

**Arlington County  
Chesapeake Bay Preservation Ordinance  
Guidance Manual**

**Version 2.2  
October 2011**

*The most recent version of this document is available at:*

<http://www.arlingtonva.us/>



[Department of Environmental Services](#)

1	Introduction .....	2
2	Determining Compliance with the Chesapeake Bay Preservation Ordinance .....	3
2.1	General flowchart for compliance with submission requirements .....	4
2.2	Flowchart for submission requirements for proposed activities in the RPA.....	5
3	Plan of Development Process .....	6
3.1	RPA Delineation .....	6
	Resource Protection Area .....	6
	Field-Delineation of the RPA Boundary .....	7
3.2	Landscape Conservation Requirements .....	8
	Plan Requirements for Site Plan Projects.....	8
	Plan Requirements for Other Projects.....	8
	Native Plants.....	10
	Tree Canopy Coverage Calculations.....	<b>Error! Bookmark not defined.</b>
3.3	Stormwater Management Requirements.....	11
	General Performance Requirements.....	12
	Revised Compliance Criteria.....	12
	Vehicle-related Pavement Treatment Requirement.....	13
	Site Design Standards Requirements .....	15
	Site-specific VPDES Permits.....	15
3.4	Erosion and Sediment Control Plan Requirements .....	15
3.5	Compliance Verification .....	15
4	Resource Protection Area Requirements .....	16
4.1	Water Quality Impact Assessments .....	16
4.2	What Activities are Allowed in the RPA Without an Exception?.....	17
4.3	What Activities in the RPA Require an Exception?.....	18
4.4	Exception Requests .....	18
4.5	Exempted Activities.....	19
4.6	Projects Disturbing Less Than 2,500 Square Feet in the RPA .....	19
5	Development Disturbing Less Than 2,500 Square Feet in the RMA.....	19

# 1 Introduction

On the heels of the 1987 Chesapeake Bay Agreement, the Virginia General Assembly passed the Chesapeake Bay Preservation Act (the Bay Act) in 1988 on the premise that land can be used and developed in ways that minimize impacts on water quality. The Bay Act and the Chesapeake Bay Preservation Area Designation and Management Regulations, adopted in 1989, establish a cooperative program between state and local governments in Tidewater Virginia aimed at reducing nonpoint source pollution. The program is designed to improve water quality in the Chesapeake Bay and its tributaries, and it promotes the application of sound land use planning and management practices on environmentally sensitive lands.

In particular, the Bay Act and Regulations required the establishment and protection of Chesapeake Bay Preservation Areas (CBPAs)—sensitive lands which, if developed improperly, could contribute to water quality degradation in the Bay and its tributaries. CBPAs consist of Resource Protection Areas (RPAs) and Resource Management Areas (RMAs). RPAs are lands adjacent to streams, lakes, bays, wetlands, and other water bodies that have an intrinsic water quality value due to the ecological and biological processes they perform or are sensitive to impacts which may cause significant degradation to the quality of State waters. RMAs are lands that, if improperly used or developed, have a potential for causing significant water quality degradation or for diminishing the functional value of the RPA. Because of Arlington's proximity to the Potomac River, a major Bay tributary, the entire County was designated as a CBPA.

In 1998, six years after the Arlington County Board approved the County's original ordinance in 1992, the County Board appointed the Chesapeake Bay Preservation Ordinance Task Force to review the County's ordinance and to recommend measures by which the County could improve protection of local streams and the Bay. Issues addressed by the Task Force included designation of RPAs (including expansion of RPAs to include streams not originally designated), development in RPAs, development in RMAs (including performance criteria for site design techniques that protect water quality), and the administration of the Source Control Fund (including the rate charged to developers, when contributions should be encouraged versus onsite treatment, and the use of funds). Following a work session with the County Board in July 2001 to discuss the Task Force's recommendations, the County Board directed staff to review the Task Force's recommendations and amend the ordinance.

After more than a decade of implementation, the Chesapeake Bay Preservation Area Designation and Management Regulations were amended and approved by the Chesapeake Bay Local Assistance Board on December 10, 2001. The new regulations became effective on March 1, 2002, and localities were required to amend their local ordinances to be consistent with the new regulations by March 2003.

The Arlington County Board approved Arlington's revised [Chesapeake Bay Preservation Ordinance](#) on February 8, 2003. The changes reflect revised State regulations and are largely consistent with the recommendations of the Chesapeake Bay Preservation Ordinance Task Force.

The major revisions to the ordinance include:

- Expansion of Resource Protection Areas (RPAs);
- New "Plan of Development" submittal requirements;
- More specific performance criteria for development projects;
- Updated stormwater quality framework;
- Expanded public review for exception requests; and

- Expanded enforcement options.

More stringent State stormwater management regulations will take effect in October 2011, with local implementation required by July 1, 2014. These new regulations are driven by the stormwater pollution reduction requirements of the Chesapeake Bay 'Total Maximum Daily Load' (TMDL). In addition, the Bay TMDL program may result in even more stringent requirements than the new State standards.

The Bay TMDL will also require Arlington County to implement a more stringent local stormwater management program through its Municipal Separate Storm Sewer System (MS4) permit, issued by the Virginia Department of Conservation and Recreation. The County's next MS4 permit, expected to be issued during 2011, will require tighter controls for development as well as extensive 'retrofitting' requirements for existing development. There will also be increased emphasis on stormwater management approaches that control stormwater volume on-site in addition to removing pollutants.

As a result of these pending requirements and the need for substantially increased stormwater controls for both new/redevelopment and existing development, Arlington County has revised its policies for determining compliance with the on-site stormwater quality management requirements for the Chesapeake Bay Preservation Ordinance (Chapter 61). The revised policies described below are authorized by Chapter 61 of the County Code and are described in Section 3.3.

