulations for Filing and Publishing Agency Regulations (1VAC7-10), and the *Form and Style Requirements for the Virginia Register of Regulations and Virginia Administrative Code*.

Brief Summary

Provide a brief summary (preferably no more than 2 or 3 paragraphs) of this regulatory change (i.e., new regulation, amendments to an existing regulation, or repeal of an existing regulation). Alert the reader to all substantive matters. If applicable, generally describe the existing regulation.

This regulatory amendment includes language for performance criteria requirements related to trees and particularly mature trees under the Chesapeake Bay Preservation Act program. It includes requirements to preserve and protect mature trees and where existing vegetation is removed that includes trees and that trees are utilized in reestablishing vegetation to the maximum extent practicable. It also provides that where vegetation or buffers must be established, the planting of trees should be utilized where practicable.

Mandate and Impetus

Identify the mandate for this regulatory change, and any other impetus that specifically prompted its initiation (e.g., new or modified mandate, internal staff review, petition for rulemaking, periodic review, or

board decision). *“Mandate” is defined as “a directive from the General Assembly, the federal government, or a court that requires that a regulation be promulgated, amended, or repealed in whole or part.”*

Virginia Code § 62.1-44.15:72 was amended by Chapter 1207 of the 2020 Acts of Assembly. The amendment added the preservation of mature trees and replanting of trees to the criteria requirements for regulations to be established by the State Water Control Board for use by local governments under the Chesapeake Bay Preservation Act. The amendment also included language for the State Water Control Board to adopt regulations to implement this provision.

Acronyms and Definitions

Please define all acronyms used in the Agency Background Document. Also, please define any technical terms that are used in the document that are not also defined in the “Definition” section of the regulations.

CBPA: Chesapeake Bay Preservation Area
DEQ: Department of Environmental Quality
IDA: Intensely Developed Areas
RPA: Resource Protection Area
VAC: Virginia Administrative Code

Legal Basis

Please identify (1) the agency or other promulgating entity, and (2) the state and/or federal legal authority for the regulatory change, including the most relevant citations to the Code of Virginia or Acts of Assembly chapter number(s), if applicable. Your citation must include a specific provision, if any, authorizing the promulgating entity to regulate this specific subject or program, as well as a reference to the agency or promulgating entity’s overall regulatory authority.

Virginia Code § 62.1-44.15:69 provides the authority for the State Water Control Board to promulgate regulation under the Chesapeake Bay Preservation Act (Virginia Code § 62.1-44.15:67 et. seq.). Virginia § 62.1-44.15:72 provides that the State Water Control Board shall promulgate regulations that establish criteria for use by local governments in granting, denying, or modifying requests to rezone, subdivide, or use and develop land in these areas.

Virginia Code § 62.1-44.15:72 was amended to add a provision of ““preservation of mature trees or planting of trees as a water quality protection tool and as a means of providing other natural resource benefits” to the criteria requirements for regulations to be established by the State Water Control Board for use by local governments under the Chesapeake Bay Preservation Act. The amendment also included language for the State Water Control Board to adopt regulations to implement this provision.

Purpose

Please explain the need for the regulatory change, including a description of: (1) the rationale or justification, (2) the specific reasons the regulatory change is essential to protect the health, safety or welfare of citizens, and (3) the goals of the regulatory change and the problems it is intended to solve.

Virginia Code § 62.1-44.15:72 was amended to add a provision of “preservation of mature trees or planting of trees as a water quality protection tool and as a means of providing other natural resource benefits;” to the criteria requirements for regulations to be established by the State Water Control Board for use by local governments under the Chesapeake Bay Preservation Act.

The amendment also included language for the State Water Control Board to adopt regulations to implement this provision. This regulatory amendment provides the requirements in the criteria necessary to accomplish the statutory change.

Substance

Please briefly identify and explain the new substantive provisions, the substantive changes to existing sections, or both. A more detailed discussion is provided in the "Detail of Changes" section below.

This amendment includes requirements to preserve and protect mature trees and where existing vegetation is removed that includes trees, trees are utilized in reestablishing vegetation to the maximum extent practicable. It also provides that where vegetation or buffers must be established, the planting of trees should be utilized where practicable.

Issues

Please identify the issues associated with the regulatory change, including: 1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions; 2) the primary advantages and disadvantages to the agency or the Commonwealth; and 3) other pertinent matters of interest to the regulated community, government officials, and the public. If there are no disadvantages to the public or the Commonwealth, include a specific statement to that effect.

There are a number of advantages that result from the amendments. Overall, as the statutory criteria requirements change, the amendment provides clarity and specifics for local governments who responsible for implementing the program. It also ensures that policy of recognizing the water quality protection value of mature trees is recognized.

There is no disadvantage to the agency or the Commonwealth that will result from the adoption of this final regulation.

Requirements More Restrictive than Federal

Please identify and describe any requirement of the regulatory change that is more restrictive than applicable federal requirements. Include a specific citation for each applicable federal requirement, and a rationale for the need for the more restrictive requirements. If there are no applicable federal requirements, or no requirements that exceed applicable federal requirements, include a specific statement to that effect.

The amendments are based upon statutory changes in the Chesapeake Bay Preservation Act, which is a state only program. There is no federal equivalent requirement.

Agencies, Localities, and Other Entities Particularly Affected

Please identify any other state agencies, localities, or other entities particularly affected by the regulatory change. "Particularly affected" are those that are likely to bear any identified disproportionate material impact, which would not be experienced by other agencies, localities, or entities. "Locality" can refer to either local governments or the locations in the Commonwealth where the activities relevant to the regulation or regulatory change are most likely to occur. If no agency, locality, or entity is particularly affected, include a specific statement to that effect.

Other State Agencies Particularly Affected:

No state agencies are known to be particularly affected.

Localities Particularly Affected:

- The 84 Tidewater localities required to implement a local government program under the Chesapeake Bay Preservation Act. These 84 localities include: Accomack County; Albemarle County; City of Alexandria; Arlington County; Caroline County; Charles City County; City of Charlottesville; City of Chesapeake; Chesterfield County; Town of Clifton; City of Colonial Heights; Town of Dumfries; Essex County; Fairfax County; City of Fairfax; City of Falls Church; City of Fredericksburg; Gloucester County; Hanover County; Henrico County; Town of Herndon; City of Hopewell; Isle of Wright County; James City County; King and Queen County; King George County; King William County; Lancaster County; Matthews County; Middlesex County; New Kent County; City of Newport News; City of Norfolk; Northhampton County; Northumberland County; City of Petersburg; City of Poquoson; City of Portsmouth; Prince George County; Prince William County; City of Richmond; Spotsylvania County; Stafford County; City of Suffolk; Surry County; Town of Vienna; City of Virginia Beach; Westmoreland County; City of Williamsburg; York County.

