**COMMONWEALTH OF VIRGINIA**

**Department of Environmental Quality**

Subject: Guidance Memo No. XX-XXXX

Public Participation Procedures for Water Quality Management Planning

**To:** Water Planning Division Director

**From**: Scott Morris, Water Division Director

**Date:**

**Copies:** Central Operations Director

**Summary:**

This Guidance is to assist local governments subject to the Chesapeake Bay Preservation Act (Va. Code § 62.1-44.15:67-79) (Bay Act) with administering the requirements of 9 VAC 25-830-155, which contains criteria and requirements for addressing coastal resilience and adaptation when considering proposed development in Chesapeake Bay Preservation Areas (CBPA). In September 2021, the State Water Control Board (Board) adopted a new section of the Regulations to incorporate that statutory change (9 VAC 25-830-155). This Guidance addresses the new amendment and applies in addition to any other agency guidance concerning permitted uses and activities in the Resource Protection Area (RPA).

**Electronic Copy:**

Once effective, an electronic copy of this guidance will be available on the Virginia Regulatory Town Hall under the Department of Environmental Quality <https://townhall.virginia.gov/L/gdocs.cfm?agencynumber=440>

**Contact information:**

For additional information regarding the Bay Act and this Guidance, please contact Justin Williams, Office of Watershed and Local Government Assistance Programs, at (804) 659-1125 or at Justin.Williams@deq.virginia.gov.

**Certification:**

As required by Subsection B of [§ 2.2-4002.1](https://law.lis.virginia.gov/vacode/title2.2/chapter40/section2.2-4002.1/) of the APA, the agency certifies that this guidance document conforms to the definition of a guidance document in § [2.2-4101](https://law.lis.virginia.gov/vacode/2.2-4101/) of the Code of Virginia.

**Disclaimer:**

**This document is provided as guidance and, as such, sets forth standard operating procedures for the agency. However, it does not mandate or prohibit any particular action not otherwise required or prohibited by law or regulation. If alternative proposals are made, such proposals will be reviewed and accepted or denied based on their technical adequacy and compliance with appropriate laws and regulations.**

**Table of Contents**

[I. Background 3](#_Toc148428729)

[II. Definitions 5](#_Toc148428730)

[III. Clarification of the Requirements of 9 VAC 25-830-155 7](#_Toc148428731)

[A. Resiliency Assessment 7](#_Toc148428732)

[1. Allowable Models and Data Sets to Assess Impacts of Sea Level Rise, Storm Surge, and Flooding 7](#_Toc148428733)

[2. Impact Identification: Applying Model Results to Assess Sea Level Rise, Storm Surge, and Flooding Impacts on a Proposed Development Project 8](#_Toc148428734)

[B. Assessment of Impacts 10](#_Toc148428735)

[C. Applying the Resiliency Assessment 11](#_Toc148428736)

[1. Principal Structures 12](#_Toc148428737)

[2. Accessory Structures 12](#_Toc148428738)

[3. Adaptation Measures for Flooding 13](#_Toc148428739)

[4. Water Dependent Facilities 13](#_Toc148428740)

[5. Intensely Developed Areas 13](#_Toc148428741)

[6. Non-conforming Structures and Uses 13](#_Toc148428742)

[D. Adaptation Measures 14](#_Toc148428743)

[1. Permissible Adaptation Measures 14](#_Toc148428744)

[2. Site Conditions / Location of Adaptation Measures 15](#_Toc148428745)

[3. Fill 15](#_Toc148428746)

[4. Living Shorelines / Shoreline Protection Strategies 17](#_Toc148428747)

[E. Exceptions 19](#_Toc148428748)

[F. Implementation 19](#_Toc148428749)

# Background

As originally written, the Regulations did not allow the implementation of adaptation measures to address resiliency within the RPA without an exception. Section 9 VAC 25-830-140, Development criteria for Resource Protection Areas, limits development within the RPA to the following activities, uses, and facilities:

* Permitted uses - water-dependent facilities, redevelopment, development or redevelopment within an Intensely Developed Area (IDA), principal structures on lots recorded prior to October 1, 1989.
* Permitted buffer encroachments - private road or driveway crossings, regional flood control or stormwater management facilities.
* Permitted buffer modifications – general woodlot management to provide for sight lines and vistas or the removal of dead or dying trees or shrubbery and noxious weeds, access paths and shoreline erosion control projects.
* Exempt uses – agricultural and silvicultural activities; water wells, passive recreation facilities such as boardwalks, trails and pathways and historic preservation or archaeological activities, public roads, utilities and railroads.

Each activity, use, or facility on the above list is subject to conditions and local government approval, either administratively or by issuance of an exception, according to 9 VAC 25-830-140 or 9 VAC 25-830-150 et seq. of the Regulations and local ordinance requirements. Notwithstanding the permitted uses, encroachments, and modifications set forth in the Regulations, the required 100-foot-wide RPA buffer cannot be reduced in width (9 VAC 25-830-140(3)), and a Water Quality Impact Assessment (WQIA) is required for all development within RPAs (9 VAC 25-830-140(6)).

In addition to the provisions of 9 VAC 25-830-140, development within the RPA must comply with the general performance criteria enumerated in 9 VAC 25-830-130. The general performance criteria require that projects disturbing greater than 2,500 square feet of land be reviewed through the local plan of development review process and comply with stormwater and erosion and sediment control requirements. There are other general performance criteria, the most pertinent of which are that land disturbance is to be limited to no more than is necessary to provide for the proposed use or development, indigenous vegetation must be preserved to the maximum extent practicable consistent with the proposed use or development, and impervious surfaces shall be minimized consistent with the proposed use or development.

When the Board amended the Regulations to add 9 VAC 25-830-155 (Climate change resilience and adaptation criteria) in September 2021, criteria and requirements for addressing coastal resilience and adaptation to anticipated climate change impacts were included. Section 9 VAC 25-830-155 applies in addition to the requirements of 9 VAC 25-830-130, General performance criteria, 9 VAC 25-830-140, Development criteria for Resource Protection Areas, and 9 VAC 25-830-150, Nonconformities, exemptions, and exceptions. It provides that: 1) Localities must conduct, or allow an applicant to conduct, a resiliency assessment and, 2) Localities may permit adaptation measures in Chesapeake Bay Preservation Areas, in accordance with the conditions set forth in the Regulations.

Section 9 VAC 25-830-155 provides minimum requirements a local government must follow to conduct a resiliency assessment on proposed land development that is permitted by the Regulations in the RPA, based on the RPA as delineated at the time of the proposed development. These impact assessments must be based on a period of 30 years, or the lifespan of a project if it is less than 30 years and must use a model or forecast used or developed by or on behalf of the Commonwealth. The potential impacts should be evaluated based on how proposed development will impact buffer function, water migration, and additional future land disturbance or development that the proposed development is likely to cause. A local government can incorporate a coastal resiliency assessment into a WQIA.

If proposed development in an RPA is otherwise permissible under the Regulations, then an assessment of potential impacts must be conducted and based upon that assessment, the local government must require conditions, alterations, or adaptation measures as necessary and appropriate. Section 9 VAC 25-830-155 allows for nature-based adaptation measures that are approved Best Management Practices (BMPs), shoreline protection strategies, or other eligible activities outlined in the Regulations. If fill (deposited soil) is to be used as an adaptation measure, it must: a) only be used pursuant to the conditions and requirements specified by the Regulations and discussed in Section VIII D (iii) of this Guidance; b) maximize the preservation of existing vegetation and minimize land disturbance, and c) comply with all otherwise applicable permitting requirements.

