TENTATIVE AGENDA AND MINIBOOK
STATE WATER CONTROL BOARD MEETING

TUESDAY, JUNE 29, 2021

IN PERSON ONLY - **THE WESTIN RICHMOND, 6631 WEST BROAD STREET, RICHMOND, VA 23230**
Any Updates To Details/Final Arrangements To Be Announced On Virginia Regulatory Town Hall

Convene – 10:00 a.m.

| Agenda Item | Presenter | Tab-Page |
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| **Minutes** (April 14, 2021) | | A |
| **Regulations** | | |
| • Amendments to 9VAC25-31, 9VAC25-32, 9VAC25-91, 9VAC25-220, 9VAC25-610, 9VAC25-640, 9VAC25-690, and 9VAC25-720 to Implement House Bill 1855 and Senate Bill 1453 Concerning the Department of Mines, Minerals and Energy's Name Change and Recodification of Title 45.1 - Final Exempt | Davenport | B - 3 |
| • Amendments to 9VAC25-840 to Implement House Bill 1836 Concerning the Name Change for the Secretary of Natural Resources - Final Exempt | Davenport | C - 5 |
| • Amendments to 9VAC25-210, 9VAC25-660, 9VAC25-670, 9VAC25-680, and 9VAC25-690 (Virginia Water Protection Permit Program Regulation and VWP General Permits) to Implement House Bill 1983 - Final Exempt | Davenport | D - 5 |
| • Amendments to 9VAC25-840 (Erosion and Sediment Control Regulations) to Implement Senate Bill 1258 - Final Exempt | Davenport | E - 6 |
| • Amendments to 9VAC25-900 (Certification of Nonpoint Source Nutrient Credits) to Implement House Bill 1982 - Final Exempt | Brockenbrough | F - 7 |
| • Amendments to 9VAC25-720 (Water Quality Management Planning Regulation) to Implement House Bill 2129 and Senate Bill 1354 - Final Exempt | Brockenbrough | G- -7 |
| • General Virginia Pollutant Discharge Elimination System (VPDES) Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia - 9VAC25-820 - Final Amendment/Reissuance | Brockenbrough | H - 11 |
| • Chesapeake Bay Preservation Area Designation and Management Regulation - 9VAC25-830 - Final Amendment - Coastal Resilience and Adaptation to Sea-level Rise and Climate Change Criteria | Williams | I - 50 |
| • Chesapeake Bay Preservation Area Designation and Management Regulation - 9VAC25-830 - Final Amendment - Preservation of Mature Trees and Replanting of Trees | Williams | J - 111 |
| **Significant Noncompliance Report and Chesapeake Bay Preservation Act Program Notices of Violations** | Sadtler | K - 142 |

| Agenda Item | Presenter | Tab-Page |
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| **Consent Special Orders - VPDES Permit Program** | Sadtler | L |
| • Empire Services, Inc. (Chesapeake, Norfolk, Portsmouth, Suffolk, and James City and Isle of Wight Counties) | | - 142 |
| • Leisure Capital Corporation for the Shenandoah Crossing Sewage Treatment Plant (Louisa County) | | - 143 |
| **Consent Special Orders - VWP Permit Program** | Crowell | M |
| • McGrath Rent Corp. (Stafford County) | | - 144 |
| • Virginia Electric and Power Company (Belcher Solar PV Area Project (Louisa County) | | - 145 |
| **Other Business** | | |
| • Future Meetings Dates (September 28 and December 14) and Procedure Discussion | | |
| • Division Director's Report | Schneider/Davenport | |
| • Public Forum (time not to exceed 45 minutes) | | |

**ADJOURN**

NOTE: The Board reserves the right to revise this agenda without notice unless prohibited by law. Revisions to the agenda include, but are not limited to, scheduling changes, additions or deletions. Questions on the latest status of the agenda should be directed to Cindy M. Berndt at (804) 698-4378.

PUBLIC COMMENTS AT STATE WATER CONTROL BOARD MEETINGS: The Board encourages public participation in the performance of its duties and responsibilities. To this end, the Board has adopted public participation procedures for regulatory action and for case decisions. These procedures establish the times for the public to provide appropriate comment to the Board for its consideration.

For REGULATORY ACTIONS (adoption, amendment or repeal of regulations), public participation is governed by the Administrative Process Act and the Board's Public Participation Guidelines. Public comment is accepted during the Notice of Intended Regulatory Action phase (minimum 30-day comment period) and during the Notice of Public Comment Period on Proposed Regulatory Action (minimum 60-day comment period). Notice of these comment periods is announced in the Virginia Register, by posting to the Department of Environmental Quality and Virginia Regulatory Town Hall web sites and by mail to those on the Regulatory Development Mailing List. The comments received during the announced public comment periods are summarized for the Board and considered by the Board when making a decision on the regulatory action.

For CASE DECISIONS (issuance and amendment of permits), the Board adopts public participation procedures in the individual regulations which establish the permit programs. As a general rule, public comment is accepted on a draft permit for a period of 30 days. In some cases a public hearing is held at the conclusion of the public comment period on a draft permit. In other cases there may an additional comment period during which a public hearing is held.
In light of these established procedures, the Board accepts public comment on regulatory actions and case decisions, as well as general comments, at Board meetings in accordance with the following:

REGULATORY ACTIONS: Comments on regulatory actions are allowed only when the staff initially presents a regulatory action to the Board for final adoption. At that time, those persons who commented during the public comment period on the proposal are allowed up to 3 minutes to respond to the summary of the comments presented to the Board. Adoption of an emergency regulation is a final adoption for the purposes of this policy. Persons are allowed up to 3 minutes to address the Board on the emergency regulation under consideration.

CASE DECISIONS: Comments on pending case decisions at Board meetings are accepted only when the staff initially presents the pending case decision to the Board for final action. At that time the Board will allow up to 5 minutes for the applicant/owner to make his complete presentation on the pending decision, unless the applicant/owner objects to specific conditions of the decision. In that case, the applicant/owner will be allowed up to 15 minutes to make his complete presentation. The Board will then allow others who commented at the public hearing or during the public comment period up to 3 minutes to exercise their rights to respond to the summary of the prior public comment period presented to the Board. No public comment is allowed on case decisions when a FORMAL HEARING is being held.

POOLING MINUTES: Those persons who commented during the public hearing or public comment period and attend the Board meeting may pool their minutes to allow for a single presentation to the Board that does not exceed the time limitation of 3 minutes times the number of persons pooling minutes, or 15 minutes, whichever is less.

NEW INFORMATION will not be accepted at the meeting. The Board expects comments and information on a regulatory action or pending case decision to be submitted during the established public comment periods. However, the Board recognizes that in rare instances new information may become available after the close of the public comment period. To provide for consideration of and ensure the appropriate review of this new information, persons who commented during the prior public comment period shall submit the new information to the Department of Environmental Quality (Department) staff contact listed below at least 10 days prior to the Board meeting. The Board's decision will be based on the Department-developed official file and discussions at the Board meeting. In the case of a regulatory action, should the Board or Department decide that the new information was not reasonably available during the prior public comment period, is significant to the Board's decision and should be included in the official file, the Department may announce an additional public comment period in order for all interested persons to have an opportunity to participate.

PUBLIC FORUM: The Board schedules a public forum at each regular meeting to provide an opportunity for citizens to address the Board on matters other than those on the agenda, pending regulatory actions or pending case decisions. Those persons wishing to address the Board during this time should indicate their desire on the sign-in cards/sheet and limit their presentations to 3 minutes or less.

The Board reserves the right to alter the time limitations set forth in this policy without notice and to ensure comments presented at the meeting conform to this policy.

Department of Environmental Quality Staff Contact: Cindy M. Berndt, Director, Regulatory Affairs, Department of Environmental Quality, 1111 East Main Street, Suite 1400, P.O. Box 1105, Richmond, Virginia 23218, phone (804) 698-4378, e-mail: cindy.berndt@deq.virginia.gov.

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**Additional Meeting Information:**

- Attendees are not entitled to be disorderly or disrupt the meeting from proceeding in an orderly, efficient, and effective fashion. Disruptive behavior may result in a recess or removal from the meeting.
- Possession or use of any device that may disrupt the conduct of business is prohibited, including but not limited to: voice-amplification equipment; bullhorns; blow horns; sirens, or other noise-producing devices; as well as signs on sticks, poles or stakes; or helium-filled balloons.
- All attendees are asked to be respectful of all speakers.
- Rules will be enforced fairly and impartially not only to ensure the efficient and effective conduct of business, but also to ensure no interference with the business of the hotel, its employees and guests.
- All violators are subject to removal.

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**Tab B - Regulatory Amendments to Incorporate DMME Name Change & Section Recodification - Final Exempt Action – Amendment Conforming to 2021 Legislation**: These regulatory amendments to the Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation (9VAC25-31); the Virginia Pollution Abatement

(VPA) Permit Regulation (9VAC25-32); the Facility and Aboveground Storage Tank (AST) Regulation (9VAC25-91); the Surface Water Management Area Regulation (9VAC25-220); the Groundwater Withdrawal Regulations (9VAC25-610); the Aboveground Storage Tank and Pipeline Facility Financial Responsibility (9VAC25-640); the Virginia Water Protection General Permit for Impacts from Development and Certain Mining Activities (9VAC25-690); and the Water Quality Management Planning Regulation (9VAC25-720) are presented to the Board for your consideration as final regulation.

During the 2021 Special Session I of the General Assembly, the name of the "Department of Mines, Minerals and Energy" was changed to the "Department of Energy" through the passage of HB1855 and the Department of Mines, Minerals and Energy's code section was changed from 45.1 to 45.2 through the passage of SB1453. These final regulatory actions will amend several State Water Control Board regulations in order to incorporate the changes made by Chapters 387 (SB1443) & 532 (HB1855) of the 2021 Special Session I of the Acts of Assembly. The conforming changes to the regulations include: (i) revising the name of the "Department of Mines, Minerals and Energy" to the "Department of Energy"; (ii) replacing the acronym "DMME" with the "Department of Energy"; and, (iii) revising code references to reflect the recodification process. These amendments are identified in the table below:

| REG SECTION | RIS PROJECT # | LINE # | CHANGE |
|---|---|---|---|
| 9VAC 25-31-940 | 6780 | 4 | Authority of the Department of ~~Mines, Minerals and~~ Energy… |
| | | 7 | The Director of the Department of ~~Mines, Minerals and~~ Energy ~~(DMME)~~… |
| | | 10 | ~~§45.1-229~~§ 45.2-1000 |
| | | 11; 13; 18; 21; 29; 30; 34 & 39 | Director of ~~DMME~~the Department of Energy… |
| | | 37 | ~~§ 45.1-254 F~~§ 45.2-1029 F |
| 9VAC25-32-10 | 6781 | 227 | Department of ~~Mines, Minerals and~~ Energy… |
| 9VAC25-32-560 | 6781 | 580-581 | Virginia Department of ~~Mines, Minerals and~~ Energy… |
| 9VAC25-91-30 | 6782 | 19 | Department of ~~Mines, Minerals and~~ Energy… |
| | | 20 | Chapter ~~22.1~~16 ~~(§ 45.1-361.1 et seq.)~~(§ 45.2-1600 et seq.) of Title ~~45.1~~45.2… |
| 9VAC25-220-70 | 6783 | 21 | Department of ~~Mines, Minerals and~~ Energy. |
| 9VAC25-610-50 | 6786 | 17 & 32 | Department of ~~Mines, Minerals and~~ Energy… |
| 9VAC25-640-30 | 6787 | 20 | Department of ~~Mines, Minerals and~~ Energy… |
| | | 21 | Chapter ~~22.1~~16 ~~(§ 45.1-361.1 et seq.)~~(§ 45.2-1600 et seq.) of Title ~~45.1~~45.2… |
| 9VAC25-690-20 | 6789 | 10 | Department of ~~Mines, Minerals and~~ Energy… |
| 9VAC25-690-30 | 6789 | 124 | Department of ~~Mines, Minerals and~~ Energy… |
| | | 145 | Department of ~~Mines, Minerals and~~ Energy… |
| | | 146-147 | Chapter ~~19~~10 ~~(§ 45.1-226 et seq.)~~(§ 45.2-1000 et seq.) of |

| | | | |
|---|---|---|---|
| | | | Title ~~45.1~~45.2 of the Code of Virginia… |
| 9VAC25-690-100 | 6789 | 219-220 | Department of ~~Mines, Minerals and~~ Energy… |
| 9VAC25-720-10 | 6790 | 70 | Department of ~~Mines, Minerals and~~ Energy… |

At your Board meeting scheduled for June 29, 2021, the Department will request that the Board adopt these amendments as final regulations, authorize their publication, and affirm that the Board will receive, consider and respond to petitions by any interested person at any time with respect to reconsideration or revision.

**Tab C - Regulatory Amendments to Incorporate SNR Name Change - Final Exempt Action – Amendment Conforming to 2021 Legislation**: This regulatory amendment to the Erosion and Sediment Control Regulations (9VAC25-840-100) is presented to the Board for your consideration as a final regulation.

During the 2021 Reconvened Special Session I of the General Assembly, the name of the position of "Secretary of Natural Resources" was changed to the "Secretary of Natural and Historic Resources" through the passage of HB1836. This final regulatory action will amend this State Water Control Board regulation in order to incorporate the changes made by Chapter 401 of the 2021 Virginia Acts of Assembly (HB1836). The conforming changes to the regulations include updating the name of the position in the regulation. These amendments are identified in the table below:

| REG SECTION | RIS PROJECT # | LINE # | CHANGE |
|---|---|---|---|
| 9VAC25-840-100 | 6791 | 22 | For violations in the Natural and Historic Resources Secretariat… |
| | | 22-23 | …to the Secretary of Natural and Historic Resources… |

At your Board meeting scheduled for June 29, 2021, the Department will request that the Board adopt these amendments as final regulations, authorize their publication, and affirm that the Board will receive, consider and respond to petitions by any interested person at any time with respect to reconsideration or revision.

**Tab D - Amendments to Five Virginia Water Protection Permit Program Regulations as a Result of 2021 General Assembly Actions**: This final exempt action amends the Virginia Water Protection Permit Program (VWPPP) Regulation (9VAC25-210); the Virginia Water Protection General Permit for Impacts Less Than One-half Acre (9VAC25-660); the Virginia Water Protection Permit for Facilities and Activities of Utility and Public Service Companies Regulated by the Federal Energy Commission or the State Corporation Commission and Other Utility Line Activities (9VAC25-670); the Virginia Water Protection General Permit for Linear Transportation Projects (9VAC25-680); and the Virginia Water Protection General Permit for Impacts from Development and Certain Mining Activities (9VAC25-690).

The amendments to the existing five regulations noted above result from actions of the 2021 General Assembly. HB 1983 (Chapter 265 of the Virginia Acts of Assembly - 2021 Session) resulted in amendments to the regulations relating to compensatory mitigation bank service areas. The bill provides that when a Virginia Water Protection (VWP) permit applicant is required to purchase wetland or stream mitigation bank credits, but no credits are available (i) in any mitigation provider's primary service area or (ii) at a cost of less than 200 percent of the price of credits available from a fund dedicated to achieving no net loss of wetland acreage and functions, the applicant may purchase or use credits from a mitigation provider's secondary service area.

In addition, the bill provides certain requirements that the permit applicant must comply with in order to purchase or use such credits from a secondary service area, including minimum tree canopy requirements.

| Title | VAC Number | Subsections |
|---|---|---|
| Virginia Water Protection Permit Program Regulation | 9VAC25-210 | -80; -116; -130; -180 |
| Virginia Water Protection General Permit for Impacts Less Than One-Half Acre | 9VAC25-660 | -30; -60; -70; -80; -100 |
| Virginia Water Protection General Permit for Facilities and Activities of Utility and Public Service Companies Regulated by the Federal Energy Regulatory Commission or the State Corporation Commission and Other Utility Line Activities | 9VAC25-670 | -30; -60; -70; -80; -100 |
| Virginia Water Protection General Permit for Linear Transportation Projects | 9VAC25-680 | -30; -60; -70; -80; -100 |
| Virginia Water Protection General Permit for Impacts from Development and Certain Mining Activities | 9VAC25-690 | -30; -60; -70; -80; -100 |

Section 2.2-4006 A 4 (a) of the Code of Virginia allows the Board to adopt these regulatory amendments as the changes are necessary to conform to changes in Virginia Statutory Law. These regulatory amendments will be effective 30 days after publication in the Virginia Register.

At your Board meeting on June 29, 2021, the DEQ will request that the Board adopt the proposed amendments to the VWPPP Regulations, authorize their publication, and affirm that the Board will receive, consider and respond to requests by any interested person at any time with respect to reconsideration or revision.

**Tab E - Amendments to the Erosion and Sediment Control Regulations (9VAC25-840) as a Result of the 2021 Special Session I of the General Assembly**: The final exempt action amends the Erosion and Sediment Control (ESC) Regulations (9VAC25-840).

This proposed Final Exempt regulatory action contains amendments to the existing ESC Regulations resulting from actions of the General Assembly. Senate Bill 1258 (Virginia Acts of Assembly – 2021 Special Session I – Chapter 497) established that any local Virginia Erosion and Sediment Control Program (VESCP) authority that did not operate a regulated Municipal Separate Storm Sewer System and for which the Department of Environmental Quality (Department or DEQ) did not administer a Virginia Stormwater Management Program as of July 1, 2020, shall notify the Department if it decides to have the Department provide the local VESCP authority with (i) review of the ESC Plan required by the ESC Law and attendant regulations and (ii) a recommendation on the ESC Plan's compliance with the requirements of the ESC Law and attendant regulations, for any solar project and its associated infrastructure with a rated electrical generation capacity exceeding five (5) megawatts. Furthermore, Senate Bill 1258 established timeframes in which the local VESCP authority shall forward any newly submitted or resubmitted ESC Plan to the Department for review

**SOLAR PROJECTS - E&S CONTROL**

**9VAC25-840-45. Department review of erosion and sediment control plans for solar projects..**

1. Any VESCP authority that does not operate a regulated Municipal Separate Storm Sewer System and for which the department did not administer a Virginia Stormwater Management Program as of July 1, 2020, shall notify the department if it decides to have the department provide the VESCP authority with (i) review of the erosion and sediment control plan required by § 62.1-44.15:55 A of the Code of Virginia and (ii) a recommendation on the

plan's compliance with the requirements of this chapter, for any solar project and its associated infrastructure with a rated electrical generation capacity exceeding five megawatts.
2. Any VESCP authority that notifies the department pursuant to this section shall, within five days of receiving the erosion and sediment control plan, forward the plan to the department for review. If the plan forwarded to the department is incomplete, the department shall return the plan to the VESCP authority immediately and the application process shall start over. If the plan forwarded to the department is complete, the department shall review the plan for compliance with the requirements of this chapter and provide a recommendation to the VESCP authority. The VESCP authority shall then (i) grant written approval of the plan or (ii) provide written notice of disapproval of the plan in accordance with § 62.1-44.15:55 B of the Code of Virginia.
3. Any VESCP authority that notifies the department pursuant to this section shall, within five days of receiving the resubmittal of a previously disapproved erosion and sediment control plan, forward the resubmitted plan to the department for review. The department shall review the resubmitted plan for compliance with the requirements of this chapter and provide a recommendation to the VESCP authority. The VESCP authority shall then (i) grant written approval of the plan or (ii) provide written notice of disapproval of the plan in accordance with § 62.1-44.15:55 B of the Code of Virginia.

Section 2.2-4006 A 4 (a) of the Code of Virginia (Administrative Process Act) allows the Board to adopt these regulatory amendments as changes are necessary to conform to changes in Virginia Statutory Law. These regulatory amendments will be effective 30 days after publication in the *Virginia Register*.

At your Board meeting on June 29, 2021, the Department will request that the Board adopt the proposed amendments to the ESC Regulations, authorize their publication, and affirm that the Board will receive, consider, and respond to requests by any interested person at any time with respect to reconsideration or revision.

**Tab F - Exempt Action Final: Amendments to Certification of Nonpoint Source Nutrient Credits 9VAC25-900**: The staff will present a final exempt amendment to the regulation for Certification of Nonpoint Source Nutrient Credits to implement HB 1982 (Chapter 360 of the 2021 Special Session I Acts of Assembly) for Board adoption.

In the 2021 Special Session I, the General Assembly adopted amendments to the State Water Control Law under HB 1982 and the legislation was subsequently signed by the Governor. This bill included an amendment to the Code of Virginia § 62.1-44.19:21 subsection D to allow facilities that are issued a VPDES permit regulating stormwater discharges that requires nitrogen and phosphorus monitoring at the facility to acquire, use, and transfer credits for compliance with any wasteload allocations. This provision was previously only available to facilities registered under the Industrial Stormwater General Permit (9VAC25-151). With the adoption of this amendment, facilities subject to individual VPDES permits for industrial stormwater discharges will also be able to acquire nonpoint source nutrient credits to comply with the terms of their permit.

The proposed final exempt amendments to the Certification of Nonpoint Source Nutrient Credits regulation have been sent to the Office of the Attorney General for certification of statutory authority.

**Tab G - Exempt Action Final: Amendments to Water Quality Management Planning Regulation - 9VAC25-720**: The staff will present amendments to the Water Quality Management Planning Regulation to implement HB 2129/SB 1354 (Chapters 363 and 364, respectively, of the 2021 Special Session I Acts of Assembly) for Board adoption On December 9, 2020 the Board authorized the staff to proceed to public comment with proposed amendments to the Water Quality Management Planning Regulation (9VAC25-720) and the General VPDES Watershed Permit for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia (9VAC25-820) and to convene a public hearing on the proposed amendments. The proposed amendments included (1) establishing of Total Phosphorus wasteload allocations (WLAs) necessary to meet chlorophyll-a water quality criteria in the tidal James River; (2) reassigning unneeded Total Nitrogen (TN) and Total Phosphorus (TP) WLAs from industries that have either closed, or otherwise eliminated their need for a WLA, to the Nutrient Offset Fund for future use; (3) implementing Initiative No. 52 from Virginia's Chesapeake Bay TMDL Phase III Watershed Implementation Plan (WIP) by establishing "floating" WLAs for 36 significant municipal dischargers; and (4) revising the General VPDES Watershed Permit for Total Nitrogen and Total Phosphorus Discharges and

Nutrient Trading in the Chesapeake Bay Watershed in Virginia (9VAC25-820) as necessary to implement the above amendments.

Prior to completion of Executive Review of the proposed amendments, the General Assembly adopted amendments to the State Water Control Law under HB 2129 and SB 1354 and the legislation was subsequently signed by the Governor. These identical bills eliminated the "floating" WLA concept developed under the Phase III WIP and replaced it the Phase III WIP Enhanced Nutrient Removal Certainty Program (ENRC Program). The main elements of the ENRC Program include (1) establishing schedules for the completion of nutrient upgrades or consolidation projects at 13 publically owned treatment works (POTWs); (2) establishing schedules for a TN WLA reduction at the HRSD–York River WWTP and TN and TP WLA reductions at 6 HRSD treatment plants in the James River Basin; (3) transferring the TN and TP WLAs for the HRSD-Chesapeake/Elizabeth STP to the Nutrient Offset Fund in 2026; (4) transferring the TN and TP WLAs from the former J. H. Miles facility to HRSD; and (5) prioritizing the Water Quality Improvement Fund financing of nutrient upgrades and consolidation projects included in the ENRC program.

**Current Action:**
The staff is bringing an exempt final action to you to incorporate the amendments to the Water Quality Management Planning Regulation (9VAC25-720) to implement the provisions included in HB 2129/SB 1354. These amendments include (1) establishing a reduced TN WLA reduction at the HRSD–York River WWTP and reduced TN and TP WLAs at 6 HRSD treatment plants in the James River Basin (with corresponding effective dates); (2) transferring the TN and TP WLAs for the HRSD-Chesapeake/Elizabeth STP to the Nutrient Offset Fund in 2026; and (3) transferring the TN and TP WLAs from the former J. H. Miles facility to HRSD. See amendments below:

**9VAC25-720-60. James River Basin.**

A. Total maximum daily loads (TMDLs). …

B. Stream segment classifications, effluent limitations including water quality based effluent limitations, and wasteload allocations…

C. Nitrogen and phosphorus wasteload allocations to restore the Chesapeake Bay and its tidal rivers.

The following table presents nitrogen and phosphorus wasteload allocations for the identified significant dischargers and the total nitrogen and total phosphorus wasteload allocations for the listed facilities.

| Virginia Waterbody ID | Discharger Name | VPDES Permit No. | Total Nitrogen (TN) Wasteload Allocation (lbs/yr) | Total Phosphorus (TP) Wasteload Allocation (lbs/yr) |
|---|---|---|---|---|
| I37R | Buena Vista STP | VA0020991 | 41,115 | 3,426 |
| I09R | Covington STP | VA0025542 | 54,820 | 4,568 |
| H02R | Georgia Pacific | VA0003026 | 122,489 | 49,658 |
| I37R | Lees Carpets | VA0004677 | 30,456 | 12,182 |
| I35R | Lexington-Rockbridge WQCF | VA0088161 | 54,820 | 4,568 |
| I09R | Low Moor STP | VA0027979 | 9,137 | 761 |
| I09R | Lower Jackson River STP | VA0090671 | 63,957 | 5,330 |
| I04R | MeadWestvaco | VA0003646 | 394,400 | 159,892 |
| H12R | Amherst STP | VA0031321 | 10,964 | 914 |
| H05R | BWX Technologies Inc. | VA0003697 | 187,000 | 1,523 |
| H05R | Greif Inc. | VA0006408 | 73,246 | 29,694 |
| H31R | Lake Monticello STP | VA0024945 | 18,182 | 1,515 |
| H05R | Lynchburg STP[1] | VA0024970 | 536,019 | 33,501 |
| H28R | Moores Creek Regional STP | VA0025518 | 274,100 | 22,842 |
| H38R | Powhatan CC STP | VA0020699 | 8,588 | 716 |

| | | | | |
|---|---|---|---|---|
| J11R | Crewe WWTP | VA0020303 | 9,137 | 761 |
| J01R | Farmville WWTP | VA0083135 | 43,856 | 3,655 |
| G02E | The Sustainability Park, LLC | VA0002780 | 25,583 | 1,919 |
| G01E | E I du Pont - Spruance | VA0004669 | 201,080 | 7,816 |
| G01E | Falling Creek WWTP | VA0024996 | 153,801 | 15,380 |
| G01E | Henrico County WWTP | VA0063690 | 1,142,085 | 114,209 |
| G03E | Honeywell – Hopewell | VA0005291 | 1,090,798 | 51,592 |
| G03R | Hopewell WWTP | VA0066630 | 1,827,336 | 76,139 |
| G15E | HRSD – Boat Harbor STP | VA0081256 | 740,000<br>304,593 [3] | 76,139<br>38,074 [3]<br>30,459 [4]<br>22,844 [5] |
| G11E | HRSD – James River STP | VA0081272 | 1,250,000<br>243,674 [3] | 60,911<br>30,459 [3]<br>24,367 [4]<br>18,276 [5] |
| G10E | HRSD – Williamsburg STP | VA0081302 | 800,000<br>274,133 [3] | 68,525<br>34,267 [3]<br>27,413 [4]<br>20,560 [5] |
| G02E | Philip Morris – Park 500 | VA0026557 | 139,724 | 2,650 |
| G01E | Proctors Creek WWTP | VA0060194 | 411,151 | 41,115 |
| G01E | Richmond WWTP[1] | VA0063177 | 1,096,402 | 68,525 |
| G02E | Dominion-Chesterfield[2] | VA0004146 | 272,036 | 210 |
| J15R | South Central WW Authority | VA0025437 | 350,239 | 35,024 |
| G07R | Chickahominy WWTP | VA0088480 | 6,167 | 123 |
| G05R | Tyson Foods – Glen Allen | VA0004031 | 19,552 | 409 |
| G11E | HRSD – Nansemond STP | VA0081299 | 750,000<br>365,511 [3] | 91,367<br>45,689 [3]<br>36,551 [4]<br>27,413 [5] |
| G15E | HRSD – Army Base STP | VA0081230 | 610,000<br>219,307 [3] | 54,820<br>27,413 [3]<br>21,931 [4]<br>16,448 [5] |
| G15E | HRSD – VIP WWTP | VA0081281 | 750,000<br>487,348 [3] | 121,822<br>60,919 [3]<br>48,735 [4]<br>36,551 [5] |

| | | | | |
|---|---|---|---|---|
| G15E | HRSD – JH Miles ~~& Company~~ | VA0003263 | 153,500 | ~~21,500~~ 17,437 |
| C07E | HRSD – Ches.-Elizabeth STP | VA0081264 | 1,100,000<br>454,596 [6, 7] | ~~108,674~~ 41,450 [7] |
| G01E | Tranlin/Vastly | | 80,000 | |
| | TOTALS | | 14,901,739<br>14,256,335 [6]<br>11,250,901 [3] | ~~1,354,375~~ 1,283,088<br>1,046,325 [3]<br>998,960 [4]<br>951,596 [5] |

Notes:
[1]Wasteload allocations for localities served by combined sewers are based on dry weather design flow capacity. During wet weather flow events the discharge shall achieve a TN concentration of 8.0 mg/l and a TP concentration of 1.0 mg/l.
[2]Wasteload allocations are "net" loads, based on the portion of the nutrient discharge introduced by the facility's process waste streams, and not originating in raw water intake.
[3]Effective January 1, 2026.
[4]Effective January 1, 2030.
[5]Effective January 1, 2032.
[6]Effective January 1, 2022.
[7]Effective January 1, 2026, the HRSD – Chesapeake-Elizabeth STP wasteload allocations for Total Nitrogen and Total Phosphorus are transferred to the Nutrient Offset Fund.

**9VAC25-720-120. York River Basin.**

A. Total maximum daily loads (TMDLs).

B. Stream segment classifications, effluent limitations including water quality based effluent limitations, and wasteload allocations.

C. Nitrogen and phosphorus wasteload allocations to restore the Chesapeake Bay and its tidal rivers. The following table presents nitrogen and phosphorus wasteload allocations for the identified significant dischargers and the total nitrogen and total phosphorus wasteload allocations for the listed facilities.

| Virginia Waterbody ID | Discharger Name | VPDES Permit No. | Total Nitrogen (TN) Wasteload Allocation (lbs/yr) | Total Phosphorus (TP) Wasteload Allocation (lbs/yr) |
|---|---|---|---|---|
| F20R | Caroline County STP | VA0073504 | 9,137 | 609 |
| F01R | Gordonsville STP | VA0021105 | 17,177 | 1,145 |
| F04R | Ashland WWTP | VA0024899 | 36,547 | 2,436 |
| F09R | Doswell WWTP | VA0029521 | 18,273 | 1,218 |
| F09R | Bear Island Paper Company | VA0029521 | 47,328 | 10,233 |
| F27E | Plains Marketing L.P. - Yorktown | VA0003018 | 167,128 | 17,689 |
| F27E | HRSD - York River STP | VA0081311 | 275,927<br>228,444 [1] | 18,395 |
| F14R | Parham Landing WWTP | VA0088331 | 36,547 | 2,436 |
| F14E | RockTenn CP LLC - West Point | VA0003115 | 259,177 | 56,038 |
| F12E | Totopotomoy WWTP | VA0089915 | 182,734 | 12,182 |
| F25E | HRSD - West Point STP | VA0075434 | 10,964 | 731 |
| | TOTALS: | | 1,060,939 | 123,112 |

| | | | | |
|---|---|---|---|---|
| | | | 1,013,456 [1] | |

[1]Effective January 1, 2026.

The nutrient upgrades and/or consolidation projects at the 13 POTWs included in the legislation will be addressed by separate individual VPDES permit modifications. The proposed Water Quality Management Planning Regulation amendments authorized for public comment on December 9, 2020 will proceed to public comment following Executive Review. However, the staff will not be soliciting comments on the provisions that were either eliminated by the recent legislation (i.e. "floating" WLAs) or included in the recent legislation (i.e. transfer of the HRSD Chesapeake/Elizabeth STP and former J. H. Miles WLAs). Following public notice and a public hearing, staff will be returning with final amendments to the Water Quality Management Planning Regulation including (1) establishing of TP WLAs necessary to meet chlorophyll-a water quality criteria in the tidal James River; (2) reassigning unneeded TN and TP WLAs from industries that have either closed, or otherwise eliminated their need for a WLA, to the Nutrient Offset Fund for future use; and (3) revising the General VPDES Watershed Permit for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia (9VAC25-820) as necessary to include schedules of compliance for chlorophyll-a based TP WLAs as well as the reduced TN and TP WLAs included in the ENRC Program.

**Tab H - General VPDES Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia, 9VAC25-820**: The current Nutrient Trading General Permit will expire on December 31, 2021 and the regulation establishing this general permit is being amended to reissue it for another term. The staff is bringing this regulation before the Board to request adoption of the amendments to the General VPDES Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia. The staff will also recommend that the Board affirm that it will receive, consider and respond to petitions by any person at any time with respect to reconsideration or revision of this regulation, as provided by the Administrative Process Act.

The regulation took into consideration the recommendations of a technical advisory committee (TAC) formed for this regulatory action.

The Notice of Public Comment and Hearing was approved by the Board on December 9, 2020. The comment period was March 1, 2021 – April 30, 2021 with a virtual public hearing held on April 1, 2021. The only comment received during the public hearing was a complement to DEQ staff on the development process for the regulation. Three comment letters were received during the public comment period. No changes were made between the proposed stage and this final draft. Substantive changes presented during the proposed stage included:

- Removed compliance dates that have since passed (9VAC25-820-40.A and 9VAC25-820-70 Parts I.C.1 and C.2);

- Updated the permit effective and expiration dates, as well as the date of timely Registration Statement submittal for continuation of permit coverage (9VAC25-820-70 and -70.Part I.A);

- Clarified the determination of transferred waste load allocations for consolidating facilities assigned different delivery factors, or where delivery factors may change at different consolidating facilities in different increments in future years (9VAC25-820-70 Part I.B.3);

- Clarified monitoring sample type and collection frequencies for industrial facilities whose authorized equivalent loads exceed the upper ranges (350,000 lbs/yr Total Nitrogen and 35,000 lbs/yr Total Phosphorus) previously listed (9VAC25-820-70 Part I.E.1);

- Revised the criteria for facilities treating domestic sewage > 1,000 gallons per day (GPD) and ≤ 39,999 GPD to submit a registration statement with the department to more closely conform to criteria established in statute (9VA25-820-70 Part I.G.1.c);

- Updated prices of Total Nitrogen and Total Phosphorus credit purchases from the Nutrient Offset Fund (9VAC25-820-70 Part I.J.3); and

- Updated DEQ contact information for submitting reports of unauthorized, unusual or extraordinary discharges, or noncompliance required by Parts III G, H and I (9VAC25-820-70 Part III.I).

The U.S. Environmental Protection Agency (EPA) indicated their concurrence on the proposed general permit and Fact Sheet.

## Technical Advisory Committee Membership

| | |
|---|---|
| Jameson Brunkow | James River Association |
| Pat Calvert | Virginia Conservation Network |
| Edwin Edmondson | City of Richmond Dept. of Public Utilities |
| James Grandstaff | Henrico County Dept. of Public Utilities |
| Blake Hamilton | Alex Renew Enterprises |
| Andrew Parker | AdvanSix |
| James Pletl | Hampton Roads Sanitation District |
| Chris Pomeroy | Virginia Association of Municipal Wastewater Agencies |
| Wayne Stephens | Goochland County Dept. of Public Utilities |
| Joseph Wood | Chesapeake Bay Foundation |

## DEQ Staff Coordinators

| | |
|---|---|
| Allan Brockenbrough | Office of VPDES Permits |
| Curt Linderman | Office of VPDES Permits |

## DEQ Staff Technical Liaisons

| | |
|---|---|
| Rebecca Johnson | NRO Compliance |
| Kristen Sadtler | CO Enforcement |
| Heather Weimer | PRO Compliance |
| Elizabeth Williams | TRO Compliance |
| Kyle Winter | PRO Permits |

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## Exempt Action: Final Regulation
## Agency Background Document

| | |
|---|---|
| **Agency name** | State Water Control Board |
| **Virginia Administrative Code (VAC) Chapter citation(s)** | 9 VAC 25-820 |
| **VAC Chapter title(s)** | General Virginia Pollutant Discharge Elimination System (VPDES) Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia |
| **Action title** | 2021 Amendment and Reissuance of General Permit Regulation |
| **Final agency action date** | June 29, 2021 |
| **Date this document prepared** | May 11, 2021 |

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.*

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This action consists of the reissuance of 9 VAC25-820 General VPDES Watershed Permit for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia. The regulation provides for the permitting of Total Nitrogen and Total Phosphorus discharges in the Chesapeake Bay watershed and allows for trading of nutrient credits to minimize costs to the regulated facilities and allow for future growth.

Amendments are proposed to update and clarify compliance plan requirements, effective dates, consolidation of facilities, schedules of compliance, monitoring frequencies and sample types, registration statement requirements for certain facilities treating domestic sewage, and unit costs of credit acquisitions to the Nutrient Offset Fund.

## 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."*

The mandate of this regulation is §62.1-44.19:14 of the Code of Virginia which directs the State Water Control Board to issue a Watershed General Virginia Pollutant Discharge Elimination System (VDPES) Permit authorizing point source discharges of total nitrogen and total phosphorus to the waters of the Chesapeake Bay and its tributaries.

The impetus of this regulatory change is Virginia Code § 62.1-44.15 (5a) which states, "All certificates issued by the Board under this chapter shall have fixed terms. The term of a Virginia Pollutant Discharge Elimination System permit shall not exceed five years." This general permit expires on December 31, 2021, and must be reissued in order to make coverage available for discharges from facilities holding individual VPDES permits that discharge or propose to discharge total nitrogen or total phosphorus to the Chesapeake Bay or its tributaries after December 31, 2021. The periodic review of this regulation is mandated by Executive Order 14 (as amended July 16, 2018). http://TownHall.Virginia.Gov/EO-14.pdf.

## Acronyms and Definitions

*Define all acronyms used in this form, and any technical terms that are not also defined in the "Definitions" section of the regulation.*

APA: Administrative Process Act
DEQ: Department of Environmental Quality
EPA (U.S. EPA): United States Environmental Protection Agency
HRSD: Hampton Roads Sanitary District
MGD: Millions of Gallons per Day
mg/L: Milligrams per Liter
NOIRA: Notice of Intended Regulatory Action
NPDES: National Pollutant Discharge Elimination System
STP: Sewage Treatment Plant
TAC: Technical Advisory Committee
TMDL: Total Maximum Daily Load
TN: Total Nitrogen
TP: Total Phosphorus
USC: United States Code
VAC: Virginia Administrative Code
VAMWA: Virginia Association of Municipal Wastewater Agencies
VPA: Virginia Pollutant Abatement
VPDES: Virginia Pollutant Discharge Elimination System
WLA: Wasteload allocation

WRRF: water resource recovery facilities
WWTP: Wastewater Treatment Plant

## Statement of Final Agency Action

*Provide a statement of the final action taken by the agency including: 1) the date the action was taken; 2) the name of the agency taking the action; and 3) the title of the regulation.*

On June 29, 2021, the State Water Control Board adopted the amended General VPDES Watershed Permit for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia (9VAC25-820). In addition, the Board affirmed that it would receive, consider, and respond to petitions by any interested person at any time with respect to reconsideration or revision.

## Legal Basis

*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.*

Section 402 of the Clean Water Act (33 USC 1251 et seq.) authorizes states to administer the NPDES permit program under state law. The Commonwealth of Virginia received such authorization in 1975 under the terms of a Memorandum of Understanding with the U.S. EPA. This Memorandum of Understanding was modified on May 20, 1991 to authorize the Commonwealth to administer a General VPDES Permit Program. Legal authority for issuing general permits under State Water Control Law is §62.1-44.15(5), 15(10), and 15(14).

## Purpose

*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's intended to solve.*

This rulemaking is proposed in order to amend and reissue the existing general permit which expires on December 31, 2021. The general permit governs facilities holding individual VPDES permits that discharge or propose to discharge total nitrogen or total phosphorus to the Chesapeake Bay or its tributaries. The facilities are authorized to discharge to surface waters and exchange credits for total nitrogen and/ or total phosphorus.

## Substance

*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 most significant changes to the regulation are:

(1) Removed compliance dates that have since passed (40 CFR 25-820-40.A and 40 CFR 25-820-70 Parts I.C.1 and C.2);
(2) Updated the permit effective and expiration dates, as well as the date of timely Registration Statement submittal for continuation of permit coverage (40 CFR 25-820-70 and -70.Part I.A);
(3) Clarified the determination of transferred WLAs for consolidating facilities assigned different delivery factors, or where delivery factors may change at different consolidating facilities in different increments in future years (40 CFR 25-820-70 Part I.B.3);
(4) Clarified monitoring sample type and collection frequencies for industrial facilities whose authorized equivalent loads exceed the upper ranges (350,000 lb/yr TN and 35,000 lb/yr) previously listed (40 CFR 25-820-70 Part I.E.1);
(5) Revised the criteria for facilities treating domestic sewage > 1,000 GPD and ≤ 39,999 GPD to submit a registration statement with the department to more closely conform to criteria established in statute (40 CFR 25-820-70 Part I.G.1.c);
(6) Updated prices of TN and TP credit purchases from the Nutrient Offset Fund (40 CFR 25-820-70 Part I.J.3); and
(7) Updated DEQ contact information for submitting reports required by Part III G, H and I (40 CFR 25-820-70 Part III.I).

## Issues

*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.*

The primary advantages to the public and to the agency of reissuing the general permit include minimizing compliance costs through implementation of nutrient trading and savings associated with the administration of a single watershed general permit. The regulatory action poses no disadvantages to the public or to the Commonwealth.

## Requirements More Restrictive than Federal

*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.*

There are no requirements that exceed applicable federal requirements.

## Agencies, Localities, and Other Entities Particularly Affected

*List all changes to the information reported on the Agency Background Document submitted for the previous stage regarding any other state agencies, localities, or other entities that are particularly affected by the regulatory change. If there are no changes to previously reported information, include a specific statement to that effect.*

Other State Agencies Particularly Affected

State agencies with current or pending general permit coverage include George Mason University, the Virginia Department of Corrections, and the Virginia Department of Transportation

Localities Particularly Affected

This regulation is applicable throughout the Chesapeake Bay Watershed, which does not affect all Virginia localities. The proposed amendments are not expected to impose a disproportionate material water quality impact on any locality that would not be experienced by the other localities within the watershed. Whether there is a disproportionate or material water quality impact on the following localities that is not experienced by other localities is questionable as all localities within the Chesapeake Bay Watershed share the water quality impacts. Localities within the Chesapeake Bay Watershed include all or portions of the Counties of Accomack, Albemarle, Alleghany, Amelia, Amherst, Appomattox, Arlington, Augusta, Bath, Bedford, Botetourt, Buckingham, Campbell, Caroline, Charles City, Chesterfield, Clarke, Craig, Culpeper, Cumberland, Dinwiddie, Essex, Fairfax, Fauquier, Fluvanna, Frederick, Giles, Gloucester, Goochland, Greene, Hanover, Henrico, Highland, Isle of Wight, James City, King and Queen, King William, Lancaster, Loudoun, Louisa, Madison, Mathews, Middlesex, Montgomery, Nelson, New Kent, Northampton, Northumberland, Nottoway, Orange, Page, Powhatan, Prince Edward, Prince George, Prince William, Rappahannock, Richmond, Roanoke, Rockbridge, Rockingham, Shenandoah, Spotsylvania, Stafford, Surry, Warren, Westmoreland, and York; and the Cities of Alexandria, Buena Vista, Charlottesville, Chesapeake, Colonial Heights, Covington, Fairfax, Falls Church, Fredericksburg, Hampton, Harrisonburg, Hopewell, Lexington, Lynchburg, Manassas, Manassas Park, Newport News, Norfolk, Petersburg, Poquoson, Portsmouth, Richmond, Staunton, Suffolk, Virginia Beach, Waynesboro, Williamsburg, and Winchester.

Other Entities Particularly Affected

Other entities particularly affected include all dischargers of nutrients in the Chesapeake Bay watershed that are subject to the general permit registration requirements included in Part I.G of the general permit (9VAC25-820).

