

ORDINANCE NO. _____

AN ORDINANCE to amend and reordain Article XIII (ENVIRONMENTAL MANAGEMENT) to incorporate assessments and adaptations required to address coastal resilience and adaptation to sea-level rise and climate change to align with updates to the Chesapeake Bay Preservation Act as set out in 9VAC25-830-155, in accordance with the text amendment heretofore approved by city council as Text Amendment No. 2025-00007.

WHEREAS, the City Council finds and determines that:

1. In Text Amendment No. 2025-00007, the Planning Commission, having found that the public necessity, convenience, general welfare and good zoning practice so require, recommended approval to the City Council on September 4, 2025 of a text amendment to the Zoning Ordinance to incorporate assessments and adaptations required to address coastal resilience and adaptation to sea-level rise and climate change to align with updates to the Chesapeake Bay Preservation Act as set out in 9VAC25-830-155, which recommendation was approved by the City Council at public hearing on September 13, 2025;

2. The City Council in adopting this ordinance expressly adopts, ratifies, affirms and concurs in the finding and action of the Planning Commission above stated;

3. All requirements of law precedent to the adoption of this ordinance have been complied with; now, therefore,

THE CITY COUNCIL OF ALEXANDRIA HEREBY ORDAINS:

Section 1. That Article XII of the Zoning Ordinance be, and the same hereby is, amended by deleting the language shown in strikethrough and inserting new language shown in underline, as follows:

13-103 Definitions.

The following words and terms used in this Article XIII 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.

~~(A)~~(B) Administrator. The person responsible for the administration of this Article XIII, which in the city shall be the director of T&ES or his/her designee.

~~(B)~~(C) Alexandria water quality volume default. The volume equal to the first 0.5 inch of runoff multiplied by the total impervious area of the site as defined herein.

1 ~~(C)~~(D) *Applicant*. A person who has submitted, or plans to submit, a plan of development or an
2 exception request to the city or a person seeking approval from the city for any activity
3 that is regulated under this article.
4

5 ~~(D)~~(E) *Best management practice (BMP)*. Schedules of activities, prohibitions of practices,
6 maintenance procedures, and other management practices, including both structural and
7 nonstructural practices, to prevent or reduce the pollution of surface water and
8 groundwater systems from the impacts of land-disturbing activities.
9

10 ~~(E)~~(F) *Buffer area*. An area of natural or established vegetation managed to protect other
11 components of a resource protection area and state waters from significant degradation
12 due to land disturbances. To effectively perform this function, the buffer area will
13 achieve a 75 percent reduction of sediments and a 40 percent reduction of nutrients. A
14 100-foot wide buffer area shall be considered to meet this standard.
15

16 ~~(F)~~(G) *Chesapeake Bay Preservation Act land-disturbing activity*. A land-disturbing activity
17 including clearing, grading, or excavation that results in a land disturbance equal or
18 greater than 2,500 square feet and less than one acre in all areas of the city designated as
19 subject to the regulations adopted pursuant to the Chesapeake Bay Preservation Act,
20 Code of Virginia, § 62.1-44.15:67 et seq.
21

22 ~~(G)~~(H) *Clean Water Act* or *CWA* means the federal Clean Water Act (33 U.S.C § 1251 et seq.),
23 formerly referred to as the Federal Water Pollution Control Act or Federal Water
24 Pollution Control Act Amendments of 1972, Public Law 92-500, as amended by Public
25 Law 95-217, Public Law 95-576, Public Law 96-483, and Public Law 97-117, or any
26 subsequent revisions thereto.
27

28 ~~(H)~~(I) *Common plan of development or sale*. A contiguous area where separate and distinct
29 construction activities may be taking place at different times on different schedules.
30

31 ~~(I)~~(J) *Control measure*. Any best management practice or stormwater management facility, or
32 other method used to minimize the discharge of pollutants to state waters.
33

34 ~~(J)~~(K) *Department (DEQ)*. The Virginia Department of Environmental Quality.
35

36 ~~(K)~~(L) *Development*. Land disturbance and the resulting landform associated with the
37 construction or substantial alteration of residential, commercial, industrial, institutional,
38 recreational, transportation, or utility facilities or structures or the clearing of land for
39 non-agricultural or non-silvicultural purposes.
40