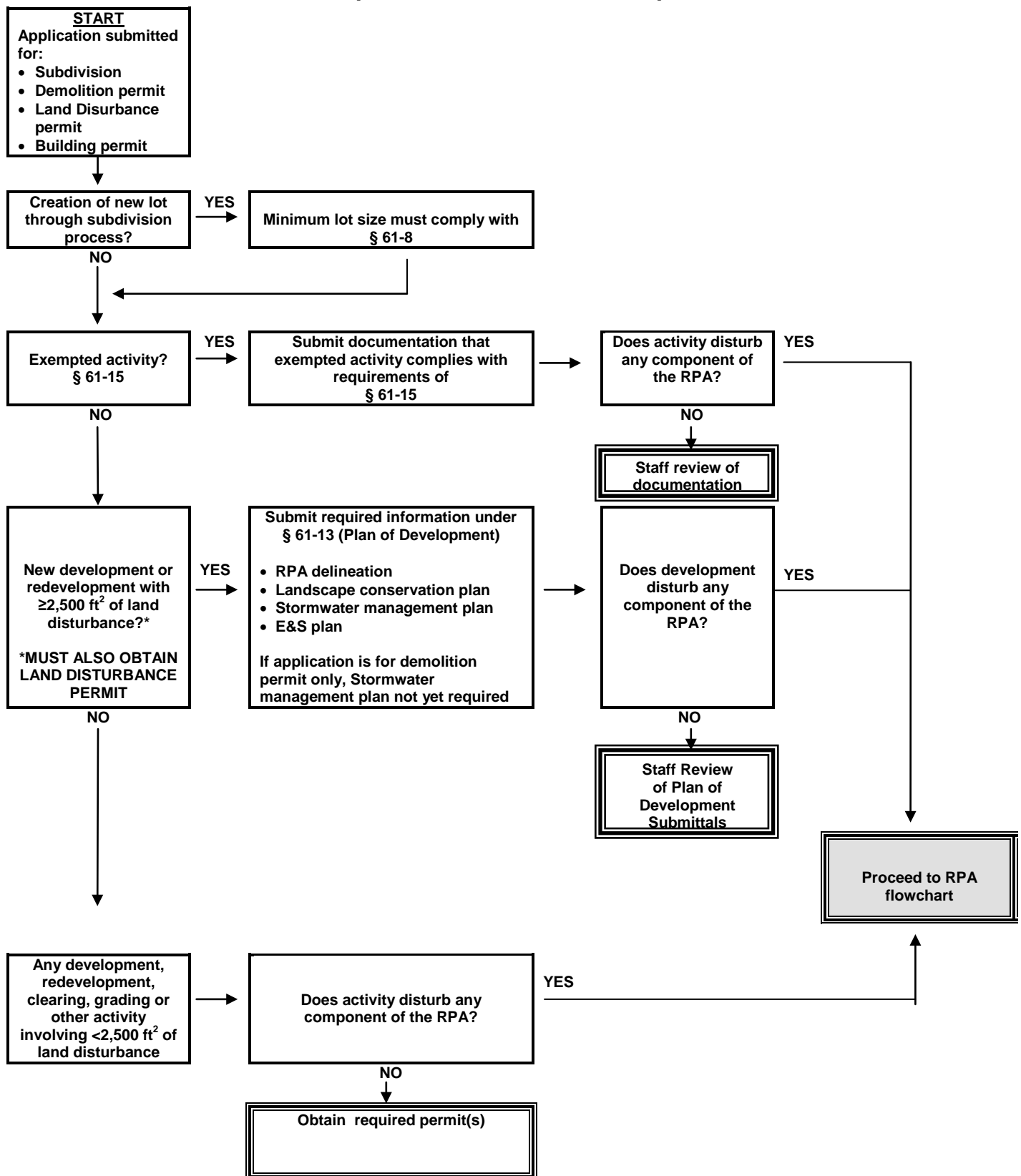
Please note that the new State stormwater management regulations will require comprehensive revisions to Chapters 60 and 61 of the County code for implementation by July 1, 2014, including a completely new framework for regulating stormwater quality and quantity.

***Arlington's revised Chesapeake Bay Preservation Ordinance provides the County Manager with the authority to develop guidance and administrative procedures for determining compliance with the requirements of the ordinance. This manual provides guidance for complying with the revised Chesapeake Bay Preservation Ordinance and will be subject to periodic update. If you have any questions or require more information, please contact the Department of Environmental Services at (703) 228-4488.***

