

## 740.00 CHESAPEAKE BAY PRESERVATION AREA – POLICY:

### 740.01 General Policy:

A. The performance standards of this section implement the requirements of Part 504 of Chapter 32 of the Prince William County Code. These performance standards establish the means to minimize erosion and sedimentation potential, reduce land application of nutrients and toxicants, and maximize rainwater infiltration. Natural ground cover, especially indigenous woody vegetation, is most effective in holding soil in place and preventing site erosion. Indigenous woody vegetation, with its adaptability to local conditions without the use of harmful fertilizers or pesticides, filters storm water runoff. Minimizing impervious cover enhances rainwater infiltration and effectively reduces storm water runoff potential.

B. In addition to the objectives in part A of this subsection, the purpose and intent of the requirements of this section are also to implement the following objectives:

1. Prevent a net increase in nonpoint source pollution from new development.
2. Achieve a ten percent (10%) reduction in nonpoint source pollution from redevelopment.

C. Any development or redevelopment exceeding two thousand five hundred (2,500) square feet of land disturbance shall be permitted only upon compliance with the requirements of this section, in addition to any other requirements imposed by this manual prior to any clearing or grading of the site or the issuance of any building permit.

**740.02 Definitions:** The following words and terms used in this part have the following meanings, unless the context clearly indicates otherwise:

A. **Adaptation measure** – 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.

B. **Agricultural land uses** – Activities such as the tilling of the soil, planting and harvesting of crops or plant growth of any kind in the open, pasture, horticulture, dairying, floriculture, or raising of poultry or livestock. This does not include noncommercial ancillary agricultural activities on lands within existing platted residential subdivisions.

C. **Applicant** - A person seeking any determination under this part or permit required by this ordinance.

D. **Best Management Practices (BMPs)** - Practices, or combination of practices, that are determined by the County to be the most effective, practical means of preventing or reducing pollution inputs from nonpoint sources to water bodies.

E. **Canopy tree** – A tree that typically reaches 35 feet in height or taller when mature.

F. **Chesapeake Bay Preservation Area** - Any land so designated by the Board of County Supervisors pursuant to Part III of the Chesapeake Bay Preservation Area Designation and Management Regulations, 9 VAC 10-20-070, et seq. , and Section 62.1-44.15:74 of the Code of Virginia. Chesapeake Bay Preservation Areas shall consist of Resource Protection Areas (RPAs) and Resource Management Areas (RMAs).

G. Chesapeake Bay Preservation Area Review Board – Board of County Supervisors appointed body which reviews exception requests for encroachment into RPA and takes action following a public hearing.

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H. Development - The subdivision of land or construction, or substantial alteration of residential, commercial, industrial, institutional, recreation, transportation, or utility facilities or structures.

I. Dripline - A vertical projection to the ground surface from the lateral extent of a tree's leaf canopy.

J. Floodplain - All lands that would be inundated by flood water as a result of a storm event of a one hundred (100) year return interval. The limits of the floodplain shall be established in accordance with Section 731.00 of this manual.

K. Highly Erodible Soils - Soils (excluding vegetation) with an erodibility index (EI) from sheet and rill erosion equal to or greater than eight (8). The erodibility index for any soil is defined as the product of the formula  $RKLS/T$  where K is the soil susceptibility to water erosion in the surface layer; R is the rainfall and runoff; LS is the combined effects of slope length and steepness; and T is the soil loss tolerance.

L. Highly Permeable Soils - Soils with a given potential to transmit water through the soil profile. Highly permeable soils are identified as any soil having a permeability equal to or greater than six (6) inches of water movement per hour in any part of the soil profile to a depth of seventy-two (72) inches ("permeability groups rapid and very rapid") as found in the National Soil Survey Handbook of November 1996, in the Field Office Technical Guide of the U.S. Department of Agriculture Soil Conservation Service.

M. Impervious Cover - A surface composed of any material that significantly impedes or prevents natural infiltration of water into the soil. Impervious surfaces include, but are not limited to roofs, buildings, streets, parking areas, and any concrete, asphalt, or compacted gravel.

N. Infill IDA- Utilization of vacant land in previously developed areas.

O. Intensely Developed Area (IDA) – means those areas designated by the Board of County Supervisors to meet the criteria for designation as an Intensely Developed Area, as provided in Section 32-504.07 of the County Code and pursuant to 9 VAC 10-20-60 of the Chesapeake Bay Preservation Area Designation and Management Regulations.

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

Q. Mature tree – A canopy tree with a diameter at breast height (DBH) of 12 inches or greater or an understory tree with a DBH of four (4) inches or greater.

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

S. Nonpoint Source Pollution - Pollution consisting of constituents such as sediment, nutrients, and organic and toxic substances from diffuse sources, such as runoff from agricultural and urban land development and use.

T. Nontidal Wetlands - Those wetlands other than tidal wetlands that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support and that, under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions, as defined by the U.S. Environmental Protection Agency, pursuant to Section 404 of the Federal Clean Water Act, in 33 C.F.R. 328.3b.

U. Noxious Weeds - Weeds that are difficult to control effectively, such as Johnson Grass, Kudzu, thistle and multiflora rose.

V. Perennial water body –All water bodies identified as perennial when using a scientifically valid system of in-field indicators. Water bodies shall include all areas of natural inflow, including but not limited to: streams, impoundments, lakes and all areas of concentrated flow.

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W. Plan of Development - The process for site plan or subdivision plat review to ensure compliance with Part 504 of Chapter 32 of the Prince William County Code, prior to any clearing or grading of a site or the issuance of a building permit.