41 ~~(L)~~(M) *Director of T&ES/Director of P&Z*. Director of T&ES means the director of
42 transportation and environmental services of the City of Alexandria. Director of P&Z
43 means the director of planning and zoning of the City of Alexandria.
44

45 ~~(M)~~(N) *Floodway*. All lands as defined in subsection 6-303(O) of this ordinance.
46

1 ~~(N)~~(Q) *General permit*. The state permit titled General Virginia Pollutant Discharge Elimination
2 System (VPDES) Permit for Discharges of Stormwater from Construction Activities
3 found in 9VAC25-880 et seq. of the Virginia Erosion and Stormwater Management
4 Regulations authorizing a category of discharges under the federal Clean Water Act and
5 the Virginia Erosion and Stormwater Management Act within a geographical area of the
6 Commonwealth of Virginia.

7
8 ~~(O)~~(P) *Highly erodible soils*. Soils (excluding vegetation) with an erodibility index (EI) from
9 sheet and rill erosion equal to or greater than eight. The erodibility index for any soil is
10 defined as the product of the formula $RKLS/T$, where K is the soil susceptibility to water
11 erosion in the surface layer; R is the rainfall and runoff; LS is the combined effects of
12 slope length and steepness; and T is the soil loss tolerance.

13
14 ~~(P)~~(Q) *Highly permeable soils*. Soils with a given potential to transmit water through the soil
15 profile. Highly permeable soils are identified as any soil having a permeability equal to
16 or greater than six inches of water movement per hour in any part of the soil profile to a
17 depth of 72 inches (permeability groups "rapid" and "very rapid"), as found in the
18 "National Soil Survey Handbook" of November 1996 in the "Field Office Technical
19 Guide" of the U.S. Dept. of Agriculture Natural Resources Conversation Service.

20
21 ~~(Q)~~(R) *Impervious cover*. A surface composed of any material that significantly impedes or
22 prevents natural infiltration of water into the soil. Impervious surfaces include, but are
23 not limited to: roofs, buildings, streets, parking areas, and any concrete, asphalt, or
24 compacted gravel surface.

25
26 ~~(R)~~(S) *Intermittent stream*. Any natural or engineered channel (measured from top of bank)
27 with flowing water during certain times of the year, when groundwater provides for
28 stream flow. During dry periods, intermittent streams may not have flowing water.
29 Runoff from rainfall is a supplemental source of water for stream flow. Acceptable
30 methodologies for establishing the presence of an intermittent stream will be provided
31 by the director of T&ES pursuant to subsection 13-104(C).

32
33 ~~(S)~~(T) *Isolated wetlands of minimal ecological value*. Those wetlands, as defined in 9VAC25-
34 210-10, that:

- 35 (i) Do not have a surface water connection to other state waters;
- 36 (ii) Are less than one-tenth of an acre in size;
- 37 (iii) Are not located in a Federal Emergency Management Agency designated
38 100-year floodplain;
- 39 (iv) Are not identified by the Virginia Natural Heritage Program as a rare or
40 state significant natural community;
- 41 (v) Are not forested; and
- 42 (vi) Do not contain listed federal or state threatened or endangered species.

43
44 ~~(T)~~(U) *Land disturbance or land-disturbing activity*. A manmade change to the land surface
45 that potentially changes its runoff characteristics, including clearing, grading, filling,
46 or excavation.

1
2 ~~(U)~~(V) *Layout*. A conceptual drawing sufficient to provide for the specified stormwater
3 management facilities required at the time of approval.
4

5 ~~(W)~~ (W) *Mature tree*. For the purposes of this section, a canopy tree with a diameter at breast
6 height (DBH) of approximately 12 inches or greater or an understory tree with a DBH
7 of approximately four (4) inches or greater.
8

9 ~~(V)~~(X) *Minor modification*. An amendment to an existing general permit before its expiration
10 not requiring extensive review and evaluation including, but not limited to, changes in
11 EPA promulgated test protocols, increasing monitoring frequency requirements,
12 changes in sampling locations, and changes to compliance dates within the overall
13 compliance schedules. A minor general permit modification or amendment does not
14 substantially alter general permit conditions, substantially increase or decrease the
15 amount of surface water impacts, increase the size of the operation, or reduce the
16 capacity of the facility to protect human health or the environment.
17