## Public Comment

*Summarize all comments received during the public comment period following the publication of the proposed stage, and provide the agency response. Ensure to include all comments submitted: including any received on Town Hall, in a public hearing, or submitted directly to the agency or board. If no comment was received, enter a specific statement to that effect.*

| Commenter | Comment | Agency response |
|---|---|---|
| Joseph Wood, Ph.D.<br>Virginia Senior Scientist<br>Chesapeake Bay Foundation<br>1108 E Main St #1600<br>Richmond VA 23219<br><br>jointly with: | DEQ's summary list of proposed amendments largely address the goals of this regulation. Issues outside of this core subject matter that were not raised and addressed through the Advisory Panels during the development of this regulation would lack the Clean Water Act's (CWA) required public notice steps and meaningful stakeholder involvement. Any substantive change to the regulations beyond the adjustments proposed should be done in a | Comment noted. This regulatory action addresses issues discussed during the Technical Advisory Committee (TAC) meetings and is in accordance with the APA. |

| Commenter | Comment | Agency response |
|---|---|---|
| Jameson Brunkow<br>Senior Advocacy Manager & James Riverkeeper<br>James River Association<br>211 Rocketts Way, Suite 200<br>Richmond, VA 23219<br><br>(Continued)<br><br>Joseph Wood, Ph.D.<br>Virginia Senior Scientist<br>Chesapeake Bay Foundation<br>1108 E Main St #1600<br>Richmond VA 23219<br><br>jointly with:<br><br>Jameson Brunkow<br>Senior Advocacy Manager & James Riverkeeper<br>James River Association<br>211 Rocketts Way, Suite 200<br>Richmond, VA 23219 | subsequent rulemaking and in accordance with the Administrative Process Act (APA).<br><br>The Chesapeake Bay Foundation (CBF) and James River Association (JRA) recommend the following:<br><br>1. Lagging progress in nonpoint source sectors means it is important for Virginia to achieve all possible reductions through wastewater and to ensure such reductions are not offset by growth. Reliance on voluntary actions and upgrades will fail to provide adequate accountability and the reasonable assurance required under the CWA.<br><br>One critical mechanism to achieving this is maintaining and reducing the wastewater sector's permitted Waste Load Allocations (WLAs). Virginia's nutrient trading program accommodates this approach. DEQ should begin planning to evaluate, and where appropriate, reduce WLAs in the upcoming Decennial Review. Similar to the recent evaluation of industrial discharger WLAs, Decennial Review is the appropriate opportunity to reduce unused WLAs for municipal sources. Summaries of credits as documented through the 2021 Nutrient Credit Exchange Compliance Plan provide a clear indication there are available nutrient credits in the marketplace, particularly in the Potomac and James River Watersheds to address any WLA exceedances between Decennial Reviews. WLAs are not permanent and reclaiming unneeded credits will represent a critical step to continuing to reduce nutrient loads. This process represents the approach Virginia has adopted to address any needs related to growth.<br><br>2. In regard to Compliance Plans (9VAC25-820-40, 5.C), CBF and JRA recommend retaining all due dates in the regulation unless all such compliance plans have been fully completed and approved.<br><br>3. CBF and JRA encourage DEQ to ensure language changes that are intended to clarify | 1. The 2030 decennial review process will include an evaluation of municipal WLAs in 9VAC25-720 in accordance with Va. Code § 62.1-44.19:14.D. No further amendments to 9VAC25-820 in response to this comment.<br><br>2. All of the 2017 Schedules of Compliance have been completed. No changes are needed in response to this comment.<br><br>3. No change in response to this comment is warranted. Proposed changes at 9VAC 25-820.70, |

| Commenter | Comment | Agency response |
|---|---|---|
| | transferred WLAs do not lead to a decrease in water quality protections. | Part I.B.3 are intended to clarify and ensure transferred WLAs will be protective of water quality. |
| James J. Pletl, Ph.D.<br>Director, Water Quality Dept.<br>Hampton Roads Sanitation District (HRSD)<br>1434 Air Rail Ave<br>Virginia Beach, VA 23455 | There appears to be an error in Part I, Section C.3 of the proposed General Permit changes titled, "*Schedule of compliance*." Only subdivision 3 has been proposed for deletion, but the entire sentence:<br>"*The significant dischargers in the James River Basin shall meet aggregate discharged wasteload allocations of 8,968,864 lbs/yr TN and 545,558 lbs/yr TP by January 1, 2023.*"<br>must also be deleted given recent changes to Virginia legislation. | Aggregated James River WLAs remain in the General Permit until replaced by chlorophyll-a based WLAs to be addressed in 9VAC25-720. Chlorophyll-a based WLAs are subject to a separate rulemaking and were not addressed by HB 2129. |
| (Continued)<br><br>James J. Pletl, Ph.D.<br>Director, Water Quality Dept.<br>Hampton Roads Sanitation District (HRSD)<br>1434 Air Rail Ave<br>Virginia Beach, VA 23455 | Part III of the General Permit, Section W, includes new language regarding the ability of an authorized contractor acting as a representative of the administrator to conduct inspections of facilities covered by this General Permit. Although this language may be supported by regulation, the General Permit and supporting regulation does not define "administrator" and does not define the qualifications and training of the "authorized contractor." It is critical that any contractor involved in any inspection of a facility addressed by this General Permit be properly educated and trained regarding the elements of such an inspection as well as the appropriate techniques for collecting and preserving samples. The qualifications of such a contractor need to be addressed either in the General Permit, or in guidance before the regulation is finalized. | The new language ("…*acting as a representative of the administrator*…") is required in all VPDES permits in accordance with 9VAC25-31-190, "Conditions applicable to all permits." 9VAC25-820-10 indicates that the words and terms not defined herein shall have the same meanings as those of 9VAC-25-31 which defines "Administrator" as "the Administrator of the United States Environmental Protection Agency, or an authorized representative." It is |

| Commenter | Comment | Agency response |
|---|---|---|
| | | at USEPA's discretion to determine if their contractors are duly qualified and trained. No change in response to the comment is proposed. |
| Kendra Sveum, P.E.<br>Plant Manager<br>Broad Run Water Reclamation Facility (WRF)<br>Loudoun Water<br>44865 Loudoun Water Way<br>Ashburn, VA 20147<br><br>(Continued)<br><br>Kendra Sveum, P.E.<br>Plant Manager<br>Broad Run Water Reclamation Facility (WRF)<br>Loudoun Water<br>44865 Loudoun Water Way<br>Ashburn, VA 20147 | Loudoun Water requests amendments to the existing nutrient WLA acquisition framework to better meet the needs of growing communities. The framework should account for the application of advanced wastewater treatment technology and special case requirements. Loudoun Water requests an amended framework be made available to the Broad Run WRF and other similarly situated facilities, or that DEQ otherwise meet the WLA needs of Broad Run WRF.<br><br>To meet the needs of the Broad Run WRF service area (which includes the eastern portion of Loudoun County and its large and rapidly growing residential base, major commercial facilities and ongoing development associated with Dulles International Airport, the Metro rail system's new Silver Line, and a large portion of the nation's data centers), the Broad Run WRF must be expanded from 11 MGD to 30 MGD over the next 20 years. The Broad Run WRF's current Total Nitrogen (TN) WLA is based on a design flow of 11 MGD and discharge concentration of 4.0 mg/L. The Total Phosphorus (TP) WLA is based on the Dulles Area Watershed Policy discharge concentration requirement of 0.1 mg/L. A Broad Run WRF expansion to 30 MGD is currently confined by the existing WLAs that would mathematically necessitate reducing discharge concentrations to 1.4 mg/L TN and 0.03 mg/L TP. These concentrations are below "state-of-the-art" (SOA) nutrient removal levels considered technically and reliably achievable with current wastewater treatment technologies.<br><br>To complete the process of planning, design, and construction of a significant facility expansion requires a minimum timeframe of 10 years. Thus, to avoid delays in planning and construction, there is a need for DEQ to provide as part of this rulemaking a known and reasonably achievable technology basis upon | DEQ recognizes the importance of the issues raised by Loudoun Water. However, the proposed recommendations have broad implications that were not discussed by the TAC advising DEQ on this rulemaking nor the Regulatory Advisory Panel providing input to DEQ on the current WQMP Regulation rulemaking. These recommendations reflect substantive proposed changes that would be more appropriately addressed through separate 9VAC25-720 and 9VAC25-820 rulemaking processes. |

| Commenter | Comment | Agency response |
|---|---|---|
| (Continued)<br><br>Kendra Sveum, P.E.<br>Plant Manager<br>Broad Run Water Reclamation Facility (WRF)<br>Loudoun Water<br>44865 Loudoun Water Way<br>Ashburn, VA 20147 | which the next plant expansion should be designed.<br><br>Loudoun Water planning efforts have included maximizing expansion of their non-potable reuse system. But this approach will not be sufficient to meet the predicted WLA deficit from a Broad Run WRF expansion. The implementation of a *potable* reuse program would require a significant, successful public outreach program. Even assuming a highly resourced effort by Loudoun Water, DEQ and the Virginia Department of Health, the alternative of a wide-scale potable reuse is not considered a feasible alternative to WLA assignment at this time.<br><br>While the Nutrient Exchange is available to assist utilities with WLA compliance in some circumstances, the Nutrient Exchange is not a feasible alternative for long-term offset needs of expanding facilities such as Broad Run WRF. Loudoun Water has confirmed with a representative of the Nutrient Exchange that it does not provide the opportunity for the acquisition of required WLA for a facility expansion. Instead, the Nutrient Exchange only executes contracts for annual credits. Significantly, annual credit contracts are only offered on a short-term basis (maximum of five years). It is not feasible to base the compliance planning and investment for a major facility expansion on this type of uncertain, short-term credit supply.<br>The following Enhanced Nutrient Allocation Acquisition framework is requested by Loudoun Water to minimize nutrient allocation use and actual discharges while also providing regulatory certainty as to the proper design basis for special case circumstances. This request is based on Va. Code § 62.1-44.19:15, which provides that additional nutrient allocations may be acquired by various mechanisms including any means "*as may be approved by the Department on a case-by-case basis*." In addition, DEQ has previously reserved the opportunity to "*amend this regulation to adjust individual nitrogen and phosphorus waste load allocations*" consistent with water quality standards. 9VAC25-720-40.D.<br><br>The following tiered system minimizes nutrient discharges to levels that DEQ can administer | |

| Commenter | Comment | Agency response |
|---|---|---|
| (Continued)<br><br>Kendra Sveum, P.E.<br>Plant Manager<br>Broad Run Water Reclamation Facility (WRF)<br>Loudoun Water<br>44865 Loudoun Water Way<br>Ashburn, VA 20147 | well within the wastewater sector allocations under the Chesapeake Bay TMDL.<br><br>**Tier 1. State-of-the-Art Nutrient Removal Technology**<br><br>Tier 1 would require that any expansion beyond the design flow basis of a current WLA be self-offset to the extent of SOA technology levels.<br><br>**Tier 2. Net Nutrient Load Basis: Intake Credits for Post-2010 Nutrient Withdrawals**<br><br>Tier 2 of the proposed framework is similar to Tier 1 in that it is also a self-offset concept. Tier 2 is based on minor extension of an existing regulatory principle to a comparable situation. Specifically, existing regulations recognize that nutrient removal occurs by means of withdrawal of nutrient-containing water from surface supplies. However, the current regulation limits such intake credits for existing, background nutrients in the water source only to industrial withdrawals.<br><br>In the special case of municipal wastewater treatment facilities expanding to a capacity that mathematically would otherwise require effluent nutrient concentrations to be reduced to sub-SOA levels, Loudoun Water requests appropriate Chesapeake Bay watershed-level intake credits to account for the pre-existing TN and TP levels in the source water, rather than penalizing the WWTP for merely cycling those pre-existing surface water nutrients through the water-wastewater utility system.<br><br>For consistency with the Chesapeake Bay TMDL, Loudoun Water would not oppose limiting municipal intake credits to the increased water withdrawal quantity occurring after January 1, 2011.<br><br>The specific proposed amendments to the relevant regulations to implement this request are:<br><br>Existing 9VAC25-720-40.C should be amended as follows:<br><br>Unless otherwise noted, the nitrogen and phosphorus waste load allocations assigned to individual significant dischargers in | |

| Commenter | Comment | Agency response |
|---|---|---|
| (Continued)<br><br>Kendra Sveum, P.E.<br>Plant Manager<br>Broad Run Water Reclamation Facility (WRF)<br>Loudoun Water<br>44865 Loudoun Water Way<br>Ashburn, VA 20147 | 9VAC25-720-50 C, 9VAC25-720-60 C, 9VAC25-720-70 C, 9VAC25-720-110 C, and 9VAC25-720-120 C are considered total loads including nutrients present in the intake water from the river, as applicable. On a case-by-case basis, an industrial discharger may demonstrate to the satisfaction of the board that a significant portion of the nutrient load originates in its intake water. In these industrial discharger cases, the board may limit the permitted discharge to reflect only the net nutrient load portion of the assigned waste load allocation. In the case of a municipal discharger, such a demonstration shall be limited to (a) new or expanding treatment facilities with state-of-the-art nutrient removal technology and (b) nutrient load credit calculated based on state-of-the-art nutrient removal technology and the volume of water withdrawal increase after January 1, 2011 only. Such limits shall be consistent with the assumptions and methods used to derive the allocations through the Chesapeake Bay watershed and water quality models.<br><br>Similarly, existing 9VAC25-820-70 Part I B 4 should be amended as follows:<br><br>Unless otherwise noted, the nitrogen and phosphorus waste load allocations assigned to permitted facilities are considered total loads, including nutrients present in the intake water from the river, as applicable. On a case-by-case basis, an industrial discharger may demonstrate to the satisfaction of the board that a portion of the nutrient load originates in its intake water. This demonstration shall be consistent with the assumptions and methods used to derive the allocations through the Chesapeake Bay models. In these industrial discharger cases, the board may limit the permitted discharge to the net nutrient load portion of the assigned waste load allocation. In the case of a municipal discharger, such a demonstration shall be limited to (a) new or expanding treatment facilities with state-of-the-art nutrient removal technology and (b) nutrient load credit calculated based on state-of-the-art nutrient removal technology and the volume of water withdrawal increase after January 1, 2011 only. These demonstrations shall be consistent with the assumptions and | |

| Commenter | Comment | Agency response |
|---|---|---|
| | methods used to derive the allocations through the Chesapeake Bay models.<br><br>**Tier 3. Nutrient Offset Fund ("NOF") WLA Supply**<br><br>To the extent that Tier 1 and Tier 2 actions are insufficient to meet the WLA requirements of the expanded Broad Run WRF, Loudoun Water requests DEQ transfer sufficient additional TN and TP WLA to Broad Run WRF from any available NOF WLA supply to the extent necessary for the 30 MGD facility. DEQ has identified potential NOF supply within the Potomac-Shenandoah basin. In addition, DEQ has identified potential NOF supply in other river basins or tributaries to the Chesapeake Bay, which can be used in the Potomac basin in accordance with basin-to-basin transfer ratios established in Virginia's Phase III WIP. Loudoun Water understands that DEQ intends to designate additional NOF (i.e., reserve) allocation through a pending rulemaking. Loudoun Water requests authorization to use that reserve to provide treatment for (and thereby reduce nutrient loadings from) additional wastewater flows from Virginia's growing population.<br><br>**Tier 4. Enhanced State-of-the-Art Nutrient Removal**<br><br>If additional WLA is required for Broad Run WRF after Tier 1 (SOA technology), Tier 2 (intake credits for post-2010 nutrient withdrawal increases), and Tier 3 (NOF WLA supply), Loudoun Water requests that additional TN and TP WLA be granted based on the remaining WLA need for the expanded design capacity under assumed concentrations of 3.0 mg/L TN and 0.1 mg/L TP, subject to the following conditions and limitations:<br><br>a. That Broad Run WRF's permit include a requirement that the facility designed to meet the above referenced concentrations be operated to achieve lower effluent concentrations whenever feasible.<br>b. That Broad Run WRF shall use consumptive non-potable reuse where practicable to | |

| Commenter | Comment | Agency response |
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| | minimize discharges (potable reuse shall not be required).<br>c. That any nutrient credits generated by Broad Run WRF from operating below such TN and TP WLAs shall not be tradeable by Broad Run WRF to other facilities or third parties. This restriction shall not preclude Broad Run WRF in any given year from acquiring annual nutrient credits from the Virginia Nutrient Credit Exchange Association to offset any exceedance of the TN and TP WLAs provided in this provision, such as in the event of an upset causing annual average TN to exceed 3.0 mg/L unexpectedly. | |
| Woodie Walker<br>Director of Environmental Services, Historian and Curator<br>Rappahannock Tribe<br>5036 Indian Neck Rd<br>Indian Neck, VA 23148 | No comments. Thanked DEQ for reaching out to the Rappahannock Tribe. | Comment noted. |
| Christopher Pomeroy<br>VAMWA General Counsel<br><br>(Comments during April 1, 2021 Public Hearing) | No comments. Thanked DEQ on behalf of VAMWA for the ongoing coordination and collaboration on the regulation since 2007. | Comment noted. |

## Detail of Changes Made Since the Previous Stage

*List all changes made to the text since the previous stage was published in the Virginia Register of Regulations and the rationale for the changes. For example, describe the intent of the language and the expected impact. Describe the difference between existing requirement(s) and/or agency practice(s) and what is being proposed in this regulatory change. Explain the new requirements and what they mean rather than merely quoting the text of the regulation. * Put an asterisk next to any substantive changes.*

No changes made since previous stage.

## Detail of All Changes Proposed in this Regulatory Action

*List all changes proposed in this exempt action and the rationale for the changes. Explain the new requirements and what they mean rather than merely quoting the text of the regulation. *Please put an asterisk next to any substantive changes.*

| Current section number | New section number, if applicable | Current requirement | Change, intent, rationale, and likely impact of new requirements |
|---|---|---|---|
| 40.A | | Requires submittal of a compliance plan by July 1, 2017 for facilities identified in 9VAC25-820-80 and subject to a limit effective date after January 1, 2017 as defined in 9-VAC25-820-70 I C 1. | Removed. Compliance dates are in the past. |
| 40.B | 40 | Requires submittal of an annual compliance plan update. | Renumbered. |
| 50.B | | Transfer of conditions to new owner. | Change in style: removed "but not limited to". |
| 70 | | Effective date of permit | Updated the effective (2022) and expiration (2026) dates to reflect the reissuance date of the permit. |
| 70.I.A.1.a | | Authorization to discharge for owners of facilities that submit a timely Registration Statement. | Updated the date of timely Registration Statement submittal from November 1, 2016 to November 1, 2021 to reflect a new reissuance cycle of the general permit. |
| 70.I.A.3.a | | Continuation of permit coverage to owners of facilities that submit a timely Registration Statement. | Updated the date of timely Registration Statement submittal from November 1, 2016 to November 1, 2021 to reflect a new reissuance cycle of the general permit. |
| 70.I.A.3.b.(1)<br>70.I.A.3.b.(2) | | Continuation of permit coverage – board choices when an owner of an expiring or expired permit has violated or is violating the conditions of that permit. | Updated the year citation of the effective date of the previous cycle general permit (from 2012 to 2017). |
| 70.I.B.3 | | Authorizes two or more consolidating facilities to receive aggregated mass nutrient load limits. | Deleted the word "delivered" preceding both "total nitrogen" and "total phosphorus" to read, "…*may apply for and receive an aggregated mass load limit for ~~delivered~~ total nitrogen and an aggregated mass load limit for ~~delivered~~ total phosphorus, subject to the following conditions:"* The change (in conjunction with subdivision 70.I.B.3.a, below) addresses situations where consolidating facilities may be assigned different delivery factors, or where delivery factors may change at different consolidating facilities in different increments in future years. Aggregated |

| Current section number | New section number, if applicable | Current requirement | Change, intent, rationale, and likely impact of new requirements |
|---|---|---|---|
| | | | mass loads are to be applied end-of-pipe to discharged loads. |
| | 70.I.B.3.a | Calculation of aggregated mass nutrient load limits for consolidating facilities. | Added:<br>"*a. Aggregate mass limits will be calculated accounting for delivery factors in effect at the time of the consolidation.*"<br>See subdivision 70.I.B.3, above. Addresses situations where consolidating facilities may be assigned different delivery factors, or where delivery factors may change at different consolidating facilities in different increments in future years. Clarifies the calculation of aggregated mass loads are to account for delivery factors at the time of consolidation. |
| 70.I.B.3.a | 70.I.B.3.b | Conditions for calculating aggregate mass load limits if all of the affected consolidating facilities have wasteload allocations in 9VAC25-720-50 C, 9VAC25-720-60 C, 9VAC25-720-70 C, 9VAC25-720-110 C, and 9VAC25-720-120 C of the Water Quality Management Planning Regulation. | Renumbered. |
| 70.I.B.3.b | 70.I.B.3.c | Conditions for calculating aggregate mass load limits if any, but not all of the affected consolidating facilities have wasteload allocations in 9VAC25-720-50 C, 9VAC25-720-60 C, 9VAC25-720-70 C, 9VAC25-720-110 C, and 9VAC25-720-120 C of the Water Quality Management Planning Regulation. | Renumbered. |
| 70.I.B.3.b.(3) | 70.I.B.3.c.(3) | Formulae for calculating aggregated wasteload allocations. | Corrected the time period associated with loading units, and added clarifying units for flow to read:<br>Nitrogen Load (lbs/~~day~~year) = flow (MGD) x 8.0 mg/l x 8.345 x 365 days/year |

| Current section number | New section number, if applicable | Current requirement | Change, intent, rationale, and likely impact of new requirements |
|---|---|---|---|
| | | | Phosphorus Load (lbs/~~day~~year) = flow (MGD) x 1.0 mg/l x 8.345 x 365 days/year |
| 70.I.B.3.c | 70.I.B.3.d | Conditions for calculating aggregate mass load limits if none of the affected consolidating facilities have wasteload allocations in 9VAC25-720-50 C, 9VAC25-720-60 C, 9VAC25-720-70 C, 9VAC25-720-110 C, and 9VAC25-720-120 C of the Water Quality Management Planning Regulation. | Renumbered. |
| 70.I.B.3.d | 70.I.B.3.e | Conditions for facilities consolidated under common ownership or operation that were previously authorized by a Virginia Pollutant Abatement (VPA) permit issued before July 1, 2005. | Renumbered. |
| 70.I.B.3.e | 70.I.B.3.f | Conditions for facilities that become regional facilities that were previously authorized by a VPA permit issued before July 1, 2005. | Renumbered. |
| 70.I.C.1 | | Schedules of compliance pertaining to the TN and TP load allocations that apply to facilities listed in section -80. | Removed. The previous permit cycle's compliance deadlines will need to be met by the January 1, 2022 effective reissuance date of the general permit. |
| 70.I.C.2 | | Registration List individual dates of compliance with WLAs. | Removed. All compliance schedules will need to be completed by the January 1, 2022 effective reissuance date of the general permit. |
| 70.I.C.3 | 70.1.C | January 1, 2023 schedule of compliance for significant dischargers in the James River Basin to meet | Renumbered. |

| Current section number | New section number, if applicable | Current requirement | Change, intent, rationale, and likely impact of new requirements |
|---|---|---|---|
| | | aggregate discharged TN and TP WLAs. | |
| 70.I.E.1 [Table] | | Effluent TN and TP load limits for industrial facilities. | Changed the Effluent TN field to read, "≥ 100,000 ~~– 350,000~~ lb/yr" and the Effluent TP field to read, "≥ 10,000 ~~– 35,000~~ lb/yr. Industrial facility load limits are based on "equivalent" rather than STP design flows. Industrial facilities currently exist whose authorized equivalent loads exceed the upper ranges previously listed. |
| 70.I.G.1.c | | Criteria for facilities treating domestic sewage > 1,000 GPD and ≤ 39,999 GPD to submit a registration statement with the department. | Added, "…*and is subject to offset requirements in accordance with Part II A 1 c of this general permit…"* to more closely conform to the criteria established in Code of Virginia §§62.1-44.19:14.C.5. and 15.A.5. |
| 70.I.H.2 | | The registration statement shall be submitted to the DEQ Central Office, Office of VPDES Permits. | Added that once the 9VAC25-31-1020 (Electronic Reporting) date is established for this permit sector, registration statements shall be submitted electronically. Three months' notice shall be given by the department about this requirement. Some impact because once electronic reporting dates are established and technology is developed at the department, the permittees will have no choice but to file registrations statements electronically. No impact to the permittee is anticipated from this modification intended to comply with EPA's e-Reporting Rule and 9VAC25-31-1020.. |
| 70.I.J.3 | | Payment amounts to the Nutrient Offset Fund per pound of TN and TP | Updated based on staff judgement of an increase in unit costs relative to the previous permit cycle. The unit TN price increased from $4.60 to $5.08 per pound, and the unit TP price increased from $10.10 to $11.15 per pound. Removed "but not be limited to" (change of style). |
| 9VAC25-820-70 Part II.B.3 | | Acquisition of wasteload allocations, priority of options. | Change in style: removed "but not be limited to". |
| 9VAC25-820-70 Part III Conditions Applicable to All Permits | | Part III contains conditions applicable to all permits. | Added under Part III I (Reports of noncompliance), a permittee shall promptly submit any facts or incorrect information submitted with a registration statement or any report to the department. This wording is being added at reissuance for all general permits for consistency with the VPDES and NPDES regulations. Minor impact since permittees need to be aware of this new requirement if they discover an error on any report submitted or |

| Current section number | New section number, if applicable | Current requirement | Change, intent, rationale, and likely impact of new requirements |
|---|---|---|---|
| | | | registration statement on which permit coverage was based.<br><br>In Part III.I.3, the web link was updated to cite https://portal.deq.virginia.gov/prep/Report/Create for the online submission of reports of non-compliance.<br><br>In Part III W (Inspection and entry) added "The permittee shall allow the director or an authorized representative~~,~~ (including an authorized contractor acting as a representative of the administrator), upon presentation of credentials and other documents as may be required by law, to:<br>1. Enter…<br>2. Have access to…<br>3. Inspect…and<br>4. Sample...<br>For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours ~~and~~ or whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.<br>This wording is being added at reissuance for all general permits for consistency with the VPDES and NPDES regulation. No impact.<br><br>Other changes made in Part III are minor and were done to be consistent with other general permits. No impact. |

## 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.*

This general permit complements 9VAC25-40 (the Regulation for Nutrient Enriched Waters and Dischargers within the Chesapeake Bay Watershed) and 9VAC25-720 (the Water Quality Management Planning

Regulation) and is intended to provided compliance flexibility to the affected facilities in order to ensure the most cost-effective nutrient reduction technologies are installed within the respective tributary watersheds. This regulation does not impose any additional compliance costs upon regulated entities above and beyond those already imposed by the aforementioned regulations, and is intended to provide an alternative means of compliance in order to save the regulated entities money.

## Periodic Review and Small Business Impact Review Report of Findings

*Indicate whether the regulatory change meets the criteria set out in Executive Order 14 (as amended, July 16, 2018), e.g., is necessary for the protection of public health, safety, and welfare; minimizes the economic impact on small businesses consistent with the stated objectives of applicable law; and is clearly written and easily understandable. In addition, as required by § 2.2-4007.1 E and F of the Code of Virginia, include a discussion of the agency's consideration of: (1) the continued need for the regulation; (2) the nature of complaints or comments received concerning the regulation from the public; (3) the complexity of the regulation; (4) the extent to the which the regulation overlaps, duplicates, or conflicts with federal or state law or regulation; and (5) the length of time since the regulation has been evaluated or the degree to which technology, economic conditions, or other factors have changed in the area affected by the regulation.*

Protecting water quality in the Commonwealth's surface waters is necessary to protect the health, safety and welfare of citizens. These discharges are considered to be point sources of pollutants and thus are subject to regulation under the VPDES permit program.
1. The proposed regulatory action is needed in order to establish appropriate and necessary permitting requirements for discharges of Total Nitrogen and Total Phosphorus to surface waters in the Chesapeake Bay watershed and the exchange of Total Nitrogen and Total Phosphorus credits for dischargers covered under the general permit. The primary issue that needs to be addressed is that the existing general permit expires on December 31, 2021 and must be reissued in order to continue making it available after that date.
2. Comments received from the public concerning the regulation pertained to the amendments proposed by the technical advisory committee.
3. The complexity of the regulation and ideas to make it clearer were discussed by the technical advisory committee and appropriate changes were made.
4. The regulation does not overlap, duplicate, or conflict with federal or state law or regulation as the State Water Control Board is the delegated authority to regulate point source discharges to surface water.
5. The regulation was evaluated in 2016 when the permit was reissued last permit term.

## 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 regulation will have no direct impact on the institution of the family or family stability.

**9VAC25-820-40. Compliance plans.**

~~A. By July 1, 2017, every owner of a facility identified in 9VAC25-820-80 and subject to a limit effective date after January 1, 2017, as defined in Part I C 1 of 9VAC25-820-70 shall either individually or through the Virginia Nutrient Credit Exchange Association submit compliance plans to the department for approval.~~

~~1. The compliance plans shall contain any capital projects and implementation schedules needed to achieve total nitrogen and phosphorus reductions sufficient to comply with the individual and combined wasteload allocations of all the permittees in the tributary as soon as possible. Permittees submitting individual plans are not required to account for other facilities' activities.~~

~~2. As part of the compliance plan development, permittees shall either:~~

~~a. Demonstrate that the additional capital projects anticipated by subdivision 1 of this subsection are necessary to ensure continued compliance with these allocations by the applicable deadline for the tributary to which the facility discharges (Part I C of the permit), or~~

~~b. Request that their individual wasteload allocations become effective on January 1, 2017.~~

~~3. The compliance plans may rely on the exchange of point source credits in accordance with this general permit, but not the acquisition of credits through payments into the Nutrient Offset Fund (§ 10.1-2128.2 of the Code of Virginia), to achieve compliance with the individual and combined wasteload allocations in each tributary.~~

~~B.~~ Every owner of a facility required to submit a registration statement shall either individually or through the Virginia Nutrient Credit Exchange Association submit annual compliance plan updates to the department for approval as required by Part I D of the general permit.

**9VAC25-820-50. Transfer of Permit Coverage.**

A. Coverage under the general permit shall be transferred by the current permittee to a new owner concurrently with the transfer of the individual permit or permits in accordance with 9VAC25-31-380. If the current permittee holds an aggregated wasteload allocation for multiple facilities in accordance with Part I B 2 of the general permit, the current permittee shall submit a revised registration statement for any facilities retained and the new owner shall submit a registration statement for the facilities transferred.

B. All conditions of the general permit, including~~, but not limited to,~~ the submittal of a registration statement, annual nutrient allocation compliance and reporting requirements, shall apply to the new owner immediately upon the transfer date.

**9VAC25-820-70. General permit.**

Any owner whose registration statement is accepted by the board will receive the following general permit and shall comply with the requirements of the general permit.

General Permit No.: VAN000000
Effective Date: January 1, ~~2017~~ 2022

Expiration Date: December 31, ~~2021~~2026
GENERAL PERMIT FOR TOTAL NITROGEN AND TOTAL PHOSPHORUS DISCHARGES AND NUTRIENT TRADING IN THE CHESAPEAKE WATERSHED IN VIRGINIA
AUTHORIZATION TO DISCHARGE UNDER THE VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM AND THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act, as amended, and pursuant to the State Water Control Law and regulations adopted pursuant to it, owners of facilities holding a VPDES individual permit or owners of facilities that otherwise meet the definition of an existing facility, with total nitrogen or total phosphorus discharges, or both to the Chesapeake Bay or its tributaries, are authorized to discharge to surface waters and exchange credits for total nitrogen or total phosphorus, or both.

The authorized discharge shall be in accordance with the registration statement filed with DEQ, this cover page, Part I-Special Conditions Applicable to All Facilities, Part II-Special Conditions Applicable to New and Expanded Facilities, and Part III-Conditions Applicable to All VPDES Permits, as set forth herein.

PART I

SPECIAL CONDITIONS APPLICABLE TO ALL FACILITIES

A. Authorized activities.

1. Authorization to discharge for owners of facilities required to register.

a. Every owner of a facility required to submit a registration statement to the department by November 1, ~~2016~~ 2021, and thereafter upon the reissuance of this general permit, shall be authorized to discharge total nitrogen and total phosphorus subject to the requirements of this general permit upon the department's approval of the registration statement.

b. Any owner of a facility required to submit a registration statement with the department at the time he makes application with the department for a new discharge or expansion that is subject to an offset or technology-based requirement in Part II of this general permit, shall be authorized to discharge total nitrogen and total phosphorus subject to the requirements of this general permit upon the department's approval of the registration statement.

c. Upon the department's approval of the registration statement, a facility will be included in the registration list maintained by the department.

2. Authorization to discharge for owners of facilities not required to register. Any owner of a facility authorized by a VPDES permit and not required by this general permit to submit a registration statement shall be deemed to be authorized to discharge total nitrogen and total phosphorus under this general permit at the time it is issued. Owners of facilities that are deemed to be permitted under this subsection shall have no obligation under this general permit prior to submitting a registration statement and securing coverage under this general permit based upon such registration statement.

3. Continuation of permit coverage.

a. Any owner authorized to discharge under this general permit and who submits a complete registration statement for the reissued general permit by November 1, ~~2021~~ 2026, in accordance with Part III M or who is not required to register in accordance with Part I A 2 is authorized to continue to discharge under the terms of this general permit until such time as the board either:

(1) Issues coverage to the owner under the reissued general permit, or

(2) Notifies the owner that the discharge is not eligible for coverage under this general permit.

b. When the owner that was covered under the expiring or expired general permit has violated or is violating the conditions of that permit, the board may choose to do any or all of the following:

(1) Initiate enforcement action based upon the ~~2012~~ 2017 general permit,

(2) Issue a notice of intent to deny coverage under the reissued general permit. If the general permit coverage is denied, the owner would then be required to cease the discharges authorized by the administratively continued coverage under the terms of the ~~2012~~ 2017 general permit or be subject to enforcement action for operating without a permit, or

(3) Take other actions authorized by the State Water Control Law.

B. Wasteload allocations.

1. Wasteload allocations allocated to permitted facilities pursuant to 9VAC25-720-50 C, 9VAC25-720-60 C, 9VAC25-720-70 C, 9VAC25-720-110 C, and 9VAC25-720-120 C of the Water Quality Management Planning Regulation, or applicable TMDLs, or wasteload allocations acquired by owners of new and expanding facilities to offset new or increased delivered total nitrogen and delivered total phosphorus loads from a new discharge or expansion under Part II B of this general permit, and existing loads calculated from the permitted design capacity of expanding facilities not previously covered by this general permit, shall be incorporated into the registration list maintained by the department. The wasteload allocations contained in this list shall be enforceable as annual mass load limits in this general permit. Credits shall not be generated by facilities whose operations were previously authorized by a Virginia Pollution Abatement (VPA) permit that was issued before July 1, 2005.

2. Except as described in subdivisions 2 c and 2 d of this subsection, an owner of two or more facilities covered by this general permit and discharging to the same tributary may apply for and receive an aggregated mass load limit for delivered total nitrogen and an aggregated mass load limit for delivered total phosphorus reflecting the total of the water quality-based total nitrogen and total phosphorus wasteload allocations or permitted design capacities established for such facilities individually.

a. The permittee (and all of the individual facilities covered under a single registration) shall be deemed to be in compliance when the aggregate mass load discharged by the facilities is less than the aggregate load limit.

b. The permittee will be eligible to generate credits only if the aggregate mass load discharged by the facilities is less than the total of the wasteload allocations assigned to any of the affected facilities.

c. The aggregation of mass load limits shall not affect any requirement to comply with local water quality-based limitations.

d. Facilities whose operations were previously authorized by a Virginia Pollution Abatement (VPA) permit that was issued before July 1, 2005, cannot be aggregated with other facilities under common ownership or operation.

e. Operation under an aggregated mass load limit in accordance with this section shall not be deemed credit acquisition as described in Part I J 2 of this general permit.

3. An owner that consolidates two or more facilities discharging to the same tributary into a single regional facility may apply for and receive an aggregated mass load limit for ~~delivered~~ total nitrogen and an aggregated mass load limit for ~~delivered~~ total phosphorus, subject to the following conditions:

a. Aggregate mass limits will be calculated accounting for delivery factors in effect at the time of the consolidation.

b. If all of the affected facilities have wasteload allocations in 9VAC25-720-50 C, 9VAC25-720-60 C, 9VAC25-720-70 C, 9VAC25-720-110 C, and 9VAC25-720-120 C of the Water Quality Management Planning Regulation, the aggregate mass load limit shall be calculated by adding the wasteload allocations of the affected facilities. The regional facility shall be eligible to generate credits.

~~b.~~ c. If any, but not all, of the affected facilities has a wasteload allocation in 9VAC25-720-50 C, 9VAC25-720-60 C, 9VAC25-720-70 C, 9VAC25-720-110 C, and 9VAC25-720-120 C of the Water Quality Management Planning Regulation, the aggregate mass load limit shall be calculated by adding:

(1) Wasteload allocations of those facilities that have wasteload allocations in 9VAC25-720-50 C, 9VAC25-720-60 C, 9VAC25-720-70 C, 9VAC25-720-110 C, and 9VAC25-720-120 C of the Water Quality Management Planning Regulation;

(2) Permitted design capacities assigned to affected industrial facilities; and

(3) Loads from affected sewage treatment works that do not have a wasteload allocation in 9VAC25-720-50 C, 9VAC25-720-60 C, 9VAC25-720-70 C, 9VAC25-720-110 C, and 9VAC25-720-120 C of the Water Quality Management Planning Regulation, defined as the lesser of a previously calculated permitted design capacity, or the values calculated by the following formulae:

Nitrogen Load (lbs/~~day~~ year) = flow (MGD) x 8.0 mg/l x 8.345 x 365 days/year

Phosphorus Load (lbs/~~day~~ year) = flow (MGD) x 1.0 mg/l x 8.345 x 365 days/year

Flows used in the preceding formulae shall be the design flow of the treatment works from which the affected facility currently discharges.

The regional facility shall be eligible to generate credits.

~~c.~~ d. If none of the affected facilities have a wasteload allocation in 9VAC25-720-50 C, 9VAC25-720-60 C, 9VAC25-720-70 C, 9VAC25-720-110 C, and 9VAC25-720-120 C of the Water Quality Management Planning Regulation, the aggregate mass load limit shall be calculated by adding the respective permitted design capacities for the affected facilities.

~~d.~~ e. Facilities whose operations were previously authorized by a Virginia Pollution Abatement (VPA) permit that was issued before July 1, 2005, may be consolidated with other facilities under common ownership or operation, but their allocations cannot be transferred to the regional facility.

~~e.~~ f. Facilities whose operations were previously authorized by a VPA permit that was issued before July 1, 2005, can become regional facilities, but they cannot receive additional allocations beyond those permitted in Part II B 1 d of this general permit.

4. Unless otherwise noted, the nitrogen and phosphorus wasteload allocations assigned to permitted facilities are considered total loads, including nutrients present in the intake water from the river, as applicable. On a case-by-case basis, an industrial discharger may demonstrate to the satisfaction of the board that a portion of the nutrient load originates in its intake water. This demonstration shall be

consistent with the assumptions and methods used to derive the allocations through the Chesapeake Bay models. In these cases, the board may limit the permitted discharge to the net nutrient load portion of the assigned wasteload allocation.

5. Bioavailability. Unless otherwise noted, the entire nitrogen and phosphorus wasteload allocations assigned to permitted facilities are considered to be bioavailable to organisms in the receiving stream. On a case-by-case basis, a discharger may demonstrate to the satisfaction of the board that a portion of the nutrient load is not bioavailable; this demonstration shall not be based on the ability of the nutrient to resist degradation at the wastewater treatment plant, but instead, on the ability of the nutrient to resist degradation within a natural environment for the amount of time that it is expected to remain in the Chesapeake Bay watershed. This demonstration shall also be consistent with the assumptions and methods used to derive the allocations through the Chesapeake Bay models. In these cases, the board may limit the permitted discharge to the bioavailable portion of the assigned wasteload allocation.

C. Schedule of compliance.

~~1. The following schedule of compliance pertaining to the load allocations for total nitrogen and total phosphorus applies to the facilities listed in 9VAC25-820-80.~~

~~a. Compliance shall be achieved as soon as possible, but no later than the following dates, subject to any compliance plan-based adjustment by the board pursuant to subdivision 1 b of this subsection, for each upgrade phase:~~

| ~~Upgrade Phase~~ | ~~Limit Effective Date~~ |
|---|---|
| ~~Phase I Total Nitrogen~~ | ~~January 1, 2017~~ |
| ~~Phase 2 Total Nitrogen~~ | ~~January 1, 2022~~ |
| ~~Phase 2 Total Phosphorus~~ | ~~January 1, 2017~~ |

~~b. Following submission of compliance plans and compliance plan updates required by 9VAC25-820-40, the board shall reevaluate the schedule of compliance in subdivision 1 a of this subsection, taking into account the information in the compliance plans and the factors in § 62.1-44.19:14 C 2 of the Code of Virginia. When warranted based on such information and factors, the board shall adjust the schedule in subdivision 1 a of this subsection as appropriate by modification or reissuance of this general permit.~~

~~2. The registration list shall contain individual dates for compliance with wasteload allocations for dischargers, as follows:~~

~~a. Owners of facilities listed in 9VAC25-820-80 will have individual dates for compliance based on their respective compliance plans that may be earlier than the upgrade phase schedule listed in subdivision 1 of this subsection.~~

~~b. Owners of facilities listed in 9VAC25-820-80 that waive their compliance schedules in accordance with 9VAC25-820-40 A 2 b shall have an individual compliance date of January 1, 2017.~~

~~c. Upon completion of the projects contained in their compliance plans, owners of facilities listed in 9VAC25-820-80 may receive a revised individual compliance date of January 1 for the calendar year immediately following the year in which a Certificate to Operate was issued for the capital projects, but not later than the upgrade phase schedule listed in subdivision 1 of this subsection.~~

~~d. Owners of new and expanded facilities will have individual dates for compliance corresponding to the date that coverage under this general permit was extended to discharges from the facility.~~

~~3.~~ The significant dischargers in the James River Basin shall meet aggregate discharged wasteload allocations of 8,968,864 lbs/yr TN and 545,558 lbs/yr TP by January 1, 2023.

D. Annual update of compliance plan. Every owner of a facility required to submit a registration statement shall either individually or through the Virginia Nutrient Credit Exchange Association submit updated compliance plans to the department no later than February 1 of each year. The compliance plans shall contain sufficient information to document a plan to achieve and maintain compliance with applicable total nitrogen and total phosphorus individual wasteload allocations on the registration list and aggregate wasteload allocations in Part I C 3. Compliance plans for owners of facilities that were required to submit a registration statement with the department under Part I G 1 a may rely on the acquisition of point source credits in accordance with Part I J of this general permit, but not the acquisition of credits through payments into the

Nutrient Offset Fund, to achieve compliance with the individual and combined wasteload allocations in each tributary. Compliance plans for expansions or new discharges for owners of facilities that are required to submit a registration statement with the department under Part I G 1 b and c may rely on the acquisition of allocation in accordance with Part II B of this general permit to achieve compliance with the individual and combined wasteload allocations in each tributary.

E. Monitoring requirements.

1. Discharges shall be monitored by the permittee during weekdays as specified in the table below unless the department determines that weekday only sampling results in a non-representative load. Weekend monitoring or alternative monthly load calculations to address production schedules or seasonal flows shall be submitted to the department for review and approval on a case-by-case basis. Facilities that exhibit instantaneous discharge flows that vary from the daily average discharge flow by less than 10% may submit a proposal to the department to use an alternative sample type; such proposals shall be reviewed and approved by the department on a case-by-case basis.

| Parameter | Sample Type and Collection Frequency | | | | |
|---|---|---|---|---|---|
| STP design flow | ≥20.0 MGD | 1.0 - 19.999 MGD | 0.5 - 0.999 MGD | 0.040 - 0.499 MGD | < 0.040 MGD |
| Effluent TN load limit for industrial facilities | | ≧100,000 ~~–> 350,000~~ lb/yr | 50,000 - 99,999 lb/yr | 487 - 49,999 lb/yr | < 487 lb/yr |
| Effluent TP load limit for industrial facilities | | ≧10,000 ~~–> 35,000~~ lb/yr | 5,000 - 9,999 lb/yr | 37 - 4,999 lb/yr | < 37 lb/yr |
| Flow | Totalizing, Indicating, and Recording | | | | 1/Day, see individual VPDES permit for sample type |
| Nitrogen Compounds (Total Nitrogen = TKN + $NO_2$- (as N) + $NO_3$- (as N)) | 24 HC 3 Days/Week | 24 HC 2 Days/Week* | 8 HC 2 Days/Week* | 8 HC 2/Month, > 7 days apart | 1/Month Grab |
| Total Phosphorus | 24 HC 3 Days/Week | 24 HC 2 Days/Week* | 8 HC 2 Days/Week* | 8 HC 2/Month, > 7 days apart | 1/Month Grab |
| *Two flow composited samples taken in the same calendar week that are then composited by flow into a single weekly composite sample for analysis shall be considered to be in compliance with this requirement. | | | | | |

2. Monitoring for compliance with effluent limitations shall be performed in a manner identical to that used to determine compliance with effluent limitations established in the individual VPDES permit unless specified otherwise in subdivisions 3, 4, and 5 of Part I E. Monitoring or sampling shall be conducted according to analytical laboratory methods approved under 40 CFR Part 136, unless other test or sample collection procedures have been requested by the permittee and approved by the department in writing. All analysis for compliance with effluent limitations shall be conducted in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories. Monitoring may be performed by the permittee at frequencies more stringent than listed in subdivision 1 of Part I E; however, the permittee shall report all results of such monitoring.

3. Loading values greater than or equal to 10 pounds reported in accordance with Part I E and F of this general permit shall be calculated and reported to the nearest pound without regard to mathematical rules of precision. Loading values of less than 10 pounds reported in accordance with Part I E and F of this general permit shall be calculated and reported to at least two significant digits with the exception that all complete calendar year annual loads shall be reported to the nearest pound.

4. Data shall be reported on a form provided by the department, by the same date each month as is required by the owner's individual VPDES permit. The total monthly load shall be calculated in accordance with the following formula:

$$ML = \left( \frac{\sum DL}{s} \right) \times d$$

where:

ML = total monthly load (lb/mo) = average daily load for the calendar month multiplied by the number of days of the calendar month on which a discharge occurred

DL = daily load = daily concentration (expressed as mg/l to the nearest 0.01 mg/l) multiplied by the flow volume of effluent discharged during the 24-hour period (expressed as MGD to at least the nearest 0.01 MGD and in no case less than two significant digits), multiplied by 8.345. Daily loads greater than or equal to 10 pounds may be rounded to the nearest whole number to convert to pounds per day (lbs/day). Daily loads less than or equal to 10 pounds may be rounded to no fewer than two significant figures.

s = number of days in the calendar month in which a sample was collected and analyzed

d = number of discharge days in the calendar month

For total phosphorus, all daily concentration data below the quantification level (QL) for the analytical method used shall be treated as half the QL. All daily concentration data equal to or above the QL for the analytical method used shall be treated as it is reported. If all data are below the QL, then the average shall be reported as half the QL.

For total nitrogen (TN), if none of the daily concentration data for the respective species (i.e., TKN, nitrates/nitrites) are equal to or above the QL for the respective analytical methods used, the daily TN concentration value reported shall equal one half of the largest QL used for the respective species. If one of the data is equal to or above the QL, the daily TN concentration value shall be treated as that data point as reported. If more than one of the data is above the QL, the daily TN concentration value shall equal the sum of the data points as reported.

The quantification levels shall be less than or equal to the following concentrations:

| Parameter | Quantification Level |
|---|---|
| TKN | 0.50 mg/l |
| Nitrite | 0.10 mg/l |
| Nitrate | 0.20 mg/l |
| Nitrite + Nitrate | 0.20 mg/l |

Higher QLs may be approved on a case-by-case basis where a higher QL routinely results in reportable results of the species in question or is otherwise technically appropriate based on standard lab practices.

The total year-to-date mass load shall be calculated in accordance with the following formula:

$$AL_{YTD} = \sum_{(Jan-present)} ML$$

where:

AL-YTD = calendar year-to-date annual load (lb/yr)

ML = total monthly load (lb/mo)

The total annual mass load shall be calculated in accordance with the following formula:

$$AL = \sum_{(Jan-Dec)} ML$$

where:

AL = calendar year annual load (lb/yr)

ML = total monthly load (lb/mo)

5. The department may authorize a chemical usage evaluation as an alternative means of determining nutrient loading for outfalls where the only source of nutrients is that found in the surface water intake and chemical additives used by the facility. Such an evaluation shall be submitted to the department for review and approval on a case-by-case basis. Implementation of approved chemical usage evaluations shall satisfy the requirements specified under Part I E 1 and 2.

F. Annual reporting. On or before February 1, annually, each permittee shall file a discharge monitoring report with the department identifying the annual mass load of total nitrogen and the annual mass load of total phosphorus discharged by the permitted facility during the previous calendar year.

G. Requirement to register; exclusions.

1. The following owners are required to register for coverage under this general permit:

a. Every owner of an existing facility authorized by a VPDES permit to discharge 100,000 gallons or more per day from a sewage treatment work, or an equivalent load from an industrial facility, directly into tidal waters, or 500,000 gallons or more per day from a sewage treatment works, or an equivalent load from an industrial facility, directly into nontidal waters shall submit a registration statement to the department by November 1, 2016, and thereafter upon the reissuance of this general permit in accordance with Part III M. The conditions of this general permit will apply to such owner upon approval of a registration statement.

b. Any owner of a facility authorized by a Virginia Pollutant Discharge Elimination System permit to discharge 40,000 gallons or more per day from a sewage treatment works, or an equivalent load from an industrial facility, directly into tidal or nontidal waters shall submit a registration statement with the department at the time he makes application for an individual permit with the department for a new discharge or expansion that is subject to an offset requirement in Part II of this general permit or to a technology-based requirement in 9VAC25-40-70, and thereafter upon the reissuance of this general permit in accordance with Part III M. The conditions of this general permit will apply to such owner beginning January 1 of the calendar year immediately following approval of a registration statement and issuance or modification of the individual permit.

c. Any owner of a facility treating domestic sewage authorized by a VPDES permit with a discharge greater than 1,000 gallons per day up to and including 39,999 gallons per day that did not commence the discharge of pollutants prior to January 1, 2011 <u>and is subject to offset requirements in accordance with Part II A 1 c of this general permit,</u> shall submit a registration statement with the department at the time he makes application for an individual permit with the department or prior to commencing a discharge, whichever occurs first, and thereafter upon the reissuance of this general permit in accordance with Part III M.

2. All other categories of discharges are excluded from registration under this general permit.

H. Registration statement.

1. The registration statement shall contain the following information:

a. Name, mailing address and telephone number, email address and fax number of the owner (and facility operator, if different from the owner) applying for permit coverage;

b. Name (or other identifier), address, city or county, contact name, phone number, email address and fax number for the facility for which the registration statement is submitted;

c. VPDES permit numbers for all permits assigned to the facility, or pursuant to which the discharge is authorized;

d. If applying for an aggregated wasteload allocation in accordance with Part I B 2 of this permit, a list of all affected facilities and the VPDES permit numbers assigned to these facilities;

e. For new and expanded facilities, a plan to offset new or increased delivered total nitrogen and delivered total phosphorus loads, including the amount of wasteload allocation acquired. Wasteload allocations or credits sufficient to offset projected nutrient loads must be provided for period of at least five years; and

f. For existing facilities, the amount of a facility's wasteload allocation transferred to or from another facility to offset new or increased delivered total nitrogen and delivered total phosphorus loads from a new discharge or expansion.

2. The registration statement shall be submitted to the DEQ Central Office, Office of VPDES Permits. <u>Following notification from the department of the start date for the required electronic submission of Notices of Intent to discharge forms (i.e. registration statements), as provided for in 9VAC25-31-1020, such form submitted after that date shall be electronically submitted to the department in compliance with this section and 9VAC25-31-1020. At least 3 months' notice shall be provided between the notification from the department and the date after which such forms must be submitted electronically.</u>

3. An amended registration statement shall be submitted to DEQ immediately upon the acquisition or transfer of a facility's wasteload allocation to offset new or increased delivered total nitrogen and delivered total phosphorus loads from a new discharge or expansion.

I. Public notice for registration statements proposing modifications or incorporations of new wasteload allocations or delivery factors.

1. All public notices issued pursuant to a proposed modification or incorporation of a (i) new wasteload allocation to offset new or increased delivered total nitrogen and delivered total phosphorus loads from a new discharge or expansion or (ii) delivery factor shall be published once a week for two consecutive weeks in a local newspaper of general circulation serving the locality where the facility is located informing the public that the owner of the facility intends to apply for coverage under this general permit. At a minimum, the notice shall include:

a. A statement of the owner's intent to register for coverage under this general permit;

b. A brief description of the facility and its location;

c. The amount of wasteload allocation that will be acquired or transferred if applicable;

d. The delivery factor for a new discharge or expansion;

e. If applicable, any proposed nonpoint source to point source trading ratio less than 2:1 proposed under Part II B 1 b (1);

f. A statement that the purpose of the public participation is to acquaint the public with the technical aspects of the facility and how the standards and the requirements of this chapter will be met, to identify issues of concern, to facilitate communication, and to establish a dialogue between the owner and persons who may be affected by the discharge from the facility;

g. An announcement of a 30-day comment period and the name, telephone number, and address of the owner's representative who can be contacted by the interested persons to answer questions;

h. The name, telephone number, and address of the DEQ representative who can be contacted by the interested persons to answer questions, or where comments shall be sent; and

i. The location where copies of the documentation to be submitted to the department in support of this general permit notification and any supporting documents can be viewed and copied.

2. The owner shall place a copy of the documentation and support documents in a location accessible to the public in the vicinity of the proposed facility.

3. The public shall be provided 30 days to comment on the technical and the regulatory aspects of the proposal. The comment period will begin on the date the notice is published in the local newspaper.

J. Compliance with wasteload allocations.

1. Methods of compliance. The owner of the permitted facility shall comply with its wasteload allocation contained in the registration list maintained by the department. The owner of the permitted facility shall be in compliance with its wasteload allocation if:

a. The annual mass load is less than or equal to the applicable wasteload allocation assigned to the facility in this general permit (or permitted design capacity for expanded facilities without allocations);

b. The owner of the permitted facility acquires sufficient point source nitrogen or phosphorus credits in accordance with subdivision 2 of this subsection; provided, however, that the acquisition of nitrogen or phosphorus credits pursuant to this section shall not alter or otherwise affect the individual wasteload allocations for each permitted facility; or

c. In the event he is unable to meet the individual wasteload allocation pursuant to subdivision 1 a or 1 b of this subsection, the owner of the permitted facility acquires sufficient nitrogen or phosphorus credits through payments made into the Nutrient Offset Fund pursuant to subdivision 3 of this subsection; provided, however, that the acquisition of nitrogen or phosphorus credits pursuant to this section shall not alter or otherwise affect the individual wasteload allocations for each permitted facility.

2. Credit acquisition from owners of permitted facilities. A permittee may acquire point source nitrogen credits or point source phosphorus credits from one or more owners of permitted facilities only if:

a. The credits are generated and applied to a compliance obligation in the same calendar year;

b. The credits are generated by one or more permitted facilities in the same tributary, except that owners of permitted facilities in the Eastern Shore Basin may also acquire credits from owners of permitted facilities in the Potomac and Rappahannock tributaries. Owners of Eastern Shore Basin

facilities may acquire credits from the owners of Potomac tributary facilities at a trading ratio of 1:1. A trading ratio of 1.3:1 shall apply to the acquisition of credits from the owners of a Rappahannock tributary facility by the owner of an Eastern Shore Basin facility;

c. The exchange or acquisition of credits does not affect any requirement to comply with local water quality-based limitations as determined by the board;

d. The credits are acquired no later than June 1 immediately following the calendar year in which the credits are applied;

e. The credits are generated by a facility that has been constructed, and has discharged from treatment works whose design flow or equivalent industrial activity is the basis for the facility's wasteload allocations (until a facility is constructed and has commenced operation, such credits are held, and may be sold, by the Nutrient Offset Fund; and

f. No later than June 1 immediately following the calendar year in which the credits are applied, the permittee certifies on a credit exchange notification form supplied by the department that he has acquired sufficient credits to satisfy his compliance obligations. The permittee shall comply with the terms and conditions contained in the credit exchange notification form submitted to the department.

3. Credit acquisitions from the Nutrient Offset Fund. Until such time as the board finds that no allocations are reasonably available in an individual tributary, permittees that cannot meet their total nitrogen or total phosphorus effluent limit may acquire nitrogen or phosphorus credits through payments made into the Nutrient Offset Fund established in § 10.1-2128.2 of the Code of Virginia only if, no later than June 1 immediately following the calendar year in which the credits are to be applied, the permittee certifies on a form supplied by the department that he has diligently sought, but has been unable to acquire, sufficient credits to satisfy his compliance obligations through the acquisition of point source nitrogen or phosphorus credits with other permitted facilities, and that he has acquired sufficient credits to satisfy his compliance obligations through one or more payments made in accordance with the terms of this general permit. Such certification may include~~, but not be limited to,~~ providing a record of solicitation or demonstration that point source allocations are not available for sale in the tributary in which the permittee's facility is located. Payments to the Nutrient Offset Fund shall be in the amount of ~~$4.60~~ $5.08 for each pound of nitrogen and ~~$10.10~~ $11.15 for each pound of phosphorus and shall be subject to the following requirements:

a. The credits are generated and applied to a compliance obligation in the same calendar year.

b. The credits are generated in the same tributary, except that owners of permitted facilities in the Eastern Shore Basin may also acquire credits from the owners of facilities that discharge to the Potomac and Rappahannock tributaries. Owners of Eastern Shore Basin facilities may acquire credits from the owners of facilities that discharge to a Potomac tributary at a trading ratio of 1:1. A trading ratio of 1.3:1 shall apply to the acquisition of credits from owners of facilities that discharge to a Rappahannock tributary by the owners of an Eastern Shore Basin facility.

c. The acquisition of credits does not affect any requirement to comply with local water quality-based limitations, as determined by the board.