Other Entities Particularly Affected:

No other entities are known to be particularly affected.

Regulatory Flexibility Analysis

Pursuant to § 2.2-4007.1B of the Code of Virginia, please describe the agency’s analysis of alternative regulatory methods, consistent with health, safety, environmental, and economic welfare, that will accomplish the objectives of applicable law while minimizing the adverse impact on small business. Alternative regulatory methods include, at a minimum: 1) establishing less stringent compliance or reporting requirements; 2) establishing less stringent schedules or deadlines for compliance or reporting requirements; 3) consolidation or simplification of compliance or reporting requirements; 4) establishing performance standards for small businesses to replace design or operational standards required in the proposed regulation; and 5) the exemption of small businesses from all or any part of the requirements contained in the regulatory change.

In compliance with the Board’s Public Participation Guidelines (9 VAC 25-10-20 C), DEQ will consider all alternatives which are considered to be less burdensome and less intrusive for achieving the essential purpose of the amendment, and any other alternatives presented during the proposed rulemaking.

The primary alternative considered was to leave the regulation unchanged as the regulations already require the preservation of indigenous vegetation; however, given the statutory change in the criteria requirements and the amendment language to adopt regulations to implement the provision, this alternative was not pursued given the particularly emphasis placed on mature trees in the new statutory language.

Public Participation

Please include a statement that in addition to any other comments on the proposal, the agency is seeking comments on the costs and benefits of the proposal and the impacts of the regulated community.

In addition to any other comments, the State Water Control Board is seeking comments on the costs and benefits of the proposal, the potential impacts of this regulatory proposal and any impacts of the regulation on farm and forest land preservation. The agency/board is also seeking information on impacts on small businesses as defined in § 2.2-4007.1 of the Code of Virginia. Information may include 1) projected reporting, recordkeeping and other administrative costs, 2) probable effect of the regulation on

affected small businesses, and 3) description of less intrusive or costly alternative methods of achieving the purpose of the regulation.

Anyone wishing to submit written comments for the public comment file may do so by mail, email or fax to Justin Williams, VA Department of Environmental Quality, P.O. Box 1105, Richmond, VA 23218; Phone: 804-698-4195; Fax: 804-698-4116; Email: Justin.Williams@deq.virginia.gov. Comments may also be submitted through the Public Forum feature of the Virginia Regulatory Town Hall web site at (<http://www.townhall.virginia.gov>). Written comments must include the name and address of the commenter. In order to be considered, comments must be received by 11:59 pm on the last day of the public comment period.

Additionally, anyone wishing to participate in a Stakeholder Advisory Group (SAG) to discuss the proposed regulation, please notify interest to Justin Williams, VA Department of Environmental Quality, P.O. Box 1105, Richmond, VA 23218; Phone: 804-698-4195; Fax: 804-698-4116; Email: Justin.Williams@deq.virginia.gov by March 15, 2021. Interested persons should provide their name, address, phone number, email address and the organization you represent (if any). The SAG will likely meet May 13th or 14th and selected interested person should be available for meeting on those dates.

Detail of Changes

List all regulatory changes and the consequences of the changes. Explain the new requirements and what they mean rather than merely quoting the text of the regulation. If the regulatory change will be a new chapter, describe the intent of the language and the expected impact. Please describe the difference between existing regulation(s) and/or agency practice(s) and what is being proposed in this regulatory change. Please include citations to the specific section(s) of the regulation that are changing.

Current section number	New section number, if applicable	Current requirement	Change, intent, rationale, and likely impact of new requirements
9 VAC 25-830-130		Indigenous vegetation shall be preserved to the maximum extent practicable	Mature trees shall only be removed where determined to be necessary to provide for the proposed use or development and protected during development to the maximum extent practicable. The intent is to specifically recognize the preservation and protection of mature trees is consistent with the change in the statutory criteria requirement.
9 VAC 25-830-140		Allowance for tree pruning or removal for sight lines and vistas	Mature trees should be preserved and not removed to the maximum extent practicable and where trees are removed they should be replaced by trees. The intent is to emphasize that mature trees should not be removed to the maximum extent practicable consistent with the change in the statutory criteria requirement and that trees should be utilized in replacing removed trees.
9 VAC 25-830-140		The alignment and design of the road or driveway are optimized, consistent with other applicable	The alignment and design of the road or driveway are optimized, consistent with other applicable requirements, to minimize (i) encroachment in the

Current section number	New section number, if applicable	Current requirement	Change, intent, rationale, and likely impact of new requirements
		requirements, to minimize (i) encroachment in the Resource Protection Area and (ii) adverse effects on water quality	Resource Protection Area and (ii) adverse effects on water quality; and (iii) removal of mature trees. The intent is to include this consideration consistent with the statutory criteria.
9 VAC 25-830-140		Requirement to reestablish buffer	Where such buffer must be established, the planting of trees should be utilized to the maximum extent practicable and appropriate to site conditions. The intent is to include this consideration consistent with the statutory criteria.
9 VAC 25-830-140		Requirement to reestablish buffer on agricultural land converted to other uses	Such measures should include, to the maximum extent practicable and appropriate to site conditions, the planting of trees in reestablishing the buffer. The intent is to include trees consistent with the statutory criteria.
9 VAC 25-830-140		Requirement of vegetated areas on certain permitted encroachment parcels	Such vegetated area where established should include the planting of trees to the maximum extent practicable. The intent is to include trees consistent with the statutory criteria.
9 VAC 25-830-140		Allowance for removal of trees for sight lines and vistas	Mature trees should be preserved and not removed to the maximum extent practicable under this provision. When trees are removed, the other vegetation to replace the tree should be a tree, to maximum extent practicable. The intent is to be consistent with the statutory criteria.
9 VAC 25-830-140		Allowance for tree removal for shoreline erosion projects	Mature trees should be preserved to the maximum extent practicable consistent with the best available technical advice and permit conditions or requirements and trees should be utilized in the projects to the maximum extent practicable. The intent is to preserve mature trees consistent with the statutory criteria.
9 VAC 25-830-140		Consideration of implementing measures for establishing vegetated areas in IDAs	In considering such measures, the local government should consider the planting of trees as a part of any such measures. The intent is to include trees consistent with the statutory criteria.

Family Impact

In accordance with § 2.2-606 of the Code of Virginia, please assess the potential impact of the proposed regulatory action on the institution of the family and family stability including to what extent the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.

This is no impact on the institution of the family and family stability by this action.



Proposed Text

[highlight](#)

Action: Amendment to incorporate additional requirements related to ...

