



## City of Alexandria Water Quality Impact Assessment (WQIA)

Development and redevelopment within Resource Protection Areas (RPAs) is regulated by the Chesapeake Bay Preservation Act as incorporated into Article XIII of the City of Alexandria's Zoning Ordinance – the Environmental Management Ordinance (EMO). RPA buffers are vegetated areas that protect local streams, wetlands, and other environmentally sensitive features from polluted stormwater runoff. [Section 13-105](#) of the EMO establishes a 100-foot RPA buffer around all perennial water bodies, tidal shores, and many tidal and non-tidal wetlands. Intermittent streams and other wetlands identified in [Section 13-109\(E\)\(11\)](#) are protected by a 50-foot buffer via the EMO's local, more stringent requirements..

In accordance with [Section 13-117\(A\)\(5\)](#) of the EMO and [9VAC25-830-155](#), a "Resiliency Assessment" is required for any development or redevelopment within the RPA where future impacts from sea level rise, storm surge, or flooding are projected to occur within a 30-year time horizon. The Resiliency Assessment must evaluate these impacts using publicly available models accepted by the Commonwealth and, where applicable, include nature-based adaptation measures to minimize long-term impacts to infrastructure, water quality, and buffer function.

**Completed forms may be submitted to the associated BLD/GRD/DSP/DSUP number in [APEX](#) or returned to:**

City of Alexandria Stormwater Management Division  
Attn: Principal Planner  
1800 Limerick St Suite 500  
Alexandria, VA 22314

## City of Alexandria Water Quality Impact Assessment (WQIA)

Applicant Name:

Contact Address:

Phone:

Email:

Project Address:

Project or Permit Number:

***This form is used for both Minor and Major Water Quality Impact Assessments (WQIAs) under Section 13-117 of the Zoning Ordinance.***

**Minor WQIA:** For projects with less than 5,000 sq. ft. of disturbance within the RPA. These sections may be completed directly within this form by the applicant or homeowner. Complete Pages 2-4 & 7. Complete Page 7 only if a Resiliency Assessment is required.

**Major WQIA:** For projects with more than 5,000 sq. ft. of RPA disturbance. Minor WQIA portions of this form may be completed and reference all additional Major WQIA requirements using the *Major WQIA Checklist* and supporting documentation. Major WQIAs must be certified as complete and accurate by a Professional Engineer (PE) and by a Qualified Environmental Scientist. Narrative Reports and Site Plans may be included as attachments but must be clearly cross-referenced in the checklist. Complete Pages 2-7. Complete Page 7 only if a Resiliency Assessment is required.

### Signature and Certification

I certify that, to the best of my knowledge, the information I have provided is accurate and complete. I hereby grant permission to City staff to enter my property to assess the site for recommendations and to verify the location of the Resource Protection Area.

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Signature

Date

**This project impacts the RPA associated with (check all that apply):**

☐ Tidal Wetlands ☐ Tidal Shores ☐ Nontidal wetlands ☐ Waterbody with Perennial Flow

Total Site Area (sf or acres): \_\_\_\_\_

Area of Land Disturbance (sf or acres): \_\_\_\_\_

Existing Impervious Area (sf): \_\_\_\_\_

Proposed Impervious Area (sf): \_\_\_\_\_

**Resiliency Assessment Applicability**

Based on 30-year or project-lifespan modeling, does the site show vulnerability to sea level rise, storm surge (Category 2), or flooding?

Model: [Virginia Institute for Marine Sciences \(VIMS\) AdaptVA Viewer](#)

☐ Yes – Complete Resiliency Assessment (Page 7).

☐ No – Resiliency Assessment not required.

**Attach a map showing the proposed activity.**

If your project requires a City permit or site plan, include the scaled drawing with your submission; if no permit or plan is required, no scaled drawing is required. The scaled drawing should clearly show:

- Property boundaries
- Proposed location of structure, work limits, or limits of disturbance
- RPA boundaries (must be certified by a professional engineer, land surveyor, landscape architect, soil scientist, or wetland delineator certified or licensed to practice in the Commonwealth of Virginia)
- Existing and proposed vegetation (species and number of existing and proposed)
- Vegetation proposed for removal (include tree species and caliper size)

For projects requiring a Resiliency Assessment, include a screenshot from the VIMS AdaptVA Viewer showing modeled vulnerability within the 30-year horizon, or lifespan of the project if less than 30 years.

## **Minor Water Quality Impact Assessment: Sec. 13-117 (C)**

*Complete this section per §13-117(C), if required. Responses may be summarized below and supported by site plans, sketches, narrative documents, or attachments, as applicable.*

### **Existing Conditions**

Briefly describe what's currently on the property within the Resource Protection Area (RPA). Include nearby streams, wetlands, slopes, or buffer areas, and note their general condition (for example: "wooded with mature trees," "grassed yard," or "existing impervious area").

***Response:***

### **Proposed Work**

Explain what work will occur in the RPA and where. Include details such as materials (pavers, concrete, gravel, etc.), any clearing or grading, and the location of new encroachments (if any), such as structures, patios, or walkways.

***Response:***

### **Mitigation Measures**

List any stormwater best management practices (BMPs) or buffer improvements you will install to reduce runoff and protect water quality.

***Response:***

### **Vegetation Impacts**

Identify existing trees and vegetation within the RPA that will be removed or disturbed for the project. Include the number, type, and condition (good/fair/poor) of trees or shrubs affected if known.