4. This general permit neither requires nor prohibits a municipality or regional sewerage authority's development and implementation of trading programs among industrial users, which are consistent with the pretreatment regulatory requirements at 40 CFR Part 403 and the municipality's or authority's individual VPDES permit.

## Part II
## SPECIAL CONDITIONS APPLICABLE TO NEW AND EXPANDED FACILITIES

A. Offsetting mass loads discharged by new and expanded facilities.

1. An owner of a new or expanded facility shall comply with the applicable requirements of this section as a condition of the facility's coverage under this general permit.

a. An owner of a facility authorized by a VPDES permit first issued before July 1, 2005, that expands the facility to discharge 40,000 gallons or more per day, or an equivalent load, shall demonstrate to the department that he has acquired wasteload allocations sufficient to offset any increase in his delivered total nitrogen and delivered total phosphorus loads resulting from any expansion beyond his permitted capacity as of July 1, 2005.

b. An owner of a facility authorized by a VPDES permit first issued on or after July 1, 2005, to discharge 40,000 gallons or more per day, or an equivalent load, shall demonstrate to the department that he has acquired wasteload allocations sufficient to offset his delivered total nitrogen and delivered total phosphorus loads.

c. An owner of a facility treating domestic sewage authorized by a VPDES permit with a discharge greater than 1,000 gallons per day up to and including 39,999 gallons per day that did not commence the discharge of pollutants prior to January 1, 2011, shall demonstrate to the department that he has acquired wasteload allocations sufficient to offset his delivered total nitrogen and delivered phosphorus loads prior to commencing the discharge, except when the facility is for short-term temporary use only as determined by the department or when treatment of domestic sewage is not the primary purpose of the facility.

2. Offset calculations shall address the proposed discharge that exceeds:

a. The applicable wasteload allocation assigned to discharges from the facility in this general permit, for expanding significant dischargers with a wasteload allocation listed in 9VAC25-720-50 C, 9VAC25-720-60 C, 9VAC25-720-70 C, 9VAC25-720-110 C, and 9VAC25-720-120 C of the Water Quality Management Planning Regulation;

b. The permitted design capacity, for all other expanding dischargers; and

c. Zero, for facilities with a new discharge.

3. An owner of multiple facilities that discharge into the same tributary, and assigned an aggregate mass load limit in accordance with Part I B 2 of this general permit, that undertakes construction of new or expanded facilities shall be required to acquire wasteload allocations sufficient to offset any increase in delivered total nitrogen and delivered total phosphorus loads resulting from any expansion beyond the aggregate mass load limit assigned these facilities.

B. Acquisition of wasteload allocations. wasteload allocations required by this section to offset new or increased delivered total nitrogen and delivered total phosphorus loads shall be acquired in accordance with this section.

1. Such allocations may be acquired from one or a combination of the following:

a. Acquisition of all or a portion of the wasteload allocations or point source nitrogen or point source phosphorus credits from the owners of one or more permitted facilities, based on delivered pounds by the respective trading parties as listed by the department;

b. Acquisition of credits certified by the board pursuant to § 62.1-44.19:20 of the Code of Virginia. Credits used to offset new or increased nutrient loads under this subdivision shall be:

(1) Subject to a trading ratio of two pounds reduced for every pound to be discharged if certified as a nonpoint source credit by the board pursuant to § 62.1-44.19:20 of the Code of Virginia. On a case-by-case basis the board may approve nonpoint source to source trading ratios of less than 2:1 (but not less than 1:1) when the applicant demonstrates factors that ameliorate the presumed 2:1 uncertainty ratio for credits generation by nonpoint sources such as:

(a) When direct and representative monitoring of the pollutant loadings from a nonpoint source is performed in a manner and at a frequency similar to that performed at VPDES point sources and there is consistency in the effectiveness of the operation of the nonpoint source best management practice (BMP) approaching that of a conventional point source.

(b) When nonpoint source credits are generated from land conservation that ensures permanent protection through a conservation easement or other instrument attached to the deed and when load reductions can be reliably determined;

(2) Calculated using best management practices efficiency rates and attenuation rates, as established by the latest science and relevant technical information, and approved by the board;

(3) Based on appropriate delivery factors, as established by the latest science and relevant technical information, and approved by the board;

(4) Demonstrated to have achieved reductions beyond those already required by or funded under federal or state law, or by Virginia's Chesapeake Bay TMDL Watershed Implementation Plan;

(5) Generated in accordance with conditions of the facility's individual VPDES permit; and

(6) In the case of credits generated by land use conversions and urban source reduction controls (BMPs), the credits shall represent nutrient reductions beyond those in place as of July 1, 2005;

c. Until such time as the board finds that no allocations are reasonably available in an individual tributary, acquisition of allocations through payments made into the Nutrient Offset Fund established in § 10.1-2128.2 of the Code of Virginia; or

d. Acquisition of allocations through such other means as may be approved by the department on a case-by-case basis. This includes allocations granted by the board to an owner of a facility that is authorized by a VPA permit to land apply domestic sewage if:

(1) The VPA permit was issued before July 1, 2005;

(2) The allocation does not exceed the facility's permitted design capacity as of July 1, 2005;

(3) The waste treated by the facility that is covered under the VPA permit will be treated and discharged pursuant to a VPDES permit for a new discharge; and

(4) The owner installs state-of-the-art nutrient removal technology at such a facility.

2. Acquisition of allocations or point source nitrogen or point source phosphorus credits is subject to the following conditions:

a. The allocations or credits shall be generated and applied to an offset obligation in the same calendar year in which the credit is generated;

b. The allocations or credits shall be generated in the same tributary;

c. Such acquisition does not affect any requirement to comply with local water quality-based limitations, as determined by the board;

d. The allocations are authenticated (i.e., verified to have been generated) by the permittee as required by the facility's individual VPDES permit, utilizing procedures approved by the board, no later than February 1 immediately following the calendar year in which the allocations are applied; and

e. If obtained from the owner of a permitted point source, the allocations shall be generated by a facility that has been constructed, and has discharged from treatment works whose design flow or equivalent industrial activity is the basis for the facility's wasteload allocations.

f. Such allocations or credits shall be secured for a period of five years with each registration under the general permit.

3. Priority of options. The board shall give priority to allocations or credits acquired in accordance with subdivisions 1 a, b, and d of this subsection. The board shall approve allocations acquired in accordance with subdivision 1 c of this subsection only after the owner has demonstrated that he has made a good faith effort to acquire sufficient allocations in accordance with subdivisions 1 a and 1 b of this subsection, and that such allocations are not reasonably available taking into account timing, cost and other relevant factors. Such demonstration may include~~, but not be limited to,~~ providing a record of solicitation, or other demonstration that point source allocations or nonpoint source allocations are not available for sale in the tributary in which the permittee's facility discharge is located.

4. Annual allocation acquisitions from the Nutrient Offset Fund. The cost for each pound of nitrogen and each pound of phosphorus shall be determined at the time payment is made to the Nutrient Offset Fund, based on the higher of (i) the estimated cost of achieving a reduction of one pound of nitrogen or phosphorus at the facility that is securing the allocation, or comparable facility, for each pound of allocation acquired; or (ii) the average cost, as determined by the department on an annual basis, of reducing two pounds of nitrogen or phosphorus from nonpoint sources in the same tributary for each pound of allocation acquired.

## Part III
## CONDITIONS APPLICABLE TO ALL VPDES PERMITS

A. Monitoring.

1. Samples and measurements taken as required by this permit shall be representative of the monitored activity.

2. Monitoring shall be conducted according to procedures approved under 40 CFR Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.

3. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will ensure accuracy of measurements.

4. Samples taken as required by this permit shall be analyzed in accordance with 1VAC30-45 (Certification for Noncommercial Environmental Laboratories) or 1VAC30-46 (Accreditation for Commercial Environmental Laboratories).

B. Records.

1. Records of monitoring information shall include:

a. The date, exact place, and time of sampling or measurements;

b. The individuals who performed the sampling or measurements;

c. The dates and times analyses were performed;

d. The individuals who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of such analyses.

2. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the registration statement for this permit, for a period of at least three years from the date of the sample, measurement, report, or request for coverage. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee or as requested by the board.

C. Reporting monitoring results.

1. The permittee shall submit the results of the monitoring required by this permit not later than the 10th day of the month after monitoring takes place, unless another reporting schedule is specified elsewhere in this permit. Monitoring results shall be submitted to the department's regional office.

2. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or on forms provided, approved, or specified by the department.

3. If the permittee monitors any pollutant specifically addressed by this permit more frequently than required by this permit using test procedures approved under 40 CFR Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted on the DMR or reporting form specified by the department.

4. Calculations for all limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

D. Duty to provide information. The permittee shall furnish to the department, within a reasonable time, any information that the board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating coverage under this permit or to determine compliance with this permit. The board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from the discharge on the quality of state waters or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the department, upon request, copies of records required to be kept by this permit.

E. Compliance schedule reports. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Unauthorized discharges. Except in compliance with this permit or another permit issued by the board, it shall be unlawful for any person to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or

2. Otherwise alter the physical, chemical, or biological properties of such state waters and make them detrimental to the public health, to animal or aquatic life, or to the use of such waters for domestic or industrial consumption, for recreation, or for other uses.

G. Reports of unauthorized discharges. Any permittee that discharges or causes or allows a discharge of sewage, industrial waste, other wastes, or any noxious or deleterious substance into or upon state waters in violation of Part III F, or that discharges or causes or allows a discharge that may reasonably be expected to

enter state waters in violation of Part III F, shall notify the department of the discharge immediately upon discovery of the discharge, but in no case later than 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the department within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate, and prevent a recurrence of the present discharge or any future discharge not authorized by this permit.

Discharges reportable to the department under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of unusual or extraordinary discharges. If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter state waters, the permittee shall promptly notify, in no case later than 24 hours, the department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse effects on aquatic life and the known number of fish killed. The permittee shall reduce the report to writing and shall submit it to the department within five days of discovery of the discharge in accordance with Part III I 2. Unusual and extraordinary discharges include, but are not limited to, any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;
2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service some or all of the treatment works; and
4. Flooding or other acts of nature.

I. Reports of noncompliance.

The permittee shall report any noncompliance that may adversely affect state waters or may endanger public health.

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information that shall be reported within 24 hours under this paragraph:
   a. Any unanticipated bypass; and
   b. Any upset that causes a discharge to surface waters.
2. A written report shall be submitted within five days and shall contain:
   a. A description of the noncompliance and its cause;
   b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
   c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

   The board may waive the written report on a case-by-case basis for reports of noncompliance under Part III I if the oral report has been received within 24 hours and no adverse impact on state waters has been reported.
3. The permittee shall report all instances of noncompliance not reported under Part III I 1 or 2, in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part III I 2.

NOTE: The immediate (within 24 hours) reports required in Part III G, H, and I may be made to the department's regional office. Reports may be made by telephone, FAX, or online at ~~https://www.deq.virginia.gov/Programs?PollutionResponsePreparedness/MakingaReport.aspx~~https://portal.deq.virginia.gov/prep/Report/Create. For reports outside normal working hours, a message may be left and this shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Management maintains a 24-hour telephone service at 1-800-468-8892.

4. Where the permittee becomes aware that it failed to submit any relevant facts in a permit registration statement, or submitted incorrect information in a permit registration statement or in any report to the department, it shall promptly submit such facts or information.

J. Notice of planned changes.

1. The permittee shall give notice to the department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a. The permittee plans alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

(1) After promulgation of standards of performance under § 306 of the Clean Water Act (33 USC § 1251 et seq.) that are applicable to such source; or

(2) After proposal of standards of performance in accordance with § 306 of the Clean Water Act that are applicable to such source, but only if the standards are promulgated in accordance with § 306 within 120 days of their proposal;

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations nor to notification requirements specified elsewhere in this permit; or

c. The alteration or addition results in a significant change in the permittee's sludge use or of disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or of disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

2. The permittee shall give advance notice to the department of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

K. Signatory requirements.

1. Registration statement. All registration statements shall be signed as follows:

a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making or decision-making functions for the corporation or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or other actions taken to gather complete and accurate information for permit registration requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

c. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes (i) the chief executive officer of the agency or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. Reports, etc. All reports required by permits and other information requested by the board shall be signed by a person described in Part III K 1 or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Part III K 1;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or any individual occupying a named position; and

c. The written authorization is submitted to the department.

3. Changes to authorization. If an authorization under Part III K 2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part III K 2 shall be submitted to the department prior to or together with any reports, or information to be signed by an authorized representative.

4. Certification. Any person signing a document under Part III K 1 or 2 shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. Duty to comply. The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the State Water Control Law and the Clean Water Act, except that noncompliance with certain provisions of this permit may constitute a violation of the State Water Control Law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action~~; for~~ , permit coverage termination, ~~revocation and reissuance, or modification;~~ or denial of a permit coverage renewal application.

The permittee shall comply with effluent standards or prohibitions established under § 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under § 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall submit a new registration statement at least 60 days before the expiration date of the existing permit, unless permission for a later date has been granted by the board. The board shall not grant permission for registration statements to be submitted later than the expiration date of the existing permit.

N. Effect of a permit. This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights or any infringement of federal, state, or local law or regulations.

O. State law. Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to, any other state law or regulation or under authority preserved by § 510 of the Clean Water Act. Except as provided in permit conditions on "bypassing" (Part III U) and "upset" (Part III V), nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and hazardous substance liability. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from responsibilities, liabilities, or penalties to which the permittee is or may be subject under §§ 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also include effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

R. Disposal of solids or sludges. Solids, sludges, or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering state waters.

S. Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. Bypass.

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to ensure efficient operation. These bypasses are not subject to the provisions of Part III U 2 and 3.

2. Notice.

a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible, at least 10 days before the date of the bypass.

b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part III I.

3. Prohibition of bypass.

a. Bypass is prohibited, and the board may take enforcement action against a permittee for bypass, unless:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The permittee submitted notices as required under Part III U 2.

b. The board may approve an anticipated bypass after considering its adverse effects if the board determines that it will meet the three conditions listed in Part III U 3 a.

V. Upset.

1. An upset, defined in 9VAC25-31-10, constitutes an affirmative defense to an action brought for noncompliance with technology-based permit effluent limitations if the requirements of Part III V 2 are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.

2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and that the permittee can identify the cause or causes of the upset;

b. The permitted facility was at the time being properly operated;

c. The permittee submitted notice of the upset as required in Part III I; and

d. The permittee complied with remedial measures required under Part III S.

3. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and entry. The permittee shall allow the director, or an authorized representative (including an authorized contractor acting as a representative of the administrator), upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the State Water Control Law, substances or parameters at any location.

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours ~~and~~ or whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. Permit actions. Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Transfer of ~~permits~~ permit coverage. ~~Permits are~~ Permit coverage is not transferable to any person except after notice to the department. Coverage under this permit may be automatically transferred to a new permittee if:

1. The current permittee notifies the department within 30 days of the transfer of the title to the facility or property, unless permission for a later date has been granted by the board;
2. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
3. The board does not notify the existing permittee and the proposed new permittee of its intent to deny the new permittee coverage under the permit. If this notice is not received, the transfer is effective on the date specified in the agreement described in Part III Y 2.

Z. Severability. The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

**9VAC25-820-80. Facilities subject to reduced individual total nitrogen and total phosphorus wasteload allocations.**

The James River facilities identified in this section are subject to reduced individual total nitrogen and total phosphorus wasteload allocations as indicated.

| Facility | VPDES No. | Phase 1 Total Nitrogen (lbs/yr) | Phase 2 Total Nitrogen (lbs/yr) | Phase 2 Total Phosphorus (lbs/yr) |
|---|---|---|---|---|
| Buena Vista STP | VA0020991 | N/A | N/A | 2,778 |
| Covington STP | VA0025542 | N/A | N/A | 3,705 |
| GP Big Island LLC | VA0003026 | N/A | N/A | 40,273 |
| Mohawk Industries, Inc. | VA0004677 | N/A | N/A | 9,880 |
| Lexington - Rockbridge Regional WQCF | VA0088161 | N/A | N/A | 3,705 |
| Alleghany County - Low Moor STP | VA0027979 | N/A | N/A | 617 |
| Lower Jackson River STP | VA0090671 | N/A | N/A | 1,852 |
| Clifton Forge STP | VA0022772 | N/A | N/A | 2,470 |
| MeadWestvaco | VA0003646 | N/A | N/A | 96,771 |
| Amherst - Rutledge Creek WWTP | VA0031321 | N/A | N/A | 741 |
| BWX Technologies Inc. | VA0003697 | N/A | N/A | 1,235 |
| Greif Inc. | VA0006408 | N/A | N/A | 24,082 |
| Lake Monticello STP | VA0024945 | N/A | N/A | 1,229 |
| Lynchburg STP (DWF only) | VA0024970 | N/A | N/A | 27,169 |
| RWSA - Moores Creek Regional STP | VA0025518 | N/A | N/A | 18,525 |
| Powhatan CC STP | VA0020699 | N/A | N/A | 581 |
| Crewe WWTP | VA0020303 | N/A | N/A | 617 |

| | | | | |
|---|---|---|---|---|
| Farmville WWTP | VA0083135 | N/A | N/A | 2,964 |
| Richmond WWTP (DWF only) | VA0063177 | N/A | N/A | 55,574 |
| E. I. DuPont - Spruance | VA0004669 | N/A | N/A | 6,339 |
| Chesterfield County - Falling Creek WWTP | VA0024996 | N/A | N/A | 12,473 |
| Chesterfield County - Proctors Creek WWTP | VA0060194 | N/A | N/A | 33,344 |
| Dominion - Chesterfield (Net) | VA0004146 | N/A | N/A | 170 |
| Henrico County WWTP | VA0063690 | N/A | N/A | 92,623 |
| The Sustainability Park LLC | VA0002780 | N/A | N/A | 1,556 |
| Philip Morris USA - Park 500 | VA0026557 | N/A | N/A | 2,149 |
| Honeywell - Hopewell | VA0005291 | N/A | N/A | 41,841 |
| Hopewell Regional WTF | VA0066630 | N/A | N/A | 61,749 |
| South Central WW Authority WWTF | VA0025437 | N/A | N/A | 28,404 |
| Tyson Foods - Glen Allen | VA0004031 | N/A | N/A | 409 |
| Chickahominy WWTP | VA0088480 | N/A | N/A | 123 |
| HRSD - Boat Harbor STP | VA0081256 | N/A | N/A | 43,177 |
| HRSD - James River STP | VA0081272 | N/A | N/A | 34,541 |
| HRSD - Williamsburg STP | VA0081302 | N/A | N/A | 38,859 |
| HRSD - Nansemond STP | VA0081299 | N/A | N/A | 51,812 |
| HRSD - Army Base STP | VA0081230 | N/A | N/A | 31,087 |
| HRSD - Virginia Initiative Plant WWTP | VA0081281 | N/A | N/A | 69,083 |
| HRSD - Chesapeake - Elizabeth STP | VA0081264 | N/A | N/A | 41,450 |
| HRSD Aggregate Nutrient Discharge* | N/A | 4,400,000 | 3,400,000 | 310,010 |
| JH Miles and Company | VA0003263 | N/A | N/A | 17,437 |
| *HRSD James River Aggregate includes Boat Harbor STP (VA0081256), James River STP (VA0081272), Williamsburg STP (VA0081302), Nansemond STP (VA0081299), Army Base STP (VA0081230), Virginia Initiative STP (VA0081281), and Chesapeake - Elizabeth STP (VA0081264). | | | | |

**Tab I - Amendment to incorporate coastal resilience and adaptation to sea-level rise and climate change criteria in the Chesapeake Bay Preservation Area Designation and Management Regulations (9VAC25-830)**: At the June 29, 2021, meeting of the State Water Control Board (Board), staff will ask the Board to approve final amendments to the Chesapeake Bay Preservation Area Designation and Management Regulations (Regulations) (9 VAC 25-830).

The final amendments were developed pursuant to Chapter 1207 of the 2020 Acts of Assembly, which required that a provision of "coastal resilience and adaptation to sea-level rise and climate change" be added to the criteria requirements in 9 VAC 25-830 as established by the Board.

Chapter 1207 also included a clause requiring the State Water Control Board to adopt regulations to implement the change and a clause that initial adoption of applicable regulations shall be exempt from the requirements of Article 2 (§ 2.2-4006 et seq.) of Chapter 40 of Title 2.2 of the Code of Virginia, but shall be subject to a public comment period of at least 60 days prior to final adoption by the Board. Consistent with this provision, a Notice of Intended Regulatory Action and a Regulatory Advisory Panel were not utilized. Instead, pursuant to the Board's authorization to public notice the proposed amendment, a comment period of 90 days was held. Additionally, a Stakeholder Advisory Group (SAG) was convened to discuss and provide feedback on the proposed amendments and comments received.

This memorandum provides a brief background on the Chesapeake Bay Preservation Act (Act) and implementing regulations, the General Assembly action authorizing this regulatory action and references to the Act in the recently finalized "Virginia Coastal Resilience Master Planning Framework". The memorandum also describes the final amendments, public participation including overview of comments, summary of changes since proposed, and the staff recommendation.

**BACKGROUND**

The Chesapeake Bay Preservation Act (§ 62.1-44.15:72 of the Code of Virginia) 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 within locally designated Chesapeake Bay Preservation Areas (CBPA). Chesapeake Bay Preservation Areas include Resource Protection Areas (RPA), Resource Management Areas (RMA) and an overlay area of Intensely Developed Areas (IDA).

Chapter 1207 of the 2020 Acts of Assembly amended § 62.1-44.15:72 and added 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.

Chapter 1207 also included a clause requiring the State Water Control Board to adopt regulations to implement the change, and a clause that initial adoption of applicable regulations shall be exempt from the requirements of Article 2 (§ 2.2-4006 et seq.) of Chapter 40 of Title 2.2 of the Code of Virginia, but shall be subject to a public comment period of at least 60 days prior to final adoption by the Board.

Consistent with this provision, a Notice of Intended Regulatory Action and a Regulatory Advisory Panel were not utilized. Instead, pursuant to the Board's authorization to public notice the proposed amendment, a comment period of 90 days was held. Additionally, a SAG was convened to discuss and provide feedback on the proposed amendments and comments received.

The Office of the Attorney General will be sent the regulation for certification of authority to adopt the amendments.

In October 2020, the Governor presented the "Virginia Coastal Resilience Master Planning Framework" (Master Planning Framework) which outlined the current and significant risk to Virginia from climate change. As noted in the document, Virginia has and will continue to see impacts from climate change. Coastal Virginia has some of the highest relative sea level rise rates in the United States and Virginia has experienced more than 18 inches of relative sea level rise in the past 100 years. Overall, the combination of relative sea level rise, increases in frequency and duration of rainfall events, rising regional water tables, and storm surge from more frequent and severe weather systems will exacerbate flooding in coastal Virginia.

As stated in the Master Planning Framework, "Virginia's coastal region faces a serious threat to public safety and economic viability from the various impacts of climate change. Storm surge from tropical storms and hurricanes, sea level rise, nuisance flooding, altered hydrology, and their impacts on poorly planned development are just some of the issues we must address to ensure a resilient, thriving coast for generations to come."

Additionally, the Master Planning Framework identified a goal to "[e]ffectively incorporate climate change projections into all of the Commonwealth's programs addressing coastal zone built and natural infrastructure at risk due to sea level rise and flooding" and an identified action in this goal was to promulgate appropriate amendments to the Act. The

Master Planning Framework also identified a guiding principle to "[r]ecognize the importance of protecting and enhancing green infrastructure like natural coastal barriers and fish and wildlife habitat by prioritizing nature-based solutions."

**FINAL AMENDMENT TO THE CHESAPEAKE BAY PRESERVATION AREA DESIGNATION AND MANAGEMENT REGULATIONS (9VAC25-830)**

The final regulatory amendment provides clarity that climate adaptation measures may be allowed in the Chesapeake Bay Preservation Areas subject to approval by the local government, and in accordance with certain conditions set forth in the Chapter, including the consideration of climate change impacts. This ensures these activities are specifically recognized consistent with identification of other allowable activities, particularly within the Resource Protection Area (RPA).

Consistent with the language in the statutory change, the final regulatory amendment provides that climate change impacts are assessed for land development within the RPA, specifically requiring an assessment of sea-level rise, storm surge, and flooding. Given the primary nature of impacts, particularly sea-level rise, and that the RPA consists of water bodies and adjacent buffers, the amendment ensures consideration of these impacts when localities are reviewing projects and require action based upon this assessment.

In assessing these impacts, localities will utilize a model or forecast specifically recognized by the Commonwealth and include specific model information including the 2017 National Oceanographic and Atmospheric Administration (NOAA) Intermediate-High scenario projection curve, storm surge based upon the most updated NOAA hydrodynamic Sea, Lake, and Overland Surges from Hurricanes model, and current floodplain mapping when assessing these impacts. Based upon the information from these models for the project sites, an assessment of the potential impacts in light of the proposed land development is to occur, particularly with respect to buffer impact and land disturbance. In light of such assessment, additional conditions, alterations, or adaptation measures as necessary due to potential impacts and appropriate to the site conditions are to be identified and required where necessary. Additionally, localities may require that this assessment be included as part of a Water Quality Impact Assessment (WQIA).

The regulatory amendment proposes limitations on the granting of exceptions to activities in the RPA to ensure assessment of these climate change impacts and proper application of fill material.

To allow for activities that may be necessary to adapt to climate change and placed within the Resource Protection Area, the regulatory amendment provides an allowance for specifically identified measures with certain requirements, including that the measure be a nature-based solution, which is defined in the amendment. The measure must also be identified in either the Stormwater BMP Clearinghouse or among the Chesapeake Bay Program Partnership BMPs, be a shoreline protection strategy in accordance with the Virginia Marine Resources Commission's (VMRC) Tidal Wetlands Guidelines, or be an eligible project for the Virginia Community Flood Preparedness Fund.

Where the use of fill is permitted, conditions were identified for its application including grading/sloping, biogeochemical characteristics of the fill material, consideration of stormwater impacts, impact on septic or drainfields, and compliance of the use with the National Flood Insurance Program.

In light of recent changes to the Tidal Wetlands Guidelines, and given the interplay that can occur between shoreline erosion control projects in VMRC's jurisdiction and local Chesapeake Bay Preservation Act programs (Bay Act programs), language was included to provide that coordination should occur on such projects and that projects in the RPA should comply with the Tidal Wetlands Guidelines.

Additionally, in recognition of a common practice under regulatory oversight by VMRC and supported by Commonwealth policy, the regulatory amendment provides an exemption, particularly for Water Quality Impact Assessments, for living shorelines where the locality has otherwise approved it, buffers and vegetation are addressed, and the project obtains necessary state or federal approvals.

Consistent with other performance criteria, local governments must include these provisions in their ordinances and incorporate the requirements into their programs. Additionally, given the timeframe necessary for ordinance changes and in recognition of the need for additional training and implementation tools such as guidance, localities are provided up to three years from the effective date to adopt these changes.

**SUMMARY OF CHANGES SINCE PROPOSED**

The primary changes were to provide additional definitions, and provide specifics concerning the assessment of climate change for projects in the RPA, including the model or forecast, the scope and basis of the impacts assessed and factors for the identification of conditions, alterations, or measures. An allowance was added for the climate change assessment to be part of a WQIA and explicit language empowering local governments to require those conditions, alterations, or measures in response to a climate change assessment was included. Refinement of the limitations on exceptions were also identified. Additional specifics and conditions on requirements for adaptation measures were added, including the source of allowable adaptation measures, conditions on the use of fill, recognition of overlapping federal (and state) requirements and programs, and the allowance for exempting living shoreline projects from additional requirements, including a WQIA. Additional revisions centered on the recognition of interplay between activities in the RPA and the jurisdiction of wetlands authority, and the removal of unnecessary language in light of other revisions.

In response to requests for a definition in comments and discussion by the SAG, two definitions (for adaptation measures and nature-based solutions) were added to provide greater clarity.

Subsections (A) and (B) were refined, combined into one subsection, and language removed related to the amendments' effect on additional actions that localities may take in light of comments and concerns, and that the intent of the language was to recognize existing activities and authorities that local governments have.

The assessment of climate change provisions were refined to provide clarity on the scope of impacts for assessment and recognition of the currently available models and information pertinent to these scopes. The model to be utilized was refined to those developed by or on behalf of the Commonwealth. This would include "AdaptVA" developed by the Virginia Institute of Marine Science (VIMS) and the Virginia Flood Risk Information System used by the Virginia Department of Conservation and Recreation (DCR).

The scope was limited to sea-level rise, storm surge, and flooding. This reflects current model specificity available for climate change impacts and those most directly connected to the framework of the regulations. Additional impacts of climate change such as heat, saltwater intrusion, and land subsidence were not included because, although important, the connection of such impacts to the Act's framework and assessment within the models identified was not as direct. Rainfall was also not included as a separate metric. While information on flooding and storm surge are readily available and already recognized and included, separate rainfall model information with an equivalent projection type does not currently exist.

Additional specifics on the factors for assessing the impact were also included, which primarily focus on the impact to the buffer and its function in light of the proposed development. The goal of the assessment is to reconcile the proposed land development with the impacts identified and, where necessary and appropriate, to identify measures, conditions, or alterations to the project that would mitigate those impacts. Given the range of potential locations and types of land development and other factors within Bay Act localities, the result of such an assessment could indicate a range of no potential impacts to significant impacts that necessitate additional consideration and the inclusion of conditions, alterations, or measures by the local government.

Language was included to allow local governments to require that the climate change assessment be submitted as a part of WQIA. Given the purpose and inclusion of a WQIA in the development process by local governments under the existing requirements and programs, allowing the inclusion of the climate change assessment in the WQIA should aid in implementation of climate change provisions as well as provide local governments with additional options on how to receive and process such an assessment.

Additional specifications were provided concerning the allowance for adaptation measures in the RPA. In addition to applying existing general and specific performance criteria, a universe of allowable adaptation measures was identified that consists of currently recognized practices. By requiring nature-based solutions, this maintains harmony with the existing recognition that the buffer function provides in the RPA, the preferred approach outlined in the Master Planning Framework, and the preferred approach provided for in the Tidal Wetlands Guidelines. Additionally, in light of the revision, additional distinctions previously recognized in the proposed amendment, such as fill placement within 100' of the RPA or preserving 50' for undeveloped lands, are not necessary.

Additional specifics concerning the use of fill were provided consistent with those identified by the Virginia Institute of Marine Science (VIMS) in its 2018 Report to the General Assembly on the use of fill in the RPA. Based upon comments and discussions with the SAG, the language regarding grading/sloping was tied to project specifications. Additionally, based upon comments, discussion with the SAG, and discussions with DCR regarding floodplain management requirements, language requiring compliance with those provisions was included to ensure any allowance in the regulations did not conflict with federal law and requirements regarding the use of fill material.

Additional language consistent with criteria requirements and the use of adaptation measures was included to require general compliance with other laws and requirements. In order to be consistent with the preference for nature-based solutions, this additional language specifically requires the preservation of existing vegetation and minimization of land disturbance in any adaptation measure.

Based upon comments, discussions with the SAG, and DCR, additional language was included to ensure that allowances permitted under the amendment do not create conflict with the National Flood Insurance Program or the Community Rating System when localities choose to participate in that program. This addition serves to reconcile concerns over the interplay of those program provisions with the amendment, and to ensure any allowance in the regulatory amendment would not conflict with federal law and requirements.

Additional refinement of exception limitations was also among the changes made since proposed. In light of the specifics identified for the allowance of fill in the RPA, the language was revised to reflect these changes. This also addresses concerns regarding previous language limiting the placement of fill with 100" of the RPA. In addition, the previous limitation on granting exceptions to the 50 foot seaward buffer was removed. This removal was based on consideration of comments and discussions during the SAG and the additional specifics provided by other language revisions in the final language.

Additional language was included in light of the revisions recently approved by VMRC to the Tidal Wetland Guidelines. As noted in those Guidelines, projects may intersect between locality Bay Act programs and wetland programs; reconciling and coordinating requirements in these instances is integral. In particular, the Tidal Wetland Guidelines specifically outline the provisions and allowance for shoreline management strategies. This includes only allowing the use of hardened shoreline structures in very specific instances and when utilized, they are to be placed as far landward as possible. It is recognized that in such instances these structures may need to be or should be placed in the RPA. Consistent with existing provisions in the regulations on shoreline erosion control projects, such a strategy may be permitted, with conditions, in the RPA, as long as the VMRC determination has occurred and all other applicable conditions have been met.

Finally, living shorelines as a recognized nature-based solution are recognized as an adaptation measure even if no active detrimental shoreline erosion is occurring. Consistent with the policy to encourage living shorelines and encourage a more streamlined approval approach, as outlined by VMRC in the Tidal Wetland Guidelines, a specific provision for living shorelines was refined by providing a consistent definition of such projects and an opportunity for localities to allow an exemption from the other performance criteria requirements including a WQIA. In consideration of comments and discussions by the SAG, the option to exempt a WQIA, was left to the local governments discretion. Also, consistent with comments and feedback from the SAG, language allowing for other instances to exempt requiring a WQIA was removed.

**PUBLIC PARTICIPATION, OVERVIEW OF COMMENTS AND RESPONSE TO COMMENTS**

The Department received a total of 313 comments during the comment period. Comments were received from seven localities, two Planning District Commissions, and several organizations or associations. Two groups of comments that were the same or substantially the same in wording were received accounting for 277 of the total comments.

Additionally, pursuant to the Board's authorization for public comment of the proposal, a SAG was established. All twenty-two individuals requesting to participate as a member were approved. Discussion and feedback over the proposal and comments occurred on May 13th and May 14th.

Comments focused clarity, scope, and application of the climate change assessment including timeframe, model utilized, scope of impacts to considered, and additional considerations. Comments also focused on the exceptions provisions particularly related to fill material and the 50-foot seaward buffer; language indicating an expansion of the RPA or local government authority; concerns over the interplay with floodplain management; the specifics of adaptation measures allowed including WQIA requirements; and the lack of a standard regulatory advisory panel.

As noted in the "Summary of Changes since Proposed," a number of changes were made in consideration of the comments received and the SAG discussions.

**Commenter: Mark Rinaldi/Anonymous Town Hall**
Comment: Since the adoption of the Chesapeake Bay Preservation Act and the regulations promulgated to implement the Act, professionals in the real estate industry and ordinary citizens have sought balance and fairness in the application of what is on its very face an arbitrary prescription - that a 100-foot buffer to certain environmental features is or shall be deemed effective in providing certain water quality benefits. Many examples can be given to support a contention that a 100-foot buffer is not always effective, or even necessary, to accomplish the stated objectives of the Act and regulations. Any initiative that would allow localities to expand RPA buffers must be restrained by findings of sound science and demonstrable benefit to clearly articulated objectives. It must be shown how an expanded RPA buffer, in each specific instance, will advance/enhance/promote climate change resilience and/or adaptation. Absent such a finding, any increase of the RPA buffer will necessarily be arbitrary and capricious. Moreover, any initiative that would allow localities unrestrained authority to expand RPA buffers must be offset by private property interests to obtain fair and scientifically based reductions of RPA buffers where it can be shown that no demonstrable detriment to water quality will result.
Similarly, any further restrictions on development and further preservation of existing vegetation must also demonstrate how such further reduction of private property rights will advance/enhance/promote climate change resilience and/or adaptation, or it should not be authorized. Some localities in the Commonwealth have for decades relied on environmental regulations to achieve growth management objectives. Some of these are eager to be granted unrestrained authority to further control their growth without any requirement to address the root causes of, and benefits of, that growth. Preserving existing vegetation in areas of recurrent (tidal) flooding and storm surge precludes alternative solutions and only postpones the inevitable death of such vegetation from saltwater intrusion or damaging effects of storm surges and wind-blown waves.
Such open-ended authority granted through regulations promulgated to affect water quality in the Bay and its tributaries cannot fairly be used to address climate change resilience and adaptation without demonstrable scientific justification for specific measures imposed upon the citizens of the Commonwealth. No such justification has been presented or debated, stakeholders have not been afforded an opportunity to demonstrate the damage that the proposed regulations will bring about or the alternatives that exist and should be allowed on a case-by-case basis.
Moreover, there is no discussion of previously grandfathered properties (improved or unimproved) and how these regulations will affect the rights of owners of such properties. The imposition of these arbitrary provisions completely untethered to the objectives of climate change adaptation and resilience with respect to undeveloped properties notwithstanding, improved properties seeking design and engineering solutions to problems being experienced and/or seeking to accommodate the natural growth and progression of their businesses or improvement of their homes and other private property types must be afforded additional protections not contemplated by these regulations.

**Commenter: Homebuilders Association of Virginia (HBAV)**
Comment: 1.4 Specific Locality Authorization is Unnecessary and Should be Removed
Subsection B of 9VAC25-830-155 has raised considerable concerns from the residential and commercial development community. The second sentence reads "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." (emphasis added)
The proposed language would provide a vast grant of authority that is unprecedented in the CBPA program. Specifically, the authority to impose "further restrictions on development" would likely result in the unintended consequence of these regulations being utilized as a growth management tool, rather than a tool to balance economic development and water quality protection. By applying to the entire CBPA, not just the RPA, the authority to expand buffers and impose restrictions on development could apply locality-wide because many local governments have designated the entire locality as a Chesapeake Bay Preservation Area. Further, it would be unprecedented to grant such extensive authority to local government through an expedited regulatory process that lacked meaningful stakeholder engagement, or without any provisions that would limit or constrain the use of this authority by local governments. Such an omission is particularly concerning because of the potential unintended consequences of CBPA regulations on critical programs such as the National Flood Insurance Program, state and federal wetland permitting programs (see Section 1.10 below), and threat of localities for using additional adaptation requirements as a growth management tool.

The HBAV recognizes that the proposed regulations were not intended to create a new tool by which communities could impede much-needed residential development. However, the HBAV believes that the overly broad language in the proposed regulations will compound the existing obstacles that the industry faces in trying to increase the supply of affordable and market-rate housing in the Commonwealth. The uniform applicability of the CBPA requirements, particularly its buffer requirements, is one of the strengths of the CBPA program. DEQ must remove the above-mentioned sentence in its entirety before proceeding to a final rule.
Commenter: Virginia Farm Bureau
These comments are in reference to the proposed amendment regarding coastal resilience and adaptation to sea-level rise and climate change. 9VAC25-830-130 Item 8 provides a clear limitation on local authority regarding agricultural activities and in Item 9 provides clear limitations to local authority regarding silvicultural activities. However, 9VAC25-830 Item A's and Item B's proposed regulatory texts provide no parameters on local authority prescribed in this regulatory change. The specific text I am referencing is:
"...in addition to 9 VAC25-830-130 and 9 VAC 25-830-140."
"Nothing in these provisions shall preclude a locality from impacts of climate change and sea-level rise in the Chesapeake Bay Preservation areas in the locality include extension of the Resource Protection Areas, further restrictions on development, or further preservation of existing vegetation"
The broad nature of this proposed language goes well beyond the intent of the Chapter 1207 of the 2020 Acts of the Assembly. Therefore, we would ask for language clearly limiting localities ability to make changes to their ordinance outside of the protections in 9VAC25-830-130.

**Commenter: Wetlands Studies & Solutions, Inc. (WSSI)**
Comment: All three items are limitless in their interpretation, which creates enormous uncertainty, lack of clarity, lack of consistency and lack of predictability. Additionally, localities do not have authority to exceed any of the water quality requirements of the CBPA and allowing such authority for a secondary purpose of the CBPA sets a poor precedent and conflicts with the successful Bay-wide requirement approach used to date when setting standards and criteria. We Recommend: The last sentence of Section 155.B be removed in its entirety

**Commenter: Middle Peninsula Planning District Commission (MPPDC)**
Comment: Many rural localities are hampered by relying solely on limited or no paid staff, volunteer elected or appointed officials, or ability to pay consultants or PDCs for updating ordinances. Requiring a timeline of 5 years is more appropriate for these localities.

**Commenter: TNT Environmental**
Comment: The last sentence of this section is concerning to the regulated community and should be removed. It would give all localities the authority to adopt any "requirement or criteria" that exceeds those established in the proposed regulations, including "extension of the Resource Protection Area" and "further restrictions on development". The only constraint on this authority is that it must address "climate change and sea-level rise", which will undoubtedly lead to countless differences of opinion and ultimately to litigation.
Recommendation: It is our recommendation that the last sentence of this section be removed.

**Commenter: Virginia Farm Bureau (VFB)**
The broad nature of this proposed language goes well beyond the intent of the Chapter 1207 of the 2020 Acts of the Assembly. Therefore, we would ask for language clearly limiting localities ability to make changes to their ordinance outside of the protections in 9 VAC 25-830-130 Item 8 and Item 9.

**Commenter: Virginia Association for Commercial Real Estate (VACRE)**
Comment: The last sentence of the proposed Subsection B has raised a tremendous number of objections from the three VACRE chapters and their members. It is the most objectionable provision in the proposed regulations. It cannot be fixed by amendment and VACRE strongly urges its deletion from the proposed regulations. This sentence provides "Nothing in these provisions shall preclude a locality from adopting requirements or other 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 <u>including extension of the Resource Protection Area, further restrictions on development or further preservation of existing vegetation."</u> (emphasis added). The only constraint on this authority is

that it must address "climate change and sea-level rise" which as discussed in Part I, Section 2 of these comments, are undefined terms in the proposed regulations and subject to abuse and use as a growth management tool.
This vast grant of local option authority is unprecedented in the CPBA program and represents a significant threat to property rights, housing availability and economic development in Virginia. This sentence and the greatly expanded local option authority it would grant is not even mentioned in the description of the regulations provided at pages 172 and 173 of the Board's December 9, 2020 meeting briefing materials. No such authority exists for localities under the existing regulations to achieve the Act's primary objective of water quality. It makes no sense that localities would be given such authority for this new secondary goal of the CBPA when it does not exist for its primary purpose.
By applying these new regulations to the entire Chesapeake Bay Preservation Area, not just the RPA, the proposed expansion of buffers and new restrictions on development could apply locality wide in many jurisdictions because many localities, including Fairfax County, have designated their entire locality as a Chesapeake Bay Preservation Area. As a result, it could impact countless acres of land and an untold number of public and private projects throughout the many localities subject to the CBPA. This sentence could produce significant unintended consequences including preventing some projects from being built at all and in other cases a loss of property values for homes and buildings. Many of these properties have existing loans secured based on current property values. The loss of value places investors and lenders for these projects at risk.
The Hampton Roads Planning District (HRPDC) in its comments dated April 15, 2021 that have been submitted to DEQ and posted online HERE note their objection to the "de facto expansion of the Resource Protection Area" in Subjections D and E (page 7 of HRPDC Comments). HRPDC states that "these are significant new requirements for areas where property owners and local programs have generally had more flexibility to balance development with water quality protection. Sea level rise impacts are directly related to elevation, a vertical measure. Applying additional horizontal buffers is an ineffective response to sea level rise that could result in unfair restrictions of properties that may not be impacted." HRPDC asks DEQ and the Board to remove these provisions from Subsections D and E and the same logic, to be consistent, would have to apply to delete the last sentence of Subsection B.
The uniform applicability of the CBPA requirements, particularly its buffer requirements, is one of the strengths of the CBPA program. VACRE strongly urges the Board to delete this sentence in its entirety.

**Commenter: City of Arlington**
Comment: Incorporation of the provisions of 9VAC25-830-155 into local ordinances could require more than the allotted three (3) years, particularly if guidance from DEQ is not immediately forthcoming. Establishment of a “buffer on the buffer” for the preservation of vegetation (9VAC25-830-155.E.2.b) or to mitigate placement of “fill” (9VAC25-830-155.D.2) is likely to be highly contentious in an urbanized community like Arlington County. A 2018 modification to Arlington County’s CBPA map, which reduced the number of RPA properties in the County, required 12 months of outreach. Meeting the requirements of 9VAC25-830-155.A could require updates to local Zoning, Stormwater, Subdivision and CBPA Ordinances and Comprehensive Plan amendments, a considerable lift for localities.
Section 9VAC25-830-155.B does not “preclude localities” from: expanding RPAs, restricting development, and preserving existing vegetation to address the impacts of sea-level rise and climate change. If the intent is to grant localities authority in the specific categories identified in this section, the regulation should be amended and parameters under which such authority may be exercised should be defined.

**Commenter: Audubon Naturalist Society (ANS)**
Comment: More directly address the CBPA’s purpose to restore and preserve water quality. As the draft regulations address climate change adaptation and resilience measures, we recommend that the language more specifically incorporate the fundamental purpose of the CBPA to restore and preserve water quality in the Chesapeake Bay watershed. The current draft language is currently too vague, leaving interpretation up to locales as to whether the language is meant to make the *natural environment* being impacted by climate change more resilient or whether to make the *man-made built environment* more resilient to climate change.

**Commenter: Balzer & Associates**
Comment: Subsection B seems to allow localities the authority to unilaterally adopt any requirements and criteria related to climate change and sea-level rise. It also allows the extension of Resource Protection Areas (RPA) and “further restrictions on development”. This is a broad and vague guideline which may be used by localities to restrict any activity and will lead to significant disagreement and litigation.

This subsection does not restrict requirements to RPA but allows changes to CBPAs which encompass all areas within the regulated localities. This represents a broad expansion of authority to localities that has the potential to affect property rights, development opportunity, planned growth, and the economic health of the region. Subsection B should be reevaluated to further define the limits of the regulation and stake holders should be included in the process of the creation of this regulation.

**Commenter: City of Hampton**
Comment: We understand the language in this section is meant to allow localities to adopt additional requirements or criteria when permitting development within the Chesapeake Bay Preservation Areas. It is unclear if this is intended to apply to the IDA or the Resource Management Area (RMA) in addition to the RPA. It appears to allow the locality to expand what areas are designated as RPA. We recommend that this allowance be clarified on exactly how an RPA can be expanded: whether it is based upon actual elevations above sea level; whether it can be a discrete waterway or disconnected non-tidal wetland; whether it can include expanding IDA areas; and/or whether it has to be a uniform projection of the RPA such as expanding the width to a larger dimension than 100 feet. We recommend that the RPA should not be permitted to expand based upon a regional or locality-wide projection of conditions when it would be difficult to implement on a specific site. The exact location of the RPA buffer should be able to be identified precisely on a particular property or area for clarity of everyone involved.
In the first sentence of this section, we believe the word "adaptation" should have been used rather than "adaption".

**Commenter: Virginia Argibusiness Council**
The proposed language would significantly increase a locality's authority to expand Resource Protection Areas and alter the size of buffers in conflict with 9VAC 25-830-130. The second sentence in part B would authorize a locality to expand the RPA for the purposes of preserving any existing vegetation, including tree cover over and above the threshold currently authorized by 9VAC25-830-130. By including the language in section B, this could create conflicting regulation and ordinances impossible for compliance. The Council requests the Department strike the second sentence of 9VAC25-830-155.B which states "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.". Section B should contain language limiting the locality's ability to make changes that go further than 9VAC25-830-130.8 for agricultural activities and 9VAC25-830-130.9 for silvicultural activities.

**Commenter: Group 2 Individuals**
The last sentence of Subsection B of these proposed regulations is the most concerning to the regulated community and should be removed. It would give all localities the authority to adopt any "requirement or criteria" that exceeds those established in the proposed regulations, including "extension of the Resource Protection Area" and "further restrictions on development". The only constraint on this authority is that it must address "climate change and sea-level rise", which will undoubtedly lead to countless differences of opinion and ultimately to litigation.
This vast grant of authority is unprecedented in the CPBA program and represents a significant threat to property rights, housing availability, and economic development in Virginia. It would apply to the entire Chesapeake Bay Preservation Area, not just the RPA, which is the focus of the rest of the proposed regulations. It would be unprecedented to grant such extensive authority through an expedited regulatory process which lacked any stakeholder involvement.
Additionally, the proposed regulations do not contain any provisions that would limit or constrain the use of this unprecedented authority by local governments. The uniform applicability of the CBPA requirements, particularly its buffer requirements, is one of the strengths of the CBPA program. I strongly urge the Board to delete this sentence in its entirety.

**Commenter: Chesapeake Bay Foundation (CBF)/Virginia Conservation Network (VCN)/Sothern Environmental Law Center (SELC) /Potomac Riverkeeper Network (PKN)/James River Association (JRA)/ANS/Wetlands Watch (WW)**

9 VAC 25-830-155 Climate Change Resilience and Adaptation Criteria

A. Pursuant to VA Code § 62.1-44.15:72, as amended, ~~T~~this Section ~~applies~~ provides criteria and requirements to address coastal resilience and adaptation to sea level rise and climate change – in addition to 9 VAC 25-830-130 and 9 VAC 25-830-140. 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 3 years after effective date of the regulation amendment]. In doing so, local governments shall ensure that performance criteria addressing climate change resilience and adaptation are consistent with the water quality protections of the Act. This Section applies in addition to 9 VAC 25-830-130 and 9 VAC 25-830-140.

B. Land development, adaptation 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 but not limited to sea-level rise, recurrent flooding, and stormsurge, may be allowed in a Chesapeake Bay Preservation area provided the activity complies with this Section and all other applicable provisions of this Chapter~~ess regulations~~. Nothing in these provisions shall preclude a locality from adopting requirements or criteria in addition to the requirements of these provisions, including extensions of the Resource Protection Areas, further restrictions on development, or additional measures to preserve existing vegetation, in order~~-~~ 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.~~

**Response: The provisions of Subsections A and B have been revised. The timeline provision for incorporation has been added to the separate provisions in 9 VAC 25-830-190. Specific language in Subsection B related to the effect of the amendment on the ability of localities to adopt additional requirements was removed. The intent of the language as proposed was to reflect that local governments may be undertaking additional action to address climate change including their zoning or development process; the amendment was not intended to place a limit on a locality's ability to do so consistent with their needs, planning, and existing authority. Additionally, examples of actions identified were intended to reflect authority that already exists. However, as the language was only meant to clarify and be consistent with existing authority, and in light of comments and concerns particularly by local governments, the language was removed.**

155(C)-Assess Impacts

**Commenter: City of Alexandria**
Comment: It is unclear if this applies to a development that contains portions of an RPA or is located wholly within the RPA. Please clarify this language. It is also unclear if this applies to current or future RPAs created as a result of climate change.