18 ~~(W)~~(Y) *Natural channel*. A nontidal waterway that is part of the natural topography and is
19 generally characterized as being irregular in cross section with a meandering course.
20

21 ~~(Z)~~ (Z) *Nature-based solution*. An approach that reduces the impacts of sea-level rise,
22 floodings, and storm events through the use of environmental processes and natural
23 systems.
24

25 ~~(X)~~(AA) *Nonpoint source pollution*. Contamination from diffuse sources that is not regulated
26 as point source pollution under Section 402 of the Clean Water Act.
27

28 ~~(Y)~~(BB) *Nontidal wetlands*. Those wetlands, other than tidal wetlands, that are inundated or
29 saturated by surface water or groundwater at a frequency and duration sufficient to
30 support, and that under normal circumstances do support, a prevalence of vegetation
31 typically adapted for life in saturated soil conditions, as defined by the U.S.
32 Environmental Protection Agency pursuant to Section 404 of the Federal Clean Water
33 Act, in 33 CFR 328.3b.
34

35 ~~(Z)~~(CC) *Operator*. The owner or operator of any facility or activity subject to regulation under
36 this Article XIII.
37

38 ~~(AA)~~(DD) *Permittee*. The person to whom a state permit is issued, including any owner or
39 operator whose construction site is covered under a state construction general permit.
40

41 ~~(BB)~~(EE) *Person*. Any individual, corporation, partnership, association, municipality,
42 commission, or political subdivision, of a state, governmental body, including
43 federal, state, or local entity as applicable, any interstate body or any other legal
44 entity.
45

1 ~~(CC)~~(FF) *Pre-development*. The land use that exists at the time that plans for the development
2 are submitted to the city. Where phased development or plan approval occurs
3 (preliminary grading, roads and utilities, etc.), the land use at the time the first item
4 is submitted shall establish pre-development conditions.
5

6 ~~(DD)~~(GG) *Post-development*. Conditions that reasonably may be expected or anticipated to
7 exist after completion of the development activity on a specific site or tract of land.
8

9 ~~(EE)~~(HH) *Public road*. For the purpose of this Article XIII, public road means a publicly owned
10 road designed and constructed in accordance with water quality protection criteria at
11 least as stringent as requirements applicable to the Virginia Department of
12 Transportation, including regulations promulgated pursuant to (i) the Virginia
13 Erosion and Stormwater Management Act (Section 62.1-44.15:51 et seq. of the Code
14 of Virginia). This definition includes those roads where the Virginia Department of
15 Transportation exercises direct supervision over the design or construction activities,
16 or both, and cases where roads are constructed or maintained, or both, by the City of
17 Alexandria.
18

19 ~~(FF)~~(II) *Redevelopment*. The process of developing land that is or has been previously
20 developed.
21

22 ~~(GG)~~(JJ) *Regulations*. The Virginia Erosion and Stormwater Management Program (VESMP)
23 Permit Regulations, 9VAC25-875, as amended.
24

25 ~~(HH)~~(KK) *Restored stormwater conveyance system*. A stormwater conveyance system that has
26 been designed and constructed using natural channel design concepts. Restored
27 stormwater conveyance systems include the main channel and the flood-prone area
28 adjacent to the main channel.
29

30 ~~(H)~~(LL) *Resource management area (RMA)*. A Chesapeake Bay Preservation Area overlay
31 designation as further defined in section 13-105(C).
32

33 ~~(JJ)~~(MM) *Resource protection area (RPA)*. A Chesapeake Bay Preservation Area overlay
34 designation as further defined in section 13-105(B).
35

36 ~~(KK)~~(NN) *Shoreline*. Land contiguous to a body of water.
37

38 ~~(LL)~~(OO) *Site*. The land or water area where any facility or land-disturbing activity is
39 physically located or conducted, including adjacent land used or preserved in
40 connection with the facility or land-disturbing activity. Areas channelward of mean
41 low water in tidal Virginia shall not be considered part of a site. The following shall
42 be used for determining water quality and water quantity requirements in sections
43 13-109(E) and (F): For projects disturbing less than 50 percent of the tax parcel, (or
44 if multiple parcels are involved, the land subject to the application), the disturbed
45 area shall constitute the site; for projects disturbing greater than or equal to 50

percent of the tax parcel (or if multiple parcels are involved, the land subject to the application), the entire tax parcel shall constitute the site.

