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Part I  
Definitions, Purpose, and Applicability

**4VAC50-60-10. Definitions.**

The following words and terms used in this chapter have the following meanings unless the context clearly indicates otherwise.

"Act" means the Virginia Stormwater Management Act, Article 1.1 (§ 10.1-603.1 et seq.) of Chapter 6 of Title 10.1 of the Code of Virginia.

"Adequate channel" means a ~~channel~~ watercourse [ ~~or wetland~~ ] that will convey the designated frequency storm event without overtopping ~~the channel bank nor its banks or~~ causing erosive damage to the ~~channel bed or banks, or overbank sections of the same.~~ [ A wetland may be considered an adequate channel provided the discharge from the designated frequency storm event does not cause erosion in the wetland. ]

"Administrator" means the Administrator of the United States Environmental Protection Agency or an authorized representative.

"Applicable standards and limitations" means all state, interstate, and federal standards and limitations to which a discharge or a related activity is subject under the Clean Water Act (CWA) (33 USC § 1251 et seq.) and the Act, including effluent limitations, water quality standards, standards of performance, toxic effluent standards or prohibitions, best management practices, and standards for sewage sludge use or disposal under §§ 301, 302, 303, 304, 306, 307, 308, 403 and 405 of CWA.

"Approval authority" means the Virginia Soil and Water Conservation Board or their designee.

"Approved program" or "approved state" means a state or interstate program that has been approved or authorized by EPA under 40 CFR Part 123 (2000).

~~"Aquatic bench" means a 10 to 15 foot wide bench around the inside perimeter of a permanent pool that ranges in depth from zero to 12 inches. Vegetated with emergent plants, the bench augments pollutant removal, provides habitats, conceals trash and water level fluctuations, and enhances safety.~~

~~"Average land cover condition" means a measure of the average amount of impervious surfaces within a watershed, assumed to be 16%. Note that a locality may opt to calculate actual watershed specific values for the average land cover condition based upon 4VAC50-60-110.~~

"Average monthly discharge limitation" means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

"Average weekly discharge limitation" means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

"Best management practice (BMP)" or "BMP" means schedules of activities, prohibitions of practices, including both structural and nonstructural practices, maintenance procedures, and other management practices to prevent or reduce the pollution of surface waters and groundwater systems from the impacts of land-disturbing activities.

47 ~~"Bioretention basin" means a water quality BMP engineered to filter the water quality~~  
48 ~~volume through an engineered planting bed, consisting of a vegetated surface layer~~  
49 ~~(vegetation, mulch, ground cover), planting soil, and sand bed, and into the in-situ~~  
50 ~~material.~~

51 ~~"Bioretention filter" means a bioretention basin with the addition of a sand filter~~  
52 ~~collector pipe system beneath the planting bed.~~

53 "Board" means the Virginia Soil and Water Conservation Board.

54 "Bypass" means the intentional diversion of waste streams from any portion of a  
55 treatment facility.

56 "Channel" means a natural stream or manmade waterway watercourse with defined  
57 bed and banks that conducts continuously or periodically flowing water.

58 [ "Chesapeake Bay Watershed" means all land areas draining to the following  
59 Virginia river basins: Potomac River Basin, James River Basin, Rappahannock River  
60 Basin, Chesapeake Bay and small coastal basins, and York River Basin. ]

61 "Common plan of development or sale" means a contiguous area where separate  
62 and distinct construction activities may be taking place at different times on different  
63 schedules.

64 ~~"Constructed wetlands" means areas intentionally designed and created to emulate~~  
65 ~~the water quality improvement function of wetlands for the primary purpose of removing~~  
66 ~~pollutants from stormwater.~~

67 "Comprehensive stormwater management plan" means a plan, which may be  
68 integrated with other land use plans or regulations, that specifies how the water quality  
69 [ and components ] quantity components [ or both ] of stormwater are to be managed on  
70 the basis of an entire watershed or a portion thereof. The plan may also provide for the  
71 remediation of erosion, flooding, and water quality and quantity problems caused by  
72 prior development.

73 "Construction activity" means any clearing, grading or excavation associated with  
74 large construction activity or associated with small construction activity.

75 "Contiguous zone" means the entire zone established by the United States under  
76 Article 24 of the Convention on the Territorial Sea and the Contiguous Zone (37 FR  
77 11906 June 15, 1972).

78 "Continuous discharge" means a discharge which occurs without interruption  
79 throughout the operating hours of the facility, except for infrequent shutdowns for  
80 maintenance, process changes, or other similar activities.

81 "Control measure" means any BMP, stormwater facility, or other method used to  
82 minimize the discharge of pollutants to state waters.

83 "Co-operator" means an operator ~~to~~ of a VSMP permit that is only responsible for  
84 permit conditions relating to the discharge for which it is the operator.

85 "Clean Water Act" or "CWA" means the federal Clean Water Act (33 USC § 1251 et  
86 seq.), formerly referred to as the Federal Water Pollution Control Act or Federal Water  
87 Pollution Control Act Amendments of 1972, Public Law 92-500, as amended by Public  
88 Law 95-217, Public Law 95-576, Public Law 96-483, and Public Law 97-117, or any  
89 subsequent revisions thereto.

90 "CWA and regulations" means the Clean Water Act (CWA) and applicable  
91 regulations published in the Code of Federal Regulations promulgated thereunder. For  
92 the purposes of this chapter, it includes state program requirements.

93 "Daily discharge" means the discharge of a pollutant measured during a calendar  
94 day or any 24-hour period that reasonably represents the calendar day for purposes of  
95 sampling. For pollutants with limitations expressed in units of mass, the daily discharge  
96 is calculated as the total mass of the pollutant discharged over the day. For pollutants  
97 with limitations expressed in other units of measurement, the daily discharge is  
98 calculated as the average measurement of the pollutant over the day.

99 "Department" means the Department of Conservation and Recreation.

100 "Development" means ~~a tract of land developed or to be developed as a unit under~~  
101 ~~single ownership or unified control which is to be used for any business or industrial~~  
102 ~~purpose or is to contain three or more residential dwelling units~~ land disturbance and the  
103 resulting landform associated with the construction of residential, commercial, industrial,  
104 institutional, recreation, transportation, or utility facilities or structures [ or the clearing of  
105 land for non-agricultural or non-silvicultural purposes ] .

106 "Direct discharge" means the discharge of a pollutant.

107 "Director" means the Director of the Department of Conservation and Recreation or  
108 his designee.

109 "Discharge," when used without qualification, means the discharge of a pollutant.

110 "Discharge of a pollutant" means:

- 111 1. Any addition of any pollutant or combination of pollutants to state waters from  
112 any point source; or
- 113 2. Any addition of any pollutant or combination of pollutants to the waters of the  
114 contiguous zone or the ocean from any point source other than a vessel or other  
115 floating craft which is being used as a means of transportation.

116 This definition includes additions of pollutants into surface waters from: surface  
117 runoff that is collected or channeled by man; discharges through pipes, sewers, or other  
118 conveyances owned by a state, municipality, or other person that do not lead to a  
119 treatment works; and discharges through pipes, sewers, or other conveyances, leading  
120 into privately owned treatment works. This term does not include an addition of  
121 pollutants by any indirect discharger.

122 "Discharge Monitoring Report" or "DMR" means the form supplied by the  
123 department, or an equivalent form developed by the operator and approved by the  
124 board, for the reporting of self-monitoring results by operators.

125 "Draft permit" means a document indicating the board's tentative decision to issue or  
126 deny, modify, revoke and reissue, terminate, or reissue a permit. A notice of intent to  
127 terminate a permit, and a notice of intent to deny a permit are types of draft permits. A  
128 denial of a request for modification, revocation and reissuance, or termination is not a  
129 draft permit. A proposed permit is not a draft permit.

130 "Drainage area" means a land [ and area, ] water area [ on a land-disturbing site, or

131 both ] from which runoff flows to a common [ outlet ] point.

132 "Effluent limitation" means any restriction imposed by the board on quantities,  
133 discharge rates, and concentrations of pollutants which are discharged from point  
134 sources into surface waters, the waters of the contiguous zone, or the ocean.

135 "Effluent limitations guidelines" means a regulation published by the administrator  
136 under § 304(b) of the CWA to adopt or revise effluent limitations.

137 "Environmental Protection Agency (~~EPA~~)" or "EPA" means the United States  
138 Environmental Protection Agency.

139 "Existing permit" means for the purposes of this chapter a permit issued by the  
140 permit-issuing authority and currently held by a permit applicant.

141 "Existing source" means any source that is not a new source or a new discharger.

142 "Facilities or equipment" means buildings, structures, process or production  
143 equipment or machinery that form a permanent part of a new source and that will be  
144 used in its operation, if these facilities or equipment are of such value as to represent a  
145 substantial commitment to construct. It excludes facilities or equipment used in  
146 connection with feasibility, engineering, and design studies regarding the new source or  
147 water pollution treatment for the new source.

148 "Facility or activity" means any VSMP point source or treatment works treating  
149 domestic sewage or any other facility or activity (including land or appurtenances  
150 thereto) that is subject to regulation under the VSMP program.

151 "Flood fringe" is the portion of the floodplain outside the floodway [ , usually  
152 associated with standing rather than flowing water, which is covered by floodwater  
153 during the 100-year discharge ] .

154 "Flooding" means a volume of water that is too great to be confined within the banks  
155 or walls of the stream, water body or conveyance system and that overflows onto  
156 adjacent lands, thereby causing or threatening damage.

157 "Floodplain" means any land area adjoining a channel, river, stream, or other water  
158 body that is susceptible to being inundated by water. It includes the floodway and flood  
159 fringe areas.

160 "Floodway" means the channel of a river or other watercourse and the adjacent land  
161 areas, usually associated with flowing water, that must be reserved in order to discharge  
162 the base flood without cumulatively increasing the water surface elevation more than  
163 one foot or as otherwise designated by the Federal Emergency Management Agency.

164 "General permit" means a VSMP permit authorizing a category of discharges under  
165 the CWA and the Act within a geographical area of the Commonwealth of Virginia.

166 ~~"Grassed swale" means an earthen conveyance system which is broad and shallow~~  
167 ~~with erosion resistant grasses and check dams, engineered to remove pollutants from~~  
168 ~~stormwater runoff by filtration through grass and infiltration into the soil.~~

169 "Hazardous substance" means any substance designated under the Code of Virginia  
170 or 40 CFR Part 116 (2000) pursuant to § 311 of the CWA.

171 "Hydrologic Unit Code" or "HUC" means a watershed unit established in the most  
172 recent version of Virginia's 6th Order National Watershed Boundary Dataset.

173 "Illicit discharge" means any discharge to a municipal separate storm sewer that is  
174 not composed entirely of stormwater, except discharges pursuant to a VPDES or VSMP  
175 permit (other than the VSMP permit for discharges from the municipal separate storm  
176 sewer), discharges resulting from fire fighting activities, and discharges identified by and  
177 in compliance with 4VAC50-60-1220 C 2.

178 "Impervious cover" means a surface composed of any material that significantly  
179 impedes or prevents natural infiltration of water into soil. Impervious surfaces include,  
180 but are not limited to, conventional roofs, buildings, streets, parking areas, and any  
181 conventional concrete, asphalt, or ~~compacted~~ gravel surface that is or may become  
182 compacted.

183 "Incorporated place" means a city, town, township, or village that is incorporated  
184 under the Code of Virginia.

185 "Indian country" means (i) all land within the limits of any Indian reservation under  
186 the jurisdiction of the United States government, notwithstanding the issuance of any  
187 patent, and including rights-of-way running through the reservation; (ii) all dependent  
188 Indian communities with the borders of the United States whether within the originally or  
189 subsequently acquired territory thereof, and whether within or without the limits of a  
190 state; and (iii) all Indian allotments, the Indian titles to which have not been extinguished,  
191 including rights-of-way running through the same.

192 "Indirect discharger" means a nondomestic discharger introducing "pollutants" to a  
193 "publicly owned treatment works (POTW)."

194 ~~"Infiltration facility" means a stormwater management facility that temporarily~~  
195 ~~impounds runoff and discharges it via infiltration through the surrounding soil. While an~~  
196 ~~infiltration facility may also be equipped with an outlet structure to discharge impounded~~  
197 ~~runoff, such discharge is normally reserved for overflow and other emergency~~  
198 ~~conditions. Since an infiltration facility impounds runoff only temporarily, it is normally dry~~  
199 ~~during nonrainfall periods. Infiltration basin, infiltration trench, infiltration dry well, and~~  
200 ~~porous pavement shall be considered infiltration facilities.~~

201 "Inspection" means an on-site review of the project's compliance with the permit, the  
202 local stormwater management program, and any applicable design criteria, or an on-site  
203 review to obtain information or conduct surveys or investigations necessary in the  
204 enforcement of the Act and this chapter.

205 "Interstate agency" means an agency of two or more states established by or under  
206 an agreement or compact approved by Congress, or any other agency of two or more  
207 states having substantial powers or duties pertaining to the control of pollution as  
208 determined and approved by the administrator under the CWA and regulations.

209 [ "Karst area" means any land area predominantly underlain at the surface or shallow  
210 subsurface by limestone, dolomite, or other soluble bedrock regardless of any obvious  
211 surface karst features." ]

212 "Karst features" means sinkholes, sinking and losing streams, caves, large flow  
213 springs, and other such landscape features found in karst areas.

214 "Land disturbance" or "land-disturbing activity" means a manmade change to the  
215 land surface that potentially changes its runoff characteristics including any clearing,  
216 grading, or excavation associated with a construction activity regulated pursuant to the  
217 federal Clean Water Act CWA, the Act, and this chapter.

218 "Large construction activity" means construction activity including clearing, grading  
219 and excavation, except operations that result in the disturbance of less than five acres of  
220 total land area. Large construction activity also includes the disturbance of less than five  
221 acres of total land area that is a part of a larger common plan of development or sale if  
222 the larger common plan will ultimately disturb five acres or more.

223 "Large municipal separate storm sewer system" means all municipal separate storm  
224 sewers that are either:

- 225 1. Located in an incorporated place with a population of 250,000 or more as  
226 determined by the 1990 decennial census by the Bureau of Census (40 CFR Part  
227 122 Appendix F (2000));
- 228 2. Located in the counties listed in 40 CFR Part 122 Appendix H (2000), except  
229 municipal separate storm sewers that are located in the incorporated places,  
230 townships or towns within such counties;

231 3. Owned or operated by a municipality other than those described in subdivision  
232 1 or 2 of this definition and that are designated by the board as part of the large  
233 or medium municipal separate storm sewer system due to the interrelationship  
234 between the discharges of the designated storm sewer and the discharges from  
235 municipal separate storm sewers described under subdivision 1 or 2 of this  
236 definition. In making this determination the board may consider the following  
237 factors:

- 238 a. Physical interconnections between the municipal separate storm sewers;  
239 b. The location of discharges from the designated municipal separate storm  
240 sewer relative to discharges from municipal separate storm sewers described  
241 in subdivision 1 of this definition;  
242 c. The quantity and nature of pollutants discharged to surface waters;  
243 d. The nature of the receiving surface waters; and  
244 e. Other relevant factors.

245 4. The board may, upon petition, designate as a large municipal separate storm  
246 sewer system, municipal separate storm sewers located within the boundaries of  
247 a region defined by a stormwater management regional authority based on a  
248 jurisdictional, watershed, or other appropriate basis that includes one or more of  
249 the systems described in this definition.

250 "Linear development project" means a land-disturbing activity that is linear in nature  
251 such as, but not limited to, (i) the construction of electric and telephone utility lines, and  
252 natural gas pipelines; (ii) construction of tracks, rights-of-way, bridges, communication  
253 facilities and other related structures of a railroad company; (iii) highway construction  
254 projects ~~[ and ]~~ (iv) construction of stormwater channels and stream restoration activities  
255 ~~[ ; and (v) water and sewer lines ]~~ . Private subdivision roads or streets shall not be  
256 considered linear development projects.

257 "Local stormwater management program" or "local program" means ~~a statement of~~  
258 ~~the various methods employed by a locality or the department to manage the quality and~~  
259 ~~quantity of runoff resulting from land-disturbing activities and shall include such items as~~  
260 ~~local ordinances, permit requirements, policies and guidelines, technical materials, plan~~  
261 ~~review, inspection, enforcement, and evaluation consistent with the Act and this chapter.~~  
262 ~~The ordinance shall include provisions to require the control of after development~~  
263 ~~stormwater runoff rate of flow, the proper maintenance of stormwater management~~  
264 ~~facilities, and minimum administrative procedures.~~

265 "Locality" means a county, city, or town.

266 "Major facility" means any VSMP facility or activity classified as such by the regional  
267 administrator in conjunction with the board.

268 "Major modification" means, for the purposes of this chapter, the modification or  
269 amendment of an existing permit before its expiration that is not a minor modification as  
270 defined in this regulation.

271 "Major municipal separate storm sewer outfall ~~(or major outfall)~~ or "major outfall"  
272 means a municipal separate storm sewer outfall that discharges from a single pipe with  
273 an inside diameter of 36 inches or more or its equivalent (discharge from a single  
274 conveyance other than circular pipe which is associated with a drainage area of more  
275 than 50 acres); or for municipal separate storm sewers that receive stormwater from  
276 lands zoned for industrial activity (based on comprehensive zoning plans or the  
277 equivalent), with an outfall that discharges from a single pipe with an inside diameter of

278 12 inches or more or from its equivalent (discharge from other than a circular pipe  
279 associated with a drainage area of two acres or more).

280 "Manmade" means constructed by man.

281 "Manmade stormwater conveyance system" means a pipe, ditch, vegetated swale, or  
282 other conveyance constructed by man.

283 "Maximum daily discharge limitation" means the highest allowable daily discharge.

284 "Maximum extent practicable" or "MEP" means the technology-based discharge  
285 standard for municipal separate storm sewer systems established by CWA § 402(p).  
286 MEP is achieved, in part, by selecting and implementing effective structural and  
287 nonstructural best management practices (BMPs) and rejecting ineffective BMPs and  
288 replacing them with effective best management practices (BMPs). MEP is an iterative  
289 standard, which evolves over time as urban runoff management knowledge increases.  
290 As such, the operator's MS4 program must continually be assessed and modified to  
291 incorporate improved programs, control measures, BMPs, etc., to attain compliance with  
292 water quality standards.