**Commenter: Anonymous Town Hall**
Comment: This section invites precisely the disconnect that arises when regulations intended for one purpose are redeployed for another. The RPA is by definition an area that is either left in its natural state or deliberately altered to mimic the characteristics of a natural state for the purpose of enhanced water quality for runoff leaving a site and entering a stream, creek, river or the Bay. Expanding the RPA in and of itself will not add to climate change resilience nor will it enhance adaptation. Keeping it in its current state will also not enhance adaptation or resilience. Such an approach is a concession, not an adaptation – it is a retreat. Hardening the water/land edge, armoring potentially erodible areas in a site, elevating structures outside of predicted levels of water incursion from storm events are the most obvious means by which a property's resilience is enhanced and by which investments in real property improvement are adapted to withstand the forces of nature. Each property owner should have the option of retreating or standing firm, to the extent each site affords reasonable opportunities for either or both approaches.

**Commenter: Environmental Defense Fund**

Comment: Final regulations must provide clarity now to ensure local government staff and the volunteer CBPA boards they support have the ability to effectively implement the CBPA and plan for climate change. Currently, ambiguities remain with regards to the potential expansion of the RPA, misaligned timelines, and other issues. Final regulations must be prescriptive with clear standards for incorporating coastal resilience and adaptation to sea level rise and should not rely on future guidance to direct localities. Guidance is often considered prescribed, not enforceable by local government staff, while standards and criteria expressly delineated in the regulations are enforceable. Additionally, DEQ cannot expect localities to consider and plan for climate change impacts without adequate support and training. The three-year delay in implementation of the regulations will help with this, but final regulations need to set a stronger performance standard and provide support resources to avoid uneven implementation.

**Commenter: Friends of the Rappahannock (FOR)**
Comment: The regulations must be prescriptive and should not rely on future guidance to direct localities. All standards for the incorporation of coastal resilience and adaptation to sea level rise should be expressly delineated in the CBPA regulations, not future guidance. Guidance is often considered prescribed, not enforceable by local government staff; whereas, standards and criteria expressly delineated in the regulations are enforceable.

**Commenter: Mark Rinaldi**
Comment: This section invites precisely the disconnect that arises when regulations intended for one purpose are redeployed for another. The RPA is by definition an area that is either left in its natural state or deliberately altered to mimic the characteristics of a natural state for the purpose of enhanced water quality for runoff leaving a site and entering a stream, creek, river or the Bay. Expanding the RPA in and of itself will not add to climate change resilience nor will it enhance adaptation. Keeping it in its current state will also not enhance adaptation or resilience. Such an approach is a concession, not an adaptation – it is a retreat. Hardening the water/land edge, armoring potentially erodible areas in a site, elevating structures outside of predicted levels of water incursion from storm events are the most obvious means by which a property's resilience is enhanced and by which investments in real property improvement are adapted to withstand the forces of nature. Each property owner should have the option of retreating or standing firm, to the extent each site affords reasonable opportunities for either or both approaches.

**Commenter: Prince William County**
Comment: The County seldom allows any development or encroachment within Resource Protection Area (RPA) except for allowing single family dwelling in lots lawfully recorded prior to the adoption of the Chesapeake Bay Preservation Act, permitted uses, and exempt activities. The proposed regulations indirectly imply that a study on the impacts of climate change be readily available for use for the entire County. This will be an additional burden to the County to invest its resources on the climate change study considering that the proposed developments within RPA are extremely limited. Even if the regulatory intent is to make the developer conduct a climate change study for the proposed development in RPA, the allowable encroachments within the RPA will be very small to justify such undertaking. If the intent of the regulation is to protect the property from flooding with projected water level raise due to climate changes, such safety factors are already built in (indirectly) the County's floodplain regulations. The regulations should clarify the intent and situations where such studies are warranted. Otherwise, the regulations as proposed do not distinguish between headwater streams and larger tidal streams or rivers. It does not appear economically feasible for the property owner to give up his land or expand his RPA based on projected future conditions (30 or 40 years out). We are of the opinion that the extent of RPA should be based on current conditions, with flexibility for a locality to evaluate risk, if any, for the proposed development within RPA. The regulations as proposed will create greater restrictions on the County's ability to attract economic development projects. It is not clear why the Chesapeake Bay Preservation Act is attempting to expand its role into floodplain management, already regulated strictly by FEMA and the Virginia Department of Conservation Recreation (DCR). Even if the changes on floodplain regulations are necessary due to climate change, these should be initiated by FEMA.
Expecting the current property owners to mitigate for future projected impacts can easily become undue burden to the property owners. If the intent is to protect and conduct outreach on future flooding, these are already covered under FEMA regulations and Community Rating Service program that encourage localities to adopt more stringent regulations to protect against water level rises. Additionally, there is no provision in the proposed regulations to weigh in based on the cost-benefit analysis.

**Commenter: TNT Environmental**

Comment: While the intent of this section is clear, there appears to be an overall lack of consideration as to how this section would impact the residents of the Commonwealth. Such "additional measures or design features", whatever they may be, are likely to pose an undue financial burden on the regulated community. There also appears to be no limit as to what these measures or features may be or how they should be considered. The extent that they are practicable should be considered. This term is already defined and widely used by the Virginia Department of Environmental Quality (DEQ) in the Virginia Water Protection (VWP) permit regulations (9VAC25-210-10). The U.S. Army Corps of Engineers uses the identical definition in the Clean Water Act (40 CFR 231) and must issue permits for only those alternatives that are practicable.

Subsections 3 and 4 discuss additional requirements to be imposed on local governments to "identify measures" including those of "state or federally recognized or approved best management practices" to address impacts derived from subsection 3. This section puts additional burden, both technical and financial on local governments. Many local governments are still mapping *existing* floodplains with the limited resources they have and would likely not have the time or financial resources to invest in mapping *future* floodplains as required by this section.

**Commenter: City of Arlington**

Comment: The County understands the critical threat to coastal communities and environments that underlies the proposed Coastal Resilience and Adaptation amendment and supports incorporation of climate change and sea level rise adaptation into Bay Act programs and regulatory requirements. Arlington is actively involved in comprehensive resiliency planning which includes precipitation and sea level rise scenarios, inundation mapping, risk and vulnerability analysis, costs of inaction, and mitigation and adaptation strategies. However, the County does not support the amendment as proposed.

The proposed amendment language is duplicative and unclear, creating a moving target for compliance for municipalities and the development community, as well as compromises. The regulation also adds a considerable review burden for municipalities without necessarily resulting in real environmental and public safety benefits. This is particularly evident in section 9VAC25-830-155.C where localities are required to review CBPA projects for impacts from climate change and sea level rise but requiring mitigation for identified impacts is discretionary.

Section 9VAC25-830-155.C requires localities to "consider impacts of climate change or sea level rise on any proposed land development in the Resource Protection Area." It is not clear what it means to "consider" such impacts, what the impacts of concern are, or when they have been addressed. Arlington County requests more well-defined language that will enable reviewers and applicants to understand what is required and when and how requirements are met, along with guidance and training for municipalities in the application of this regulation. Considering something does not make it actionable. Climate change impact analysis will require skilled staff and resources to review projects and implement actions. Further, to prevent holding up small homeowner projects like decks and small additions, the proposed language to 'consider impacts of climate change or sea level rise' should be limited to redevelopment projects that also exceed the State stormwater management threshold of 2,500 square feet of land disturbance.

**Commenter: ANS**

Comment: Set clear standards and criteria to address "coastal resilience and adaptation to sea-level rise and climate change" in the regulations

Given that localities will refer to this regulation language and the requirements set forth in it as they make decisions, we recommend that program requirements be in the regulations themselves (rather than future guidance). Doing so would be consistent with the current CBPA program and would ensure clear standards and criteria are provided to ensure local governments are able to incorporate them to address "coastal resilience and adaptation to sea-level rise and climate change" when regulating activity in Resource Protection Areas (RPAs). As localities will be updating and amending their own ordinances, it is important that these regulations be sufficiently understandable and implementable by local government staff.

We suggest the draft regulations include base, mandatory criteria that localities must apply to address both future sea level rise and other climate change impacts. While the regulations do a good job at addressing sea-level rise specifically, there is less specificity on how localities should account for impacts of climate change *other* than sea-level rise (e.g., such as the impacts on RPAs from stronger, more frequent storms).While supplementing these regulations with additional guidance to address specific technical issues may also be useful, more clarity in these regulatory guardrails could better assist localities in implementation, such as knowing when to disapprove projects that would exacerbate the effects sea level rise or climate change. Furthermore, guidance is not enforceable, so including program requirements in the regulations themselves will provide an essential level of commitment to proper implementation and compliance.

**Commenters: CBF/SELC/VCN/JRA/WW**
Comment: The draft regulation fails to incorporate mandatory criteria that localities must apply to address future sea-level rise and other climate change impacts. Section C lays out some helpful models and factors to use in considering how sea-level rise will affect proposed land development and the land on which it is proposed. In particular, the proposed use of an impact range of not less than 30 years and the specification of the National Oceanographic and Atmospheric Administration (NOAA) Intermediate–High scenario projection curve provide clear and appropriate considerations that localities must utilize. However, the draft regulation does not set forth any specific action that localities must take if the locality finds that a proposed land development project either would not be sufficiently resilient or adaptable to climate change impacts, would exacerbate the effects of sea-level rise, or negatively impact water quality. For a locality's consideration of climate change and sea-level rise impacts to be meaningful, the regulation must provide localities with the corresponding responsibility to take appropriate action, including the denial or modification of projects that the locality determines are unlikely, as proposed, to survive climate change and sea-level rise impacts. The regulations must specifically lay out the decision-making process that a locality is required to use once it has considered climate change impacts.

**Commenter: Chesterfield County**
Comment: The requirement to consider a 30-year prediction of future RPA limits will require additional analyses by the development community as well as significant review time by local staff. A document similar to a Water Quality Impact Assessment capturing the proposed elements such as floodplain, water level, storm surge *etc.* may be helpful in documenting, reviewing and understanding the overall site-specific impact of sea level rise and climate change.

**Commenter: City of Hampton**
Comment: It appears as if this section does not compel a locality to require any changes to a proposed development, even if the impacts considered may be severe. The language seems to require that the locality consider what impacts there may be by perhaps identifying the specific future conditions, and then identify what alterations may be possible to address these impacts, but does not require that these alterations be implemented. This does not seem to meet the intent of the legislation unless simple education or awareness is the goal. If the expectation is that localities meet further obligations by requiring a proposed development to include measures to mitigate or prevent the foreseen impacts that should be made clear. We believe that clarification here would better achieve the intent of these amendments and create consistency between different localities in applying them.
In section C.3., the text directs local governments to consider impacts on a development such as the future floodplain. In order for consistent application across all localities, a method to project future floodplain while incorporating projected sea level rise is needed. We recommend that the Commonwealth fund a study accomplishing that task and provide it for the localities. Further, we recommend it be updated on a regular basis for use when considering the potential impacts indicated within section C. Alternatively, we request that the regulations reference a particular agency or existing study to use for this projection if preferred. If not and localities must conduct this study, the methodology should be made clear in order to adequately consider future floodplain boundaries for projects. We recommend clarification on exactly how a local government should consider these impacts, whether it is required to be tracked within a permit, whether the information must be provided in the form of a report provided by the applicant, and how this information will be required to be reported to the Commonwealth.
In section C.3, when it says "other impacts in altering the RPA or diminishing the protection of water quality", what considerations by the locality are intended by this language? Are localities to project where the RPA may be in the future and consider that impact on permitting the development? Clarity should be provided here.

**Commenter: VAMSA**
Comment: The Proposed Regulations state that a local government subject to the CBPA "shall consider the impacts of climate change or sea-level rise on any proposed land development in the Resource Protection Area" and that this consideration shall span no less than 30 years and "[i]nclude 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;" (Proposed Regulations, 9VAC25-830-155(C), (C)(1), (C)(3)).
It is not clear from this text whether a local government should review potential climate change or sea-level rise impacts if the development in question is: (1) <u>currently</u> in the RPA or (2) may be in the RPA <u>in the future</u> based on how the RPA may change over the following 30 years. VAMSA believes that DEQ intends for local CBPA programs to review impacts on a proposed development if the development is <u>currently</u> in the RPA, but the Proposed Regulation could be read either

way. This will likely cause unnecessary confusion and differing approaches depending on the CBPA staff in a particular locality.

For this reason, VAMSA requests that DEQ make the following change: 9VAC25-830-155 Climate Change Resilience and Adaptation Criteria

C. Local governments shall consider the impacts of climate change or sea level rise on any proposed land development if it will occur wholly or partially in an area currently identified as part of in the Resource Protection Area.

**Commenter: Hampton Roads Planning District Commission (HRPDC)**

Comment: Additionally, in order to be consistent with the overall objective to have applicants consider climate change impacts when developing in the Resource Protection Area (RPA), we recommend a new requirement for a coastal resilience assessment that is similar to the Water Quality Impact Assessment. The suggested language to include as a new subsection, 9VAC25-830-140.8, is indicated in blue text below:

8. A coastal resilience assessment shall be required for any proposed modification within the Resource Protection Area to address sea level rise and climate change 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 coastal resilience assessment is to identify existing and future vulnerabilities to flooding and inundation from precipitation, tides, storm surge, and sea level rise on Chesapeake Bay Preservation 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 coastal resilience assessment shall be established by each local government.
b. The coastal resilience assessment shall be of sufficient specificity to demonstrate compliance with the criteria of the local program.

First, the intent of the assessment of future conditions is not clear. The assessment could be intended to make property owners aware of the risks of more frequent flooding on their proposed development project or it could be designed to restrict projects based on future vulnerabilities as a result of climate change. The intent will determine how the assessment should be conducted and what can and should be done with that information. Clarity of the intent of these regulations will help ensure that they are consistently applied across Tidewater.

It is our recommendation that the regulations be amended to state that the Commonwealth allows activities that are necessary for climate adaptation, what those allowed activities are, and the conditions that are required to be met in order to use them. However, if the intent of the future conditions assessment is not to allow for coastal adaptation strategies but instead to eliminate or reduce development, a higher standard of methodological rigor and accuracy should be required for the assessment, since these provisions often conflict with constitutionally vested rights as more fully discussed below

Second, the "impacts of climate change" that local governments need to "consider" should be defined. It is unclear whether "impacts of climate change" refers to future conditions (such as higher sea levels or expanded floodplains), water quality impacts such as increased runoff due to precipitation changes, or more general site impacts such as property damage, the loss of septic drain fields, vegetation losses due to saltwater intrusion, or loss of wildlife habitat. The lack of clarity is a significant problem. Additionally, it is unclear what it means to "consider" these impacts. Is the intention for local governments to require applicants to offset or mitigate these impacts or develop a benefit-cost analysis? Or, is it intended to educate property owners about climate risks?

It is our recommendation that "impacts of climate change or sea level rise" and "consider" be defined in the regulation. It is imperative that the impacts be narrowed to include only those that are reasonable to consider for a proposed development project in the RPA. To "consider" the impact should mean that a local government informs an applicant of the potential vulnerability of their project to the impacts of climate change or sea level rise.

Local governments also need clarification on *how* to consider the impacts. DEQ should provide instructions and identify the tools that should be used to evaluate the future floodplains, water quality decline, or storm surge on the parcel level. This information needs to be included in the regulation. The questions of climate change impacts are further complicated when considering how they would apply to a small-scale development project, such as a new accessory structure, versus a larger resiliency project on a neighborhood scale. Local governments should not be required to provide updated floodplain maps because they may create confusion with FEMA products especially if frequency and timing of updates are not aligned.

**Commenter: Fairfax County**

Comment: 9VAC25-830-155.C.3 – the phrase "...altering the [RPA] or diminishing the protection of water quality..." should be clearer. It appears what is meant is that climate change could alter (expand) the boundaries of the RPA (which moves with the shoreline) and the RMA resulting in proposed development being closer to the water, in the RPA, or in the RMA at some point in the future. If what is meant is that current RPA boundaries along tidal bodies of water should be based on 30-year sea rise estimates, the regulations should explicitly say that.
9VAC25-830-155.C.4 – the "measures, conditions, or alterations to the proposed land development to... address such impacts" sounds like the old buffer equivalency methodology. It needs to be clarified that this phosphorous reduction is in addition to the minimum stormwater management regulation requirements.

**Commenter: FOR**
Comment: The CBPA regulations must require localities to only permit those adaptation measures or activities that will survive under specific sea level rise or climate change scenarios. The draft regulations only ask localities to consider how sea level rise will affect the proposed land development and the land on which it is proposed for a time period no less than 30 years. The draft regulations should require locality staff to only approve activities in the Resource Protection Area ("RPA") that are designed to adapt to a specific level of sea level rise/climate change for the minimum 30 year time period.

**Commenter: Virginia League of Conservation Voters (VLCV)**
Comment: The CBPA regulations should require localities to only permit those adaptation measures or activities that will survive under specific sea level rise or climate change scenarios. Specifically, the draft regulations should require locality staff to only approve activities in the Resource Protection Area (RPA) that are designed to adapt to a specific level of sea level rise/climate change for the minimum 30-year time period.

**Commenter: HBAV**
Comment: The proposed regulation, at 9VAC25-830-155(C) requires localities to "consider the impacts of climate change on any proposed development in the RPA" and details requirements for an assessment of future conditions. Assessment findings would provide a basis upon which localities would require additional measures or design features of land development.
Unfortunately, both the text and requirements of 9VAC25-830-155(C) fail to provide any rationale for new requirements on land development in the RPA. First, the terms "consider" and "impacts of climate change" are too vague. DEQ has not explained the actions that would constitute localities' consideration of climate change impacts, nor the impacts themselves. For example, besides inundation, rising sea levels could cause saltwater intrusion. In addition, climate change is understood to result in more severe storms, which could lead to greater stormwater runoff. It is unclear whether "consideration" would involve incorporating analysis of climate change impacts into existing permits and regulations (e.g., Safe Drinking Water Act permits, Clean Water Act permits) or establishing new setback, grading, and/or drainage requirements. Further, depending on the actions that would constitute consideration, localities could identify other entities, such as Municipal Separate Storm Sewer Systems (MS4s) that are better positioned to mitigate climate change impacts.
Comment: The HBAV also notes that financing concerns extend to landowners—and especially landowners who would be subjected to expensive BMPs and reporting requirements under the proposed regulation. For example, localities may require entirely new permitting processes to implement the new requirements or revise their ordinances and programs to accommodate the proposed regulation. Such activities could require educational outreach to engineers and landowners, additional technical assessments and reporting in engineering plans, and the hiring of additional plan review engineers to review and approve projects before they proceed to construction.

**Commenter: Middlesex County**
Comment: The regulations appear to treat all levels and scopes of work the same. Small projects such as minor filling of a low or sinking area should be treated differently than a large scale shoreline erosion control project. These different levels of project scope should be further investigated and ultimately assigned some type of level for review and permitting requirements. All of projects covered that qualify under the regulations should be handled at the staff level and **NOT** through the formal exception process. Local Boards and Commissions do not possess the technical expertise to review projects of this nature.

**Commenter: Sierra Club**

Comment: We further recommend that the proposed regulations clearly stipulate expectations to uphold RPA and limit the authority of local jurisdictions to offer waivers or exceptions for development.
Above all, we urge a heightened level of attention to ensuring that these regulations contain enough specificity to ensure their effectiveness at achieving the intent of the legislative change, which is to ensure that Virginia continues to make progress combating climate change (mitigation) and protecting communities from climate impacts with an emphasis on disproportionately vulnerable populations. We hope that with the eventual adoption of these regulations, the agency will be able to assist local governments as they navigate implementation.

**Commenter: VCN/WW**
Comment: The CBPA regulations must require localities to only permit those adaptation measures or activities that will survive under specific sea level rise or climate change scenarios. The draft regulations only ask localities to *consider* how sea level rise will affect the proposed land development and the land on which it is proposed for a time period no less than 30 years. The draft regulations should require locality staff to only approve activities in the Resource Protection Area ("RPA") that are designed to adapt to a specific degree of sea level rise/climate change for the minimum 30-year time period.

**Commenter: MPPDC**
Comment: Section C of 9VAC25-830-155 if adopted as proposed will be problematic for several reasons. First, the intent of the assessment process is unclear. Without understanding of whether the assessment required by local governments is intended to educate or raise awareness of risks upon a project, to restrict projects with projected future vulnerabilities, or something different; local governments have no way of providing adequate public comments and feedback on the proposed regulatory amendments pertaining to local government responsibilities. Should the assessment be expected to be conducted with the intent of ensuring that property owners of undeveloped areas not be permitted to employ adaptation activities on their properties, then these provisions may conflict with constitutionally vested property owner rights.
Clear instructions for how local governments should assess future conditions is needed in the regulations. Local governments should not be required to provide updated floodplain maps because they may create confusion with FEMA products, especially if frequency and timing of updates are not aligned. Additionally, the specific metrics which local governments are expected to use and tools they should be expected to use should be provided. The metrics should include property values as they pertain to the locality's tax base and whether a property is eligible to be mortgaged and insured.
Being that the amendments could be interpreted to reference a predicted location of the RPA at some point in the future, language should be added to state that amendments are intended to address the location of the RPA on the date the amendments are enacted and not intended to reference any future predicted location of the RPA. This clarification is necessary for any local government to administer a program in the manner the state requires.
Additionally, we do not fully support the suggestion proposed by other PDCs to create and require a new coastal resilience assessment process without substantial consideration by a stakeholder advisory group. Clarification is also necessary as to whether an applicant is intended to complete an assessment of future conditions, if this is solely the requirement of the local government, or both.

**Commenter: Commenter: CBF/VCN/SELC/JRA/ANS/WW**

C. Local governments shall consider the impacts of climate change and~~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 these regulations.~~ In considering ~~the~~ future impacts, local governments shall:

1. Consider a potential impact range of no less than 30 years; AND
2. Utilize an appropriate model or forecast to aid in the consideration of impacts through use of:
   i. The ~~most updated~~ 2017 Intermediate-High scenario projection curve, or any subsequently updated version thereof, of the ~~2017~~ National Oceanographic and Atmospheric Administration (NOAA) ~~Intermediate-High scenario projection curve~~;
   ii. A model or forecast that incorporates or utilizes the 2017 National Oceanographic and Atmospheric Administration (NOAA) Intermediate-High scenario projection curve, as may be updated; OR
   iii. A peer-reviewed model or forecast that includes NOAA 2017 projections, including the Intermediate – High curve, as may be updated; and has been approved for use by the Department ~~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~~ rainfall intensity, duration, and frequency, or other impacts in any extensions of ~~altering~~ the Resource Protection Area and ensure ~~or diminishing~~ the protection of water quality due to the proposed development from these impacts.
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. Such measures may include ~~This includes measures such as state or federally recognized or approved~~ best management practices that are approved by the Chesapeake Bay Program Partnership or the Virginia Stormwater BMP Clearinghouse and that are appropriate for the site conditions and land development to address such impacts. 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 these regulations.

~~4.~~5. Update their Chesapeake Bay Preservation Area maps, as required by 9 VAC 25-830-170(1)(h), to reflect changes to the RPA utilizing the most current National Oceanographic and Atmospheric Administration (NOAA) Intermediate-High scenario projection curve, every five years as part of their comprehensive plan review process.

**Commented CBF SELC WW:** Moved here from beginning paragraph of Section C.

**Response: The Department revised the assessment requirements to provide additional clarity and specificity. This took into account currently available models including the National Flood Risk Information System (FRIS) developed for DCR and Adapt VA. Based upon available model information, in discussions with DCR and Virginia Institute of Marine Science (VIMS), the revision identified those minimum current layers that exist that can be utilized for specific property or point information which include sea-level rise, storm surge, and flood mapping. Additionally, specific factors related to buffer function and the importance of reducing future or**

**repeated land disturbance were identified for the purposes of the assessment. Additionally, given current efforts and requirements and to provide clarity that conflicting mapping is not intended, language to reflect current mapping and program requirements in floodplain management were included. Factors for identifying measures, conditions, or alterations were identified including the type, size, and nature of the project. Clarity was also provided in that the assessment is based upon the RPA as delineated at the time of the proposed development and the assessment is to occur during the plan of development review process or during the review of a WQIA.**

**The ability to incorporate this assessment into the WQIA was also provided and the recognition that where such assessment identifies necessary and appropriate conditions, alterations, or measures, the local government shall require them as a condition of approval. In doing so, the Department also recognizes that not all projects or development that occur in the RPA when assessed will require any alteration, modification, or condition or result in a change to the project based upon the assessment.**

<u>30 year Timeframe</u>

**Commenter: FOR**
Comment: The 30-year timeframe for future conditions in the draft regulations does not match the anticipated 15-year effective life of most nature based water quality best management practices. What is the rationale for selecting a 30-year timeframe for future conditions?

**Commenter: Middlesex County**
Comment: Does a property owner have to design to 30 year forecast models? 30 years out seems to far in the future to predict accurately. Property owners may commit more financial resources to a project than is necessary, if forecast models fall short of predictions.

**Commenter: VCN**
Comment: The 30-year timeframe for future conditions in the draft regulations does not match the anticipated 15-year effective life of most nature-based water quality best management practices. The rationale for selecting a 30-year timeframe for future conditions is unclear.

**Commenter: VLCV**
Comments: We note that the 30-year timeframe for future conditions in the draft regulations does not match the anticipated 15-year effective life of most nature-based water quality best management practices.

**Commenter: WW**
Comment: The 30-year timeframe for future conditions in the draft regulations does not match the anticipated 15-year effective life of most nature based water quality best management practices. While we feel it is best to push consideration of impacts as far into the future as possible, we recognize that most best management practices are assumed to have a 15-year life, requiring inspection and renewal of the practice after that point. We need to better understand the rationale for selecting a 30-year timeframe for future conditions in the draft regulations.

**Commenter: MPPDC**
Comment: While the 30-year horizon for assessing future impacts and the use of the NOAA Intermediate-High sea level rise scenario, may be an appropriate approach because it aligns with other state resilience policies and because it may be appropriate for substantial development activities within the RPA such as house or outbuilding construction, the approach may not be justifiable for relatively smaller nuisance flooding activities (e.g. addressing a low spot (10 ft. x 20 ft.) in a yard subject to recurrent flooding) which do not have the same projected lifespans. It is recommended that the regulations require a variety of planning horizons for various types of projects based on a project's type, expected lifespan, what is at risk, and the character of the projects' immediate surroundings.

**Commenter: HRPDC**
Comment: Lastly, the regulations do not contain justification for the selection of the 30-year horizon for future impacts or for the use of the NOAA Intermediate-High sea level rise scenario. Although this scenario has been referenced in other state resilience policies, the original selection of it for Executive Order 45 was intended to guide decisions involving the

siting and construction of state-owned buildings. NOAA Technical Report NOS CO-OPS 083, "Global and Regional Sea Level Rise Scenarios for the United States," which defines the Intermediate-High Scenario, recommends selecting an appropriate scenario based on "the specific system problem, goals, and preferences" for a specific setting or type of project. It is unclear whether the scenario specified in the proposed regulations is appropriate for the range of projects or planning decisions considered by local programs in implementing the Bay Act.
In addition, we recommend that the regulations base the time horizon for considering climate change impacts and the selection of an appropriate sea level rise scenario on the proposed action under consideration. This should account for a project's type, expected lifespan, what is at risk, and the character of the project's immediate surroundings. For example, many shoreline management projects may have a projected lifespan of approximately twenty years. For projects such as these, a quadratic extrapolation of observed sea level trends, such as those from the Virginia Institute of Marine Science Sea Level Rise Report Cards, may be a more appropriate standard than a climate change scenario intended for long-term projects.

**Response: In consideration of comments and SAG discussions, and as noted in comments, some projects may have a lifespan of less than 30 years. The language was revised to read, "30 years or the lifespan of the project if less than 30 years". Thirty years was selected consistent with other existing state policy and requirements for evaluating sea-level rise. It also accounts for an appropriate window where such development is permanent. Additionally, the project type and size is also separately accounted for in the assessment when identifying any conditions, alterations, or adaptation measures.**

Type and Scope of Impacts

**Commenter: EDF**
Comment: Virginia Code § 62.1-44.15:72 recognizes the implications of these future conditions and mandates that "the criteria adopted by the Board, operating in conjunction with other state water quality programs, shall encourage and promote...coastal resilience and adaptation to sea-level rise and climate change" as a purpose of the Act. However, the draft regulations fail to consider climate change impacts beyond sea level rise, including increased precipitation, tidal flooding, and storms. These must be addressed in the final regulations in order to meet the statutory mandate.

**Commenter: Fairfax County**
Comment: The proposed regulation requires the county to consider the future impacts of climate change and sea-level rise in development applications. The regulations provide a specific model to use for evaluating the impacts of sea-level rise but nothing for evaluating the effects of climate change for riverine RPAs. Funding should be made available from the state to provide localities the financial resources necessary to restudy the floodplains and rainfall changes.
9VAC25-830-155.C.3 – the term "other impacts" is too vague. We recommend the regulations clearly specify all impacts that the locality will be required to consider.

**Commenter: FOR**
Comment: Although the proposed regulations were tasked with including various climate change impacts, they only consider sea level rise. As mandated by § 62.1-44.15:72 ("The criteria adopted by the Board, operating in conjunction with other state water quality programs, shall encourage and promote...coastal resilience and adaptation to sea-level rise and climate change" as a purpose of the Act). At §10.1-1183, the Department of Environmental Quality is charged generally: "To address climate change by developing and implementing policy and regulatory approaches to reducing climate pollution and promoting climate resilience in the Commonwealth and by ensuring that climate impacts and climate resilience are taken into account across all programs and permitting processes." The finalized CBPA regulations will need to address all climate change impacts to potential projects, such as rainfall intensity and duration, not just sea level rise.

**Commenter: VA Sierra Club**
Comment: We hope that the proposed regulations will be expanded to include definitive climate change language beyond only the consideration of sea-level rise. For example, protections for Resource Protection Areas (RPAs) presently impacted and further threatened by more frequent and severe storm surge, along inland rivers and streams and in coastal areas, need clarification.

**Commenter: VCN/WW**
Comment: Although the proposed regulations were tasked with including various climate change impacts, they only consider sea level rise. As mandated by §62.1-44.15:72 ("The criteria adopted by the Board, operating in conjunction with other state water quality programs, shall encourage and promote...coastal resilience and adaptation to sea-level rise and climate change" as a purpose of the Act). At §10.1-1183, the Department of Environmental Quality is charged generally: "To address climate change by developing and implementing policy and regulatory approaches to reducing climate pollution and promoting climate resilience in the Commonwealth and by ensuring that climate impacts and climate resilience are taken into account across all programs and permitting processes." The finalized CBPA regulations will need to address all climate change impacts to potential projects, not just sea level rise.

**Commenter: CBF/SELC/VCN/JRA/WW**
Comment: Section C of the draft regulation only addresses sea-level rise and fails to account for the many other impacts of climate change, contrary to the clear mandate set forth in VA Code § 62.1-44.15:72. In order to implement the statutory language of promoting resilience and adaptation, the regulation needs to account for the broader range of climate change impacts, including such factors as rainfall intensity, duration, and frequency. We have set forth additional factors that should be considered in Section (C)(3) of the markup. To improve the regulation and to promote consistent interpretation and application, we also suggest that DEQ add a definition of "impacts of climate change" in 9 VAC 25-830-40.

**Response: The Department recognizes that the impacts of climate change are significant and vary. In the amendment, the scope of impact for consideration was specifically identified to focus on impacts where existing model and data information are available to be used in the climate change assessment and those that are most directly connected to the water quality management elements related to the buffer and the RPA. The specifics of impacts addressed in the amendment is not to negate the recognition that other impacts are real and important to be considered in Commonwealth and local planning and action.**

Model/Forecast

**Commenter: City of Alexandria**
Comment: Please add at least as stringent as the 2017 NOAA scenario. As written, this precludes localities from using a more stringent scenario now or in the future.

**Commenter: HBAV**
Comment: In addition, the assessment of future conditions raises concerns. Under 9VAC25-830-155(C)(2) and (3), localities must use appropriate models or forecasts that include 2017 National Oceanic and Atmospheric Administration (NOAA) projections, and further consider future floodplain, water level, storm surge, or other impacts in altering RPAs. Importantly, each of these requirements carries uncertainty that calls into question its usefulness as a basis for requiring additional measures of land development activities. For example, NOAA's *Sea Level Rise Viewer* uses 2017 projections to show potential shoreline changes under various water level scenarios.[4] Figure 1 shows the potential shoreline in and around coastal Williamsburg, James City, Newport News, and Poquoson under a 1 ft. sea-level rise scenario. Notably, the model is transparent in its mapping confidence, explaining "[t]he inundation areas depicted... are not as precise as they may appear" and "orange areas denote a high degree of uncertainty." Such high degrees of uncertainty are simply not sufficient for regulating land development, and limitations in model resolution could render local land development requirements impossible to implement.
Figure 1: Orange Areas Denote High Uncertainty in the NOAA Sea Level Rise Viewer

Finally, the proposed regulation neglects to explain how localities would finance these required analyses. If local governments lack the internal capacity to model future scenarios, then they would need to pursue time-intensive and expensive procurement processes and award contracts to firms with modeling expertise. The HBAV also notes that financing concerns extend to landowners—and especially landowners who would be subjected to expensive BMPs and reporting requirements under the proposed regulation. For example, localities may require entirely new permitting processes to implement the new requirements or revise their ordinances and programs to accommodate the proposed regulation. Such activities could require educational outreach to engineers and landowners, additional technical assessments and reporting in engineering plans, and the hiring of additional plan review engineers to review and approve projects before they proceed to construction.

**Commenter: HRPDC**
Comment: Third, local governments are also to consider the impact of future conditions, such as floodplains, water levels, and storm surge levels on development projects in the RPA. There is no recognized model or methodology that can accurately predict future floodplains, water quality decline, or storm surge to the level of detail and precision required for regulating land development. This type of analysis would be an academic exercise but not practical to implement at the local level. At best, these projections would have significant uncertainty and error, and as a result should not be used for delineating future RPAs. It is also unclear if this consideration requires local governments to provide updated floodplain maps, and if it does, how often they should be revised.

**Response: The model language was revised to state "utilize a model or forecast developed by or on behalf of the Commonwealth." Currently, this would practically be the "AdaptVA" model developed by VIMS or the FRIS developed for DCR. Specific names were not included as these may evolve over time and new models may developed for or by the Commonwealth to supplement or replace these. Additionally, both provide specific information that can be utilized in the assessment. The primary difference is that FRIS does not contain information related to storm surge.**

**The Department discussed both models with DCR and VIMS. In particular, given that "AdaptVA" has all three layers of information, the Department had repeated discussions with VIMS regarding the specifics of the information available including the level of detail to consider in an assessment. In subsequent work for the amendments, the Department will be working with VIMS to provide additional information, tools, and training to assist localities in applying this model and information. Through this model, a specific point can be identified and specifics provided on expected sea-level rise and storm surge as well as current mapping zones and the Limit of Moderate Wave Action.**
**The model identified for flooding is consistent with current floodplain considerations and does not necessitate the creation of a new map.**

<u>155(D)-Exception Limits</u>

**Commenter: Anonymous Town Hall**

Comment: The placement of fill or other material within an RPA does not by definition negatively impact water quality. In many instances, the existing in situ soil poses a greater threat to water quality (hi nutrient content, hi erodibility) than does engineered fill material properly stabilized. And the placement of fill or other material within an RPA does not by definition increase the floodplain level, water level or storm surge level on a given property, adjacent properties or other properties within a watershed or sub-watershed. If the Commonwealth believes it is in the public interest to reduce in general, and not inconceivably eliminate entirely on a case-by-case basis, development along waterways because of the threats of floodplain damage, sea-level rise, storm surge or other impacts, then it should pursue and allow for debate of a new public policy (law and regulations) to identify the threats, assess the fiscal impacts, evaluate the constitutional merits of depriving persons of private property without due process and afford citizens options for addressing the actual issues of climate change resilience and adaptation on their private property. This section goes another step beyond Paragraph B, which authorizes localities to increase the RPA buffer by however much they wish. This section would also allow an additional buffer to the buffer of 100 feet more land where no fill or other material may be placed, beyond an expanded RPA buffer. There must be a sound basis in facts to authorize, on a case-by-case basis, and there must be widely understood limits to, such broad authority.

**Commenter: Fairfax County**

Comment: Proposed section 9VAC25-830-155.D.3 removes the authority for the locality to consider exception applications that would encroach within the seaward 50 feet of the Resource Protection Area (RPA) buffer. The proposed provision should not be adopted for the following reasons: The county has long held the position that decisions regarding individual land use cases should be made at the local level. The county currently exercises the authority with extensive consideration of the environmental impacts balanced with a recognition of the rights of owners to develop existing properties. The county routinely works with applicants to provide a design where such approvals achieve a net environmental benefit, including:

i) Lake Barcroft, Section 2, Lot 125, approved December 5, 2015, with reduction of pollutant load achieved by removal of existing impervious area and planting a vegetated buffer.

ii) Forest Villa, Lot 20A, approved July 6, 2016, with conditions to remove existing impervious surface from the seaward 50 feet and plant a vegetated buffer to achieve a pollutant load reduction of 0.1 lb./year.

The State Water Control Board must consider whether Section 9VAC25-830-155.D.3 and its incorporation into local ordinances could result in compensable regulatory takings in violation of Article 1, Section 11 of the Virginia Constitution or the Fifth Amendment of the U.S. Constitution, specifically:

i) Would a property owner whose ownership predates the effective date of an amended local ordinance consistent with Section 9VAC25-830-155.D.3 be entitled to compensation if the unavailability of an exception deprived the owner the opportunity to construct a dwelling on the property?

ii) Would a property owner whose ownership predates the effective date of an amended local ordinance consistent with Section 9VAC25-830-155.D.3 be entitled to compensation for a partial regulatory taking if the owner could not construct a dwelling or build an addition to an existing dwelling?

iii) Would a property owner who purchases the property after the effective date of an amended local ordinance consistent with Section 9VAC25-830-155.D.3 be entitled to compensation for a partial regulatory taking if the owner is unable to construct a dwelling without the availability of an exception?

iv) How does the answer to 3.iii change if the owner is not a bona fide purchaser, but inherits the property or otherwise acquires the property in a passive transaction in which the owner did not have an investment-backed expectation at the time of acquisition?

Proposed section 9VAC25-830-155.D.2 prohibits the locality from granting exceptions when "the exception consists of approval solely for the use of fill or other material to the RPA or within 100 feet of the RPA." The proposed regulation is unclear. The type of projects that would "consist solely of the use of fill or other material" is too ambiguous and must be defined. In addition, the proposed regulation creates an administrative paradox, in that it prohibits the locality from approving an exception for projects within 100 feet of the RPA, but an exception is not required in the Resource Management Area (RMA). The nexus between fill within 100 feet of the RPA and adaptation to climate change is unclear especially with respect to riverine RPAs and should be explained.

**Commenter: Mark Rinaldi**

Comment: The placement of fill or other material within an RPA does not by definition negatively impact water quality. In many instances, the existing *in situ* soil poses a greater threat to water quality (hi nutrient content, hi erodibility) than does engineered fill material properly stabilized. And the placement of fill or other material within an RPA does not by definition increase the floodplain level, water level or storm surge level on a given property, adjacent properties or other properties within a watershed or sub-watershed. If the Commonwealth believes it is in the public interest to reduce in general, and not inconceivably eliminate entirely on a case-by-case basis, development along waterways because of the threats of floodplain damage, sea-level rise, storm surge or other impacts, then it should pursue and allow for debate of a new public policy (law and regulations) to identify the threats, assess the fiscal impacts, evaluate the constitutional merits of depriving persons of private property without due process and afford citizens options for addressing the actual issues of climate change resilience and adaptation on their private property. This section goes another step beyond Paragraph B, which authorizes localities to increase the RPA buffer by however much they wish. This section would also allow an additional buffer to the buffer of 100 feet more land where no fill or other material may be placed, beyond an expanded RPA buffer. There must be a sound basis in facts to authorize, on a case-by-case basis, and there must be widely understood limits to, such broad authority.

If the use of fill and/or other material can be used to harden, armor and/or elevate improvements within RPAs without negative impacts to similarly situated properties within a watershed or sub-watershed, or to water quality, then what is the basis for denying such improvements? If water quality is the basis, as the Chesapeake Bay Act and regulations were intended to promote, then there are natural, mechanical, material selection and engineered approaches to offsetting water quality impacts that a property owner should be permitted to employ.

**Commenter: Prince William County**

Comment: The intent of the proposed on the preclusion of fill material within RPA is not clear, particularly as it relates to house(s) permitted on fill through FEMA approval process or lots grandfathered from the Bay act. Many localities already implement a freeboard requirement to FEMA's 100-year flood elevations that indirectly account for the additional protection toward future water level increases.

The proposed regulations are attempting to expand the authority of the Chesapeake Bay Preservation Act on fill operations by 100 feet beyond the RPA boundary, which is concerning. This proposed regulatory change has unintended consequences on land and economic development.

Proposed additional restrictions for construction within the seaward 50 feet of RPA (for lawfully prerecorded lots) to incorporate adaptive measures should be deleted. The current regulations already require construction within the seaward 50 feet to go before the Chesapeake Bay Preservation Area Review Board for the minimum necessary encroachment to accommodate the proposed use. Adding adaptive measures and additional studies for localities that have freeboard requirements are not warranted. If such needs are identified, staff will make such recommendations to the Board as a condition to granting an exception.

**Commenter: TNT Environmental**

Comment: Of particular note in this section is the prohibition on exceptions in the RPA "solely for the use of fill or other material". This section also states that local governments shall not be allowed to grant an exception when such fill or other material is used to raise lands "within 100 feet of the Resource Protection Area." As noted previously, the term "fill" is not defined. Further, the additional buffer being placed on private lands is overly restrictive and would have significant consequences to property values to homeowners. The current regulations require these types of activities to demonstrate no net degradation to water quality. It is our opinion that this section of the regulation would result in an undue burden to the citizens of the Commonwealth.

Subsection 3 prevents encroachment into the "seaward 50 feet" of the RPA Buffer other than for "permitted modification" and "adaptive measures". Neither term has been defined therein.

Recommendation: It is our recommendation that the reference to areas within 100' of the RPA be removed entirely. Further, definition for "fill", "permitted modification" and "adaptive measures" must be provided along with an allowance for those activities currently permitted within RPAs, provided they meet the requirements of the CBPA regulations.

**Commenter: City of Arlington**

Comment: Section 9VAC25-830-155.D eliminates the ability for localities to grant exceptions within the seaward 50 feet of the Resource Protection Area (9VAC25-830-155.D.3). Arlington County is an urban jurisdiction with few coastal (along tidal waters) properties. In general, Arlington is experiencing more frequent, more intense storm events that cause

inland flooding due to a lack of stormwater capacity and watershed storage. To date, this type of flooding has been causing greater impacts to safety and property relative to riverine and/or tidal flooding in the County— although it is recognized that sea level rise and more intense rainfall may put certain critical infrastructure and properties at risk in the future (and resiliency planning for these assets is actively underway).
In Arlington, lots are small and non-conforming development already exists in many cases within or adjacent to the 50 seaward feet. This stipulation would limit the County's ability to authorize small additions or decks or to permit tear-down/rebuilds on small properties. It could effectively eliminate the re-development potential of some lots, without necessarily mitigating climate change impacts. It is also unclear whether the exemption in 9VAC25-830-140.2 for passive recreation and trails applies to this section. The County requests that the blanket prohibition on exceptions on development in the seaward 50 feet be reconsidered to prevent unwarranted loss of or reduction in property values in urban communities and loss of public access to stream resources.

**Commenter: Balzer & Associates**
Comment: Subsection D.2 restricts localities from granting exceptions for solely for fill "within 100 feet of the Resource Protection Area". Exceptions are not required for areas outside the RPA so this section of the regulation is contradictory to other regulations.

**Response: The exception language was revised and the reference to limiting exceptions for the 50 foot seaward buffer were removed. The Department considered comments and concerns regarding this general prohibition language as well as the various situations where such an exception may be absolutely necessary based upon site conditions and property specifics. Another consideration for removal was the additional specific language provided around the climate change assessment and adaptation measures. Removal of the language is not an indication that exceptions should be routinely or automatically granted. As always, any exception should be considered consistent with the existing requirements including a WQIA and appropriate findings supported by adequate information and documentation. Additionally, the exception language concerning fill was modified to recognize the specific conditions provided for in the amendment. Retention of this exception limitation is important to maintain the very specific conditions in which fill should be applied in a Resource Protection Area, particularly where utilized in a manner to constitute an adaptation measure. Concerns as identified in the comments regarding federal floodplain requirements consistency is paramount.**
**Additional response related to fill material comments is also separately addressed in comments related to that provision in adaptation measures.**

<u>155(D)-Adaptation Measures</u>

**Commenter: City of Alexandria**
Comment: Please clarify acceptable measures or actions. With language this broad, it is possible for development to justify encroaching in an RPA by claiming the encroachment is needed as an adaptation measure when it is there primarily to benefit the development.
Please identify recognized or approved measures. In addition, the term best management practice needs to be defined in this context. Typically, in stormwater regulations, BMP refers to a stormwater treatment facility.

**Commenter: FOR/VCN/WW**
Comment: The regulations must clearly outline which adaptation and resilience measures are approvable, providing examples where applicable. The draft regulations include few requirements for the adaptation and resilience measures, but simply note a measure cannot "consist solely of the use of fill or other material." Hypothetically, if the measure is an approved or recognized best management practice ("BMP") that utilizes almost all fill, the measure is an acceptable activity in the RPA. The use of fill in the RPA was addressed in the Virginia Institute of Marine Science's 2018 "Report to the Chairman of the House Agriculture, Chesapeake and Natural Resources Committee Pursuant to House Bill 1094 (2018). Six criteria are mentioned including slope limitations, protections for existing vegetation, and management of stormwater runoff. The use of these criteria in the decision making process of when the use of fill is feasible will help protect water quality and allow for natural migration of wetlands under future sea-level rise conditions. These criteria should be applied to any proposed adaptation measure that includes the use of fill, including living shorelines.
The draft regulation would allow the use of "state or federally recognized or approved" best management practices. We are concerned about the lack of clarity of what BMP's this refers to. Indeed, many BMPs will not be suitable for use in RPA areas as adaptation measures or activities.

**Commenter: HBAV**

Comment: The proposed regulation repeatedly references "best management practices" (BMPs) at 9VAC25-830-155(C)(4), (E)(1)(a), (E)(1)(c), (E)(2)(a), (E)(2)(d), and (E)(3). The sections differ in their expectations and descriptions of such BMPs, noting in some cases that they could be approved by the state or federal government, and in other cases, if approved, then they would not require accompanying materials such as a *Water Quality Impact Assessment* (WQIA).[7] These BMP requirements suffer from two areas of uncertainty. First, the term "best management practice" generally refers to measures or actions intended to reduce runoff and pollutants into receiving waters. For example, the U.S. Forest Service defines "best management practices" as "specific practices or actions used to reduce or control impacts to water bodies from nonpoint sources of pollution, most commonly by reducing the loading of pollutants from such sources into storm water and waterways."[8] However, the proposed regulation seems to require BMPs that "address the impacts of climate change, including sea-level rise, recurrent flooding, and storm surge"[9] and mitigate "future floodplain, water level, storm surge, or other impacts in altering the Resource Protection Area"[10] in addition to providing water quality improvement.[11] Undoubtedly, some BMPs, such as bioretention cells and grass buffers provide adaptation benefits as well. But "adaptation" could include many other strategies, such as promoting landscape connectivity, enhancing genetic diversity, and enhancing species diversity.[12] Thus, in the context of the proposed regulation, the term "best management practice" is confusing. Without greater clarity, a developer has no way of knowing DEQ and localities' expectations for the necessary BMPs to implement.

The uncertainty raises an additional challenge. Under the proposed regulation, localities could require developers to install BMPs (i.e., adaptation measures). But such BMPs are already required of builders and developers by existing regulation. For example, under the construction general permit,[13] builders and developers may already install construction-phase stormwater management practices. In addition, local and state post-construction requirements allow BMP installation and maintenance in perpetuity once active construction is complete. Alternatively, developers and builders may make land use changes to reduce their post-construction runoff. The design of such BMPs must adhere to local and state guidance materials. Thus, if BMPs are defined to improve surface water quality, and existing surface water quality regulations already require their installation or land cover changes, what new requirements would result from the CBPA amendments? Further, when there is a discrepancy among local, state, and federal BMP design criteria, which guidance takes precedence? DEQ must clarify these items before finalizing the regulation.

The HBAV notes that this confusion is at least in part due to inconsistency between the purpose of the initial CBPA and changes in HB 504. While the CBPA was legislated to improve water quality, HB 504 sought to "encourage and promote... coastal resilience and adaptation to sea-level rise and climate change." A traditional RAP would help to address these conflicts.

**Commenter: VACRE**

Comment: Both Bob Kerr and Mark Rinaldi provide cogent arguments and significant detail in their above-referenced comments on the ways in which the proposed regulations favor retreat over adaptation in response to climate change and sea-level rise. The proposed regulations establish many impediments, a number in the form of additional unfunded and often unclear mandates on local governments that they perform to assess any land development in the RPA. These include "consideration of future flood plain, water level, storm surge or other impacts" (C3) of the project. These mandates will require technical assistance and complex analysis based upon projections of these factors in the future. It will be much easier for a locality to just say "no" to a project than to incur the time and cost required to authorize it.

Favoring retreat over adaptation and resilience conflicts with Virginia's own climate change and sea-level policies. As Kerr notes, adaptation is a key emphasis of Virginia's own Coastal Resilience Master Planning Framework. A "Guiding Principle" of the Framework states that "the Plan will identify coastal adaptation and protection strategies and projects that keep coastal Virginia's communities, economy, and environment vibrant." (Chapter 1, Page 10).

Rinaldi emphasizes in his comments that keeping the RPA "it in its current state will also not enhance adaptation or resilience. Such an approach is a concession, not an adaptation — it is a retreat. Hardening the water/land edge, armoring potentially erodible areas in a site, elevating structures outside of predicted levels of water incursion from storm events are the most obvious means by which a property's resilience is enhanced and by which investments in real property improvement are adapted to withstand the forces of nature. Each property owner should have the option of retreating or standing firm, to the extent each site affords reasonable opportunities for either or both approaches."

Failing to require consideration of cost by localities in the adaptation and resilience they may require is another example of how the proposed CPBA Climate Change Regulations favor retreat over adaptation. VACRE agrees with Kerr that the "additional measures or design features" they may require (second sentence of subsection C) should only be able to be

required where "practicable" as defined "in the *Virginia Water Protection* (VWP) permit regulations (9VAC25-210-10)." (Page 5 comment on subsection C)
It is very important that the final regulations give property owners the ability to take proactive actions to adapt to climate change and sea-level rise while meeting water quality requirements. The regulations should allow for local governments and property owners to protect the significant investments in the built environment made along Virginia's waterways over centuries in ways that continue to protect water quality rather than abandon them. VACRE recommends that the proposed CBPA regulations be amended before final adoption to meet and harmonize, rather than as proposed, conflict with this goal.

