

ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE to amend and reordain Chapter 4 (EROSION AND SEDIMENT CONTROL) of Title 5 (TRANSPORTATION AND ENVIRONMENTAL SERVICES), of the Code of the City of Alexandria, Virginia, 1981, as amended.

THE CITY COUNCIL OF ALEXANDRIA HEREBY ORDAINS:

Section 1. That Chapter 4 of Title 5 of the Code of the City of Alexandria, Virginia, 1981, as amended, be, and the same hereby is, amended and reordained to read as follows:

(New language is underscored; deleted material is ~~stricken~~)

CHAPTER 4 - Erosion and Sediment Control

Sec. 5-4-1 Definitions.

As used in this chapter, and pursuant to 9VAC25-840, the following terms shall have the meanings set forth below, unless the context requires a different meaning:

(a) "Agreement in lieu of a plan" means a contract between the city and the owner which specifies conservation measures which must be implemented in the construction or modification of a single-family residence; this contract may be executed by the Director in lieu of an erosion and sediment control plan.

(b) "Alexandria Water Quality Volume" means the volume equal to the first one-half inch of runoff multiplied by the impervious surface of the land development project. This is separate and in addition to the state stormwater management water quality requirement.

~~(c)~~ (b) "Applicant shall mean any person submitting an erosion and sediment control plan or an agreement in lieu of a plan for approval or requesting the issuance of a permit, when required, authorizing land-disturbing activities to commence.

(d) "Certified inspector" means an employee or agent of the city who (i) holds a certificate of competence from the Soil and Water Conservation Board in the area of project inspection or (ii) is enrolled in the Board's training program for project inspection and successfully completes such program within one year after enrollment.

(e) "Certified plan reviewer" means an employee or agent of a VESCP authority who (i) holds a certificate of competence from the Board in the area of plan review, (ii) is

enrolled in the Board's training program for plan review and successfully completes such program within one year after enrollment, or (iii) is licensed as a professional engineer, architect, landscape architect, land surveyor pursuant to Article 1 (§ 54.1-400 et seq.) of Chapter 4 of Title 54.1, or professional soil scientist as defined in § 54.1-2200.

(f) "Certified program administrator" means an employee or agent of a VESCP authority who (i) holds a certificate of competence from the Board in the area of program administration or (ii) is enrolled in the Board's training program for program administration and successfully completes such program within one year after enrollment.

~~(d)~~(g) "Director" shall mean ~~the~~ the director of transportation and environmental services, his designee or his duly authorized agent.

~~(e)~~(h) "Erosion and sediment control plan," "conservation plan" or "plan," shall mean a document containing material for the conservation of soil and water resources of an unit or group of units of land. It may include appropriate maps, an appropriate soil and water plan, inventory and management information with needed interpretations, and a record of decisions contributing to conservation treatments. The plan shall contain all major conservation decisions to assure that the entire unit or units of land will be so treated to achieve the conservation objectives.

~~(e)~~(i) "Erosion impact source area" shall mean an area of land not associated with current land-disturbing activity but subject to persistent erosion resulting in the delivery of sediment onto neighboring properties or into state waters. This definition shall not apply to any lot or parcel of land of 10,000 square feet or less used for residential purposes or to shorelines where the erosion results from wave action or other coastal processes.

~~(f)~~(j) "Land-disturbing activity" for the purposes of this chapter shall mean any land change which may result in soil erosion from water or wind and the movement of sediments into state waters or onto lands in the commonwealth, including, but not limited to, clearing, grading, excavating, transporting and filling of land.

~~(g)~~(k) "Natural channel design concepts" means the utilization of engineering analysis and fluvial geomorphic processes to create, rehabilitate, restore, or stabilize an open conveyance system for the purpose of creating or recreating a stream that conveys its bankfull storm event within its banks and allows larger flows to access its bankfull bench and its floodplain.

~~(h)~~(l) "Owner" shall mean the owner or owners of the freehold of the premises or of a lesser estate therein, a mortgagee or vendee in possession, an assignee of rents, a receiver, an executor, a trustee, a lessee or another person, firm or corporation in control of a property.

~~(i)~~(m) "Peak flow rate" means the maximum instantaneous flow from a given storm condition at a particular location.

~~(j)~~(n) "Permittee" shall mean the person to whom the permit authorizing land-disturbing activities is issued or the person who certifies that the approved erosion and sediment control plan will be followed.