Stage: Proposed

1/27/21 7:43 AM [latest] ▼

9VAC25-830-130 General performance criteria

Through their applicable land use ordinances, regulations, and enforcement mechanisms, local governments shall require that any use, development, or redevelopment of land in Chesapeake Bay Preservation Areas meets the following performance criteria:

1. No more land shall be disturbed than is necessary to provide for the proposed use or development.
2. Indigenous vegetation shall be preserved to the maximum extent practicable, consistent with the use or development proposed. Mature trees shall only be removed where determined to be necessary to provide for the proposed use or development and protected during development to the maximum extent practicable.
3. All development exceeding 2,500 square feet of land disturbance shall be accomplished through a plan of development review process consistent with § 15.2-2286 A 8 of the Code of Virginia and subdivision 1 e of 9VAC25-830-240.
4. Land development shall minimize impervious cover consistent with the proposed use or development.
5. Any land disturbing activity that exceeds an area of 2,500 square feet (including construction of all single family houses, septic tanks, and drainfields, but otherwise as defined in § 62.1-44.15:51 of the Code of Virginia) shall comply with the requirements of the local erosion and sediment control ordinance. Enforcement for noncompliance with the erosion and sediment control requirements referenced in this criterion shall be conducted under the provisions of the Erosion and Sediment Control Law and attendant regulations.
6. Any Chesapeake Bay Preservation Act land-disturbing activity as defined in § 62.1-44.15:24 of the Code of Virginia shall comply with the requirements of 9VAC25-870-51 and 9VAC25-870-103.
7. Onsite sewage treatment systems not requiring a Virginia Pollutant Discharge Elimination System (VPDES) permit shall:
 - a. Have pump-out accomplished for all such systems at least once every five years.
 - (1) If deemed appropriate by the local health department and subject to conditions the local health department may set, local governments may offer to the owners of such systems, as an alternative to the mandatory pump-out, the option of having a plastic filter installed and maintained in the outflow pipe from the septic tank to filter solid material from the effluent while sustaining adequate flow to the drainfield to permit normal use of the septic system. Such a filter should satisfy standards

established in the Sewage Handling and Disposal Regulations (12VAC5-610) administered by the Virginia Department of Health.

(2) Furthermore, in lieu of requiring proof of septic tank pump-out every five years, local governments may allow owners of onsite sewage treatment systems to submit documentation every five years, certified by an operator or onsite soil evaluator licensed or certified under Chapter 23 (§ 54.1-2300 et seq.) of Title 54.1 of the Code of Virginia as being qualified to operate, maintain, or design onsite sewage systems, that the septic system has been inspected, is functioning properly, and the tank does not need to have the effluent pumped out of it.

b. For new construction, provide a reserve sewage disposal site with a capacity at least equal to that of the primary sewage disposal site. This reserve sewage disposal site requirement shall not apply to any lot or parcel recorded prior to October 1, 1989, if the lot or parcel is not sufficient in capacity to accommodate a reserve sewage disposal site, as determined by the local health department. Building shall be prohibited on the area of all sewage disposal sites until the structure is served by public sewer or an onsite sewage treatment system that operates under a permit issued by the board. All sewage disposal site records shall be administered to provide adequate notice and enforcement. As an alternative to the 100% reserve sewage disposal site, local governments may offer the owners of such systems the option of installing an alternating drainfield system meeting the following conditions:

(1) Each of the two alternating drainfields in the system shall have, at a minimum, an area not less than 50% of the area that would otherwise be required if a single primary drainfield were constructed.

(2) An area equaling 50% of the area that would otherwise be required for the primary drainfield site must be reserved for subsurface absorption systems that utilize a flow diversion device, in order to provide for future replacement or repair to meet the requirements for a sewage disposal system. Expansion of the primary system will require an expansion of this reserve area.

(3) The two alternating drainfields shall be connected by a diversion valve, approved by the local health department, located in the pipe between the septic (aerobic) tank and the distribution boxes. The diversion valve shall be used to alternate the direction of effluent flow to one drainfield or the other at a time. However, diversion valves shall not be used for the following types of treatment systems:

(a) Sand mounds;

(b) Low-pressure distribution systems;

(c) Repair situations when installation of a valve is not feasible; and

(d) Any other approved system for which the use of a valve would adversely affect the design of the system, as determined by the local health department.

(4) The diversion valve shall be a three-port, two-way valve of approved materials (i.e., resistant to sewage and leakproof and designed so that the effluent from the tank can be directed to flow into either one of the two distribution boxes).

(5) There shall be a conduit from the top of the valve to the ground surface with an appropriate cover to be level with or above the ground surface.

(6) The valve shall not be located in driveways, recreational courts, parking lots, or beneath sheds or other structures.

(7) In lieu of the aforementioned diversion valve, any device that can be designed and constructed to conveniently direct the flow of effluent from the tank into either one of the two distribution boxes may be approved if plans are submitted to the local health department and found to be satisfactory.

(8) The local government shall require that the ~~owner(s)~~ owner alternate the drainfields every 12 months to permit the yearly resting of half of the absorption system.

(9) The local government shall ensure that the ~~owner(s)~~ owner are notified annually of the requirement to switch the valve to the opposite drainfield.

8. Land upon which agricultural activities are being conducted, including ~~but not limited to~~ crop production, pasture, and dairy and feedlot operations, or lands otherwise defined as agricultural land by the local government, shall have a soil and water quality conservation assessment conducted that evaluates the effectiveness of existing practices pertaining to soil erosion and sediment control, nutrient management, and management of pesticides, and, where necessary, results in a plan that outlines additional practices needed to ensure that water quality protection is being accomplished consistent with the Act and this chapter.

a. Recommendations for additional conservation practices need address only those conservation issues applicable to the tract or field being assessed. Any soil and water quality conservation practices that are recommended as a result of such an assessment and are subsequently implemented with financial assistance from federal or state cost-share programs must be designed, consistent with cost-share practice standards effective in January 1999 in the "Field Office Technical Guide" of the U.S. Department of Agriculture Natural Resource Conservation Service or the June 2000 edition of the "Virginia Agricultural BMP Manual" of the Virginia Department of Conservation and Recreation, respectively. Unless otherwise specified in this section, general standards pertaining to the various agricultural conservation practices being assessed shall be as follows:

(1) For erosion and sediment control recommendations, the goal shall be, where feasible, to prevent erosion from exceeding the soil loss tolerance level, referred to as "T," as defined in the "National Soil Survey Handbook" of November 1996 in the "Field Office Technical Guide" of the U.S. Department of Agriculture Natural Resource Conservation Service. However, in no case shall erosion exceed the soil loss consistent with an Alternative Conservation System, referred to as an "ACS", as defined in the "Field Office Technical Guide" of the U.S. Department of Agriculture Natural Resource Conservation Service.

(2) For nutrient management, whenever nutrient management plans are developed, the operator or landowner must provide soil test information, consistent with the Virginia Nutrient Management Training and Certification Regulations (4VAC50-85).