~~(MM)~~(PP) *State*. The Commonwealth of Virginia.

~~(NN)~~(QQ) *State permit*. An approval to conduct a land-disturbing activity issued by the Virginia State Water Control Board in the form of a state stormwater individual permit or coverage issued under a state general permit or an approval issued by the Virginia State Water Control Board for stormwater discharges from an MS4. Under these state permits, the state imposes and enforces requirements pursuant to the federal Clean Water Act, the Virginia Erosion and Stormwater Management Act, and their attendant regulations.

~~(OO)~~(RR) *State Water Control Law*. Chapter 3.1 (62.1-44.2 et seq.) of Title 62.1 of the Code of Virginia.

~~(PP)~~(SS) *State waters*. All waters on the surface or in the ground, wholly or partially within or bordering the commonwealth or within its jurisdiction, including wetlands.

~~(QQ)~~(TT) *Stormwater*. Precipitation that is discharged across the land surface or through conveyances to one or more waterways and that may include stormwater runoff, snow melt runoff, and surface runoff and drainage.

~~(RR)~~(UU) *Stormwater management facility*. A device that controls stormwater runoff and changes the characteristics of that runoff including, but not limited to, the quantity and quality, the period of release or the velocity of flow.

~~(SS)~~ (VV) *Stormwater management plan*. A document or documents containing material describing methods for complying with the requirements of section 13-114 of this article.

~~(TT)~~ (WW) *Stormwater pollution prevention plan (SWPPP)*. A document that is prepared in accordance with section 13-113 of this article and good engineering practices and that identifies potential sources of pollutants that may reasonably be expected to affect the quality of stormwater discharges from the construction site, and otherwise meet the requirements of this article. In addition the document shall identify and require the implementation of control measures, and shall include, but not be limited to the inclusion of, or the incorporation by reference of, an approved erosion and sediment control plan, and a pollution prevention plan.

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

~~(UU)~~(YY) *Subdivision*. Means the same as defined in section 2-197.2 of the Alexandria Zoning Ordinance.

~~(VV)~~(ZZ) *Substantial alteration*. Expansion or modification of a building or development that would result in land disturbance exceeding an area of 2,500 square feet in the resource management area only.

~~(WW)~~(AAA) *Tidal shore*. Land contiguous to a tidal body of water between the mean low water level and the mean high water level.

~~(XX)~~(BBB) *Tidal wetlands*. Vegetated and nonvegetated wetlands as defined in Section 28.2-1300 of the Code of Virginia.

~~(YY)~~(CCC) *Top of Bank*. To the extent applicable, top of bank shall be determined on prevailing professional standards and the best professional judgment of the director.

~~(ZZ)~~(DDD) *Total maximum daily load (TMDL)*. The sum of the individual wasteload allocations for point sources, load allocations for nonpoint sources, natural background loading, and a margin of safety. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. The TMDL process provides for point versus nonpoint source trade-offs.

~~(AAA)~~(EEE) *Use*. Any activity on the land other than development, including, but not limited to agriculture, horticulture, and silviculture.

~~(BBB)~~(FFF) *Virginia Erosion and Stormwater Management Act* (§ 62.1-44.15:24 et seq.) of Chapter 3.1 of Title 62.1 of the Code of Virginia.

~~(CCC)~~(GGG) *Virginia Stormwater BMP Clearinghouse website*. A website that contains detailed design standards and specifications for control measures that may be used in Virginia to comply with the requirements of the Virginia Erosion and Stormwater Management Act and regulations.

~~(DDD)~~(HHH) *Virginia Erosion and Stormwater Management Program (VESMP)*. A program approved by the Virginia State Water Control Board that has been established by a VESMP authority for the effective control of soil erosion and sediment deposition and the management of the quality and quantity of runoff resulting from land-disturbing activities to prevent the unreasonable degradation of properties, stream channels, waters, and other natural resources. The program shall include such items as local ordinances, rules, requirements for permits and land-disturbance approvals, policies and guidelines, technical materials, and requirements for plan review, inspection, and enforcement consistent with the requirements of the Virginia Erosion and Stormwater Management Act.