**Commenter: VLCV/WW**
Comment: The regulations must clearly outline which adaptation and resilience measures are approvable, providing examples where applicable. Water Quality Impact Assessments (WQIA) or a similar assessment created by DEQ should be required for all adaptation measures and/or activities in the RPA.

**Commenter: MPPDC**
Comment: We do not agree with the suggestion from other PDCs to refer to Best Management Practices that mitigate flood risk differently from approved stormwater BMPs. Instead we recommend aligning the resilience BMP approval process with HB 2187 (Recurrent Flooding Resiliency, Commonwealth Center for; study topics to manage water quality, etc.- https://lis.virginia.gov/cgi-bin/legp604.exe?212+sum+HB2187) which was signed into law following the 2021 General Assembly. The process approved by this legislation sets the stage for the creation of a resilience BMP clearinghouse which could be directly referenced in the regulations. Many VDOT and FEMA stormwater BMPs are already being utilized to combat severe erosion and these would be the basis for such a clearinghouse.
We feel that the Commonwealth should allow activities that are necessary for managing various types of flood mitigation events and climate adaptation and the regulations be amended to clearly state this intent accordingly. Additionally, the regulations should spell out what those allowed activities are for currently undeveloped and developed properties and the conditions that are required to be met in order to use them for each type of property. This could be handled many different ways without dictating solutions, for example requiring performance based measures. The Commonwealth should not adopt any intent which is weighted more towards reducing or eliminating adaptation activities or development in the RPA. Should the assessment be expected to be conducted with the intent of ensuring that property owners of undeveloped areas not be permitted to employ adaptation activities on their properties, then these provisions may conflict with constitutionally vested property owner rights.

**Commenter: Anonymous Town Hall**
Comment: This section invites precisely the disconnect that arises when regulations intended for one purpose are redeployed for another. The RPA is by definition an area that is either left in its natural state or deliberately altered to mimic the characteristics of a natural state for the purpose of enhanced water quality for runoff leaving a site and entering a stream, creek, river or the Bay. Expanding the RPA in and of itself will not add to climate change resilience nor will it enhance adaptation. Keeping it in its current state will also not enhance adaptation or resilience. Such an approach is a concession, not an adaptation – it is a retreat. Hardening the water/land edge, armoring potentially erodible areas in a site, elevating structures outside of predicted levels of water incursion from storm events are the most obvious means by which a property's resilience is enhanced and by which investments in real property improvement are adapted to withstand the forces of nature. Each property owner should have the option of retreating or standing firm, to the extent each site affords reasonable opportunities for either or both approaches.

**Commenter: S. Sundberg**
Comment: These regulations should promote the use of nature-based solutions. Too often, the Chespeake Bay Preservation Act is virtually toothless in practice. Here in Arlington County, public and private developers mow down trees and disturb huge section of riparian forested areas—there's always some excuse. And the "remedition" requirements are a joke. I often wonder why the state bothers to have localities identify RPAs, when the so-called "protections" are so meaningless. See failed "remediation" at Upton Hill Regional Park, where pavement increase and loss of mature trees have sent increasing amounts of runoff and sediment into Reeves Run for over a year: https://sites.google.com/view/friends-of-upton-hill/constructiondestruction/stormwater-and-sediment-runoff/upper-park-cistern-overflows
Likewise, the state's destructive stream "restoration" technical standards incentivize needlessly expensive "solutions" that further degrade streams, actually increase the amount of sediment and contaminants flowing downstream, and they do

NOTHING to address the underlying problem—urban stream syndrome fueled by too much runoff coming from increasingly impervious/hardscaped watersheds. See https://arlingtontreeactiongroup.org/wp-content/uploads/2021/03/12-3-20-John-Field-Donaldson-Run-restoration-analysis-final.pdf
It's time to put a stop to this madness—if the true goals are to mitigate overland and coastal flooding, improve water quality in the Bay, and mitigate (or adapt to) the growing impacts of climate change and sea level rise.

**Commenter: City of Arlington**
Comment: The proposed regulation designates "land development, adaption *[sic]* 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" as allowable activities in CBPAs (9VAC25-830-155.B & E). The regulation should specifically identify what adaptation measures, activities and actions are allowable in CBPAs and reference standards for design, installation and maintenance.

**Commenter: City of Arlington**
Comment: Section 9VAC25-830-155.C further indicates "measures, conditions, or alterations to the proposed land development" including "state or federally recognized or approved best management practices appropriate for the site conditions and land development" may be required in RPAs to address potential impacts to a proposed development due to climate change (9VAC25-830-155.C.4 & E.1.a & E.2.a). The current list of best management practices most localities recognize is DEQ's Stormwater BMP Clearinghouse – this is likely not a list of "appropriate" adaptation best management practices. In a highly urbanized environment like Arlington County, most RPA is non-coastal and affects single family properties which include both primary and secondary structures partially or wholly within RPAs. It not clear what mitigation measures can be required other than those currently employed and whether additional development requirements above and beyond the existing CBPA and stormwater regulations have merit. Language is requested to identify state or federally recognized BMPs and to define the conditions under which each would be considered by the state to be appropriate, specifically addressing the concerns of urban localities.

**Commenter: ANS**
Commenter: More specificity regarding adaptation and resilience measures in Sections D and E of the proposed regulations.
We recommend strengthening the draft regulations to provide more meaningful requirements for adaptation measures allowed in RPAs. The regulations should address how they would fulfill the fundamental purpose of the CBPA to restore and preserve water quality in the Chesapeake Bay watershed regarding "coastal resilience and adaptation to sea-level rise and climate change."
We support the exclusion of "fill-only" projects in RPAs, but we recommend that the language be specific in its guidance. As currently written today, the language could be misinterpreted as allowing *more* extensive use of fill without any guidelines or parameters as to how it may be appropriately used in the context of the CBPA's overarching purpose of protecting water quality. We recommend adding language which more clearly defines the limits of fill use as well as adding language which encourages or prioritizes the use of nature-based solutions.

**Commenter: CBF/SELC/VCN/JRA/WW**
Comment: We believe that the listed criteria in Section E are insufficient to guide localities in determining the appropriateness of any proposed adaptation activity that would meet the statutory objective of promoting "coastal resilience and adaptation to sea-level rise and climate change" for several reasons. To begin, we support the promotion and prioritization of the use of nature-based adaptation measures like living shorelines that will allow for migration of wetlands in response to sea-level rise rather than armored barriers or solutions that will impede wetland migration. However, the regulation should include a formal definition for "nature-based adaptation measure" so localities and landowners are on notice of what constitutes such a practice.
We also support the use of BMPs in designing and implementing the proposed adaptation measure. But as discussed more fully below, we believe that the regulation, consistent with the Act's water quality purpose, should specify BMPs that are approved by the Chesapeake Bay Program Partnership or the Virginia Stormwater BMP Clearinghouse, and that are appropriate in the light of the future impacts of climate change (as further discussed in Section II C below).

**Commenter: City of Hampton**

Comment: Another recommendation for reorganization involves the currently proposed new kind of permitted development within section E. We recommend that for clarity and consistency that this new option be included within the existing regulation rather than being indicated as completely in lieu of those existing regulations. When considering these "adaptation measures or activities", we recommend clarity on what might be considered to be allowed, whether it includes options such as bulkheads or is intended to be designed rain gardens and the like.
In section E.2.b., the language "...vegetation in the additional 50 feet landward from the RPA" seems to refer to the first 50 feet of the RMA. We would prefer this additional requirement that would apply within the RMA be removed as it would unnecessarily complicate the ordinance organization and implementation for localities. If it is to remain, the language is unclear and should be clarified to use the RMA as a defined term. We would also recommend addressing how the information gathered as part of the requirement in section C should be considered when determining what the 'maximum extent practicable' is for preserving the vegetation in the water-ward 50 feet of the RMA.
It is recommended that the fifth word in the section, "adaption", should in fact be "adaptation".
In section E.3., we believe the list should be an "and/or" option for "reduce runoff, prevent erosion, and filter nonpoint source pollution". As written, it seems to indicate only ones meeting all three of those would meet the criteria.
In Section E.4, on the second line, the sentence, "...the projects maintains or establishes" should read "the project maintains or establishes" without the additional "s" in projects.
In Section E.4, on the last line, "...requirements or criteria" should specify "Chesapeake Bay Preservation Area requirements or criteria" if that is what is intended.
In Section E.4., the exemption specifically requires approval from the Virginia Marine Resources Commission in addition to locality approval. However, projects which do not fall within the jurisdictional boundaries of VMRC when a locality has adopted the Tidal Wetlands Act regulations do not require approval from VMRC. This language should be amended to indicate approval by VMRC is not needed if they have no jurisdiction.

**Commenter: HRPDC**
Comment: Need Clarification for Best Management Practices (BMPs)
Section C.4 directs local governments to identify measures to address the climate change impacts of the proposed development "such as state or federally recognized or approved best management practices." Sections E.1.a, E.2.a, and E.3 refer to such practices as "best management practices applicable to the adaptation measure or activity as recognized or approved by a state or federal agency." The proposed amendments are not clear if the intention is to identify flood mitigation practices that have been recognized or approved by a state or federal agency or water quality BMPs that would offset the impacts of flood mitigation practices.
Recommendation
Local governments are familiar with the Virginia BMP Clearinghouse and Chesapeake Bay Program BMPs that have been approved to treat stormwater runoff. BMPs are defined in the Virginia Stormwater Management Program regulations (VAC25-870) as proprietary and nonproprietary practices that "prevent or reduce the pollution of surface waters and groundwater systems." If the term "best management practices" is used in the proposed regulation to refer to practices that mitigate flood risk, then we suggest a different term, such as "Adaptation Practices", to avoid confusion.
Additionally, if there is a list or Clearinghouse of practices that address the impacts of rising seas, wetland migration, increased precipitation, etc. that have been recognized by a state or federal agency, we recommend referencing that list in the regulations. If there is no such list, we recommend that the regulations include a process for how a local program should determine whether a proposed adaptation measure meets the criteria.

**Commenter: Group 2 Individuals**
I am also concerned that the proposed regulations prioritize retreat from sea-level rise rather than policies that help property owners stand up and adapt to it. The regulations should allow for local governments and property owners to protect the significant investments in the built environment made along Virginia's waterways over centuries rather than abandon them.

**Commenter:**

D. Local governments may allow adaptation 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 addition to ~~in lieu of~~ the criteria in 9 VAC 25-830- 130 and 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~~ that are approved by the Chesapeake Bay Program Partnersh or the Virginia Stormwater BMP Clearinghouse, and that are appropriate fo the adaptation measure or activity~~a state or federal agency~~;

   b. Allow the minimal use ~~Not consist solely of the use~~ of fill or other materia within ~~to raise the elevation of~~ a Resource Protection Area only where eacl of the following criteria is met:

      i. Placement of fill within the RPA shall not result in a slope that exceeds five percent (5%);

      ii. Placement of fill shall not result in the loss of deep-rooted vegetation that cannot be re-established within a reasonable timeframe;

      iii. Any fill placed within the RPA must have the biogeochemical characteristics including sufficient organic content to support the growth of vegetation and adequate permeability to allow infiltration;

      iv. The use of fill shall not enhance stormwater runoff from the RPA, and any lateral flow onto adjacent properties shall be controlled utilizing an appropriate best management practice approved by the Chesapeake Bay Program Partnership or the Virginia Stormwater BMP

Clearinghouse;

v. Fill shall not negatively impact septic systems and drain fields; and

vi. Any impacts on the management of stormwater upland of the RPA that results from berms established by the use of fill must be modeled and mitigated.

~~b.~~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 all~~ow~~ applicable federal, state, and local permits and comply with all~~ow~~ 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 that are approved by the Chesapeake Bay Program Partnership or the Virginia Stormwater BMP Clearinghouse, and that are appropriate for ~~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 RPA;

c. Allow the use of fill only for natural or nature-based adaptation measures, such as a living shoreline, as defined in VA Code § 28.2-104.1, within the Resource Protection Area, and provided that the measure will allow the landward migration of existing vegetation over the potential impact range of at least 30 years, and only where the following criteria is met:

i. Placement of fill within the RPA shall not result in a slope that exceeds five percent (5%);

ii. Placement of fill shall not result in the loss of deep-rooted vegetation that cannot be re-established within a reasonable timeframe;

iii. Any fill placed within the RPA must have the biogeochemical characteristics including sufficient organic content to support the growth of vegetation and adequate permeability to allow infiltration;

iv. The use of fill shall not enhance stormwater runoff from the RPA, and any lateral flow onto adjacent properties shall be controlled utilizing an appropriate best management practice approved by the Chesapeake Bay Program Partnership or the Virginia Stormwater BMP Clearinghouse;

v. Fill shall not negatively impact septic systems and drain fields; and

vi. Any impacts on the management of stormwater upland of the RPA that results from berms established by the use of fill must be modeled and mitigated.

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

~~c. 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~~

~~d.f. Where applicable, O~~obtain all~~ow~~ applicable federal, state, and local permits and comply with all~~ow~~ 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 under in accordance with 9 VAC25-830-140(6) shall not be required. All other measures or activities shall require a Water Quality Impact Assessment in accordance with subdivision 6 of 9 VAC 25-830-140 except as provided in paragraph 4 below. All Water Quality Impact Assessments shall address the impacts of climate change and sea level rise as provided in Section (C)(1-4).~~ ~~.~~

4. Where the proposed adaptation measure is a~~a~~ living shoreline project ~~or related activity~~, ~~b)~~ the locality otherwise approves of the project, ~~c)~~ the project maintains or establishes a vegetative buffer inland of the living shoreline to the maximum extent practicable ~~, and~~ minimizes land disturbance to the maximum extent practicable, and ~~d)~~ 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. Where such a project includes the use of fill, the criteria addressing the use of fill in 9 VAC 25-830-155(D)(1)(b) and (D)(2)(c) shall be met.

**Response: The amendment includes additional clarity and specificity on the type of adaptation measures that may be allowed. Adaptation measures is defined as well as nature-based solutions. Consistent with the request in**

**some comments to identify specific sources and provide clarity on what is allowable, specific sources for adaptation measures were identified. The specifics of allowable sources for an adaptation measure were evaluated in the context that the provision is to recognize a new allowance for activity in the RPA, and the existing recognition of the need for activity in the RPA to remain protective of water quality. Additionally, the specifics of allowable adaptation measures reconciles with the Tidal Wetland Guidelines and Commonwealth policy for shoreline management to address climate change where the default is for a nature based solution (living shorelines) and there is a recognition of the negative impact of allowing hardening structures as primary means to address sea-level rise.**

**Additionally, consistent with the Tidal Wetland Guidelines, the allowance remains for hardened shoreline management, where it is determined that a hardened shoreline management approach is necessary due to active, detrimental shoreline erosion. As recognized in the Tidal Wetland Guidelines, "[h]ardened shorelines typically result in unacceptable 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."**

<u>Water Quality Impact Assessment Requirement</u>

**Commenter: FOR/VCN**
Comment: Water Quality Impact Assessments ("WQIA") or a similar assessment created by DEQ should be required for all adaptation measures and/or activities in the RPA. The draft CBPA regulations state that a WQIA "shall not be required" when the adaptation measure or activity within the RPA is an approved BMP designed to "reduce runoff, prevent erosion, and filter nonpoint source pollution."

**Commenter: City of Arlington**
Comment: Sections 9VAC25-830-155.E.3 and 9VAC25-830-155.E.4 eliminate the requirement for a Water Quality Impact Assessment to permit adaptation measures and living shorelines respectively. Although the County agrees that a streamlined approach to permitting environmentally favorable projects is desirable, local oversight for such projects is essential to ensure they are well-sited, use appropriate vegetation, and consider other local concerns. This language should be amended to enable localities to request Water Quality Impact Assessments at the locality's discretion.

**Commenter: CBF/JRA/ANS/SELC/WW/VCN**
Comment: As stated above, the performance criteria in 9 VAC 25-830-130 and -140, and more specifically, the requirement for a water quality impact assessment, represent the most important tools localities use to ascertain the potential impacts of a proposed project on water quality. Consistent with the Act's overall purpose of protecting water quality, the draft regulation should require that a WQIA be conducted that includes an analysis of the impacts of sea-level rise and climate change with respect to a proposed adaptation measure. We have included suggested language in Section (D)(3), of the proposed markup.

Requiring a WQIA for proposed adaptation measures addressing climate change impacts and sea-level rise will also ensure that such measures protect water quality. Indeed, the statute makes clear that the requirement to encourage and promote "coastal resilience and adaptation to sea-level rise and climate change" must go hand in hand with the requirement to protect water quality. Va. Code § 62.1-44.15:72 B (noting "coastal resilience and adaptation to sea-level rise and climate change" as one of the specific factors "relevant to the protection of water quality from significant degradation as a result of the use and development of land"). As a result, resiliency and adaptation measures necessarily must be protective of water quality.

**Commenter: Chesterfield County**
Comment: The waiving of the requirement for a Water Quality Impact Assessment in instances where the adaptation measure or activity within the RPA is an approved or recognized BMP designed to reduce runoff, prevent erosion, and filter nonpoint source pollution should be reconsidered. WQIAs are an important mechanism by which localities seek and achieve mitigation for requested encroachments.

**Commenter: HRPDC**

Comment: Allow Option to Require Water Quality Impact Assessments (WQIA)
Section E.3 states that a WQIA "shall not be required" when the adaptation measure or activity within the RPA is an approved BMP designed to "reduce runoff, prevent erosion, and filter nonpoint source pollution." The construction of water quality BMPs often creates a temporary land disturbance and can require the removal of existing vegetation. Local governments use the WQIA as a tool to require mitigation for these impacts and request to have the option of requiring them.
Recommendation
We recommend changing "shall" to "may" in the following sentence included in Section E.3: "Where the adaptation measure or activity is a best management practice...a Water Quality Impact Assessment in accordance with 9VAC25-830-140(6) ~~shall~~ may not be required by the locality."

**Commenter: ANS**
Comment: Remove exclusion from Water Quality Impact Assessments (WQIA) in Section E.3 We recommend encouraging, or, if possible, *requiring* a WQIA when implementing adaptation and resilience measures. WQIAs are an essential tool for protecting water quality, especially in evaluating and addressing future conditions related to climate change impacts. For example, even approved Best Management Practices (BMPs) can create temporary land disturbances and may necessitate the removal of existing vegetation which could affect water quality. WQIAs can and should be used as a tool to ensure proper mitigation for these impacts.

**Response: Based upon comments and discussions with the SAG stressing the importance of WQIAs in evaluating water quality concerns in the framework of the CBPA for projects in the RPA, the exemption was removed. A provision to allow a locality to exempt a WQIA for living shorelines was retained but does not require the locality to exempt the project from having a WQIA.**

Fill Provisions

**Commenter: Anonymous Town Hall**
Comment: Why not? If the use of fill and/or other material can be used to harden, armor and/or elevate improvements within RPAs without negative impacts to similarly situated properties within a watershed or sub-watershed, or to water quality, then what is the basis for denying such improvements? If water quality is the basis, as the Chesapeake Bay Act and regulations were intended to promote, then there are natural, mechanical, material selection and engineered approaches to offsetting water quality impacts that a property owner should be permitted to employ.

**Commenter: Anonymous Town Hall**
Comment: I would further state an objection to the use of 'fill' or similar material that will change the natural ecological characteristics within the RPA and once again harm habitat needed for healthy shoreline wildlife and plant life. More living shoreline strategies should be used and use of 'fill' should be avoided.
**Commenter: HBAV**
For builders and developers, the requirements pertaining to fill inside and outside of the RPA could be particularly challenging. For example, both state and federal regulations authorize the dredge-and-fill of materials (e.g., Clean Water Act Section 404). Builders and developers are among the largest users of such permits in Virginia. In the process to obtain these permits, the regulatory authority (i.e., U.S. Army Corps of Engineers, the Department) works with the permit applicant to identify disposal areas. Often, such areas are confined to narrow locations in order to minimize the environmental impact of disposal. The HBAV is concerned about the proposed regulation and potential restrictions it could place on areas where fill may be disposed, as well as the conditions in 9VAC25-830-155(D)(2), (E)(1)(b), and (E)(2)(c) that would prohibit exceptions from ill-defined BMP requirements for fill activities.

**Commenter: S. Sundburg**
Comment: Given the detrimental effects that the use of fill as a form of adaptation can have on tidal wetland migration, vegetation, stormwater management, and water quality, its use should be limited and subject to specific criteria to limit its detrimental effects.

**Commenter: MPDCC**

Comment: With regards to the elimination of a local government's authority to grant exceptions for applications that consist "solely of the use of fill or other material" within 100 feet of the RPA or within the RPA, we recommend that applications utilizing fill, supplemental sediment, engineered soil, etc. be subject to conditions similar to those listed in Section E, which require planting of vegetation and minimizing land disturbance.

**Commenter: City of Arlington**
Comment: Sections 9VAC25-830-155.D.2 and 9VAC25-830-155.E.1.b prohibit the use of fill in the Resource Protection Area. Section 9VAC25-830-155.D.2 eliminates exceptions granted "solely for the use of fill or other material in the Resource Protection Area or within 100 feet of the Resource Protection Area." Section 9VAC25-830-155.E.1.b states that climate adaptation measures shall not "consist solely of the use of fill or other materials to raise the elevation of a Resource Protection Area." The language in both sections raises questions about what should and should not be considered "fill or other materials." The regulation could be used to prohibit municipal projects that rely on cut and fill such as wetland creation stormwater pond retrofits, stream restoration, and outfall repairs, creating obstacles for TMDL and MS4 permit compliance.
In urban communities, the prohibition of the use of fill to raise elevations could eliminate one of the few options existing non-conforming structures have for addressing riverine flooding. Further, it could greatly limit smart redevelopment flood resilient design during redevelopment that actually reduces risks for owners. The prohibition against fill in the 100 feet landward of the RPA creates a requirement to establish a new zoning and CBPA overlay but may not have the desired effect of protecting coastal property and public safety. Flooding is primarily elevation-driven rather than a function of a structure's distance from a water body. In Arlington, where steep stream valleys are common where RPAs exist, this regulation could prevent by-right redevelopment of properties within 200 feet of streams along with home improvements like backyard terracing, retaining walls, swimming pools and patios on properties that are not and never will be susceptible to riverine flooding. Arlington County requests that specific concerns related to fill be examined and the regulation language be re-structured to enable consideration of topographic context and risk for reviewing the installation of fill by municipalities. The County further requests that the phrase "or within 100 feet of the Resource Protection Area" be removed from the proposed regulation.

**Commenter: CBF/SELC/JRA/VCN/WW/ANS**
Comment: We are concerned that the draft regulation would allow the use of fill in adaptation and resilience measures, with virtually no restrictions. Instead, as discussed in Section II D below, the regulation must specifically limit the use of fill. Sections D and E of the draft regulation include language that adaptation and resiliency measures must not consist "solely of the use of fill" to raise the elevation of the RPA. Rather than limiting the use of fill in RPAs, this language appears inappropriately to invite its use. Nor does the language provide any additional parameters as to when using fill for adaptation and resiliency measures might in some cases be consistent with the Act's water quality protection purposes. In our proposed markup to the draft regulation (Sections (E) (1-2)), we have suggested six specific criteria that are derived directly from the Virginia Institute of Marine Science's 2018 "Report to the Chairman of the House Agriculture, Chesapeake and Natural Resources Committee Pursuant to House Bill 1094 (2018). These criteria include, among others, slope limitations, protections for existing vegetation, and management of stormwater runoff, and will help protect water quality and allow for natural migration of wetlands under future sea-level rise conditions. These criteria should be applied to any proposed adaptation measure that includes the use of fill, including living shorelines.

**Commenter: Friends of Indian River**
Comment: For the provisions for climate change resilience, the wording with regard to the use of fill is concerning. It can easily be read that a property owner can add fill to the buffer area to counteract the affects of sea level rise. But the indiscriminate use of fill can have multiple negative impacts including the smothering of existing vegetation, including mature trees which ought to be protected, causing increased erosion due to high slopes, impeding marsh migration, and causing negative wave action impacts to neighboring properties. While there may be cases where the use of fill is appropriate, this once again should be a carefully managed approach requiring a permit, rather than being defined as an exception to the rule.

**Commenter: City of Hampton**
Comment: Within sections D and E, there is language prohibiting development consisting "solely of the use of fill or other materials". It is not clear to us what a project that is "solely" fill will be; we recommend clarifying to what extent a project including fill would be prohibited. Would a project that is fill with a single tree planted atop be permitted? Does this provision

affect the installation or repair of a bulkhead with backfill? What about development where fill is proposed to elevate a new home out of a flood zone through application for a Letter of Map Revision (LOMR-F), would that then be prohibited if it was also within the RPA or potentially IDA?

**Commenter: HRPDC**
Comment: Add Conditions for Fill Exceptions Instead of Eliminating Them
Section D eliminates a local government's authority to grant exceptions for applications that consist "solely of the use of fill or other material" within 100 feet of the RPA or within the RPA. The proposed amendments are supposed to clarify that adaptation measures are a permitted activity within the CBPA; however, Section D limits the options that the current regulations permit. For example, adding fill material in the Resource Management Area is allowed under the existing regulations. It is inappropriate to single out development projects that are using fill on a flood prone property. At a minimum, local governments require stabilization and seeding, and often additional plantings, to mitigate for the impacts to water quality of adding fill material to a site. It is unfairly limiting to owners of flood prone properties to eliminate the use of fill as an adaptation measure and could incentivize flood walls and other structural practices. The language should make clear exactly what would be permitted using performance standards, rather than prohibiting solely fill with no guidance for local governments on what may or may not meet that threshold. Without that clarification, individual interpretations will vary which is inconsistent and detrimental to the Commonwealth.
Recommendation
Listing the circumstances under which a local government cannot grant exceptions in Section D is contrary to 9VAC25-830-130 and 9VAC25-830-140, both of which list the conditions the land development has to meet in order to comply. To the extent that the RPA has been previously approved through the current process, adding new requirements is contrary to Va. Code 62.1-44.15:79 as well. It is recommended that applications utilizing fill be subject to conditions similar to those listed in Section E, which require planting of vegetation and minimizing land disturbance.

**Commenter: Group 1 Individuals**
Given the detrimental effects that the use of fill as a form of adaptation can have on tidal wetland migration, vegetation, stormwater management, and water quality, please prohibit the use of fill as an adaptation tool and instead promote nature-based practices.

**Response: The language was revised to add conditions in lieu of the previous provisions. This language was revised based upon the comments, discussions with the SAG, and in consideration of previous work examining fill including the 2018 study produced by VIMS to examine the use of fill in RPA. Additional consideration was given for grading based upon the discussions of the SAG to include that the grading and sloping should be in accordance with project specifications. Additionally, in consideration of comments, SAG discussions and discussions with DCR, to ensure consistency with requirements of the National Flood Insurance Program, language was added to require compliance specifically with those provisions.**

<u>Fill and National Flood Insurance Program</u>

**Commenter: FOR/VCN/WW**
Comment: The loophole created by the draft regulations and the loose prohibition of fill could jeopardize the scores of Virginia localities participating in the National Flood Insurance Program's Community Rating System ("CRS") Program. Virginia localities earn over $7 million in annual flood insurance premium reductions, with many communities earning credits for keeping development out of the RPAs. The draft regulations' "in lieu of" loophole and appearance of allowing anything less than "solely of the use of fill" will result in further scrutiny by the CRS Program and could eliminate the award of points for the RPAs.

**Commenter: VA Floodplain Mgmt Association**
Comment: The use of the word "fill" is controversial for the NFIP. The word "fill" in the NFIP equates to development and is not typically used to describe shoreline activities, like those adaptation measures or activities contemplated by the draft regulations. We recognize the use of limited fill is permissible under the current law and necessary to install shoreline erosion control projects, but this language appears to expand the use of fill, without clear parameters in place. A significant percentage of RPA buffers overlap with Special Flood Hazard Areas (SFHA), which are regulated by communities as part

of their participation in the NFIP. As mentioned above, the NFIP equates the word "fill" with "development," triggering a community to require floodplain permits and potentially more detailed engineering analyses for every proposed shoreline practice. If a community fails to enforce permit requirements, it could be considered noncompliant with the NFIP. If a community is noncompliant with the NFIP, the community and its residents could lose access to flood insurance, which would disrupt the real estate market, federal disaster assistance, and certain federal grants and loans.

**Response: With the revision on fill conditions, language was added that the use of fill must be in accordance in NFIP requirements.**

50" Foot Buffer Reference/Within 100" Feet Reference

**Commenter: Anonymous Town Hall**
Comment: Here we see yet another proposed buffer to the buffer (even to a potentially expanded RPA buffer) without any discussion or requirement to demonstrate how such restriction will enhance climate change resilience or adaptation.

**Commenter: Fairfax County**
Comment: 9VAC25-830-155.E.2 – The phrase "...the additional 50 feet landward from the RPA" is unclear. Does it mean the 50 landward feet within the existing RPA, or the 50 feet adjacent to but outside the RPA (i.e., 50 feet in addition to the 100 feet of the RPA buffer)? The provisions of §§ 155.E only apply to adaptation measures or activity within the RPA, so the application of criteria to the first 50 of the RMA is beyond the scope of the provision.

**Commenter: FOR/VCN/WW**
Comment: The regulations should more clearly detail how and what is regulated outside the RPA. References to additional requirements in areas "within 100 feet of the RPA" and or "the additional 50 feet landward from the RPA" suggest an expansion of the RPA, but these requirements are referenced briefly and without additional information.

**Commenter: HBAV**
Comment: The proposed regulation would extend certain requirements beyond the RPA and allow the RPA to expand in the future. For example, 9VAC25-830-155(D)(2) prohibits localities from exemptions solely for "the use of fill or other material" within 100 ft of the RPA. In addition, 9VAC25-830-155(E)(2)(b) requires property owners to preserve existing vegetation that is 50 ft beyond the RPA. Finally, because the proposed regulation establishes requirements based on the RPA location, and the assessment of future conditions involves a 30-yr timeframe, presumably the RPA boundary could change in the future.
Builders and developers cannot accommodate expansion of the RPA in the field. Over 34 years of CBPA implementation, builders and developers have grown accustomed to the RPA boundaries, and subsequently adapted their business operations to development in Tidewater localities. If DEQ proceeds to a final regulation that expands the RPA or leaves its expansion open-ended in the future, it is unclear how builders and developers will be able to make decisions about land acquisition and to price their projects to account for building and permitting costs. DEQ must eliminate expansion of the RPA prior to finalizing these regulations.
Notably, planning commissions are also expressing concern with de facto expansion of the RPA. The Middle Peninsula Planning District Commission, for example, notes "[t]he language referencing new requirements to the areas adjacent to the RPA in Sections D.2 and E.2.b should be removed and only be considered should additional stakeholder engagement be undertaken to further evaluate requirements in areas outside of the RPA."[5] Further, regarding the proposed expansions, the Hampton Roads Planning District Commission notes "[b]oth of these are significant new requirements for areas where property owners and local programs have generally had more flexibility to balance development with water quality protection."[6] The HBAV agrees with these perspectives.

**Commenter: Mark Rinaldi**
Comment: Here we see yet another proposed buffer to the buffer (even to a potentially expanded RPA buffer) without any discussion or requirement to demonstrate how such restriction will enhance climate change resilience or adaptation.

**Commenter: TNT Environmental**
Comment: The regulations enable localities to apply additional requirements to areas outside of the designated RPA, resulting in a de facto expansion of the RPA. This represents a significant change to the regulations that unnecessarily

opens the door for additional horizontal buffers that would not provide an effective response to sea level rise and that could result in unfair restrictions of properties that may not be impacted and for areas where property owners and local programs have generally had more flexibility to balance development with water quality protection. The language referencing new requirements to the areas adjacent to the RPA in Sections D.2 and E.2.b should be removed and only be considered should additional stakeholder engagement be undertaken to further evaluate requirements in areas outside of the RPA.
Subsection 1c requires additional landscaping to what is already a significant amount of required revegetation under the current CBPA regulations. The costs of the currently required landscaping are already significant, increasing these requirements would have a significant financial impact on the citizens of the Commonwealth.
Subsection 2b requires localities to "preserve to the maximum extent practicable any existing vegetation in the additional 50 feet landward from the RPA." The addition of this requirement would place undue burden on private landowners and would severely limit their ability to use and/or improve their property outside of an RPA.
Subsection 2d is duplicative given the proposed regulation concerning mature trees.
Recommendation: It is our recommendation that Subsections E(1)(c), E(2)(b), and E(2)(d) be eliminated entirely.

**Commenter: VACRE**
Comment: VACRE concurs with HRPDC and the local governments who have recommended that the proposed language in Subsections D2 and E2 that requires a de facto expansion of the RPA should be deleted. While the impact of these two provisions would hit far less acreage as the proposed last sentence of Subsection B (discussed in Part II, Section 2 above), they equally unfairly impact property rights. They also impose an unfunded local government mandate on all CBPA localities. Local governments will have to pay for the technical assistance required to delineate the mandated expanded RPA's. Public projects, just like private projects, will incur increased costs and delays as they conform to the expanded RPA.
The Resource Protection Area, and the buffers it provides, are the heart of the CBPA program. VACRE opposes the provisions in the proposed Climate Change Regulations that apply outside or would expand the RPA. Any provisions that apply outside or expand the RPA in the proposed regulations should be removed.
Climate change and sea-level rise impact a far smaller portion of the land governed by the CBPA than the land that impacts water quality. The buffers and restrictions and measures applicable to land development to protect water quality have been carefully crafted and have produced major improvements in water quality in the Bay. Localities have authority to change the delineation of the RPA on a property where climate change or see level rise has produced encroachments in the currently delineated buffer. There is no reasonable basis for extending the reach of the proposed CBPA Climate Change Regulations beyond the RPA.

**Commenter: City of Arlington**
Comment: At the same time, the amendment appears to create an additional 50 to 100-foot protection area landward of the Resource Protection Area buffer (9VAC25-830-155.D.2 and 9VAC25-830-155.E.2.b) and eliminates exceptions within the seaward (first) 50 feet (9VAC25-830-155.D.3). These elements of the proposed regulation will have significant impacts in a highly urbanized community such as Arlington County and are likely to be challenged.

**Commenter: City of Arlington**
Comment: Section 9VAC25-830-155.E.2.b requires preservation of existing vegetation "to the maximum extent practicable" in the additional 50 feet landward from the RPA in association with installation of adaptation measures where the RPA is not previously developed. The practicality of this will be limited by land ownership, and the siting of public and private infrastructure; the default is likely to be that such preservation is not practicable. The County requests that more thought be given to these situations in which siting adaptation measures in undeveloped riverine or coastal areas is allowable versus requiring offsite preservation as a mitigation measure.

**Commenter: Balzer & Associates**
Comment: Subsection E.2 expands the RPA an additional 50 feet when an adaptation measure is implemented in the RPA. The purpose of these regulations is to address climate change and sea-level rise, adding further restriction to development due to placement of an adaptation measure does not incentivize the use of adaptations. This section also uses the term "maximum extent practicable" which can be open for interpretation by localities when not well defined by regulation.

**Commenter: City of Hampton**
Comment: Within section D.3, we believe that the language prohibiting any granting of an exception within the seaward 50 feet of the RPA is too restrictive. We have identified that there may be instances where this restriction, as written, would prohibit any development on a lot if the lot was recorded prior to 1989, is currently vacant, and does not contain any land outside of the seaward 50' of the RPA. We recommend the language be modified to specify that encroachment within the seaward 50' of the RPA not be granted unless no other land is present on the lot.

**Response: Language limiting exceptions in the 50-foot seaward buffer and references to within 100' of the RPA, and additional 50' for naturally vegetated sites was removed. Exceptions are intended under the Regulations and program to be limited and only where information indicates that they are necessary in accordance with the required findings. However, in light of the comments, SAG discussion, and the variation of the application including need for the exception particularly in IDA areas, the language prohibiting this exception was removed. Additionally, with the conditions identified on fill, the exception language was refined, and in light of the other revisions on the adaptation measures provisions, the 50 foot seaward exception limit was removed as well. The amendment does not create or contemplate a different RPA delineation than required currently at the time of development based upon the requirements of the Regulations.**

National Flood Insurance Program & Community Rating System

**Commenter: HBAV**
Comment: In addition, HBAV is concerned about these new requirements and the potential for Tidewater communities to participate in the National Flood Insurance Program (NFIP). Under the NFIP, localities and residents must perform and maintain practices in floodplains. To the extent those activities are no longer allowed or are subject to new, onerous additional requirements including BMP installation, the impacts could be significant. Without NFIP, for example, some communities could not obtain affordable flood insurance. The Hampton Roads Planning District Commission also expresses concerns about the proposed regulation and its integration with NFIP in their comment letter.[14] DEQ must coordinate implementation of any final regulation with the NFIP program.

**Commenter: VA Floodplain Management Association**
Comment: Exempting all "adaptation measures or activities" from the existing development and performance criteria of the CBPA weakens the Act's ability to restrict development in the 100-foot buffer. The national policy team of the CRS Program approved Virginia's CBPA 100-foot buffers for open space preservation credits for communities that prove they enforce the Act and keep development out of the 100-foot RPA buffer. Their approval is predicated on the entirety of the CBPA regulations. Many communities in Virginia earn credits for prohibiting development and fill inside the RPA buffers. When passed, the amended regulations will be required to undergo CRS Program national review. New language related to permissible development in the 100-foot buffer will be reviewed under strict scrutiny. The proposed regulations' appearance of allowing a more than limited use of fill will raise a red flag during the CRS Program review. The language indicates that adaptation measures or activities that are not "solely of the use of fill" are permissible to install in the 100-foot buffer, without any impact assessment review. This allowance and its bypassed water quality impact assessment, despite its intentions, presents a different program and exemption review process than the previous CBPA regulations, which are already approved by the CRS Program.
The draft regulations could negatively impact Virginia communities participating in the National Flood Insurance Program's (NFIP) Community Rating System (CRS) Program and the flood insurance policyholders who depend on the annual premium discounts earned by those communities. The NFIP's CRS Program is a voluntary incentive based program that rewards localities that take extra steps to reduce flood risk with lower annual flood insurance premiums for policyholders. Communities earn points by adopting plans, programs, and policies that promote flood risk reduction. Total points correspond to different class ratings, which in turn correspond to discount percentages on annual flood insurance premiums. Flood insurance policy holders s ave $7 million annually statewide through their community's participation in the program. The actions that are incentivized under the CRS program overlap with the coastal resiliency goals outlined in HB 504.

**Commenter: VLCV**

Comment: We encourage the closure of loopholes in the enforcement and effectiveness of the CPBA, and the address of concerns that the loophole created by the draft regulations and the loose prohibition of fill could jeopardize the scores of Virginia localities participating in the National Flood Insurance Program's Community Rating System (CRS) and concur with Wetlands watch that the regulations should more clearly detail how and what is regulated outside the RPA. Living shoreline project details will also need further clarification in the finalized regulations.

**Commenter: VACRE**
Comment: As noted by HRPDC (Comment H, pages 9-10), the changes in maps required by subsection C could conflict with existing flood plain ordinances and the National Flood Insurance Program. This could increase costs of flood insurance and create considerable confusion and uncertainty for both regulators and property owners. Reconciling these local and federal flood insurance programs and existing state and federal laws administered by the Department of Conservation with the proposed CBPA Climate Change Regulations is essential and will take some time.

**Commenter: Chesterfield County**
Comment: An additional concern is that without careful wording, and in the absence of non-tidal guidance, final adopted elements of the amendment may be inappropriately applied to non-tidal areas where RPA and floodplain overlap for the benefit of development under the guise of combatting climate change and sea-level rise.

**Commenter: HRPDC**
Comment: Unintended Consequences with Floodplain Management
Local floodplain management ordinances are required for communities that want to participate in the National Flood Insurance Program (NFIP). The NFIP requires, through the Code of Federal Regulations, localities to implement certain minimum standards in floodplains, which in many cases overlap with CBPAs. Aligning allowed activities under the Bay Act and local floodplain management ordinances is critical to allow communities to continue to participate in the NFIP, which is a requirement for allowing residents of those communities to purchase federal flood insurance policies.
Additionally, many communities in Tidewater participate in the NFIP's Community Rating System (CRS), which grants policyholders in those communities a discount on their flood insurance premiums if the communities implement certain policies or activities, such as adopting higher regulatory standards for development in floodplains. Recently, several Tidewater communities have received credit through the Bay Act for preserving open space. This credit is based on the default position that development is heavily restricted both in type and extent in RPAs. The CRS program currently allows only a few types of development in areas that count for open space preservation credit. These include alterations that do not create obstructions to the flow or loss of storage of flood waters, construction of sand dunes, beach nourishment, or habitat restoration projects. The broad allowance of "adaptation measures, mitigation measures, or other actions necessary to address the impacts of climate change," may be interpreted as allowing development that would not qualify as open space. This could result in localities losing CRS credit for open space credit for RPAs, resulting in increased flood insurance premiums for citizens.
Furthermore, regulatory floodplains are delineated by the Federal Emergency Management Agency (FEMA) based on the results of flood insurance studies. The resulting flood insurance rate maps (FIRMs) have significant impacts on land development, construction, and property values. Mapping of future floodplains under the Bay Act, as is called for in the proposed regulations, in the absence of official guidance or support from FEMA has the potential to cause confusion among property owners and conflicts with local floodplain management programs.
Recommendation
We recommend that DEQ coordinate with the Department of Conservation and Recreation, FEMA, and the Virginia Floodplain Managers Association to ensure that potential conflicts between the proposed regulations, the NFIP, and the CRS are addressed. In addition, we recommend that the adaptation measures or activities allowed within RPAs without an exception be limited to those that would be credited under the Community Rating System's Open Space Preservation Activity, as in the HRPDC's recommended approach in Section II of this letter (see also National Flood Insurance Program Community Rating System Coordinator's Manual FIA-15/2017, Activity #420).

**Response: The Department engaged with the Department of Conservation and Recreation regarding overlap and coordination with floodplain management requirements. In light of discussions, comments, and to best reconcile and coordinate those provisions, changes were included in the amendment. A condition to the use of fill was provided to ensure that activity is undertaken in accordance with the NFIP requirements. Additionally, language was included to allow localities to limit their approvals or authorizations of projects, including adaptation**

**measures, based upon the NFIP and participation in the Community Rating System. Also, the climate change assessment scope was refined to reconcile and recognize existing models and maps used in floodplain management so that the assessment effort would coordinate with these tools and applications, and to provide clarity that new mapping was not required.**

Grandfathering

**Commenter: HBAV**
Comment: The HBAV notes that 9VAC25-830-155, unlike many other regulations affecting land development, lacks grandfathering provisions. Such provisions are critically important to provide flexibility to landowners whose investments are awaiting development. Their purchases, and financing terms, would not have accounted for the additional costs of regulation, and thus must be protected from requirements to abruptly install additional practices before building commences.

**Commenter: TNT Environmental**
Comment: The lack of a "Grandfathering" provision should be strongly considered. Under the current regulations, legal parcels recorded prior to or between certain dates are allowed additional leniency with regards to Resource Protection Area (RPA) buffers and any associated encroachments. The currently proposed language does not include any such provision for this.

**Commenter: VACRE**
The CBPA has traditionally grandfathered existing structures from key requirements when they are first adopted such as the size of buffers or certain limitations on activities within the buffer. VACRE recommends that similar provisions by made to grandfather existing structures from any increased buffers and limitations on new projects that, while opposed by VACRE, are included in final regulations.

**Commenter: WSSI**
Parcels subdivided or rezoned prior to certain dates, site plans approved by certain dates and properties which have previously been improved in reliance upon prior affirmative governmental action all need grandfathering to be equitable to owner's and purchaser's investment backed expectations. Typically these types of major regulations have such grandfathering provisions.

**Response: Specific grandfathering provisions were not separately included given the nature of these amendments. The existing provisions for non-conformities and exemptions in 9 VAC 25-830-150 still apply. Additionally, in the assessment of climate change provisions the identification of measures and conditions includes factoring in the nature and type of land development. The regulatory amendments do not become effective immediately upon their adoption, as they must be incorporated into local ordinances, which provides a three year timeframe as well. Also, while intended to be limited in its application, exceptions as necessary continue to be allowed in accordance with the Regulations.**

Living Shorelines

**Commenter: Anonymous Town Hall**
Comment: More living shoreline strategies should be used

**Commenter: FOR/VCN**
Comment: Living shoreline project details will need further clarification in the finalized regulations. First, "living shoreline project or related activity" needs to have a clear definition in the CBPA regulations, as well as what "related activities" would include. The regulations need to require a WQIA, or a similar assessment, for a living shoreline project regardless of what other requirements the proposed project meets.

**Commenter: HBAV**

Comment: Under 9VAC25-830-155(E)(4), the proposed regulation exempts a "living shoreline project or related activity" meeting certain conditions from obtaining a WQIA, among others. However, the proposed regulation does not define "living shoreline". To address this concern, the HBAV supports the text revisions to (E)(4) proposed by the Hampton Roads Planning District Commission:
"Where the proposed adaptation measure is a living shoreline, as defined in section 28.2-104.1 of the Virginia Code or related activity, the locality otherwise approves of the project, the project 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 or the local wetlands board, including a permit as applicable, and any other necessary permits or approvals, the adaptation measure ~~shall~~ may be exempt from additional requirements including a Water Quality Impact Assessment imposed by the locality."

**Commenter: ANS**
Comment: Living shoreline projects that are approved by the Virginia Marine Resources Commission (VMRC) could be exempt from the WQIA requirement to ensure consistency between the CBPA regulations and VMRC's tidal wetlands guidelines, as already included in Section E.4.

**Commenter: CBF/VCN/ANS/JRA/SELC/WW**
Comment: In addition, we are proposing that only living shoreline projects that are approved by the Virginia Marine Resources Commission should be exempt from the WQIA requirement.[6] See Section (D)(4).

**Response: The amendment includes a reference to living shorelines as defined in Code. The amendment was revised to allow localities to exempt additional performance criteria requirements including a WQIA for living shorelines. "Related activity" was removed from the amendment.**

Add Requirements to Comprehensive Plans

**Commenter: Chris Stone**
Comment: Include the impact of Climate Change in Comprehensive Plans
I suggest amending the regulatory action to include the impact of climate change (improving resiliency) on the Comprehensive Plans, as follows:
Code of Virginia
Title 15.2. Counties, Cities and Towns
Chapter 22. Planning, Subdivision of Land and Zoning
§ 15.2-2223.5 Comprehensive plan shall consider current and future threats and vulnerabilities associated with climate change-related natural hazards
For purposes of this section "resiliency" means 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.
Beginning July 1, 2022, each city with a population greater than 20,000 and each county with a population greater than 100,000 shall consider in the next scheduled and all subsequent reviews of its comprehensive plan (i) future threats and vulnerabilities associated with climate change-related natural hazards, including, but not limited to increased temperatures, increased precipitation levels, drought, wild fires, flooding, hurricanes, storm surge, wind, and sea-level rise;
(ii) include a build-out analysis of potential future residential, commercial, industrial, and other development, and an assessment of the climate change-related threats and their vulnerabilities; analyze the potential impact of climate change-related natural hazards on critical facilities, utilities, bridges, roadways, tunnels, waterways and other infrastructure necessary for evacuation purposes; (iv) analyze the potential impact of climate change-related natural hazards on individuals, communities, institutions, businesses, economic development, public infrastructure and facilities, public health and public safety; (v) analyze the potential impact of climate change-related natural hazards on components and elements of the master plan to include an inventory of existing resiliency conditions; (vi) propose strategies and design standards that may be adopted and implemented to increase resiliency and reduce or avoid risks associated with climate change-related natural hazards; (vii) include a specific policy statement on the consistency, coordination, and integration of the climate-change related hazard vulnerability assessment with any existing or proposed natural hazard mitigation plan, floodplain management plan, comprehensive emergency management plan, emergency response plan, post-disaster recovery plan, or capital improvement plan, n; and (viii) rely on the most recent natural hazard projections and best

practices provided by the Commonwealth's Chief Resiliency Officer, Special Assistant for Coastal Adaptation and Protection, Virginia Department of Conservation and Recreation, Virginia Department of Emergency Management, Virginia Department of Environmental Quality, Virginia Transportation Research Council, Virginia Marine Resources Commission, Environmental Resilience Institute at the University of Virginia, National Oceanic and Atmospheric Administration, National Weather Service and the U.S. Army Corps of Engineers.

**Response: In light of the additional provisions, the Department did not include a separate requirement to revise Comprehensive Plans. Many localities are addressing climate change in their Comprehensive Plans. The additional information and tools provided after the amendment including the work of VIMS should aid localities in this effort as well.**

Coordinate with Tidal Wetlands Guidelines

**Commenter: EDF**
Comment: Virginia Marine Resources Commission had a similar mandate to incorporate sea level rise into Wetlands Guidance and recently underwent a public comment period for their draft guidance. The legislative goal to address protection of tidal wetlands from sea level rise depends entirely upon actions taken in the Resource Protection Area (RPA) and Resource Management Area (RMA). The lack of public coordination between these two sets of regulatory amendments is a disappointing missed opportunity and it is critical that the final CBPA regulations and final Wetlands Guidance be aligned; these regulations do not exist in a vacuum and effective CBPA guidance will be key to the survival of tidal wetlands regulated by the Wetlands Guidance. Additionally, implementation of the CBPA guidelines must be consistent with the Virginia Coastal Resilience Master Plan and Planning Framework authorized by Executive Order 24 (November 2018), including by requiring the use of 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 all permit applications.

**Commenter: FOR**
Comment: These CBPA regulations should work in accordance with other proposed regulatory changes including Tidal Wetlands Act guidelines, released by the Virginia Marine Resources Commission ("VMRC") on March 1st, 2021 and changes to 9 VAC 25-830-40 to address the statutory criterion for mature tree preservation.
Additionally, the finalized regulations need to be congruent with the Tidal Wetlands Act guidelines, in that a living shoreline should be the first option for projects unless best available science shows otherwise.

**Commenter: Middlesex County**
Comment: Do the CBPA regulations reconcile with the updated VMRC regulations?

**Commenter: VCN**
Comment: First and foremost, it is essential that these CBPA regulations work in congruence with the proposed Tidal Wetlands Act guidelines, released by the Virginia Marine Resources Commission ("VMRC") on March 1, 2021. If these two critical pieces of guidance are not aligned, then the efforts made by both VMRC and DEQ to protect Virginia's wetlands will be squandered. The CBPA is the key to the survival of tidal wetlands and must be administered with that goal in mind if Virginia's tidal wetlands are to survive sea level rise.

**Commenter: VLCV**
Comment: It is essential that these CBPA regulations work in congruence with the proposed Tidal Wetlands Act guidelines, released by the Virginia Marine Resources Commission (VMRC) on March 1st, 2021. Although the proposed regulations were tasked with including various climate change impacts, they only consider sea level rise. The finalized CBPA regulations will need to address all climate change impacts to potential projects.