X. Private road – a privately owned and maintained road designed and constructed in accordance with DCSM standards.

Y. Public road – a publicly maintained road designed and constructed in accordance with DCSM or the Virginia Department of Transportation standards.

Z. Redevelopment - The process of developing land that is or has been previously developed lawfully under then existing regulations.



AA. Resilience – The capability to anticipate, prepare for, respond to, and recover from significant multi-hazard threats with minimum damage to social well-being, health, the economy, and the environment.

BB. Resource Management Area (RMA) - That component of the Chesapeake Bay Preservation Area that is not classified as Resource Protection Area and includes land types that, if improperly used or developed, have a potential for causing significant water quality degradation or for diminishing the functional value of the Resource Protection Areas. The following land categories have been considered by the Board of County Supervisors in establishing the resource management areas: floodplains; highly erodible soils including steep slopes; highly permeable soils nontidal wetlands not included in the resource protection area. Any area of the County not designated as Resource Protection Area is designated as RMA.

CC. Resource Protection Area (RPA) - That component of the Chesapeake Bay Preservation Area comprised of lands adjacent to water bodies with perennial flow that have an intrinsic water quality value due to the ecological and biological processes they perform, or are sensitive to impacts which may result in significant degradation to the quality of state waters.

DD. Silvicultural Activities – Forest management activities, including but not limited to the harvesting of timber, the construction of roads and trails for forest management purposes, and the preparation of property for reforestation that are conducted in accordance with the silvicultural best management practices developed and enforced by the State Forester pursuant to Section 10.1-1105 of the Code of Virginia and are located on property defined as real estate devoted to forest use under Section 58.1-3230 of the Code of Virginia for the purposes of this act only.

EE. Tidal Shore or Shore - Land contiguous to a tidal body of water between the mean low water level and the mean high water level.

FF. Tidal Wetlands - Vegetated and non-vegetated wetlands as defined in Section 28.2-1300 of the Code of Virginia.

GG. Water-Dependent Facility - A development of land that cannot exist outside of a resource protection area and must be located on the shoreline by reason of the intrinsic nature of its operation. As provided in Part 504 of Chapter 32 of the Prince William County Code, these facilities include, but are not limited to, (i) ports; (ii) the intake and outfall structures of power plants, of water treatment plants, of sewage treatment plants, and of storm sewers; (iii) marinas and other boat docking structures; (iv) beaches and other public water-oriented recreation areas; and (v) fisheries or other marine resources facilities; and (vi) stream bank stabilization measures.

HH. Wetlands –Tidal and nontidal wetlands.

### **740.03 Resource Protection Area (RPA) Boundaries:**

A. Resource Protection Areas (RPAs) consist of lands adjacent to water bodies with perennial flow that have an intrinsic water quality value due to the biological and ecological processes they perform and are sensitive to impacts which may cause significant degradation to the quality of state waters. In their natural condition, these lands provide for the removal, reduction or assimilation of sediments, nutrients, and potentially harmful or toxic substances in runoff entering the Bay and its tributaries and minimize the adverse effects of human activities on state waters and aquatic resources.

B. The Resource Protection Area shall consist of lands that would include:

1. Tidal wetlands.
2. Nontidal wetlands connected by surface flow and contiguous to tidal wetlands or water bodies with perennial flow.
3. Tidal shores.
4. Perennial water bodies.
5. An area of 100 feet in width shall be located adjacent to and landward of the components listed in subsections 1 thru 4 listed above and along both sides of a water body with perennial flow. Such area shall be designated as the landward component of RPA, notwithstanding the presence of permitted uses, encroachments, permitted vegetation clearing in compliance with Part IV (9 VAC 10-20- 130 et seq.) of the Chesapeake Bay Preservation Area Designation and Management Regulations.
6. Other lands with sensitive environmental features that have the potential of significantly affecting water quality, as determined by the director of Public Works.

C. The designation of the components listed under section B. 1-4 above shall be determined based on reliable, site-specific information as detailed in section 742 of this manual.

**740.04 Exemptions in Resource Protection Areas:** Land disturbances in RPA may be commenced for the following uses or purposes without the submissions and approvals otherwise required under section 740.

A. Water wells, passive recreation facilities such as boardwalks, trails, and pathways and historic preservation and archaeological activities. The trails and pathways shall be so located as to minimize the disturbance to RPA.

B. Construction, installation, operation and maintenance of electric, natural gas, fiber optic and telephone transmission lines, underground telecommunications and cable television lines, railroads, public roads and their appurtenant structures so long as they comply with Erosion & Sediment Control regulations and the Stormwater Management (SWM) Act of the Code of Virginia. The exemption of public roads is further conditioned on the road alignment and design being such as to minimize encroachment into the RPA and adverse effects on water quality is minimized. A WQIA will be required for public roads, as determined by the director of Public Works.

C. Construction, installation and maintenance of water and sewer lines owned, permitted or both by Prince William County or a regional service authority provided that:

1. To the degree possible, the location of such utilities should be outside RPA.
2. No more land shall be disturbed than is necessary to provide the necessary utility installation.
3. The construction, installation and maintenance of such utilities and facilities shall comply with all applicable state and federal permits and shall be designed and constructed in a manner that protects water quality.

D. Exemptions for living shorelines. A living shoreline is exempt from additional performance criteria including a water quality impact assessment provided the project minimizes land disturbance, maintains or establishes a vegetative buffer inland of the living shoreline and receives approval from the VMRC or the local wetlands board, as applicable.