***Response:***

### **Revegetation Plan**

Describe how you will restore or supplement vegetation in the RPA after disturbance. Include what native plants, trees, or shrubs will be planted to help control erosion and filter runoff.

***Response:***

### **Note:**

- *If the project involves **less than 5,000 sq. ft.** of disturbance within the RPA, do not complete the Major WQIA checklist section.*
- *If the Resiliency Assessment indicates no modeled vulnerability within the 30-year horizon (or the project lifespan if less than 30 years), no further Resiliency Assessment documentation is required.*

## **Major Water Quality Impact Assessment Checklist: Sec. 13-117 (D)**

*Provide responses required for a Minor WQIA on Page 4 and those below for projects involving  $\geq 5,000$  sq. ft. of disturbance within the RPA or when required per §13-117 (D). Responses may be summarized below by referencing supporting narrative documents, site plan references, approved model screen captures, or site plan attachments.*

### **Hydrogeologic Description (13-117(D)(2)(a))**

Describe existing site conditions, including topography, soils, hydrology, and geology.

***Response:***

***Attachment / Reference:***

### **Hydrogeologic Impacts (13-117(D)(2)(b))**

Describe how the proposed project will impact topography, soils, hydrology, and geology.

***Response:***

***Attachment / Reference:***

### **Impact Indicators (13-117(D)(2)(c))**

Provide the following impact information:

Disturbance or reduction of wetlands and justification:

***Response:***

***Attachment / Reference:***

Disruption or reduction in water supply to wetlands, streams, lakes, rivers, or other water bodies:

***Response:***

***Attachment / Reference:***

Disruptions to existing hydrology, including wetland and stream circulation patterns:

***Response:***

***Attachment / Reference:***

Source, location, and description of proposed fill material (may reference USACE permit):

***Response:***

***Attachment / Reference:***

Location of dredge materials and dumping areas (may reference USACE permit):

***Response:***

***Attachment / Reference:***

Impacts on adjacent shellfish beds, submerged aquatic vegetation, or fish spawning areas (may reference USACE permit):

***Response:***

***Attachment / Reference:***

Estimated pre- and post-development pollutant loads in runoff (per Sec. 13-113):

***Response:***

***Attachment / Reference:***

Percent increase in impervious surface and surfacing materials used:

***Response:***

***Attachment / Reference:***

Percent of site to be cleared:

***Response:***

***Attachment / Reference:***

Anticipated construction duration and phasing schedule:

***Response:***

***Attachment / Reference:***

List all required permits from applicable state and federal agencies:

***Response:***

***Attachment / Reference:***

**Mitigation Measures (13-117(D)(2)(d))**

Describe proposed measures to reduce hydrogeologic impacts (e.g., erosion and sediment controls, stormwater systems, wetland creation, or minimizing cut and fill).

***Response:***

***Attachment / Reference:***

**Landscape Plan Supplement (13-117(D)(3)(a))**

Identify and map all significant plant materials (trees  $\geq 6$ " DBH) and any grouped tree stands. Describe vegetation to be removed or disturbed, including limits of clearing and affected species. Describe replanting and preservation measures, including schedules and use of native species.

***Response:***

***Attachment / Reference:***

**Resiliency Assessment Checklist (Required if site shows vulnerability per Sec. 13-117(A)(5))**

*Complete this section only if the Resiliency Assessment show modeled vulnerability within the 30-year horizon, or for projects with a shorter design life where vulnerability is shown within that period. Responses may be summarized below and supported by referenced modeling outputs (screenshots), site plans, or attachments as applicable.*

**Resiliency Assessment Timeframe**

- ☐ 30-Year Default (required)
- ☐ Less than 30 Years (provide justification)

***Response:***

***Attachment / Reference:***

**Site Vulnerability Confirmation**

- ☐ Site is vulnerable per 30-year (or project life) modeling.
  - ☐ Site is not vulnerable per 30-year (or project life) modeling.
- If vulnerable, describe vulnerabilities (e.g., site inundation percentage or structure exposure)

***Response:***

***Attachment / Reference:***

**Mapping and Model Results**

Attach or summarize mapping showing parcel-level impacts (Sea Level Rise, Storm Surge, Flood Hazard).

***Response:***

***Attachment / Reference:***

**Narrative Summary of Modeled Impacts**

Summarize inundation of sea level rise and storm surge, floodplain extent, and buffer impacts.

***Response:***

***Attachment / Reference:***

**Buffer Function and Water Migration**

Describe expected changes to buffer, vegetation migration, or wetland movement if any.

***Response:***

***Attachment / Reference:***

**Project Design Considerations**

Explain how the project has been modified based on resiliency findings.

***Response:***

***Attachment / Reference:***

**Nature-Based Adaptation Measures**

☐ Living Shoreline   ☐ Rain Garden / Bioretention   ☐ Constructed Wetland  
☐ Dry/Wet Swale   ☐ Conservation Landscaping   ☐ Tree Planting / Reforestation   ☐ Other: \_\_\_\_\_

***Response:***

***Attachment / Reference:***

**Adaptation Measure Description**

Describe location, design standard, materials, and maintenance plan.

***Response:***

***Attachment / Reference:***

**Fill (if proposed)**

Type/Source/Amount of Fill:

Consistency with Floodplain Requirements: ☐ Yes ☐ No

***Response:***

***Attachment / Reference:***