293 "Medium municipal separate storm sewer system" means all municipal separate  
294 storm sewers that are either:

295 1. Located in an incorporated place with a population of 100,000 or more but less  
296 than 250,000 as determined by the 1990 decennial census by the Bureau of  
297 Census (40 CFR Part 122 Appendix G (2000));

298 2. Located in the counties listed in 40 CFR Part 122 Appendix I (2000), except  
299 municipal separate storm sewers that are located in the incorporated places,  
300 townships or towns within such counties;

301 3. Owned or operated by a municipality other than those described in subdivision  
302 1 or 2 of this definition and that are designated by the board as part of the large  
303 or medium municipal separate storm sewer system due to the interrelationship  
304 between the discharges of the designated storm sewer and the discharges from  
305 municipal separate storm sewers described under subdivision 1 or 2 of this  
306 definition. In making this determination the board may consider the following  
307 factors:

308 a. Physical interconnections between the municipal separate storm sewers;

309 b. The location of discharges from the designated municipal separate storm  
310 sewer relative to discharges from municipal separate storm sewers described  
311 in subdivision 1 of this definition;

312 c. The quantity and nature of pollutants discharged to surface waters;

313 d. The nature of the receiving surface waters; or

314 e. Other relevant factors.

315 4. The board may, upon petition, designate as a medium municipal separate  
316 storm sewer system, municipal separate storm sewers located within the  
317 boundaries of a region defined by a stormwater management regional authority  
318 based on a jurisdictional, watershed, or other appropriate basis that includes one  
319 or more of the systems described in subdivisions 1, 2 and 3 of this definition.

320 "Minor modification" means, for the purposes of this chapter, minor modification or  
321 amendment of an existing permit before its expiration for the reasons listed at 40 CFR  
322 122.63 and as specified in 4VAC50-60-640. Minor modification for the purposes of this  
323 chapter also means other modifications and amendments not requiring extensive review

324 and evaluation including, but not limited to, changes in EPA promulgated test protocols,  
325 increasing monitoring frequency requirements, changes in sampling locations, and  
326 changes to compliance dates within the overall compliance schedules. A minor permit  
327 modification or amendment does not substantially alter permit conditions, substantially  
328 increase or decrease the amount of surface water impacts, increase the size of the  
329 operation, or reduce the capacity of the facility to protect human health or the  
330 environment.

331 "Municipal separate storm sewer" means a conveyance or system of conveyances  
332 otherwise known as a municipal separate storm sewer system, including roads with  
333 drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade  
334 channels, or storm drains:

- 335 1. Owned or operated by a federal, state, city, town, county, district, association,  
336 or other public body, created by or pursuant to state law, having jurisdiction or  
337 delegated authority for erosion and sediment control and stormwater  
338 management, or a designated and approved management agency under § 208  
339 of the CWA that discharges to surface waters;
- 340 2. Designed or used for collecting or conveying stormwater;
- 341 3. That is not a combined sewer; and
- 342 4. That is not part of a publicly owned treatment works.

343 "Municipal separate storm sewer system" or "MS4" means all separate storm sewers  
344 that are defined as "large" or "medium" or "small" municipal separate storm sewer  
345 systems or designated under 4VAC50-60-380 A 1.

346 "Municipal Separate Storm Sewer System Management Program" or "MS4 Program"  
347 means a management program covering the duration of a permit for a municipal  
348 separate storm sewer system that includes a comprehensive planning process that  
349 involves public participation and intergovernmental coordination, to reduce the discharge  
350 of pollutants to the maximum extent practicable, to protect water quality, and to satisfy  
351 the appropriate water quality requirements of the CWA and regulations and the ~~Virginia~~  
352 ~~Stormwater Management Act~~ and attendant regulations, using management practices,  
353 control techniques, and system, design and engineering methods, and such other  
354 provisions that are appropriate.

355 "Municipality" means a city, town, county, district, association, or other public body  
356 created by or under state law and having jurisdiction over disposal of sewage, industrial  
357 wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or  
358 a designated and approved management agency under § 208 of the CWA.

359 "National Pollutant Discharge Elimination System (NPDES)" or "NPDES" means the  
360 national program for issuing, modifying, revoking and reissuing, terminating, monitoring  
361 and enforcing permits, and imposing and enforcing pretreatment requirements under §§  
362 307, 402, 318, and 405 of the CWA. The term includes an approved program.

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

367 "Natural stormwater conveyance system" means the main channel of a natural  
368 stream, in combination with the floodway and flood fringe, which compose the  
369 floodplain.

370 "Natural stream" means a tidal or nontidal watercourse that is part of the natural  
371 topography. It usually maintains a continuous or seasonal flow during the year and is  
372 characterized as being irregular in cross-section with a meandering course. Constructed  
373 channels such as drainage ditches or swales shall not be considered natural streams [  
374 however, channels designed utilizing natural channel design concepts may be  
375 considered natural streams ] .

376 "New discharger" means any building, structure, facility, or installation:

- 377 1. From which there is or may be a discharge of pollutants;
- 378 2. That did not commence the discharge of pollutants at a particular site prior to
- 379 August 13, 1979;
- 380 3. Which is not a new source; and
- 381 4. Which has never received a finally effective VPDES or VSMP permit for
- 382 discharges at that site.

383 This definition includes an indirect discharger that commences discharging into

384 surface waters after August 13, 1979. It also includes any existing mobile point source

385 (other than an offshore or coastal oil and gas exploratory drilling rig or a coastal oil and

386 gas developmental drilling rig) such as a seafood processing rig, seafood processing

387 vessel, or aggregate plant, that begins discharging at a site for which it does not have a

388 permit; and any offshore or coastal mobile oil and gas exploratory drilling rig or coastal

389 mobile oil and gas developmental drilling rig that commences the discharge of pollutants

390 after August 13, 1979.

391 "New permit" means, for the purposes of this chapter, a permit issued by the permit-

392 issuing authority to a permit applicant that does not currently hold and has never held a

393 permit of that type, for that activity, at that location.

394 "New source," means any building, structure, facility, or installation from which there

395 is or may be a discharge of pollutants, the construction of which commenced:

- 396 1. After promulgation of standards of performance under § 306 of the CWA that
- 397 are applicable to such source; or
- 398 2. After proposal of standards of performance in accordance with § 306 of the
- 399 CWA that are applicable to such source, but only if the standards are
- 400 promulgated in accordance with § 306 of the CWA within 120 days of their
- 401 proposal.

402 "Nonpoint source pollution" means pollution such as sediment, nitrogen and

403 phosphorous, hydrocarbons, heavy metals, and toxics whose sources cannot be

404 pinpointed but rather are washed from the land surface in a diffuse manner by

405 stormwater runoff.

406 ~~"Nonpoint source pollutant runoff load" or "pollutant discharge" means the average~~

407 ~~amount of a particular pollutant measured in pounds per year, delivered in a diffuse~~

408 ~~manner by stormwater runoff.~~

409 "Operator" means the owner or operator of any facility or activity subject to the

410 VSMP permit regulation. In the context of stormwater associated with a large or small

411 construction activity, operator means any person associated with a construction project

412 that meets either of the following two criteria: (i) the person has direct operational control

413 over construction plans and specifications, including the ability to make modifications to

414 those plans and specifications or (ii) the person has day-to-day operational control of

415 those activities at a project that are necessary to ensure compliance with a stormwater

416 pollution prevention plan for the site or other permit conditions (i.e., they are authorized

417 to direct workers at a site to carry out activities required by the stormwater pollution  
418 prevention plan or comply with other permit conditions). In the context of stormwater  
419 discharges from Municipal Separate Storm Sewer Systems (MS4s), operator means the  
420 operator of the regulated MS4 system.

421 "Outfall" means, when used in reference to municipal separate storm sewers, a point  
422 source at the point where a municipal separate storm sewer discharges to surface  
423 waters and does not include open conveyances connecting two municipal separate  
424 storm sewers, or pipes, tunnels or other conveyances which connect segments of the  
425 same stream or other surface waters and are used to convey surface waters.

426 "Overburden" means any material of any nature, consolidated or unconsolidated,  
427 that overlies a mineral deposit, excluding topsoil or similar naturally occurring surface  
428 materials that are not disturbed by mining operations.

429 "Owner" means the Commonwealth or any of its political subdivisions including, but  
430 not limited to, sanitation district commissions and authorities, and any public or private  
431 institution, corporation, association, firm or company organized or existing under the  
432 laws of this or any other state or country, or any officer or agency of the United States, or  
433 any person or group of persons acting individually or as a group that owns, operates,  
434 charters, rents, or otherwise exercises control over or is responsible for any actual or  
435 potential discharge of sewage, industrial wastes, or other wastes or pollutants to state  
436 waters, or any facility or operation that has the capability to alter the physical, chemical,  
437 or biological properties of state waters in contravention of § 62.1-44.5 of the Code of  
438 Virginia, the Act and this chapter.

439 "Peak flow rate" means the maximum instantaneous flow from a prescribed design  
440 storm at a particular location.

441 "Percent impervious" means the impervious area within the site divided by the area  
442 of the site multiplied by 100.

443 "Permit" means an approval issued by the permit-issuing authority for the initiation of  
444 a land-disturbing activity or for stormwater discharges from an MS4. Permit does not  
445 include any permit that has not yet been the subject of final permit-issuing authority  
446 action, such as a draft permit or a proposed permit.

447 "Permit-issuing authority" means the board, the department, or a locality ~~that is~~  
448 ~~delegated authority by the board to issue, deny, revoke, terminate, or amend stormwater~~  
449 ~~permits under the provisions of the Act and this chapter~~ with a qualifying local program.

450 "Permittee" means the person or locality to which the permit is issued, including any  
451 owner or operator whose construction site is covered under a construction general  
452 permit.

453 "Person" means any individual, corporation, partnership, association, state,  
454 municipality, commission, or political subdivision of a state, governmental body  
455 (including but not limited to a federal, state, or local entity), any interstate body or any  
456 other legal entity.

457 "Planning area" means a designated portion of the parcel on which the land  
458 development project is located. Planning areas shall be established by delineation on a  
459 master plan. Once established, planning areas shall be applied consistently for all future  
460 projects.

461 "Point of discharge" means a location at which [ concentrated ] stormwater runoff is  
462 released.

463 "Point source" means any discernible, confined, and discrete conveyance including,  
464 but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure,  
465 container, rolling stock, concentrated animal feeding operation, landfill leachate  
466 collection system, vessel, or other floating craft from which pollutants are or may be  
467 discharged. This term does not include return flows from irrigated agriculture or  
468 agricultural stormwater runoff.

469 "Pollutant" means dredged spoil, solid waste, incinerator residue, filter backwash,  
470 sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials,  
471 radioactive materials (except those regulated under the Atomic Energy Act of 1954, as  
472 amended (42 USC § 2011 et seq.)), heat, wrecked or discarded equipment, rock, sand,  
473 cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does  
474 not mean:

- 475 1. Sewage from vessels; or  
476 2. Water, gas, or other material that is injected into a well to facilitate production  
477 of oil or gas, or water derived in association with oil and gas production and  
478 disposed of in a well if the well used either to facilitate production or for disposal  
479 purposes is approved by the board and if the board determines that the injection  
480 or disposal will not result in the degradation of ground or surface water  
481 resources.

482 "Pollutant discharge" means the average amount of a particular pollutant measured  
483 in pounds per year or other standard reportable unit as appropriate, delivered [ ~~in a~~  
484 ~~diffuse manner~~ ] by stormwater runoff.

485 "Pollution" means such alteration of the physical, chemical or biological properties of  
486 any state waters as will or is likely to create a nuisance or render such waters (a)  
487 harmful or detrimental or injurious to the public health, safety or welfare, or to the health  
488 of animals, fish or aquatic life; (b) unsuitable with reasonable treatment for use as  
489 present or possible future sources of public water supply; or (c) unsuitable for  
490 recreational, commercial, industrial, agricultural, or other reasonable uses, provided that  
491 (i) an alteration of the physical, chemical, or biological property of state waters, or a  
492 discharge or deposit of sewage, industrial wastes or other wastes to state waters by any  
493 owner which by itself is not sufficient to cause pollution, but which, in combination with  
494 such alteration of or discharge or deposit to state waters by other owners, is sufficient to  
495 cause pollution; (ii) the discharge of untreated sewage by any owner into state waters;  
496 and (iii) contributing to the contravention of standards of water quality duly established  
497 by the State Water Control Board, are "pollution" for the terms and purposes of this  
498 chapter.

499 "~~Post development~~" "Postdevelopment" refers to conditions that reasonably may be  
500 expected or anticipated to exist after completion of the land development activity on a  
501 specific site or tract of land.

502 "~~Pre development~~" "Predevelopment" refers to the conditions that exist at the time  
503 that plans for the land development of a tract of land are ~~approved by~~ submitted to the  
504 plan approval authority. Where phased development or plan approval occurs  
505 (preliminary grading, [ demolition of existing structures ] roads and utilities, etc.), the  
506 existing conditions at the time prior to the first item being ~~approved or permitted~~  
507 submitted shall establish ~~pre-development~~ predevelopment conditions.

508 "Prior developed lands" means land that has been previously utilized for residential,  
509 commercial, industrial, institutional, recreation, transportation or utility facilities or

510 structures, and that will have the impervious areas associated with those uses altered  
511 during a land-disturbing activity.

512 "Privately owned treatment works (~~PVOTW~~)" or "PVOTW" means any device or  
513 system that is (i) used to treat wastes from any facility whose operator is not the operator  
514 of the treatment works and (ii) not a POTW.

515 "Proposed permit" means a VSMP permit prepared after the close of the public  
516 comment period (and, when applicable, any public hearing and administrative appeals)  
517 that is sent to EPA for review before final issuance. A proposed permit is not a draft  
518 permit.

519 "Publicly owned treatment works (~~POTW~~)" or "POTW" means a treatment works as  
520 defined by § 212 of the CWA that is owned by a state or municipality (as defined by §  
521 502(4) of the CWA). This definition includes any devices and systems used in the  
522 storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes  
523 of a liquid nature. It also includes sewers, pipes, and other conveyances only if they  
524 convey wastewater to a POTW treatment plant. The term also means the municipality as  
525 defined in § 502(4) of the CWA, that has jurisdiction over the indirect discharges to and  
526 the discharges from such a treatment works.

527 "Qualified personnel" means a licensed professional engineer, responsible land  
528 disturber, or other person who holds a certificate of competency from the board in the  
529 area of project inspection or combined administrator.

530 "Qualifying local stormwater management program" or "qualifying local program"  
531 means a local program that is administered by a locality that has been authorized by the  
532 board to issue coverage under the VSMP General Permit for Discharges of Stormwater  
533 from Construction Activities (4VAC50-60-1170).

534 "Recommencing discharger" means a source that recommences discharge after  
535 terminating operations.

536 "Regional administrator" means the Regional Administrator of Region III of the  
537 Environmental Protection Agency or the authorized representative of the regional  
538 administrator.

539 ~~"Regional (watershed wide) stormwater management facility" or "regional facility"~~  
540 ~~means a facility or series of facilities designed to control stormwater runoff from a~~  
541 ~~specific watershed, although only portions of the watershed may experience land~~  
542 ~~development.~~

543 ~~"Regional (watershed wide) stormwater management plan" or "regional plan" means~~  
544 ~~a document containing material describing how runoff from open space, existing~~  
545 ~~development and future planned development areas within a watershed will be~~  
546 ~~controlled by coordinated design and implementation of regional stormwater~~  
547 ~~management facilities.~~

548 "Restored stormwater conveyance system" means a stormwater conveyance system  
549 that has been designed and constructed using natural channel design concepts,  
550 including the main channel, floodway, and flood fringe.

551 "Revoked permit" means, for the purposes of this chapter, an existing permit that is  
552 terminated by the board before its expiration.

553 "Runoff coefficient" means the fraction of total rainfall that will appear at a  
554 conveyance as runoff.

555 "Runoff" or "stormwater runoff" means that portion of precipitation that is discharged  
556 across the land surface or through conveyances to one or more waterways.

557 ~~"Sand filter" means a contained bed of sand that acts to filter the first flush of runoff.~~  
558 ~~The runoff is then collected beneath the sand bed and conveyed to an adequate~~  
559 ~~discharge point or infiltrated into the in-situ soils.~~

560 "Runoff characteristics" include [ ~~but are not limited to,~~ ] velocity, peak flow rate,  
561 volume, time of concentration, and flow duration, and their influence on channel  
562 morphology including sinuosity, channel cross-sectional area, and channel slope.

563 "Runoff volume" means the volume of water that runs off the site of a land-disturbing  
564 activity from a prescribed design storm.

565 "Schedule of compliance" means a schedule of remedial measures included in a  
566 permit, including an enforceable sequence of interim requirements (for example, actions,  
567 operations, or milestone events) leading to compliance with the Act, the CWA and  
568 regulations.

569 "Secretary" means the Secretary of the Army, acting through the Chief of Engineers.

570 "Severe property damage" means substantial physical damage to property, damage  
571 to the treatment facilities that causes them to become inoperable, or substantial and  
572 permanent loss of natural resources that can reasonably be expected to occur in the  
573 absence of a bypass. Severe property damage does not mean economic loss caused by  
574 delays in production.

575 ~~"Shallow marsh" means a zone within a stormwater extended detention basin that~~  
576 ~~exists from the surface of the normal pool to a depth of six to 18 inches, and has a large~~  
577 ~~surface area and, therefore, requires a reliable source of baseflow, groundwater supply,~~  
578 ~~or a sizeable drainage area, to maintain the desired water surface elevations to support~~  
579 ~~emergent vegetation.~~

580 "Significant materials" means, but is not limited to: raw materials; fuels; materials  
581 such as solvents, detergents, and plastic pellets; finished materials such as metallic  
582 products; raw materials used in food processing or production; hazardous substances  
583 designated under § 101(14) of CERCLA (42 USC § 9601(14)); any chemical the facility  
584 is required to report pursuant to § 313 of Title III of SARA (42 USC § 11023); fertilizers;  
585 pesticides; and waste products such as ashes, slag and sludge that have the potential to  
586 be released with stormwater discharges.

587 "Single jurisdiction" means, for the purposes of this chapter, a single county or city.  
588 The term county includes incorporated towns which are part of the county.

589 "Site" means the land or water area where any facility or activity is physically located  
590 or conducted, a parcel of land being developed, or a designated ~~planning area of a~~  
591 parcel in which the land development project is located. Areas channelward of mean low  
592 water in tidal Virginia shall not be considered part of a site.