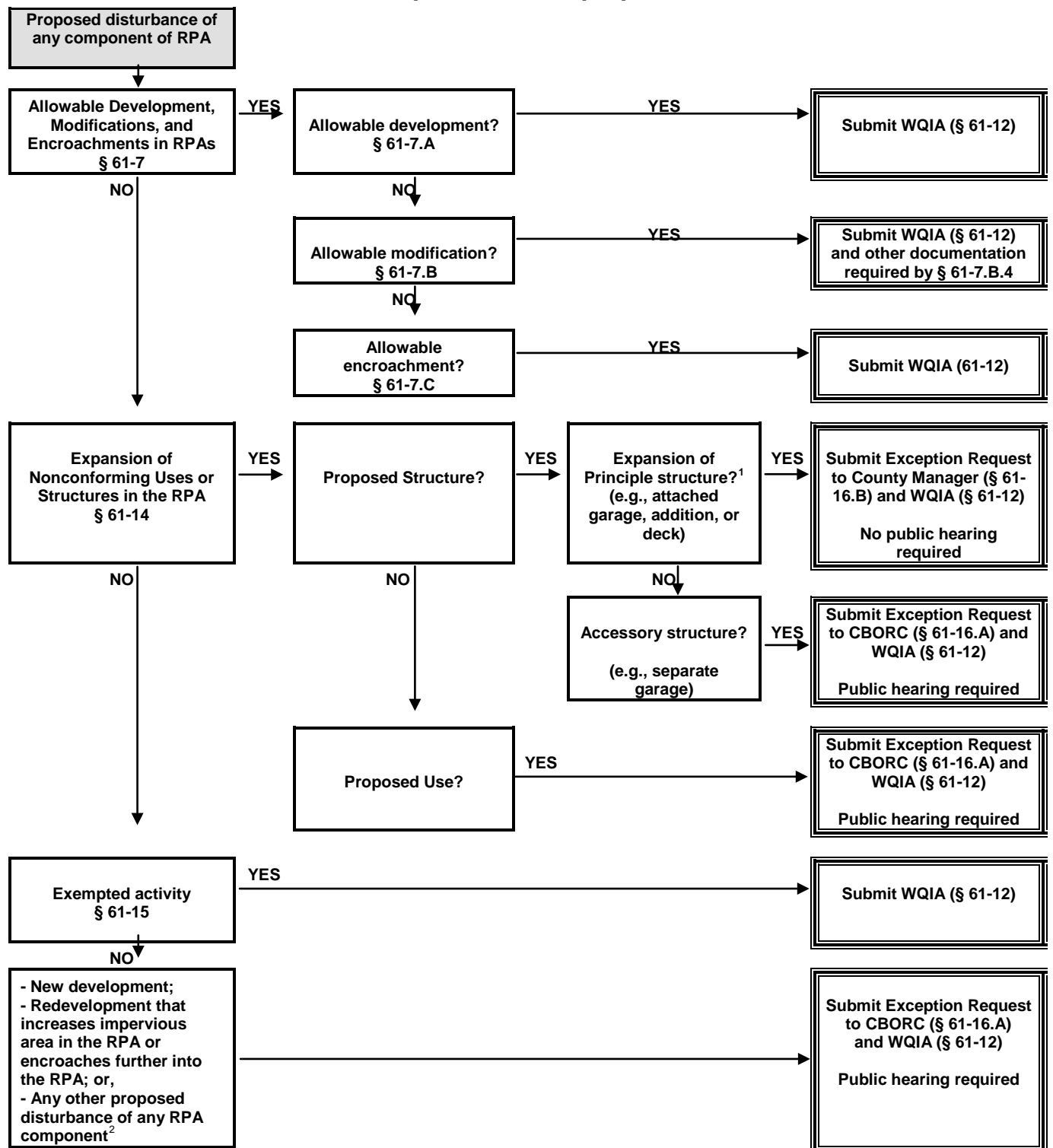
## **2 Determining Compliance with the Chesapeake Bay Preservation Ordinance**

The following two flowcharts outline the process for determining compliance with the Chesapeake Bay Preservation Ordinance. The first flowchart outlines the overall submission process, and the second flowchart outlines the submission requirements for activities which propose to disturb any portion of the Resource Protection Area.

## 2.1 General flowchart for compliance with submission requirements



## 2.2 Flowchart for submission requirements for proposed activities in the RPA



<sup>1</sup> Modifications of principal non-conforming structures may be reviewed by the County Manager if the principal structure remains intact and the modification is compatible in bulk and scale to those in the surrounding area, as determined by the County Manager.

<sup>2</sup> Minor land-disturbing activities such as home gardens and individual home landscaping, repairs and maintenance work is not considered land disturbance under this ordinance. A WQIA will not be required for such activities in the RPA unless they involve creation of impervious cover, disturbance of >2,500 ft<sup>2</sup>, or removal of mature trees with a diameter of at least 3 inches.

### 3 Plan of Development Process

The plan of development requirements in § 61-13 of the Chesapeake Bay Preservation Ordinance apply to **all development projects in Arlington County that propose to disturb at least 2,500 square feet of land =, including demolition and clearing and grading projects.** These submission requirements are intended to ensure compliance with the General Performance Standards for Development in § 61-10, the Resource Protection Area (RPA) requirements in § 61-7 and § 61-8, and other applicable ordinance requirements.

The components of the plan of development review include a Landscape Conservation Plan, a Stormwater Management Plan, and an Erosion and Sediment Control Plan. If an RPA exists on a site, an RPA delineation (see Section 3.1) and a Water Quality Impact Assessment (see Section 4) are also required. A WQIA may also be required for other projects depending on the nature and location of the proposed activity.

All plans submitted must be drawn to scale. The plan of development components are described in more detail below.

#### 3.1 RPA Delineation

All submissions regulated by the plan of development process must include an RPA delineation if an RPA exists on the site.

#### Resource Protection Area

The Resource Protection Area (RPA) is defined in Section § 61-5 of Arlington County's Chesapeake Bay Preservation Ordinance.

The RPA includes:

- tidal wetlands and shores,
- non-tidal wetlands contiguous to tidal wetlands or perennial streams
- natural stream channels
- man-made open channels
- a minimum 100 foot buffer adjacent to these water bodies
- steep slopes greater than or equal to 25 percent contiguous to the 100 foot buffer
- contiguous steep slopes greater than or equal to 15 percent in the Potomac Palisades area of the County from Chain Bridge to the County boundary (as well as other such areas as may be designated by the County Board under § 61-5.B.1.e).

The County's adopted Chesapeake Bay Protection Area Map, available in Suite 800 of the County office building, serves as a guide to the general location of RPAs so that property owners can determine if an RPA exists on a given property. Several mapping tools also can be used for this purpose. Links to these tools are available on the [Arlington County web site](#).

Arlington County's adopted CBPA map includes contiguous steep slopes 25 percent or greater as determined using a digital elevation model (DEM) based on 5-foot contour interval topography. Due to limitations of this model, properties that contain steep slopes adjacent to the mapped RPA may be affected by extended RPA even if RPA otherwise is not present. For questions about properties with steep slopes, please call (703) 228-4488, TTY (703) 228-4611.

## Field-Delineation of the RPA Boundary

The site-specific boundaries of the RPA must be identified by the applicant and approved by County staff. The field-determined RPA boundary must be shown on each of the plans required to be submitted—the landscape conservation plan (see Section 3.2), the stormwater management plan (see Section 3.3), and the erosion and sediment control plan (see Section 3.4), with the erosion and sediment control plan delineating how the RPA boundary will be physically marked in the field using snow fencing.

The RPA delineation will be reviewed for compliance with the minimum lot size requirements for new lots (§ 61-8) as well as to determine if a WQIA and/or exception request is required for the proposed development.