(3) For pest chemical control, referrals shall be made to the local cooperative extension agent or an Integrated Pest Management Specialist of the Virginia Cooperative Extension Service. Recommendations shall include copies of applicable information from the "Virginia Pest Management Guide" or other Extension materials related to pest control.

b. A higher priority shall be placed on conducting assessments of agricultural fields and tracts adjacent to Resource Protection Areas. However, if the landowner or operator of such a tract also has Resource Management Area fields or tracts in his operation, the assessment for that landowner or operator may be conducted for all fields or tracts in the operation. When such an expanded assessment is completed, priority must return to Resource Protection Area fields and tracts.

c. The findings and recommendations of such assessments and any resulting soil and water quality conservation plans will be submitted to the local Soil and Water Conservation District Board, which will be the plan-approving authority.

9. Silvicultural activities in Chesapeake Bay Preservation Areas are exempt from this chapter provided that silvicultural operations adhere to water quality protection procedures prescribed by the Virginia Department of Forestry in the Fifth Edition (March 2011) of "Virginia's Forestry Best Management Practices for Water Quality Technical Manual." The Virginia Department of Forestry will oversee and document installation of best management practices and will monitor in-stream impacts of forestry operations in Chesapeake Bay Preservation Areas.

10. Local governments shall require evidence of all wetlands permits required by law prior to authorizing grading or other onsite activities to begin.

9VAC25-830-140 Development criteria for Resource Protection Areas

In addition to the general performance criteria set forth in 9VAC25-830-130, the criteria in this section are applicable in Resource Protection Areas.

1. Land development may be allowed in the Resource Protection Area, subject to approval by the local government, only if it (i) is water dependent; (ii) constitutes redevelopment; (iii) constitutes development or redevelopment within a designated Intensely Developed Area; (iv) is a new use established pursuant to subdivision 4 a of this section; (v) is a road or driveway crossing satisfying the conditions set forth in subdivision 1 d of this section; or (vi) is a flood control or stormwater management facility satisfying the conditions set forth in subdivision 1 e of this section.

a. A water quality impact assessment in accordance with subdivision 6 of this section shall be required for any proposed land disturbance.

b. A new or expanded water-dependent facility may be allowed provided that the following criteria are met:

(1) It does not conflict with the comprehensive plan;

(2) It complies with the performance criteria set forth in 9VAC25-830-130;

(3) Any nonwater-dependent component is located outside of Resource Protection Areas; and

(4) Access to the water-dependent facility will be provided with the minimum disturbance necessary. Where practicable, a single point of access will be provided.

c. Redevelopment outside locally designated Intensely Developed Areas shall be permitted in the Resource Protection Area only if there is no increase in the amount of impervious cover and no further encroachment within the Resource Protection Area, and it shall conform to applicable erosion and sediment control and stormwater management criteria set forth in the Erosion and Sediment Control Law and the Virginia Stormwater Management Act and their attendant regulations, as well as all applicable stormwater management requirements of other state and federal agencies.

d. Roads and driveways not exempt under subdivision B 1 of 9VAC25-830-150 and which, therefore, must comply with the provisions of this chapter, may be constructed in or across Resource Protection Areas if each of the following conditions is met:

(1) The local government makes a finding that there are no reasonable alternatives to aligning the road or driveway in or across the Resource Protection

Area;

(2) The alignment and design of the road or driveway are optimized, consistent with other applicable requirements, to minimize (i) encroachment in the Resource Protection Area and (ii) adverse effects on water quality;

(3) The design and construction of the road or driveway satisfy all applicable criteria of this chapter, including submission of a water quality impact assessment; and

(4) The local government reviews the plan for the road or driveway proposed in or across the Resource Protection Area in coordination with local government site plan, subdivision and plan of development approvals.

e. Flood control and stormwater management facilities that drain or treat water from multiple development projects or from a significant portion of a watershed may be allowed in Resource Protection Areas provided such facilities are allowed and constructed in accordance with the Virginia Stormwater Management Act and its attendant regulations, and provided that (i) the local government has conclusively established that location of the facility within the Resource Protection Area is the optimum location; (ii) the size of the facility is the minimum necessary to provide necessary flood control or stormwater treatment, or both; (iii) the facility must be consistent with a comprehensive stormwater management plan developed and approved in accordance with 9VAC25-870-92 of the Virginia Stormwater Management Program (VSMP) regulations; (iv) all applicable permits for construction in state or federal waters must be obtained from the appropriate state and federal agencies, such as the U.S. Army Corps of Engineers, the department, and the Virginia Marine Resources Commission; (v) approval must be received from the local government prior to construction; and (vi) routine maintenance is allowed to be performed on such facilities to assure that they continue to function as designed. It is not the intent of this subdivision to allow a best management practice that collects and treats runoff from only an individual lot or some portion of the lot to be located within a Resource Protection Area.

2. Exemptions in Resource Protection Areas. The following land disturbances in Resource Protection Areas may be exempt from the criteria of this part provided that they comply with subdivisions a and b of this subdivision 2: (i) water wells; (ii) passive recreation facilities such as boardwalks, trails, and pathways; and (iii) historic preservation and archaeological activities:

a. Local governments shall establish administrative procedures to review such exemptions.

b. Any land disturbance exceeding an area of 2,500 square feet shall comply with the erosion and sediment control criteria in subdivision 5 of 9VAC25-830-130.

3. Buffer area requirements. The 100-foot wide buffer area shall be the landward component of the Resource Protection Area as set forth in subdivision B 5 of 9VAC25-830-80. Notwithstanding permitted uses, encroachments, and vegetation clearing, as set forth in this section, the 100-foot wide buffer area is not reduced in width. To minimize the adverse effects of human activities on the other components of the Resource Protection Area, state waters, and aquatic life, a 100-foot wide buffer area of vegetation that is effective in retarding runoff, preventing erosion, and filtering nonpoint source pollution from runoff shall be retained if present and established where it does not exist. Where such buffer must be established, the planting of trees should be utilized to the maximum extent practicable and appropriate to site conditions.

a. The 100-foot wide buffer area shall be deemed to achieve a 75% reduction of sediments and a 40% reduction of nutrients.

b. Where land uses such as agriculture or silviculture within the area of the buffer cease and the lands are proposed to be converted to other uses, the full 100-foot wide buffer shall be reestablished. In reestablishing the buffer, management measures shall be undertaken to provide woody vegetation that assures the buffer functions set forth in this chapter. Such measures should include to the maximum extent practicable and appropriate to site conditions the planting of trees in reestablishing the buffer.