E. Any disturbance exceeding 2,500 square feet shall comply with Erosion & Sediment Control requirements.

**740.05 Permitted Uses in Resource Protection Areas:** The following uses will be allowed in the RPA with the submission of a Water Quality Impact Assessment (WQIA):

A. A new or an 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 Section 741.01.
3. Any non-water dependent component such as, but not limited to parking, shall be located outside of RPAs.
4. Access to water dependent facility will be provided with the minimum necessary disturbance to the RPA. Where practicable, a single point of access will be provided.

B. Development or redevelopment within the designated Intensely Developed Area (IDA)

C. Regional SWM facility as defined in section 741.05.

D. Private roads or driveway crossings may be constructed in or across RPAs if the following conditions are met:

1. There are no reasonable alternatives to aligning the road or driveway in or across RPA.
2. The alignment and design of the road or driveway are optimized, consistent with applicable requirements, to minimize the encroachment in RPA and adverse effects on water quality.
3. The design and construction of the road or driveway satisfy all criteria of the Chesapeake Bay Preservation Area regulations including submission of a WQIA, as required by the director of Public Works.

4. A plan for the private road or driveway crossing is reviewed and approved by the County.

#### E. Adaptation Measures

Where allowed within RPA or IDA and if the proposed land development is mapped within AdaptVA areas, adaptation measures are required in addition to all other requirements as follows:

1. Be a nature-based solution that uses environmental processes, natural systems, or natural features identified as being appropriate for existing site conditions and is:
  -  a. A BMP approved by the Chesapeake Bay Program Partnership;
  - b. An approved BMP listed in Virginia Stormwater BMP Clearinghouse;
  - c. Approved shoreline protection strategy in accordance with the VMRC Tidal Wetlands Guidelines as determined by the Virginia Marine Resources Commission, or be a project that is eligible for funding by the Virginia Community Flood Preparedness Fund Grant by the Virginia Department of Conservation and Recreation.
  - d. Adaptation measures should include trees, vegetation, stone, or enhance existing natural elements.
2. Be designed, installed, and maintained in accordance with the applicable specifications for the selected adaptation measure.
3. The use of fill as a component of an adaptation measure may be permitted, provided it meets the following conditions:
  - a. The grading and slope created by the use of fill shall be no greater than necessary based on the project specifications and implemented in a manner that minimizes the impact of runoff.
  - b. Fill shall have the necessary biogeochemical characteristics, including sufficient organic content, to support the growth of vegetation and adequate permeability to allow infiltration consistent with project specifications. The applicant shall:
  - c. The use of fill shall not increase stormwater run-off, and any lateral flow onto adjacent properties shall be controlled.
  - d. Any impact on the management of stormwater upland in the Resource Protection Area created by the use of fill shall be mitigated as necessary.
  - e. Fill shall not negatively impact septic systems and drainfields located within the RPA. Where present, the proximity of the adaptation measure using fill should be considered such that the fill will not interfere with the proper function or maintenance of either of these features.
  - f. The use of fill shall be consistent with any applicable local, state, or federal floodplain requirements.
  - g. Maximize the preservation of existing natural vegetation, including mature trees, and minimize land disturbance consistent with adaptation measure specifications.
  - h. Adaptation measures shall comply with all federal, state and local requirements, including any required permits and conditions such as the need for a Water Quality Impact Assessment.
  - i. Nothing in these provisions shall be construed to authorize approval or allowance of an adaptation measure in contravention of floodplain management requirements, including [the local floodplain ordinance].

4. Adaptation measures should be placed channelward of the proposed development whenever possible and should maximize the preservation of mature trees and other natural vegetation to minimize adverse impacts on the RPA and maximize water quality benefits.
5. Living shoreline projects are exempt from Water Quality Impact and Resilience Assessment requirements.

**740.06 Exceptions for Encroachments into the RPA:** Any proposed encroachment into the RPA area which is not exempt under section 740.04 or permitted under section 740.05 of this manual shall submit a request for an exception in writing to the director of Public Works. This request shall identify

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the impacts of the proposed exception on water quality and on lands within the RPA through the performance of a Water Quality Impact Assessment (WQIA) which complies with the provisions of section 742.05.

An exception may be granted with such conditions and safeguards as deemed necessary to further the purpose and intent of Part 504 of Chapter 32 of the Prince William County Code and this section, provided that it is found that:

1. Granting the exception will not confer upon the applicant any special privileges that are denied to other property owners in the CBPA overlay district.
2. The exception request is not based on conditions or circumstance that are self-created or self-imposed, nor does the request arise from conditions or circumstances either permitted or nonconforming that are related to adjacent parcels.
3. The exception requested is the minimum necessary to afford relief.
4. The exception request will be consistent with the purpose and intent of the overlay district, and not injurious to the neighborhood or otherwise detrimental to the public welfare or water quality.
5. Reasonable and appropriate conditions are imposed which will prevent the exception request from causing a degradation of water quality.

A. Administrative exception: The director of Public Works shall review the request for an exception and associated WQIA and may grant an administrative exception with such conditions and safeguards as deemed necessary to further the purpose of this section of the manual. An administrative exception will be considered in the following situations:

1. Lots lawfully recorded prior to November 27, 1990 when the application of the RPA would result in the loss of buildable area, provided that:
  - a. Encroachments into the RPA shall be the minimum necessary to achieve a reasonable buildable area for a principal structure and necessary utilities; accessory structures shall not be allowed if their construction will further reduce the RPA width.
  - b. Where practicable, a vegetated area that will maximize water quality protection, mitigate the effects of buffer encroachment, and is equal to the area of encroachment into the buffer area, shall be established elsewhere on the lot or parcel. Where established, such vegetated area shall include the planting of trees as appropriate to site conditions. Inclusion of native species in tree planting is preferred.
  - c. The encroachment into the RPA area shall not be greater than fifty (50) feet in width unless the encroachment is authorized by the Chesapeake Bay Preservation Area Review Board.
  - d. Where the necessary encroachment in the RPA is greater than 50 feet, such exception may be granted only following a public hearing conducted by the Chesapeake Bay Preservation Area Review Board.