The site-specific delineation of RPA boundaries must be conducted in accordance with the [Resource Protection Area: Onsite Buffer Area Delineation](http://www.dcr.virginia.gov/stormwater_management/documents/RPA_buffer_delineation_rev090615.pdf) guidance document ([http://www.dcr.virginia.gov/stormwater\\_management/documents/RPA\\_buffer\\_delineation\\_rev090615.pdf](http://www.dcr.virginia.gov/stormwater_management/documents/RPA_buffer_delineation_rev090615.pdf)) provided by the Virginia Department of Conservation and Recreation (DCR). The location of this boundary on all submitted plans must be performed by professional land surveyor according to accepted surveying techniques (except for plans involving <2,500 square feet of land disturbance – please call (703) 228-4488 for more information).

**All steep slopes of 25 percent or greater contiguous to the minimum 100' RPA boundary must also be delineated on the site. The RPA boundary is extended to include these contiguous slopes.** Slopes adjacent to the minimum 100-foot RPA boundary must be surveyed in the field by a professional land surveyor according to accepted surveying techniques (except for plans involving <2,500 square feet of land disturbance – please call (703) 228-4488 for more information).

In accordance with § 61-12.B.1, which requires a Water Quality Impact Assessment for disturbance of slopes greater than or equal to 15 percent located adjacent to the landward boundary of the RPA buffer, such slopes must also be delineated on the site as described in the preceding paragraph. For projects where a topographic survey is not required:

- Use [DCR's RPA delineation guidance](#) to measure the minimum 100' RPA boundary at three locations on parcel (at each edge and in the middle);
- Mark these locations with flags and measure the distance of each flag perpendicular to the property line or other feature shown on the property's plat (e.g., house, driveway, etc.)
- The RPA boundary can then be related to and shown on the property's plat. For properties with steep slopes, please call (703) 228-4480, TTY (703) 228-4611 for guidance.

For additional information about Resource Protection Area requirements see Section 4.



### **3.2 Landscape Conservation Requirements**

In accordance with § 61-13.C, a Landscape Conservation Plan must be submitted and approved before any demolition or clearing and grading may occur on a lot or parcel. This plan and any revisions must be prepared and/or certified by a landscape architect or certified arborist. Alterations to an approved landscape conservation plan require resubmission and approval prior to issuance of a certificate of occupancy.

#### **Plan Requirements for Site Plan Projects**

For site plans subject to [Arlington County Administrative Regulation 4.1](#), the Chesapeake Bay Preservation Ordinance Landscape Conservation Plan requirement shall be satisfied by the submission of the standard Tree Protection/Replacement Plan and Landscape Plan currently required under 4.1. The following additional requirements for 4.1 site plans also apply:

- The 4.1 Tree Protection/Replacement Plan must include the RPA delineation. If an RPA exists on the site, additional information may be required, as outlined in Section 3.1 of this guidance manual.
- The 4.1 Landscape Plan must satisfy the 4.1 tree replacement requirements and the Chesapeake Bay Preservation Ordinance tree canopy coverage requirements and must include a delineation of the post-development tree canopy at 20 years maturity. If the 4.1 tree replacement requirements do not satisfy the Chesapeake Bay Preservation Ordinance tree canopy requirements, additional trees must be planted to meet the canopy requirements. Projected 20-year tree canopy area for each tree to be planted must be included in the Planting Schedule table.

#### **Plan Requirements for Other Projects**

All other projects subject to the plan of development process under § 61-13 (including Use Permits) shall prepare and submit a Landscape Conservation Plan that includes:

1. The RPA delineation.
2. All existing trees on the site of three (3) inches or greater diameter at breast height (DBH), as well as any other woody vegetation, including species type. Where there are groups of trees, the entire stand may be delineated as a whole, rather than individual trees (however, the critical root zone for the stand should reflect the actual composition of the stand).
3. All trees three (3) inches or greater DBH and other woody vegetation proposed to be removed and the reason for removal (e.g., construction footprint, site lines, disease, etc.).
4. All trees three (3) inches or greater DBH and other woody vegetation proposed to be protected outside the construction footprint, along with the tree protection measures taken to ensure protection during clearing, grading, and all phases of construction.
  - In accordance with § 61-10.B, tree protection measures must include protective barriers at or beyond the critical root zone of each tree to be protected, to the maximum extent practicable. Encroachments into the critical root zone of protected trees that are necessary for the proposed use or development shall include appropriate mitigation measures such as root pruning as deemed necessary.
  - The critical root zone shall be determined according to [Drawing No. R-7.7 \(Appendix F\)](#).
  - Tree protection shall be a minimum 4' chain link fence mounted on vertical pipes driven 2' into the ground with no gates (with the exception of 4.1 site plans, where a minimum

of 6' high chain link fence is required). Where tree protection and silt fence are in line, super silt fence may substitute for chain link fence.

- In addition, tree protection notification signs in English and Spanish must be posted on each protective barrier, designed according to [DPW Reference Detail II.A.5 \(Appendix E\)](#).
  - **Tree protection fencing must be installed and inspected prior to any land disturbing activity on the property.**
  - All tree protection fencing shall remain in place until all activities involving construction vehicle movement on the site, the stockpiling of materials on the site, or clearing, grading, digging, or trenching on the site have ceased or until the time of final site stabilization, whichever occurs last.
5. Location of the critical root zone for any jointly-owned trees and trees on adjacent properties along with protective barriers at or beyond the critical root zone, to the maximum extent practicable if it extends onto the site.
- Encroachments into the critical root zone of jointly-owned trees or trees on adjacent properties that are necessary for the proposed use or development shall include appropriate mitigation measures such as root pruning.
  - Where construction activities encroach into the critical root zone of jointly-owned trees or trees on adjacent property, property owners are required to notify joint or adjacent property owners in writing by certified mail. Notification shall include contact information for the sender, a description of any possible tree impacts and a copy of the plan.
  - The responsibility for resolving any jointly-owned or adjacent property tree issues shall be with the owner.
6. All vegetation proposed to be planted after construction must be shown on the plan and detailed in a Plant List.
- **Within the Resource Protection Area, only native species may be planted.** Cultivars of native species may be used for foundation plantings, specimen trees and other principally landscaping elements, but may not be used for riparian buffer restoration, reforestation or mitigation plantings or for plantings adjacent to natural areas or parkland.
  - Non-native species may be planted outside of the RPA. However, to encourage the use of native trees, native tree species planted outside of the RPA will receive a 1.25 canopy credit. Tree canopy coverage calculations are detailed below and in the [20-Year Tree Canopy Worksheet \(Appendix E\)](#).
  - The Plant List shall include plant spacing for trees, shrubs and ground cover plants.
  - The Plant List shall not include any species found on the [Virginia Department of Conservation and Recreation's Invasive Alien Plant Species in Virginia](#) list ([http://www.dcr.virginia.gov/natural\\_heritage/documents/invlist.pdf](http://www.dcr.virginia.gov/natural_heritage/documents/invlist.pdf)), the [Mid-Atlantic Exotic Pest Plant Council list](#) (<http://www.invasive.org/maweeds.cfm>) or any other regionally invasive or potentially invasive plant as determined by the County Manager.
  - Tree planting procedures shall be in accordance with [Drawing No. R-7.2 \(Appendix F\)](#).
7. The Plan of Development Planting Notes included in [Appendix F](#).