~~(k)~~(o) "Person" for the purposes of this chapter shall mean any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, county, city, town, or other political subdivision of the commonwealth, interstate body, or other legal entity.

~~(l)~~(p) "Plan-approving authority" shall mean the department of transportation and environmental services which shall be responsible for determining the adequacy of a plan submitted for land-disturbing activities on ~~an~~ unit or group of units of lands and for approving plans.

~~(m)~~(q) "Runoff volume" means the volume of water that runs off the land development project from a prescribed storm event.

~~(n)~~(r) "State waters" shall mean all waters on the surface and or wholly or partially underground that is within or bordering the commonwealth or that is within the jurisdiction of the commonwealth.

~~(o)~~ "Water Quality Volume" means the volume equal to the first one half inch of runoff multiplied by the impervious surface of the land development project.

(Intervening sections are unchanged.)

Sec. 5-4-3.1 Same—erosion impact source area.

Notwithstanding any contrary provision of this chapter, it shall be unlawful for any property owner to fail, neglect or refuse to implement an erosion and sediment control conservation plan, approved by the director, and within such reasonable time as the director shall specify, for any land designated by the director as an erosion impact source area.

130  
131 Sec. 5-4-3.2 Wetlands mitigation banks.  
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133 In accordance with the procedure set forth by § 62.1-44.15-51 ~~40.1-563~~(E) of the Code of  
134 Virginia which is herein incorporated, any person engaging in the creation and operation  
135 of wetland mitigation banks in multiple jurisdictions, which have been approved and are  
136 operated in accordance with applicable federal and state guidance, laws, or regulations  
137 for the establishment, use, and operation of mitigation banks, pursuant to a permit issued  
138 by the Department of Environmental Quality, the Marine Resources Commission, or the  
139 U.S. Army Corps of Engineers, may, at the option of that person, file general erosion and  
140 sediment control specification for wetland mitigation banks annually with the Virginia  
141 Soil and Water Conservation Board (Board) for review and approval consistent with  
142 guidelines established by the Board.  
143

144 (Intervening section is unchanged.)  
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146 Sec. 5-4-5 Exceptions.  
147

148 The provisions of this chapter shall not apply to any construction, reconstruction, repair  
149 or alteration of any building or structure when no land is disturbed and no trees, shrubs,  
150 grass or vegetation is destroyed or removed, nor to any of the following:  
151

152 (Intervening sections are unchanged.)  
153

- 154 (1) Shore erosion control projects on tidal waters when the projects are approved by local  
155 wetlands boards, the Marine Resources Commission and/or the U.S. Army Corps of  
156 Engineers and located on tidal waters and within nonvegetated or vegetated wetlands  
157 as defined in Title 28.2 of the Code of Virginia. However, any associated land that is  
158 disturbed outside of this exempted area shall remain subject to the article and the  
159 regulations adopted pursuant thereto.  
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161 (Intervening sections are unchanged.)  
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164 Sec. 5-4-6 Permits not to be issued without approved erosion and sedimentation control plan  
165 when plan required by chapter.  
166

- 167 (a) No permit shall be issued to construct, erect, or alter any building or structure on any  
168 land within the city until a plan has been submitted and approved in accordance with  
169 the provisions of this chapter and the applicant has certified in writing that the plan  
170 will be followed. The person responsible for carrying out the plan shall provide the  
171 name of an individual holding a certificate of competence to the program authority, as  
172 provided by § 62.1-44.15:52 ~~40.1-561~~, who will be in charge of and responsible for  
173 carrying out the land disturbing activity. However, any plan-approving authority may  
174 waive the certificate of competence requirement for an agreement in lieu of a plan for  
175 construction of a single family residence. If a violation occurs during the land-

disturbing activity, then the person responsible for carrying out the agreement in lieu of a plan shall correct the violation and provide the name of an individual holding a certificate of competence, as provided by § 62.1-44.15:52 ~~40.1-564~~. Failure to provide the name of an individual holding a certificate of competence prior to engaging in land-disturbing activities may result in revocation of the approval of the plan and the person responsible for carrying out the plan shall be subject to the penalties provided in this article.

(Subsequent section is unchanged.)

Sec. 5-4-7 Minimum criteria; city handbook.