**Commenter: City of Hampton**
Comment: We would like the regulations to be made clear on how they align with the new draft guidelines released by the Virginia Marine Resources Commission (VMRC) as a result of Senate Bill 776. When evaluating hardened shoreline options, it is vital to understand how we should weigh projected and immediate impacts when considering existing tree

canopy, sea level rise, possible fill, projects extending seaward instead of landward, etc. Clarity is needed to understand the intent of the Commonwealth on how these structures may or may not be permitted, so that all localities, property owners, and the development community uniformly understand and apply these new regulations and guidelines.

**Response: The Department engaged with VMRC on the update to the Tidal Wetlands Guidelines and the amendments include additional language consistent with language in these Guidelines to coordinate projects with overlap. Additionally, living shoreline provisions and reference to the Code provision were included. The Tidal Wetland Guidelines provided the standard for determining shoreline management projects and any such activity must be aligned with those requirements. The adaptation measures identified include those nature based shoreline projects in the Guidelines. Additionally, consistent with those Guidelines, where shoreline erosion is specifically and actively occurring and a living shoreline is not practicable, the existing provision for shoreline erosion control projects provides for that allowance where necessary based upon the determination under the Tidal Wetlands Guidelines.**

Definitions/Terms

**Commenter: EDF**
Comment: It is a statutory mandated goal of the CBPA to promote coastal resilience and adaptation, but the draft guidance fails to provide a definition for coastal resilience. Phrases and terms that could be subject to interpretation, such as 'coastal resilience' should be defined clearly and included with other definitions in 9 VAC 25-830-40. Many definitions for socio-ecological resilience, for coastal as well as non-coastal systems, have been laid out in academic research and adopted by organizations and municipalities. The Virginia Coastal Resilience Master Planning Framework defines resilience as 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. We strongly encourage DEQ to adopt this definition in the final CBPA regulations to align with the Virginia Coastal Resilience Master Plan and Planning Framework and be explicit and transparent about what DEQ wants to achieve through the final CBPA guidance

**Commenter: FOR/VCN**
Comment: The regulations must define key concepts and terms to increase clarity. Phrases and terms that could be subject to interpretation should be defined clearly and included with other definitions in 9 VAC 25-830-40. For example, there is no definition of "coastal resilience" even though it is a statutorily mandated goal of the CBPA.

**Commenter: Sierra Club**
Comment: Additionally, we ask that the regulations ensure that all definitions contained within are sufficiently explicit to ensure that localities, and specifically local government staff, have a complete understanding of their role and responsibility under the amended Act going forward.

**Commenter: VLCV**
Comment: We also support several additional amendments including changes that direct regulations to be prescriptive and not to rely on future guidance to direct localities, the definition of key concepts and terms to increase clarity and increase support for local government staff who risk being put on the "front lines" of climate change adaptation without sufficient resources.

**Commenter: WSSI**
Comment: A regulation as sweeping geographically and logistically as this needs to contain a definitions section. Additionally, terminology in the draft regulation is not consistent with the *Virginia Coastal Resilience Master Planning Framework (2020),* and terms like "fill" are being used without the context that fill is a form of protection, which is one of the strategies allowed by the Framework, and that will need to be implemented in the Commonwealth.
The *Planning Framework* states in its "Guiding Principles" what this draft regulation must achieve: "Understanding that significant changes are inevitable, the Plan will identify coastal adaptation and protection strategies and projects that keep coastal Virginia's communities, economy, and environment vibrant." Chapter 1, Page 10)
Examples of new terms needing definitions to be consistent with the Planning Framework include:

- "Resilience" - it should also be defined and tied to the concepts of adaptation and protection.

- “Adaptation measure” and “adaptation measure or activity” are used without definition.
- “Protection” should also be defined and is discussed in detail herein related to Section 155.C.

The need for defining other terms is identified in various comments for each portion of the regulation.

**Commenter: WW**
Comment: The regulations must define key concepts and terms to increase clarity. Phrases and terms that could be subject to interpretation should be defined clearly and included with other definitions in 9 VAC 25-830-40. For example, there is no definition of “coastal resilience,” despite being a statutorily mandated goal of the CBPA.
Additionally, in the proposed 9 VAC 25-830-155 B, conditions are placed on, “[l]and development, adaption [sic] 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...” There needs to be definitions of the activities in this phrase, such as “adaptation measures or activities,” “mitigation measures,” and “other actions necessary to address the impacts of climate change.” Without definitions in the regulations, this is a very open-ended set of conditions.
Similarly at 9 VAC 25-830-155 E (4), the draft regulations address situations where “the proposed adaptation measure is a living shoreline project or related activity,” yet does not define a “related activity.”

**Commenter: MPPDC**
Comment: It is recommended that “impacts of climate change or sea level rise” and “consider” be clearly defined in the regulation. Without having these definitions in code, it creates a significant problem for any local program subject to these regulations to understand what is mandated of them. It is critical that the impacts be defined relative to the type of proposed development project in the RPA and not defined broadly since all activities in the RPA are of drastically differing scales and scopes. Consideration for impacts for both developed and undeveloped properties should be given as well. The definition of “consider” should mean that a local government should assess impacts of a proposed activity on its local tax base and whether a property can be mortgaged and insured. Including these components in the definition will help ensure that allowable activities are working towards the greater good of making the entire local community become more resilient as result of the activity. The strength of a locality’s tax base is a strong metric for community-wide resilience in rural coastal localities since the majority of a locality’s tax base is located directly adjacent to tidal water bodies subject to recurrent flooding and sea level rise. Generally speaking, there is no second row of houses funding local governments through real estate taxes in rural coastal area.

**Commenter: VACRE**
Comment: In the proposed Resilience, Climate Change and Sea Level Rise Regulations ("Climate Change Regulations") these terms include "maximum extent practicable", "fill or other material", "living shoreline", "climate change", "sea-level rise" and "adaptation". Each term can have significant negative impacts on property rights as well as on the increased costs resulting for local governments and those regulated. Because many of these terms drive the measures to be required of property owners through the mandated new local ordinances, definition of key terms is particularly important.
Similarly, there are many vague terms or phrases contained in both regulations that need to be clarified or eliminated. In the Climate Change Regulations these include, for example, "these provisions" (Subsection B), "future flood plain, water level, storm surge or other impacts" (Subsection C3), "naturally vegetated" (Subsection E2), "recognized" (Subsection C4) and "applicable" (Subsection E2d) best management practices, "solely for the use of fill or other material" (Subsection D2), "adaptation...activity" (Subsection E2).

**Commenter: City of Arlington**
Comment: “Previously developed,” “naturally vegetated” (9VAC25-830-155.E.2), “natural features,” “existing natural vegetation" (9VAC25-830-155.E.1.c), and “mature trees” (9VAC25-830-155.E.2.d) are not terms defined in the Chesapeake Bay Preservation Area Designation and Management Regulations. Existing natural vegetation could include invasive plants or indigenous plants. This language must be clarified to more clearly articulate the state’s intent and definitions must also be included in the regulation.

**Commenter: City of Hampton**

Comment: The legislation references addressing resiliency and adaptation, yet the proposed regulations do not include use of the word resiliency at all. We recommend that it be made clear if resiliency projects are intended to be included along with projects for adaptation, or if there is intended to be any difference. Along the same lines, there are several references to "impacts of climate change or sea level rise" where other areas only reference "sea level rise". Throughout these regulations, we recommend consistency in applying terms, and providing a definitions section to clearly elaborate what is meant to be included within those terms. For example, it is currently unclear exactly what is included within "impacts of climate change or sea level rise", or what "other impacts in altering the RPA or diminishing the protection of water quality" might mean. Impacts such as increasing temperatures, potential droughts, seasonal timing of plant development, and alteration to the range of plant or animal distributions can all be considered climate change impacts, yet it is unclear if they are intended to be included within the scope of these regulations. There are references to best management practices (BMPs) without any clarity on what kind of BMPs may be meant, whether they are for stormwater, upland erosion, shore erosion, flood protection, water quality, or other kinds of BMPs. There are requirements that the City "shall consider" without explanation of what consider may mean. As stated, we would recommend a definitions section with consistent application of defined terms, and an intent section to clearly lay out the scope of the regulations, so that localities can uniformly understand and apply these regulations.

**Commenter: HBAV**
Comment: HBAV notes minor grammatical inconsistencies throughout the proposed regulation. The text at 9VAC25-830-155(B) refers to both "adaption" and "adaptation" measures. At 9VAC25-830-155(E), the text refers to "adaption" measures. These terms should be standardized and corrected. We recommend that DEQ use "adaptation" for consistency with The Paris Agreement of the United Nations Framework Convention on Climate Change.[15]

**Commenter: TNT Environmental**
Comment: The lack of definition of key terms used in the proposed regulation needs to be addressed. A specific example is a definition of "fill" or in the context of § 9 VAC 25-830-155(D)(2) where the proposed regulation addresses "...approval solely for the use of fill..." The terminology contained within is vague and ambiguous and should be clarified.

**Response: A definition of adaptation measure and natural-based solution was provided. Additionally, the scope of impacts for assessment are specifically identified (sea-level rise, storm surge, flooding) with references to applicable models. The universe of adaptation measures was specifically identified as well. A Virginia Code reference is included for the definition of living shorelines to ensure consistency with the definition. Additional specifics on fill were provided as well. Terms or phrases such "other impacts" and "previously developed" have been removed. The language was revised to consistently use the term "adaptation measure."**

Utilizing a Regulatory Advisory Panel/Timeline

**Commenter: EDF**
Comment: DEQ is right to understand the urgency of climate change and the impact this will have on our shorelines, and we commend staff for their work. However, a change of this magnitude should be considered in a process of full and robust regulatory review, using scientific advisory committees and stakeholder advisory groups extending over a period of more than a year. The statutory limitations imposed upon this regulatory process have resulted in draft regulations that do not adequately rise to the policy challenge laid out in statute. This is not a reflection on the staff of DEQ, but a statement on the deleterious impact of the compressed regulatory review period, which has resulted in incomplete deliberation. EDF would support DEQ taking additional time to conduct meaningful dialogue with localities on the front lines of adaptation with regards to these proposed guidelines, similar to what other commenters have suggested, as well as aligning CBPA guidance with the Tidal Wetlands Act guidelines and the Coastal Resilience Master Planning efforts.

**Commenter: Fairfax County**
The county recommends that an additional public comment period be provided for any changes to the proposed regulations resulting from the initial public comments.

**Commenter: Arlington County**

The proposed regulatory amendments call for more engagement than a 90-day public comment period. Specifically, we strongly urge DEQ to take this important opportunity to synergize the multiple legislative efforts focused on trees over the past several General Assembly sessions (SB 1393, HB 520, and HB504). Implementing these important legislative initiatives together through DEQ's inclusive Regulatory Advisory Panel process would facilitate a much more comprehensive approach to tree conservation and planting at the local level and across the Commonwealth.
This process should also engage State and local hazard mitigation staff, including local floodplain administrators. There may also be opportunities for DEQ, in further consultation with stakeholders, to phase-in earlier implementation of elements where consensus can be reached more readily.

**Commenter: FOR/VCN**
The draft regulations were developed without critical stakeholder engagement to assist in the significant undertaking of including a dynamic condition (climate change) on a static regulation (CBPA). A technical advisory committee composed of relevant experts should have been created for consultation at least one year before the draft regulations were completed. The issue central to inclusion of sea level rise and climate change into the CBPA is how to regulate a RPA boundary that will move landward with time. This clash of private property rights and shoreline regulation will only worsen with time; programs and policies adopted today could soften the impacts of problems we will face in the future.

**Commenter: HBAV**
Administrative Process Act Exemption Limited Stakeholder Engagement During Development of Proposed Regulation
The proposed amendment to the Chesapeake Bay Preservation Area Designation and Management Regulations was developed by the Department as the result of legislation (HB 504) signed by the Governor following the 2020 Regular Session. As introduced, HB 504 added *"the preservation of mature trees or planting of trees, both 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 Board for use by local governments under the Chesapeake Bay Preservation Act. During the April 22nd, 2020 Reconvened Session, the General Assembly adopted two amendments proposed by the Governor, one of which exempted the regulatory update process from the requirements of the Virginia Administrative Process Act (the APA), the second of which 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 (i.e., "the Board").
Since the enactment of HB 504, there have been extremely limited opportunities for stakeholders to engage with the Department prior to the publication of the proposed regulations. Similarly, there was limited communication from the Department regarding the substance of what would be included in future proposed regulations. A webinar hosted by the Department on October 29th was informative but lacked the participation necessary to adequately solicit the perspectives of private- and public-sector stakeholders throughout the Commonwealth. Additionally, several participants expressed concern during the webinar that a lack of advance communication made it extremely challenging to provide adequate or thorough feedback.
The 2020 General Assembly Session resulted in a significant increase in workload for the Department without a proportional increase in resources to assist them in the various directives, reviews, and commissions that were established through legislation. This fact, coupled with the pandemic's disruptive impact, likely limited the Department's ability to proactively engage stakeholders while developing the proposed regulations. Although HB 504 authorized the Department to forgo the issuance of a Notice of Intended Regulatory Action and/or the convening of a Regulatory Advisory Panel (RAP), the HBAV believes that the broad scope of the authorizing legislation and the large number of stakeholders impacted by the regulations warrants a more thorough and extensive stakeholder engagement process than conducted thus far.
Scope and Complexity of the Regulations Warrant a Traditional Regulatory Advisory Panel Process
Originally adopted in 1989, the Chesapeake Bay Preservation Area Designation and Management Regulations have been amended three times after extensive stakeholder and public engagement. Although the General Assembly had the authority to exempt this regulatory update from the APA, the HBAV believes that the Board should exercise its discretion to alter the current regulatory process, defer further action on the proposed regulations, and direct the Department to utilize a traditional Regulatory Advisory Panel process to assist in the development of the regulations.
The Chesapeake Bay Preservation Act is a critical component of Virginia's strategy to balance economic development and water quality protection and its regulations have a significant impact on local government land-use decision making, as well as economic development and redevelopment activity in the CBPA localities. Although the Board extended thepublic comment period to 90 days at their December 9th meeting, the HBAV concurs with the recommendation of the

Hampton Roads Planning District Commission that a more deliberate and inclusive approach should be utilized to avoid unintended consequences and build consensus among a broad array of stakeholders.
At the December 9th meeting, the Board also directed the Department to convene a workgroup, upon the conclusion of the public comment period, for the purpose of reviewing any concerns and questions raised by stakeholders in advance of the Board's June meeting. The HBAV appreciates this additional opportunity to engage with the Department on this matter but does not believe that such a short timeline will be sufficient to adequately and comprehensively address the concerns raised by the regulated community or local governments.
Utilization of Traditional Regulatory Advisory Process Would Allow for Coordination Between Related Initiatives
A traditional RAP process would also 1) allow for greater coordination with other related initiatives currently underway as the result of General Assembly action and 2) avoid conflicts with legislative enactments related to resiliency or climate change. For example, during the 2021 General Assembly Session, the Governor signed HB 2187, which directed the Commonwealth Center for Recurrent Flooding Resiliency ("the Center") to evaluate the development of a flood resiliency clearinghouse program. As part of that effort, the Department of Conservation and Recreation is also required to evaluate solutions that manage both water quality and flooding while emphasizing nature-based solutions. Such initiatives will clearly affect resiliency efforts in Virginia and could affect localities' need to implement conditions of the proposed regulation. The process approved by HB 2187 to establish a BMP clearinghouse could be directly referenced in the final regulation.

**Commenter: VLCV**
Comment: We believe that additional stakeholder engagement, specifically the creation of a technical advisory committee composed of relevant experts assembled at least one year before the draft regulations were completed would have assisted in the significant undertaking of including a dynamic condition (climate change) on a static regulation (CPBA).

**Commenter: WSSI**
Comment: The scope of these regulations warrants the need for the standard Regulatory Advisory Panel. We recognize this regulation is exempt from Article 2 of the *Administration Process Act*, however the complexity of the intended regulation, together with the additional burdens placed on the public and local governments warrants, well beyond those explained in the 2020 legislation, a more carefully considered approach to preparing the final regulation.
While the *Chesapeake Bay Preservation Act* was legislated to improve water quality, the current legislative change was to "encourage and promote... coastal resilience and adaptation to sea-level rise and climate change". The proposed regulation requires water quality improvements on properties when owners are attempting to address sea-level rise and climate change stressors along and near their shorelines. The proposed regulation also proposes to eliminate some forms of resiliency measures (protection strategies), regardless of existing land use, that in and of themselves do not necessarily add any pollution to the Bay. Additionally, the shorelines of the Bay are already regulated by myriad federal, state and local programs. There has not been the time nor opportunity to bring these groups, nor the regulated public together with the DEQ and ensure that the proposed regulation will act together with these other programs to achieve the stated goals in a clear, effective, efficient and consistent manner. The comments below show the multitude of issues needing resolution, and we recommended that a standard Regulatory Advisory Panel process be implemented as it is precisely how Virginia has successfully resolved such complex issues in the past.
<u>Recommendation A</u> – Extend Current Regulatory Development Process and Apply a Traditional and More Inclusive Stakeholder Engagement Process
The level of complexity and difficulty of the task at hand surpasses most if not all of the Commonwealth's regulatory development processes. It is unrealistic to think that a 90-day process could comprehensively engage and incorporate the recommendations of a broad number of stakeholders on such a complex matter. The effort put forth by DEQ and the State Water Control Board (SWCB) is appreciated, but the number of outstanding and unaddressed issues noted here within is evidence of the need for a much slower and more thorough approach. Water is entering the RPA through different events (i.e. sunny day flooding, sea level rise/subsidence, and recurrent storms) and each will drive different mitigation needs.
Specifically, it is requested that the current process be extended and a regulatory advisory panel (RAP) consisting of a broad variety of stakeholders with expertise in this field be convened.

**Commenter: Prince William County**

Comment: Since the proposed regulations have significant impacts ranging from expanding the authority of Bay Act to regulate land development on all lands, we request DEQ to evaluate all the comments received and not proceed as proposed. We are of the opinion that the proposed regulations are overreaching and duplicating the regulatory roles of other state and federal agencies. Practical and economic considerations have not been considered in the proposed regulations, and much reliance has been placed on forecasting models for climate change.
The proposed changes are too many and too ambiguous and very difficult to implement. We request the State Water Control Board to include the participants from the affected localities and all stakeholders to draft changes. Working together, we can support regulatory changes that benefit localities while balancing economic development with environmental protection. We request DEQ's focus to concentrate more toward reforestation, afforesting denuded buffers and connecting stream corridors.

**Commenter: TNT Environmental**
Comment: While the proposed regulation is exempt from Article 2 of the Administration Process Act, the complexity of the intended regulation, together with the additional burdens placed on the public and local governments warrants further public involvement.
As proposed, the regulations would result in a high degree of uncertainty for both the public and private entities involved in their implementation. Given the number of public and private stakeholders impacted by the regulations and the significant impact they would have on economic development, property values, and property rights, I believe that a more deliberate process should be utilized. A traditional regulatory advisory panel (RAP) process would allow for a more comprehensive stakeholder engagement process to achieve a consensus among the many stakeholders. There is clearly a lack of consensus on the proposed regulations today.
Recommendation: TNT recommends that prior to the adoption of such legislation that an advisory panel be formed to review and consider the impacts to the residents of the Commonwealth and local governments based on the proposed changes.

**Commenter: VACRE**
Comment: I have followed Virginia's Administrative Process Act (APA) and participated in many state agency proceedings for more than forty years. My work on APA matters and proceedings began with my work for two Virginia Governors, followed by eight years of private practice of law representing clients on Administrative Law matters and then the last twenty-five years representing clients of The Vectre Corporation. I believe that DEQ has the best regulatory advisory panel process of any state agency I have participated or observed during my career. While the Board is authorized to adopt these proposed regulations without following any of the requirements of the APA, it is not required to do so. The Board recognized this when at its December 2020 meeting it allowed 90 days public comment and required a Regulatory Advisory Panel (RAP) meeting to consider and respond to public comments received before taking action at a subsequent meeting, presumably next month. DEQ staff originally proposed only 60 days of public comment and no RAP consideration of these two new CBPA programs. We appreciate this additional public participation granted by the Board in response to the request of HBAV and VACRE and a separate request from representatives of Wetlands Watch and Friends of the Rappahannock by letters dated December 7, 2020 and December 8, 2020 respectively. However, after taking the time to receive input from our members and other stakeholders, it is clear more stakeholder engagement is required before final adoption.
Discussions I have had with and the comments I have reviewed from representatives of conservation and environmental groups, local governments and planning district commissions, agriculture, local chambers of commerce and economic development advocates lead me to conclude there is general agreement among most stakeholders that the proposed regulations need more than a single RAP meeting before they should be adopted. Even the few who do not object to adoption of regulations under the current abrupt process agree a normal DEQ RAP process would produce a better result.
I appreciate the opportunity to serve on the Regulatory Advisory Panel that will be meeting later this month to consider all comments received and make recommendations to DEQ and the Board. While I will do all I can to be a productive member of this RAP at its only meetings scheduled over two consecutive days in May, it is clear to me for the many reasons stated in these comments that more time is required. Final adoption of both regulations should be delayed to allow for further meetings of the RAP.
VACRE urges the Department and Board to extend the work of the currently appointed RAP beyond May 2021 and direct DEQ to use a more traditional RAP process. That will allow that group to meet at least three or four times to allow adequate time and stakeholder participation to produce proposed final regulations. A traditional RAP process will yield a much better end result that meets normal DEQ and Board standards, fairly balances the environmental goals of both

regulations with their impacts on property owners and local governments and allow time to eliminate inconsistencies and harmonize the regulations with other state and federal laws, regulations and programs. If more time is required beyond the date the current Administration leaves office in January 2022, this Board will remain to complete this important work soon thereafter.

While these proposed regulations are exempt from the APA, any future changes are not. As such, it is very important that DEQ and the Board get these regulations in a proper form before finally adopting them. DEQ and the Board will not be able to simply or quickly conform the regulations to the statutes adopted as a result of the work groups underway or to fix the problems raised through the public comments. It could take 18 to 24 months to adopt any needed corrections to the proposed regulations once finally adopted. Taking a few more months to consider these matters will avoid lengthy delays in making necessary changes in the future.

As discussed above, VACRE requests that the Board allow the appointed RAP to proceed in the traditional manner to complete its recommendations to DEQ and the Board on final CBPA Climate Change Regulations. This action is particularly warranted for this proposed regulation because of (1) the manner in which the legislative authority for it was adopted, (2) the breadth of its potential impact on local governments tasked with implementing it and the property owners who must comply and (3) its yet to be carefully considered conflicts not only with the primary objective of the CBPA, protecting water quality, but also with a myriad of other existing state and federal laws and programs.

I believe no member of the General Assembly understood, when they voted on a Governor's amendment at the 2020 Reconvened Session that authorized climate change and sea-level rise be addressed in the CBPA regulations, that they were authorizing the Board: (1) to require localities to expand the existing 100 foot buffer in certain specified areas (Subsections D and E), (2) to allow localities at their option to exceed without limitation any of "these provisions", including "expansion of the Resource Protection Area", (3) to allow localities without limitation to "restrict development" (Subsection B) or (4) to govern the use of "fill and other materials" in the RPA (Subsections D and E). In my opinion, after forty years of experience with the Virginia General Assembly, if the members of the 2020 General Assembly had understood any one of these four far-reaching provisions would be the result of this last-minute amendment, and the matter had been heard in any legislative committee, it would not have passed as drafted. The General Assembly would certainly have not exempted this regulation from the APA or allowed it to proceed without a traditional RAP process.

The CBPA has been one of the most impactful environmental protection programs adopted by the Commonwealth. The regulations implementing it were the product of years of work and they have only been amended three times since the adoption of the CBPA more than thirty years ago. Impacts on local governments of the new regulatory program and the impacts on property rights and costs to property owners were carefully considered and factored into the current regulations. Elements of the proposed regulation would require or allow localities to exceed existing CBPA water quality requirements, in the name of the secondary goal of incorporating adaptation and resilience to climate change and sea-level rise into the CPBA regulations. This is another reason why the Board should direct DEQ staff to delay final adoption of the proposed Climate Change Regulations and direct the existing RAP to continue to work through a traditional process to produce recommendations to DEQ and the Board for a final regulation.

As discussed in Section 8 below, the proposed Climate Change Regulations conflict and intersect with water quality, the primary goal of the CBPA. They also conflict and intersect with many other state, local and federal programs including the Virginia erosion control and stormwater management regulations, the Virginia Coastal Resilience Master Planning Framework, local flood plain ordinances, the National Flood Insurance Program (NFIP) and regulations governing impacts on tidal and non-titled wetlands. These other laws, regulations and programs need to be carefully and fully considered before the Board adopts final regulations. This is another reason why the Board should direct that a traditional RAP process be used.

**Commenter: Chesterfield County**

Comment: The consideration of the proposed amendment requires significantly more time for discussion and refinement as it is complex and far-reaching. While this proposed amendment is largely applicable to coastal/tidal communities, Bay Act localities in Central Virginia such as Chesterfield possess both tidal and non-tidal Chesapeake Bay Preservation Areas. The riparian geography of the County's tidal locations along and adjacent to the James and Appomattox Rivers are characterized by high bluffs often transitioning to uplands over a short horizontal distance with only a few examples of tidal marshes present. The remaining RPAs exist in non-tidal areas, and those especially along large lakes and reservoirs, have been recently impacted by intense storms resulting in large scale flooding. The effects of climate change on both tidal and non-tidal areas merit further discussion while regulation changes are being considered.

**Commenter: Balzer & Associates**

Comment: The regulation effects much more than the development community and will have significant impacts on individual homeowners, businesses, homeowners associations, and other property owners. These citizens have no idea that their properties may be affected through additional RPA, restrictions on adaptations, and other restrictions that a locality decides to implement under this regulation that has been developed with minimal public participation.
Due to the vague and broad nature of this regulation and its potential effect on landowners, businesses, localities, and other stake holders I believe additional attention to this regulation is required. Whether through the convening of a Regulatory Advisory Panel (RAP) or other stake holder meetings, a more methodical process is necessary.

**Commenter: HRPDC**
Comment: The Bay Act is one of several state and federal regulatory programs with overlapping jurisdictions in the coastal zone. Making changes to this complex regulatory environment calls for a deliberate approach to align these various programs, avoid conflicts, and eliminate unintended consequences. There is too much at stake to rush the CBPA regulatory amendments. These proposed amendments create potential conflicts between coastal resiliency efforts, private property rights, and water quality preservation. The stakeholder engagement process was abbreviated because the amendments are exempt from the requirements of the Administrative Process Act. The CBPA program was designed to be a state-local partnership; however, local governments have been given only 90 days to review and comment on the draft rather than have an opportunity to ask questions and hash out concerns and compromises during the development of the amendments. Established local programs will have to change, and in recognition of the extensive lift, the proposed coastal resiliency amendments include a timeframe of three years for localities to make these changes to their ordinances and programs. The way the Commonwealth and its localities manage our coastline today will have lasting impacts, as the challenges we face, including sea level rise and coastal hazards, continue to increase.
Recommendation
Our local governments believe that a more inclusive process would result in the development of new regulations that will better address the challenges of water quality protection and coastal resiliency. It is our recommendation that the existing hurried process for regulatory development be abandoned in favor of utilizing an extensive stakeholder engagement process, such as a regulatory advisory panel, to provide input and allow for these interests to be heard and considered. Although this will make the process longer, we believe it would result in more comprehensive and practical regulations that would serve the Commonwealth in the long run.

**Commenters: Group 2 Individuals**
Comment: The proposed regulations were developed by the Department of Environmental Quality as the result of legislation passed during the 2020 General Assembly Session (HB 504), which was amended at the last minute to be exempt from the Administrative Process Act and also apply to climate change and sea-level rise. Although I do not question the legislature's authority to approve those amendments, it is concerning that neither the APA exemption nor the expansion of the scope of the statute received a hearing during the legislative process. Furthermore, there were extremely limited opportunities for any of the stakeholders to engage with the Department on the proposed regulations prior to their publication. As proposed, the regulations would result in a high degree of uncertainty for both the public and private entities involved in their implementation. Given the number of public and private stakeholders impacted by the regulations and the significant impact they would have on economic development and property rights, I believe that a more deliberate process should be utilized. A traditional regulatory advisory panel (RAP) process would allow for a more comprehensive stakeholder engagement process to achieve a consensus among the many stakeholders. There is clearly a lack of consensus on the proposed regulations today.

**Response: The process utilized for the adoption of these amendments is consistent with Chapter 1207 which included a clause requiring the State Water Control Board to adopt regulations to implement the change, and a clause that initial adoption of applicable regulations shall be exempt from the requirements of Article 2 (§ 2.2-4006 et seq.) of Chapter 40 of Title 2.2 of the Code of Virginia, but shall be subject to a public comment period of at least 60 days prior to final adoption by the Board. Additionally, prior to the proposed amendment, the Department held discussions and information sessions to seek feedback. Also, consistent with the Board's authorization of public comment, the public comment period was extended to 90 days and discussions with a SAG occurred on the comments and proposal. In response to comments and discussions, the Department has revised the amendments to address stakeholders concerns and comments. The Department will continue to work with**

**stakeholders on guidance development which will also include a SAG and the development of additional tools and information to aid localities in the implementation of these requirements.**

Incorporate Into and Application of Other Provisions

**Commenter: FOR/VCN**

Comment: The newly proposed regulatory language to address coastal resilience and adaptation to sea level rise should be incorporated in existing regulatory sections, instead of included in the draft regulation's newly created section. The creation of a new section is unnecessary and produces more confusion for local staff implementing the amended regulations.

The draft regulations create a loophole in the enforcement and effectiveness of the Chesapeake Bay Preservation Act. The proposed language indicates that the criteria and requirements for the new "adaption (misspelling - should read "adaptation") measures or activities" included in the draft regulations are to be applied "in lieu of the criteria in 9 VAC 25-830-130 and 140." The criteria listed in the draft regulations are extremely limited, while 9 VAC 25-830-130 (General Performance Criteria) and 140 (Development Criteria) are more inclusive and are the regulation sections central to goals and purposes of the CBPA.

**Commenter: HBAV**

Comment: The proposed regulation requires preservation of existing vegetation and mature trees, and tree planting, to the maximum extent practicable, at 9VAC25-830-155(E)(1)(c), (E)(2)(b), and (E)(2)(d). These requirements are redundant with the amendments to 9VAC25-830-130 and 9VAC25-830-140 and could cause confusion for developers that must comply with them in the field.

The conditions at 9VAC25-830-155(E)(1)(c), (E)(2)(b), and (E)(2)(d) apply to adaptation or climate-related activities in the RPA. Notably, at 9VAC25-830-155(E), the proposed regulation exempts such projects from 9VAC25-830-130 and 9VAC25-830-140. However, the two sets of regulations are essentially the same. For example, under the mature tree and vegetation amendments, 9VAC25-830-140(3) requires new buffers to utilize the planting of trees to the maximum extent practicable. Since buffers could easily be an adaptation or climate-related BMP, the two sets of regulations are repeating the same requirements.

One cause for confusion is the lack of definition for "adaptation measures or activities within the Resource Protection Area to address climate change" at 9VAC25-830-155(E). Though establishing a new buffer, or expanding an existing one, could certainly constitute an adaptation measure, the regulations seem to treat these activities differently. A buffer is subject to regulations independently of, and separately from, other adaptation measures or activities. DEQ must clarify the allowable "adaptation measures or activities," and, if such activities include buffers, move language regarding tree and vegetation preservation solely to 9VAC25-830-130 and 9VAC25-830-140.

**Commenter: Middlesex County**

Comment: Why include specific reference to mature trees. The regulations already require preservation of or restoration of vegetation. If a mature tree is located within the projected inundation area, it's not going to survive anyway.

**Commenter: VCN/VLCV**

Comment: The newly proposed regulatory language to address coastal resilience and adaptation to sea level rise should be incorporated into existing regulatory sections, instead of included in the draft regulation's newly created section. The creation of a new section is unnecessary and produces added confusion for local staff implementing the amended regulations.

The draft regulations create a loophole in the enforcement and effectiveness of the Chesapeake Bay Preservation Act. The proposed language indicates that the criteria and requirements for the new "adaption (misspelling - should read "adaptation") measures or activities" included in the draft regulations are to be applied "in lieu of the criteria in 9 VAC 25-830-130 and 140." The criteria listed in the draft regulations are extremely limited, while 9 VAC 25-830-130 (General Performance Criteria) and 140 (Development Criteria) are more inclusive and are the regulation sections central to goals and purposes of the CBPA.

**Commenter: Virginia Farm Bureau**

Comment: In addition, we would hope that any changes regarding trees or mature trees in these proposed amendments would reflect similar amendments to provide allowance for landowners to undertake activities to protect and restore tree health, prevent insect and disease infestations, and to address hazardous conditions. Finally, the proposed amendments

referencing trees should not allow a local government to prescribe a species of trees that is not suitable for the area or limits a landowner from utilizing a species of tree that is suitable.

**Commenter: WW**
Comment: The newly proposed regulatory language to address coastal resilience and adaptation to sea level rise should be incorporated in existing regulatory sections, instead of included in the draft regulation's newly created section. The creation of a new section is unnecessary and produces more confusion for local staff implementing the amended regulations. The proposed language indicates that the criteria and requirements for the new "adaption [sic] measures or activities" included in the draft regulations are to be applied "in lieu of the criteria in 9 VAC 25-830-130 and 140." The criteria listed in the draft regulations are extremely limited, while 9 VAC 25-830-130 (General Performance Criteria) and 140 (Development Criteria) are more inclusive and are the regulation sections central to the goals and purposes of the CBPA.

**Commenter: MPPDC**
Comment: Incorporate Adaptation Measures into Existing CBPA Framework as Opposed to Creation of Additional Section
The proposed amendments add a new section, 9VAC25-830-155, to address the provision of "coastal resilience and adaptation to sea level rise and climate change." However, a better approach would be to incorporate adaptation measures into the existing framework of permitted modifications and exceptions as listed in 9VAC25-830-140. It will be substantially easier for local governments to incorporate these changes into their existing framework rather than having to reorganize to accommodate a new separate section with overlapping requirements. There is no identified benefit to requiring localities to do this, whereas incorporating a permitted modification will be easier for the localities, the homeowners, and the developers. This simpler approach would better align the goals of improving coastal resilience and protecting water quality.
Our recommendation is to first modify and amend section 5(a) of 9VAC25-830-140 as indicated in the blue text below:
"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, and coastal resilience and adaptation to sea-level rise and climate change, as follows:
5. For coastal resilience and sea level rise or climate change adaptation projects, trees and woody vegetation may be removed, grading, filling, plowing, or other land disturbing activities employed, and appropriate vegetation established to enhance resilience and protect water quality in accordance with the best available technical advice and applicable permit conditions or requirements.

**Commenter: VACRE**
Comment: The proposed CBPA Climate Change Regulations are riddled with references to tree and vegetation requirements. The tree and vegetation requirements lack definition and often use differing terms for required actions. For example, the rules reference "preservation of existing vegetation" (B), "naturally vegetated" (El), "planting of vegetation or trees, maximize preservation of existing natural vegetation and trees particularly mature trees" (E.1.c), "maximize the preservation of existing vegetation and trees particularly mature trees, incorporate the planting and establishment of vegetation particularly trees" (E.2.d) and establishment of "a vegetative buffer inland" of living shorelines (E4). The proposed CBPA Mature Tree regulations address the preservation and planting of trees. With the proper definition of key terms in the proposed Mature Tree Regulations and the changes and clarifications recommended in Section III of these comments, it is recommended that those regulations be incorporated into and referenced in the proposed CBPA Climate Change Regulations and the current references to vegetation and trees be deleted. Any provisions for trees or regulation that are uniquely required by climate change and sea-level rise should utilize the defined terms and exceptions recommended and adopted in final CBPA Mature Tree Regulations.

**Commenter: City of Hampton**
Comment: Another recommendation for reorganization involves the currently proposed new kind of permitted development within section E. We recommend that for clarity and consistency that this new option be included within the existing regulation rather than being indicated as completely in lieu of those existing regulations.

**Commenter: HRPDC**

Comment: The proposed amendments add a new section, 9VAC25-830-155, to address the provision of "coastal resilience and adaptation to sea level rise and climate change." We believe a better approach would be to incorporate adaptation measures into the existing framework of permitted modifications and exceptions as listed in 9VAC25-830-140. It will be substantially easier for local governments to incorporate these changes into their existing framework rather than having to reorganize to accommodate a new separate section with overlapping requirements. There is no identified benefit to requiring localities to do this, whereas incorporating a permitted modification will be easier for the localities, the homeowners, and the developers. This simpler approach would better align the goals of improving coastal resilience and protecting water quality.
Recommendation
Our recommendation is to first modify and amend section 5(a) of 9VAC25-830-140 as indicated in the blue text below: "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, and coastal resilience and adaptation to sea-level rise and climate change, as follows:
5. For coastal resilience and sea level rise or climate change adaptation projects, trees and woody vegetation may be removed, grading, filling, plowing, or other land disturbing activities employed, and appropriate vegetation established to enhance resilience and protect water quality in accordance with the best available technical advice and applicable permit conditions or requirements.

**Response: Language was revised to provide clarity that Sections 130 and 140 apply in addition to the new provisions. Also, the incorporation of an adoption timeframe was moved to the Section on local government adoption. The provisions for the assessment and allowable measures remain separate to provide clarity on the specifics of the new provisions given the confines of the statutory amendment. Additionally, the scope of the changes related to mature trees and the planting of trees impact additional existing provisions in Sections 9VAC25-830-130 and -140 of the Regulations. Definitions of nature-based solution and adaptation measure were provided.**

Reliance on Guidance

**Commenter: FOR/VCN/WW**
Comment: The regulations must be prescriptive and should not rely on future guidance to direct localities. All standards for the incorporation of coastal resilience and adaptation to sea level rise should be expressly delineated in the CBPA regulations, and not via future guidance. Guidance is often considered as prescribed and unenforceable by local government staff; whereas, standards and criteria expressly delineated in the regulations are enforceable.

**Commenter: MPPDC**
Comment: To reduce confusion for local CBPA adminstrators, specific guidance should be included in the regulations themselves and not in a separate guidance document. The regulations should explain what types of measures or activities are allowed and the appropriate water quality mitigation requirements for each measure. Any guidance document, should it be produced, does not have the force of law. Having these details included in the regulations will result in easier compliance for local government staff.

**Commenter: VACRE**
Comment: DEQ staff have indicated many of the questions and concerns raised with the proposed regulations can be addressed by guidance. In the case of the Climate Change Regulations, we are advised this work is already underway by a technical advisory group that to my knowledge has met publicly only once since these regulations have been proposed. It makes little sense to draft guidance until final regulations are adopted. To do so puts the cart before the horse and furthers the impression that adoption of these regulations as proposed are a "fait accompli" without meaningful input from the diverse group of impacted stakeholders. Leaving the projection of climate change and sea-level rise and the definition of key terms to "guidance" is not fair to local governments or property owners and not appropriate. Guidance cannot have the force of law and many of the terms needing definition and issues raised are central to the legal requirements being established. These matters should be properly addressed in the proposed regulations. Needing to rush adoption of the proposed regulations is not an appropriate justification for using guidance.

**Commenter: HRPDC**
Comment: Program Requirements should be in the Regulations rather than in Guidance
DEQ has indicated that any questions about implementation will be answered through guidance. To be consistent with the current CBPA program, these requirements should be included in the proposed regulatory amendments rather than in the forthcoming guidance, as "guidance" is not enforceable as duly enacted law Va. Code 62.1-44.15:72(A) requires that any such provisions must be in the form of regulations. The regulations should be widely understood and implementable without relying on guidance to provide definitions and clarify the goal of the regulation.
Recommendation
The regulations should explain what types of measures or activities are allowed and the appropriate water quality mitigation requirements for each measure. The guidance should provide additional information for implementing those metrics at the local level, much like the existing Riparian Buffers Modification and Mitigation Guidance Manual (Buffer Manual). This too is clearly "guidance" and does not have the force of law. Va. Code 62.1-33.15:73 requires local governments to be given authority to exercise police and zoning power. Local governments are also given the right to designate CBPA ordinances under Va. Code 62.144.15:74(A) and (B). Local governments need clarity to ensure their programs are compliant.

**Response: Additional clarity on the assessment and requirements were provided in the amendments as well as specifics on the allowance of adaptation measures. The continued work with VIMS and William and Mary CPC is intended to provide guidance and tools, including the creation of forms and information that localities may utilize in the implementation of these requirements.**

Support/Resources

**Commenter: FOR/WW/VCN**
Comment: Local government staff are put on the "front lines" of climate change adaptation without sufficient resources. The State cannot expect localities to consider and plan for climate change impacts without adequate support and training. The delay in implementation of the regulations will help with this, but the regulations need to set a stronger performance standard and provide support resources to avoid uneven implementation.

**Commenter: HBAV**
Comment: Finally, the proposed regulation neglects to explain how localities would finance these required analyses. If local governments lack the internal capacity to model future scenarios, then they would need to pursue time-intensive and expensive procurement processes and award contracts to firms with modeling expertise.

**Response: The Department, in conjunction with VIMs and William & Mary CPC, will be working with stakeholders and localities to develop additional guidance and tools to aid in implementation. The amendment also provides additional specifics on the climate change assessment. The Department will continue to provide technical assistance to localities with the implementation of the program.**

Mapping

**Commenter: FOR**
Comment: Localities should be required to periodically reevaluate and re-map their RPA boundaries.

**Commenter: ANS**
Comment: Specify guidelines for reevaluation and re-mapping of RPA boundaries
We recommend that the regulation specifically define a recurring interval for localities to reevaluate and re-map their RPA boundaries. With climate conditions impacting and moving RPA boundaries over time, it will be important for localities to evolve with the landscape. Ideally, the regulations should specifically require, and lay out a method, for local governments to reevaluate RPA boundaries, redrawing them on maps and including the new boundaries in each comprehensive plan update.

**Commenter: CBF/VCN/JRA/ANS/SELC/WW**

Comment: In light of the continuing impacts of sea-level rise and climate change, localities should be required to periodically reevaluate and re-map their RPA boundaries. See proposed addition in Section (C)(5). Localities are already required to maintain a map delineating their Chesapeake Bay Preservation Areas.[7] As natural RPA boundaries change with the rise of sea level, the maps that delineate the localities' RPAs and Resource Management Area boundaries should likewise be updated. As indicated in the markup, in order for a locality's map to be representative, the regulation should specifically require localities to reevaluate the RPA boundary, using the most current NOAA Intermediate-High scenario projection curve, and to update the map accordingly every five years as part of the locality's comprehensive plan update. Under 9 VAC 25-830-110, localities are required to adjust RPA boundaries as necessary, either as part of the plan of development review process or during review of a water quality impact assessment. Requiring an update of the RPA boundary and map every five years as part of the comprehensive plan review process will ensure that landowners and developers are on notice of the bounds of the RPA in light of sea-level rise. Many localities' RPA maps have not been updated in many years and ensuring that these maps represent actual conditions is essential, especially as the impacts of climate change accelerate.
Further, it is clear that the impacts of sea-level rise and climate change will result in the RPA moving landward, not retreating. In light of this reality, we propose a change in wording in Section C (3) of proposed 9 VAC 25-830-155, namely, to replace "altering" the RPA with "any extensions of" the RPA. SeeSection (C)(3). Relatedly, the draft regulation provides some additional protections beyond the RPA by prohibiting projects that would solely use fill "within 100 feet of the RPA" and by requiring the preservation to the maximum extent practicable of any existing vegetation in the "additional 50 feet landward from the RPA." We support these provisions. As sea level rises, causing the RPA to move landward, these areas adjacent to the RPA will need to provide similar water quality protections and allow for wetlands migration. We urge DEQ in the regulation to expand upon how areas adjacent to the RPA should be managed in light of sea-level rise and climate change.

**Response: Localities are required under the Regulations to have current maps of CBPA areas in their localities. Additionally, a site-specific RPA delineation is required for any new or re-development in the RPA. In light of the additional provisions provided in the amendment, a separate provision to require updating was not included. As part of the continued work on this amendment, including the work by VIMS, additional mapping information and resources that localities can utilize is anticipated.**

Sunset Provision

**Commenter: MPDCC**
Comment: Include a Sunset Provision to Ensure on a Regular Basis that Regulatory Amendments are Functioning as Intended
It is important to recognize that the current amendments will constitute a sound first attempt at developing regulations for a topic as dynamic and complex as sunny day flooding, sea level rise/subsidence, recurrent storms and climate change. The amendments should recognize the need for continued and regular dialogue and engagement with stakeholders and practitioners. We recommend instituting a sunset provision of 5 or 10 years for the amendments, which will require future and regular evaluation and modification of the regulations. Without an approach such as this, it is less likely that any problems or deficiencies with the regulatory structure will be addressed in an efficient or effective manner.

**Response: Sunset provisions are not a standard in regulatory actions and inclusion of a sunset provision creates uncertainty in regulatory application. As with all Regulations, the Department will review and consider future amendments as necessary.**

Consideration of IDAs

**Commenter: City of Hampton**
Comment: Throughout the proposed regulations, the text does not clearly differentiate when the changes apply only to the Resource Protection Area (RPA) or also include the Intensely Developed Area (IDA). We understand that the IDA is a subtype of RPA; however, the regulation should be clearly organized and indicate in every instance whether it applies to the IDA or not. When taking the text as a whole, the way it is currently written leads us to believe only the one instance

specifically referencing the IDA would apply within the IDA, and all other references to the RPA therefore do not include the IDA. We do not believe this is the intent of the proposal, and indeed recommend that the options for considering resiliency should apply equally within the IDA as the RPA. We suggest reorganizing or otherwise clearly indicating in every instance when the requirements are intended to apply to the RPA and not the IDA, and when they are intended to apply to both.

**Commenter: HRPDC**
Comment: Fourth, it is unclear if a local government would need to apply the same consideration of climate change impacts to development projects in the Intensely Developed Area (IDA).
We recommend local governments be given the authority to determine whether to apply the same consideration of climate change impacts to development projects in the Intensely Developed Area (IDA).

**Response: As noted, IDAs are an overlay of RPAs. In the assessment of climate change provisions, consideration of the property as being in an IDA is provided. As IDAs are an overlay with RPAs, the need for an assessment of IDA delineated areas was included. The effect of the property being in an IDA is best considered when identifying any necessary measures or conditions. Otherwise, as is consistent with other provisions, the RPA is referenced and would include applicability in an IDA.**

General/Other Comments

**Commenter: Ashley LeComte-McWilliams**
As a resident of semi-rural Prince William County, I am so very pleased to see the proposed Regulation 9VAC25-830, Chesapeake Bay Preservation Area Designation and Management Regulations (adding 9VAC25-830-155). I fully support this proposal. I fear that, at least until now, not enough has being done to mitigate climate change and protect our citizens from its effects. With this proposed regulation, I hope that VA counties and localities will have a stronger arsenal of tools to address this concern. Existing mature trees are the most powerful management tool for dealing with erosion, water control, and temperature balancing. Replacing an existing large/mature tree with several young ornamental trees does not have the same net effect. Thank you again for increasing protections for the Chesapeake Bay watershed area and its residents.
**Response: Thank you for your comment.**

**Commenter: Virginia Arigbusiness Council**
Additionally, the Council believes language should be included providing a specific exemption protecting the right of the State Forester to remove vegetation or tree canopy from the Resource Protection Area for the prevention of spread of an infestation. There are currently updates to 9VAC25-830-130 to allow for the preservation of mature trees and the development of ordinances for the preservation of tree canopy. The update of this criteria should be delayed to ensure these differing criteria complement one another and are not in conflict.
**Response: Existing provisions provide for the removal of dying or diseased trees and this amendment does not effect that exemption.**

**Commenter: City of Hampton**
Comment: within 9VAC25-830-140, section 1.e prohibits approval of flood control and Stormwater management facilities which are collecting and treating runoff from only an individual lot or portion thereof. This language is inconsistent with the updated regulations addressing climate change and coastal resiliency which encourages adaptation measures on a particular site to address these impacts. We recommend that this existing section be amended to clarify that BMPs seeking to address coastal resilience are permitted. Additionally within this subsection, regional BMPs are to be permitted only if the facility is consistent with a comprehensive stormwater management plan approved in accordance with 9VAC25-870-92. Our understanding of this regulation and current guidance is that this approval is not possible. We recommend updating the wording of this section to align with current realities and understanding about when regional BMPs may be permitted.
**Response: The revised language specifies additional allowable activities within the RPA related to adaptation measures. The reference in 9 VAC 25-830-140(1)(e) provides that allowance for multiple development projects or a significant portion of a watershed that are needed for large-scale regional water management and specifically**

**exclude intent for individual lots. Given the specifics of allowable adaptation measures versus the character of these facilities, revisions were not made. The Department recognizes that localities may still need these facilities for larger regional water management but the connection to individual lots should remain as provided in the amendment for natural-based solutions. We will work with individual localities where the issue of the lack of approval for a comprehensive stormwater management plan exists, and will work internally to identify revisions to address this element in future amendments.**

[9 VAC25-830-40 Definitions

"Adaptation measure" means "a project, practice, or approach to mitigate or address an impact of climate change including sea-level rise, storm surge, and flooding including increased or recurrent flooding."

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

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

A. [Pursuant to Virginia Code § 62.1-44.15:72, this Section provides criteria and requirements to address coastal resilience and adaptation to sea-level rise and climate change. Adaptation measures may be allowed in the Chesapeake Bay Preservation Areas subject to approval by the local government, in accordance with the conditions set forth in this Chapter.]

B. [This section applies in addition to 9VAC25-830-130 and 9VAC25-830-140. Local governments shall incorporate [~~these provisions~~ the requirements of this Section] into all relevant ordinances and ensure their enforcement through implementation of appropriate processes and documentation for oversight and enforcement.] [~~Localities~~ In doing so, local governments] shall [~~update and amend their ordinances to adopt and incorporate these performance criteria by (insert date three years after effective date of this amendment)~~ensure that the incorporation is consistent with the water quality protections of the Act].

~~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.]~~

[B. Local governments shall assess the impacts of climate change and sea-level rise on any proposed land development in the Resource Protection Area during the plan of development or project review process. Such assessment shall be based on the Resource Protection Area as delineated at the time of proposed land development. Such assessment shall at minimum:

1. Be based upon a potential impact range of 30 years or the lifespan of the project if less than 30 years;

2. Utilize a model or forecast developed by or on behalf of the Commonwealth;

3. Identify potential impacts:
a. from projected sea-level rise using the 2017 National Oceanographic and Atmospheric Administration (NOAA) Intermediate–High scenario projection curve, or any subsequently updated version thereof, on the project site;
b. from storm surge based upon the most updated NOAA hydrodynamic Sea, Lake, and Overland Surges from Hurricanes model on the project site; and
c. from flooding based upon the most updated Special Flood Hazard Area and the Limit of Moderate Wave Action on the project site. Such assessment of flooding should be in conjunction with the requirements and application of floodplain management requirements and programs.
4. Assess the potential impacts in light of the proposed land development on buffer function including loss of riparian buffer vegetation and vegetation migration; water migration; as well as the potential impacts resulting in additional future land disturbance or development in the Resource Protection Area connected to the proposed land development.
5. Identify conditions, alterations, or adaptation measures for the proposed land development to address these potential impacts as necessary and appropriate based upon site conditions; nature, type, and size of proposed land development including whether such proposed land development is in an Intensely Developed Area overlay; extent of potential impacts, and the necessity to minimize future land disturbance.
6. Local governments may require this assessment to be submitted as part of a Water Quality Impact Assessment. The specific content and procedures for the assessment shall be established by each local government and shall be of sufficient specificity to demonstrate compliance with this requirement.