593 "Site hydrology" means the movement of water on, across, through and off the site  
594 as determined by parameters including, but not limited to, soil types, soil permeability,  
595 vegetative cover, seasonal water tables, slopes, land cover, and impervious cover.

596 "Small construction activity" means:

597 1. Construction activities including clearing, grading, and excavating that results  
598 in land disturbance of equal to or greater than one acre, or equal to or greater  
599 than 2,500 square feet in all areas of the jurisdictions designated as subject to  
600 the Chesapeake Bay Preservation Area Designation and Management  
601 Regulations adopted pursuant to the Chesapeake Bay Preservation Act, and less  
602 than five acres. Small construction activity also includes the disturbance of less  
603 than one acre of total land area that is part of a larger common plan of

604 development or sale if the larger common plan will ultimately disturb equal to or  
605 greater than one and less than five acres. Small construction activity does not  
606 include routine maintenance that is performed to maintain the original line and  
607 grade, hydraulic capacity, or original purpose of the facility. The board may waive  
608 the otherwise applicable requirements in a general permit for a stormwater  
609 discharge from construction activities that disturb less than five acres where  
610 stormwater controls are not needed based on a "total maximum daily load"  
611 (TMDL) approved or established by EPA that addresses the pollutant(s) of  
612 concern or, for nonimpaired waters that do not require TMDLs, an equivalent  
613 analysis that determines allocations for small construction sites for the  
614 pollutant(s) of concern or that determines that such allocations are not needed to  
615 protect water quality based on consideration of existing in-stream concentrations,  
616 expected growth in pollutant contributions from all sources, and a margin of  
617 safety. For the purpose of this subdivision, the pollutant(s) of concern include  
618 sediment or a parameter that addresses sediment (such as total suspended  
619 solids, turbidity or siltation) and any other pollutant that has been identified as a  
620 cause of impairment of any water body that will receive a discharge from the  
621 construction activity. The operator must certify to the board that the construction  
622 activity will take place, and stormwater discharges will occur, within the drainage  
623 area addressed by the TMDL or equivalent analysis.

624 2. Any other construction activity designated by either the board or the EPA  
625 regional administrator, based on the potential for contribution to a violation of a  
626 water quality standard or for significant contribution of pollutants to surface  
627 waters.

628 "Small municipal separate storm sewer system" or "small MS4" means all separate  
629 storm sewers that are (i) owned or operated by the United States, a state, city, town,  
630 borough, county, parish, district, association, or other public body (created by or  
631 pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes,  
632 stormwater, or other wastes, including special districts under state law such as a sewer  
633 district, flood control district or drainage district, or similar entity, or an Indian tribe or an  
634 authorized Indian tribal organization, or a designated and approved management  
635 agency under § 208 of the CWA that discharges to surface waters and (ii) not defined as  
636 "large" or "medium" municipal separate storm sewer systems or designated under  
637 4VAC50-60-380 A 1. This term includes systems similar to separate storm sewer  
638 systems in municipalities, such as systems at military bases, large hospital or prison  
639 complexes, and highway and other thoroughfares. The term does not include separate  
640 storm sewers in very discrete areas, such as individual buildings.

641 "Source" means any building, structure, facility, or installation from which there is or  
642 may be a discharge of pollutants.

643 "Stable" means, in the context of channels, a channel that has developed an  
644 established dimension, pattern, and profile such that over time, these features are  
645 maintained.

646 "State" means the Commonwealth of Virginia.

647 "State/EPA agreement" means an agreement between the regional administrator  
648 and the state that coordinates EPA and state activities, responsibilities and programs  
649 including those under the CWA and the Act.

650 "State project" means any land development project that is undertaken by any state  
651 agency, board, commission, authority or any branch of state government, including  
652 state-supported institutions of higher learning.

653 "State Water Control Law" means Chapter 3.1 (§ 62.1-44.2 et seq.) of Title 62.1 of  
654 the Code of Virginia.

655 "State waters" means all water, on the surface and under the ground, wholly or  
656 partially within or bordering the Commonwealth or within its jurisdiction, including  
657 wetlands.

658 "Stormwater" means precipitation that is discharged across the land surface or  
659 through conveyances to one or more waterways and that may include stormwater runoff,  
660 snow melt runoff, and surface runoff and drainage.

661 "Stormwater conveyance system" means any of the following, either within or  
662 downstream of the land-disturbing activity: (i) a manmade stormwater conveyance  
663 system, (ii) a natural stormwater conveyance system, or (iii) a restored stormwater  
664 conveyance system.

665 ~~"Stormwater detention basin" or "detention basin" means a stormwater management~~  
666 ~~facility that temporarily impounds runoff and discharges it through a hydraulic outlet~~  
667 ~~structure to a downstream conveyance system. While a certain amount of outflow may~~  
668 ~~also occur via infiltration through the surrounding soil, such amounts are negligible when~~  
669 ~~compared to the outlet structure discharge rates and are, therefore, not considered in~~  
670 ~~the facility's design. Since a detention facility impounds runoff only temporarily, it is~~  
671 ~~normally dry during nonrainfall periods.~~

672 "Stormwater discharge associated with construction activity" means a discharge of  
673 pollutants in stormwater runoff from areas where land-disturbing activities (e.g., clearing,  
674 grading, or excavation); construction materials or equipment storage or maintenance  
675 (e.g., fill piles, borrow area, concrete truck washout, fueling); or other industrial  
676 stormwater directly related to the construction process (e.g., concrete or asphalt batch  
677 plants) are located.

678 "Stormwater discharge associated with large construction activity" means the  
679 discharge of stormwater from large construction activities.

680 "Stormwater discharge associated with small construction activity" means the  
681 discharge of stormwater from small construction activities.

682 ~~"Stormwater extended detention basin" or "extended detention basin" means a~~  
683 ~~stormwater management facility that temporarily impounds runoff and discharges it~~  
684 ~~through a hydraulic outlet structure over a specified period of time to a downstream~~  
685 ~~conveyance system for the purpose of water quality enhancement or stream channel~~  
686 ~~erosion control. While a certain amount of outflow may also occur via infiltration through~~  
687 ~~the surrounding soil, such amounts are negligible when compared to the outlet structure~~  
688 ~~discharge rates and, therefore, are not considered in the facility's design. Since an~~  
689 ~~extended detention basin impounds runoff only temporarily, it is normally dry during~~  
690 ~~nonrainfall periods.~~

691 ~~"Stormwater extended detention basin-enhanced" or "extended detention basin-~~  
692 ~~enhanced" means an extended detention basin modified to increase pollutant removal~~  
693 ~~by providing a shallow marsh in the lower stage of the basin.~~

694 "Stormwater management facility" means a device that controls stormwater runoff  
695 and changes the characteristics of that runoff including, but not limited to, the quantity  
696 and quality, the period of release or the velocity of flow.

697 "Stormwater management plan" means a document(s) containing material for  
698 describing how existing runoff characteristics will be maintained by a land-disturbing  
699 activity and methods for complying with the requirements of the local program or this  
700 chapter.

701 "Stormwater Management Program" means a program established by a locality that  
702 is consistent with the requirements of the ~~Virginia Stormwater Management Act~~, this  
703 chapter and associated guidance documents.

704 "Stormwater management standards" means the minimum criteria for stormwater  
705 management programs and land-disturbing activities as set out in Part II (4VAC50-60-40  
706 et seq.) of this chapter.

707 "Stormwater Pollution Prevention Plan" or "SWPPP" means a document that is  
708 prepared in accordance with good engineering practices and that identifies potential  
709 sources of pollutants that may reasonably be expected to affect the quality of stormwater  
710 discharges from the construction site or its associated land-disturbing activities. In  
711 addition the document shall identify and require the implementation of control measures,  
712 and shall include, but not be limited to the inclusion of, or the incorporation by reference  
713 of, an erosion and sediment control plan, a post-construction stormwater management  
714 plan, a spill prevention control and countermeasure (SPCC) plan, and other practices  
715 that will be used to minimize pollutants in stormwater discharges from land-disturbing  
716 activities in compliance with the terms and conditions of this chapter. All plans  
717 incorporated by reference into the SWPPP shall be enforceable under the permit issued  
718 or general permit coverage authorized.

719 ~~"Stormwater retention basin" or "retention basin" means a stormwater management~~  
720 ~~facility that includes a permanent impoundment, or normal pool of water, for the purpose~~  
721 ~~of enhancing water quality and, therefore, is normally wet, even during nonrainfall~~  
722 ~~periods. Storm runoff inflows may be temporarily stored above this permanent~~  
723 ~~impoundment for the purpose of reducing flooding, or stream channel erosion.~~

724 ~~"Stormwater retention basin I" or "retention basin I" means a retention basin with the~~  
725 ~~volume of the permanent pool equal to three times the water quality volume.~~

726 ~~"Stormwater retention basin II" or "retention basin II" means a retention basin with~~  
727 ~~the volume of the permanent pool equal to four times the water quality volume.~~

728 ~~"Stormwater retention basin III" or "retention basin III" means a retention basin with~~  
729 ~~the volume of the permanent pool equal to four times the water quality volume with the~~  
730 ~~addition of an aquatic bench.~~

731 "Subdivision" means the same as defined in § 15.2-2201 of the Code of Virginia.

732 "Surface waters" means:

733 1. All waters that are currently used, were used in the past, or may be  
734 susceptible to use in interstate or foreign commerce, including all waters that are  
735 subject to the ebb and flow of the tide;

736 2. All interstate waters, including interstate wetlands;

737 3. All other waters such as intrastate lakes, rivers, streams (including intermittent  
738 streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows,  
739 playa lakes, or natural ponds the use, degradation, or destruction of which would  
740 affect or could affect interstate or foreign commerce including any such waters:

741 a. That are or could be used by interstate or foreign travelers for recreational  
742 or other purposes;

- 743                    b. From which fish or shellfish are or could be taken and sold in interstate or  
744                    foreign commerce; or  
745                    c. That are used or could be used for industrial purposes by industries in  
746                    interstate commerce.
- 747                    4. All impoundments of waters otherwise defined as surface waters under this  
748                    definition;
- 749                    5. Tributaries of waters identified in subdivisions 1 through 4 of this definition;
- 750                    6. The territorial sea; and
- 751                    7. Wetlands adjacent to waters (other than waters that are themselves wetlands)  
752                    identified in subdivisions 1 through 6 of this definition.

753                    Waste treatment systems, including treatment ponds or lagoons designed to meet  
754                    the requirements of the CWA and the law, are not surface waters. Surface waters do not  
755                    include prior converted cropland. Notwithstanding the determination of an area's status  
756                    as prior converted cropland by any other agency, for the purposes of the Clean Water  
757                    Act, the final authority regarding the Clean Water Act jurisdiction remains with the EPA.

758                    "Total dissolved solids" means the total dissolved (filterable) solids as determined by  
759                    use of the method specified in 40 CFR Part 136 (2000).

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

765                    "Toxic pollutant" means any pollutant listed as toxic under § 307(a)(1) of the CWA or,  
766                    in the case of sludge use or disposal practices, any pollutant identified in regulations  
767                    implementing § 405(d) of the CWA.

768                    "Unstable" means, in the context of channels, a channel that is not stable.

769                    "Upset" means an exceptional incident in which there is unintentional and temporary  
770                    noncompliance with technology based permit effluent limitations because of factors  
771                    beyond the reasonable control of the operator. An upset does not include  
772                    noncompliance to the extent caused by operational error, improperly designed treatment  
773                    facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or  
774                    improper operation.

775                    ["Urban development Area" or "UDA" means, as defined by § 15.2-2223.1 of the  
776                    Code of Virginia, an area designated by a locality that is appropriate for higher density  
777                    development due to proximity to transportation facilities, the availability of a public or  
778                    community water and sewer system, or proximity to a city, town, or other developed  
779                    area.]

780                    "Variance" means any mechanism or provision under § 301 or § 316 of the CWA or  
781                    under 40 CFR Part 125 (2000), or in the applicable federal effluent limitations guidelines  
782                    that allows modification to or waiver of the generally applicable effluent limitation  
783                    requirements or time deadlines of the CWA. This includes provisions that allow the  
784                    establishment of alternative limitations based on fundamentally different factors or on §  
785                    301(c), § 301(g), § 301(h), § 301(i), or § 316(a) of the CWA.

786                    ~~"Vegetated filter strip" means a densely vegetated section of land engineered to~~  
787                    ~~accept runoff as overland sheet flow from upstream development. It shall adopt any~~  
788                    ~~natural vegetated form, from grassy meadow to small forest. The vegetative cover~~

~~789 facilitates pollutant removal through filtration, sediment deposition, infiltration and  
790 absorption, and is dedicated for that purpose.~~

791 "Virginia Pollutant Discharge Elimination System (VPDES) permit" or "VPDES  
792 permit" means a document issued by the State Water Control Board pursuant to the  
793 State Water Control Law authorizing, under prescribed conditions, the potential or actual  
794 discharge of pollutants from a point source to surface waters and the use or disposal of  
795 sewage sludge.

796 "Virginia Stormwater Management Act" means Article 1.1 (§ 10.1-603.1 et seq.) of  
797 Chapter 6 of Title 10.1 of the Code of Virginia.

798 "Virginia Stormwater BMP Clearinghouse website" means a website that contains  
799 detailed design standards and specifications for control measures that may be used in  
800 Virginia to comply with the requirements of the Virginia Stormwater Management Act  
801 and associated regulations and that is jointly created by the department and the Virginia  
802 Water Resources Research Center subject to advice to the director from a permanent  
803 stakeholder advisory committee.

804 "Virginia Stormwater Management Handbook" means a collection of pertinent  
805 information that provides general guidance for compliance with the Act and associated  
806 regulations and is developed by the department with advice from a stakeholder advisory  
807 committee.

808 "Virginia Stormwater Management Program (~~VSMP~~) or VSMP" means the Virginia  
809 program for issuing, modifying, revoking and reissuing, terminating, monitoring and  
810 enforcing permits, and imposing and enforcing requirements pursuant to the ~~federal~~  
811 Clean Water Act CWA, the Virginia Stormwater Management Act, this chapter, and  
812 associated guidance documents.

813 "Virginia Stormwater Management Program (~~VSMP~~) permit" or "VSMP permit"  
814 means a document issued by the permit-issuing authority pursuant to the Virginia  
815 Stormwater Management Act and this chapter authorizing, under prescribed conditions,  
816 the potential or actual discharge of pollutants from a point source to surface waters.  
817 Under the approved state program, a VSMP permit is equivalent to a NPDES permit.

818 "VSMP application" or "application" means the standard form or forms, including any  
819 additions, revisions or modifications to the forms, approved by the administrator and the  
820 board for applying for a VSMP permit.

821 "Wasteload allocation" or "wasteload" or "WLA" means the portion of a receiving  
822 surface water's loading or assimilative capacity allocated to one of its existing or future  
823 point sources of pollution. WLAs are a type of water quality-based effluent limitation.

824 "Water quality standards" or "WQS" means provisions of state or federal law that  
825 consist of a designated use or uses for the waters of the Commonwealth and water  
826 quality criteria for such waters based on such uses. Water quality standards are to  
827 protect the public health or welfare, enhance the quality of water, and serve the  
828 purposes of the State Water Control Law (§ 62.1-44.2 et seq. of the Code of Virginia),  
829 the Virginia Stormwater Management Act (§ 10.1-603.1 et seq. of the Code of Virginia),  
830 and the ~~federal Clean Water Act CWA~~ (33 USC § 1251 et seq.).

~~831 "Water quality volume" means the volume equal to the first 1/2 inch of runoff  
832 multiplied by the impervious surface of the land development project.~~

833 "Watershed" means a defined land area drained by a river or stream, karst system,  
834 or system of connecting rivers or streams such that all surface water within the area

835 flows through a single outlet. In karst areas, the karst feature to which the water drains  
836 may be considered the single outlet for the watershed.

837 "Wetlands" means those areas that are inundated or saturated by surface or  
838 groundwater at a frequency and duration sufficient to support, and that under normal  
839 circumstances do support, a prevalence of vegetation typically adapted for life in  
840 saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and  
841 similar areas.

842 "Whole effluent toxicity" means the aggregate toxic effect of an effluent measured  
843 directly by a toxicity test.

844 **4VAC50-60-20. Purposes.**

845 The purposes of this chapter are to provide a framework for the administration,  
846 implementation and enforcement of the Virginia Stormwater Management Act (Act) and  
847 to delineate the procedures and requirements to be followed in connection with VSMP  
848 permits issued by the board or its designee pursuant to the Clean Water Act (CWA) and  
849 the Virginia Stormwater Management Act, while at the same time providing flexibility for  
850 innovative solutions to stormwater management issues. The chapter also establishes the  
851 board's procedures for the authorization of a qualifying local program, board and  
852 department oversight authorities for an authorized qualifying local program, the board's  
853 procedures for utilization by the department in administering a local program in localities  
854 where no qualifying local program is authorized, and the components of a stormwater  
855 management program including but not limited to stormwater management standards.

856 **4VAC50-60-30. Applicability.**

857 This chapter is applicable to:

- 858 1. Every private, local, state, or federal entity that establishes a stormwater  
859 management program or a MS4 program;
- 860 2. The department in its oversight of locally administered programs or in its  
861 administration of a local program;
- 862 ~~3.~~ 3. Every state agency project regulated under the Act and this chapter; and
- 863 ~~4.~~ 4. Every land-disturbing activity regulated under § 10.1-603.8 of the Code of  
864 Virginia unless otherwise exempted in § 10.1-603.8 B.

865 Part II [ A ]  
866 Stormwater Management Program Technical Criteria

867 **4VAC50-60-40. Applicability Authority [ and applicability ] .**

868 This part specifies technical criteria for every stormwater management program and  
869 land-disturbing activity.

870 Pursuant to the Virginia Stormwater Management Act (§ 10.1-603.2 et seq. of the  
871 Code of Virginia), the board is required to take actions ensuring the general health,  
872 safety, and welfare of the citizens of the Commonwealth as well as protecting the quality  
873 and quantity of state waters from the potential harm of unmanaged stormwater. In  
874 addition to other authority granted to the board under the Stormwater Management Act,  
875 the board is authorized pursuant to §§ 10.1-603.2:1 and 10.1-603.4 to adopt regulations  
876 that specify minimum technical criteria for stormwater management programs in Virginia,  
877 to establish statewide standards for stormwater management from land-disturbing  
878 activities, and to protect properties, the quality and quantity of state waters, the physical  
879 integrity of stream channels, and other natural resources.