4. Permitted encroachments into the buffer area.

a. When the application of the buffer area would result in the loss of a buildable area on a lot or parcel recorded prior to October 1, 1989, encroachments into the buffer area may be allowed through an administrative process in accordance with the following criteria:

(1) Encroachments into the buffer area shall be the minimum necessary to achieve a reasonable buildable area for a principal structure and necessary utilities.

(2) Where practicable, a vegetated area that will maximize water quality protection, mitigate the effects of the buffer encroachment, and is equal to the area of encroachment into the buffer area shall be established elsewhere on the lot or parcel. Such vegetated area where established should include the planting of trees to the maximum extent practicable.

(3) The encroachment may not extend into the seaward 50 feet of the buffer area.

b. When the application of the buffer area would result in the loss of a buildable area on a lot or parcel recorded between October 1, 1989, and March 1, 2002, encroachments into the buffer area may be allowed through an administrative process in accordance with the following criteria:

(1) The lot or parcel was created as a result of a legal process conducted in conformity with the local government's subdivision regulations;

(2) Conditions or mitigation measures imposed through a previously approved exception shall be met;

(3) If the use of a best management practice (BMP) was previously required, the BMP shall be evaluated to determine if it continues to function effectively and, if necessary, the BMP shall be reestablished or repaired and maintained as required; and

(4) The criteria in subdivision 4 a of this section shall be met.

5. Permitted modifications of the buffer area.

a. In order to maintain the functional value of the buffer area, existing vegetation may be removed, subject to approval by the local government, only to provide for reasonable sight lines, access paths, general woodlot management, and best management practices, including those that prevent upland erosion and concentrated flows of stormwater, as follows:

(1) Trees may be pruned or removed as necessary to provide for sight lines and vistas, provided that where removed, they shall be replaced with other vegetation that is equally effective in retarding runoff, preventing erosion, and filtering nonpoint source pollution from runoff. Mature trees should be preserved and not removed to the maximum extent practicable under this provision. When trees are removed, the other vegetation to replace the trees should be trees as well to the maximum extent practicable.

(2) Any path shall be constructed and surfaced so as to effectively control erosion.

(3) Dead, diseased, or dying trees or shrubbery and noxious weeds (such as Johnson grass, kudzu, and multiflora rose) may be removed and thinning of trees may be allowed pursuant to sound horticultural practice incorporated into locally-adopted standards.

(4) For shoreline erosion control projects, trees and woody vegetation may be removed, necessary control techniques employed, and appropriate vegetation established to protect or stabilize the shoreline in accordance with the best available technical advice and applicable permit conditions or requirements. Mature trees should be preserved to the maximum extent practicable consistent with the best available technical advice and permit conditions or requirements and trees should be utilized in the projects to the maximum extent practicable.

b. On agricultural lands the agricultural buffer area shall be managed to prevent concentrated flows of surface water from breaching the buffer area and appropriate measures may be taken to prevent noxious weeds (such as Johnson grass, kudzu, and multiflora rose) from invading the buffer area. Agricultural activities may encroach into the buffer area as follows:

(1) Agricultural activities may encroach into the landward 50 feet of the 100-foot wide buffer area when at least one agricultural best management practice which, in the opinion of the local soil and water conservation district board, addresses the more predominant water quality issue on the adjacent land—erosion control or nutrient management—is being implemented on the adjacent land, provided that the combination of the undisturbed buffer area and the best management practice achieves water quality protection, pollutant removal, and water resource conservation at least the equivalent of the 100-foot wide buffer area. If nutrient management is identified as the predominant water quality issue, a nutrient management plan, including soil tests, must be developed consistent with the ~~Virginia~~ Nutrient Management Training and Certification Regulations (~~4VAC5-15~~) (~~4VAC50-85~~) administered by the Virginia ~~Department of Soil and Water Conservation and Recreation~~ Board.

(2) Agricultural activities may encroach within the landward 75 feet of the 100-foot wide buffer area when agricultural best management practices which address erosion control, nutrient management, and pest chemical control, are being implemented on the adjacent land. The erosion control practices must prevent erosion from exceeding the soil loss tolerance level, referred to as "T," as defined in the "National Soil Survey Handbook" of November 1996 in the "Field Office Technical Guide" of the U.S. Department of Agriculture Natural Resource Conservation Service. A nutrient management plan, including soil tests, must be developed, consistent with the ~~Virginia~~ Nutrient Management Training and Certification Regulations (~~4VAC5-15~~) (~~4VAC50-85~~) administered by the Virginia ~~Department of Soil and Water Conservation and Recreation~~ Board. In conjunction with the remaining buffer area, this collection of best management practices shall be presumed to achieve water quality protection at least the equivalent of that provided by the 100-foot wide buffer area.

(3) The buffer area is not required to be designated adjacent to agricultural drainage ditches if at least one best management practice which, in the opinion of the local soil and water conservation district board, addresses the more predominant water quality issue on the adjacent land—either erosion control or nutrient management—is being implemented on the adjacent land.

(4) If specific problems are identified pertaining to agricultural activities that are causing pollution of the nearby water body with perennial flow or violate performance standards pertaining to the vegetated buffer area, the local government, in cooperation with soil and water conservation district, shall recommend a compliance schedule to the landowner and require the problems to

be corrected consistent with that schedule. This schedule shall expedite environmental protection while taking into account the seasons and other temporal considerations so that the probability for successfully implementing the corrective measures is greatest.

(5) In cases where the landowner or ~~his~~ the landowner's agent or operator has refused assistance from the local soil and water conservation district in complying with or documenting compliance with the agricultural requirements of this chapter, the district shall report the noncompliance to the local government. The local government shall require the landowner to correct the problems within a specified period of time not to exceed 18 months from their initial notification of the deficiencies to the landowner. The local government, in cooperation with the district, shall recommend a compliance schedule to the landowner. This schedule shall expedite environmental protection while taking into account the seasons and other temporal considerations so that the probability for successfully implementing the corrective measures is greatest.

6. Water quality impact assessment. A water quality impact assessment shall be required for any proposed development within the Resource Protection Area consistent with this part and for any other development in Chesapeake Bay Preservation Areas that may warrant such assessment because of the unique characteristics of the site or intensity of the proposed use or development.

a. The purpose of the water quality impact assessment is to identify the impacts of proposed development on water quality and lands in the Resource Protection Areas consistent with the goals and objectives of the Act, this chapter, and local programs, and to determine specific measures for mitigation of those impacts. The specific content and procedures for the water quality impact assessment shall be established by each local government. Local governments should notify the board of all development requiring such an assessment.

b. The water quality impact assessment shall be of sufficient specificity to demonstrate compliance with the criteria of the local program.