2. Lots lawfully recorded between November 27, 1990 and March 1, 2002 which meet conditions 740.06A1a through 740.06A1c as listed above and the additional following conditions:

a. Conditions or mitigation measures imposed through a previously approved exception shall be met.

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b. If the use of a best management practice 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.

3. Lots for which encroachment into RPA is necessary to install septic drainfields and where no alternate percolation sites are available as verified by the Health Department.

4. Expansion of a non-conforming principal structure for minor alteration in conformance with Section 601.32 of the Zoning Ordinance. Expansion of any non-conforming accessory structure within RPA that proposes additional RPA disturbance shall be handled as an exception requiring a public hearing in conformance with Section 740.06 (C)

5. Waivers to the requirements of Section 741.01, General Performance Standards, may be granted, provided that the findings enumerated in Section 740.06, subsections 1 through 5 above, are made.

B. If the administrative exception request is denied, the director of Public Works shall provide the rationale for the decision to the applicant. The applicant may then appeal the decision to the Chesapeake Bay Preservation Area Review Board, within 30 days of denial.

C. Exceptions requiring a Public Hearing - The director of Public Works shall review and forward its recommendation on all other exception requests, with accompanying WQIA, to the Chesapeake Bay Preservation Area Review Board for consideration and action following a public hearing.

D. The Chesapeake Bay Preservation Area Review Board shall conduct a public hearing to review the request for an exception and the WQIA and may grant the exception with such conditions and safeguards as deemed necessary to further the purpose and intent of Part 504 of Chapter 32 of the Prince William County Code and this section.

E. If the exception request is denied, the Chesapeake Bay Preservation Area Review Board shall provide its written findings and rationale for the decision to the applicant. The decision of the Board is final and can be appealed by the applicant to the Circuit Court within 30 days of the denial.

## **741.00 CHESAPEAKE BAY PRESERVATION AREA – PLANNING AND DESIGN:**

### **741.01 General Performance Standards:**

A. Land disturbance shall be limited to the area necessary to provide for the proposed use or development and shall comply with the following:

1. The proposed limits of disturbance shall be clearly shown on all plans. The limits shown on the approved plans shall be physically marked and protected on the development site.

2. No construction access should be permitted through an RPA unless specifically approved by the director of Public Works.

A. B. Indigenous vegetation shall be preserved to the maximum extent possible, consistent with the use and development proposed and in accordance with the Virginia Erosion and Sediment Control Handbook. All development or redevelopment shall conform to the requirements of Section 800.00 of this manual. Site design shall preserve existing tree cover to the greatest extent feasible. Diseased trees

or trees weakened by age, storm, fire, or other injury may be selectively removed in accordance with the requirements of Section 800.00 of this manual. Mature trees shall be protected during development and only removed where necessary, including to provide for the proposed use or development. Alternatively, compliance with the tree canopy requirements of Section 802.20 of this manual pursuant to Section 15.2-961 of the Code of Virginia shall satisfy preservation of mature trees requirements.

- C. In situations where it is likely that RPA buffer from adjacent offsite property may extend into subject property which is under review, the director of Public Works may require the developer to study the stream and wetlands in adjacent offsite properties within 100 feet of the boundary lines.
- D. Land development shall minimize impervious cover to promote infiltration of storm water into the ground consistent with the proposed use or development, in accordance with Section 720.00 of this manual.
- E. Any land disturbing activity cumulatively exceeding two thousand five hundred (2,500) square feet, including construction of single-family houses, shall comply with the requirements of Section 751.00 of this manual. Any disturbance within RPA, regardless of the size, requires written approval from the County.
- F. All on-site sewage disposal systems not requiring an National Pollutant Discharge Elimination System (NPDES) permit shall be pumped out at least once every five (5) years, in accordance with the provisions of Chapter 23 of the Prince William County Code.
- G. A reserve sewage disposal site with a cap Notacity at least equal to that of the primary sewage disposal site shall be provided in accordance with the requirement of Section 500.00 of this manual.
- H. For any use or development, including redevelopment, storm water runoff shall be controlled by the use of best management practices in accordance with Section 720.00 of this manual.
- I. Prior to issuing a permit that allows any type of land disturbance, related to a final site and subdivision plan all wetland permits required by federal, state, and local laws and regulations shall have been obtained and evidence of such submitted to the County.

#### **741.02 Additional Performance Criteria for RPA:**

- A. To minimize the adverse effects of human activities on the other components of RPA, state waters, and aquatic life, a one hundred (100) foot 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 adjacent to water bodies with perennial flow. The planting of trees shall be incorporated into the reestablishment of the 100-foot buffer, as appropriate to site conditions and in such a manner to maximize the buffer function. Inclusion of native species in tree planting is preferred.
- B. In accordance with the regulations of this section, the one hundred (100) foot RPA buffer area of natural or established vegetation is deemed to achieve a forty percent (40%) reduction of nutrients provided that runoff is conveyed by sheet flow through the buffer area.
- C. In order to maintain the functional value of the RPA buffer area, indigenous vegetation may be removed subject to written approval by the director of Public Works or approval of a plan to provide reasonable access paths, sight lines, general woodlot management, and best management practices, including those that prevent upland erosion and concentrated storm water flows, 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 shall be preserved and trimmed or pruned in lieu of removal as site conditions permit. Any removal of mature trees should be limited to the fewest number of trees feasible. When mature trees are removed to provide for sight lines and vistas, access paths or BMPs, they shall be replaced with trees as appropriate to site conditions.