# Definitions

The following words and terms used in this Guidance have the following meanings unless the context clearly indicates otherwise. In addition, some terms not defined herein are defined in Section [62.1-44.15:68](https://law.lis.virginia.gov/vacode/62.1-44.15%3A68/) of the Bay Act or in the Regulations:

**Accessory structures or uses** include, but are not limited to, detached garages, gazebos, free-standing decks, storage buildings or tool sheds, guest houses, and similar forms of development that are considered incidental and subordinate to the principal structure. In-ground pools, patios, terraces, tennis courts, synthetic turf, and other impermeable landings do not permit infiltration to groundwater and are considered accessory uses of land, not structures, and any modification or expansion to such a use must be reviewed and approved using a formal exception process unless proposed within a locally designated IDA.

**Adaptation measure**: a project, practice, or approach to mitigate or address coastal impacts from sea-level rise, storm surge, and flooding, including increased or recurrent flooding.

**The Bay Act**: the Chesapeake Bay Preservation Act, Virginia Code Sections 62.1-44.15:67-79 of Chapter 3.1 of Title 62.1 of the Code of Virginia.

**Best Management Practice (BMP)**: a practice, or combination of practices, determined by a state or designated area-wide planning agency to be the most effective, practicable means of preventing or reducing the amount of pollution generated by nonpoint sources to a level compatible with water quality goals.

**Channelward:** in the direction of the channel or waterway.

**Chesapeake Bay Preservation Area (CBPA):** any land designated by a local government pursuant to 9 VAC 25-830-70 to 110 of the Regulations and Section 62.1-44.15:74 of the Bay Act. A Chesapeake Bay Preservation Area shall consist of a Resource Protection Area (RPA) and a Resource Management Area (RMA).

**Development:** the construction or substantial alteration of residential, commercial, industrial, institutional, recreation, transportation or utility facilities or structures.

**Fill:** material such as sand, soil, gravel, or crushed stone, which is placed in an area, often to adjust elevation or create land contouring.

**Intensely Developed Area (IDA):** an area designated by a local government pursuant to 9 VAC 25-830-100.

**Limit of Moderate Wave Action (LiMWA)** The LiMWA is an informational line that can be found on flood maps for some coastal areas. On a flood map, it is shown as a black line with black arrows that point to areas where wave heights are between 1.5 and 3 feet. It also marks the inland limit of the Coastal A Zone.

**Living Shoreline:** a shoreline management practice that provides erosion control and water quality benefits; protects, restores, or enhances natural shoreline habitat; and maintains coastal processes through the strategic placement of plants, stone, sand fill, and other structural and organic materials. When practicable, a living shoreline may enhance coastal resilience and attenuation of wave energy and storm surge. Pursuant to Va. Code Section 28.2-104.1, living shorelines are recognized as the preferred alternative for stabilizing shorelines in the Commonwealth. Only living shorelines shall be permitted for shoreline management unless the best available science shows that such approaches are not suitable.

**Local government**: a county, city or town. This Guidance is to assist the local governments of Tidewater Virginia as defined in Section 62.1-44.15:68 of the Bay Act with their implementation of 9 VAC 25-830-155. The provisions of this Guidance also may be used by other non-Tidewater local governments pursuant to Section 62.1-44.15:75 of the Bay Act.

**Local program**: the measures by which a local government complies with the Bay Act and Regulations.

**Locality:** in this Guidance, “locality” is used interchangeably with “local government”.

**Nature-based solution**: an approach that reduces the impacts of sea-level rise, flooding and storm events through the use of environmental processes and natural systems.

**Other structural and organic materials:** materials or features that provide added protection or stability for the natural shoreline habitat components of a living shoreline that attenuate wave energy and do not interfere with natural coastal processes or the natural continuity of the land-water interface. They may be composed of a variety of natural or man-made materials, including rock, concrete, vegetation-based fiber such as coir logs, oyster shells, and geotextiles; however, structural features shall be free from contaminants, including structural metal such as rebar, and shall be adequately secured to prevent full or partial dislodging or detachment due to wave action or other natural forces as per Va. Code 28.2-104.1. This term is referenced in the definition for Living Shoreline above.

**Principal structure:**  a primary structure that is necessary to use the land in the manner permitted by the underlying zoning classification.

**The Regulations**: the Chesapeake Bay Preservation Area Designation and Management Regulations, 9 VAC 25-830 et seq.

**Redevelopment:** the process of developing land that has previously been developed.

**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.

**Resource Protection Area (RPA):** that component of the Chesapeake Bay Preservation Area comprised of lands at least 100 feet wide adjacent to water bodies with perennial flow that have intrinsic water quality value due to the ecological and biological processes they perform or are sensitive to impacts that may result in significant degradation to the quality of state waters. The RPA includes, at minimum, tidal wetlands, nontidal wetlands connected by surface flow and contiguous to tidal wetlands or water bodies with perennial flow, tidal shores, and a buffer not less than 100 feet in width to the listed features.

**Resource Management Area (RMA):** that component of the Chesapeake Bay Preservation Area that is not classified as Resource Protection Area.

**Storm surge:** The resulting temporary rise in sea level due to the action of wind stress on the water surface and low atmospheric pressure created during storms which can cause coastal flooding. Surge is the difference from expected tide level. Storm tide is the total water level.

**Water-dependent facility:** a development of land that cannot exist outside of the Resource Protection Area and must be located on the shoreline by reason of the intrinsic nature of its operation. These facilities include but are not limited to: (i) ports; (ii) the intake and outfall structures of power plants, water treatment plants, sewage treatment plants, and storm sewers; (iii) marinas and other boat docking structures; (iv) beaches and other public water-oriented recreation areas; and (v) fisheries or other marine resources facilities. Some examples include docks, piers, and wharves; groins and jetties; marine fueling and sewerage pump-out facilities; aquaculture facilities that require fresh flows of water; beaches; and stream and wetland restoration projects permitted by state and federal agencies such as DEQ and the U.S. Army Corps of Engineers (USACOE). In contrast, restaurants, parking, in-ground pools, patios, indoor or outdoor dry dock boat storage facilities are accessory uses to the water-dependent use. As they are not considered water-dependent facilities, they must be reviewed through the formal exception process.

# Clarification of the Requirements of 9 VAC 25-830-155

Local governments, when considering any proposed land development that will encroach into an RPA, are required by Section 9 VAC 25-830-155 to conduct an assessment of sea level rise, storm surge, and flooding impacts (Resiliency Assessment) on the proposed development. Such assessment must be conducted during the plan of development or project review process and must include an analysis of the proposed development’s impacts on buffer function. Local governments may either conduct the Resiliency Assessment themselves or require applicants to conduct and submit the assessment as part of a Water Quality Impact Assessment (WQIA). These requirements apply to all land development proposed within the RPA, including those projects initiated by local or state governmental entities.