8. Calculation of the post-development tree canopy at 20 years maturity to determine compliance with the minimum tree canopy requirements of § 61-10.C. Dedicated school sites, playing fields, or other non-wooded public recreation areas, and other facilities and uses of a similar nature are exempt from these tree canopy coverage requirements.

## **Native Plants**

For the purpose of this document, a native plant is defined as a plant that is indigenous to northern Virginia. Only native plant species or cultivars of natives may be planted within the Resource Protection Area. Cultivars of native plant species may not be used for habitat restoration, reforestation and mitigation within the RPA and adjacent to natural areas or parkland except as approved by the County Manager. Cultivars of natives may be used for foundation plantings, specimen trees and other principally landscaping elements.

Resources for selecting native plant species for RPA projects include the [20-Year Tree Canopy Worksheet \(Appendix E\)](#), [Virginia Department of Conservation and Recreation's Riparian Buffer plant list](#) ([http://www.dcr.virginia.gov/natural\\_heritage/documents/natvripa.pdf](http://www.dcr.virginia.gov/natural_heritage/documents/natvripa.pdf)) and [Keeping It Natural](#), a natural areas planting guide for Arlington County and Alexandria.

## **Tree Canopy Coverage Calculations**

Determination of canopy at 20 years maturity shall be in accordance with the tree canopy coverage information in the [20-Year Tree Canopy Worksheet \(Appendix E\)](#). This information is based on data compiled by the Virginia Nursery and Landscape Association. Cultivars or species not included on the 20 Year Canopy Coverage list require review by the County Manager. Canopy credit, if granted, will be based on published documentation of mature size.

Tree canopy calculation shall also be subject to the following conditions:

- Total canopy area is calculated as the sum of preserved canopy and projected 20-year canopy for new trees.
- At the discretion of the County Manager, the canopy of existing trees to be protected on the site may not be counted towards the post-development canopy requirement if there are significant encroachments into the critical root zone of such trees that substantially threaten tree survival.
- To further encourage preservation of existing trees and account for future canopy growth, a 1.5 canopy area credit may be applied to the canopy area of existing trees to be protected on the site, if the County Manager determines those trees are sufficiently protected.
- Tree canopy credit will not be given for tree species designated as highly or moderately invasive on the [Virginia Department of Conservation and Recreation's Invasive Alien Plant Species in Virginia](#) list ([http://www.dcr.virginia.gov/natural\\_heritage/documents/invlist.pdf](http://www.dcr.virginia.gov/natural_heritage/documents/invlist.pdf)).
- The canopy of existing understory trees will not be credited where such trees are completely beneath the canopy of existing overstory trees on the same property.
- Newly planted trees may not be planted closer together than 10 feet for small and small-medium trees, 15 feet for medium trees, 20 feet for medium-large trees and large trees, unless otherwise approved by the County Manager.

- To encourage planting of native species, new native trees planted outside of the RPA will receive a 1.25 canopy area credit. Cultivars of native species planted outside of the RPA may also receive the canopy credit bonus for natives, based upon published documentation of mature size, unless otherwise determined during review by the County Manager.
- The canopy area of trees on adjacent properties may not be counted towards the canopy requirement, unless: a.) such trees are County-designated Heritage, Specimen, or Memorial trees in accordance with Chapter 67; or b.) the canopy area of such trees covers more than 50% of the site.
- Any public easement located on private property beyond the public right-of-way, such as a public street right-of-way, may be subtracted from the total site area in determining tree canopy coverage requirements. For example, for a single family home parcel, there may be a public easement for sidewalk beyond the street right-of-way which could be subtracted. For a new subdivision with a new public street, any public easement beyond the street right-of-way may be subtracted, but not the area of the street itself, since this is part of the overall development footprint of the project which will likely have impacts on existing trees.

For 4.1 site plans, the entire canopy of street trees planted in accordance with the approved 4.1 Landscape Plan, including any canopy area over the public right-of-way, may be counted towards the Chesapeake Bay Preservation Ordinance canopy requirements for the site.

### **3.3 Stormwater Management Requirements**

The Stormwater Management Plan must include a completed Stormwater Requirements Worksheet (Appendix A) and Site Design Standards Worksheet (Appendix B) as well as a plan which shows all of the information required on these two worksheets. Specifically, the plan must show:

- Total pre- and post-development impervious cover within the property limits including any existing and proposed easements, including:
  - Vehicle-related pavement
  - Rooftop and other impervious cover (e.g., plazas, sidewalks, etc.)
- Location and design of any existing and proposed structural best management practices (BMPs), delineation of total area and impervious area that drains to each BMP, and BMP treatment efficiencies
- Installation schedule for each BMP proposed (all BMPs must be installed and approved within six (6) months of the issuance of the initial County building permit, unless extended by the County Manager, in accordance with § 61-13.F.2.d)
- A maintenance schedule for each BMP, as specified by the Department of Environmental Services. In addition, a maintenance agreement must be recorded in the land records. See the Stormwater Facility Maintenance and Monitoring Agreement (Appendix G).
- Completion of the Site Design Standards Worksheet, in accordance with Appendix B.