~~(EEE)~~(III) *VESMP authority*. An authority approved by the Virginia State Water Control Board to operate a VESMP. For the purposes of this article, the city is the VESMP authority.

1
2 ~~(FFF)~~(JJJ) *VESMP authority permit.* An approval to conduct a land-disturbing activity issued by
3 the city for the initiation of a land-disturbing activity after evidence of general permit
4 coverage has been provided where applicable. In the City of Alexandria a VESMP
5 authority permit is not a separate permit. Rather, the issuance of a building, land use,
6 or other land development permit is contingent on a proposed land-disturbing activity
7 meeting all VESMP authority permit requirements in 9VAC25-875 and the
8 requirements of this article.
9

10 ~~(GGG)~~(KKK) *Water body with perennial flow.* A body of water that flows in a natural or
11 engineered channel year-round during a year of normal precipitation. This includes,
12 but is not limited to streams, estuaries, and tidal embayments and may include
13 drainage ditches or channels constructed in wetlands or from former natural
14 drainage ways that convey perennial flow. Lakes and ponds, through which a
15 perennial stream flows, are a part of the perennial stream. Generally, the water table
16 is located above the streambed for most of the year and groundwater is the primary
17 source for stream flow. The width of the perennial stream extends from top-of-bank
18 to top-of-bank of the channel or to the limits of the normal water level for a pond or
19 lake when there is no definable top-of-bank. Acceptable methodologies for
20 establishing the presence of a water body with perennial flow will be provided by
21 the director of T&ES pursuant to subsection 13-104(C).
22

23 ~~(HHH)~~(LLL) *Water-dependent facility.* A development of land that cannot exist outside of the
24 resource protection area and must be located on the shoreline by reason of the
25 intrinsic nature of its operation. These facilities include, but are not limited to:
26 (i) Ports;
27 (ii) The intake and outfall structures of power plants, water treatment
28 plants, sewage treatment plants, and storm sewers;
29 (iii) Marinas and other boat docking facilities;
30 (iv) Beaches and other public water-oriented recreation areas; and
31 (v) Fisheries or other marine resources facilities.
32

33 ~~(HH)~~(MMM) *Watershed.* The total drainage area contributing runoff to a single point.
34

35 ~~(JJJ)~~ (NNN) *Wetlands.* Tidal and nontidal wetlands.
36

37 ***
38

39 13-107 – Development, redevelopment, and uses permitted in RPAs.
40

41 The following criteria shall apply in RPAs unless the development, redevelopment, use, or land
42 disturbing activity is exempted under section 13-123 or granted an exception pursuant to section
43 13-119. All development, redevelopment, and uses within the RPA must comply with the
44 performance criteria provided in section 13-109.
45

46 ***

(F) The following adaptation measures are allowed within the RPA if approved by the director of T&ES and provided that a water quality impact assessment is performed and accepted by the director of T&ES as complete in accordance with section 13-117:

- (1) Be a nature-based solution adaptation measure that uses environmental processes, natural systems, or natural features, is appropriate for site conditions, and is:
 - (a) A Best Management Practice approved by the Chesapeake Bay Program Partnership;
 - (b) An approved Virginia Stormwater Best Management Practice listed in the Virginia Stormwater Best Management Practice Clearinghouse;
 - (c) An approved Shoreline Protection Strategy in accordance with the Tidal Wetlands Guidelines as determined by the Virginia Marine Resource Commission;
or
 - (d) A project that is an eligible activity for funding by the Virginia Community Flood Preparedness Fund as determined by the Virginia Department of Conservation and Recreation.
- (2) Be designed, installed, and maintained in accordance with the applicable adaptation measure specifications in accordance with the type of the adaptation measure identified in subsection (F)(1) above.
- (3) Allow for the use of fill only under the following conditions:
 - (a) The grading and slope created by the use of fill shall be no greater than necessary based upon the project specifications and implemented in a manner that minimizes the impact of run-off;
 - (b) The fill must have the necessary biogeochemical characteristics, including sufficient organic content, to support the growth of vegetation and adequate permeability to allow infiltration consistent with the project specifications;
 - (c) The use of fill shall not enhance stormwater runoff from the RPA, and any lateral flow onto adjacent properties shall be controlled;
 - (d) Any impacts on the management of stormwater upland of the RPA created by the use of fill shall be mitigated as necessary; and
 - (e) The use of fill shall be consistent with any applicable federal or state law, including floodplain management requirements in 44 CFR Part 60 and section 6 - 300.
- (4) Maximize preservation of existing natural vegetation, including mature trees, and minimize land disturbance consistent with the adaptation measure specifications.
- (5) Comply with all federal, state, and local laws and requirements including any required permits and conditions.