- a) The director shall administer and enforce the provisions of this chapter.
- b) This chapter, the erosion and sediment control regulations of the Department of Environmental Quality Conservation and Recreation Division of Soil and Water Conservation (VR 625-02-00) effective March 22, 1995, [9 VAC 25-8404 VAC 50-30-10 et seq.], and the "Virginia Erosion and Sediment Control Handbook, Third Edition, 1992, which are incorporated herein by reference, shall be an integral part of the city's erosion and sediment control program and shall comprise the city's "Erosion and Sediment Control Handbook." The text of these regulations is on file in the office of the director.
- c) In addition to the minimum requirements for controlling erosion and sedimentation for land-disturbing activities which are contained in ~~VR 625-02-00 '4 [4 VAC 50-30-409 VAC25-840~~, the following additional minimum requirements shall apply:

(Subsequent sections are unchanged.)

(4) The following additional stormwater management criteria shall apply:

A stormwater management plan consistent with the requirements of Section 13-109(F) in Article XIII of the Alexandria Zoning Ordinance (the Environmental Management Ordinance and the Virginia Stormwater Management Program (VSMP) regulations shall apply. For plans approved on and after July 1, 2014, the flow rate capacity and velocity requirements of this section shall be satisfied by compliance with water quantity requirements in the Stormwater Management Act (§ 62.1-44.15:24 et seq.) and attendant regulations, unless such land-disturbing activities are in accordance with the grandfathering provisions of the VSMP regulations.

- a. ~~A stormwater management plan shall be developed so that, from the site, the postdevelopment peak runoff rate from a two-year and a 10-year storm, considered individually, shall not exceed their respective predevelopment rates. The predevelopment and postdevelopment peak runoff rates must be verified by engineering calculations. Within the Four Mile Run Watershed, postdevelopment peak runoff during a 100-year frequency storm shall not increase the peak runoff of the Four Mile Run Flood Control Channel as required by the city's contract with the United States Army Corp of Engineers.~~
- b. ~~b. 1. Concentrated stormwater runoff leaving a development site must be discharged directly into an adequate channel. If there is no adequate channel one must be constructed to convey stormwater to the nearest adequate channel. Newly constructed channels and conduits carrying a flow of 1,000 or more cubic feet per second shall be designed for a 100-year storm frequency and newly constructed channels and conduits carrying a flow of less than 1,000 cubic feet per second shall be designed for a 10-year storm frequency.~~
- e. ~~2.~~
- d. ~~An "adequate channel" shall be defined as a natural or man-made channel or pipe which is capable of conveying the runoff from a two-year storm or a 10-year storm, considered individually, without overtopping its banks or eroding after development of the site in question. A receiving channel may also be considered adequate at any point where the total contributing drainage area is at least 100 times greater than the drainage area of the development site in question or, where it can be shown that the peak rate of runoff from the site for a two-year and a 10-year storm, considered individually, will not be increased after development.~~
- e. ~~3.~~
- f. ~~In accordance with, § 10.1-561 of the Code of Virginia, stream restoration and relocation projects that incorporate natural channel design concepts are not man-made channels and shall be exempt from any flow rate capacity and velocity requirements for natural or man-made channels.~~
- g. ~~4.~~
- h. ~~In accordance with § 10.1-561 of the Code of Virginia, any land-disturbing activity that provides for stormwater management intended to address any flow rate capacity and velocity requirements for natural or manmade channels shall satisfy the flow rate capacity and velocity requirements for natural or manmade channels if the practices are designed to (i) detain the water quality volume and to release it over 48 hours; (ii) detain and release over a 24-hour period the expected rainfall resulting from the one-year, 24-hour storm; and (iii) reduce the allowable peak flow rate resulting from the 1.5, 2, and 10-year, 24-hour storms to a level that is less than or equal~~

261 to the peak flow rate from the site assuming it was a good forested  
262 condition, achieved through multiplication of the forested peak flow rate  
263 by a reduction factor that is equal to the runoff volume from the site when  
264 it was in a good forested condition divided by the runoff volume from the  
265 site in its proposed condition, and shall be exempt from any flow rate  
266 capacity and velocity requirements for natural or manmade channels.