BMP designs, treatment efficiencies, and maintenance requirements must be in accordance with the procedures outlined in the current edition of the Virginia Stormwater BMP Clearinghouse (<http://www.dcr.virginia.gov/lr2h.shtml>).

A certification by a professional engineer must be provided that all BMPs were constructed in accordance with the approved plans.

### **General Performance Requirements**

The stormwater requirements in § 61-10.F of the Chesapeake Bay Preservation Ordinance apply to all development projects in CBPAs that propose to disturb more than 2,500 square feet of land and are regulated by the Plan of Development process under § 61-13.

The overall pollutant removal requirements for each site are determined using the [Stormwater Requirements Worksheet \(Appendix A\)](#). The Impact Area for a given site is calculated as follows:

- If pre-development and post-development impervious cover are each less than 16% (the average land cover condition), the Impact Area for the site is 0.
- If pre-development impervious cover is less than 16% and post-development impervious cover is greater than 16%, the Impact Area equals post-development impervious cover minus 16% of the total site area.
- If pre-development impervious cover is greater than 16%, the Impact Area equals post-development impervious cover minus 90% of the pre-development impervious cover, or post-development impervious cover minus 16% of the total site area, whichever Impact Area is smaller.

Note: if the impact area for a given site exceeds 50% of the total site impervious area, the impact area requirement is “capped” at 50% of the total site impervious area. This cap has been implemented so that it is possible for a permit applicant to comply with a site’s Impact Area requirements by treating all impervious cover on the site at 50 percent efficiency or most of the impervious cover at 65 percent efficiency (the efficiency limit of most BMPs).

### **Revised Compliance Criteria**

Beginning October 1, 2011 (January 1, 2011 for single-family homes), a revised compliance policy for the ordinance’s on-site stormwater quality management requirements is in effect. On-site stormwater management is required to meet the ordinance’s stormwater treatment requirements, with contributions to the Watershed Management Fund allowed only under limited circumstances. Implementation of stormwater volume reduction measures is also required as part of a project’s stormwater compliance strategy.

#### **The implementation schedule for these revised compliance requirements is as follows:**

- For Site Plans submitted per Administrative Regulation 4.1: [Preliminary Application](#) after October 1, 2011
- For Use Permits for Unified Commercial/Mixed Use Development, Unified Residential Development, and Schools, and for Zoning Proffers: [Application](#) after October 1, 2011
- For all Form Based Code projects: [Preliminary application](#) after October 1, 2011
- For all other land disturbing activities except ‘by-right engineering plans’ and single family home projects < 3 lots: [Building permit application](#) after October 1, 2011
- For ‘by-right engineering plans’: [Engineering plan submittal](#) after October 1, 2011
- For single-family home projects < 3 lots: [Building permit application](#) after January 1, 2012

**The revised criteria are outlined below** (Please note that these criteria may be revised for single-family homes before the January 1, 2012, implementation date):

1. Stormwater Requirements Worksheet: WMF fee must equal \$0 in Step 4 of the Stormwater Requirements Worksheet.
2. Vehicle-related pavement treatment requirements in Step 2 remain the same as described below.
3. A minimum of 50% of the treatment credits must be obtained through the use of BMPs that provide annual runoff volume reduction (RR) as detailed in the most recent version of the Virginia DCR Stormwater Design Specifications.
4. Approved vegetated roof and permeable paving designs will continue to be treated as pervious surfaces (and will be credited as 'runoff reduction' BMPs). However, these BMPs must be entered in new sections added to Steps 2 and 3 of the worksheet (as appropriate). This calculation method change is for three main reasons:
  - o To provide accurate accounting of 'Proposed Impervious Cover' in Step 1
  - o To provide direct accounting for these two BMP types in the worksheet
  - o To facilitate the computation in requirement #3 above

Exceptions to requirement for \$0 WMF fee:

1. If requirement #3 above has been met AND
2. At least 80% of the post-development impervious area is treated by BMPs with a least a 50% treatment efficiency

*Exception requests for the following circumstances will be considered on a case-by-case basis: a) sites where a stormwater outfall from the property or a connection to the storm sewer system is not available within a reasonable distance and soils on the site do not meet the requirements for infiltration outlined in the Virginia Stormwater Management Manual; and b) sites with severe public easement constraints.*

*Exceptions criteria may be revised or expanded with experience implementing the revised compliance criteria.*

The contribution rate for the Watershed Management Fund is currently set at \$2.50 per impervious square foot of impact area. This rate may be periodically adjusted to reflect inflation and changes in the cost of designing and building stormwater treatment facilities

### **Vehicle-related Pavement Treatment Requirement**

For projects with pollutant removal requirements, onsite stormwater treatment is prioritized to first treat any impervious surfaces with which vehicles come into contact on the site, including but not limited to parking areas; streets and roadways; loading docks; equipment, material, and waste storage areas; and vehicle fueling, washing, storage, maintenance, and repair areas.

Onsite stormwater treatment may also be required, at the discretion of the County Manager in accordance with § 61-10.F.2.b, for other types of activities with the potential for significant stormwater quality impacts.

Key elements of this requirement:

- Applicant must delineate all vehicle-related impervious cover on the site and the area of vehicle-related impervious cover to be treated on a plan provided with the Stormwater Management Plan.
- Applicant must treat at least 80% of onsite vehicle-related impervious cover onsite at minimum 50% efficiency.
  - Not required to exceed total Impact Area requirement.
  - If the Impact Area that would be addressed by meeting this requirement exceeds the total site Impact Area requirement, a smaller area of pavement may be treated and/or a less efficient BMP may be used to meet the total site Impact Area requirement, subject to approval by the County Manager.
  - If onsite vehicle-related pavement totals less than 2,000 ft<sup>2</sup>, this area is not required to be treated.
  - If onsite vehicle-related pavement totals less than 10% of the total site impervious area, up to 10,000 ft<sup>2</sup>, this area is not required to be treated.
- All impervious cover that is exposed to atmosphere (e.g., surface parking lot) or comes into direct contact with stormwater runoff (e.g., pavement under gas station refueling canopy) must meet this treatment requirement.
- Above-ground multi-level parking structures: Exposed upper decks must meet the treatment requirement. Lower floors that do not come into direct contact with stormwater through rainfall, or that do not accept runoff via entrance ramps, apron drains, etc., are not required to meet the treatment requirement. However, floor drains within lower floors must be connected to the onsite BMP or to the sanitary sewer system as allowed by the building code and where approved by the County Manager.
- Underground parking areas: Below ground parking structures are not required to meet the treatment requirement. However, floor drains must be connected to the onsite BMP or to the sanitary sewer system as allowed by the building code and where approved by the County Manager.