7. Buffer area requirements for Intensely Developed Areas. In Intensely Developed Areas the local government may exercise discretion regarding whether to require establishment of vegetation in the 100-foot wide buffer area. However, while the immediate establishment of vegetation in the buffer area may be impractical, local governments shall give consideration to implementing measures that would establish vegetation in the buffer in these areas over time in order to maximize water quality protection, pollutant removal, and water resource conservation. In considering such measures, the local government should consider the planting of trees as a part of any such measures.

ITEM SUMMARY

DATE: 3/22/2021

TO: Chesapeake Bay Board

FROM: Michael Woolson, Chesapeake Bay Board and Wetlands Board Secretary

SUBJECT: Proposed CBPA Amendment - Climate Change

ATTACHMENTS:

	Description	Type
☐	DEQ Background Document - Climate Change	Backup Material
☐	DEQ Proposed Regulations - Climate Change	Backup Material

REVIEWERS:

Department	Reviewer	Action	Date
Chesapeake Bay Group	Secretary, ChesBay	Approved	3/21/2021 - 11:38 AM



townhall.virginia.gov

Exempt Action: Proposed Regulation Agency Background Document

Agency name	State Water Control Board
Virginia Administrative Code (VAC) Chapter citation(s)	9 VAC 25-830
VAC Chapter title(s)	Chesapeake Bay Preservation Area Designation and Management Regulations
Action title	Amendment to incorporate coastal resilience and adaptation to sea-level rise and climate change into existing criteria.
Date this document prepared	November 9, 2020

Although a regulatory action may be exempt from executive branch review pursuant to § 2.2-4002 or § 2.2-4006 of the *Code of Virginia*, the agency is still encouraged to provide information to the public on the Regulatory Town Hall using this form. However, the agency may still be required to comply with the Virginia Register Act, Executive Order 14 (as amended, July 16, 2018), the Regulations for Filing and Publishing Agency Regulations (1VAC7-10), and the *Form and Style Requirements for the Virginia Register of Regulations and Virginia Administrative Code*.

Brief Summary

Provide a brief summary (preferably no more than 2 or 3 paragraphs) of this regulatory change (i.e., new regulation, amendments to an existing regulation, or repeal of an existing regulation). Alert the reader to all substantive matters. If applicable, generally describe the existing regulation.

Chapter 1207 of the 2020 Acts of Assembly amended the Chesapeake Bay Preservation Act (§ 62.1-44.15:72 of the Code of Virginia) and added “coastal resilience and adaptation to sea-level rise and climate change” to the criteria requirements for regulations to be established by the State Water Control Board for use by local governments under the Chesapeake Bay Preservation Act.

The proposed amendments to the Chesapeake Bay Preservation Area Designation and Management Regulations (9VAC25-830) were developed pursuant to the requirements of Chapter 1207 of the 2020 Acts of Assembly and define specific criteria related to coastal resilience for Tidewater Virginia localities to consider in land development activities.

Mandate and Impetus

Identify the mandate for this regulatory change, and any other impetus that specifically prompted its initiation (e.g., new or modified mandate, internal staff review, petition for rulemaking, periodic review, or board decision). "Mandate" is defined as "a directive from the General Assembly, the federal government, or a court that requires that a regulation be promulgated, amended, or repealed in whole or part."

Virginia Code § 62.1-44.15:72 was amended by Chapter 1207 of the 2020 Acts of Assembly. The amendment added "coastal resilience and adaptation to sea-level rise and climate change" to the criteria requirements for regulations to be established by the State Water Control Board for use by local governments under the Chesapeake Bay Preservation Act. The amendment also provided that the State Water Control Board shall promulgate regulations to implement the provision.

Acronyms and Definitions

Please define all acronyms used in the Agency Background Document. Also, please define any technical terms that are used in the document that are not also defined in the "Definition" section of the regulations.

CBPA: Chesapeake Bay Preservation Area
 DEQ: Department of Environmental Quality
 RPA: Resource Protection Area
 VAC: Virginia Administrative Code

Legal Basis

Please identify (1) the agency or other promulgating entity, and (2) the state and/or federal legal authority for the regulatory change, including the most relevant citations to the Code of Virginia or Acts of Assembly chapter number(s), if applicable. Your citation must include a specific provision, if any, authorizing the promulgating entity to regulate this specific subject or program, as well as a reference to the agency or promulgating entity's overall regulatory authority.

Virginia Code § 62.1-44.15:69 provides the authority for the State Water Control Board to promulgate regulation under the Chesapeake Bay Preservation Act (Virginia Code § 62.1-44.15:67 et. seq.). Virginia § 62.1-44.15:72 provides that the State Water Control Board shall promulgate regulations that establish criteria for use by local governments in granting, denying, or modifying requests to rezone, subdivide, or use and develop land in these areas.

Virginia Code § 62.1-44.15:72 was amended to add a provision of "coastal resilience and adaptation to sea-level rise and climate change" to the criteria requirements for regulations to be established by the State Water Control Board for use by local governments under the Chesapeake Bay Preservation Act. The amendment also included language that the State Water Control Board adopt regulations to implement the provision.

Purpose

Please explain the need for the regulatory change, including a description of: (1) the rationale or justification, (2) the specific reasons the regulatory change is essential to protect the health, safety or welfare of citizens, and (3) the goals of the regulatory change and the problems it is intended to solve.

Virginia Code § 62.1-44.15:72 was amended to add a provision of "coastal resilience and adaptation to sea-level rise and climate change" to the criteria requirements for regulations to be established by the State Water Control Board for use by local governments under the Chesapeake Bay Preservation Act.

The amendment also included language that the State Water Control Board adopt regulations to implement the provision. This regulatory amendment provides the requirements in the criteria necessary to accomplish the statutory change.

Substance

Please briefly identify and explain the new substantive provisions, the substantive changes to existing sections, or both. A more detailed discussion is provided in the “Detail of Changes” section below.

The proposed amendment provides clarity that climate change adaptation and resilience measures are a permitted activity within Chesapeake Bay Preservation Areas. Consistent with the language in the statutory amendment, the proposed regulatory amendment provides criteria for considering climate change impacts for land development in the RPA, identifies the use of a model for consideration of impacts in proposed land development projects, and provides the ability for conditions by locality on proposed development in light of the impacts. The proposed amendment provides exclusions from the exceptions allowance for activity with the RPA. The proposed amendment also provides for an allowance of activity within the RPA for climate adaptation measures or activities with certain conditions.

Issues

Please identify the issues associated with the regulatory change, including: 1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions; 2) the primary advantages and disadvantages to the agency or the Commonwealth; and 3) other pertinent matters of interest to the regulated community, government officials, and the public. If there are no disadvantages to the public or the Commonwealth, include a specific statement to that effect.

There are a number of advantages that result from the amendments. Overall, as the statutory criteria requirements change, the amendment provides clarity and specifics for local governments who are responsible for implementing the program. It also ensures that projects and development under the CBPA program properly consider climate change impacts while also allowing these activities. This permits individuals to undertake these activities to address these impacts.