The provisions of 9 VAC 25-830-155 apply to proposed land development consistent with the requirements of 9 VAC 25-830-140. Therefore, projects which are exempt (public utilities, railroads, public roads, and facilities exemptions) pursuant to 9 VAC 25-830-150(B) do not require a Resiliency Assessment as long as all other applicable conditions are met. Additionally, permitted buffer modifications on agricultural lands pursuant to 9 VAC 25-830-140(5)(b) do not require a Resiliency Assessment as long as all other applicable conditions are met.

Localities should identify an appropriate applicability date for projects requiring a resiliency assessment based upon date of incorporation and project status including any prior local government approvals.

## Resiliency Assessment

### *Allowable Models and Data Sets to Assess Impacts of Sea Level Rise, Storm Surge, and Flooding*

To conduct Resiliency Assessments, local governments or applicants must use a model or forecast developed by or on behalf of the Commonwealth. Current acceptable models include those used on the [AdaptVA website](http://adaptva.org/) maintained by the Virginia Institute of Marine Science (VIMS), and flood zone mapping used by the Virginia Flood Risk Information System (VFRIS), which included the Flood Insurance Rate Maps, Flood insurance studies, and associated models produced by the Federal Emergency Management Agency (FEMA) and available on the Virginia Department of Conservation and Recreation (DCR) [website](https://www.dcr.virginia.gov/dam-safety-and-floodplains/fpvfris). Additional models that may be consulted include models and forecasts produced by the U.S. Army Corps of Engineers or the National Oceanic and Atmospheric Administration (NOAA). In addition, models developed specifically for localities which utilize the same forecast or data sets may be used to conduct an assessment.

The assessment must use, at a minimum, the data sources specified in the Regulations (9 VAC 25-830-155(B)(3)) for assessing potential impacts. These include the 2017 National Oceanic and Atmospheric Administration Intermediate-High Scenario for projected sea level rise impacts.[[1]](#footnote-2) Localities may elect to use higher NOAA Scenarios based upon local conditions and history of events. In identifying the sea-level rise impact, localities should use the model to identify both the extent of anticipated inland migration, as well as the projected water depth.

The assessment must use the current NOAA [Sea, Lake and Overland Surges from Hurricanes (SLOSH) Model](https://www.nhc.noaa.gov/surge/slosh.php)  to identify storm surge impacts. Localities using the SLOSH Model should select the category of storm expected to occur for the given area, based upon the types of storms that the locality typically experiences. The assessment may utilize other data sets and information such as [Hurricane Strike Frequency data from NOAA](https://www.nhc.noaa.gov/climo/) and [GIS data](https://www.arcgis.com/apps/MapSeries/index.html?appid=852ca645500d419e8c6761b923380663) to identify the appropriate category based upon frequency. While the Regulations require, at a minimum, that localities assess storm surge based on the SLOSH model, this does not preclude localities from using other models that are equivalent in scale and data in addition to the SLOSH model in their assessments.

For flooding impacts, the assessment must reference the current FEMA-designated Special Flood Hazard Area (SFHA)[[2]](#footnote-3) and Limit of Moderate Wave Action (LiMWA), considered in conjunction with accompanying floodplain management requirements and floodplain program elements to identify impacts. Impacts due to development within the SFHA may include the unintended diversion of flood waters onto adjacent lands due to the placement of fill or structures. Development within the SFHA may also reorient the LiMWA by shifting wave energy to adjacent lands. When identifying flooding impacts, localities may rely on existing use and application of the relevant Special Flood Hazard Area. The flooding impact identification for a Special Flood Hazard Area does not require localities to identify flooding considerations beyond the relevant, existing Special Flood Hazard Area.

The assessment should be based on the most up-to-date version of models, and DEQ staff should be consulted prior to using models or forecasts other than those required by the Regulations~~,~~ to ensure that such modeling was done at a comparable scale and is equivalent to that used to develop AdaptVA and VFRIS. Localities also have the option of projecting the impacts of sea level rise, flooding, and storm surge into the future for their Chesapeake Bay Preservation Area maps jurisdiction-wide, to provide the forecast information necessary for the Resiliency Assessment. This may be particularly useful for localities where one or more of the impacts is consistent across the locality or an impact such as sea-level rise is not shown to impact all or significant portions of the locality.

### *Impact Identification: Applying Model Results to Assess Sea Level Rise, Storm Surge, and Flooding Impacts on a Proposed Development Project*

For any proposed development that will encroach into the RPA as delineated at the time of proposed land development, a local government must require an assessment of the impacts of sea level rise, storm surge, and flooding on proposed land development in the RPA, including the impacts of the proposed development on buffer function. As noted above, the Resiliency Assessment must be conducted during the plan of development or project review process.

*Default timeframe vs. anticipated lifespan*

The default timeframe required by the Regulations for a Resiliency Assessment for all projects is 30 years from the time of the proposed development; however, this timeframe may be reduced based upon the anticipated lifespan of the proposed project. In general, the lifespan of a building can range from less than 30 to 50 years to hundreds of years and is measured not by the type of structure or by how much it costs to build (although those metrics might represent one or more components of the equation), but by how long it is anticipated to last from when it is first built to when it must be replaced. Within this anticipated lifespan there may be shorter periods of: 1) economic life, which ends when maintenance of the structure is deemed to no longer be affordable; 2) intended service life, when it is determined that the structure is no longer performing its intended function as needed; 3) technological life, when the performance of the structure is no longer living up to the expectations of the users or inhabitants; 4) design life, as determined by a building owner or developer who guides engineers and assures investors and insurers about the quality that has been specified for the building and its equipment; and 5) the effective lifetime, or the projected life of all buildings given the total number of buildings in the U.S. and how many are built and demolished on an annual basis.

Examples of conditions that may affect lifespan include the location of the structure and impacts of weather, soil conditions, proposed quality of construction, certain design specifications, ability of an owner to provide necessary maintenance, proposed use of the structure, and other considerations. Of course, the level of effort in terms of time, materials, and budget an original or subsequent owner is willing to invest in a property may very well influence some of these conditions and the lifespan of a structure over time. The types of proposed development within RPAs varies across localities; however, some structures by their nature may be indicative of a lifespan of 30 years or more, such as a home or commercial building given the nature, purpose, materials and standard design of these structures, absent additional atypical conditions. While others, such as a storage shed, or temporary impervious parking area, may be more indicative of a lifespan less than 30 years.

Localities may choose to require the default lifespan of 30 years for all projects or allow an applicant to provide an analysis of a timeframe of less than 30 years for the Resiliency Assessment. Where a lifespan of less than 30 years is utilized for a particular project, documentation of the proposed construction methods and materials, design specifications, anticipated maintenance, and other relevant information must be provided by the applicant in support of the proposed lifespan reduction. This information must be provided in addition to documentation of sea level rise, storm surge, and flooding impacts.

Local staff will need to analyze this information and determine whether a shorter timeframe for the assessment is warranted and may impose appropriate conditions to address the shortened timeframe. Alternatively, a locality may establish a 30-year default timeframe for Resiliency Assessments for all project types in lieu of allowing a reduced timeframe for projects based upon lifespan when adopting these requirements.