Exemptions: Streets and roadways built separately from the Plan of Development process under § 61-13 are exempt from the onsite treatment requirement under § 61-15.



## **Site Design Standards Requirements**

§ 61-10.F.3 requires that all development projects regulated by the Plan of Development process, regardless of whether the project has a pollutant removal requirement, must incorporate site design standards recognized by the County Manager as a means of minimizing impervious cover, stormwater runoff, and nonpoint source pollution and protecting or improving indigenous vegetation and habitat.

All applicants must complete the [Site Design Standards Worksheet \(Appendix B\)](#) to document compliance with this requirement.

Projects with pollutant removal requirements are required to implement BMPs that provide annual runoff volume reduction (RR) as detailed in the most recent version of the Virginia DCR Stormwater Design Specifications. Use of these BMPs can be noted in the “Runoff Reduction, Impervious Cover Disconnection, and Infiltration” section of this document.

Applicants must provide the information requested in the ‘Notes/documentation’ column for each feature incorporated into a given project.

## **Site-specific VPDES Permits**

In accordance with 9 VAC 25-31-10 et seq.; 9 VAC 25-151, site-specific VPDES permits issued by the Virginia Department of Environmental Quality (e.g., VPDES General Permit for Stormwater Discharges Associated with Industrial Activity) shall be considered to comply with the requirements of § 61-10.F if the County Manager determines that the permit requires measures that collectively achieve water quality protection equivalent to those required in § 61-10.F.

### **3.4 Erosion and Sediment Control Plan Requirements**

An erosion and sediment control plan must be submitted that satisfies the requirements of Arlington County's [Erosion and Sediment Control Ordinance](#) (Chapter 57 of the County Code). In addition, the plan must comply with the requirements of the Chesapeake Bay Preservation Ordinance. Specifically, the E&S plan must:

- Minimize the construction footprint.
- Delineate the limits of clearing and grading, including details about how these limits will be physically marked in the field.
- Delineate the RPA boundary (see Section 3.1), including details about how this boundary will be physically marked in the field.
- Include tree protection measures required under the approved Landscape Conservation Plan to ensure protection during clearing, grading, and all phases of construction.
- Provide for a single ingress/egress point for construction activities, unless otherwise approved by the County Manager.

### **3.5 Compliance Verification**

Per § 61-13.F.2.



## 4 Resource Protection Area Requirements

The Resource Protection Area (RPA) is defined in Section § 61-5 of Arlington County's [Chesapeake Bay Preservation Ordinance](#). The RPA includes:

- tidal wetlands and shores,
- non-tidal wetlands contiguous to tidal wetlands or perennial streams
- natural stream channels
- man-made open channels
- a minimum 100 foot buffer adjacent to these water bodies
- steep slopes greater than or equal to 25 percent contiguous to the 100 foot buffer
- contiguous steep slopes greater than or equal to 15 percent in the Potomac Palisades area of the County from Chain Bridge to the County boundary (as well as other such areas as may be designated by the County Board under § 61-5.B.1.e).

Development in RPAs is regulated under § 61-7. In general, any activity in the RPA, including tree and vegetation removal, regardless of the area of disturbance, requires, at a minimum, a [Water Quality Impact Assessment \(Appendix C\)](#). In addition, certain activities, such as building a new house or expansion of an existing structure, are only allowed if an exception (requiring completion of [Appendix D: Exception Request Form](#)) has been granted in accordance with § 61-16.

The flowchart in Section 2.2 outlines the overall process for complying with RPA requirements, including when an exception is required and where to submit exception requests. The subsections below describe which activities are allowed in the RPA without an exception and which activities require an exception.

### 4.1 Water Quality Impact Assessments

A [Water Quality Impact Assessment \(WQIA\)](#) is required under § 61-12 for:

- Any proposed land disturbance or development within an RPA, including development permitted under § 61-7.A
- Any RPA buffer modification or encroachment, including modifications or encroachments permitted under § 61-7.B or C
- Any proposed land disturbance or development on slopes greater than or equal to 15 percent located adjacent to the landward boundary of the RPA buffer
- Exempted activities under § 61-15, such as passive recreation facilities and associated amenities (e.g., trails, boardwalks, bike paths etc.), natural resource conservation, and historic preservation.

A WQIA may also be required for development outside of the RPA, depending on the nature of the development and the potential impacts on water quality.

Land disturbance is defined under § 61-3, and includes grading, removing, filling, disturbing or dredging of soils, clearing or grubbing of vegetation, or paving or removal of pavement.

For the purposes of the WQIA, encroachment is expressed as a distance, usually from a structure to the stream or other water body. The edge of the defined streambed or ordinary high water line serves to mark the boundary of the water body.

Major and Minor WQIAs initially require submission of the basic information required in § 61-12.B. The [Water Quality Impact Assessment Data Sheet \(Appendix C\)](#) is the template provided to submit the required information.

Additional information authorized under § 61-12.C for Major WQIAs may be required depending on the nature of the activity proposed, site conditions, and potential water quality impacts (e.g., steep slopes, sensitive ecological areas, etc.).

A WQIA for a proposed modification to the RPA buffer must also include the information required in § 61-7.B.4. A WQIA for a proposed public road in the RPA buffer (an exempted activity) must demonstrate that the alignment and design prevents or minimizes RPA encroachment and minimizes adverse effects on water quality. A WQIA for any exempted activity under § 61-15.D must demonstrate that the intended use will not deteriorate water quality.