There is no disadvantage to the agency or the Commonwealth that will result from the adoption of this final regulation.

Requirements More Restrictive than Federal

Please identify and describe any requirement of the regulatory change that is more restrictive than applicable federal requirements. Include a specific citation for each applicable federal requirement, and a rationale for the need for the more restrictive requirements. If there are no applicable federal requirements, or no requirements that exceed applicable federal requirements, include a specific statement to that effect.

The amendments are based upon statutory changes in the Chesapeake Bay Preservation Act, which is a state only program. There is no federal equivalent requirement.

Agencies, Localities, and Other Entities Particularly Affected

Please identify any other state agencies, localities, or other entities particularly affected by the regulatory change. "Particularly affected" are those that are likely to bear any identified disproportionate material impact, which would not be experienced by other agencies, localities, or entities. "Locality" can refer to either local governments or the locations in the Commonwealth where the activities relevant to the regulation or regulatory change are most likely to occur. If no agency, locality, or entity is particularly affected, include a specific statement to that effect.

Other State Agencies Particularly Affected:

No state agencies are known to be particularly affected.

Localities Particularly Affected:

- The 84 Tidewater localities required to implement a local government program under the Chesapeake Bay Preservation Act. These 84 localities include: Accomack County; Albemarle County; City of Alexandria; Arlington County; Caroline County; Charles City County; City of Charlottesville; City of Chesapeake; Chesterfield County; Town of Clifton; City of Colonial Heights; Town of Dumfries; Essex County; Fairfax County; City of Fairfax; City of Falls Church; City of Fredericksburg; Gloucester County; Hanover County; Henrico County; Town of Herndon; City of Hopewell; Isle of Wright County; James City County; King and Queen County; King George County; King William County; Lancaster County; Matthews County; Middlesex County; New Kent County; City of Newport News; City of Norfolk; Northhampton County; Northumberland County; City of Petersburg; City of Poquoson; City of Portsmouth; Prince George County; Prince William County; City of Richmond; Spotsylvania County; Stafford County; City of Suffolk; Surry County; Town of Vienna; City of Virginia Beach; Westmoreland County; City of Williamsburg; York County.

Other Entities Particularly Affected:

No other entities are known to be particularly affected.

Regulatory Flexibility Analysis

Pursuant to § 2.2-4007.1B of the Code of Virginia, please describe the agency's analysis of alternative regulatory methods, consistent with health, safety, environmental, and economic welfare, that will accomplish the objectives of applicable law while minimizing the adverse impact on small business. Alternative regulatory methods include, at a minimum: 1) establishing less stringent compliance or reporting requirements; 2) establishing less stringent schedules or deadlines for compliance or reporting requirements; 3) consolidation or simplification of compliance or reporting requirements; 4) establishing performance standards for small businesses to replace design or operational standards required in the proposed regulation; and 5) the exemption of small businesses from all or any part of the requirements contained in the regulatory change.

In compliance with the Board's Public Participation Guidelines (9 VAC 25-10-20 C), DEQ will consider all alternatives which are considered to be less burdensome and less intrusive for achieving the essential purpose of the amendment, and any other alternatives presented during the proposed rulemaking.

As this amendment is a result of a statutory change, the alternative of leaving the regulations unchanged was not considered. Additionally, the proposed regulation primarily focuses on additional criteria in the Resource Protection Areas (which are water bodies and adjacent buffer areas) in lieu of all Chesapeake Bay Preservation Areas.

Public Participation

Please include a statement that in addition to any other comments on the proposal, the agency is seeking comments on the costs and benefits of the proposal and the impacts of the regulated community.

In addition to any other comments, the State Water Control Board is seeking comments on the costs and benefits of the proposal, the potential impacts of this regulatory proposal and any impacts of the regulation on farm and forest land preservation. The agency/board is also seeking information on impacts on small businesses as defined in § 2.2-4007.1 of the Code of Virginia. Information may include 1) projected reporting, recordkeeping and other administrative costs, 2) probable effect of the regulation on affected small businesses, and 3) description of less intrusive or costly alternative methods of achieving the purpose of the regulation.

Anyone wishing to submit written comments for the public comment file may do so by mail, email or fax to Justin Williams, VA Department of Environmental Quality, P.O. Box 1105, Richmond, VA 23218; Phone: 804-698-4195; Fax: 804-698-4116; Email: Justin.Williams@deq.virginia.gov. Comments may also be submitted through the Public Forum feature of the Virginia Regulatory Town Hall web site at (<http://www.townhall.virginia.gov>). Written comments must include the name and address of the commenter. In order to be considered, comments must be received by 11:59 pm on the last day of the public comment period.

Additionally, anyone wishing to participate in a Stakeholder Advisory Group (SAG) to discuss the proposed regulation, please notify interest to Justin Williams, VA Department of Environmental Quality, P.O. Box 1105, Richmond, VA 23218; Phone: 804-698-4195; Fax: 804-698-4116; Email: Justin.Williams@deq.virginia.gov by March 15, 2021. Interested persons should provide their name, address, phone number, email address and the organization you represent (if any). The SAG will likely meet May 13th or 14th and selected interested person should be available for meeting on those dates.

Detail of Changes

List all regulatory changes and the consequences of the changes. Explain the new requirements and what they mean rather than merely quoting the text of the regulation. If the regulatory change will be a new chapter, describe the intent of the language and the expected impact. Please describe the difference between existing regulation(s) and/or agency practice(s) and what is being proposed in this regulatory change. Please include citations to the specific section(s) of the regulation that are changing.

New chapter-section number	New requirements	Other regulations and law that apply	Intent and likely impact of new requirements
9 VAC 20-830-155(A)	Localities must adopt changes into ordinances and programs within three years of effective date.	9 VAC 20-830-10 et. seq.	This is consistent with the requirement to incorporate criteria in locality ordinances and programs and provides a timeframe for doing so. The impact will be on localities that implement the program.
9 VAC 20-830-155(B)	Allowance of climate resiliency and adaptation measures in CBPA areas.	9 VAC 20-830-130; 9 VAC 20-830-140; 9 VAC 20-830-150	This recognizes these activities as specifically allowed. The impact is that these activities will be allowed under the program and thus could be undertaken in CBPA areas.