2. Where indigenous vegetation is removed to create passive recreation trails, the path shall be constructed and surfaced so as to effectively control erosion.

3. Dead, diseased, or dying trees or shrubbery and noxious weeds may be removed and thinning of trees may be conducted based upon the best available technical information in conformance with section 800 of this manual and pursuant to sound horticultural practice as determined by the director of Public Works.

4. Where areas to be preserved in RPA are encroached upon, replacement of existing trees and other vegetation will be achieved in accordance with a site specific RPA restoration plan approved by the director of Public Works.

5. 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. If the projects propose disturbance to RPAs, the disturbance within RPAs must be approved by the director of Public Works.

D. Where land uses such as agriculture or silviculture within the area of the buffer cease, and the land is proposed to be converted to other uses, the full 100-foot buffer area shall be reestablished. In reestablishing the buffer, management measures shall be undertaken to provide woody vegetation that assures the buffer functions as set forth in the Chesapeake Bay Regulations. (9VAC10-20-130) The planting of trees shall be incorporated into the re-establishment of the 100-foot buffer, as appropriate to site conditions, and in such a manner as to maximize the buffer function. The inclusion of native species in tree planting is preferred.

E. Additional regulations apply if development or a redevelopment is proposed in RPA or IDA located within the Mapped AdaptVA areas, as shown in Appendix X. This interactive map can viewed using [this link](#). Developments and redevelopments proposed within RPA in Mapped AdaptVA Areas will require a Resilience Assessment Study and Adaptation Measure that considers the potential impact of sea level rise, storm surge, or flood impact area, as depicted on the Maps. The Resilience Assessment study and Adaptation measures requirements are detailed in DCSM Sections 742.06 and 740.05.

**741.03 RPA Buffers in Intensely Developed Areas (IDA):** Development and redevelopment within intensely developed areas (IDA) and IDA infill shall be exempt from the provisions of Section 741.02, but only in accordance with the following:

A. The proposed development or redevelopment is permitted under the provisions of Part 601 of Chapter 32 of the Prince William County Code and Section 740.06 of this manual, as applicable.

B. Any proposed development or redevelopment shall not increase the areas of disturbed RPA, exclusive of RPA buffers, unless such disturbance is otherwise permitted by and consistent with the requirements of Part 504 of Chapter 32 of the Prince William County Code and all applicable

requirements of this manual.

C. Development or redevelopment shall meet  all RPA buffer standards established in Section 741.02, except that encroachment due to redevelopment may occur within the full width of the buffer.

D. Notwithstanding the provisions of subparagraphs A, B, and C above, the RPA buffer shall be established to the extent feasible consistent with the proposed development or redevelopment of the site.

E. All other requirements of this manual, the Prince William County Code and other applicable laws are met.

**741.04 Minimum Lot Size in Relation to RPA:**

A. All residential lots, of 20,000 square feet or less, shall not be platted incorporating land within an RPA, irrespective of zoning designation.

B. For all other residential lots, RPA land may be incorporated within the lots, when the following criteria are met:

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1. Lots must have 20,000 square feet or more outside of the RPA.
2. All minimum required yard, setbacks and other applicable development standards have been met and shown on the plats.
3. A minimum distance of fifty (50) feet shall be between the principal structure, and any attachments thereto, and the RPA.



C. For lots two (2) acres or greater in size, RPA acreage may be used to calculate minimum lot size, provided that sufficient acreage lies outside that portion of the lot zoned RPA to permit reasonable use and enjoyment of any proposed use not permitted in the RPA.

D. Residential lots, 20,000 square feet or smaller, shall not be platted with jurisdictional wetlands. In addition and regardless of lot size the dwellings shall be at least forty (40) feet away from the wetlands. This requirement applies only to the wetlands for which an impact has not been authorized by the state and federal agencies.

**741.05 Special Provisions for SWM Facilities:** The SWM facilities, in general, must be located outside of RPAs. The SWM facilities may be allowed within RPAs under the following circumstances, subject to approval by the Chesapeake Bay Preservation Area Review Board.

A. Regional storm water management facilities, part of an approved watershed management plan or as hereafter provided, may be located in the RPA, provided that one of the following criteria is met:

1. They are part of an overall watershed management plan which considers environmentally sensitive features and minimizes negative impacts on them.
2. The SWM facility provides controls for a drainage area of 100 acres or more. The SWM facilities designed to provide BMP controls for offsite drainage areas, particularly those offsite drainage areas developed without BMP controls, are encouraged.
3. If the regional SWM facility is offsite, its location shall be in conformance with the Zoning Ordinance.
4. The director of Public Works may consider a SWM facility as regional, when the facility provides for the conservation and reuse of storm water runoff; such as an irrigation use within a golf course.

B. A water quality impact assessment is required for each SWM facility.

C. All performance criteria must be met, including wetlands permits, locating nonwater-dependent elements outside of RPAs, and minimum vegetative removal and access disturbances.

**742.00 CHESAPEAKE BAY PRESERVATION AREA – SUBMISSION REQUIREMENTS:**

**742.01 CBPA Overlay District:** In addition to the requirements of chapters 25 and 32 of the Prince William County Code, the applicant shall submit the following prior to any development or redevelopment of lands within Chesapeake Bay preservation areas:

- A. Perennial Flow Determination in accordance with section 742.02 of this manual.
- B. Preservation Area Site Assessment (PASA), in accordance with Section 742.03 of this manual, as applicable. .
- C. Water Quality Impact Assessment (WQIA) study, in accordance with sections 742.04 and 742.05 of this manual, as applicable.
- D. RMA limits study, if desired, in accordance with the provisions of Section 742.06 of this manual, as applicable.
- E. Studies or plans as required by all applicable sections of this Design and Construction Manual. (Landscaping plan, Stormwater Management plan, E&S control plan, etc.)