880 [ ~~In accordance with the board's authority, this part establishes the minimum~~  
881 ~~technical criteria and stormwater management standards that shall be employed by a~~  
882 ~~state agency in accordance with an implementation schedule set by the board, or by a~~  
883 ~~qualifying local program or department administered local stormwater management~~  
884 ~~program that has been approved by the board, to protect the quality and quantity of state~~  
885 ~~waters from the potential harm of unmanaged stormwater runoff resulting from land-~~  
886 ~~disturbing activities.~~

887 ~~For those localities required to adopt a local stormwater management program~~  
888 ~~pursuant to § 10.1-603.3 of the Code of Virginia, until a local program is approved by the~~  
889 ~~board, the technical criteria required shall be that found at 4VAC50-60-1180 through~~  
890 ~~4VAC50-60-1190. ]~~

891 [ **4VAC50-60-45. Applicability.**

892 ~~In accordance with the board's authority, this part establishes the minimum technical~~  
893 ~~criteria and stormwater management standards that shall be employed by a state~~  
894 ~~agency in accordance with an implementation schedule set by the board, or by a~~  
895 ~~qualifying local program or department administered local stormwater management~~  
896 ~~program that has been approved by the board, to protect the quality and quantity of state~~  
897 ~~waters from the potential harm of unmanaged stormwater runoff resulting from land~~  
898 ~~disturbing activities, except as provided in 4VAC50-60-48. ]~~

899 [ **4VAC50-60-48. Grandfathering.**

900 ~~A. Land disturbing activities that receive coverage under the VSMP General Permit~~  
901 ~~for Discharges of Stormwater from Construction Activities prior to the adoption of a local~~  
902 ~~stormwater management program within their jurisdiction shall not be subject to the~~  
903 ~~technical criteria of Part II A, but shall be subject to the technical criteria of Part II B, until~~  
904 ~~the expiration of that permit on June 30, 2014.~~

905 ~~B. If the operator of a project, as of July 1, 2010, (i) obtained or is the beneficiary of a~~  
906 ~~significant affirmative governmental act which remains in effect allowing development of~~  
907 ~~a specific project, (ii) relied in good faith on the significant affirmative governmental act,~~  
908 ~~(iii) incurred extensive obligations or substantial expenses in diligent pursuit of the~~  
909 ~~specific project in reliance on the significant affirmative governmental act and (iv)~~  
910 ~~obtained VSMP general permit coverage prior to July 1, 2010, then the land disturbing~~  
911 ~~activity associated with the project is grandfathered and shall remain subject to the Part~~  
912 ~~II B Technical Criteria until June 30, 2014. If permit coverage continuously remains in~~  
913 ~~effect for the land disturbing activity within the entire project area, then the project shall~~  
914 ~~remain subject to the Part II B Technical Criteria until June 30, 2019. Should permit~~  
915 ~~coverage not be maintained or if the land disturbing activity continues beyond June 30,~~  
916 ~~2019, portions of the project not completed shall be subject to the Part II A Technical~~  
917 ~~Criteria. In the event that the qualifying significant affirmative governmental act or the~~  
918 ~~VSMP permit is subsequently modified or amended in a manner such that there is no~~  
919 ~~increase in the amount of phosphorus leaving the site through stormwater runoff, and~~  
920 ~~such that there is no increase in the volume or rate of runoff, the grandfathering shall~~  
921 ~~continue as before.~~

922 ~~For purposes of this subsection and without limitation, the following are deemed to~~  
923 ~~be significant affirmative governmental acts allowing development of a specific project:~~  
924 ~~(i) the governing body has accepted proffers or proffered conditions which specify use~~  
925 ~~related to a zoning amendment; (ii) the governing body has approved an application for~~  
926 ~~a rezoning for a specific use or density; (iii) the governing body or board of zoning~~  
927 ~~appeals has granted a special exception or use permit with conditions; (iv) the board of~~

928 ~~zoning appeals has approved a variance; (v) the governing body or its designated agent~~  
929 ~~has approved a preliminary subdivision plat, site plan or plan of development for the~~  
930 ~~landowner's property and the applicant diligently pursues approval of the final plat or~~  
931 ~~plan within a reasonable period of time under the circumstances; or (vi) the governing~~  
932 ~~body or its designated agent has approved a final subdivision plat, site plan or plan of~~  
933 ~~development for the landowner's property.]~~

934 ~~C. Where a land disturbing activity is part of a common plan of development or sale~~  
935 ~~that has obtained VSMP general permit coverage from the department prior to July 1,~~  
936 ~~2010, the land disturbing activity will be subject to the technical criteria of Part II B. The~~  
937 ~~registration statement shall include the permit coverage number for the common plan of~~  
938 ~~development or sale for which association is being claimed.]~~

939 **4VAC50-60-50. General. (Repealed.)**

940 ~~A. Determination of flooding and channel erosion impacts to receiving streams due to~~  
941 ~~land disturbing activities shall be measured at each point of discharge from the land~~  
942 ~~disturbance and such determination shall include any runoff from the balance of the~~  
943 ~~watershed which also contributes to that point of discharge.~~

944 ~~B. The specified design storms shall be defined as either a 24-hour storm using the~~  
945 ~~rainfall distribution recommended by the U.S. Department of Agriculture's Natural~~  
946 ~~Resources Conservation Service (NRCS) when using NRCS methods or as the storm of~~  
947 ~~critical duration that produces the greatest required storage volume at the site when~~  
948 ~~using a design method such as the Modified Rational Method.~~

949 ~~C. For purposes of computing runoff, all pervious lands in the site shall be assumed~~  
950 ~~prior to development to be in good condition (if the lands are pastures, lawns, or parks),~~  
951 ~~with good cover (if the lands are woods), or with conservation treatment (if the lands are~~  
952 ~~cultivated); regardless of conditions existing at the time of computation.~~

953 ~~D. Construction of stormwater management facilities or modifications to channels~~  
954 ~~shall comply with all applicable laws and regulations. Evidence of approval of all~~  
955 ~~necessary permits shall be presented.~~

956 ~~E. Impounding structures that are not covered by the Impounding Structure~~  
957 ~~Regulations (4VAC50-20) shall be engineered for structural integrity during the 100-year~~  
958 ~~storm event.~~

959 ~~F. Pre-development and post-development runoff rates shall be verified by~~  
960 ~~calculations that are consistent with good engineering practices.~~

961 ~~G. Outflows from a stormwater management facility or stormwater conveyance~~  
962 ~~system, shall be discharged to an adequate channel.~~

963 ~~H. Proposed residential, commercial, or industrial subdivisions shall apply these~~  
964 ~~stormwater management criteria to the land disturbance as a whole. Individual lots in~~  
965 ~~new subdivisions shall not be considered separate land-disturbing activities, but rather~~  
966 ~~the entire subdivision shall be considered a single land development project. Hydrologic~~  
967 ~~parameters shall reflect the ultimate land disturbance and shall be used in all~~  
968 ~~engineering calculations.~~

969 ~~I. All stormwater management facilities shall have an inspection and maintenance~~  
970 ~~plan that identifies the owner and the responsible party for carrying out the inspection~~  
971 ~~and maintenance plan.~~

972 ~~J. Construction of stormwater management impoundment structures within a Federal~~  
973 ~~Emergency Management Agency (FEMA) designated 100-year floodplain shall be~~  
974 ~~avoided to the extent possible. When this is unavoidable, all stormwater management~~

975 facility construction shall be in compliance with all applicable regulations under the  
976 National Flood Insurance Program, 44 CFR Part 59.

977 K. ~~Natural channel characteristics shall be preserved to the maximum extent~~  
978 ~~practicable.~~

979 L. ~~Land-disturbing activities shall comply with the Virginia Erosion and Sediment~~  
980 ~~Control Law (§ 10.1-560 et seq. of the Code of Virginia) and attendant regulations.~~

981 M. ~~Flood control and stormwater management facilities that drain or treat water from~~  
982 ~~multiple development projects or from a significant portion of a watershed may be~~  
983 ~~allowed in Resource Protection Areas defined in the Chesapeake Bay Preservation Act,~~  
984 ~~provided that (i) the local government has conclusively established that the location of~~  
985 ~~the facility within the Resource Protection Area is the optimum location; (ii) the size of~~  
986 ~~the facility is the minimum necessary to provide necessary flood control, stormwater~~  
987 ~~treatment, or both; and, (iii) the facility must be consistent with a stormwater~~  
988 ~~management program that has been approved by the board.~~

989 **4VAC50-60-53. General requirements.**

990 The physical, chemical, biological, and hydrologic characteristics and the water  
991 quality and quantity of the receiving state waters shall be maintained, protected, or  
992 improved in accordance with the requirements of this part. Objectives include, but are  
993 not limited to, supporting state designated uses and water quality standards. All control  
994 measures used shall be employed in a manner that minimizes impacts on receiving state  
995 waters.

996 **4VAC50-60-56. Applicability of other laws and regulations.**

997 Nothing in this chapter shall be construed as limiting the applicability of other laws  
998 and regulations, including, but not limited to, the CWA, Virginia Stormwater Management  
999 Act, Virginia Erosion and Sediment Control Law, and the Chesapeake Bay Preservation  
1000 Act, except as provided in § 10.1-603.3 I of the Code of Virginia and all applicable  
1001 regulations adopted in accordance with those laws, or the rights of other federal  
1002 agencies, state agencies, or local governments to impose more stringent technical  
1003 criteria or other requirements as allowed by law.

1004 **4VAC50-60-60. Water quality. (Repealed.)**

1005 A. ~~Compliance with the water quality criteria may be achieved by applying the~~  
1006 ~~performance-based criteria or the technology-based criteria to either the site or a~~  
1007 ~~planning area.~~

1008 B. ~~Performance-based criteria. For land-disturbing activities, the calculated post-~~  
1009 ~~development nonpoint source pollutant runoff load shall be compared to the calculated~~  
1010 ~~pre-development load based upon the average land cover condition or the existing site~~  
1011 ~~condition. A BMP shall be located, designed, and maintained to achieve the target~~  
1012 ~~pollutant removal efficiencies specified in Table 1 to effectively reduce the pollutant load~~  
1013 ~~to the required level based upon the following four applicable land development~~  
1014 ~~situations for which the performance criteria apply:~~

1015 1. ~~Situation 1 consists of land-disturbing activities where the existing percent~~  
1016 ~~impervious cover is less than or equal to the average land cover condition and~~  
1017 ~~the proposed improvements will create a total percent impervious cover which is~~  
1018 ~~less than the average land cover condition.~~

1019 ~~Requirement: No reduction in the after disturbance pollutant discharge is~~  
1020 ~~required.~~

- 1021 ~~2. Situation 2 consists of land-disturbing activities where the existing percent~~  
 1022 ~~impervious cover is less than or equal to the average land cover condition and~~  
 1023 ~~the proposed improvements will create a total percent impervious cover which is~~  
 1024 ~~greater than the average land cover condition.~~  
 1025 ~~Requirement: The pollutant discharge after disturbance shall not exceed the~~  
 1026 ~~existing pollutant discharge based on the average land cover condition.~~  
 1027 ~~3. Situation 3 consists of land-disturbing activities where the existing percent~~  
 1028 ~~impervious cover is greater than the average land cover condition.~~  
 1029 ~~Requirement: The pollutant discharge after disturbance shall not exceed (i) the~~  
 1030 ~~pollutant discharge based on existing conditions less 10% or (ii) the pollutant~~  
 1031 ~~discharge based on the average land cover condition, whichever is greater.~~  
 1032 ~~4. Situation 4 consists of land-disturbing activities where the existing percent~~  
 1033 ~~impervious cover is served by an existing stormwater management BMP that~~  
 1034 ~~addresses water quality.~~  
 1035 ~~Requirement: The pollutant discharge after disturbance shall not exceed the existing~~  
 1036 ~~pollutant discharge based on the existing percent impervious cover while served by the~~  
 1037 ~~existing BMP. The existing BMP shall be shown to have been designed and constructed~~  
 1038 ~~in accordance with proper design standards and specifications, and to be in proper~~  
 1039 ~~functioning condition.~~  
 1040 ~~C. Technology based criteria. For land-disturbing activities, the post-developed~~  
 1041 ~~stormwater runoff from the impervious cover shall be treated by an appropriate BMP as~~  
 1042 ~~required by the post-developed condition percent impervious cover as specified in Table~~  
 1043 ~~1. The selected BMP shall be located, designed, and maintained to perform at the target~~  
 1044 ~~pollutant removal efficiency specified in Table 1. Design standards and specifications for~~  
 1045 ~~the BMPs in Table 1 that meet the required target pollutant removal efficiency will be~~  
 1046 ~~available at the department.~~

Table 1\*

Water Quality BMP*	Target Phosphorus Removal Efficiency	Percent Impervious Cover
Vegetated filter strip	10%	16-21%
Grassed Swale	15%	
Constructed wetlands	20%	22-37%
Extended detention (2 x WQ Vol)	35%	
Retention basin I (3 x WQ Vol)	40%	
Bioretention basin	50%	38-66%
Bioretention filter	50%	
Extended detention-enhanced	50%	
Retention basin II (4 x WQ Vol)	50%	
Infiltration (1 x WQ Vol)	50%	
Sand filter	65%	67-100%
Infiltration (2 x WQ Vol)	65%	
Retention basin III (4 x WQ Vol with aquatic bench)	65%	

1048 ~~\*Innovative or alternate BMPs not included in this table may be allowed at the discretion~~  
1049 ~~of the local program administrator or the department. Innovative or alternate BMPs not~~  
1050 ~~included in this table which target appropriate nonpoint source pollution other than~~  
1051 ~~phosphorous may be allowed at the discretion of the local program administrator or the~~  
1052 ~~department.~~

1053 **4VAC50-60-63. Water quality [ design ] criteria requirements.**

1054 ~~In order to protect the quality of state waters and to control [ nonpoint source~~  
1055 ~~pollution stormwater pollutants ] , the following minimum technical criteria and statewide~~  
1056 ~~standards for stormwater management shall be applied to the site of a land-disturbing~~  
1057 ~~activity. [ The local program shall have discretion to allow for application of the criteria to~~  
1058 ~~each drainage area of the site. However, where a site drains to more than one HUC, the~~  
1059 ~~pollutant load reduction requirements shall be applied independently within each HUC~~  
1060 ~~unless reductions are achieved in accordance with a comprehensive watershed~~  
1061 ~~stormwater management plan in accordance with 4VAC50-60-96. ]~~

1062 1. New development. The total phosphorus load of new development projects  
1063 shall not exceed [ 0.28 0.45 ] pounds per acre per year, as calculated pursuant to  
1064 4VAC50-60-65 [ , except:

1065 a. The total phosphorus load of a new development project disturbing greater  
1066 than or equal to one acre in the Chesapeake Bay Watershed shall not exceed  
1067 0.28 pounds per acre per year, as calculated pursuant to 4VAC50-60-65.

1068 b. Within Urban Development Areas designated pursuant to § 15.2-2223.1  
1069 in the Chesapeake Bay Watershed a qualifying local program may establish a  
1070 phosphorus standard between 0.28 and 0.45 pounds per acre per year for  
1071 projects greater than or equal to one acre in order to encourage compact  
1072 development that achieves superior water quality benefits. The qualifying  
1073 local program shall provide to the board for approval a justification for any  
1074 standards established if greater than 0.28 and shall define the types of  
1075 projects within a UDA that would qualify for the relaxed standards. The  
1076 standard shall be based upon factors including, but not limited to, number of  
1077 housing units per acre for residential development, floor area ratio for non-  
1078 residential development, level of imperviousness, brownfield remediation  
1079 potential, mixed-use and transit oriented development potential, proximity to  
1080 the Chesapeake Bay or local waters of concern, and the presence of  
1081 impaired waters. This provision shall not apply to department administered  
1082 local programs.

1083 c. Localities that have lands that drain to both the Chesapeake Bay  
1084 Watershed and other non-Chesapeake Bay watersheds may choose to apply  
1085 the 0.28 pounds per acre per year phosphorus standard to land disturbing  
1086 activities that discharge to watersheds other than the Chesapeake Bay  
1087 Watershed ] .

1088 2. Development on prior developed lands.

1089 [ a. ] The total phosphorus load of [ projects a project ] occurring on prior  
1090 developed lands [ and disturbing greater than or equal to one acre ] shall be  
1091 reduced to an amount at least 20% below the predevelopment total  
1092 phosphorus load.