7. Based upon the assessment, local governments shall, as necessary and appropriate, require conditions, alterations, or the installation of adaptation measures as part of the proposed land development consistent with the requirements of the Act and this Chapter.]

~~[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.~~
[C. Local governments may allow adaptation measures within the Resource Protection Area subject to the following criteria and requirements which shall apply in addition to those found in 9 VAC 25-830-130 and 9 VAC 25-830-140,

including the requirement for a Water Quality Impact Assessment pursuant to 9 VAC 25-830-140(6). The adaptation measures shall:
1. Be a nature-based solution adaptation measure that uses environmental processes, natural systems, or natural features, is appropriate for site conditions, and is:
a. An Best Management Practice approved by the Chesapeake Bay Program Partnership;
b. An approved Virginia Stormwater Best Management Practice listed in the Virginia Stormwater Best Management Practice Clearinghouse;
c. An approved Shoreline Protection Strategy in accordance with the Tidal Wetlands Guidelines as determined by the Virginia Marine Resource Commission; or
d. A project that is an eligible activity for funding by the Virginia Community Flood Preparedness Fund as determined by the Virginia Department of Conservation and Recreation.

2. Be designed, installed, and maintained in accordance with the applicable adaptation measure specifications in accordance with the type of the adaptation measure identified in 9 VAC 25-830-155(C)(1).

3. Allow for the use of fill only under the following conditions:
   a. The grading and slope created by the use of fill shall be no greater than necessary based upon the project specifications and implemented in a manner that minimizes the impact of run-off;
   b. The fill must have the necessary biogeochemical characteristics, including sufficient organic content, to support the growth of vegetation and adequate permeability to allow infiltration consistent with the project specifications;
   c. The use of fill shall not enhance stormwater runoff from the Resource Protection Area, and any lateral flow onto adjacent properties shall be controlled;
   d. Any impacts on the management of stormwater upland of the Resource Protection Area created by the use of fill shall be mitigated as necessary;
   e. The use of fill shall not negatively impact septic systems and drainfields; and
   f. The use of fill shall be consistent with any applicable federal or state law, including floodplain management requirements in 44 C.F.R. Part 60.
4. Maximize preservation of existing natural vegetation including mature trees and minimize land disturbance consistent with the adaptation measure specifications.
5. Comply with all federal, state, and local requirements including any required permits and conditions.
6. Nothing in this provision shall be construed to authorize approval or allowance of an adaptation measure in contravention of floodplain management requirements, including the National Flood Insurance Program and established floodplain ordinances, or construed to require a locality to approve or allow an adaptation measure in contravention of its participation in the National Flood Insurance Program Community Rating System.]
[D. Local governments shall ensure that any activity in the Resource Protection Area is consistent with Chapter 13 Title 28.2, Code of Virginia, and the accompanying Tidal Wetlands Guidelines which provide for "minimum standards for the protection and conservation of wetlands," and "ensure protection of shorelines and sensitive coastal habitat from sea level rise and coastal hazard." Shoreline management and alteration projects should be coordinated to address the requirements of the most updated Tidal Wetlands Guidelines in conjunction with the requirements of this Chapter including 9 VAC 25-830-140(5)(a)(4).]
[~~4. Where the proposed adaptation measure~~] [E. For a living shoreline [~~project or related activity~~], as defined in section 28.2-104.1 of the Virginia Code, where the locality otherwise approves of the project, the project[~~s~~] minimizes land disturbance and maintains or establishes a vegetative buffer inland of the living shoreline [~~to~~], complies with the [~~maximum extent practicable, minimizes land disturbance to the maximum extent practicable, and the project~~] fill conditions in (C)(3), and receives approval from the Virginia Marine Resources Commission~~,including a permit~~ or the local wetlands board as applicable, [~~and any other necessary permits or approvals, the adaptation measure shall~~] the locality may exempt it from performance criteria additional performance criteria requirements [~~or criteria~~], including a Water Quality Impact Assessment.]
~~[D]~~[F. Local governments shall not grant exceptions to the requirements of 9 VAC 25-830-130, 9VAC25-830-140, or 9VAC25-830-155 where:
1. The [~~impact~~] assessment of climate change [~~, including~~] and sea-level rise [~~on the land development is not considered~~] as outlined in [~~subsection C~~] 9 VAC 25-830-155(B) of this section [~~for exceptions in the Resource Protection Area;~~] has not occurred; or

2. The [~~exception consists of approval solely~~] proposed adaptation measure allows for the use of fill [~~or other material to the~~] in a Resource Protection Area [~~or within 100 feet~~] in contravention of the requirements of 9 VAC 25-830-155(C)(3).]
[~~3. The exception permits encroachment into seaward 50 feet of the buffer area of the Resource Protection Area notwithstanding permitted modifications and adaptive measures.~~]
[9VAC25-830-190. Land development ordinances, regulations, and procedures.

C. Local governments shall update and amend their ordinances and regulations to adopt and incorporate updated requirements in Part IV (9VAC25-830-120 et seq.) of this chapter based upon statutory revisions to Virginia Code § 62.1-44.15:72. by (insert date three years after effective date of amendment).]

**Tab J - Amendment to incorporate additional requirements related to preservation of mature trees and replanting of trees into existing criteria in the Chesapeake Bay Preservation Area Designation and Management Regulations (9 VAC 25-830)**: At the June 29, 2021, meeting of the State Water Control Board (Board), staff will ask the Board to approve final amendments to the Chesapeake Bay Preservation Area Designation and Management Regulations (9 VAC 25-830).

The final amendments were developed pursuant to Chapter 1207 of the 2020 Acts of Assembly, which required that a provision for "preservation of mature trees or planting of trees as a water quality protection tool and as a means of providing other natural resource benefits" be added to the criteria requirements in 9 VAC 25-830 as established by the Board.

Chapter 1207 also included a clause requiring the State Water Control Board to adopt regulations to implement the change and a clause that initial adoption of applicable regulations shall be exempt from the requirements of Article 2 (§ 2.2-4006 et seq.) of Chapter 40 of Title 2.2 of the Code of Virginia, but shall be subject to a public comment period of at least 60 days prior to final adoption by the Board. Consistent with this provision, a Notice of Intended Regulatory Action and a Regulatory Advisory Panel were not utilized. Instead, pursuant to the Board's authorization to public notice the proposed amendment, a comment period of 90 days was held. Additionally, a Stakeholder Advisory Group (SAG) was convened to discuss and provide feedback on the proposed amendments and comments received.

This memorandum provides a brief background on the Chesapeake Bay Preservation Act, the implementing regulations and the proposed amendments, public participation including overview of comments, summary of changes since proposed, as well as the General Assembly action authorizing this regulatory action.

**BACKGROUND**

The Chesapeake Bay Preservation Act (§ 62.1-44.15:72 of the Code of Virginia) 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 Chesapeake Bay Preservation Areas. Chesapeake Bay Preservation Areas include Resource Protection Areas and Resource Management Areas.

Chapter 1207 of the 2020 Acts of Assembly amended § 62.1-44.15:72 of the Code of Virginia and added 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. Chapter 1207 also included a clause requiring the State Water Control Board to adopt regulations to implement the change and a clause that initial adoption of applicable regulations shall be exempt from the requirements of Article 2 (§ 2.2-4006 et seq.) of Chapter 40 of Title 2.2 of the Code of Virginia, but shall be subject to a public comment period of at least 60 days prior to final adoption by the Board. Consistent with this provision, a Notice of Intended Regulatory Action and a Regulatory Advisory Panel were not utilized. Instead, pursuant to the Board's authorization to public notice the proposed amendment, a comment period of 90 days was held. Additionally, a SAG was convened to discuss and provide feedback on the proposed amendments and comments received.

**PROPOSED AMENDMENT TO THE CHESAPEAKE BAY PRESERVATION AREA DESIGNATION AND MANAGEMENT REGULATIONS (9VAC25-830)**

Overall, this regulatory amendment includes requirements to preserve and protect mature trees and where existing vegetation is removed that includes a mature tree, a tree is incorporated in reestablishing vegetation. It also provides that where vegetation or buffers must be established, the planting of trees should be included.

The regulatory amendment includes additional language specific to the preservation of mature trees to existing performance criteria related to vegetation and trees in general. Specifically, the general performance criteria under 9 VAC 25-830-130 already include a requirement for the preservation of indigenous vegetation. The final language underscores that mature trees should be protected, including during development. In recognition of existing tree preservation and tree planting ordinance provisions in Virginia Code, localities may rely on their adoption of those

ordinances to demonstrate compliance with the mature tree requirements. This is consistent with the benefits identified in the statutory language.

Additionally, most existing performance criteria provisions related to vegetation and trees are found in the criteria for Resource Protection Areas (9 VAC 25-830-140). For existing provisions related to tree removal such as for sight lines, vistas, driveways, roads, and shoreline erosion projects, the amendment underscores that mature trees should be preserved and only be removed where necessary. Where replanting or vegetation is to be established or reestablished, it should include the planting of trees as appropriate to site conditions. This includes previous agricultural lands converted to other uses, Intensely Developed Areas, and where a buffer does not currently exist.

**SUMMARY OF CHANGES SINCE PROPOSED**

The primary changes centered around providing a definition of mature trees, providing a three year timeline for localities to amend their ordinances and adopt the requirements into their programs, removal of the term "maximum extent practicable" and identifying that the planting of native species is preferred for planting. The final amendment primarily focuses on setting the standard for removal "as necessary", with additional language provided for removal for sightlines. In the planting of trees, the language focuses on "appropriate site conditions," "maximizing buffer function," and tailoring to "project specifications." All of the language is intended to operate within the existing provisions, which specify additional requirements related to vegetation, buffer establishment, and tree removal.

Based upon comments received, discussions during the SAG meeting, and discussions with the Virginia Department of Forestry (VDOF), a definition of mature tree was developed. As noted in comments and discussion among the SAG, no universal or commonly accepted definition of "mature trees" exists. In consideration of comments requesting a clearer standard for localities to interpret and implement, the definition focuses on the diameter-at-breast-height (dbh) of the tree for two different categories of trees. Measuring diameter utilizing dbh (4.5 feet from the ground) is the common measurement utilized in the forestry industry and a straightforward manner of measurement. Additionally, based upon comments and discussions among the SAG, the definition recognizes two categories of trees: canopy and understory. These terms are consistent with the terms utilized in existing guidance, specifically the "Riparian Buffers Modification & Mitigation Manual"[1] (Buffer Manual) which also includes height definitions and common species categories for both categories. Given localities' current use of the Buffer Manual, this should aid in the implementation of the new requirements.

In consideration of comments and discussion by the SAG, for the general performance criteria, "maximum extent practicable" was removed and the sentence structure slightly altered. In particular, "as necessary" was utilized to avoid confusion with the application of the term "maximum extent practicable." Additionally, "as necessary" allows for removal based upon the proposed development or use which remains consistent with the existing provision related to removal of vegetation. "As necessary" also would include the same allowance as for removal in the RPA, including dying or diseased trees.

For the performance criteria in the Resource Protection Area, "maximum extent practicable" was also removed and "as necessary" was identified as the standard for provisions specific to removal. For shoreline erosion control projects, this includes allowing tree removal as necessary for the project. In this provision, a balance and reconciliation with the recently approved Tidal Wetlands Guidance for these projects is intended. This provision recognizes that where such a project has been determined to be necessary in accordance with Tidal Wetlands Guidance, the intent is not to prohibit such projects even where mature tree removal may be required. Consistent with the approach in the Regulations, indigenous vegetation should be preserved and incorporated into the project as feasible.

For sightlines and vistas, revisions were considered in light of comments, discussion of the SAG, and the parameters of the statutory criteria provision. The language provided is consistent with the existing approach provided in the Buffer Manual. The language emphasizes that trimming and pruning should always be the first option utilized and, consistent with existing language in the Buffer Manual, mature tree removal should be limited to the fewest number of trees feasible. This should aid as well in implementation given localities' existing use of the Buffer Manual. Additionally, while adding

[1] https://townhall.virginia.gov/l/ViewGDoc.cfm?gdid=5415

additional language regarding this provision, it remains focused on mature tree consistent with the statutory change in lieu of further language regarding all tree removal.

For provisions related to reestablishing buffers, existing language which includes elements of establishing vegetation, "maximum extent practicable" was removed and "as appropriate to site conditions" and "and in such a manner to maximize the buffer function and to protect the quality of state waters" was inserted. This language again reconciles with existing Regulatory provisions related to buffer function (9 VAC 25-830-140(3)) as well as existing Guidance. The specifics of each site can vary tremendously and a regulatory standard that accounts for each variation would be impossible to craft. Given this, extensive guidance on buffer establishment and replanting has already been established through the Buffer Manual. All of the guidance and technical assistance on replanting focuses on achieving this standard but also recognizes that the ability and means to do so in replanting can be widely variable. The language as provided in the amendment recognizes this balance of considerations and the variation that may be encountered while replanting or reestablishing the buffer.

In consideration of comments and discussions with the SAG and consultation with VDOF, a recognition of the use of native species was identified. This underscores existing guidance in the Buffer Manual and general policy in the Commonwealth that emphasizes planting native species, while recognizing that a mandate may not be appropriate. In particular, a mandate was not included based upon the specific statutory language and because, depending on the size and number of plantings needed, adequate or affordable stock may not be available.

**PUBLIC PARTICIPATION, OVERVIEW OF COMMENTS AND RESPONSE TO COMMENTS**

The Department received a total of 319 comments during the comment period. Comments were received from seven localities, two Planning District Commissions, and several organizations or associations. Two groups of comments that were the same or substantially the same in wording were received accounting for 284 of the total comments.

Additionally, pursuant to the Board's authorization for public comment of the proposal, a Stakeholder Advisory Group (SAG) was established. All twenty-two individuals requesting to participate as a member were approved. Discussion and feedback over the proposal and comments occurred on May 13th and May 14th.

Comments primarily focused on a request for definition of mature trees, consideration of native species, clarity of term "maximum extent practicable" and its application, other statutory or legislative provisions, policies or activities, provisions related to tree removal for sightlines and vistas, and request for a traditional regulatory process.

As noted in the "Summary of Changes since Proposed," a number of changes were made in consideration of the comments received, the SAG discussions and subsequent consultation with VDOF.

**STAFF RECOMMENDATION**

Staff recommends that the State Water Control Board approve final regulatory amendments to 9 VAC 25-830.

## Comments and Responses on Mature Tree/Tree Planting Amendment

Define or Clarify the Term "Mature Trees"

**Commenter: Hampton Road Planning District Commission (HRPDC)**
Comment: The proposed regulatory amendment includes requirements to protect existing mature trees and to promote tree plantings in buffers. A definition of "mature tree" is not provided in the regulations.
Recommendation: definition of "mature tree" must be included in the proposed regulations. The height, diameter, canopy, species, whether the tree is producing flowers or bearing fruit, and health of the tree could be considered as factors in determining whether a tree is mature. The definition should be expressed in such a way that makes it simple to evaluate whether a tree is considered mature.

**Commenter: City of Alexandria**
Comment: Please clarify the term "mature trees". The term is integral to this regulation and needs to be clearly defined.

**Commenter: TownHall Anonymous**
Comment: There must be a clear and readily operational definition of the term *"mature trees"*. Should mature trees that are nearing the end of their typical lifespan be preserved? Should mature trees that will stand as individual stems once clearing and grading is complete be preserved when they are more subject to sunburn and windthrow? Should mature trees that are damaged, infested, weakened, surviving prior lightning strikes, etc., be preserved? How does one define *"necessary to provide for the proposed use"* when looking to exempt preservation of mature trees? How much additional economic cost is acceptable to support site solutions to accommodating the proposed use for the purpose of preserving mature trees?

**Commenter: Fairfax County**
Comment: The term "mature trees" needs to be defined in the regulations. The term is used throughout the proposed amendments and is central to their purpose. It will not be possible to effectively administer the amended regulations without a clear definition of the term. Because the term is so central to the purpose of the amendments, it needs to be defined in the regulations and not addressed later in a guidance document.

**Commenter: Faith Alliance for Climate Solutions (FACS)**
Comment: Faith Alliance for Climate Solutions believes the tree preservation language must be more concrete. That…should including a practical definition of "mature trees. There should be specific parameters for what constitutes a "healthy" tree.

**Commenter: Homebuilders Association of Virginia (HBAV)**
Comment: Though the primary goal of the proposed regulation is to "preserve and protect mature trees,"[6] the term "mature trees" is not defined. Further, in some cases, the text extends beyond the Resource Protection Area (RPA). Due to this omission, implementation of the various requirements of the proposed regulation would be extremely challenging for both local governments and the development community, including:
"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."
"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."
"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 proposed regulation lacks clarity regarding observable characteristics of mature trees, such as the target species and any thresholds for size, condition, or location, thus making it impossible to differentiate a "mature tree" from any other tree. The term is not currently defined in the Code of Virginia or the Virginia Administrative Code, and the defining characteristics of mature trees can vary among foresters, arborists, and other professionals in the field.

Further, the proposed regulation declines to identify persons qualified to identify such trees. For example, can localities allow landowners, builders or developers to identify mature trees, or must development activities include tree inventories and surveys conducted by licensed foresters or arborists? Obviously, these decisions would greatly affect project costs and timelines and require new site plans, permits, or multi-agency review (e.g., Virginia Department of Forestry (VADF)). Such regulatory requirements or technical guidance should be made available for public review and comment prior to finalization of the proposed regulations.

**Commenter: Middle Peninsula Planning District Commission (MPPDC)**
Comment: It is recommended that a definition of "mature tree" be included in the regulations with height, diameter, canopy, species, whether the tree is producing flowers or bearing fruit, and health of the tree included as factors determining whether a tree is mature.

**Commenter: Prince William County**
Comment: There is no definition for "mature tree" in the proposed regulations.

**Commenter: S. Sundberg**
Comment: DEQ also should add a definition of "mature trees" to the regulations that will be simple for landowners and localities to objectively evaluate.

**Commenter: TNT Environmental**
The proposed regulation does not include a definition of "mature tree" which is critical to the understanding, implementation, and ramifications of such legislation. Localities, through either their tree preservation ordinances and/or policy have wildly varying definitions of what they consider to be a mature tree. The proposed regulation includes vague and undefined requirements to protect "mature trees" which can only be removed "when necessary" and are to be "protected to the maximum extent practicable". The proposal also fails to provide any specifics on how the regulated community, local governments, property owners or business owners, would determine whether or not a tree is "mature" or the specific circumstances where a mature tree could be removed. The term is not currently defined in the Code of Virginia or the Virginia Administrative Code and definitions, as noted above, can vary among foresters, arborists, and other professionals in the field. A uniform statewide definition is required rather than a patchwork quilt of local definitions.

**Commenter: Virginia Association of Commercial Real Estate (VACRE)**
Comment: In the proposed Preservation of Mature Tree and Replanting Trees Regulation ("Mature Tree Regulations") these terms include "mature tree…" Clear definition of these terms is essential because they have differing meanings and interpretations. Each term can have significant negative impacts on property rights as well as on the increased costs resulting for local governments and those regulated. Because many of these terms drive the measures to be required of property owners through the mandated new local ordinances, definition of key terms is particularly important.
There appears to be universal agreement among stakeholders that the final regulations must include a definition of "mature tree" which is the focus of preservation in the proposed regulation. This is not a simple task. The Department of Forestry notes that the size and age of a mature tree will "vary considerably depending upon the species and intended use" https://www.dof.virginia.gov/edu/glossary.htm.
Localities have adopted different definitions of mature tree or captured the concept of a mature tree using different terms or phrases. Some localities refer to "mature heights" or "mature (canopy) spread" to protect trees that have reached maturity. Many localities already protect "mature trees" through existing tree canopy ordinances adopted pursuant to state law (§15.2961.1 and §15.2-961). In addition localities have protected individually significant trees through the authority they have been granted under state law (§10.1-1127.1) to protect specific types of trees designated "Heritage", "Memorial", "Specimen" or "Street" trees. All of these factors and the work of many experts should be considered in adopting a definition of "mature" tree.

**Commenter: Arlington County**
Comment: The term "Mature trees" is not defined, although it is used repeatedly in the proposed amendment, nor is there a standard accepted definition for "mature trees" among professional arborists and foresters. Arlington County recommends convening a technical advisory group with representation from professional organizations such as the

International Society of Arboriculture and state and local government to determine if it is feasible to develop an acceptable clear and enforceable definition for "mature trees" that is included in the regulation. Further, a "mature tree" definition lacks context because it is focused on individual trees without context. A stand-alone large tree with a fully developed vertical canopy in an older developed neighborhood with a root zone across several lots is different than a large tree in a forested area surrounded by many competing smaller trees and faces different risks and odds of survival with redevelopment. Tree condition should also be accounted for in the regulatory language to allow for realistic long-term conservation of trees with a high likelihood of survival, because trees in poor condition should not confound development and approval processes.

**Commenter: Audubon Naturalist Society**
Provide a more specific definition of "mature tree" in the regulations.
While we commend the inclusion of requirements to protect existing mature trees and to promote tree plantings in buffers, we recommend providing more specific guidance on what the regulations mean by "mature tree." Different species of trees have different visual levels of maturity – size alone is not indicative of maturity. Additional details included in the regulations would help localities be sure they are implementing these regulations appropriately. Ideally, the definition should be provided in a clear and approachable way to evaluate whether a tree is considered mature.

**Commenter: Chesapeake Bay Foundation (CBF)**
Comment: In addition, for the mature tree provisions in the draft regulation to be readily implemented, the regulation should include a definition of "mature trees." Any such definition needs to account for differences in species growth rates as well as impacts that growing conditions may have on tree growth. At the same time, the definition should be sufficiently straightforward to allow localities and landowners to assess what constitutes a "mature tree." Therefore, we propose the following straightforward, objective definition that would be simple to apply in the field and sufficiently protective of the majority of species: "'Mature tree' shall mean a tree with a diameter at breast height of 10 inches or greater or a height of at least 13 feet, whichever will result in greater tree preservation."

**Commenter: Chesterfield County**
Comment: The definition of "mature tree" needs to be addressed and incorporated into the amendment language to include specific criteria to identify and preserve both mature understory and canopy trees.
Chesterfield County Environmental Engineering recommends VADEQ coordinate with the Virginia Department of Forestry or other knowledgeable agency to craft a definition and criteria for "mature trees."

**Commenter: Balzer & Associates**
Comment: This regulation mentions "mature trees" in multiple locations but does not provide a definition. In discussions with colleagues and other professionals there is a wide range of opinions on the definition of a mature tree. This definition is important in the implementation of these regulations and without a clear definition from the State, the definition will be left to localities to provide what will likely be a variety of definitions. In addition, there is no indication that the preservation of mature trees refers to non-invasive species.

**Commenter: City of Hampton**
Comment: In these proposed amendments, it is not clear what a "mature" tree may be, a definition is recommended which clarifies if maturity is to be based upon age, diameter at breast height, species, production of fruit, or some other consideration.

**Commenter: A. Linderman**
Comment: "Mature Trees," and other tree-related terms: These must be clarified in order to best serve, first and foremost, the Chesapeake Bay as well as trees! And also, too, property owners, the public, wildlife, and DEQ!

**Commenter: Group 1 Individuals**
Additionally, DEQ should add a definition of "mature trees" to the regulations that will be simple for landowners and localities to objectively evaluate.

**Commenter: Group 2 Individuals**

Proposed regulation does not define "mature trees": The proposed regulation includes vague and undefined requirements to protect "mature trees" which can only be removed "when necessary" and are to be "protected to the maximum extent practicable". The proposal fails to include any definition of the term "mature tree" nor provide any specifics on how the regulated community, local governments, property owners or business owners, would determine whether or not a tree is "mature" or the specific circumstances where a mature tree could be removed. The term is not currently defined in the Code of Virginia or the Virginia Administrative Code and definitions can vary among foresters, arborists, and other professionals in the field. A uniform statewide definition is required rather than a patchwork quilt of local definitions.

**Response: DEQ agrees that a definition and clarity on the term "mature tree" is important and that no universal definition of "mature tree" exists. A definition of "mature trees" was added in response to comments and discussion by the Stakeholder Advisory Group (SAG) and in consultation with the Virginia Department of Forestry (VDOF). The definition focuses on the diameter of a tree and identifies a distinction between canopy and understory trees. The definition of canopy and understory is consistent with the existing language in the Riparian Buffers Modification & Mitigation Guidance Manual (Buffer Manual) that has served as guidance to local governments implementing the Chesapeake Bay Preservation Act (Act) program for many years. Additionally, the Buffer Manual provides specific information for species in each category as well as on buffer function and replanting.**

**To aid with implementation, a diameter at breast height (DBH) specification for both canopy and understory trees is provided for supporting a finding that a tree is a "mature tree." The DBH number was established in consultation with VDOF and recognizes a value in general as referenced for various tree species. The Department considered a general definition focused on certain factors but determined that such definition would not provide additional clarity or ease in implementation.**

Application and Implementation/Use of Maximum Extent Practicable

**Commenter: Faith Alliance for Climate Solutions**
Comment: Faith Alliance for Climate Solutions (FACS) believes the tree preservation language must be more concrete. That should include, but not be limited to, a better definition of "what is necessary"

**Commenter: Homebuilders Association of Virginia**
Comment: The proposed regulation requires developers to conduct various activities to the "maximum extent practicable (MEP)." However, the phrase is not defined, making the amendments in 9VAC25-830-130(2), 9VAC25-830-140(3), 9VAC25-830-140(3)(b), 9VAC25-830-140(4)(a)(2), 9VAC25-830-140(5)(a)(1), and 9VAC25-830-140(5)(a)(4) difficult to understand and implement.
In the context of environmental policy, the HBAV is only aware of the MEP standard in the federal Clean Water Act (CWA). Under the CWA, Municipal Separate Storm Sewer System (MS4) permits "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods."[16] Further, the U.S. Environmental Protection Agency (EPA) notes "EPA has intentionally not provided a precise definition of MEP to allow maximum flexibility in MS4 permitting. MS4s need the flexibility to optimize reductions in storm water pollutants on a location-by-location basis."[17]
Localities' experience with MEP under the CWA could forebode implementation challenges for the proposed regulation. Jurisdictions have said of the MEP standard that there "must be a serious attempt to comply, and practical solutions may not be lightly rejected."[18] Indeed, many jurisdictions require detailed engineering plans and analysis to demonstrate that BMPs have been implemented to the point where additional practices would be technically infeasible. For example, the draft Orange County, Virginia Stormwater Management Ordinance would require developers to "minimize direct stormwater impacts to streams, wetlands and other natural features to the maximum extent practicable,"[19] demonstrating MEP through a worksheet that lists BMPs and cells for permittees to input the area where such BMPs were implemented. An MEP process could add costs and time delays to critical infrastructure projects and require new permitting or plan review resources among CBPA localities.
The proposed regulation provides no direction on how a builder or developer could demonstrate tree preservation to the MEP. Such ambiguity raises several questions. For example, is an engineering or environmental analysis

required, or may a developer use best professional judgement to demonstrate MEP? If achieving MEP requires analysis, what criteria would demonstrate inability to preserve or protect mature trees? Finally, what process would a developer follow to submit materials demonstrating MEP? The proposed regulation does not establish a permitting process or identify implementing agencies in CBPA local governments. These issues must be addressed if builders and developers are to implement the proposed regulation.

**Commenter: Prince William County**
Comment: Even if the "mature tree" is defined, the regulation will necessitate every land development plan to incorporate a tree survey and tree assessments to identify mature trees. This adds to the cost of land development and additional costs transferred over to home buyers because of the increase in the cost of land development. The regulations will also necessitate a locality to increase its staff levels to review tree surveys submitted with each plan. In addition, the proposed regulations do not make any distinction on the type of mature trees based on the tree species or tree health, the tree location in relation to ecological setting, and every tree is given the same status.
The term "Maximum Extent Practicable" (MEP) imposes a significant and subjective burden on the developer, and to the County as a regulator on what satisfies MEP. Does MEP standard mean that the developer is required to show substantial conformance with good faith efforts (alternative analysis) to demonstrate MEP to protect mature trees?
A locality's land development plan approval timeline should not be affected if MEP criteria is subjective leading to challenges that can potentially hold up the plan approval process. As proposed, we can foresee such challenges.
Will the state develop general guidelines on MEP, with discretional authority left to the localities on what satisfies MEP?
While we support protecting mature trees based on ecological setting and other practical considerations, we are very reluctant to be subject to MEP rule. The objective should be more geared to protecting stand of trees in relation to where the trees are located within a project. Regulations must make this distinction to clarify that the intent is to save mature tree(s) in strategic locations.
The regulations should more focus on promoting reforestation in urban corridors, revegetating denuded stream buffers and improving forest health.
In the proposed regulation, the shoreline erosion and stream restoration projects will continue to be a permitted use within RPA with a change to requiring the protection of mature trees to the Maximum Extent Practicable. In situations where the proposed stream restoration conflicts with the goal to save trees, the project may receive additional opposition if located on HOA common areas or private lands because of the subjective opinions on MEP standard. While the County continually works with all stakeholders, the MEP criterion may subject the projects to legal challenges. The County anticipates this requirement to bring hurdles to its popular stream restoration program.

**Commenter: TNT Environmental**
Comment: As noted previously, this term is well defined and widely understood during the Clean Water Act permitting process at both the state and federal levels. In that context, regulated entities must demonstrate through engineering analysis that they have implemented best management practices to the MEP. The proposed regulations make frequent reference to MEP but neither explain how MEP would apply to mature tree preservation nor identify the process for demonstrating MEP compliance. In this application, MEP is vague and can be widely interpreted by local governments.

**Commenter: VACRE**
Comment: In the proposed Preservation of Mature Tree and Replanting Trees Regulation ("Mature Tree Regulations") these terms include…"maximum extent practicable" and "best available technical advice". Clear definition of these terms is essential because they have differing meanings and interpretations. Each term can have significant negative impacts on property rights as well as on the increased costs resulting for local governments and those regulated. Because many of these terms drive the measures to be required of property owners through the mandated new local ordinances, definition of key terms is particularly important.
Experts agree that there are situations where removal of a mature tree is warranted. These include declining health, disease or age of a tree and safety concerns presented by a tree. A "mature tree" can become a "declining tree" which "appears less vigorous, because of adverse environmental stress, structural failures, or simple old age. Their growth rates may be slow or nonexistent. They may even experience reductions in size and mass due to the loss of large

branches." Clark, James R., and Nelda Matheny. "Management Of Mature Trees". *Journal of Arboriculture.* vol 17, no.7, July 1991.
Virginia's tree canopy statutes (Section 2 above) require specific exceptions to their preservation and planting requirements that would be helpful to consider in crafting reasonable exceptions to the mature tree requirements. These include where: (1) the requirement would "prevent the development of uses and densities otherwise allowed by the locality's zoning or development ordinance", (2) "the predevelopment condition of vegetation does not meet the locality's standards for health and structural condition", (3) "construction activities could be reasonably expected to impact existing trees to the extent that they would not likely survive in a healthy and structurally sound manner" or (4) "preservation of wetlands, the development of farm land or other areas previously devoid of healthy and/or suitable tree canopy, or where the strict application of the requirements would result in unnecessary or unreasonable hardship to the developer." (Subsections E and F of §15.2-961.1).
Both state tree canopy statutes allow planting of trees to provide the benefits of tree cover. The tree canopy statute that requires preservation of trees (§15.2-961.1) recognizes planting as an acceptable alternative to preservation in specified circumstances. Overly rigid tree preservation requirements can have the unintended consequence of producing smaller tree canopies that provide less water quality benefits that preserving existing cover. For all these reasons, VACRE recommends that the proposed CBPA Mature Regulations be amended to include reasonable exceptions to the requirement to preserve mature trees.

**Commenter: Arlington County**
Comment: Phrases such as “where determined to be necessary for the proposed use” and “to the maximum extent practicable” (9VAC25-830-130.2 and 9VAC25-830-140.5.a(1)) offer flexibility but also result in a regulation that is difficult if not impossible to enforce because these are matters of opinion by owners and developers, in the context of local zoning ordinances that address other limitations like setbacks, heights, and lot coverage, all in a market with strong demand for larger homes on small lots of 6,000 to 8,000 SF. The amendment sharpens the focus on tree preservation in CBPAs but retains the overall ambiguity of the existing regulation. While we support the intent to grant municipalities the authority and tools to protect and conserve existing trees, this continued ambiguity will confound and frustrate the redevelopment process at best and could reasonably be anticipated to create a litigious environment.
As a starting point, the regulations should clearly distinguish between a reasonable construction envelope needed to build a principal structure and a larger construction envelope associated with discretionary features and uses such as retaining walls to provide flat backyards, patios, and other hardscaping. While this will take further thought through the more involved stakeholder engagement process we are recommending, we want to emphasize here that making this type of distinction is critical to strike the right balance between private property rights and stewarding the public interest in protecting existing trees.

**Commenter: Audubon Naturalist Society**
Comment: Provide clarity in the definition of “to the maximum extent practicable”
Similar to our recommendation above, we recommend additional clarity in defining “to the maximum extent practicable” to ensure localities implement these regulations with the maximum understanding of the goals and intent behind the regulations. Ideally, we recommend these regulations go a step further to empower local governments to require tree preservation, thereby strengthening these provisions.

**Commenter: FOR**
Comment: The protection of trees in the proposed regulation is weak. Saying that "Mature trees shall only be removed where determined to be necessary to provide for the proposed use or development" leaves the door wide open for the removal of all mature trees whenever the developer feels it is necessary. That provides neither restrictions nor incentives to keep the trees. The same with the statement to protect trees "during development to the maximum extent practicable"; that leaves it to the developer to decide that it was not practical. Stronger language is required to require developers to retain and protect mature trees in the CBPA buffer. The granting of exceptions to the rule should be limited and require the developer to show of exceptional circumstances.

**Commenter: Balzer & Associates**

Large trees preserved during construction often die within the following year or so after development due to direct damage or impacts to their root system. These trees often put the property owners at risk of damage or lead to permitted removal of dead trees with no regulatory oversight for replacement.
This regulation does not adequately address exceptions to the requirement to preserve mature trees. These exceptions could come for trees that may sustain damage during construction, trees on the banks of streams, trees that may be a threat to property or structures, or trees within the viewshed that are exceptions in other parts of the regulation. Preservation of the trees to the "maximum extent practicable" is required in this regulation but there is no guidance on how it should be implemented. This lack of clarity will affect the granting of exceptions and varying interpretations of the "maximum extent practicable" rule.

**Commenter: City of Hampton**
Comment: Another area that is unclear is how competing interests might be balanced when considering protection of trees to the maximum extent practicable. For instance, recently released draft guidelines from the VMRC with respect to implementation of the Tidal Wetlands Act and recent Senate Bill 776, indicate that hardened shoreline options must not be permitted on the shore if a living shoreline is suitable and the applicant indicates their primary reason for wanting the hardened option is due to cost. The guidelines currently specify that the hardened structure should be located landward, outside of the tidal wetland jurisdiction, which would locate it within the Chesapeake Bay preservation buffer area. It is unclear whether the presence of trees should prevent this location of a hardened option upland of tidal wetlands where a living shoreline might otherwise be feasible. Another example is when it would be possible to install a living shoreline but only with sufficient grading. If there are trees present in the upland, should that require the living shoreline be graded into the state-owned bottom if there is otherwise sufficient room within the waterway? Or is that reason for the locality to require a hardened option rather than a living shoreline in order to protect the mature trees to the maximum extent practicable? Localities could use clarification to help understand and coordinate these now overlapping regulations.
We recommend that some additional language specify how to understand the "maximum extent practicable", and how far altering a proposed development may be necessary to ensure this protection. We also recognize that mature trees are more vital to providing positive benefits right now to our city, while replacement saplings will not yield the same benefits for many years or decades. Therefore, clarification about how to differentiate protection of mature trees or additional necessary replacement for mature trees would be recommended.

**Commenter: Virginia Farm Bureau**
The statute gives the parameter of "planting trees as a water quality tool." However, the proposed amendments only vaguely set out a parameter of "planting of trees be utilized to the maximum extent practicable and appropriate to site conditions." This provides no guidance as to how this would be held to a standard for the protection of water quality. This potentially could lead a local government to enact requirements that don't consider appropriate species of trees, trees located in or near brackish or other waters high in salinity content or be in conflict other state and federal laws regarding flood zones.

**Commenter: A. Linderman**
Comment: Throughout the entire Chesapeake Watershed – as well, certainly, the currently designated 100' Buffer area – expand and insist upon the preservation of mature trees. The scientific benefit of mature trees is myriad (with no attempt made to document in entirety here), from water quality to flood mitigation, erosion prevention, carbon sequestering, habitat re-establishment, and on and on. Consequently, the CBPA must disallow the removal of mature trees within the RPA for sight lines or vistas, as well as powerfully discourage their removal beyond. Provision for incentivizing tree preservation and enforcement authority for same must be strongly made.

**Commenter: Group 2 Individuals**
Comment: "Maximum extent practicable" (MEP) is unclear in this context: Builders and developers are most familiar with MEP from the Clean Water Act. In that context, regulated entities must demonstrate through engineering analysis that they have implemented best management practices to the MEP. The proposed regulations make frequent reference to MEP but neither explain how MEP would apply to mature tree preservation nor identify the process for demonstrating MEP compliance.

**Response: "Maximum extent practicable" was removed as a term in the amendment. Based upon the comments and concerns over confusion in the term and its application in other contexts, the Department utilized language**

**referring to "as necessary" for mature tree removal. In the general performance criteria, this includes continued reference to the "use or development proposed." "As necessary" is intended to provide more precision on the removal of mature trees than "maximum extent practicable" while remaining consistent that tree removal should be considered in the context of the use of the proposed development.**

**It is important to note that this amendment operates in the context of the existing requirements and framework for the CBPA program, including provisions to limit disturbance, maintain existing vegetation, and minimize impervious cover under the general performance criteria. These provisions have existed since the promulgation of the Regulations and the amendment is to emphasize, consistent with the statutory change, the benefit of mature trees and thus their protection and the incorporation of trees in establishing vegetation. Consideration of the general performance criteria is implemented at the local government level during the plan of development review process or during the review of a WQIA for land disturbance within CBPAs. The level of specificity considered in this framework is designed to recognize the variation among localities and site conditions, including varying types of proposed development particularly in the Resource Management Area. The intent of the language is to ensure throughout where vegetation is considered for removal that additional, specific consideration be given to mature trees.**

**With respect to the RPA, the Buffer Manual provides guidance and specifications on addressing vegetation requirements, including elements for a planting plan and factors for site analysis in buffer establishment or replanting.**

Consider Existing State Laws/Policy and Legislative Activity including Existing Tree Canopy Provisions

**Commenter: VACRE**
Comment: As noted by many commenters on the proposed CBPA Mature Tree Regulations, the General Assembly has authorized two significant stakeholder work groups and requested legislative recommendations from both that relate directly to the preservation of mature trees. The 2020 General Assembly directed DEQ to convene a stakeholder group to make recommendations for the planting or preservation of trees as a creditable stormwater best management practice (H B 520). Due to staffing constraints and delays produced by the pandemic, DEQ has yet to convene this group and its work is important to consider before final mature tree regulations are adopted.
Even more significantly, the 2021 General Assembly passed two identical bills that direct the Secretary of Natural Resources and Secretary of Forestry to evaluate existing statutes — and potentially new statutes — to incentivize the planting, replacement, or preservation of trees during the land development process (SB 1393). This work is likely to produce recommendations and legislation to be considered at the 2022 Session of the Virginia General Assembly that will increase authority of local governments to preserve and require planting of trees, including mature trees. It is equally important for DEQ and the Board to consider this work before finally adopting Mature Tree regulations.
Localities that have taken the time and incurred the cost to adopt tree canopy ordinances pursuant to existing state law should not have to adopt new ordinances to comply with the proposed CBPA Mature Tree Regulations. At most, they should be requested to amend their existing ordinances to comply with the final regulations. In addition, localities that have adopted tree canopy ordinances that apply outside the RPA should only be subject to the Mature Tree Regulations for impacts inside the RPA. These localities have already acted to preserve and protect trees in their locality and have at their disposal the tools the existing tree canopy statutes have afforded them as well as the new authority that will emerge from the studies and recommendations that will be produced as discussed in Part III, Section 5 below.
Applying the CBPA mature tree regulations in their entirety to these localities will produce unnecessary conflicting requirements, costs and confusion for both property owners and local governments.

**Commenter: Virginia Forestry Association**
Comment: Ensuring proposed language is complementary to existing Virginia state tree policy – While increasingly gaining recognition as a multi-faceted environmental solution, it is important that Virginia's different laws and ordinances do not contradict one another as trees are sought to meet different purposes.
As the Board considers proposed amendments, we hope that it will consider the adoption of language that maintains a complementary relationship with current Virginia law surrounding trees, including:
§ 15.2-2286.1 - Provisions for clustering of single-family dwellings so as to preserve open space
§ 15.2-961 and § 15.2-961.1 reference Tree Banking and the establishment of a fund

§ 10.1-1127.1. Tree conservation ordinance; civil penalties
§ 15.2-961. Tree replacement of trees during development process in certain localities
§ 15.2-961.1 Conservation of trees during land development process in localities belonging to a nonattainment area for air quality standards
§ Chapter 820. General Virginia Pollutant Discharge Elimination System (VPDES) Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia

**Commenter: Homebuilders Association of Virginia**
Comment: The proposed regulation does not address or accommodate localities that have adopted tree canopy ordinances. Such localities include in the CBPA include Alexandria, Arlington, Chesapeake, and Portsmouth among several others.[7] The Department should provide exemptions for requirements that apply outside of the RPAs for localities that have adopted their own tree ordinances.

**Commenter: Virginia Farm Bureau**
Comment: Currently under Chapter 90 of the 2021 Acts of the Assembly, another workgroup will be convened to develop appropriate local authority for tree canopy in the Chesapeake Bay watershed. The amendments to this regulation should be consistent and complimentary with those requirements as both sections of the law are trying to utilize planting of trees or replacement of trees during development for purposes of protecting water quality. Therefore, we would request that DEQ hold this regulation for final passage until this referenced workgroup has time to develop recommendations for localities to have a consistent and complimentary set of tools to appropriately protect trees in more developed areas and help with providing an appropriate tool to protect water quality.

**Commenter: Group 2 Individuals**
Comment: Regulations need to be consistent and not duplicative of recent legislative enactments: In the last two years, the Governor has signed two bills that will convene a broad array of stakeholders to (i) evaluate existing statutes – and potentially new statutes – to incentivize the planting, replacement, or preservation of trees during the land development process (SB 1393), and (ii) evaluate the planting or preservation of trees as a creditable stormwater best management practice (HB 520). Implementing HB 504 through a traditional RAP process would allow for these discussions to occur simultaneously. It makes no sense to move forward with adoption of mature tree regulations that apply outside of the RPA prior to completion of these two other legislative initiatives.

**Response: An allowance has been added for localities that have adopted these ordinances allowing them to utilize those provisions to demonstrate compliance in RMAs as related to the amendment for trees. These provisions include specifics related to tree preservation which appear consistent with the intended application of mature tree protection in the Resource Management Areas. Adding this allowance reduces the burden of additional ordinance or program changes and may encourage more localities to adopt these ordinance provisions.**

**Additionally, the DEQ recognizes that there continues to be significant interest in the use or preservation of trees throughout Commonwealth programs and policy. As such activity may necessitate further change or consideration, the Department will examine existing requirements and guidance accordingly. However, the CBPA Regulations already provide provisions related to the preservation and planting of vegetation and limits on tree removal. Within that framework, it is important to specifically recognize and address mature trees as separately identified by the statutory change. Additionally, it should be noted that Senate Bill 1393 is connected to the tree ordinance provisions for which an allowance is provided.**

Update the Riparian Buffers Modification & Mitigation Guidance Manual

**Commenter: Arlington County**
Comment: In order to clarify and define the expectations of the state with respect to the proposed amendment, the County recommends that the Riparian Buffers Modification and Mitigation Guidance Manual ("Guidance Manual")

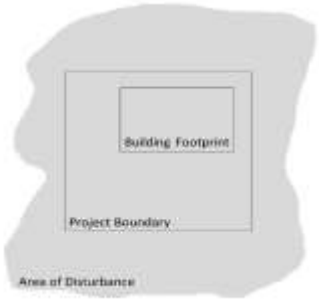
last updated in 2006 be revised and re-issued. The County recommends revisions to all Guidance Manual sections affected by this amendment to clearly define the intent and purpose of the amendment and the expectations and requirements of the state. The County also recommends that the Guidance Manual be updated to address specific County concerns related to this regulatory update. The County specifically requests the addition of a definition for mature trees, the incorporation of defined tree protection standards such as ANSI A300 (Part 5) - Management of Trees and Shrubs During Site Planning, Site development, and Construction and the inclusion of assessment criteria for tree removal such as a determination of high risk of failure and impact via a Level 1 Tree Risk Assessment Qualification (TRAQ) assessment or comparable method.

**Commenter: HRPDC**
Comment: To best support program modifications, we respectfully request for DEQ to prioritize updates of the Buffer Manual and model local ordinance so that they reflect the regulatory changes.

**Response: The Department agrees that an update to the Buffer Manual should occur following the regulatory amendment. The Department intends to work with interested stakeholders, including localities and the VDOF, in this update effort.**

Clarify Applicable Area

**Commenter: Homebuilders Association of Virginia**
Comment: The proposed regulation uses imprecise language to identify where mature trees must be preserved. Under the amended text, mature trees may only be removed "where determined to be necessary to provide for the proposed use or development."[20] Unfortunately, this phrase does not provide sufficient detail for a builder or developer who faces compliance requirements under the CBPA.
In general, development projects have three important boundaries (Figure 1). Though terms vary, most development projects contain a building footprint,[21] project boundary,[22] and area of disturbance.[23] In order, the building footprint describes boundaries of the exterior walls of a building or structure when placed on a piece of property; the project boundary comprises all contiguous land that supports normal building operations, and the area (or limit) of disturbance comprises the boundary within which construction, materials storage, grading, landscaping and related activities occur. During construction, the area of disturbance may temporarily include areas such of public right-of-way.
The proposed regulation does not clarify the areas where mature trees should be preserved. For example, must mature trees be preserved if they would be located within the building footprint? In addition, under what conditions may a developer remove mature trees in the project boundary? An example could include a mid-rise apartment complex with a community amenity available to residents. The proposed regulation does not clarify whether the community amenity is sufficient to justify tree removal. Further, it does not explain whether an access road used temporarily during construction may justify removal of mature trees. These uncertainties must be clarified to aide with implementation of the regulations.
Figure 1: Development Projects Have Three General Boundaries




**Response: It should be noted that the phrase "to provide for the proposed use or development" has been the language in the Regulation since inception. The additional recognition of mature trees does not alter the scope of that language and instead ties mature tree removal to necessity for that purpose. The performance criteria establish standards for incorporation into a locality's zoning and planning ordinances and programs. The locality establishes the specific requirements for submittals for land development through specific ordinance**

**and program requirements intended to demonstrate that the locality is implementing the criteria regarding the general performance criteria in the review of its plans. It is not possible for the Department to generally provide that a specific tree should or should not be removed in the context of a project through Regulation or for the Regulation to provide specific limits on numbers.**

Include/Clarify Flexibility/Exemptions

**Commenter: Homebuilders Association of Virginia**
Comment: The proposed regulation lacks any flexibility in its application. Such omissions are critical to protect buildings and infrastructure, respect local rights and ordinances, and ensure human health and safety.
Also, the proposed regulation's tree requirements would extend to all "mature trees," regardless of whether they are providing environmental benefits, endangering the public, or if newly-planted trees and landscaped areas would provide greater benefits. The Department should consider providing flexibility in the definition of "mature trees" in recognition of the longstanding debate over the environmental benefits of trees during their active growth and mature phases. For example, academic studies differ in their conclusions regarding whether trees sequester greater amounts of CO2 earlier or later in their development.[8] In addition, land clearing provides opportunities for new growth, which provide habitat for different animal species compared to older growth tree stands.[9] Also, nutrient uptake changes as trees mature.[10] In addition, the publication *Common Native Trees of Virginia*, explains the conditions under which tree removal is critically-important; for example, to reduce the threat of wildfire, "[t]here should... be at least a 10-foot separation... between branches and structures" and "[a]ny landscape beds next to a home should consist of sparse, low-growing ground cover separated from the home by gravel or stones with no flammable landscaping materials in contact with the home."[11] Moreover, there is broad consensus that trees located on riverbanks can contribute to erosion and thus phosphorus loading when toppled by storm events or otherwise succumbing to age or disease. These regulations should not prevent the practice of tree removal on and the stabilization of new slopes.
There are several examples of flexibility and exceptions for tree-related regulations in Virginia and elsewhere. For example, state law permits exceptions from local tree canopy requirements when application of those requirements would result in unnecessary or unreasonable hardship to the developer.[12,13] The HBAV believes that similar exceptions should be provided for in these regulations in a manner that would meet the goals of the statute without unreasonably burdening development or property owners.

**Commenter: Virginia Forestry Association**
Comment: Authorizing legislation provides for greater flexibility than proposed regulatory amendments – In authorizing the proposed amendments, Chapter 1207 of the 2020 Acts of Assembly included: "(v) preservation of mature trees or planting of trees as a water quality protection tool and as a means of providing other natural resource benefits." The authorizing legislation intentionally included the word "or" to ensure that a developed land's water quality protection strategy was appropriate to the site and able to provide maximum water quality and natural resource benefits.
As explained by the Center for Agriculture, Food, and the Environment and the University of Massachusetts Amherst[2], "[T]rees in forests thrive and, typically, live more than one hundred years. On the other hand, trees planted in cities and towns, and along roadways, often survive no more than a few decades, if that long." The UMASS research concludes that "most people believe that insects and diseases are the primary cause for decline and death of trees in the landscape. In fact, it is human activity which causes most of the problems that trees experience. Even many pest and disease problems can be related directly or indirectly to the prior stresses imposed upon trees by human activity."
Generally, trees that survive are those that are best adapted to local conditions and those best able to compete effectively for sunlight, moisture, and plant nutrients. But human development changes the underlying ecosystem and microclimate where mature trees live. Exposed to new stresses brought about by development, mature trees often decline and/or fail. There are many instances in which the preservation of a mature tree would be less desirable than the use of more site-appropriate landscape architecture incorporating better adapted tree species, simultaneously improving water quality while reducing future maintenance costs.
While the current regulatory language for indigenous vegetation seemingly provides for such flexibility, the proposed language under 9VAC25-830-130(2) appears more restrictive with respect to the use of improved site-adapted alternatives. The State Water Control Board should consider adopting language that provides for the intended flexibility to ensure Virginia's ability to maximize water quality and natural resource benefits.