**742.02 Perennial Flow Determinations:** A reliable, site-specific determination shall be conducted to determine whether water bodies within the development site have perennial flow. Such determination will be made using a scientifically valid system of in-field indicators acceptable to the director of Public Works.



The engineer must provide the drainage area for every stream for which a perennial flow determination study is submitted.

- A. If water bodies exist on the development site and have a drainage area greater than 50 acres, a perennial flow determination study shall be submitted before or concurrently with the submission of a rezoning or a special use permit application, a preliminary, subdivision or a site plan, whichever occurs first. This determination shall identify all perennial streams located on the proposed development site using a method approved by the director of Public Works.
- B. If water bodies exist on the development site and have a drainage area less than 50 acres, a perennial flow determination can be limited to a modified flow determination study of less detail which is acceptable to the director of Public Works. This simplified perennial stream documentation can be in the form of field notes, observed flow conditions, photos with short narrative or survey or other relevant observations. The dated pictures taken during field visit shall be submitted to the County.
- C. The director of Public Works may require a detailed perennial flow determination for water bodies on the development site with a drainage area less than 50 acres under unique circumstances where field data is available from the Department of Public Works.
- D. For development sites containing Resource Protection Areas (RPAs) as mapped on the County's Chesapeake Bay Preservation Area Overlay District Map, the director of Public Works may allow the applicant to use the Overlay Map as a representation of perennial flow for all water bodies mapped as RPA. However, the applicant is still required to determine the RPA width with site specific investigation and provide the 100-foot RPA buffer. The applicant is also required to establish whether all other water bodies within the development site not mapped as RPA exhibit perennial flow through site-specific determination.
- E. If there are no water bodies on the site, as documented by digital pictures, topography, and other pertinent findings, the director of Public Works will not require a perennial flow determination study. The engineer/land surveyor must submit a statement or certification to justify that the study is not required.

### **742.03 Preservation Area Site Assessment (PASA):**

- A. A Preservation Area Site Assessment (PASA) shall be submitted for any proposed development site where RPA is located on the site based on Chesapeake Bay Preservation Area Overlay maps or on Perennial Flow Determination. This PASA shall be submitted to delineate the extent of wetlands on the site and to define RPA boundaries. The PASA shall be submitted in conjunction with a rezoning or special use permit application, preliminary subdivision plan or first plan submission.
- B. A PASA study submission shall include a narrative report and associated plans which detail the field investigation done at the site to determine the extent of wetlands on the site at the time of investigation.
- C. Wetland delineation shall be performed during field investigation of PASA and shall be in accordance with the United States Army Corps of Engineers “Wetlands Delineation Manual, Technical Report Y-87-1, January 1987, Final Report (Federal Manual) or latest effective edition.
- D. The PASA shall clearly delineate RPA boundaries as defined in section 740.03 of this manual.
- E. The PASA shall be drawn at the same scale as the preliminary site plan or subdivision plan, and plans shall be certified as complete and accurate by a licensed professional engineer, or a 3-B land surveyor. Alternatively, the accuracy of the wetlands delineation or perennial flow determination may be certified by a “Professional Wetlands Delineator”.
- F. Upon the submission by an applicant of the Preservation Area Site Assessment, the Department of Public Works shall verify the accuracy of and, may require adjustments to the boundary delineation shown therein.
- G. The following information shall be provided on the coversheet of the PASA submission on the plan for the project site:
1. Total area of County-mapped RPAs
  2. Total area of RPAs based on PASA
  3. Length of County mapped perennial streams
  4. Length of perennial streams based on PFD

**742.04 Water Quality Impact Assessment:** A Water Quality Impact Assessment (WQIA) is required for any proposed development in RPA or as determined by the director of Public Works, based on the unique characteristics of the site or intensity of the proposed use or development.

A. The purpose of the WQIA is as follows:

1. Identify the impacts of proposed development on water quality and lands within RPAs and other environmentally sensitive lands that have the potential to significantly affect water quality.
2. Ensure that, where development does take place within RPAs and other sensitive lands, it will be located on those portions of a site and in a manner that will be least disruptive to the natural functions of RPAs and other sensitive lands important to the natural functioning of RPA lands, consistent with the goals and objectives of the Chesapeake Bay Preservation Act, the regulations of Part 504 of Chapter 32 of the Prince William County Code, and this section of the manual.

B. The submission of a simplified WQIA may be accepted by the director of Public Works in conjunction with the processing of exceptions as identified in section 740.06A.

C. All information required for a WQIA in this section shall be certified as complete and accurate by a licensed professional engineer or a 3-B land surveyor.

D. Upon the completed review of a water quality impact assessment, the Department of Public Works will determine if the proposed development is consistent with the purpose and intent of Part 504 of Chapter 32 of the Prince William County Code and this section and make a finding based upon the following criteria:

1. The proposed development within any RPA is permitted pursuant to Section 32-504.06 of the Prince William County Code.
2. The disturbance of wetlands will be minimized.
3. The development will not result in significant disruption of the hydrology of the site.
4. The development will not result in significant degradation to aquatic vegetation or life.
5. The development will not result in unnecessary destruction of plant materials on-site.
6. Development is consistent with all applicable standards of the DCSM, including storm water, erosion and sediment control, drainfields, etc. and the intent of the Chesapeake Bay Preservation Act.
7. The cumulative impact of the proposed development, when considered in relation to other development of the vicinity, both existing and proposed, will not result in a significant degradation of water quality.