1093 [ b. The total phosphorus load of a project occurring on prior developed lands  
 1094 and disturbing less than one acre shall be reduced to an amount at least 10%  
 1095 below the predevelopment total phosphorus load. ]  
 1096 [ c. ~~However, the~~ The ] total phosphorus load shall not be required to be  
 1097 reduced to below [ ~~0.28 pounds per acre per year~~ the applicable standard for  
 1098 new development ] unless a more stringent standard has been established by  
 1099 a qualifying local program.  
 1100 3. Compliance with [ subdivisions 1 and 2 shall be determined in accordance  
 1101 with ] 4VAC50-60-65 [ ~~shall constitute compliance with subdivisions 1 and 2 of~~  
 1102 ~~this section~~ ] .  
 1103 4. TMDL. In addition to the above requirements, if a specific WLA for a pollutant  
 1104 has been established in a TMDL and is assigned to stormwater discharges from  
 1105 a construction activity, necessary control measures must be implemented by the  
 1106 operator to meet the WLA in accordance with the requirements established in the  
 1107 General Permit for Discharges of Stormwater from Construction Activities or an  
 1108 individual permit, which address both construction and postconstruction  
 1109 discharges.  
 1110 [ 5. Nothing in this section shall prohibit a qualifying local program from  
 1111 establishing a more stringent standard. ]  
 1112 **4VAC50-60-65. Water quality compliance.**  
 1113 A. Compliance with the water quality [ design ] criteria set out in subdivisions 1 and 2  
 1114 of 4VAC50-60-63 shall be determined by utilizing the Virginia Runoff Reduction Method  
 1115 or another methodology that is demonstrated by the qualifying local program to achieve  
 1116 equivalent or more stringent results and is approved by the board.  
 1117 B. The BMPs listed in Table 1 [ ~~or the BMPs available on the Virginia Stormwater~~  
 1118 ~~BMP Clearinghouse website~~ ] shall be utilized as necessary to effectively reduce the  
 1119 phosphorus load in accordance with the Virginia Runoff Reduction Method. Design  
 1120 specifications for the BMPs listed in Table 1 can be found [ on the Virginia Stormwater  
 1121 BMP Clearinghouse Website ] at <http://www.vwrrc.vt.edu/swc>. [ Other approved BMPs  
 1122 available on this website may also be utilized. ]

TABLE 1  
 BMP Pollutant Removal Efficiencies

Practice	Removal of Total Phosphorus by Runoff Volume Reduction (RR, as %) (based upon 1 inch of rainfall -- 90% storm)	Removal of Total Phosphorus by Treatment -- Pollutant Concentration Reduction (PR, as %)	Total [ Mass Load ] Removal of Total Phosphorus (TR, as %)
[ <del>Green Vegetated</del> ] Roof 1	45	0	45
[ <del>Green Vegetated</del> ] Roof 2	60	0	60
Rooftop Disconnection [ 4 <sup>2</sup> ]	25 [ or 50 <sup>1</sup> ]	0	25 [ or 50 <sup>1</sup> ]

[ <u>Rooftop Disconnection 2</u> ]	[ <u>50</u> ]	[ <u>0</u> ]	[ <u>50</u> ]
[ <u>Rain Tanks/Cisterns 1</u> <u>Rainwater Harvesting</u> ]	[ <u>actual volume x .75 up to 90<sup>3, 5</sup></u> ]	<u>0</u>	[ <u>actual volume x .75 up to 90<sup>3, 5</sup></u> ]
[ <u>Soil Amendments 1</u> ]	[ <u>50</u> ]	[ <u>0</u> ]	[ <u>50</u> ]
[ <u>Soil Amendments 2</u> ]	[ <u>75</u> ]	[ <u>0</u> ]	[ <u>75</u> ]
[ <u>Soil Amendments</u> ]	[ <u>Can be used to decrease runoff coefficient for turf cover at site. See designs for Rooftop Disconnection, Sheet Flow, and for Grass Channel practices.</u> ]		
<u>Permeable Pavement 1</u>	<u>45</u>	<u>25</u>	<u>59</u>
<u>Permeable Pavement 2</u>	<u>75</u>	<u>25</u>	<u>81</u>
<u>Grass Channel [ 1 ]</u>	<u>10 [ or 20<sup>1</sup> ]</u>	<u>15</u>	<u>23</u>
[ <u>Grass Channel 2</u> ]	[ <u>20</u> ]	[ <u>15</u> ]	[ <u>32</u> ]
<u>Bioretention 1</u> [ <u>(also applies to Urban Bioretention)</u> ]	<u>40</u>	<u>25</u>	<u>55</u>
<u>Bioretention 2</u>	<u>80</u>	<u>50</u>	<u>90</u>
<u>Infiltration 1</u>	<u>50</u>	<u>25</u>	<u>63</u>
<u>Infiltration 2</u>	<u>90</u>	<u>25</u>	<u>93</u>
<u>Dry Swale 1</u>	<u>40</u>	<u>20</u>	<u>52</u>
<u>Dry Swale 2</u>	<u>60</u>	<u>40</u>	<u>76</u>
<u>Wet Swale 1</u>	<u>0</u>	<u>20</u>	<u>20</u>
<u>Wet Swale 2</u>	<u>0</u>	<u>40</u>	<u>40</u>
<u>Sheet Flow to [ Conserved Filter/ ] Open Space 1</u>	[ <u>0 25 or 50<sup>1</sup></u> ]	[ <u>50 0</u> ]	[ <u>25 or ] 50 [ <sup>1</sup> ]</u>
<u>Sheet Flow to [ Conserved Filter/ ] Open Space 2 [ <sup>2</sup> ]</u>	[ <u>0 50 or 75<sup>1</sup></u> ]	[ <u>75 0</u> ]	[ <u>50 or ] 75 [ <sup>1</sup> ]</u>
<u>Extended Detention Pond 1</u>	<u>0</u>	<u>15</u>	<u>15</u>

<u>Extended Detention Pond 2</u>	<u>15</u>	<u>15</u>	[ <u>28 31</u> ]
<u>Filtering Practice 1</u>	<u>0</u>	<u>60</u>	<u>60</u>
<u>Filtering Practice 2</u>	<u>0</u>	<u>65</u>	<u>65</u>
<u>Constructed Wetland 1</u>	<u>0</u>	<u>50</u>	<u>50</u>
<u>Constructed Wetland 2</u>	<u>0</u>	<u>75</u>	<u>75</u>
<u>Wet Pond 1</u>	<u>0</u>	<u>50</u> [ (45 <sup>4</sup> ) ]	<u>50</u> [ (45 <sup>4</sup> ) ]
<u>Wet Pond 2</u>	<u>0</u>	<u>75</u> [ (65 <sup>4</sup> ) ]	<u>75</u> [ (65 <sup>4</sup> ) ]

[ <sup>1</sup> Lower rate is for Hydrologic Soil Group (HSG) class C and D soils; higher rate is for HSG class A and B soils. ]

[ <sup>2</sup> The removal can be increased to 50% for C and D soils by adding soil compost amendments, and may be higher yet if combined with secondary runoff reduction practices. ]

[ <sup>3</sup> Credit up to 90% is possible if all water from storms 1" or less is used through demand, and tank is sized such that no overflow occurs. Total credit is not to exceed 90%. ]

[ <sup>4</sup> Lower nutrient removals in parentheses apply to wet ponds in coastal plain terrain. ]

[ <sup>5</sup> See BMP design specification for an explanation of how additional pollutant removal can be achieved. ]

1123 C. BMPs differing from those listed in Table 1 shall be reviewed and approved by the  
 1124 director in accordance with procedures established by the BMP Clearinghouse  
 1125 Committee and approved by the board.

1126 D. A qualifying local program may establish [ use ] limitations on [ the use of ]  
 1127 specific BMPs following the submission of the proposed [ use ] limitation and written  
 1128 justification to the department.

1129 E. Where the land-disturbing activity only occurs on a portion of the site, the local  
 1130 program may review the stormwater management plan based upon the portion of the  
 1131 site that is proposed to be developed, provided that the local program has established  
 1132 guidance for such a review. Such portion shall be deemed to include any area left  
 1133 undeveloped pursuant to any local requirement or proffer accepted by a locality. Any  
 1134 such guidance shall be provided to the department.

1135 F. [ If a comprehensive watershed stormwater management plan has been adopted  
 1136 pursuant to 4VAC50-60-96 for the watershed within which a project is located, then the  
 1137 qualifying local program may allow offsite controls in accordance with the plan to achieve  
 1138 the postdevelopment pollutant load water quality technical criteria set out in subdivisions  
 1139 1 and 2 of 4VAC50-60-63. Such offsite controls shall achieve the required pollutant  
 1140 reductions either completely offsite in accordance with the plan or in a combination of  
 1141 onsite and offsite controls. The local program shall have the discretion to allow for  
 1142 application of the criteria to each drainage area of the site. However, where a site drains

1143 to more than one HUC, the pollutant load reduction requirements shall be applied  
1144 independently within each HUC unless reductions are achieved in accordance with a  
1145 comprehensive watershed stormwater management plan in accordance with 4VAC50-  
1146 60-92. ]

1147 G. [ Where no plan exists pursuant to subsection F of this section, offsite controls  
1148 may be used to meet the postdevelopment pollutant load water quality technical criteria  
1149 set out in subdivisions 1 and 2 of 4VAC50-60-63 provided:

1150 1. The local program allows for offsite controls;

1151 2. The applicant demonstrates to the satisfaction of the local program that offsite  
1152 reductions equal to or greater than those that would otherwise be required for the  
1153 site are achieved;

1154 3. The applicant demonstrates to the satisfaction of the local program that the  
1155 development's runoff and the runoff from any offsite treatment area shall be  
1156 controlled in accordance with 4VAC50-60-66;

1157 4. Offsite controls must be located within the same HUC or the adjacent  
1158 downstream HUC to the land-disturbing site; and

1159 5. The applicant demonstrates to the satisfaction of the local program that the  
1160 right to utilize the offsite control area and any necessary easements has been  
1161 obtained and maintenance agreements for the stormwater management facilities  
1162 have been established pursuant to 4VAC50-60-124.

1163 H. Alternatively, the local program may waive the requirements of subdivisions 1 and  
1164 2 of 4VAC50-60-63 through the granting of an exception pursuant to 4VAC50-60-122.  
1165 Offsite alternatives where allowed in accordance with 4VAC50-60-69 may be utilized to  
1166 meet the design criteria of 4VAC50-60-63 subsections 1 and 2. ]

1167 **4VAC50-60-66. Water quantity.**

1168 A. Channel protection and flood protection shall be addressed in accordance with the  
1169 minimum standards set out in this section, which are established pursuant to the  
1170 requirements of subdivision 7 of § 10.1-603.4 of the Code of Virginia. [ Nothing in this  
1171 section shall prohibit a qualifying local program from establishing a more stringent  
1172 standard. ]

1173 B. Channel protection. Concentrated stormwater flow from the site and offsite  
1174 contributing areas shall be released into a stormwater conveyance system and shall  
1175 meet one of the following criteria as demonstrated by use of accepted hydrologic and  
1176 hydraulic methodologies:

1177 1. Concentrated stormwater flow to manmade stormwater conveyance systems.  
1178 The point of discharge releases stormwater into a manmade stormwater  
1179 conveyance system that, following the land-disturbing activity, conveys the  
1180 postdevelopment peak flow rate from the two-year 24-hour storm without causing  
1181 erosion of the system.

1182 2. Concentrated stormwater flow to restored stormwater conveyance systems.  
1183 The point of discharge releases stormwater into a stormwater conveyance  
1184 system that (i) has been restored and is functioning as designed or (ii) will be  
1185 restored. The applicant must demonstrate that the runoff following the land-  
1186 disturbing activity, in combination with other existing stormwater runoff, will not  
1187 exceed the design of the restored stormwater conveyance system nor result in  
1188 instability of the system.

1189 3. Concentrated stormwater flow to stable natural stormwater conveyance  
1190 systems. The point of discharge releases stormwater into a natural stormwater  
1191 conveyance system that is stable and, following the land-disturbing activity, (i)  
1192 will not become unstable as a result of the discharge from the one-year 24-hour  
1193 storm, and (ii) provides a peak flow rate from the one-year 24-hour storm  
1194 calculated as follows or in accordance with another methodology that is  
1195 demonstrated by the local program to achieve equivalent results and is approved  
1196 by the board:

1197  $Q_{\text{Developed}} * RV_{\text{Developed}} \leq Q_{\text{Pre-Developed}} * RV_{\text{Pre-Developed}}$ , where

1198  $Q_{\text{Developed}}$  = The allowable peak flow rate of runoff from the developed site.

1199  $Q_{\text{Pre-Developed}}$  = The peak flow rate of runoff from the site in the predeveloped  
1200 condition.

1201  $RV_{\text{Pre-Developed}}$  = The volume of runoff from the site in the predeveloped  
1202 condition.

1203  $RV_{\text{Developed}}$  = The volume of runoff from the developed site.

1204 4. [ Except as set out in subdivision 5, concentrated ~~Concentrated~~ ] stormwater  
1205 flow to unstable natural stormwater conveyance systems. Where the point of  
1206 discharge releases stormwater into a natural stormwater conveyance system that  
1207 is unstable, stormwater runoff following a land-disturbing activity shall be  
1208 released into a channel at or below a peak flow rate ( $Q_{\text{Developed}}$ ) based on the one-  
1209 year 24-hour storm, calculated as follows or in accordance with another  
1210 methodology that is demonstrated by the local program to achieve equivalent or  
1211 more stringent results and is approved by the board:

1212  $Q_{\text{Developed}} * RV_{\text{Developed}} \leq Q_{\text{[ Forested Good Pasture ]}} * RV_{\text{[ Forested Good Pasture ]}}$ , where

1213  $Q_{\text{Developed}}$  = The allowable peak flow rate from the developed site.

1214  $Q_{\text{[ Forested Good Pasture ]}}$  = The peak flow rate from the site in a [ forested good  
1215 pasture ] condition.

1216  $RV_{\text{[ Forested Good Pasture ]}}$  = The volume of runoff from the site in a [ forested good  
1217 pasture ] condition.

1218  $RV_{\text{Developed}}$  = The volume of runoff from the developed site.

1219 [ However, in the case that the pre-developed condition is forested, both the peak  
1220 flow rate and the volume of runoff from the developed site shall be held to the  
1221 forested condition.

1222 5. This subdivision shall apply to concentrated stormwater flow to unstable  
1223 natural stormwater conveyance systems from: i) a land disturbing activity less  
1224 than five acres on prior developed lands, or ii) a regulated land disturbing activity  
1225 less than one acre for new development. Where the point of discharge releases  
1226 stormwater into a natural stormwater conveyance system that is unstable,  
1227 stormwater runoff following a land-disturbing activity shall provide a peak flow  
1228 rate from the one-year 24-hour storm, calculated as follows or in accordance with  
1229 another methodology that is demonstrated by the local program to achieve  
1230 equivalent or more stringent results and is approved by the board:

1231  $Q_{\text{Developed}} * RV_{\text{Developed}} \leq Q_{\text{Pre-Developed}} * RV_{\text{Pre-Developed}}$ , where

1232  $Q_{\text{Developed}}$  = The allowable peak flow rate from the developed site. Such peak  
1233 flow rate must be less than  $Q_{\text{Pre-Developed}}$ .

1234  $Q_{\text{Pre-Developed}}$  = The peak flow rate from the site in pre-development condition.

1235 RV<sub>Pre-Developed</sub> = The volume of runoff from the site in pre-development  
1236 condition.

1237 RV<sub>Developed</sub> = The volume of runoff from the developed site. Such volume must  
1238 be less than RV<sub>Pre-Developed</sub>. ]

1239 C. Flood protection. Concentrated stormwater flow shall be released into a  
1240 stormwater conveyance system and shall meet one of the following criteria as  
1241 demonstrated by use of accepted hydrologic and hydraulic methodologies:

1242 1. Concentrated stormwater flow to manmade stormwater conveyance systems.  
1243 The point of discharge releases stormwater into a manmade stormwater  
1244 conveyance system that, following the land-disturbing activity, confines the  
1245 postdevelopment peak flow rate from the 10-year 24-hour storm within the  
1246 manmade stormwater conveyance system.

1247 2. Concentrated stormwater flow to restored stormwater conveyance systems.  
1248 The point of discharge releases stormwater into a stormwater conveyance  
1249 system that (i) has been restored and is functioning as designed or (ii) will be  
1250 restored. The applicant must demonstrate that the peak flow rate from the 10-  
1251 year 24-hour storm following the land-disturbing activity will be confined within  
1252 the system.

1253 3. Concentrated stormwater flow to natural stormwater conveyance systems. The  
1254 point of discharge releases stormwater into a natural stormwater conveyance  
1255 system that currently does not flood during the 10-year 24-hour storm and,  
1256 following the land-disturbing activity, confines the postdevelopment peak flow  
1257 rate from the 10-year 24-hour storm within the system.

1258 4. Concentrated stormwater flow to natural stormwater conveyance systems  
1259 where localized flooding exists during the 10-year 24-hour storm. The point of  
1260 discharge releases a postdevelopment peak flow rate for the 10-year 24-hour  
1261 storm that shall not exceed the predevelopment peak flow rate from the 10-year  
1262 24-hour storm based on [ forested good pasture ] conditions [ , unless the pre-  
1263 developed condition is forested, in which case the peak flow rate from the  
1264 developed site shall be held to the forested condition ] .

1265 5. [ A local program may adopt alternate flood protection design criteria that (i)  
1266 achieve equivalent or more stringent results, (ii) are based upon geographic, land  
1267 use, topographic, geologic, or other downstream conveyance factors, and (iii) are  
1268 approved by the board. Subdivision (C)(4) notwithstanding, this subdivision shall  
1269 apply to concentrated stormwater flow to natural stormwater conveyance  
1270 systems where localized flooding exists during the 10-year 24-hour storm from: i)  
1271 a land disturbing activity less than five acres on prior developed lands, or ii) a  
1272 regulated land disturbing activity less than one acre for new development. The  
1273 point of discharge releases a postdevelopment peak flow rate for the 10-year 24-  
1274 hour storm that is less than the predevelopment peak flow rate from the 10-year  
1275 24-hour storm. ]

1276 D. One percent rule. If either of the following criteria are met, subsections [ A B ] and  
1277 [ B C ] of this section do not apply [ , nor is the analysis of subsection H required ] :

1278 1. Based on area. Prior to any land disturbance, the site's contributing drainage  
1279 area to a point of discharge from the site is less than or equal to 1.0% of the total  
1280 watershed area draining to that point of discharge; or

1281 2. Based on peak flow rate. Based on the postdevelopment land cover conditions  
1282 prior to the implementation of any stormwater quantity control measures, the  
1283 development of the site results in an increase in the peak flow rate from the one-  
1284 year 24-hour storm that is less than 1.0% of the existing peak flow rate from the  
1285 one-year 24-hour storm generated by the total watershed area draining to that  
1286 point of discharge.

1287 E. Increased volumes of sheet flow resulting from pervious or disconnected  
1288 impervious areas, or from physical spreading of concentrated flow through level  
1289 spreaders, must be identified and evaluated for potential impacts on down gradient  
1290 properties or resources. Increased volumes of sheet flow that will cause or contribute to  
1291 erosion, sedimentation, or flooding of down gradient properties or resources shall be  
1292 diverted to a [ ~~detention~~ stormwater management ] facility or a stormwater conveyance  
1293 system that conveys the runoff without causing down gradient erosion, sedimentation, or  
1294 flooding. If all runoff from the site is sheet flow and the conditions of this subsection are  
1295 met, no further water quantity controls are required.

1296 F. For purposes of computing predevelopment runoff from prior developed sites, all  
1297 pervious lands on the site shall be assumed to be in good hydrologic condition in  
1298 accordance with the U.S. Department of Agriculture's Natural Resources Conservation  
1299 Service (NRCS) standards, regardless of conditions existing at the time of computation.  
1300 Predevelopment runoff calculations utilizing other hydrologic conditions may be utilized  
1301 provided that it is demonstrated to and approved by the local program that actual site  
1302 conditions warrant such considerations.