267  
268 (Subsequent sections are unchanged.)  
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- 270 (5) Runoff rate and channel adequacy must be verified with engineering  
271 calculations to the satisfaction of the director.  
272
- 273 (6) All channel improvements or modifications must comply with all applicable  
274 laws and regulations.  
275
- 276 (7) If the applicant chooses an option which includes stormwater detention, the  
277 applicant must provide the city with a plan for maintenance of the detention  
278 facilities. The plan shall set forth the maintenance requirements of the facility  
279 and the party responsible for performing the maintenance. The responsible  
280 party may be an individual, organization or the city, whichever has consented  
281 to carry out the maintenance. If the designated maintenance responsibility is  
282 with an individual or organization other than the city, a maintenance  
283 agreement should be executed between the responsible party and the city.  
284
- 285 ~~(e) The owner or developer may continue to discharge stormwater that has not~~  
286 ~~been concentrated (sheet flow) onto lower lying property if:~~  
287 ~~1. the peak flow rate for a 10-year frequency storm after development does~~  
288 ~~not exceed the predevelopment peak flow rate;~~  
289 ~~2. the increase in total volumes of runoff caused by the development will~~  
290 ~~not have an adverse impact on the lower lying property; and~~  
291 ~~3. there will be no exacerbation of existing drainage problems on the lower~~  
292 ~~lying or other downhill property.~~  
293
- 294 ~~(5)(8) Stabilization of waterways and outlets. All on-site stormwater conveyance~~  
295 ~~channels shall be designed and constructed to withstand the expected velocity~~  
296 ~~of flow from a 10-year frequency storm without erosion. Stabilization~~  
297 ~~adequate to prevent erosion must also be provided at the outlets of all pipes~~  
298 ~~and paved channels. Energy dissipators shall be installed as required by the~~  
299 ~~director.~~  
300
- 301 ~~(6)(9) Working in or crossing watercourses. Construction vehicles should be kept~~  
302 ~~out of watercourses to the extent possible. Where in-channel work is~~  
303 ~~necessary, precautions must be taken to stabilize the work area during~~

construction to minimize erosion. The channel (including bed and banks) must always be re-stabilized immediately after in-channel work is completed.

~~(7)~~(10) Underground utility lines shall be installed in accordance with the following standard in addition to other applicable criteria: no more than 100 feet of trench are to be opened at one time.

~~(8)~~(11) Maintenance. All temporary and permanent erosion and sediment control practices must be maintained and repaired as specified in ~~VR 625-02-00 § 69VAC25-840-60.4 VAC 50-30-60~~.

~~(9)~~(12) Submission of an Erosion and Sediment Control Plan to the city is a grant of unlimited right of entry to the property to officials or agents of the city for the purposes of determining adequacy of the proposed plan and inspection of land-disturbing activities for compliance with the approved plan.

(d) The "Virginia Erosion and Sediment Control Handbook, Third Edition, 1992" and the tree planting and preservation regulations authorized by § 11-410(CC)(1) of the Zoning Ordinance of the City of Alexandria, and known as the city's Landscape Guidelines, shall be used by any applicant making a submittal under this chapter and by the director in his or her review and consideration of the adequacy of landscaping elements included in any erosion and sediment control plan submitted.

#### Sec. 5-4-8 Erosion and sediment control plans.

- a) Applications for approved erosion and sediment control plans shall be submitted to and filed with the director as part of the plan of development pursuant to the requirements in Article XIII of the Alexandria Zoning Ordinance, on forms prepared by the city, prior to the time any work subject to this chapter is begun on land. Fees for reviewing erosion and sediment control plans, ~~grading~~plot plans and performing field inspections for all new structures, exterior alteration, plumbing, electrical, or mechanical building permits where more than 2,500 square feet are disturbed shall be required, the fee to be determined by the ~~D~~director of Transportation and Environmental Services. Five copies of an erosion and sediment control plan or ~~grading~~plot plan must accompany any application, parts of which shall also be on forms prepared by the city. Upon receipt of an application and plans, the director shall consider the plan in light of the provisions of this chapter, and Virginia Erosion and Sediment Control Law and attendant regulations, and promptly approve the plan, disapprove the plan or approve the plan with modifications, noting thereon any changes that will be required. The director shall promptly notify the applicant of his or her decision on a plan. Any approved plan shall be issued, dated, and bear the manual signature of the director ~~of the department of transportation and environmental services or his or her deputy~~ or appropriate designee prior to the commencement of land-disturbing activities.



350 (Subsequent sections are unchanged.)

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352

353 Section 2. That this ordinance shall become effective upon the date and at the time of its

354 final passage.

355

356

WILLIAM D. EUILLE

357

Mayor

358

359 Introduction:

360 First Reading:

361 Publication:

362 Public Hearing:

363 Second Reading:

364 Final Passage:

365