*Specific content and procedures*

The specific content and procedures for the Resiliency Assessments are to be established by the local government; however, at a minimum they should contain the following:

* An analysis of the RPA boundary and the area of the proposed encroachment at the time of application.
* A scaled drawing or aerial image of the proposed project.
* An analysis of the anticipated impacts of sea level rise, flooding, and storm surge on the parcel in general and the proposed project specifically, based upon a review of models and data sets outlined in 9 VAC 25-830-155(B).
* The analysis may be presented as a report complete with narrative, data, and graphics depicting or describing the extent to which models indicate the parcel will be impacted and the project affected; alternative design scenarios that were considered and the logic leading to the selected alternative; proposed adaptive mitigation measures; and the extent to which anticipated impacts can be mitigated by vegetative means vs. structural solutions or adaptation measures.
* The local government may conduct the assessment themselves or require the assessment to be submitted by the applicant as part of a WQIA pursuant to 9 VAC 25-830-140(6).

Additionally, localities may demonstrate compliance with the Regulations by documenting existing local programs that have similar requirements that result in an equivalent assessment of resiliency for each project. Documentation in this instance would include an analysis of those jurisdiction-wide procedures and the program components that assess resiliency, describing how the end result is equivalent to the tools identified in the Regulations. For example, the locality may, through existing ordinance provisions and local requirements, establish sufficient freeboard to address storm surge on properties within the RPA.

As previously mentioned, localities may also conduct a jurisdiction-wide assessment and adjust their Bay Act maps to assist applicants. Based upon the assessments conducted during the plan of development review process or during the review of a WQIA, the local government shall, as necessary and appropriate, require conditions such as alterations to project location or design, or a requirement for the installation of adaptation measures on a project specific basis to mitigate the anticipated impacts.

## Assessment of Impacts

Section 9 VAC 25-830-155 B 4 requires a local government to consider the potential impacts of sea level rise, storm surge, and flooding on buffer function in light of the proposed land development. Buffer function has the potential to be impacted by land disturbance, loss of riparian vegetation, and the addition of impervious surfaces resulting from projects that encroach into the RPA, which might result from the following:

* Extensive removal of vegetation in the riparian buffer or the installation of unnecessary impervious cover in the RPA due to construction of a project that is not appropriately designed or located on the site.
* Excessive impervious surfaces in the form of driveways and walkways due to the location of accessory structures such as detached garages farther from the primary structure than necessary .
* The unintended consequences of impaired buffer function resulting in impacts to neighboring parcels, such as flooding.
* Repeated modifications to a property that removes vegetation or increases impervious surfaces incrementally over time would have the potential to impede or reduce buffer function. Such incremental impacts can result from the installation or expansion of driveways, paths, patios or decks; home additions; pools, gazebos, or other accessory structures. Any of these improvements have the potential to need modification, alteration, or relocation due to sea-level rise or recurrent flooding. The need to make such modifications in future can be minimized or avoided by incorporating the full extent of potential improvements into initial development decisions when conducting the Resiliency Assessment.

The Resiliency Assessment should describe the effect that a reduction in buffer function has on water quality by examining the potential for loss of riparian buffer vegetation resulting from the proposed RPA encroachment, and the potential for further encroachments into the RPA in the future. Specifically, the local government should consider the type of development proposed, the size and scope of the project (including known future variations), and the area of land disturbance and impervious surfaces proposed within the RPA. When assessing impacts, the local government should also consider factors such as: riparian vegetation migration, the flood resilience and permanence of materials proposed for use on the project, whether the area of impervious surface or land disturbance can be reduced, whether the proposed structures will be permanent or temporary (shorter lifespan) in nature, and the extent of fill and grading proposed for the site.

Buffer function is also impacted by rising sea levels, flooding, and storm surges that occur regardless of the proposed development. Such changes can result in wetland vegetation migration or water migration. Therefore, the assessment should also address and articulate the landward movement (the inland extent and depth) of water projected to impact the parcel over the next 30 years (as revealed by model analyses), or over the lifespan of the project if less than 30 years. When assessing impacts, the local government should also consider factors such as: expected pathways of water, marsh or vegetation migration, or water migration.

When considering conditions, alterations or adaptation measures to reduce buffer impacts from a proposed development, a local government also should consult the Protection and Restoration Opportunities tab within the AdaptVA Viewer where areas suitable for Living Shorelines and other suitable Natural and Nature-Based Features are identified; existing guidance documents, including DEQ’s *Riparian Buffers Modification and Mitigation Guidance Manual* *(*[*Riparian Buffer Manual*](https://www.deq.virginia.gov/water/chesapeake-bay/chesapeake-bay-preservation-act/local-program-regulations-guidance)) and the Virginia Marine Resources Commission (VMRC) [*Tidal Wetlands Guidelines*](https://mrc.virginia.gov/Notices/2021/Final-Draft-Wetlands-Guidelines-Update_05-19-2021.pdf), both available on the Virginia Regulatory Town Hall website, and the VIMS [*Living Shorelines Design Guidance*](https://www.vims.edu/research/departments/physical/programs/ssp/shoreline_management/living_shorelines/class_info/index.php)*.*

## Applying the Resiliency Assessment

Local government review of any proposed development that will encroach into the RPA must ensure that the proposed use is allowed within the requirements of 9 VAC 25-830-130, 9 VAC 25-830-140, or 9 VAC 25-830-150, and include the Resiliency Assessment required by 9 VAC 25-830-155. The results of the Resiliency Assessment will help determine anticipated impacts of the proposed development on future buffer function over 30 years or the anticipated life of the project. It is also possible that no impact can be identified that would necessitate a condition, alteration, or adaptation measure, *e.g.,* when sea-level rise, storm surge, and flooding are not predicted to impact the parcel during the 30-year or project lifespan timeframe. The use of “necessary and appropriate” language in 9 VAC 25-830-155(B)(5) does not otherwise limit a locality’s authority under the Bay Act or any other authority it may have in reviewing a project, including a locality’s authority to deny a project based upon its ordinances and local program requirements incorporating these Resiliency Assessment provisions.

As the local government reviews a project proposal, the results of the Resiliency Assessment will provide a basis for engaging with the applicant as staff considers whether to approve the proposal as submitted or determines that conditions for approval, such as alterations to the project proposal and/or adaptation measures, are necessary and appropriate to address potential impacts.

In considering whether an alteration, condition, or adaptation measure requirement is “appropriate,” the locality should ensure that it is practical, achievable, and necessary to mitigate the identified impact. Where possible, consideration should be given to modification of the proposed development size or location such that the extent of land disturbance or impervious surfaces can be reduced and to avoid or minimize the area of the parcel that the assessment indicates will be impacted.

Additionally, the locality may utilize existing local programs that already take potential impacts into account through building permit or site design review processes. Freeboard requirements (additional height for finished floor elevation above the Base Flood Elevation [BFE], e.g., two feet above BFE) enacted through local floodplain management programs is one example of existing programs that can be implemented to address these impacts. Furthermore, the alterations, conditions, or adaptation measures should align with the design or conditions resulting from the WQIA or existing local program requirements such as requiring the development to be setback as far as possible within the RPA.