1303 G. Predevelopment runoff characteristics and site hydrology shall be verified by site  
1304 inspections, topographic surveys, available soil mapping or studies, and calculations  
1305 consistent with good engineering practices [ ~~in accordance with guidance. Guidance~~ ]  
1306 provided in the Virginia Stormwater Management Handbook [ ~~and by the qualifying local~~  
1307 ~~program~~ shall be considered appropriate standards ] .

1308 H. Except where the compliance options under subdivisions B 4 [ ~~and 5~~ ] and C 4  
1309 [ ~~and 5~~ ] of this section are utilized, flooding and channel erosion impacts to stormwater  
1310 conveyance systems shall be analyzed for each point of discharge in accordance with  
1311 channel analysis guidance provided in Technical Bulletin # 1, Stream Channel Erosion  
1312 Control, or in accordance with more stringent channel analysis guidance established by  
1313 the qualifying local program and provided to the department. Such analysis shall include  
1314 estimates of runoff from the developed site and the entire upstream watershed that  
1315 contributes to that point of discharge. Good engineering practices and calculations in  
1316 accordance with department guidance shall be used to evaluate postdevelopment runoff  
1317 characteristics and site hydrology, and flooding and channel erosion impacts.

1318 If the downstream owner or owners refuse to give permission to access the property  
1319 for the collection of data, evidence of this refusal shall be given and arrangements made  
1320 satisfactory to the local program to provide an alternative method for the collection of  
1321 data to complete the analysis, such as through the use of photos, aerial surveys, "as  
1322 built" plans, topographic maps, soils maps, and any other relevant information.

1323 **[ 4VAC50-60-69. Offsite compliance options. ]**

1324 A. A qualifying local program shall have the authority to consider the use of the  
1325 following offsite compliance options:

1326 1. If a comprehensive watershed stormwater management plan has been  
1327 adopted pursuant to 4VAC50-60-92 for the local watershed within which a project  
1328 is located, then the qualifying local program may allow offsite controls in

- 1329 accordance with the plan to achieve the water quality reductions, quantity  
1330 reductions, or both required for a site by this chapter. Such offsite controls shall  
1331 achieve the required reductions either completely offsite in accordance with the  
1332 plan or by a combination of on site and offsite controls.
- 1333 2. A pro rata fee in accordance with § 15.2-2243 of the Code of Virginia or similar  
1334 funding mechanism through which the water quality and quantity reductions  
1335 required for a site by this chapter may be achieved by the payment of a fee  
1336 sufficient to fund improvements necessary to adequately achieve offsite  
1337 reductions equal to or greater than those that would otherwise be required for the  
1338 site.
- 1339 3. The nonpoint nutrient offset program established by §10.1-603.8:1 of the Code  
1340 of Virginia.
- 1341 4. Where no comprehensive watershed stormwater management plan or pro-rata  
1342 fee exists, or where a qualifying local program otherwise elects to allow the use  
1343 of this subdivision, offsite stormwater management facilities may be used by the  
1344 operator of a land disturbing activity to meet the water quality reductions required  
1345 for a site by this chapter provided:
- 1346 a. The operator demonstrates to the satisfaction of the local program that  
1347 offsite reductions equal to or greater than those that would otherwise be  
1348 required for the site are achieved;
- 1349 b. The operator demonstrates to the satisfaction of the local program that the  
1350 development's runoff and the runoff from any offsite treatment area shall be  
1351 controlled in accordance with 4VAC50-60-66;
- 1352 c. Offsite stormwater management facilities must be located within the HUC  
1353 or within the upstream HUCs in the local watershed that the land disturbing  
1354 activity directly discharges to or within the same watershed, as determined by  
1355 the local program; and
- 1356 d. The operator demonstrates to the satisfaction of the local program that the  
1357 right to utilize the offsite area and any necessary easements have been  
1358 obtained and maintenance agreements for the stormwater management  
1359 facilities have been established pursuant to 4VAC50-60-124.
- 1360 B. Where the offsite options of subsection A are not available for use, where the fee  
1361 established by a qualifying local program to offset a pound of phosphorus onsite  
1362 pursuant to subdivision A 2 exceeds \$23,900, or where a qualifying local program  
1363 otherwise elects to allow the use of this subsection, offsite compliance may be achieved  
1364 through a payment in accordance with the following:
- 1365 1. When the land disturbing activity is in an Urban Development Area the  
1366 payment shall be \$15,000 per pound of phosphorus and shall be calculated  
1367 based on the poundage not treated on site. In all other cases the payment shall  
1368 be \$23,900 per pound of phosphorus. Payment amounts shall be determined  
1369 based upon the nearest 0.01 of a pound of phosphorus.
- 1370 2. All payments shall be deposited and utilized in accordance with the following:
- 1371 a. Payments shall be made prior to commencement of the land disturbing  
1372 activity and shall be deposited to the Virginia Stormwater Management Fund  
1373 and held in a subaccount.
- 1374 b. The board shall establish priorities for the use of these funds by December  
1375 1 of each year. Payments held in the fund shall be promptly applied to ensure

- 1376 that nutrient reduction practices are being implemented. Priorities for the  
1377 funds shall be established in accordance with the following:
- 1378 i. At least 50% of the funds shall be utilized for projects to address local  
1379 stormwater quality issues related to the impacts of development activities  
1380 including but not limited to urban retrofits, urban stream restorations, and  
1381 reduction of impervious areas.
- 1382 ii. Priority use for the remaining funds shall be for the acquisition of certified  
1383 nonpoint nutrient offsets at a rate not to exceed \$23,900 per pound of  
1384 phosphorus. Any remaining funds shall be utilized to fund long-term contracts  
1385 for agricultural best management practices no less than 20 years in duration  
1386 or long-term best management practices including but not limited to stream  
1387 fencing, alternative water supplies, and riparian buffers in accordance with  
1388 practice standards established within the Virginia Agricultural BMP Cost  
1389 Share Program administered by the department.
- 1390 iii. In establishing priorities, the board shall consider: targeting equivalent  
1391 reductions in the same local watershed as where the payment came from;  
1392 implementing urban practices/retrofits that address TMDLs; securing  
1393 permanent practices; and achieving measurable reductions. When  
1394 purchasing agricultural best management practices, the board shall consider  
1395 purchasing practices beyond the baseline established under the Chesapeake  
1396 Bay Watershed Nutrient Credit Exchange Program in accordance with § 62.1-  
1397 44.19:12 et seq. of the Code of Virginia.
- 1398 c. The department shall track the payment amount, the associated poundage  
1399 of phosphorus purchased, the jurisdiction where the payment originated, the  
1400 regulated MS4 name, if any, and the HUC for the land disturbing activity. The  
1401 department shall additionally track the annual expenditure of the funds  
1402 including the locality and regulated MS4 name, if any, where the monies are  
1403 expended, the associated poundage of phosphorus reduced, and the cost per  
1404 pound for phosphorus reductions associated with the nutrient reduction  
1405 practices.
- 1406 d. The department may annually utilize up to 6.0% of the payments to  
1407 administer the stormwater management program.
- 1408 e. The board shall periodically review the payment amount, at least every five  
1409 years or in conjunction with the development of a new construction general  
1410 permit, and shall evaluate the performance of the fund and the sufficiency of  
1411 the payment rate in achieving the needed off-site pollution reductions. The  
1412 board shall adjust the payment amount based upon this analysis.
- 1413 3. Utilization of a payment to achieve compliance with the water quality technical  
1414 criteria shall be subject to the following limitations:
- 1415 a. A new development project disturbing greater than or equal to one acre in  
1416 the Chesapeake Bay Watershed must reduce its phosphorus discharge to a  
1417 level of 0.45 pounds per acre per year of phosphorus on site, or less, and  
1418 then may achieve all or a portion of the remaining required phosphorus  
1419 reductions through a payment.
- 1420 b. A new development project disturbing less than one acre in the  
1421 Chesapeake Bay Watershed may achieve all necessary phosphorus  
1422 reductions through a payment.

1423 c. A new development project outside of the Chesapeake Bay Watershed  
1424 must achieve all necessary phosphorus reductions on site.

1425 d. Development on prior developed lands disturbing greater than or equal to  
1426 one acre must achieve at least a 10% reduction from the predevelopment  
1427 total phosphorus load on site and then may achieve the remaining required  
1428 phosphorus reductions through a payment.

1429 e. Development on prior developed lands disturbing less than one acre may  
1430 achieve all necessary phosphorus reductions through a payment.

1431 4. Nitrogen or other pollutant reductions achieved through payments into the fund  
1432 must be retired and shall not be made available to other parties.

1433 C. Where the department is administering a local program, only offsite options set  
1434 out in subdivisions A3 and A4, and subsection B shall be available. ]

1435 **4VAC50-60-70. Stream channel erosion. (Repealed.)**

1436 ~~A. Properties and receiving waterways downstream of any land-disturbing activity~~  
1437 ~~shall be protected from erosion and damage due to changes in runoff rate of flow and~~  
1438 ~~hydrologic characteristics, including but not limited to, changes in volume, velocity,~~  
1439 ~~frequency, duration, and peak flow rate of stormwater runoff in accordance with the~~  
1440 ~~minimum design standards set out in this section.~~

1441 ~~B. The permit-issuing authority shall require compliance with subdivision 19 of~~  
1442 ~~4VAC50-30-40 of the Erosion and Sediment Control Regulations, promulgated pursuant~~  
1443 ~~to Article 4 (§ 10.1-560 et seq.) of Chapter 5 of Title 10.1 of the Code of Virginia.~~

1444 ~~C. The permit-issuing authority may determine that some watersheds or receiving~~  
1445 ~~stream systems require enhanced criteria in order to address the increased frequency of~~  
1446 ~~bankfull flow conditions (top of bank) brought on by land-disturbing activities. Therefore,~~  
1447 ~~in lieu of the reduction of the two-year post-developed peak rate of runoff as required in~~  
1448 ~~subsection B of this section, the land development project being considered shall~~  
1449 ~~provide 24-hour extended detention of the runoff generated by the one-year, 24-hour~~  
1450 ~~duration storm.~~

1451 ~~D. In addition to subsections B and C of this section permit-issuing authorities, by~~  
1452 ~~local ordinance may, or the board by state regulation may, adopt more stringent channel~~  
1453 ~~analysis criteria or design standards to ensure that the natural level of channel erosion,~~  
1454 ~~to the maximum extent practicable, will not increase due to the land-disturbing activities.~~  
1455 ~~These criteria may include, but are not limited to, the following:~~

- 1456 ~~1. Criteria and procedures for channel analysis and classification.~~  
1457 ~~2. Procedures for channel data collection.~~  
1458 ~~3. Criteria and procedures for the determination of the magnitude and frequency~~  
1459 ~~of natural sediment transport loads.~~  
1460 ~~4. Criteria for the selection of proposed natural or man-made channel linings.~~

1461 **4VAC50-60-72. Design storms and hydrologic methods.**

1462 A. Unless otherwise specified, the prescribed design storms are the one-year, two-  
1463 year, and 10-year 24-hour storms using the site-specific rainfall precipitation frequency  
1464 data recommended by the U.S. National Oceanic and Atmospheric Administration  
1465 (NOAA) Atlas 14. Partial duration time series shall be used for the precipitation data.

1466 B. [ ~~All~~ Unless otherwise specified, all ] hydrologic analyses shall be based on the  
1467 existing watershed characteristics and the ultimate development condition of the subject  
1468 project.

1469 C. The U.S. Department of Agriculture's Natural Resources Conservation Service  
1470 (NRCS) synthetic 24-hour rainfall distribution and models, including, but not limited to  
1471 TR-55 and TR-20; hydrologic and hydraulic methods developed by the U.S. Army Corps  
1472 of Engineers; or other standard hydrologic and hydraulic methods, shall be used to  
1473 conduct the analyses described in this part.

1474 D. The local program may allow for the use of the Rational Method for evaluating  
1475 peak discharges or the Modified Rational Method for evaluating volumetric flows to  
1476 stormwater conveyances with drainage areas of 200 acres or less.

1477 **4VAC50-60-74. Stormwater harvesting.**

1478 In accordance with § 10.1-603.4 of the Code of Virginia, stormwater harvesting is  
1479 encouraged for the purposes of landscape irrigation systems, fire protection systems,  
1480 flushing water closets and urinals, and other water handling systems to the extent such  
1481 systems are consistent with federal, state, and local regulatory authorities.

1482 **4VAC50-60-76. Linear development projects.**

1483 Unless exempt pursuant to § 10.1-603.8 B of the Code of Virginia, linear  
1484 development projects shall control postdevelopment stormwater runoff in accordance  
1485 with a site-specific stormwater management plan or a comprehensive watershed  
1486 stormwater management plan developed in accordance with these regulations.

1487 **4VAC50-60-80. Flooding. (Repealed.)**

1488 ~~A. Downstream properties and waterways shall be protected from damages from~~  
1489 ~~localized flooding due to changes in runoff rate of flow and hydrologic characteristics,~~  
1490 ~~including but not limited to, changes in volume, velocity, frequency, duration, and peak~~  
1491 ~~flow rate of stormwater runoff in accordance with the minimum design standards set out~~  
1492 ~~in this section.~~

1493 ~~B. The 10-year post-developed peak rate of runoff from the development site shall~~  
1494 ~~not exceed the 10-year pre-developed peak rate of runoff.~~

1495 ~~C. In lieu of subsection B of this section, localities may, by ordinance, adopt alternate~~  
1496 ~~design criteria based upon geographic, land use, topographic, geologic factors or other~~  
1497 ~~downstream conveyance factors as appropriate.~~

1498 ~~D. Linear development projects shall not be required to control post-developed~~  
1499 ~~stormwater runoff for flooding, except in accordance with a watershed or regional~~  
1500 ~~stormwater management plan.~~

1501 **4VAC50-60-85. Stormwater management impoundment structures or facilities.**

1502 A. Construction of stormwater management impoundment structures or facilities  
1503 within tidal or nontidal wetlands and perennial streams is not recommended.

1504 B. Construction of stormwater management impoundment structures or facilities  
1505 within a Federal Emergency Management Agency (FEMA) designated 100-year  
1506 floodplain is not recommended.

1507 C. Stormwater management wet ponds and extended detention ponds that are not  
1508 covered by the Impounding Structure Regulations (4VAC50-20) shall [ , at a minimum, ]  
1509 be engineered for structural integrity [ and spillway design ] for the 100-year storm event.

1510 D. Construction of stormwater management impoundment structures or facilities may  
1511 occur in karst areas only after a [ geological ] study [ of the geology and hydrology ] of  
1512 the area has been conducted to determine the presence or absence of karst features  
1513 that may be impacted by stormwater runoff and BMP placement.

1514 E. Discharge of stormwater runoff to a karst feature shall meet the water quality  
1515 criteria set out in 4VAC50-60-63 and the water quantity criteria set out in 4VAC50-60-66.  
1516 Permanent stormwater management impoundment structures or facilities shall only be  
1517 constructed in karst features after completion of a geotechnical investigation that  
1518 identifies any necessary modifications to the BMP to ensure its structural integrity and  
1519 maintain its water quality and quantity efficiencies. The person responsible for the land-  
1520 disturbing activity is encouraged to screen for known existence of heritage resources in  
1521 the karst features. Any Class V Underground Injection Control Well registration  
1522 statements for stormwater discharges to improved sinkholes shall be included in the  
1523 SWPPP.

1524 ~~4VAC50-60-90. Regional (watershed-wide) stormwater management plans.~~  
1525 ~~(Repealed.)~~

1526 ~~This section enables localities to develop regional stormwater management plans.~~  
1527 ~~State agencies intending to develop large tracts of land such as campuses or prison~~  
1528 ~~compounds are encouraged to develop regional plans where practical.~~

1529 ~~The objective of a regional stormwater management plan is to address the~~  
1530 ~~stormwater management concerns in a given watershed with greater economy and~~  
1531 ~~efficiency by installing regional stormwater management facilities versus individual, site-~~  
1532 ~~specific facilities. The result will be fewer stormwater management facilities to design,~~  
1533 ~~build and maintain in the affected watershed. It is also anticipated that regional~~  
1534 ~~stormwater management facilities will not only help mitigate the impacts of new~~  
1535 ~~development, but may also provide for the remediation of erosion, flooding or water~~  
1536 ~~quality problems caused by existing development within the given watershed.~~

1537 ~~If developed, a regional plan shall, at a minimum, address the following:~~

- 1538 ~~1. The specific stormwater management issues within the targeted watersheds.~~
- 1539 ~~2. The technical criteria in 4VAC50-60-40 through 4VAC50-60-80 as needed~~  
1540 ~~based on subdivision 1 of this section.~~
- 1541 ~~3. The implications of any local comprehensive plans, zoning requirements, local~~  
1542 ~~ordinances pursuant to the Chesapeake Bay Preservation Area Designation and~~  
1543 ~~Management Regulations adopted pursuant to the Chesapeake Bay~~  
1544 ~~Preservation Act, and other planning documents.~~
- 1545 ~~4. Opportunities for financing a watershed plan through cost sharing with~~  
1546 ~~neighboring agencies or localities, implementation of regional stormwater utility~~  
1547 ~~fees, etc.~~
- 1548 ~~5. Maintenance of the selected stormwater management facilities.~~
- 1549 ~~6. Future expansion of the selected stormwater management facilities in the~~  
1550 ~~event that development exceeds the anticipated level.~~

1551 **[ 4VAC50-60-92. Comprehensive watershed stormwater management plans.**

1552 A. Qualifying local programs may develop comprehensive watershed stormwater  
1553 management plans to be approved by the department that meet the water quality  
1554 objectives, quantity objectives, or both of this chapter:

- 1555 1. Such plans shall ensure that offsite reductions equal to or greater than those  
1556 that would be required on each contributing land-disturbing site are achieved  
1557 within the same HUC or within another locally designated watershed. Pertaining  
1558 to water quantity objectives, the plan may provide for implementation of a  
1559 combination of channel improvement, stormwater detention, or other measures

1560 that are satisfactory to the qualifying local program to prevent downstream  
1561 erosion and flooding.

1562 2. If the land use assumptions upon which the plan was based change or if any  
1563 other amendments are deemed necessary by the qualifying local program, the  
1564 qualifying local program shall provide plan amendments to the board for review  
1565 and approval.

1566 3. During the plan's implementation, the qualifying local program shall account for  
1567 nutrient reductions accredited to the BMPs specified in the plan.