Clarifying that the exemption for silvicultural activities applies to proposed amendments – Finally, VFA recommends that the Board retains exemptions for silviculture activity as defined in the Act. Specifically, the Board should provide clarification that silvicultural activities are exempt from local program requirements so long as operations are conducted using the appropriate Best Management Practices (BMPs) to protect water quality as prescribed by Virginia's Forestry Best Management Practices for Water Quality.

**Commenter: TNT Environmental**
Comment: The currently proposed regulations could extend to healthy and dying "mature trees", even though trees toward the end of their lifespan could endanger public health or threaten other healthy trees with disease. Additionally, state law permits exceptions from local tree canopy requirements when application of those requirements would result in unnecessary or unreasonable hardship to the developer. We believe that similar exceptions should be provided for in these regulations in a manner that would meet the goals of the statute without unreasonably burdening development or property owners. These regulations should not prevent the practice of tree removal on and the stabilization of new slopes.

**Commenter: Virginia Farm Bureau**
We also believe this regulation should be amended to provide allowance for landowners to undertake activities to protect and restore tree health, prevent insect and disease infestations, and to address hazardous conditions. If not, a landowner could be in violation of local ordinances preserving mature trees or requiring the planting of trees as a water quality protection tool. In addition to the protection for landowners, a reference to the State Forester's authority [§10.1-1177 of the Code of Virginia] for taking actions to protect against insect and disease infestations should be included. Finally, we believe these amendments sections do not clearly protect a landowner engaging in silviculture activity. While there are silviculture exemptions, planting of trees is clearly associated with two different criteria and not clearly delineated and should be clarified.

**Response: The amendment provisions are in conjunction with existing provisions related to vegetation removal and planting requirements consistent with the policy and framework of the Act and existing CBPA Regulations. These requirements related to vegetation have existed in the CBPA Regulations since their inception. These provisions allow for removal of dead, dying or diseased trees and the amendment includes language related both to site conditions and necessity which includes those elements as well. The proposed amendments do not change the existing status for silviculture activity or application of exemptions.**

**Additionally, the amendment does provide the ability for localities to not require further amendment of local CBPA ordinances related to mature tree requirements under the general performance criteria where a separate ordinance related to tree planting or preservation exists.**

**The CBPA Regulations are not general tree preservation regulations applicable everywhere, even in CBPA localities, but regulations governing land development and use particularly within the RPA. Within the RPA, the existing allowance in the buffer for the removal of dead, dying or diseased trees remains. In areas that are RMA, the CBPA Regulations apply to the general performance criteria for land development and do not regulate individual tree removal generally. Finally, if the area is not a CBPA area, the CBPA regulations do not apply.**

Appropriate Site Conditions

**Commenter: Homebuilders Association of Virginia**
Comment: The amendments would require "tree planting,"[14] and in some sections, tree planting "appropriate to site conditions"[15] to reestablish buffers in Resource Protection Areas (RPAs). Unfortunately, these requirements are too vague to be useful to localities and cannot be implemented by builders and developers.
Tree planting can be a technically complex activity that requires an understanding of multiple, varied site conditions. For example, natural conditions such as soil type, soil pH, soil compaction, and site hydrology, can all affect a tree's likelihood of establishing itself and living to maturity. In addition, multiple siting requirements could apply, including the extent of a tree's root system and its potential to impact underground infrastructure (e.g., pipes, wells,

electric cables); safety concerns such as whether mature trees would block lighting, sight lines, or escape routes; and proximity to pollutants such as those draining from an industrial site.
Without detailed guidance on DEQ's expectations for tree planting in various conditions, builders and developers cannot be assured that their efforts will comply with the proposed regulation. The final regulation must provide clarity to address these concerns.

**Response: The Department agrees that site conditions can vary and provides extensive guidance in its Buffer Manual. The variation of site conditions for removal and purpose and number of mature tree removed are all considerations. As noted in the Buffer Manual, there are multiple conditions that should be considered where necessary for identifying replanting and could be identified and addressed in a replanting plan. Not all circumstances would require such analysis, particularly where only a few mature trees may be removed. The Department intends to work with interested stakeholders, including localities and the VDOF, to update the Buffer Manual to provide more detailed guidance and recommendations to localities.**

Consider Invasive v. Naive Species in the Amendments

**Commenter: City of Alexandria**
Comment: Please include an allowance for the removal of invasive trees, even if mature.

**Commenter: Chesterfield County**
Please consider including language within the amendment specifying any replacement tree plantings of removed trees should be native or naturalized species to Virginia.

**Response: Language providing that inclusion of native species in tree replanting is preferred was added based upon comments and discussion among the SAG. This language recognizes promoting the use of native species which has also been historically recognized in the Buffer Manual. Requiring native species was not included based upon the specific statutory language and because, depending on the size and number of plantings needed, adequate or affordable stock may not be available. The Department recognizes there are continued efforts to evaluate the management of invasive species and future guidance updates and tools will be reflective of any additional policies or requirements related to the use or allowance of invasive species in the planting of trees. Additionally, given the statutory provision language, the scope of this regulatory amendment, and the water quality value of existing vegetation, an additional exemption for allowing removal of a mature tree that is an invasive species was not included.**

Prohibition on Removal for Sightlines/Vistas

**Commenter: Faith Alliance for Climate Solutions**
Comment: To further promote tree preservation, the regulations should include an absolute prohibition on any tree removal in the RPA purely for viewshed or sightline purposes

**Commenter: Audubon Naturalist Society**
Comment: Do not allow removal of trees in RPAs for sight lines or vistas. We recommend updating the regulations to specifically prohibit tree removal in an RPA for the purpose of providing for sight lines and vistas. We appreciate the addition of language which *prioritizes* the preservation of matures trees in the case of sight lines or vistas, however, if the trees in question exist in an RPA, stronger regulations to protect those trees in this case of modifying a viewshed only makes practical sense given the new focus of environmental resiliency and climate change planning.

**Commenter: CBF**
Comment: Finally, to meet the statutory mandate to promote mature tree preservation, the regulation must specifically prohibit the removal of trees for sight lines and vistas. For many years, this loophole in the regulation has allowed the unnecessary and often deleterious removal of trees, with an attendant loss of shoreline stability and an increase in sedimentation and nonpoint source nutrient pollution. Therefore, we request that DEQ amend the proposed language in 9 VAC 25830-140(5)(a)(1) to specifically prohibit the removal of trees for sight lines and vistas as follows:

(1) Trees may be pruned as necessary, but no tree may be or removed for the purpose of, as necessary to provideing for sight lines or 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
Making this long overdue change will promote mature tree preservation while continuing to allow landowners to trim and prune trees as needed. In addition, for the language regarding mature tree preservation in the draft regulation to be effective, there should be enhanced enforcement by localities.

**Commenter: Friends of the Rappahannock (FOR)**
Comment: Similarly, the removal of mature trees to provide sight lines and vistas should simply be prohibited. That should not be grounds for removal of mature trees. Vistas can be improved by prudent pruning.

**Commenter: Group 1 Individuals**
I request that the regulations do more to promote the preservation of mature trees for their water quality and other natural resources benefits. Trees enable water to infiltrate into the soil, reducing localized flooding. They capture stormwater runoff, improving water quality. They also stabilize steep-slope shorelines, reducing erosion and loss of property. Therefore, DEQ should revise its proposal to include an outright prohibition on the removal of mature trees within the RPA for sight lines or vistas.

**Response: Where the existing provision references tree removal, further limiting language was included concerning sightlines. This language is consistent with existing guidance in the Buffer Manual which has historically provided guidance to localities on implementation. This emphasizes mature tree trimming over removal, and limiting removal to the fewest feasible number of mature trees. Additionally, it should be noted that the provision is limited to an allowance for "reasonable sight lines" and as noted in the Buffer Manual, clear cutting of all vegetation for a sightline should not be considered reasonable.**

Existing Viewsheds Should be Exempt

**Commenter: TownHall Anonymous**
Comment: Explicit exemption should be given to sites with existing viewsheds; there should be no requirement or expectation that a property owner must plant trees that would obscure such viewshed. Planting of trees on steep slopes or on high banks within the buffer to be established and sitting above other elements of the RPA should also explicitly be exempted. Trees on steep slopes represent prospective kinetic threats to slope stability and water quality.

**Response: The amendments are integrated within existing provisions consistent with the statutory criteria. Additional exemptions within the RPA were not considered because existing provisions already establish allowable buffer modifications, including for sightlines and vistas.**

Enforcement/Incentives/Penalties

**Commenter: Faith Alliance for Climate Solutions**
Comment: There should be language that empowers localities to "require" tree preservation.
To further promote tree preservation, the regulations should provide localities the ability to incentivize the preservation of trees in any planning and development, and the authority to enforce these provisions.

**Commenter: S. Sundberg**
Comment: I also request that these regulations do more to promote the preservation of mature trees for their water quality and other natural resources benefits. Trees enable water to infiltrate into the soil, reducing localized flooding. They intercept and filter stormwater runoff, improving water quality. They also stabilize steep-slope shorelines, reducing erosion and loss of property. Establish a fund to recompense landowners for maintaining the land in a

natural state through local tax relief (reduced assessments) or through other existing mechanisms (e.g., use-value assessment program).
In addition, please empower localities to incentivize the preservation of trees and provide localities with the authority to enforce tree preservation provisions.

**Commenter: CBF**
Comment: The revisions to Va. Code § 62.1-44.15:72 require DEQ to encourage and promote "preservation of mature trees or planting of trees as a water quality protection tool and as a means of providing other natural resource benefits." The draft regulation adds language throughout the performance and development criteria regarding mature tree preservation, which will help meet the legislative mandate. However, the regulation fails to account for all the water quality and ecosystem benefits mature trees provide. Mature trees provide nutrient uptake, help mitigate local flooding, retard runoff, prevent erosion, stabilize steep-slope shorelines, and filter nonpoint source pollution from runoff. In light of these various and significant benefits, the draft regulation should allow for localities to *require* mature tree preservation. Further, the regulations should empower localities to incentivize mature tree preservation. An additional way to promote mature tree preservation and tree planting for water quality protection is to encourage localities to accept trees as a recognized stormwater BMP for new development in Chesapeake Bay Preservation Areas.[8]

**Commenter: FOR**
Comment: The regulations should allow localities to enforce these regulations, require fees for trees that must be removed due to exceptional circumstances, and enable localities to provide incentives to property owners that go above and beyond the regulations to protect their buffers.

**Commenter: A. Linderman**
Comment: Throughout the entire Chesapeake Watershed – as well, certainly, the currently designated 100' Buffer area – expand and insist upon the preservation of mature trees. The scientific benefit of mature trees is myriad (with no attempt made to document in entirety here), from water quality to flood mitigation, erosion prevention, carbon sequestering, habitat re-establishment, and on and on. Consequently, the CBPA must disallow the removal of mature trees within the RPA for sight lines or vistas, as well as powerfully discourage their removal beyond. Provision for incentivizing tree preservation and enforcement authority for same must be strongly made.
Moreover, I also hope that: penalties for regulations' violations be high and truly deterring; and that "grandfathering" of old policies and permits NOT be allowed. Please see above for further elaboration.

**Commenter: Patricia VonOhlen**
Comment: I am a Virginia Master Naturalists and I have been reading and learning about the value of trees. The service benefits are numerous and they can provide stability and prevent erosion along lands that border our rivers and streams and The Chesapeake Bay. They filter and remove pollutants from storm water which has been a big source of nitrogen, phosphorus and sediment that enter our waterways in run-off. Trees can offset this environmental damage. Because they protect and preserve the lands in the RPA, adding language to prohibit removal of large trees and allowing positive credits for adding trees and shrubs in the RPA will be beneficial changes.

**Group 1 Individuals**
In addition, please allow localities to incentivize the preservation of trees and provide them the authority to enforce tree preservation provisions.

**Response: The amendments operate within the existing framework for the Act and Regulations which requires localities to implement the provisions through their ordinances and to enforce those provisions. Localities are already empowered to enforce their ordinances and programs under the existing regulatory framework and their local ordinances. The statutory change did not alter this framework including additional enforcement by the Department or localities. The Bay Act does not provide for a separate fund for these provisions. Allowing recognition of other tree ordinances for compliance in the RMA provides a potential incentive for localities to adopt these provisions.**

<u>Prohibition on removal of any mature trees in RPA</u>

**Commenter:** George C. Ledec, PhD
Comment: There should be no exceptions granted for any reason to the preservation of mature trees in resource protection areas. Resource Protection Areas are areas where protection of natural resources need to be a high priority. Granting exceptions to this should not be allowable since this compromises not only the health of our natural resources but is a serious public safety risk in that mature trees in RPAs hold soil, prevent erosion and otherwise protect the public from the known and existing increased precipitation events occurring due to climate change. Even a tree that is mature but less than 100 % healthy serves a critical purpose of holding soils, preventing erosion and otherwise protecting public safety. If exceptions are allowed then portions of an RPA will be cleared of mature trees and other portions will retain mature trees. This inconsistent management of the RPA will result in some areas at greater risk than others from the increasingly frequent damaging flooding events. This situation can be avoided if all RPAs are managed consistently. Therefore no exceptions should be allowed. Delegating authority for granting exceptions to localities would result in fragmented management of RPAs increasing public safety risk and possibly mis-management of natural resources. Localities are under increasing pressure to develop all currently undeveloped lands. We have seen clear evidence that developers influence localities to develop environmentally sensitive areas inappropriately. RPAs are highly valuable lands that should not be developed rather they should be conserved in perpetuity with mature trees intact. In the case of unhealthy or hazard tree (must be scientifically assessed and measured for "unhealthiness") is removed from an RPA, it should be replaced at triple the dbh on the same site it was removed from.

**Commenter: S. Sundberg**
Comment: DEQ should revise its proposal to prohibit the removal of mature trees within the RPA.

**Commenter: Powell Hutton**
Comment: I am a 30 year resident of Arlington and a 45 year resident of the Washington DC metropolitan area, and my family and I have treasured our access to the priceless Chesapeake Bay. It is being threatened by climate change, sea level rise, land subsidence, pollution, and land fill among other adverse impacts. The law must be updated to prevent further landfill encroachment and support the maintenance of existing trees as well as the planting of new trees. This authority for planting new trees should be maintained by local governments, and as an Arlington resident, I urge that Arlington County should have that continued authority over the lands within its jurisdiction. Trees are essential for capturing rain water, slowing runoff, preventing erosion, stabilizing shore banks, and supporting native wildlife, let alone adding beauty and natural health to our region. The updated regulations should prohibit the outright removal of mature trees for development or improved sight lines. The aesthetic of nature is already there and should be preserved. Thank you for the opportunity to comment.

**Response: Given the statutory provision language and the scope of this regulatory amendment, a prohibition on all tree removal was not included. Additionally, a prohibition on all mature tree removal, even within the RPA, and in light of existing encroachments, modifications, and exemptions provisions, would significantly alter or potentially render impossible their application. Existing provisions related to encroachments, modifications, and exemptions include requirements to preserve vegetation and limitations on vegetation removal and the amendment operates in concert with those provisions by including language specific to mature trees.**

<u>Timeline for Incorporation</u>

**Commenter: MPPDC**
Comment: Local governments should also be provided five years for incorporating the mature tree provisions into local ordinances to accommodate localities relying solely on non-paid staff or volunteer support.

**Commenter: HRPDC**
The preservation of mature trees provisions will impact every development project in the CBPA; however, no timeline was provided for incorporating these new protections into local ordinances. It is important to designate a timeframe within which the ordinance changes should be adopted so that local programs will not be automatically out of compliance once the proposed regulations are final.
Recommendation

Section A of the proposed 9VAC25-830-155 grants local governments three years to incorporate the coastal resiliency provisions. It is our recommendation that the same timeframe be allowed for the preservation of mature tree provisions so that local governments can consolidate their updates into one ordinance revision.

**Response: A timeline for incorporation was included, providing three years for adoption and incorporation into the local government program. The Department intends to continue to work with interested stakeholders, including localities and the VDOF, on an update to the Buffer Manual.**

Utilizing a Regulatory Advisory Panel

**Commenter: MPPDC**
In conclusion and in consideration for the complex challenges of amending the CBPA regulations, we ask for DEQ and the State Water Control Board to provide for additional and ample time for review and consideration of the comments and suggestions made herein via a traditional and comprehensive regulatory advisory panel. MPPDC staff appreciate your consideration of these comments and suggestions.

**Commenter: Prince William County**
We request the State Water Control Board to include the participants from the affected localities and all stakeholders to draft changes. Working together, we can support regulatory changes that benefit localities while balancing economic development with environmental protection. We request DEQ's focus to concentrate more toward reforestation, afforesting denuded buffers and connecting stream corridors.

**Commenter: TNT Environmental**
While the proposed regulation is exempt from Article 2 of the Administration Process Act, the complexity of the intended regulation, together with the additional burdens placed on the public and local governments warrants further public involvement.
As proposed, the regulations would result in a high degree of uncertainty for both the public and private entities involved in their implementation. Given the number of public and private stakeholders impacted by the regulations and the significant impact they would have on economic development values, and property rights, I believe that a more deliberate process should be utilized. A traditional regulatory advisory panel (RAP) process would allow for a more comprehensive stakeholder engagement process to achieve a consensus among the many stakeholders. There is clearly a lack of consensus on the proposed regulations today.

**Commenter: VACRE**
Comment: I have followed Virginia's Administrative Process Act (APA) and participated in many state agency proceedings for more than forty years. My work on APA matters and proceedings began with my work for two Virginia Governors, followed by eight years of private practice of law representing clients on Administrative Law matters and then the last twenty-five years representing clients of The Vectre Corporation. I believe that DEQ has the best regulatory advisory panel process of any state agency I have participated or observed during my career. While the Board is authorized to adopt these proposed regulations without following any of the requirements of the APA, it is not required to do so. The Board recognized this when at its December 2020 meeting it allowed 90 days public comment and required a Regulatory Advisory Panel (RAP) meeting to consider and respond to public comments received before taking action at a subsequent meeting, presumably next month. DEQ staff originally proposed only 60 days of public comment and no RAP consideration of these two new CBPA programs. We appreciate this additional public participation granted by the Board in response to the request of HBAV and VACRE and a separate request from representatives of Wetlands Watch and Friends of the Rappahannock by letters dated December 7, 2020 and December 8, 2020 respectively. However, after taking the time to receive input from our members and other stakeholders, it is clear more stakeholder engagement is required before final adoption.
Discussions I have had with and the comments I have reviewed from representatives of conservation and environmental groups, local governments and planning district commissions, agriculture, local chambers of commerce and economic development advocates lead me to conclude there is general agreement among most stakeholders that the proposed regulations need more than a single RAP meeting before they should be adopted. Even the few who do not object to adoption of regulations under the current abrupt process agree a normal DEQ RAP process would produce a better result.

I appreciate the opportunity to serve on the Regulatory Advisory Panel that will be meeting later this month to consider all comments received and make recommendations to DEQ and the Board. While I will do all I can to be a productive member of this RAP at its only meetings scheduled over two consecutive days in May, it is clear to me for the many reasons stated in these comments that more time is required. Final adoption of both regulations should be delayed to allow for further meetings of the RAP.

VACRE urges the Department and Board to extend the work of the currently appointed RAP beyond May 2021 and direct DEQ to use a more traditional RAP process. That will allow that group to meet at least three or four times to allow adequate time and stakeholder participation to produce proposed final regulations. A traditional RAP process will yield a much better end result that meets normal DEQ and Board standards, fairly balances the environmental goals of both regulations with their impacts on property owners and local governments and allow time to eliminate inconsistencies and harmonize the regulations with other state and federal laws, regulations and programs. If more time is required beyond the date the current Administration leaves office in January 2022, this Board will remain to complete this important work soon thereafter.

While these proposed regulations are exempt from the APA, any future changes are not. As such, it is very important that DEQ and the Board get these regulations in a proper form before finally adopting them. DEQ and the Board will not be able to simply or quickly conform the regulations to the statutes adopted as a result of the work groups underway or to fix the problems raised through the public comments. It could take 18 to 24 months to adopt any needed corrections to the proposed regulations once finally adopted. Taking a few more months to consider these matters will avoid lengthy delays in making necessary changes in the future.

While the proposed CBPA Mature Tree Regulations contain fewer proposed changes than the proposed Climate Change Regulations and may require less time to finalize, as recommended in Part I of these comments and as documented in the comments below, they too require more than one RAP meeting to be ready to finalize. The definition of mature tree alone (as recommended in Part III, Section 2 below) is complex enough to require more than one RAP meeting. The need for a traditional RAP process is further justified by the complexity of crafting reasonable exceptions to the mature tree requirements as recommended in Part III, Section 3 below. Reconciling conflicts with existing state tree laws and regulations further justifies delay by the Board in finally adopting the proposed CBPA Mature Tree Regulations. For these reasons, those specified in Part I, Section 1 above and those additionally provided to DEQ and the Board by a broad and diverse cross-section of stakeholders, VACRE recommends the Board delay final adoption and direct staff to employ a traditional RAP process that will produced recommended final CBPA Mature Tree Regulations for consideration by DEQ and the Board.

While these proposed regulations are exempt from the APA, any future changes are not. As such, it is very important that DEQ and the Board get these regulations in a proper form before finally adopting them. DEQ and the Board will not be able to simply or quickly conform the regulations to the statutes adopted as a result of the work groups underway or to fix the problems raised through the public comments. It could take 18 to 24 months to adopt any needed corrections to the proposed regulations once finally adopted. Taking a few more months to consider these matters will avoid lengthy delays in making necessary changes in the future.

**Commenter: HBAV**

1.1. Administrative Process Act Exemption Limited Stakeholder Engagement During Development of Proposed Regulation

The proposed amendment to the Chesapeake Bay Preservation Area Designation and Management Regulations was developed by the Department as the result of legislation (HB 504) signed by the Governor following the 2020 Regular Session. As introduced, HB 504 added *"the preservation of mature trees or planting of trees, both 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 Board for use by local governments under the Chesapeake Bay Preservation Act. During the April 22nd, 2020 Reconvened Session, the General Assembly adopted two amendments proposed by the Governor, one of which exempted the regulatory update process from the requirements of the Virginia Administrative Process Act (the APA).

Since the enactment of HB 504, there have been extremely limited opportunities for stakeholders to engage with the Department prior to the publication of the proposed regulations. Similarly, there was limited communication from the Department regarding the substance of what would be included in future proposed regulations. A webinar hosted by the Department on October 29th was informative but lacked the participation necessary to adequately solicit the perspectives of private- and public-sector stakeholders throughout the Commonwealth. Additionally, several

participants expressed concern during the webinar that a lack of advance communication made it extremely challenging to provide adequate or thorough feedback.
The 2020 General Assembly Session resulted in a significant increase in workload for the Department without a proportional increase in resources to assist them in the various directives, reviews, and commissions that were established through legislation. This fact, coupled with the pandemic's disruptive impact, likely limited the Department's ability to proactively engage stakeholders while developing the proposed regulations. Although HB 504 authorized the Department to forgo the issuance of a Notice of Intended Regulatory Action and/or the convening of a Regulatory Advisory Panel, the HBAV believes that the broad scope of the authorizing legislation and the large number of stakeholders impacted by the regulations warrants a more thorough and extensive stakeholder engagement process than has been conducted thus far.

1.2 Scope and Complexity of the Regulations Warrant a Traditional Regulatory Advisory Panel Process
Originally adopted in 1989, the Chesapeake Bay Preservation Area Designation and Management Regulations have been amended three times after extensive stakeholder and public engagement. Although the General Assembly had the authority to exempt the current regulatory update from the APA, the HBAV believes that the Board should exercise its discretion to alter the current regulatory process, defer further action on the proposed regulations, and direct the Department to utilize a traditional Regulatory Advisory Panel (RAP) process to assist in the development of the regulations.
The Chesapeake Bay Preservation Act is an important component of Virginia's strategy to balance economic development and water quality protection and its regulations have a significant impact on local government land-use decision making, as well as economic development and redevelopment activity in CBPA localities. Although the State Water Control Board (i.e., "Board") extended the public comment period to 90 days at their December 9th meeting, the HBAV concurs with the recommendation of the Hampton Roads Planning District Commission that a more deliberate and inclusive approach should be utilized to avoid unintended consequences and build consensus among a broad array of stakeholders.
At the December 9th meeting, the Board also directed the Department to convene a workgroup, upon the conclusion of the public comment period, for the purpose of reviewing any concerns and questions raised by stakeholders in advance of the Board's June meeting. The HBAV appreciates this additional opportunity to engage with the Department on this matter but does not believe that such a short timeline will be sufficient to adequately and comprehensively address the concerns raised by the various stakeholders.

1.3 Utilization of Traditional Regulatory Advisory Process Would Allow for Coordination Between Related Initiatives
A traditional RAP process would also 1) allow for greater coordination with other related initiatives currently underway as the result of General Assembly action and 2) avoid conflicts with future legislative enactments related to tree planting, preservation, or replacement. For example, during the 2021 General Assembly Session, the Governor signed SB 1393, which directed the Secretary of Natural Resources and Secretary of Agriculture and Forestry to convene a stakeholder work group for the purpose of providing recommendations, no later than October 1, 2021, to state and local governments related to policies that encourage the conservation of mature trees and tree cover on sites being developed, increase tree canopy cover in communities, and encourage the planting of trees. Additionally:
*The Work Group shall also examine the Commonwealth's existing enabling statutes and their use related to the preservation, planting, and replacement of trees during the land development process, including §§ 15.2-961 and 15.2-961.1 and the amendments to such sections provided in the first enactment of this act, and recommend amendments to those statutes or the adoption of new Code sections that would enhance the preservation, planting, and replacement of trees during the land development process and increase incentives for the preservation, planting, and replacement of trees during the land development process.*[3]
The workgroup convened by this legislation will be composed of a broad array of stakeholders, including "representatives of the residential and commercial development industries, representatives of agricultural and forestry industries, professional environmental technical experts, representatives of environmental and conservation organizations, representatives of local governments, solar developers, and other affected parties so that the various stakeholders are represented in the Work Group."[4]
Additionally, during the 2020 Session of the General Assembly, the Governor signed HB 520, which directed the Department to convene a stakeholder advisory group for the purpose of studying the planting or preservation of trees as an urban land cover type and as a stormwater best management practice and provide a "recommendation as to

whether the planting or preservation of trees shall be deemed a creditable land cover type or BMP and, if so, how much credit shall be given for its optional use."[5] To meet the bill's November 1, 2020 deadline, the workgroup was tentatively scheduled to hold its last summer, but was delayed due to the pandemic. To date, the stakeholders have not received additional information about when this workgroup will convene.
The HBAV believes that these stakeholder groups will yield invaluable insights that should be considered in advance of enacting amendments to the Chesapeake Bay Preservation Area Designation and Management Regulations related to mature trees and/or the planting of trees.

**Commenter: Arlington County**
The proposed regulatory amendments call for more engagement than a 90-day public comment period. Specifically, we strongly urge DEQ to take this important opportunity to synergize the multiple legislative efforts focused on trees over the past several General Assembly sessions (SB 1393, HB 520, and HB504). Implementing these important legislative initiatives together through DEQ's inclusive Regulatory Advisory Panel process would facilitate a much more comprehensive approach to tree conservation and planting at the local level and across the Commonwealth. This process should also engage State and local hazard mitigation staff, including local floodplain administrators. There may also be opportunities for DEQ, in further consultation with stakeholders, to phase-in earlier implementation of elements where consensus can be reached more readily.

**Commenter: Balzer & Associates**
Comment: I recommend these regulations be further reviewed and revised by including stakeholders through a RAP or other deliberate process that has been utilized with the implementation of other regulations.

**Commenter: HRPDC**
Comment: In conclusion, by documenting our extensive concerns with the proposed regulatory amendments to the CBPA regulations, we request for DEQ and the State Water Control Board to support our recommendation to slow down this process and work through these changes in the traditional way, using a regulatory advisory panel. The Hampton Roads Planning District Commission appreciates your consideration of these comments and suggestions.

**Commenter: Virginia Argibusiness Council**
The administration is currently forming a workgroup to study and propose a model ordinance for localities to adopt for the preservation of tree canopy. The Council encourages the Department to delay enactment of the criteria and align the criteria with those other tree canopy efforts already underway. This will ensure all localities are operating under the same criteria for the preservation of tree canopy to prevent confusing or conflicting requirements. Such rules under the Chesapeake Bay Preservation Act should be complementary with one another.

**Commenter: Group 2 Individuals**
Comment: The proposed regulations were developed by the Department of Environmental Quality as the result of legislation passed during the 2020 General Assembly Session (HB 504), which was amended at the last minute to be exempt from the Administrative Process Act and also apply to climate change and sea-level rise. Although I do not question the legislature's authority to approve those amendments, it is concerning that neither the APA exemption nor the expansion of the scope of the statute received a hearing during the legislative process. Furthermore, there were extremely limited opportunities for any of the stakeholders to engage with the Department on the proposed regulations prior to their publication. As proposed, the regulations would result in a high degree of uncertainty for both the public and private entities involved in their implementation. Given the number of public and private stakeholders impacted by the regulations and the significant impact they would have on economic development and property rights, I believe that a more deliberate process should be utilized. A traditional regulatory advisory panel (RAP) process would allow for a more comprehensive stakeholder engagement process to achieve a consensus among the many stakeholders. There is clearly a lack of consensus on the proposed regulations today.

**Response: The process utilized for the adoption of these amendments is consistent with Chapter 1207 which included a clause requiring the State Water Control Board to adopt regulations to implement the change, and a clause that initial adoption of applicable regulations shall be exempt from the requirements of Article 2 (§ 2.2-4006 et seq.) of Chapter 40 of Title 2.2 of the Code of Virginia, but shall be subject to a public comment period of at least 60 days prior to final adoption by the Board. Additionally, prior to the proposed amendment, the**

**Department held discussions and information sessions to seek feedback. Also, consistent with the Board's authorizing public comment, the public comment was extended to 90 days and discussions with a SAG occurred on the comments and proposal. In response to comments and discussions, the Department has revised the amendments to address stakeholders concerns and comments. The Department will continue to work with stakeholders on additional information including updates to the Buffer Manual.**

General/Additional Comments

**Commenter: Prince William County**
Comment: The regulations on the Chesapeake Bay Preservation Act are going beyond regulating activities just within Resource Protection Areas to all areas, which is a serious concern.
**Response: The amendments address criteria that apply in CBPAs including the RMA and RPA. The amendment is consistent with existing requirements for these areas.**

**Commenter: Arlington County**
Comment: Consider with all planting requirements, to change to "the planting of large canopy and understory trees" to create more vertical canopy, which can more greatly benefit stormwater interception and overall ecological health. Also suggest changing to "planting, maintenance, and establishment of trees" to ensure longer-term success. Consider using ANSI nursery standard names, such as "Shade tree" for large canopy, and "small upright or spreading tree" for understory tree.

**Response: The definition recognizes a distinction between canopy and understory trees. The language "to maximize the buffer function" is consistent with the Buffer Manual which identifies the need for a multi-tier buffer including establishing trophic levels to best protect water quality. Additional changes are within the existing framework to preserve or establish vegetation which would include the planting and maintenance of vegetation. Additional recognition of tree types, including canopy and understory, are identified in the Buffer Manual and will be considered in its revision.**

**Commenter: MPPDC**
Comment: In addition, it is important that the amendments make considerations for planting and maintaining trees in low elevation areas of the RPA where frequent saltwater inundation and intrusion will result in the death of those trees before maturity can be reached. Saltwater and trees do not mix as evidenced by the increasing "ghost forests" along the shorelines of Tidewater localities. Developing regulations that factor in the dynamic nature of areas in the RPA where saltwater inundation frequently occurs should be a task assigned to a stakeholder advisory panel.
**Response: The CBPA Regulations as presented in final form recognize the consideration of site specific conditions in the planting of trees.**

**Commenter: Ashley LeComte-McWilliams**
Comment: With this proposed regulation, I hope that VA counties and localities will have a stronger arsenal of tools to address this concern. Existing mature trees are the most powerful management tool for dealing with erosion, water control, and temperature balancing. Replacing an existing large/mature tree with several young ornamental trees does not have the same net effect. Thank you again for increasing protections for the Chesapeake Bay watershed area and its residents.
**Response: Thank you for this comment.**

**Commenter: Chesterfield County**
Comment: Chesterfield County Environmental Engineering supports the intent of the proposed amendment.
**Response: Thank you for this comment**

**Commenter: City of Hampton**

Comment: Lastly, there seems to be an extra “a” within section 5.a.(1), the last sentence that reads “...the trees should be a trees as well to maximum extent practicable.” The underlined “a” should be removed from the sentence or the sentence altered to make sense.
**Response: The sentence has been revised separately in accordance with the revisions.**

**Commenter: Fairfax County**
Comment: 9VAC25-830-140.5.a(1). The structure of the last sentence below reads awkwardly. A suggested revision would be: When trees are removed, they should be replaced by trees to the maximum extent practicable.
**Response: The sentence has been revised separately in accordance with the revisions.**

**Commenter: Bill Barnett**
Comment: I have been a member of the environmental community my entire adult life. I also wish to have clear government regulations that are also sensible. Please tell me if I am wrong in my understanding of this proposal. The State is proposing to authorize localities to regulate tree canopy especially along waterways if the site is to be developed or timber harvested. But no guidelines are give to the localities. So each locality will be able to craft their own ordinance, meaning we will have no predictable uniformity across the state. And those closest to the job are not allowed the normal public comment period we typically give when other regulations are crafted and adopted. When my wife and I disagree, it is usually an issue that we both know little about. It seems a total lack of information describes the environment to be regulated. I hope I am wrong on each of these points.
**Response: The CBPA provides the framework for criteria requirements to be applied and implemented through local programs. The Department provides specifics within the Regulation and additional resources through Guidance and technical assistance. Additionally, the Department conducts periodic reviews of locality programs to identify issues or inconsistencies and require additional action as necessary. This framework has been consistent since the inception of the CBPA.**

**Commenter: VACRE**
Guidance Should Not Be Used to Resolve Key Issues and Should Not be Developed Before Final Adoption of Regulations
DEQ staff have indicated many of the questions and concerns raised with the proposed regulations can be addressed by guidance.
It makes little sense to draft guidance until final regulations are adopted. To do so puts the cart before the horse and furthers the impression that adoption of these regulations as proposed are a "fait accompli" without meaningful input from the diverse group of impacted stakeholders. Leaving the projection of climate change and sea-level rise and the definition of key terms to "guidance" is not fair to local governments or property owners and not appropriate. Guidance cannot have the force of law and many of the terms needing definition and issues raised are central to the legal requirements being established. These matters should be properly addressed in the proposed regulations. Needing to rush adoption of the proposed regulations is not an appropriate justification for using guidance.
**Response: Existing guidance is already provided regarding vegetation and tree planting and updates will only begin once an amendment is in place.**

**Commenter: Anonymous TownHall**
With respect to “Buffer area requirements for Intensely Developed Areas”: Intensely developed areas are and have been a special category of land since adoption of the Chesapeake Bay Preservation Act. These sites are commonly the location of major waterfront industries, long-established residential and mixed-use communities and places of historical cultural idenity. Encouraging the permissive (versus mandatory) planning of trees is preferable and should similarly be the standard for all other areas cited above.
**Response: The provisions regarding when buffer and vegetation must be established including with IDAs has not been altered.**

[9VAC25-830-40 Definitions

"Canopy Tree" means a tree that typically reaches 35 feet in height or taller when mature.

Mature Tree" means a canopy tree with a Diameter at Breast Height (DBH) of 12 inches or greater or an understory tree with a DBH of 4 inches or greater.

"Understory Tree" means a tree that typically reaches 12 feet to 35 feet in height when mature. ]

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 be protected during development and only removed where ~~determined to be~~ necessary, including to provide for the proposed use or development. ~~and protected during development to the maximum extent practicable~~]
[A locality which has an ordinance providing for the conservation, planting and replacement of trees during the land development process pursuant to Virginia Code § 15.2-961 or 15.2-961.1 may rely on such ordinance for demonstrating compliance with this requirement related to mature trees in Resource Management Areas.]
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 <u>Development criteria for Resource Protection Areas</u>**

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 imperious 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~~ shall be ~~utilized to the maximum extent practicable~~ and incorporated as appropriate to site conditions and in such a manner to maximize the buffer function and to protect the quality of state waters. Inclusion of native species in tree planting is preferred.]

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.~~ Where such buffer must be reestablished, the planting of trees shall be incorporated as appropriate to site conditions and in such a manner to maximize the buffer function. Inclusion of native species in tree planting is preferred.]

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~~ shall include the planting of trees as appropriate to ~~the maximum extent practicable~~ site conditions. Inclusion of native species in tree planting is preferred.]

(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~~ shall be preserved and ~~not removed~~ trimmed or pruned in lieu of removal, as site conditions permit and any removal should be limited to the ~~maximum extent practicable under this provision~~ fewest number of trees feasible. When mature trees are removed~~, the other vegetation to replace the trees should be~~ to provide for sight lines and vistas, they shall be replaced with trees as ~~well~~ appropriate to ~~the maximum extent practicable~~ site conditions and in such a manner as to maximize the buffer function and to protect the quality of state waters. Inclusion of native species in tree replanting is preferred.]
(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~~ shall be ~~preserved to the maximum extent practicable~~ removed only as necessary for the installation and maintenance of the projects consistent with the best available technical advice, project plans, and applicable permit conditions or requirements. ~~and trees should~~ Trees shall be utilized in the ~~projects to the maximum extent practicable~~ project when vegetation is being established as appropriate to the site conditions and the project specifications. Inclusion of native species in tree planting is preferred.]
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[s] should shall consider the planting of trees as a component of any such measure~~s~~ measure. Inclusion of native species in tree planting is preferred.]
[9VAC25-830-190. Land development ordinances, regulations, and procedures.

C. Local governments shall update and amend their ordinances and regulations to adopt and incorporate updated performance criteria requirements in Part IV (9VAC25-830-120 et seq.) of this chapter based upon statutory revisions to Virginia Code § 62.1-44.15:72. by (insert date three years after effective date of amendment). ]

**Tab K - Report on Facilities in Significant Noncompliance and Chesapeake Bay Preservation Act Program Notices of Violation**: There were no new facilities reported to EPA on the Quarterly Noncompliance Report as being in significant noncompliance for the quarter ending December 31, 2020. DEQ did not issue any Notices of Violation to Chesapeake Bay Preservation Act Programs from March 15, 2021 to May 21, 2021.

**Tab L - Empire Services, Inc. (Carrollton Metals, Carrollton, Isle of Wight County; Empire Recycling, Norfolk; James City County Recycling, Toano, James City County; P-Town Recycling, Portsmouth; Select Waste Recycling Services, Chesapeake; Suffolk Recycling, Suffolk) - Consent Order with Civil Charge and Corrective Action Plans**: Empire Services, Inc. ("Empire Services") owns and operates the recycling facilities in six localities: Carrollton (Isle of Wight County), Chesapeake, Toano (James City County), Norfolk, Portsmouth, and Suffolk. All of the facilities receive metals, vehicle batteries, and other scrap and recyclable waste material.

Carrollton Metals: DEQ inspected Carrollton Metals on October 25, 2018 and September 30, 2020. During the inspections, DEQ staff observed compliance deficiencies with the 2014 and 2019 Permits including failure to submit a new registration statement at least 60 days before expiration of the 2014 permit, failure to have permit coverage for three months, stormwater pollution prevention plan deficiencies, monitoring and inspection deficiencies, and housekeeping deficiencies. DEQ issued to Empire Services for Carrollton Metals Notices of Violations No. W2019-11-T-0002 on November 12, 2019 and No. W2020-11-T-0004 on November 16, 2920 for the violations observed during the inspections.

Empire Recycling: DEQ inspected Empire Recycling May 7, 2019 and conducted a DEQ file review on November 16, 2020. During the inspections, DEQ staff observed compliance deficiencies with the 2014 and 2019 Permits including failure to submit a new registration statement at least 60 days before expiration of the 2014 permit, failure to have permit coverage for three months, stormwater pollution prevention plan deficiencies, monitoring and inspection deficiencies, housekeeping deficiencies, and failure to submit a Chesapeake Bay TMDL annual report by the deadline. DEQ issued to Empire Services for Empire Recycling Notices of Violations No. W2019-11-T-0005 on November 12, 2019, and No. W2020-11-T-0005 on November 16, 2020 for the violations observed during the inspections.

James City County Recycling: DEQ inspected James City County Recycling on October 16, 2019. During the inspections, DEQ staff observed compliance deficiencies with the 2014 and 2019 Permits including failure to submit a new registration statement at least 60 days before expiration of the 2014 permit, failure to have permit coverage for three months, stormwater pollution prevention plan deficiencies, monitoring and inspection deficiencies, stormwater pollution control deficiencies, and failure to perform calculations using Chesapeake Bay TMDL monitoring results to determine if an action plan was needed. DEQ issued to Empire Services for James City County Recycling Notice of Violation No. W2019-11-T-0001 on November 12, 2019 for the violations observed during the inspection.

P-Town Recycling: DEQ inspected P-Town Recycling on January 25, 2019 and August 19, 2020. During the inspections, DEQ staff observed compliance deficiencies with the 2014 and 2019 Permits including failure to submit a new registration statement at least 60 days before expiration of the 2014 permit, failure to have permit coverage for three months, stormwater pollution prevention plan deficiencies, monitoring and inspection deficiencies, housekeeping deficiencies, and failure to submit a Chesapeake Bay TMDL action plan. DEQ issued to Empire Services for P-Town Recycling Notices of Violations No. W2019-11-T-0004 on November 12, 2019, and No. W2020-11-T-0002 on November 26, 2020 for the violations observed during the inspection.

Select Waste Recycling Services: DEQ inspected Select Waste Recycling Services on October 22, 2019 and a file review on April 3, 2020. During the inspections. DEQ staff observed compliance deficiencies with the 2014 and 2019 Permits including failure to submit a new registration statement at least 60 days before expiration of the 2014 permit, failure to have permit coverage for three months, stormwater pollution prevention plan deficiencies, monitoring and inspection deficiencies, housekeeping deficiencies, and failure to submit a Chesapeake Bay TMDL annual report. DEQ issued to Empire Services for Select Waste Recycling Services Notices of Violations No. W2019-11-T-0006 on November 12, 2019, and No. W2020-11-T-0002 on November 26, 2020 for the violations observed during the inspection.

Suffolk Recycling: DEQ inspected Suffolk Recycling on June 17, 2019 and August 19, 2020. During the inspections, DEQ staff observed compliance deficiencies with the 2014 and 2019 Permits including failure to submit a new registration statement at least 60 days before expiration of the 2014 permit, failure to have permit coverage for three months, stormwater pollution prevention plan deficiencies, monitoring and inspection deficiencies, housekeeping and spill prevention deficiencies, and failure to submit a Chesapeake Bay TMDL annual report by the deadline. DEQ issued to Empire Services for Suffolk Recycling Notices of Violations No. W2019-11-T-0003 on November 12, 2019, and No. W2020-04-T-0004 on April 4, 2020 for the violations observed during the inspection.

The proposed consent order contains corrective action plans for each facility and requires the facilities to complete the corrective actions and submit documentation to DEQ within 60 days of the effective date of the consent order. Civil Charges: $90,000; payable in installments. Public comment: The Department will update the Board should any comments be received during the comment period.

**TAB L - Leisure Capital Corporation for the Shenandoah Crossing Sewage Treatment Plant, Louisa Co. - Consent Order w/ Civil Charges**: Leisure Capital Corporation (Leisure Capital) owns and operates the Shenandoah Crossing Sewage Treatment Plant (Facility or Plant). VPDES Permit No. VA0076678 was re-issued under the State Water Control Law and the Regulation to Leisure Capital on July 1, 2019, and expires on June 30, 2024 (Permit). The Permit allows Leisure Capital to discharge treated sewage and other municipal wastes from the Plant, to Lickinghole Creek in strict compliance with the terms and conditions of the Permit.

On March 3, 2020, DEQ issued Warning Letter (WL) W2020-02-N-1010 to Leisure Capital for failing to submit a total recoverable copper compliance plan to DEQ within the permitted time frame (by December 28, 2019), as well as for failing to submit an annual report detailing progress on the plan by February 10, 2020.

On February 19, 2020, DEQ staff conducted an inspection of the Facility and observed many issues with the operation and maintenance at the Facility. During the inspection, DEQ staff also observed that the alarm systems on the sand filters were not operational and that there was only a visual alarm system for the equalization basin. In addition, pump and haul septic removal company invoice records were not available for 2018, 2019, and 2020, and the annual cross connection control device verification for 2019 was not available. DEQ staff also observed that partially treated wastewater was bypassing the sand filter and chlorine disinfection on the "old side" of the treatment train while DEQ staff was onsite. According to operations staff, the bypass had been occurring since June 2019. DEQ staff did not receive notification of the bypass. While onsite, DEQ staff also observed that the composite sample was not flow proportional. Staff also reviewed the Operation and Maintenance Manual (O&M) while onsite and noted that the O&M was not up to date.

Operations staff did not collect an *E.coli* sample during the last full week of the February 2020 monitoring period. In addition, in submitting its DMRs as required by the Permit Leisure Capital reported violations of permit requirements for *E. coli* and total contact chlorine during the February 2020 monitoring period and total recoverable copper and total contact chlorine during the March 2020 monitoring periods. As a result of the DEQ inspection, and data reported on the DMRs,

DEQ issued Notices of Violation to Leisure Capital on April 1, 2020 (revised April 14, 2020), May 19, 2020, June 15, 2020, and July 17, 2020.

On May 16, 2020, DEQ received a response to the Notice of Violation from Leisure Capital. Updates regarding corrective action were later received on August 4, 2020, and September 9, 2020. The issues related to the improper operation and maintenance were corrected and a new alarm system meeting the SCAT Regulation requirements was purchased and installed at the Facility on August 31, 2020. Logbooks were instituted and are being maintained at the Plant, issues with the flow proportionality of the composite sample were corrected effective May 1, 2020, and the O&M was updated effective August 10, 2020. A copper plan and schedule was submitted to DEQ on September 30, 2020 and deemed acceptable by DEQ.

The Consent Order requires Leisure Capital Corporation to implement the total recoverable copper plan and schedule submitted to DEQ on September 30, 2020, and submit annual progress reports as required by Permit Condition Part

I.C.1.b., and submit an updated O&M Manual to DEQ for review and comment. Additional updates to the O&M Manual were submitted to DEQ On March 2, 2021. Civil Charges: $41,468. Public Comment: The 30 day public comment period will end on May 27, 2021. The Department will update the Board should any comments be received during the comment period.

**Tab M - McGrath Rent Corp., Stafford Co, - Consent Special Order w/ Civil Charges**: McGrath Rent Corp. ("McGrath") owns and operates the McGrath RentCorp Storage Facility ("Facility"), a 69-acre development for outdoor storage and modular buildings/storage containers. McGrath applied for and was granted VWP Permit coverage under WP4-19-1034 on August 7, 2019, which allowed specified impacts to 0.23 acre of palustrine forested wetland, 0.03 acre of palustrine emergent wetland, and 48 linear feet of stream channel.

On April 29, 2020, DEQ received a report from McGrath that an erosion and sediment control failure at the Facility following storm events led to the unauthorized discharge of sediment to 0.09 acres of wetland and 237 linear feet of stream channel.

On May 12 and May 19, 2020, DEQ inspected the Facility, and observed evidence of the unauthorized impacts, failure to submit pre-construction notification, and the failure to maintain and present monthly self-inspections on site for the December 2019 through March 2020 period. Erosion and Sediment Control, and Stormwater, deficiencies were identified and forwarded to Stafford County, the VESCP and VSMP authority, for enforcement.

On May 26, 2020, an NOV (#2005-001453) was issued.

Correspondence in May, June, and July 2020 with McGrath indicated that corrective actions for E&S controls and the unauthorized impacts were conducted, and the self-inspection reports from December 2019 through March 2020 were provided.

On August 27, 2020, DEQ received notice of unauthorized discharge, caused by the failure of E&S controls which resulted in the discharge of sediments to surface waters downstream of the Facility totaling 1,200 linear feet of stream channels and 0.17 acres of impact to wetlands. On September 17, 2020, an NOV (#2009-001547) was issued.

As addressed in these two NOVs, a total of 0.26 acre of wetland and 1,437 linear feet of stream channel were impacted beyond those authorized by the permit.

Through the enforcement process, McGrath advised on and commenced a corrective action plan to restore state waters at the Facility that were impacted beyond what the Permit allowed for. There is no injunctive relief associated with the order. Civil Charges: $44,415. Public Comment: The 30 day public comment period ended on May 13, 2021. No comments were received.

**TAB M** - Virginia Electric and Power Company, Louisa County - Consent Special Order w/ Civil Charges: The Belcher Solar PV Area project ("Project" or "Property" or "Site") consists of the construction of a solar facility and associated infrastructure on an approximately 886-acre parcel, located southwest of the intersection of Waldrop Church Road and Desper Road, in Louisa County, Virginia (38°01'07.4"N, 78°02'15.4"W). The Project is being undertaken by the Virginia Electric and Power Company ("VEPCO"), a subsidiary of the holding company Dominion Energy, Inc., and is permitted under the General VPDES Permit for Discharges of Stormwater from Construction Activities, under registration number VAR10N574 ("Permit"). DEQ is the stormwater authority for the Site. The Project is not permitted under the DEQ VWP program.

In compliance with the state water control law and regulations, VEPCO notified DEQ regarding unauthorized discharges to surface waters that had occurred at the Site and are described as follows: sediment release and subsequent deposition in surface waters in 10 reportable areas, totaling 1,841 linear feet of stream channel, and 0.23 acre of wetland; estimated impact area quantification was provided for six of these sites.

Additional storm events in early August 2020 led to further E&S control failures resulting in sediment discharge and subsequent deposition in downstream surface waters at eight locations on the project site. A Notice of Violation

(NOV) (No. 2008-001521) was issued on August 17, 2020.

On September 14, 2020, a meeting was held between VEPCO representatives (from VEPCO/Dominion and their contractor Wood PLC) and DEQ staff, to discuss the violations at the site, and corrective actions taken. All off-site remediation for streams and wetlands had been completed prior to the meeting, and updates to BMPs and the E&S control plan (through Louisa County) were in the process of creation/review, to prevent future discharges.

On October 9, 2020, VEPCO submitted a formal response to the NOV and meeting, which indicated that: ESC plan revisions had been completed and submitted to the local VESCP authority for review and approval (approved January 20, 2021); immediate ESC improvements/maintenance had been made in critical areas; sediments had been removed from discharge areas, and stabilization measures enacted; and a monitoring plan through the 2021 growing season was put in place for the impacted wetland areas.

There is no injunctive relief associated with the order. Civil Charges: $50,700. Public Comment: The 30 day public comment period ended on May 13, 2021, and DEQ did not receive any comments.