E. The director of Public Works shall require additional mitigation where potential impacts have not been adequately addressed. Evaluation of mitigation measures will be made by the Department of Public Works based on the criteria listed in this section.

F. The director of Public Works shall find the proposal to be inconsistent with the purpose and intent of this article when the impacts created by the proposal cannot be mitigated. Evaluation of the impacts will be made by the Department of Public Works, based on the criteria listed in this section.

G. Approval of the water quality impact assessment shall be conditioned upon review and approval of final design calculations which validate the design provisions of the plan.

**742.05 Water Quality Impact Assessment Elements:** A water quality impact assessment shall include a site drawing to scale which shows the following:

- A. Location of the components of the RPA, including the one hundred (100) foot RPA buffer area.
- B. Location and nature of the proposed encroachment into the RPA buffer.
- C. Mitigation proposal to include:
  1. Appropriate best management practice(s) at the right location to mitigate the impacts of the proposed encroachment.

2. Compensatory vegetation using the State's Riparian Buffers Modification and Mitigation Manual as a guideline.

D. A hydrogeological element that provides the following:

1. Existing topography, soils, hydrology and geology of the site and adjacent lands.
2. Description of the impacts of the proposed development on topography, soils, hydrology and geology on the site and adjacent lands.
3. Anticipated duration and phasing schedule of the construction.
4. Estimation of pre and post development pollutant loads in runoff.
5. Listing of all requisite permits from all application agencies necessary to develop the project.
6. Proposed mitigation measures for the potential hydrogeological impacts shown on the site plan or plat. Potential mitigation measures include:
  - a. Proposed erosion and sediment control concepts, which may include minimizing the extent of the cleared area, perimeter controls, reduction of runoff velocities, measures to stabilize disturbed areas, schedule and personnel for site inspection.
  - b. Proposed storm water management and BMP systems.
  - c. Creation of wetlands to replace those lost.
  - d. Minimizing cut and fill and land disturbance.

E. A wastewater element, where applicable, that provides the following:

1. Size and locations of anticipated drainfield or wastewater irrigation areas.
2. Justification for sewer line locations in environmentally sensitive areas, where applicable, and of construction techniques and standards.
3. Proposed on-site collection and treatment systems, their treatment levels, and impacts on receiving watercourses.

F. A Resilience Assessment Study and Adaptation Measures are required if the proposed land development in RPA or IDA is located within mapped AdaptVA area in accordance with DCSM Sections 742.06 and 740.05.

**742.06 Resilience Assessment for Proposed Land Development within RPA or IDA located in AdaptVA Areas**

Submit a resilience assessment that considers the potential impacts of sea level rise, storm surge, and flooding on buffer function in light of a proposed RPA encroachment during the review of a plan of development or other review process. Such an assessment is to be based on the RPA as delineated at the

time of the proposed land development and is required in addition to all other requirements. At a minimum, the resilience assessment should:

- (1) Be based on 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:
  - i. From projected sea level rise, use the 2017 National Oceanographic and Atmospheric Administration (NOAA) Intermediate-High scenario projection curve or any subsequently updated version thereof on the project site;
  - ii. From storm surge based on the most updated NOAA hydrodynamic Sea, Lake, and Overland Surges from Hurricanes (SLOSH) model on the project site; and
  - iii. From flooding, based on the most updated Special Flood Hazard Area and the Limit of Moderate Wave Action (LiMWA) model on the project site in conjunction with the requirements and application of floodplain management requirements and programs.
- (4) Assess the potential impacts of the proposed land development on buffer function, including loss of riparian buffer vegetation and vegetation migration; water migration; and the potential impacts of additional future disturbance or development in the RPA connected to the proposed land development.
- (5) Identify conditions, alterations, or adaptation measures for the proposed land development that address these potential impacts as necessary and appropriate based on the site conditions; nature, type, and size of the proposed land development, including whether such proposed land development is in an Intensely Developed Area; extent of potential impacts; and the necessity to minimize future land disturbance.

**742.07 Final Site Plans:** In addition to all other requirements applicable to site development plans such as a landscaping plan, a storm water management plan, and an erosion and sediment control plan, all projects within Chesapeake Bay preservation areas shall include the following additional information, in addition to showing the RPA boundaries with metes and bounds on the plan:

A. The delineation of the full width RPA boundary, a minimum of 100 feet, by metes and bounds on the plan and record plat with the following note: "No use shall be made of, nor shall any improvements or modifications be made in the resource protection area without specific written authorization from the director of Public Works."

B. Plat notation or stamp containing notification of 5-year septic pump out and 100% reserve drainfield requirements for onsite sewage treatment systems.

C. Wetlands permit submissions.

D. A maintenance agreement, as deemed necessary and appropriate by the director of Public Works to ensure proper maintenance of best management practices in order to continue their functions in accordance with the provisions of Section 23.2-41 of the Stormwater Management Code and 100.00 of this manual.

A delineation of the RMA by metes and bounds description, if the director of Public Works has approved an RMA limits study, pursuant to Section 742.06.