1568 4. State and federal agencies may develop comprehensive stormwater  
1569 management plans, and may participate in locality-developed comprehensive  
1570 watershed stormwater management plans where practicable and permitted by  
1571 the qualifying local program. ]

1572 **[ 4VAC50-60-93. Stormwater management plan development.**

1573 A. A stormwater management plan for a land-disturbing activity shall apply these  
1574 stormwater management technical criteria to the entire land-disturbing activity.

1575 B. Individual lots or planned phases of developments shall not be considered  
1576 separate land-disturbing activities, but rather the entire development shall be considered  
1577 a single land-disturbing activity.

1578 C. The stormwater management plan shall consider all sources of surface runoff and  
1579 all sources of subsurface and groundwater flows converted to surface runoff. ]

1580 **[ Part II B**

1581 **Stormwater Management Program Technical Criteria: Grandfathered Projects**

1582 **4VAC50-60-94. Applicability.**

1583 This part specifies the technical criteria for regulated land-disturbing activities that  
1584 are not subject to the technical criteria of Part II A in accordance with 4VAC 50-60-48. ]

1585 **[ 4VAC50-60-95. General.**

1586 A. Determination of flooding and channel erosion impacts to receiving streams due to  
1587 land-disturbing activities shall be measured at each point of discharge from the land  
1588 disturbance and such determination shall include any runoff from the balance of the  
1589 watershed that also contributes to that point of discharge.

1590 B. The specified design storms shall be defined as either a 24-hour storm using the  
1591 rainfall distribution recommended by the U.S. Department of Agriculture's Natural  
1592 Resources Conservation Service (NRCS) when using NRCS methods or as the storm of  
1593 critical duration that produces the greatest required storage volume at the site when  
1594 using a design method such as the Modified Rational Method.

1595 C. For purposes of computing runoff, all pervious lands in the site shall be assumed  
1596 prior to development to be in good condition (if the lands are pastures, lawns, or parks),  
1597 with good cover (if the lands are woods), or with conservation treatment (if the lands are  
1598 cultivated); regardless of conditions existing at the time of computation.

1599 D. Construction of stormwater management facilities or modifications to channels  
1600 shall comply with all applicable laws and regulations. Evidence of approval of all  
1601 necessary permits shall be presented.

1602 E. Impounding structures that are not covered by the Impounding Structure  
1603 Regulations (4VAC50-20) shall be engineered for structural integrity during the 100-year  
1604 storm event.

1605 F. Predevelopment and postdevelopment runoff rates shall be verified by  
1606 calculations that are consistent with good engineering practices.

1607 G. Outflows from a stormwater management facility or stormwater conveyance  
1608 system, shall be discharged to an adequate channel.

1609 H. Proposed residential, commercial, or industrial subdivisions shall apply these  
1610 stormwater management criteria to the land disturbance as a whole. Individual lots in  
1611 new subdivisions shall not be considered separate land-disturbing activities, but rather  
1612 the entire subdivision shall be considered a single land development project. Hydrologic  
1613 parameters shall reflect the ultimate land disturbance and shall be used in all  
1614 engineering calculations.

1615 I. All stormwater management facilities shall have an inspection and maintenance  
1616 plan that identifies the owner and the responsible party for carrying out the inspection  
1617 and maintenance plan.

1618 J. Construction of stormwater management impoundment structures within a Federal  
1619 Emergency Management Agency (FEMA) designated 100-year floodplain shall be  
1620 avoided to the extent possible. When this is unavoidable, all stormwater management  
1621 facility construction shall be in compliance with all applicable regulations under the  
1622 National Flood Insurance Program, 44 CFR Part 59.

1623 K. Natural channel characteristics shall be preserved to the maximum extent  
1624 practicable.

1625 L. Land-disturbing activities shall comply with the Virginia Erosion and Sediment  
1626 Control Law (§ 10.1-560 et seq. of the Code of Virginia) and attendant regulations.

1627 M. Flood control and stormwater management facilities that drain or treat water from  
1628 multiple development projects or from a significant portion of a watershed may be  
1629 allowed in Resource Protection Areas defined in the Chesapeake Bay Preservation Act,  
1630 provided that (i) the local government has conclusively established that the location of  
1631 the facility within the Resource Protection Area is the optimum location; (ii) the size of  
1632 the facility is the minimum necessary to provide necessary flood control, stormwater  
1633 treatment, or both; and (iii) the facility must be consistent with a stormwater  
1634 management program that has been approved by the board, the Chesapeake Bay Local  
1635 Assistance Board, or the Board of Conservation and Recreation. ]

1636 **4VAC50-60-96. [ Comprehensive watershed stormwater management plans Water**  
1637 **quality ] :**

1638 A. [ Local programs may develop comprehensive watershed stormwater  
1639 management plans to be approved by the department that meet the water quality  
1640 objectives, quantity objectives, or both of this chapter:

1641 1. Such plans shall ensure that offsite reductions equal to or greater than those that  
1642 would be required on each contributing land-disturbing site are achieved within the same  
1643 HUC or within another locally designated watershed. Pertaining to water quantity  
1644 objectives, the plan may provide for implementation of a combination of channel  
1645 improvement, stormwater detention, or other measures that are satisfactory to the local  
1646 program to prevent downstream erosion and flooding.

1647 2. If the land use assumptions upon which the plan was based change or if any other  
1648 amendments are deemed necessary by the local program, the local program shall  
1649 provide plan amendments to the board for review and approval.

1650 3. During the plan's implementation, the local program shall account for nutrient  
1651 reductions accredited to the BMPs specified in the plan.

1652 4. State and federal agencies may participate in comprehensive watershed  
1653 stormwater management plans where practicable and permitted by the local program.  
1654 Compliance with the water quality criteria may be achieved by applying the performance-  
1655 based criteria or the technology-based criteria to either the site or a planning area. ]

1656 B. [ If the qualifying local program allows for a pro rata fee in accordance with § 15.2-  
1657 2243 of the Code of Virginia, then the reductions required for a site by this chapter may  
1658 be achieved by the payment of a pro rata fee sufficient to fund improvements necessary  
1659 to adequately achieve those requirements in accordance with that section of the Code of  
1660 Virginia and this chapter. Performance-based criteria. For land-disturbing activities, the  
1661 calculated postdevelopment nonpoint source pollutant runoff load shall be compared to  
1662 the calculated predevelopment load based upon the average land cover condition or the  
1663 existing site condition. A BMP shall be located, designed, and maintained to achieve the  
1664 target pollutant removal efficiencies specified in Table 2 of this section to effectively  
1665 reduce the pollutant load to the required level based upon the following four applicable  
1666 land development situations for which the performance criteria apply:

1667 1. Situation 1 consists of land-disturbing activities where the existing percent  
1668 impervious cover is less than or equal to the average land cover condition and  
1669 the proposed improvements will create a total percent impervious cover that is  
1670 less than the average land cover condition.

1671 Requirement: No reduction in the after disturbance pollutant discharge is  
1672 required.

1673 2. Situation 2 consists of land-disturbing activities where the existing percent  
1674 impervious cover is less than or equal to the average land cover condition and  
1675 the proposed improvements will create a total percent impervious cover that is  
1676 greater than the average land cover condition.

1677 Requirement: The pollutant discharge after disturbance shall not exceed the  
1678 existing pollutant discharge based on the average land cover condition.

1679 3. Situation 3 consists of land-disturbing activities where the existing percent  
1680 impervious cover is greater than the average land cover condition.

1681 Requirement: The pollutant discharge after disturbance shall not exceed (i) the  
1682 pollutant discharge based on existing conditions less 10% or (ii) the pollutant  
1683 discharge based on the average land cover condition, whichever is greater.

1684 4. Situation 4 consists of land-disturbing activities where the existing percent  
1685 impervious cover is served by an existing stormwater management BMP that  
1686 addresses water quality.

1687 Requirement: The pollutant discharge after disturbance shall not exceed the  
1688 existing pollutant discharge based on the existing percent impervious cover while  
1689 served by the existing BMP. The existing BMP shall be shown to have been  
1690 designed and constructed in accordance with proper design standards and  
1691 specifications, and to be in proper functioning condition.

1692 C. Technology-based criteria. For land-disturbing activities, the postdeveloped  
1693 stormwater runoff from the impervious cover shall be treated by an appropriate BMP as  
1694 required by the postdeveloped condition percent impervious cover as specified in Table  
1695 2 of this section. The selected BMP shall be located, designed, and maintained to  
1696 perform at the target pollutant removal efficiency specified in Table 2 or those found in  
1697 4VAC50-60-65. Design standards and specifications for the BMPs in Table 2 that meet  
1698 the required target pollutant removal efficiency are available in the 1990 Virginia

1699 Stormwater Management Handbook. Other approved BMPs available on the Virginia  
 1700 Stormwater BMP Clearinghouse website at <http://www.vwrrc.vt.edu/swc> may also be  
 1701 utilized.  
 1702

Table 2\*

Water Quality BMP*	Target Phosphorus Removal Efficiency	Percent Impervious Cover
Vegetated filter strip	10%	16-21%
Grassed Swale	15%	
Constructed wetlands	20%	22-37%
Extended detention (2 x WQ Vol)	35%	
Retention basin I (3 x WQ Vol)	40%	
Bioretention basin	50%	38-66%
Bioretention filter	50%	
Extended detention-enhanced	50%	
Retention basin II (4 x WQ Vol)	50%	
Infiltration (1 x WQ Vol)	50%	
Sand filter	65%	67-100%
Infiltration (2 x WQ Vol)	65%	
Retention basin III (4 x WQ Vol with aquatic bench)	65%	
*Innovative or alternate BMPs not included in this table may be allowed at the discretion of the local program administrator or the department. Innovative or alternate BMPs not included in this table that target appropriate nonpoint source pollution other than phosphorous may be allowed at the discretion of the local program administrator or the department. ]		

1703 [ **4VAC50-60-97. Stream channel erosion.**

1704 A. Properties and receiving waterways downstream of any land-disturbing activity  
 1705 shall be protected from erosion and damage due to changes in runoff rate of flow and  
 1706 hydrologic characteristics, including but not limited to, changes in volume, velocity,  
 1707 frequency, duration, and peak flow rate of stormwater runoff in accordance with the  
 1708 minimum design standards set out in this section.

1709 B. The permit-issuing authority shall require compliance with subdivision 19 of  
 1710 4VAC50-30-40 of the Erosion and Sediment Control Regulations, promulgated pursuant  
 1711 to Article 4 (§ 10.1-560 et seq.) of Chapter 5 of Title 10.1 of the Code of Virginia.

1712 C. The permit-issuing authority may determine that some watersheds or receiving  
 1713 stream systems require enhanced criteria in order to address the increased frequency of  
 1714 bankfull flow conditions (top of bank) brought on by land-disturbing activities. Therefore,  
 1715 in lieu of the reduction of the two-year post-developed peak rate of runoff as required in

1716 subsection B of this section, the land development project being considered shall  
1717 provide 24-hour extended detention of the runoff generated by the one-year, 24-hour  
1718 duration storm.

1719 D. In addition to subsections B and C of this section, permit-issuing authorities, by  
1720 local ordinance may, or the board by state regulation may, adopt more stringent channel  
1721 analysis criteria or design standards to ensure that the natural level of channel erosion,  
1722 to the maximum extent practicable, will not increase due to the land-disturbing activities.  
1723 These criteria may include, but are not limited to, the following:

1724 1. Criteria and procedures for channel analysis and classification.

1725 2. Procedures for channel data collection.

1726 3. Criteria and procedures for the determination of the magnitude and frequency of  
1727 natural sediment transport loads.

1728 4. Criteria for the selection of proposed natural or manmade channel linings. ]

1729 [ **4VAC50-60-98. Flooding.**

1730 A. Downstream properties and waterways shall be protected from damages from  
1731 localized flooding due to changes in runoff rate of flow and hydrologic characteristics,  
1732 including but not limited to, changes in volume, velocity, frequency, duration, and peak  
1733 flow rate of stormwater runoff in accordance with the minimum design standards set out  
1734 in this section.

1735 B. The 10-year postdeveloped peak rate of runoff from the development site shall not  
1736 exceed the 10-year predeveloped peak rate of runoff.

1737 C. In lieu of subsection B of this section, localities may, by ordinance, adopt alternate  
1738 design criteria based upon geographic, land use, topographic, geologic factors or other  
1739 downstream conveyance factors as appropriate.

1740 D. Linear development projects shall not be required to control post-developed  
1741 stormwater runoff for flooding, except in accordance with a watershed or regional  
1742 stormwater management plan. ]

1743 [ **4VAC50-60-99. Regional (watershed-wide) stormwater management plans.**

1744 Water quality and where allowed, water quantity, may be achieved in accordance  
1745 with sections 4VAC50-60-69 and 4VAC50-60-92. ]

1746 Part III  
1747 Local Programs

1748 **4VAC50-60-100. Applicability. (Repealed.)**

1749 ~~This part specifies technical criteria, minimum ordinance requirements, and~~  
1750 ~~administrative procedures for all localities operating local stormwater management~~  
1751 ~~programs.~~

1752 Part III A  
1753 Local Programs

1754 **4VAC50-60-102. Authority and applicability.**

1755 If a locality has adopted a local stormwater management program in accordance with  
1756 the Virginia Stormwater Management Act (§ 10.1-603.2 et seq. of the Code of Virginia)  
1757 and the board has deemed such program adoption consistent with the Virginia  
1758 Stormwater Management Act and these regulations in accordance with § 10.1-603.3 F of  
1759 the Code of Virginia, the board may authorize a locality to administer a qualifying local

1760 program. Pursuant to § 10.1-603.4, the board is required to establish standards and  
1761 procedures for such an authorization.

1762 This part specifies the minimum technical criteria and the local government  
1763 ordinance requirements for a local program to be considered a qualifying local program.  
1764 Such criteria include but are not limited to administration, plan review, issuance of  
1765 coverage under the Virginia Stormwater Management Program (VSMP) General Permit  
1766 for Discharges of Stormwater from Construction Activities, inspection, and enforcement.

1767 **4VAC50-60-104. Technical criteria for qualifying local programs.**

1768 A. All qualifying local programs shall require compliance with the provisions of [ Part  
1769 II A and Part II B as applicable ] (4VAC50-60-40 et seq.) of this chapter unless an  
1770 exception is granted pursuant to 4VAC50-60-122 and shall comply with the requirements  
1771 of 4VAC50-60-460 L.

1772 B. When a locality operating a qualifying local program has adopted requirements  
1773 more stringent than those imposed by this chapter in accordance with § 10.1-603.7 of  
1774 the Code of Virginia or implemented a comprehensive stormwater management plan,  
1775 the department shall consider such requirements in its review of state projects within that  
1776 locality in accordance with Part IV (4VAC50-60-160 et seq.) of this chapter.

1777 C. Nothing in this part shall be construed as authorizing a locality to regulate, or to  
1778 require prior approval by the locality for, a state project.

1779 **4VAC50-60-106. Qualifying local program administrative requirements.**

1780 A. A qualifying local program shall provide for the following:

1781 1. Identification of the authority authorizing coverage under the VSMP General  
1782 Permit for Discharges of Stormwater from Construction Activities, the plan  
1783 reviewing authority, the plan approving authority, the inspection authority, and the  
1784 enforcement authority;

1785 2. Technical criteria to be used in the qualifying local program;

1786 3. Procedures for the submission and approval of plans;

1787 4. Inspection and monitoring of land-disturbing activities covered by a permit for  
1788 compliance;

1789 5. [ ~~Procedures or policies for long-term inspection and maintenance of~~  
1790 ~~stormwater management facilities Enforcement~~ ] ; and

1791 6. [ ~~Enforcement~~—~~Procedures or policies for long-term inspection and~~  
1792 ~~maintenance of stormwater management facilities~~ ] .

1793 B. A [ ~~locality~~ qualifying local program ] shall adopt an ordinance(s) that incorporates  
1794 the components set out in [ subdivisions 1 through 5 of ] subsection A of this section and  
1795 consent to follow procedures provided by the department for the issuance, denial,  
1796 revocation, termination, reissuance, transfer, or modifications of coverage under the  
1797 VSMP General Permit for Discharges of Stormwater from Construction Activities.

1798 C. A qualifying local program shall report to the department information related to the  
1799 administration and implementation of the qualifying local program in accordance with  
1800 4VAC50-60-126.

1801 D. A qualifying local program may require the submission of a reasonable  
1802 performance bond or other financial surety and provide for the release of such sureties  
1803 in accordance with the criteria set forth in § 10.1-603.8 of the Code of Virginia.

1804 **4VAC50-60-108. Qualifying local program stormwater management plan review.**

1805 A. A qualifying local program shall require stormwater management plans to be  
1806 submitted for review and be approved prior to commencement of land-disturbing  
1807 activities. [In addition to the other requirements of this chapter, a stormwater  
1808 management plan must be developed in accordance with the following:

1809 1. A stormwater management plan for a land-disturbing activity shall apply the  
1810 stormwater management technical criteria to the entire land-disturbing activity.

1811 2. At the discretion of the qualifying local program, individual lots or planned  
1812 phases of developments shall not be considered separate land-disturbing  
1813 activities, but rather the entire development shall be considered a single land-  
1814 disturbing activity.