Pursuant to 9 VAC 25-830-155, the decision to impose alterations, conditions, or measures must be based upon site conditions; the nature, type, and size of proposed land development, including whether such proposed land development is located within an Intensely Developed Area (IDA); the extent of potential impacts; and the necessity to minimize future land disturbance and impervious surfaces. For example, regarding the nature, type, and scope of development, a proposal to build a house, commercial structure, road, in-ground pool or other development that cannot be easily relocated as flooding increases over time\ could require more conditions and adaptation measures than a shed or gravel driveway, which are more temporary or moveable.

In order to comply with the necessity to minimize future land disturbance in the RPA and in response to the evidence provided by the Resiliency Assessment, localities should require alterations, conditions, or adaptation measures for the project that minimize the need for additional future changes in response to the identified coastal resiliency impacts. In doing so, the locality reduces the amount of repeated land disturbance in the RPA and supports the preservation of existing and mature vegetation supporting increased buffer function and value.

For example, if a locality determines that a structure proposed in the RPA as delineated today would be significantly impacted by sea-level rise in the future and does not impose alterations, conditions, or adaptation measures to address those impacts, the owner might propose to move or alter the structure after completion, which would lead to additional land disturbance in the RPA. This could potentially increase impervious areas in the RPA, and/or require additional buffer modifications including vegetation removal in the future.

In summary, a locality may use one or more alterations, conditions or measures to address the identified impacts such as additional structure setback, development design reconfiguration, development scale-down, increased structural height, additional or enhanced buffer, or adaptation measures such as a living shoreline, rain garden or other practices. Many of the potential alterations or conditions are consistent with existing Bay Act principles and requirements under the regulations, with the new potential for structural changes or adaptation measures. Additional specific scenarios are discussed below in more detail.

### *Principal Structures*

If an applicant proposes to build a principal structure on a prior recorded lot as set forth in 9 VAC 25-830-140(4) and application of the buffer area would result in the loss of a buildable area, then the local government may allow encroachment into the RPA through an administrative process. The administrative process must meet the criteria set forth in 9 VAC 25-830-140(4), as well as the requirements found in 9 VAC 25-830-130 and elsewhere in 9 VAC 25-830-140. In addition, the Resiliency Assessment required by 9 VAC 25-830-155 must be conducted and local governments are to require conditions, alterations, or the installation of adaptation measures to address predicted impacts, as necessary and appropriate.

For example, although a locality cannot prohibit construction of a house on a prior recorded lot, it can require relocation of the house and access on the lot, if practicable, to reduce impacts indicated by the required assessments. The intended benefits of the relocation of the house and/or lot access include minimizing impacts on the buffer and the predicted future flooding impacts on the house, as well as avoiding the need to retreat from, relocate or rebuild the house entirely in the future. If relocation of the house or access to the house on the parcel is not feasible, the locality must consider whether to require conditions and alterations to the project as proposed and should recommend inclusion of resilience measures consistent with those used in Special Flood Hazard Areas pursuant to the National Flood Insurance Program. The locality should also require, as part of the site plan approval process or during the review of a WQIA, the incorporation of appropriate adaptation measures consistent with BMP standards as set forth in this Guidance. Local governments also should consult DEQ guidance documents *Resource Protection Areas: Permitted Development Activities,* *Resource Protection Areas: Buffer Area Encroachments,* and the *Riparian Buffer Modification & Mitigation Guidance Manual (Riparian Buffer Manual)*, available on the [DEQ](https://www.deq.virginia.gov/water/chesapeake-bay/chesapeake-bay-preservation-act/local-program-regulations-guidance) and the [Virginia Regulatory Town Hall](https://townhall.virginia.gov/L/ViewBoard.cfm?BoardID=103) websites.

### *Accessory Structures*

Pursuant to 9 VAC 25-830-140 of the Regulations, accessory structures are not permitted within the RPA unless proposed within a locally designated IDA. If an applicant proposes to build an accessory structure that encroaches into the current RPA, the local government must work with the applicant to ensure the structure is built outside of the RPA. If such siting is not achievable on the parcel, then the locality must inform the applicant that an exception is necessary. The exception application must include the results of the Resiliency Assessment and a WQIA. Approval of such an exception must be based on the findings described in 9 VAC 25-830-150(C)(1) and be informed by the Resiliency Assessment and WQIA. If a locality approves such an exception request, it should ensure that the accessory structure is entirely outside the reach of any potential impact as identified in the Resiliency Assessment.

### *Adaptation Measures for Flooding*

Additionally, a property owner might want to install an adaptation measure in the RPA to address recurrent flooding absent any other development proposal. Such a project must be consistent with all applicable Bay Act requirements, including the adaptation measures requirements itemized in 9 VAC 25-830-155. When applying the Resiliency Assessment, a locality should require that the measure be designed in response to the assessment’s prediction concerning flooding impacts on the property within the 30-year timeframe or less than 30-years if the lifespan of the measure is demonstrated to be less. The AdaptVA Interactive Map Viewer includes data concerning existing shoreline conditions, natural resources, preferred shoreline management adaptation measures, and identifies protection and restoration opportunities. This tool can be used as part of the Resiliency Assessment to assist with decision making regarding potential adaptation measures that may address the property owners flooding concerns. In this scenario, the Resiliency Assessment should support such an adaptation measure and aid in its placement and design.

### *Water Dependent Facilities*

Pursuant to 9 VAC 25-830-140, water dependent facilities are allowed to be located within the RPA if certain conditions are met. They generally are allowed in areas expected to flood, but the locality must conduct the required Resiliency Assessment and require adjustments to project proposals, including the addition of adaptation measures as necessary. For example, a plan to add a dock, pier or other water dependent facility/component that will be at least partially in the RPA should consider the predicted sea level rise over the next 30 years or the lifespan of the project if it is less than 30 years. Particularly, where possible, the facility’s design and layout should be such that it will still be accessible in 30 years so that additional development within the RPA is not required in order to maintain access.

Water dependent facilities also should be designed and built to minimize impacts on buffer functions. Any non-water dependent component, such as parking lots, pools, boat storage, restaurants, etc. are required to be located outside of the RPA, 9 VAC 25-830-140(1)(b)(3).

### *Intensely Developed Areas*

A locality may permit development and redevelopment within designated Intensely Developed Areas (IDA) in accordance with 9 VAC 25-830-140. IDAs are areas designated by localities as an overlay to the RPA, where little of the natural buffer may remain due to prior development. As with other proposed development in the RPA, a Resiliency Assessment, including the analysis of buffer function when considering proposed redevelopment, must be conducted for projects located within areas designated as IDA. The type of redevelopment proposed and the existing site conditions in the IDA will guide this process, as the current permissible site conditions may be entirely impervious, in which case consideration of buffer function could be less impactful. For example, in the case of a parcel in an IDA which consists entirely of impervious cover, the locality may find that there is no impact on a vegetative buffer as none exists and thus alterations, conditions, or measures to address this are unnecessary.

### *Non-conforming Structures and Uses*

If the proposed development is to expand or modify a principal structure that was in existence as of the time of local program adoption, and the structure encroaches into the RPA or will encroach if the expansion or modification is approved, then pursuant to 9 VAC 25-830-150, the locality may allow the continued use of the structure but does not have to allow its expansion or modification. Local governments also should consult DEQ’s *Nonconforming Structures and Uses* guidance document available on the Virginia Regulatory Town Hall website to ensure that their review of the expansion or modification of principal structures complies with the Bay Act and Regulations. The considerations for these structures should be similar to those identified above for principal and accessory structures, should development be considered for these structures.