## **743.00 CHESAPEAKE BAY PRESERVATION AREA – VIOLATIONS**

**743.01 Disturbance of RPA:** If areas designated as RPA are encroached upon without prior approval in accordance with Sections 740.04, 740.05 and 740.06, they shall be restored in accordance with a plan approved by the director of Public Works. Restoration of the disturbed areas shall be performed as necessary to meet the intent of the regulations and shall be in accordance with a site specific restoration plan detailing both any existing vegetation and all supplemental plantings to adequately reestablish the natural vegetative condition which existed previously on the site, including trees, shrubs and groundcover. The Virginia “Riparian Buffers Modification & Mitigation Guidance Manual” shall be used as a guide for preparing the restoration plan.

**743.02 Violation of Chesapeake Bay Regulations:** Any construction, vegetation removal or land disturbing activity in the Resource Protection Area contrary to permitted or allowable provisions of this Section shall be a violation and shall be enforced in accordance with Section 100.

A. Any construction, vegetation removal or land disturbing activity in the Resource Protection Area contrary to permitted or allowable provisions of this section shall be unlawful.

B. Any person, including, but not limited to, the owner, lessee, principal, agent, employee or an authorized agent of the owner, who violates any of the provisions of this

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section shall be subject to the enforcement provisions of this Section 743.04.

C. Upon becoming aware of any violation of any provisions of this Section, the director or his designee shall serve a written notice of violation on the property owner, the person committing or permitting the same, either in person or by registered or certified mail to the property or the owner's address. Such notice shall specify the provisions of the Section which have been violated, the measures needed to remedy the violation, and a reasonable time in which to remedy the violations. Failure to take steps to comply with such notice within the time provided for therein shall constitute a separate violation of this Chapter.

D. Restoration of Chesapeake Bay Preservation Areas shall be performed to meet the intent of this Section. Submission of an RPA Restoration plan detailing restoration plantings of tree and vegetation will be required. The RPA restoration plan shall detail both any existing vegetation and all supplemental plantings to re-establish natural vegetation of previous conditions.

### **743.03 RPA Restoration Plan:**

A. The following information shall be included in the RPA Restoration Plan, unless the director of Public Works does not deem the information necessary.

1. Project Location / Vicinity Map.
2. Contours that adequately describe the existing topography and all proposed contour changes.
3. Field verified RPA and wetland limits on property.
4. Area of RPA (sf) which has been disturbed previously. If significant RPA area has been disturbed, it may be divided into segments which better identify the areas.
5. Planting or restoration measures which are proposed for the disturbed RPA and any adjacent areas. Number of overstory, understory and shrub trees shall be detailed for all restored areas. (Planting guidelines shall be taken from CBLAD Riparian Buffer Manual with preference given to native vegetation.)
6. Escrows for such planting and restoration measures.
7. RPA Buffer Restoration Narrative and Notes
8. Planting detail or other applicable detail (i.e. matting, techniques, etc.)
9. Erosion & Sediment controls to be used with RPA Restoration.
10. Escrows for such Erosion and Sediment controls
11. Landscape escrows which will be posted with permit.
12. A date by which the plan will be implemented and completed.
13. The director of Public Works may require different information depending upon the type of violation.

B. An escrow in the form of cash, letter of credit or bond, as provided for in the Administrative and Procedures Manual, shall be posted in an amount sufficient to cover the costs to implement the approved plan. This escrow shall also be used to correct violations for failure to comply with any requirements of this section or with the approved plan.

#### **743.04 Criminal Violations and Penalties:**

A. Violators of this Chapter shall be guilty of a Class 1 misdemeanor.

B. Each day any violation of this Chapter shall continue shall constitute a separate offense.

C. In addition to any criminal penalties provided under this Article, any person who violates any provision of this Chapter may be liable to the County in a civil action for damages, or for injunctive relief.

#### **743.05 Civil Penalties:**

A. Any person who violates any provision of 740.00 et seq., as it relates to disturbance in RPA, or who violates or fails, neglects, or refuses to obey notice, order, rule, regulation, or variance or permit condition authorized under this Chapter shall, upon such finding by an appropriate circuit court, be assessed a civil penalty not to exceed \$5,000 for each day of violation. Such civil penalties may, at the discretion of the court assessing them, be directed to be paid into the treasury of the county for the purpose of abating environmental damage to or restoring Chesapeake Bay Preservation Areas therein, in such a manner as the court may direct by order, except that where the violator is the county itself or its agent, the court shall direct the penalty to be paid into the state treasury.

B. With the consent of any person who (1) violates any provision of any local ordinance related to the protection of water quality in Chesapeake Bay Preservation Areas or (2) violates or fails, neglects, or refuses to obey any local governmental body's or official's notice, order, rule, regulation, or variance or permit condition authorized under such ordinance, the local government may provide for the issuance of an order against such person for the payment of civil charges for each violation in specific sums, not to exceed \$10,000 for each violation. Such civil charges shall be paid into the treasury of the county for the purpose of abating environmental damage to or restoring Chesapeake Bay Preservation Areas therein, except that where the violator is the county itself or its agent, the civil charges shall be paid into the state treasury. Civil charges shall be in lieu of any appropriate civil penalty that could be imposed under subsection A above. Civil charges may be in addition to the cost of any restoration required or ordered by the local government body or official.

### **750.00 EROSION AND SEDIMENT CONTROL – POLICY**

**750.01 Definitions:** For the purpose of this section, the following words and phrases shall have meanings respectively ascribed to them as follows:

A. Applicant - A person or persons required herein and hereby to accept legal responsibility for the land disturbing activity for which a permit is requested, namely the owner of the property on which such land disturbing activity is proposed to be accomplished as well as any contractor, agent, or other person who, by virtue of contractual employment or other relationship to the owner of the property of which such land disturbing activity is proposed to be accomplished, is or will be in actual or effective control of all

or a substantial portion of the land disturbing activity for which the application is or has been made.

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