New chapter-section number	New requirements	Other regulations and law that apply	Intent and likely impact of new requirements
9 VAC 20-830-155(C)	Local governments to consider impact of climate change on projects proposed in Resource Protection	9 VAC 20-830-130; 9 VAC 20-830-140; 9 VAC 20-830-150	The intent is to capture the new criteria requirements to ensure activities properly consider the potential climate change impacts on the project.
9 VAC 20-830-155(D)	Limitation on Local Government exception granting related to climate change impacts and adaptation	9 VAC 20-830-130; 9 VAC 20-830-140; 9 VAC 20-830-150	The intent is to ensure, given the impacts of climate change and sea-level rise particularly in the RPA, projects properly address these impacts and appropriate measures are utilized.
9 VAC 20-830-155(E)	Local governments may allow climate change adaptation and resilience activities in RPA.	9 VAC 20-830-130; 9 VAC 20-830-140; 9 VAC 20-830-150	The intent is to allow climate change adaptation activities to occur within the RPA so long as certain conditions are met. This includes recognition of existing measures such as living shorelines and other best management practices.

Localities are given a three year timeframe from regulatory adoption to incorporate these provisions in their existing ordinances and Chesapeake Bay Preservation Act program.

Family Impact

In accordance with § 2.2-606 of the Code of Virginia, please assess the potential impact of the proposed regulatory action on the institution of the family and family stability including to what extent the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one’s spouse, and one’s children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.

This is no impact on the institution of the family and family stability by this action.



Proposed Text

[highlight](#)

Action: Amendment to incorporate coastal resilience and adaptation to ...

Stage: Proposed

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9VAC25-830-155 Climate change resilience and adaptation criteria

A. This section applies in addition to 9VAC25-830-130 and 9VAC25-830-140. Local governments shall incorporate these provisions into all relevant ordinances and ensure their enforcement through implementation of appropriate processes and documentation for oversight and enforcement. Localities shall update and amend their ordinances to adopt and incorporate these performance criteria by (insert date three years after effective date of this amendment).

B. Land development and adaption measures or activities, including buffer modifications or encroachments necessary to install adaptation measures, mitigation measures, or other actions necessary to address the impacts of climate change, including sea-level rise, recurrent flooding, and storm surge, may be allowed in a Chesapeake Bay Preservation area provided the activity complies with all other applicable provisions of this chapter. Nothing in these provisions shall preclude a locality from adopting requirements or criteria in addition to the requirements of these provisions to address the impacts of climate change and sea-level rise in Chesapeake Bay Preservation areas in the locality, including extension of the Resource Protection Areas, further restrictions on development, or further preservation of existing vegetation.

C. Local governments shall consider the impacts of climate change or sea-level rise on any proposed land development in the Resource Protection Area. Based upon this consideration, local governments may require the installation of additional measures or design features as part of the proposed land development consistent with the requirements of the Act and this chapter. In considering the future impact, local governments shall:

1. Consider a potential impact range of no less than 30 years;
2. Utilize an appropriate model or forecast to aid in the consideration of impacts through use of:
 - a. The most updated 2017 National Oceanographic and Atmospheric Administration (NOAA) Intermediate–High scenario projection curve;
 - b. A model or forecast that incorporates or utilizes the 2017 National Oceanographic and Atmospheric Administration (NOAA) Intermediate–High scenario projection curve; or
 - c. A peer-reviewed model or forecast that includes NOAA 2017 projections, including the Intermediate–High scenario projection curve and has been developed, utilized, or recognized by a state or federal agency and is not based solely upon extrapolation of historical data;
3. Include the consideration of future floodplain, water level, storm surge, or other impacts in altering the Resource Protection Area or diminishing the protection of water quality due to the proposed development from these impacts; and

4. Identify measures, conditions, or alterations to the proposed land development to address these impacts as necessary and appropriate based upon site conditions, type of proposed land development, and projected potential impacts. This includes measures such as state or federally recognized or approved best management practices appropriate for the site conditions and land development to address such impacts.

D. Local governments shall not grant exceptions to the requirements of 9VAC25-830-130, 9VAC250-830-140, or 9VAC20-830-155 where:

1. The impact of climate change, including sea-level rise on the land development is not considered as outlined in subsection C of this section for exceptions in the Resource Protection Area;

2. The exception consists of approval solely for the use of fill or other material to the Resource Protection Area or within 100 feet of the Resource Protection Area; or

3. The exception permits encroachment into seaward 50 feet of the buffer area of the Resource Protection Area notwithstanding permitted modifications and adaptive measures.

E. Local governments may allow adaption measures or activities within the Resource Protection Area to address climate change, including sea-level rise subject to the following criteria. These criteria and requirements shall apply to such adaptation measure or activity in lieu of the criteria in 9VAC25-830-130 and 9VAC25-830-140:

1. Where the adaptation measure or activity is within a Resource Protection Area that has been previously developed, including Intensely Developed Areas, and is not naturally vegetated, the adaptation measure or activity shall:

a. Be designed, implemented, and maintained in accordance with best management practices applicable to the adaptation measure or activity as recognized or approved by a state or federal agency;

b. Not consist solely of the use of fill or other materials to raise the elevation of a Resource Protection Area;

c. Incorporate natural features or measures such as the planting of vegetation or trees, maximize preservation of existing natural vegetation and trees particularly mature trees, and minimize land disturbance and impervious cover to the maximum extent practicable consistent with the applicable best management practices; and

d. Where applicable, obtain any applicable federal, state, and local permits and comply with any applicable federal, state, and local requirements.

2. Where the adaptation measure or activity is within a Resource Protection Area that is naturally vegetated or has not been previously developed, the measure or activity shall:

a. Be designed and implemented in accordance with best management practices applicable to the adaptation measure or activity as recognized or approved by state or federal agencies;

b. Preserve to the maximum extent practicable any existing vegetation in the additional 50 feet landward from the Resource Protection Area;

c. Not consist solely of the use of fill or other materials to raise the elevation of a Resource Protection Area;

d. Maximize the preservation of existing vegetation and trees, particularly mature trees, incorporate the planting and establishment of vegetation, particularly trees, and minimize land disturbance and impervious cover to the maximum extent practicable consistent with the applicable best management practices; and

e. Where applicable, obtain any applicable federal, state, and local permits and comply with any applicable federal, state, and local requirements.

3. Where the adaptation measure or activity is a best management practice recognized or approved by a state or federal agency to reduce runoff, prevent erosion, and filter nonpoint source pollution, a Water Quality Impact Assessment in accordance with subdivision 6 of 9VAC25-830-140 shall not be required. All other measures or activities shall require a Water Quality Impact Assessment in accordance with subdivision 6 of 9VAC25-830-140.

4. Where the proposed adaptation measure is a living shoreline project or related activity, the locality otherwise approves of the project, the projects maintains or establishes a vegetative buffer inland of the living shoreline to the maximum extent practicable, minimizes land disturbance to the maximum extent practicable, and the project receives approval from the Virginia Marine Resources Commission, including a permit as applicable, and any other necessary permits or approvals, the adaptation measure shall be exempt from additional requirements or criteria, including a Water Quality Impact Assessment.