## Adaptation Measures

Adaptation measures may be allowed within the RPA provided they meet the requirements 9 VAC 25-830-155. To comply with the Regulations and to protect and maintain water quality, adaptation measures must be nature-based and listed as an approved, permitted, or funded water quality practice as identified in 9 VAC 20-830-155(C). According to the Regulations, adaptation measures in the RPA: shall be maintained; are allowed to incorporate fill as long as certain conditions are met; and should maximize the preservation of mature trees and other natural vegetation. Additional information and clarification on the requirements for allowing adaptation measures within the RPA is provided below.

### *Permissible Adaptation Measures*

BMPs listed in the following sources are approved to be used as adaptation measures pursuant to 9 VAC 20-830-155(C). Use of Chesapeake Bay Program and Virginia Stormwater Clearinghouse BMPs as adaptation measures should adhere to design criteria as specified in the approved BMP description in order to comply with this provision.

* 1. Chesapeake Bay Program-approved BMPs (link to Bay Program “[Quick Reference Guide for BMPs](https://d18lev1ok5leia.cloudfront.net/chesapeakebay/documents/BMP-Guide_Full.pdf)” and link to CAST Phase 6 Source Data);
	2. The [Virginia Stormwater BMP Clearinghouse](https://swbmp.vwrrc.vt.edu/);
	3. An approved Shoreline Protection Strategy in accordance with the [Tidal Wetlands Guidelines](https://mrc.virginia.gov/Regulations/Final-Wetlands-Guidelines-Update_05-26-2021.pdf) as determined by the Virginia Marine Resources Commission under the auspices of Section 28.2-130 et seq.; and
	4. A project that is an eligible activity for funding by the [Virginia Community Flood Preparedness Fund Grant (CFPF)](https://www.dcr.virginia.gov/dam-safety-and-floodplains/dsfpm-cfpf), as established pursuant to Chapter 13, Title 10.1, Article 4, Section 10.1-603.24 and Section 10.1-603-25 and the provisions of Section10.1-1330, Clean Energy and Community Flood Preparedness Fund, and as determined by the Virginia Department of Conservation and Recreation. In this instance, the project does not have to be specifically funded but it must be of a type of project that would meet eligibility for funding based upon the established criteria including recognition as a nature-based activity.

In addition to being from one of the sources identified above, adaptation measures must also be “nature-based solutions” that use environmental processes, natural systems, or natural features. Within the list of allowable sources identified above, there are some that are entirely hardened or artificial structures or measures, and thus would not be allowable. Where the adaptation measure incorporates artificial, non-organic, or inert material, creates an impervious area, or uses a hardened approach, it would likely not qualify as an allowable adaptation measure under these provisions. Those adaptation measures consisting of trees, vegetation, stone or which enhance existing natural elements would most clearly qualify.

Because BMP standards and specifications change over time and new BMPs may be identified by the sources listed above, a current list of permissible BMPs will be provided on DEQ’s website to aid localities in evaluating an adaptation measure proposal. If a locality is unsure whether a proposed adaptation measure qualifies under the regulatory criteria, DEQ will provide technical assistance in the form of site plan review to aid the locality in its review. However, as the Regulations identify specific sources of allowable measures, the Bay Act Program will not approve adaptation measures not included within the approved sources. If a locality wishes to consider an adaptation measure that is not included in the sources identified in the Regulations, the locality should work with the referenced source program to seek its inclusion. Additionally, the adaptation measure must comply with any other applicable legal requirements including any permitting requirements. The allowance of an adaptation measure in the RPA under these provisions does not negate any other existing legal requirements.

To reiterate, a permissible adaptation measure must meet both requirements: it must be from one of the approved sources listed in the Regulations, and it must be a nature-based solution adaptation measure. Overall, it is the responsibility of the local government to ensure the measure meets the regulatory requirements.

### *Site Conditions / Location of Adaptation Measures*

Adaptation measures themselves may be allowed in the RPA buffer pursuant to 9 VAC 25-830-155. Measures should be placed channelward of the proposed development, when possible, to minimize adverse impacts to the RPA and maximize water quality benefits.

Additionally, as identified in the Regulations, the adaptation measure should be designed, installed and maintained in accordance with its corresponding specifications. The specifications will generally be determined based upon the source for the adaptation measure. Localities should verify this requirement by having the applicant submit documentation in addition to that which is required by the building permit or plan of development review process, such as a site plan, design specifications, and a maintenance plan for the proposed adaptation measure. Additionally, localities should require applicants to submit as-built documentation of the final design and installation, including photographs, and require inspection upon final installation.

### *Fill*

The use of fill to raise the elevation of a parcel is not considered an approved practice or activity by the sources identified in 9 VAC 25-830-150(C)(1) of the Regulations; however, the use of fill as a component of an adaptation measure may be permitted, provided it meets all applicable requirements found in 9 VAC 25-830-155(C)(3) as well as ensuring compliance with all applicable ordinance, building code, and soil disturbance, grading and drainage standards.

As an example, the addition of fill to the landscape may be necessary to create appropriate surface elevations or provide suitable soil amendments for the reestablishment of riparian buffer vegetation within the RPA. It may also be necessary to create a slope that will provide for the erosion protection and water quality standards of the buffer area requirements, as outlined in 9 VAC 25-830-130(3), or consistent with specifications for another proposed adaptation measure, such as a rain garden or living shoreline.

The placement of fill will, by increasing the land surface elevation, likely have an impact on water movement. For example, the application of fill to the land surface can reduce tidal water incursion onto the land. If fill is used to facilitate the placement and stabilization of a bulkhead or levee where a living shoreline has been determined to be unsuitable, it can also prevent runoff flow from the land to the waterway; therefore, measures must be taken to ensure maintenance of positive drainage without enhancing stormwater runoff from the RPA to the water’s surface. If the placement of fill is considered necessary as a component to an adaptation measure, then the locality must assess the impacts of its use on existing vegetation, wetland migration and water movement. Assessment of the likely effects of fill should consider water flow both landward and channelward.

In assessing the impacts of a project, localities should balance the direct water quality impacts that might accrue from adding fill within the RPA with the sea level rise/storm surge/flood protection benefits for a particular parcel of land. It will also be necessary for the locality to consider how the action may affect stormwater diversion and lateral flows from the parcel onto adjacent properties, and the potential for the fill to contribute to non-point source pollution, particularly if not properly applied or stabilized. Appropriate erosion and sediment control and stormwater management measures must be incorporated into the design and any additional locality-developed criteria to assess fill should consider the following:

* 1. Slope: Under most circumstances, slopes should be equal to or less than 10% to support conditions for water quality, including infiltration. Slopes less than or equal to 5% or that convey sheet flow of velocities less than 1.5 feet/second are preferred, to reduce runoff and tidal wave energies. Slopes greater or different than these may be necessary based upon certain site conditions and adaptation measure specifications. In such instances, localities should ensure that the amount of fill and resulting slopes are consistent with project specifications and that flow is properly evaluated in the project application. In doing so, localities may wish to require supporting calculations, additional engineering plans, independent review, or other information in support of the proposed slope.
	2. Vegetation: Newly placed fill should be revegetated with multi-strata vegetation. Canopy and understory trees, shrubs, and ground cover beneath such woody vegetation should be consistent with the guidance found in DEQ’s *Riparian Buffer Manual* available on the Virginia Regulatory Town Hall website. It should also be consistent with vegetative requirements for trees in the Regulations and inclusion of native species is preferred.
	3. Composition: Fill should be composed of permeable soils which allow for infiltration and support vegetation. In light of this requirement, localities should ensure that proposed adaptation measures specify the depth, extent, and type of fill material. Localities may allow fill material variation among the layers applied so long as the overall composition allows for infiltration and supports vegetation (9 VAC 25-830-155(C)(3)(b)). The use of certain materials including soils may be subject to other requirements or restrictions, such as those requirements governing the use of lightly contaminated soil consistent with the Virginia Solid Waste Management Regulations (9 VAC 20-81 et seq.) or permitting requirements for upland placement of dredge soil.
	4. Stormwater Management: Fill should not enhance stormwater run-off, lateral flow onto adjacent properties shall be controlled, and upland impacts shall be mitigated as necessary (9 VAC 25-830-155(C)(3)(c) and (d)). The amount of fill and type of accompanying adaptation measure will determine the degree to which stormwater management must be addressed. For larger scale adaptation measures, this may require the use of stormwater calculations to ensure these criteria are met. Additionally, if the adaptation measure triggers separate stormwater management requirements, then these criteria should be considered in conjunction with those requirements.
1. Septic/Drainfield: The use of fill in an adaptation measure shall not negatively impact septic systems and drainfields. This criterion would apply where an existing septic tank or drainfield is located within, or immediately adjacent to, the RPA. Where present, the proximity of the adaptation measure using fill should be considered such that the fill will not interfere with the proper function or maintenance of either of these features.
2. Floodplain Management: The use of fill shall be consistent with any applicable floodplain requirements (local, state or federal). It is important that localities verify that any incorporation of adaptation measures does not conflict with any constraints or requirements of floodplain management or flood control provisions. In particular, federal floodplain management requirements in 40 CFR Part 60 may limit or prohibit the inclusion of fill in certain projects, including adaptation measures, and the allowance of fill under these provisions does not negate those independent requirements.

In summary, these provisions regulate the use of fill as a component of an adaptation measure. Any use of fill that alters the grading and slope of the parcel must be consistent with the Regulations. Structural fill within the footprint of a structure of the development is not subject to the requirements outlined in the Regulations. The Regulations do not permit the application of fill to raise the elevation of property within the RPA as an adaptation measure. Improper use of placed fill could not only increase stormwater or run-off issues on a property but may reduce the buffer function or impact water quality and thus must conform to the Regulation and be utilized in an appropriate manner.

### *Living Shorelines / Shoreline Protection Strategies*

As noted in the Regulations, local governments shall ensure that any activity in an RPA (not just the installation of an adaptation measure) complies and harmonizes with other existing laws, regulations, and guidelines at the state and federal levels. As the graphic below indicates, there are a number of state laws and regulations that protect wetlands, beginning with the 1972 Tidal Wetlands Act which recognized the environmental value of tidal wetlands, established a permitting system for their mandatory protection, and authorized establishment of local wetlands boards to administer the provisions of the code, specifically to conduct a public hearing as part of the public interest review required for permit decisions on activities within tidal wetlands.

According to the [*Tidal Wetlands Guidelines*](https://mrc.virginia.gov/Notices/2021/Final-Draft-Wetlands-Guidelines-Update_05-19-2021.pdf) published by VMRC, tidal wetlands regulatory jurisdiction extends to the mean high tide line where no emergent vegetation exists, and to 1.5 times the mean tide range where marsh is present. The *Tidal Wetlands Guidelines* were most recently updated in May 2021 to “ensure protection of shorelines and sensitive coastal habitat from sea level rise and coastal hazards.”

The Chesapeake Bay Preservation Act and Regulations also incorporate by reference tidal wetlands and regulate tidal shores, and nontidal wetlands that are connected by surface flow and contiguous to water bodies with perennial flow as designated RPA features according to 9 VAC 25-830-80(B).

The Virginia Shorezone Jurisdictions graphic below, depicts “legally defined shoreline resources and the relevant local, state, and federal authorities.” The graphic illustrates the fact that some authorities cross resource boundaries, and most resources have two or more responsible regulatory authorities. Of particular interest is the overlap between local Bay Act programs and Wetlands Boards jurisdiction of tidal wetlands. It is likely that both programs and their respective provisions must be considered, particularly when considering adaptation measures proposed within the RPA.

**Virginia Shorezone Jurisdictions**

100’ RPA Buffer

100’ RPA Buffer

Within Bay Act program requirements, a locality should not use or allow approval of an adaptation measure, activity, or land disturbance in contravention of the Virginia Marine Resources Commission requirements or guidelines. In considering both Bay Act and wetlands programs, DEQ understands that pursuant to VMRC program requirements, guidelines, or technical advice, a shoreline protection strategy may be required or encouraged to be placed landward of tidal wetlands or marshes and within the RPA buffer. In such a case, DEQ recognizes that a locality’s wetlands board may, consistent with such advice or requirement, approve placement of such a strategy within the RPA buffer and that deference in such matter is appropriate. The locality would review such a proposal for compliance with Bay Act requirements, including the need for mitigation for any land disturbance within the RPA. When an approved shoreline protection strategy incorporates activities that will impact the RPA buffer, the locality should assess the plan for impacts of those activities on buffer function including vegetation cover, vegetation migration and water migration (including analyzing frequency, extent, direction, and duration of any water rise or tide).

For example, if consistent with the VMRC *Tidal Wetlands Guidelines* and best available technical advice, VMRC and a local wetlands board determine that a hardened shoreline structure is allowed, such a structure would likely need to be placed as landward as possible, beyond the RPA features but within the 100-foot RPA buffer. Within this context, placement of that structure within the RPA buffer would be consistent with the Bay Act and Regulations. In such a case, the locality should still apply all Bay Act requirements including submission of a WQIA, minimization of land disturbance and impervious surfaces, preservation of existing vegetation, and mitigation for the area of land disturbance with vegetation according to the *Riparian Buffer Manual*. Specifically, where a shoreline protection strategy would not be allowed under VMRC requirements or guidelines or other applicable wetlands requirements and would be denied or not allowed under applicable wetlands requirements or decisions, it should not be allowed independently under the Bay Act program. Conversely, if the VMRC determines that a living shoreline is feasible at a site, the locality should not circumvent such decision by allowing a hardened structure addressing shoreline erosion in the RPA to be separately approved under the Bay Act program. Overall, the requirements of both programs should work in harmony with a recognition of deference to VRMC requirements and Tidal Wetlands Guidelines where applicable and appropriate.