#### ***4.2 What Activities are Allowed in the RPA Without an Exception?***

The following are the typical activities in Arlington that are allowed in the RPA without an exception, subject to the County's review and approval of a [Water Quality Impact Assessment \(WQIA\)](#):

- Redevelopment, as long as impervious cover within the RPA does not increase and there is no further encroachment in the RPA buffer.
- New development, where there would otherwise be a loss of buildable area because of the RPA buffer. Such development is allowed a buildable area that is similar in use and scope to structures in the surrounding neighborhood or area.
- Public roads and utilities.
- Minor trimming and clearing of vegetation for reasonable site lines and vistas, as described in § 61-7.B.
- Exempted activities under § 61-15, such as passive recreation facilities and associated amenities (e.g., trails, boardwalks, bike paths etc.), natural resource conservation, and historic preservation.
- Fence projects

Home gardens, individual home repairs and routine home maintenance are allowed in the RPA without a WQIA unless these activities involve the creation of impervious cover, the disturbance of at least 2,500 ft<sup>2</sup> of land, or the removal of mature trees with a diameter of at least three (3) inches.

### **4.3 What Activities in the RPA Require an Exception?**

The following are the typical activities in Arlington that require an exception request and approval, along with an approved Water Quality Impact Assessment, to occur in the RPA:

- Expansion of structures or uses currently located partially or fully in the RPA buffer (non-conforming uses), such as building an addition, deck, or garage for an existing home.
- Expansion of an existing structure currently located outside the RPA buffer into the RPA buffer, such as building an addition, deck, or garage for an existing home.
- Redevelopment that involves removing an existing structure currently located partially or fully in the RPA buffer and building a new structure which encroaches farther into the RPA buffer or has a larger footprint in the RPA than the existing structure.
- Redevelopment that involves removing an existing structure currently located outside the RPA buffer and building a new structure which encroaches into the RPA buffer.
- New development which encroaches into the RPA buffer, except where the RPA buffer results in a loss of buildable area (see Section 2).
- Retaining walls exceeding 4 feet in height and 1 foot in width. Retaining walls that exceed these dimensions or involve creation of additional impervious cover, disturb more than 2,500 square feet or remove trees of at least three (3) inches, are considered detached accessory structures and are subject to the Chesapeake Bay Preservation Ordinance Review Committee (CBORC) exception process (see Section 4.4)

### **4.4 Exception Requests**

Requests for exceptions to the requirements of the Chesapeake Bay Preservation Ordinance must be made in writing using the [Exception Request Form \(Appendix D\)](#). Most exception requests will be reviewed by CBORC and heard at a public hearing. In particular, CBORC will review requests for exceptions to the requirements of:

- § 61-7 (Allowable Development, Modifications, and Encroachments in RPAs)
- § 61-14.C.3 (request to modify nonconforming accessory structures or uses in the RPA buffer)

The County Manager shall review all other exception requests, including requests to modify nonconforming principal structures in the RPA buffer under § 61-14.C.1 and requests for exceptions to § 61-10 (General Performance Standards for Development, including stormwater requirements).

For exception requests to modify nonconforming principal structures in the RPA buffer to be heard by the County Manager, at least 70 percent of the principal structure must remain intact and the modification must be compatible in bulk and scale to those in the surrounding neighborhood or area, as determined by the County Manager. If these criteria are not met, the modification shall be subject to the exception request requirements for redevelopment under 61-16.A, which require review by CBORC.

For exception requests involving proposed activities in the RPA, the WQIA will be the primary tool to evaluate the request. In addition, for these and other exception requests, CBORC or the County Manager will review each request based on the criteria in § 61-16.C.

Public notification is also required for all exception requests submitted to CBORC, according to the requirements of § 61-16.D.

#### **4.5 Exempted Activities**

The most common activities in Arlington exempted under § 61-15 from both the Plan of Development and RPA requirements of the Chesapeake Bay Preservation Ordinance include public roads (built separately from development projects regulated under § 61-13) and utilities such as electric and gas lines, fiber optic cables, etc. However, these exemptions are contingent upon construction, installation, operation, and maintenance practices that minimize water quality impacts.

The most common activities in Arlington that may be exempt from both the Plan of Development and RPA requirements include passive recreation facilities such as boardwalks, trails, and pathways. A WQIA must be submitted for such activities that demonstrates that these activities will not deteriorate water quality, as required by § 61-15.C.

#### **4.6 Projects Disturbing Less Than 2,500 Square Feet in the RPA**

Projects involving less than 2,500 square feet of land disturbance in the RPA are not subject to the Plan of Development review process in § 61-13. However, the requirements outlined in this Section apply to all projects in the RPA regardless of the area of disturbance. Additionally, such projects are subject to the mitigation requirements incorporated in § 61-7 and § 61-12.

Projects that will:

- add impervious cover within the RPA
- increase encroachment within the RPA,
- remove natural vegetation in the RPA buffer
- remove or impact the critical root zone of trees three (3) inches in diameter or greater within the RPA buffer, or
- disturb 500 square feet or greater within the RPA

are required to demonstrate an on-site overall net improvement in RPA buffer vegetation or riparian habitat and/or a net reduction in pollutant loads.

Reduction of pollutant loads may be accomplished with landscape or stormwater management practices that reduce runoff and minimize erosion. Such practices include but are not limited to rainwater harvesting (with a use plan), rain gardens, pervious surfaces, soil improvement, tree canopy improvements, conversion of lawn to native vegetation and downspout disconnection.

Where the area of disturbance for a project is less than 2500 square feet but greater than 2000 square feet, the limits of the area of disturbance must be physically demarcated on the site and certified by a licensed professional engineer, surveyor, or architect. For additional information, please contact the Development Bureau at (703) 228-3629, TTY (703) 228-4611.

### **5 Development Disturbing Less Than 2,500 Square Feet in the RMA**

Development projects involving less than 2,500 square feet of land disturbance in the RMA are not subject to the Plan of Development review process in § 61-13. However, a Water Quality Impact Assessment may still be required for projects with the potential to impact water quality (see Section 4).