13-117 - Water quality impact assessment.

(A) The purpose of the water quality impact assessment is to:

- (5) Determine if proposed development or redevelopment within the RPA is vulnerable to sea level rise, storm surge, or flooding per subsection (C)(6) below.

1 (C) A water quality minor impact assessment is required for development or
2 redevelopment within RPAs or under an exception which involves 5,000 or less square
3 feet of land disturbance; or for any development or redevelopment within the RMA
4 that involves 5,000 or less square feet of land disturbance adjacent to an RPA, if
5 required by the director of T&ES due to the presence or proximity of wetlands,
6 potential for harmful discharge of contaminants from the property, or slopes greater
7 ~~that than~~ 15 percent which are proposed to be disturbed. A minor assessment must
8 demonstrate that the undisturbed buffer area, enhanced vegetative plantings, and any
9 required BMPs will result in the removal of no less than 75 percent of sediments and
10 40 percent of nutrients from post-development stormwater runoff and that will retard
11 runoff, prevent erosion, and filter nonpoint source pollution the equivalent of the full
12 undisturbed buffer area and must include a resiliency assessment and adaptation
13 measures if applicable. Such an assessment shall include a site plan that shows the
14 following:

15 ***

- 16 (6) For any development or redevelopment within the RPA, the water quality impact
17 assessment shall include a resiliency assessment. The resiliency assessment shall:
18 (a) Be based upon a potential impact range of 30 years or the lifespan of the
19 project if less than 30 years;
20 (b) Utilize a model or forecast developed by or on behalf of the Commonwealth
21 of Virginia;
22 (c) Identify potential impacts:
23 (i) From projected sea-level rise using the 2017 National Oceanographic
24 and Atmospheric Administration (NOAA) Intermediate-High scenario
25 projection curve or any subsequently updated version thereof, on the
26 project site;
27 (ii) From storm surge based upon the most updated NOAA hydrodynamic
28 Sea, Lake, and Overland Surges from Hurricanes model on the project
29 site; and
30 (iii) From flooding based upon the most updated Special Flood Hazard
31 Area and the Limit of Moderate Wave Action on the project site. Such
32 assessment of flooding should be in conjunction with the requirements and
33 application of floodplain management requirements and programs.
34 (d) Based upon the assessment, the director of T&ES, as necessary and
35 appropriate, shall require conditions, alterations, or the installation of
36 adaptation measures as part of the proposed land development consistent with
37 the requirements of section 13-107 (F).

38 ***

39
40
41 Section 2. That the director of planning and zoning be, and hereby is, directed to
42 record the foregoing text amendment.

43
44 Section 3. That Article XII, as amended pursuant to Section 1 of this ordinance, be,
45 and the same hereby is, reordained as part of the City of Alexandria Zoning Ordinance.
46

1 Section 4. That this ordinance shall become effective on the date and at the time of
2 its final passage, and shall apply to all applications for land use, land development or subdivision
3 approval provided for under the City of Alexandria Zoning Ordinance which may be filed after
4 such date, and shall apply to all other facts and circumstances subject to the provisions of the
5 City of Alexandria Zoning Ordinance, except as may be provided in Article XII of the Zoning
6 Ordinance.

7
8 ALYIA GASKINS
9 Mayor

10
11 Introduction: 10/14/25
12 First Reading: 10/14/25
13 Publication:
14 Public Hearing: 10/18/25
15 Second Reading: 10/18/25
16 Final Passage: 10/18/25