Projects that qualify for either the VMRC Living Shoreline Group 1 General Permit for Certain Living Shoreline Treatments Involving Tidal Wetlands ([Living Shoreline Group 1](https://mrc.virginia.gov/regulations/MRC_Scanned_Regs/Habitat/FR1300_09-01-15.pdf)) or Living Shoreline Group 2 General Permit for Certain Living Shoreline Treatments Involving Submerged Lands, Tidal Wetlands, or Coastal Primary Sand Dunes and Beaches ([Living Shoreline Group 2](https://mrc.virginia.gov/regulations/MRC_Scanned_Regs/Habitat/FR1330_11-01-17.pdf)) (pursuant to 4 VAC 20-1300-10 et seq.), are considered nature-based, given the requirements for inclusion of tidal marsh, beach or dune vegetation and natural materials. A shoreline protection strategy approved under either Living Shoreline Group 1 or Group 2 general permit may allow the placement of fill to establish appropriate elevations to support required vegetation. This may result in a change to the slope and land elevations that would alter vegetation cover and could alter water flow and such use must be consistent with the fill requirements identified in the Regulation and discussed in the section above.

Additionally, as provided in 9 VAC 25-830-155(E), where a living shoreline meets the fill limitations and other requirements, the locality may waive the need for a WQIA when implementing these provisions. This allowance is within the discretion of the locality as it adopts provisions to implement these regulatory requirements. While DEQ encourages the installation of living shorelines and promotes use of this allowance, a locality should determine if waiving the WQIA requirement is appropriate within the framework of its local Bay Act program. Waiver of the WQIA by a locality does not waive the requirement for a Resiliency Assessment and other Bay Act performance criteria, including mitigation for projects proposing land disturbance within the RPA.

## E. Exceptions

9 VAC 25-830-150(C) of the Regulations provides that an exception to the requirements of 9 VAC 25-830-130 and 9 VAC 25-830-140 may be granted if the requested exception meets specified criteria and findings of fact, pursuant to local ordinances, and that a locality may impose reasonable and appropriate conditions, as warranted, that will prevent the allowed activity from causing a degradation of water quality. Local governments must conduct the Resiliency Assessment required by 9 VAC 25-830-155 as part of this exception review process.

As provided in the Regulations, local governments shall not grant exceptions to the requirements of 9 VAC 25-830-130, 9 VAC 25-830-140, or 9 VAC 25-830-155 where the required assessment of coastal impacts has not occurred. *Thus, where a proposed development’s significant impact and resulting conditions have been identified through such an assessment, an applicant may not circumvent such assessment or conditions by requesting an exception. Practically, the result of this exception prohibition is that any land development project in the RPA, regardless of the process applied for in its review, must have a Resiliency Assessment.*

Another exception prohibition identified in the Regulations is that a locality shall not grant an exception to allow a proposed adaptation measure that would allow the use of fill in the RPA in contravention of the requirements set forth in 9 VAC 25-830-155(C)(3) and as discussed in this Guidance. Thus, any use of fill in an adaptation measure must meet the requirements in 9 VAC 25-830-155(C)(3), and such requirements may not be reduced or circumvented through an exception process.

Consistent with existing provisions allowing for exceptions to the General Performance Criteria and the RPA Development Criteria (9 VAC 25-830-130 and 9 VAC 25-830-140), localities may consider an exception to the adaptation measure requirements under limited, specific circumstances, such as installation of a non-nature based BMP in a completely developed IDA or where a nature-based solution is not feasible. The formal exception process outlined in 9 VAC 25-830-150(C) must be followed for any proposed exception to adaptation measure requirements because the allowance requirements for adaptation measures overlap and intersect with existing performance criteria for shoreline erosion control projects (9 VAC 25-830-140(5)(a)) and flood control and stormwater management requirements (9 VAC 25-830-140(1)(e)). Local ordinances typically provide for appeals processes for decisions made by local staff or governing body.

Where a determination has been made pursuant to VMRC’s *Tidal Wetlands Guidelines* and governing process that a living shoreline would not be suitable and a non-living shoreline project should be allowed, then a formal exception for that project in the RPA would not be required as it complies with both the requirements of 9 VAC 25-830-140 and 9 VAC 25-830-155.

Overall, any development proposed within a RPA must meet the requirements of the Regulations including the requirements for the considerations and granting of exceptions and waivers. Local governments also should consult DEQ’s guidance document concerning *Exceptions*, available on the Virginia Regulatory Town Hall website.

## F. Implementation

9 VAC 25-830-190(C) provides that localities must adopt ordinance provisions to implement the new requirements by September 29, 2024; however, DEQ will work with localities on their timeline towards implementation and anticipate confirmation of each locality’s implementation by October 2025. In doing so, local staff should coordinate with DEQ to ensure adopted ordinances are at least as stringent as the Regulations’ required criteria. Every locality should also develop policies and procedures for implementation of the adopted ordinance provisions, such as restrictions on granting an exception without an assessment, and accompanying program documentation, such as additions or amendments to existing applications and checklists. Policies, procedures, and the use of forms for application submission will assist staff with consistent and impartial implementation of ordinance requirements.

Additional information concerning the incorporation of Resiliency Assessments into local Bay Act program implementation procedures will be requested in the Annual Reports submitted by localities, as required by 9 VAC 25-830-260. Documentation of Resiliency Assessments will also be requested for examination during program compliance reviews. DEQ recommends that local programs begin documentation of Resiliency Assessments, adaptation measures, and other actions taken pursuant to 9 VAC 25-830-155 upon adoption of required ordinance amendments in order to enable staff to easily access the required information when necessary and appropriate.

Documentation of actions taken pursuant to 9 VAC 25-830-155 includes all Resiliency Assessments completed during the review of projects proposing encroachment into the RPA, any resulting required alterations of proposed developments, and other decisions concerning adaptation measures. Documentation requirements can be added to a locality’s existing tracking mechanism for other local program elements, such as ordinance and comprehensive plan amendments, development in the RPA, septic pump outs, agricultural and silvicultural requirements, and violations.

A locality may be more stringent with regard to incorporation of an adaptation measure or measures that may impact participation in the National Flood Insurance Program Community Rating System. Localities are encouraged to work directly with the Department of Conservation and Recreation and Federal Emergency Management Agency to ensure that any such ordinance provisions are consistent with applicable floodplain management requirements.

As noted above, localities must adopt ordinance provisions that require a Resiliency Assessment to be conducted either by the applicant or the locality. This assessment should be a part of the plan of development review process or during application for a building permit for locality review and approval. The locality may incorporate such requirements into a WQIA. If a locality chooses to require applicants to include assessments in application packages, it is still the locality’s responsibility to ensure that the requirements in the Regulations are met. Overall, the locality is responsible for reviewing and approving any such submission as well as making any final determination of necessary adaptation measures, conditions, alterations, or overall project approval. Localities should document the resiliency assessment and any alterations, conditions or measures included to ensure the requirements are met. Localities are encouraged to develop or utilize forms, checklists, or other tools to ensure appropriate documentation.

Prior to adoption of ordinances incorporating the requirements of the Regulations, localities are encouraged to request technical assistance from DEQ in reviewing such amendments and to utilize proposed templates, forms, checklists, trainings, and other information from DEQ to aid this process.

1. NOAA issued [updated sea level rise scenarios for the United States](https://oceanservice.noaa.gov/hazards/sealevelrise/sealevelrise-tech-report.html) in February 2022. [↑](#footnote-ref-2)
2. Within a Special Flood Hazard Area (SHFA), or flood zone, floodplain management regulations must be enforced and mandatory purchase of flood insurance applies. [↑](#footnote-ref-3)