1815 3. The stormwater management plan shall consider all sources of surface runoff  
1816 and all sources of subsurface and groundwater flows converted to surface  
1817 runoff. ]

1818 B. A qualifying local program shall approve or disapprove a stormwater management  
1819 plan and required accompanying information according to the following:

1820 1. Stormwater management plan review shall begin upon submission of a  
1821 complete plan. A complete plan shall include the following elements:

1822 a. The location of all points of stormwater discharge, receiving surface waters  
1823 or karst features into which the stormwater discharges, and predevelopment  
1824 and postdevelopment conditions for drainage areas, including final drainage  
1825 patterns and changes to existing contours;

1826 b. Contact information including the name, address, and telephone number of  
1827 the property owner and the tax reference number and parcel number of the  
1828 property or properties affected;

1829 c. A narrative that includes a description of current site conditions and  
1830 proposed development and final site conditions, including proposed  
1831 stormwater management facilities and the mechanism, including an  
1832 identification of financially responsible parties, through which the facilities will  
1833 be operated and maintained during and after construction activity;

1834 d. The location and the design of the proposed stormwater management  
1835 facilities;

1836 e. Information identifying the hydrologic characteristics and structural  
1837 properties of soils utilized with the installation of stormwater management  
1838 facilities;

1839 f. Hydrologic and hydraulic computations of the predevelopment and  
1840 postdevelopment runoff conditions for the required design storms;

1841 g. Good engineering practices and calculations verifying compliance with the  
1842 water quality and quantity requirements of this chapter;

1843 h. A map or maps of the site that depicts the topography of the site and  
1844 includes:

1845 (1) All contributing drainage areas;

1846 (2) Receiving surface waters or karst features into which stormwater will be  
1847 discharged;

1848 (3) Existing streams, ponds, culverts, ditches, wetlands, and other water  
1849 bodies;

- 1850 (4) Soil types, geologic formations, forest cover, and other vegetative areas;  
1851 (5) Current land use including existing structures, roads, and locations of  
1852 known utilities and easements;  
1853 (6) Sufficient information on adjoining parcels to assess the impacts of  
1854 stormwater from the site;  
1855 (7) The limits of clearing and grading, and the proposed drainage patterns on  
1856 the site;  
1857 (8) Proposed buildings, roads, parking areas, utilities, and stormwater  
1858 management facilities; and  
1859 (9) Proposed land use with tabulation of the percentage of surface area to be  
1860 adapted to various uses, including but not limited to planned locations of  
1861 utilities, roads, and easements.  
1862 i. [ No more than ] 50% of the required [ base ] fee in accordance with  
1863 4VAC50-60-820, and the required fee form must have been submitted.  
1864 2. Elements of the stormwater management plans shall be appropriately sealed  
1865 and signed by a professional in adherence to all minimum standards and  
1866 requirements pertaining to the practice of that profession in accordance with  
1867 Chapter 4 (§ 54.1-400 et seq.) of Title 54.1 of the Code of Virginia and attendant  
1868 regulations.  
1869 3. Completeness of a plan and required accompanying information shall be  
1870 determined by the qualifying local program, and the applicant shall be notified of  
1871 any determination, within 15 calendar days of receipt.  
1872 a. If within those 15 days the plan is deemed to be incomplete based on the  
1873 criteria set out in this subsection, the applicant shall be notified in writing of  
1874 the reasons the plan is deemed incomplete.  
1875 b. If a determination of completeness is made and communicated to the  
1876 applicant within the 15 calendar days, an additional 60 calendar days from  
1877 the date of the communication will be allowed for the review of the plan.  
1878 c. If a determination of completeness is not made and communicated to the  
1879 applicant within the 15 calendar days, the plan shall be deemed complete as  
1880 of the date of submission and a total of 60 calendar days from the date of  
1881 submission will be allowed for the review of the plan.  
1882 d. The qualifying local program shall act within 45 days on any plan that has  
1883 been previously disapproved and resubmitted.  
1884 4. During the review period, the plan shall be approved or disapproved and the  
1885 decision communicated in writing to the person responsible for the land-  
1886 disturbing activity or his designated agent. If the plan is not approved, the  
1887 reasons for not approving the plan shall be provided in writing. Approval or denial  
1888 shall be based on the plan's compliance with the requirements of this chapter  
1889 and of the qualifying local program. [ Where available to the applicant, electronic  
1890 communication may be considered communication in writing. ]  
1891 5. If a plan meeting all requirements of this chapter and of the qualifying local  
1892 program is submitted and no action is taken within the time specified above, the  
1893 plan shall be deemed approved.  
1894 C. Notwithstanding the requirements of subsection A of this section, if allowed by the  
1895 qualifying local program, an initial stormwater management plan may be submitted for

1896 review and approval when it is accompanied by an erosion and sediment control plan,  
1897 preliminary stormwater design for the current and future site work, fee form, and [ no  
1898 more than ] 50% of the [ base ] fee required by 4VAC50-60-820. Such plans shall be  
1899 limited to the initial clearing and grading of the site unless otherwise allowed by the  
1900 qualifying local program. Approval by the qualifying local program of an initial plan does  
1901 not supersede the need for the submittal and approval of a complete stormwater  
1902 management plan and the updating of the SWPPP prior to the commencement of  
1903 activities beyond initial clearing and grading and other activities approved by the local  
1904 program. The initial plan shall include information detailed in subsection B of this section  
1905 to the extent required by the qualifying local program and such other information as may  
1906 be required by the qualifying local program.

1907 D. Each approved plan may be modified in accordance with the following:

1908 1. Modifications to an approved stormwater management plan shall be allowed  
1909 only after review and written approval by the qualifying local program. The  
1910 qualifying local program shall have 60 calendar days to respond in writing either  
1911 approving or disapproving such requests.

1912 2. Based on an inspection, the qualifying local program may require amendments  
1913 to the approved stormwater management plan to address the noted deficiencies  
1914 and notify the permittee of the required modifications.

1915 **4VAC50-60-110. Technical criteria for local programs. (Repealed.)**

1916 ~~A. All local stormwater management programs shall comply with the general~~  
1917 ~~technical criteria as outlined in 4VAC50-60-50.~~

1918 ~~B. All local stormwater management programs which contain provisions for~~  
1919 ~~stormwater runoff quality shall comply with 4VAC50-60-60. A locality may establish~~  
1920 ~~criteria for selecting either the site or a planning area on which to apply the water quality~~  
1921 ~~criteria. A locality may opt to calculate actual watershed specific or locality wide values~~  
1922 ~~for the average land cover condition based upon:~~

1923 ~~1. Existing land use data at time of local Chesapeake Bay Preservation Act~~  
1924 ~~Program or department stormwater management program adoption, whichever~~  
1925 ~~was adopted first;~~

1926 ~~2. Watershed or locality size; and~~

1927 ~~3. Determination of equivalent values of impervious cover for nonurban land uses~~  
1928 ~~which contribute nonpoint source pollution, such as agriculture, forest, etc.~~

1929 ~~C. All local stormwater management programs which contain provisions for stream~~  
1930 ~~channel erosion shall comply with 4VAC50-60-70.~~

1931 ~~D. All local stormwater management programs must contain provisions for flooding~~  
1932 ~~and shall comply with 4VAC50-60-80.~~

1933 ~~E. All local stormwater management programs which contain provisions for~~  
1934 ~~watershed or regional stormwater management plans shall comply with 4VAC50-60-110.~~

1935 ~~F. A locality that has adopted more stringent requirements or implemented a regional~~  
1936 ~~(watershed wide) stormwater management plan may request, in writing, that the~~  
1937 ~~department consider these requirements in its review of state projects within that locality.~~

1938 ~~G. Nothing in this part shall be construed as authorizing a locality to regulate, or to~~  
1939 ~~require prior approval by the locality for, a state project.~~

1940 **4VAC50-60-112. Qualifying local program authorization of coverage under the**  
1941 **VSMP General Permit for Discharges of Stormwater from Construction Activities.**

1942 A. Coverage shall be authorized by the qualifying local program under the VSMP  
1943 General Permit for Discharges of Stormwater from Construction Activities in accordance  
1944 with the following:

1945 1. The applicant must have an approved initial stormwater management plan or  
1946 an approved stormwater management plan for the land-disturbing activity.

1947 2. The applicant must have submitted proposed right-of-entry agreements or  
1948 easements from the owner for purposes of inspection and maintenance and  
1949 proposed maintenance agreements, including inspection schedules, [ where  
1950 required ] in accordance with 4VAC50-60-124.

1951 3. The applicant must have an approved registration statement for the VSMP  
1952 General Permit for Discharges of Stormwater from Construction Activities.

1953 4. The applicant must have submitted the required fee form and total fee required  
1954 by 4VAC50-60-820.

1955 5. Applicants submitting registration statements deemed to be incomplete must  
1956 be notified within 15 working days of receipt by the qualifying local program that  
1957 the registration statement is not complete and be notified (i) of what material  
1958 needs to be submitted to complete the registration statement, and (ii) that the  
1959 land-disturbing activity does not have coverage under the VSMP General Permit  
1960 for Discharges of Stormwater from Construction Activities.

1961 B. Coverage or termination of coverage shall be authorized through a standardized  
1962 database or other method provided by the department. Such database shall include, at a  
1963 minimum, permit number, operator name, activity name, acres disturbed, date of permit  
1964 coverage, and site address and location as well as date of termination.

1965 C. Coverage information pertaining to the VSMP General Permit for Discharges of  
1966 Stormwater from Construction Activities shall be reported to the department in  
1967 accordance with 4VAC50-60-126 by the qualifying local program.

1968 D. The applicant shall be notified of authorization of permit coverage by the  
1969 qualifying local program.

1970 **4VAC50-60-114. Inspections.**

1971 A. The qualifying local program or its designee shall inspect the land-disturbing  
1972 activity during construction for compliance with the VSMP General Permit for Discharges  
1973 of Stormwater from Construction Activities.

1974 B. The person responsible for the development project or their designated agent  
1975 shall submit to a qualifying local program a construction record drawing for permanent  
1976 stormwater management facilities, appropriately sealed, and signed by a professional in  
1977 accordance with all minimum standards and requirements pertaining to the practice of  
1978 that profession pursuant to Chapter 4 (§ 54.1-400 et seq.) of Title 54.1 of the Code of  
1979 Virginia and attendant regulations, certifying that the stormwater management facilities  
1980 have been constructed in accordance with the approved plan. The qualifying local  
1981 program shall have the construction record drawing and certification on file prior to the  
1982 release of the portion of [ the any ] performance bond or surety associated with the  
1983 stormwater management facility. [ The qualifying local program may elect not to require  
1984 construction record drawings for stormwater management facilities for which  
1985 maintenance agreements are not required pursuant to 4VAC50-60-124. ]

1986 C. The [ owners owner ] of [ a ] stormwater management [ facilities facility for which a  
1987 maintenance agreement is required pursuant to 4VAC50-60-124 ] shall be required to  
1988 conduct inspections in accordance with an inspection schedule in [ a the ] recorded  
1989 maintenance agreement, and shall submit written inspection and maintenance reports to  
1990 the qualifying local program [ upon request ] . Such reports, if consistent with a board-  
1991 approved inspection program established in subsection [ D E ] of this section, may be  
1992 utilized by the qualifying local program if the inspection is conducted by a person who is  
1993 licensed as a professional engineer, architect, [ certified ] landscape architect, or land  
1994 surveyor pursuant to Article 1 ( § 54.1-400 et seq.) of Chapter 4 of Title 54.1 or who holds  
1995 a certificate of competence from the board. The reports, if so utilized, must be kept on  
1996 file with the qualifying local program [ . ]

1997 D. A qualifying local program shall [ develop a strategy for addressing maintenance  
1998 of stormwater management facilities designed to treat stormwater runoff solely from an  
1999 individual residential lot on which they are located. Such a strategy may include periodic  
2000 inspections, homeowner outreach and education, or other method targeted at promoting  
2001 the long term maintenance of such facilities. Such facilities shall not be subject to the  
2002 requirement for an inspection to be conducted by the qualifying local program every 5  
2003 years contained within subsection E of this section.

2004 E. A qualifying local program shall ] establish an inspection program that ensures  
2005 that the stormwater management facilities are being maintained as designed. Any  
2006 inspection program shall be:

- 2007 1. Approved by the board prior to implementation;  
2008 2. Established in writing;  
2009 3. Based on a system of priorities that takes into consideration the purpose and  
2010 type of the facility, ownership and the existence of a recorded maintenance  
2011 agreement and inspection schedule [ where required ] , the contributing drainage  
2012 area, and downstream conditions;  
2013 4. Demonstrated to be an enforceable inspection program that meets the intent  
2014 of the regulations and ensures that each stormwater management facility is  
2015 inspected by the qualifying local program or its designee, not to include the  
2016 owner, except as provided in [ subsection subsections ] C [ and D ] of this  
2017 section, at least every five years; and  
2018 5. Documented by inspection records.

2019 [ E. F. ] Inspection reports shall be generated and kept on file in accordance with  
2020 4VAC50-60-126 for all stormwater management facilities inspected by the qualifying  
2021 local program.

2022 **4VAC50-60-116. Qualifying local program enforcement.**

- 2023 A. A qualifying local program may incorporate the following components:  
2024 1. Informal and formal administrative enforcement procedures including:  
2025 a. Verbal warnings and inspection reports;  
2026 b. Notices of corrective action;  
2027 c. Consent special orders and civil charges in accordance with subdivision 7  
2028 of § 10.1-603.2:1 and § 10.1-603.14 D 2 of the Code of Virginia;  
2029 d. Notices to comply in accordance with § 10.1-603.11 of the Code of  
2030 Virginia;

- 2031 e. Special orders in accordance with subdivision 7 of § 10.1-603.2:1 of the
- 2032 Code of Virginia;
- 2033 f. Emergency special orders in accordance with subdivision 7 of § 10.1-
- 2034 603.2:1 of the Code of Virginia; and
- 2035 g. Public notice and comment periods pursuant to 4VAC50-60-660.
- 2036 2. Civil and criminal judicial enforcement procedures including:
- 2037 a. Schedule of civil penalties set out in subsection D of this section;
- 2038 b. Criminal penalties in accordance with § 10.1-603.14 B and C of the Code
- 2039 of Virginia; and
- 2040 c. Injunctions in accordance with §§ 10.1-603.12:4, 10.1-603.2:1 and 10.1-
- 2041 603.14 D 1 of the Code of Virginia.
- 2042 B. A qualifying local program shall develop policies and procedures that outline the
- 2043 steps to be taken regarding enforcement actions under the Stormwater Management Act
- 2044 and attendant regulations and the local ordinance.
- 2045 C. A qualifying local program may utilize the department's Stormwater Management
- 2046 Enforcement Manual as guidance in establishing policies and procedures.
- 2047 D. A court may utilize as guidance the following Schedule of Civil Penalties set by
- 2048 the board in accordance with § 10.1-603.14 A of the Code of Virginia. The range
- 2049 contained within the schedule reflects the degree of harm caused by the violation, which
- 2050 is site-specific and may vary greatly from case to case, as may the economic benefit of
- 2051 noncompliance to the violator. Each day of violation of each requirement shall constitute
- 2052 a separate offense. Assignment of the degree of harm is a qualitative decision subject to
- 2053 the court's discretion. The court has the discretion to impose a maximum penalty of
- 2054 \$32,500 per violation per day in accordance with § 10.1-603.14 A of the Code of
- 2055 Virginia.
- 2056

<u>1. Gravity-based Component</u>	<u>Marginal</u>	<u>Moderate</u>	<u>Serious</u>	
<u>Violations* and Frequency of Occurrence **</u>	<u>\$\$ x occurrences</u>	<u>\$\$ x occurrences</u>	<u>\$\$ x occurrences</u>	<u>SUBTOTAL</u>
<u>No Permit Registration (each month w/o coverage = 1 occurrence)</u>	<u>500 x _____</u>	<u>1,000 x _____</u>	<u>2,000 x _____</u>	

<u>No SWPPP (No SWPPP components including E&amp;S Plan) (each month of land-disturbing without SWPPP = 1 occurrence)</u>	<u>1,000 x</u> _____	<u>1,500 x</u> _____	<u>2,000 x</u> _____	
<u>Incomplete SWPPP</u>	<u>300 x</u> _____	<u>500 x</u> _____	<u>1,000 x</u> _____	
<u>SWPPP not on site</u>	<u>100 x</u> _____	<u>300 x</u> _____	<u>500 x</u> _____	
<u>No approved Erosion and Sediment Control Plan</u>	<u>500 x</u> _____	<u>1,000 x</u> _____	<u>2,000 x</u> _____	
<u>Failure to install stormwater BMPs or erosion and sediment ("E&amp;S") controls</u>	<u>300 x</u> _____	<u>500 x</u> _____	<u>1,000 x</u> _____	
<u>Stormwater BMPs or E&amp;S controls improperly installed or maintained</u>	<u>250 x</u> _____	<u>500 x</u> _____	<u>750 x</u> _____	
<u>Operational deficiencies (e.g., failure to initiate stabilization measures as soon as practicable; unauthorized discharges of stormwater; failure to implement control measures for construction debris)</u>	<u>1,000 x</u> _____	<u>2,000 x</u> _____	<u>5,000 x</u> _____	
<u>Failure to conduct required inspections</u>	<u>500 x</u> _____	<u>2,000 x</u> _____	<u>3,000 x</u> _____	

<u>Incomplete, improper or missed inspections (e.g., inspections not conducted by qualified personnel; site inspection reports do not include date, weather information, location of discharge, or are not certified, etc.)</u>	<u>300 x</u>	<u>500 x</u>	<u>1,000 x</u>	
			<u>Subtotal #1</u>	
<u>2. Estimated Economic Benefit of Noncompliance (if applicable)</u>			<u>Subtotal #2</u>	
<u>3. Recommended civil penalty</u>			<u>Total (#1 and #2)</u>	
<p><u>* Each stormwater BMP or E&amp;S control that is either not installed or improperly installed or maintained is a separate violation.</u></p> <p><u>** The frequency of occurrence is per event unless otherwise noted.</u></p>				

2057 E. Pursuant to subdivision 2 of § 10.1-603.2:1 of the Code of Virginia, authorization  
 2058 to administer a qualifying local program shall not remove from the board the authority to  
 2059 enforce the provisions of the Virginia Stormwater Management Act and attendant  
 2060 regulations.

2061 F. Pursuant to § 10.1-603.14 A of the Code of Virginia, amounts recovered by a  
 2062 qualifying local program shall be paid into the treasury of the locality in which the  
 2063 violation occurred and are to be used for the purpose of minimizing, preventing,  
 2064 managing, or mitigating pollution of the waters of the locality and abating environmental  
 2065 pollution therein in such manner as the court may, by order, direct.

2066 **4VAC50-60-118. Hearings.**

2067 A qualifying local program shall ensure that any permit applicant or permittee shall  
 2068 have a right to a hearing pursuant to § 10.1-603.12:6 of the Code of Virginia and shall  
 2069 ensure that all hearings held under this chapter shall be conducted in accordance with  
 2070 § 10.1-603.12:7 of the Code of Virginia or as otherwise provided by law.

2071 **4VAC50-60-120. Requirements for local program and ordinance. (Repealed.)**

2072 A. At a minimum, the local stormwater management program and implementing  
 2073 ordinance shall meet the following:

- 2074 1. The ordinance shall identify the plan approving authority and other positions of  
 2075 authority within the program, and shall include the regulations and technical  
 2076 criteria to be used in the program.

2077 ~~2. The ordinance shall include procedures for submission and approval of plans,~~  
2078 ~~issuance of permits, monitoring and inspections of land development projects.~~  
2079 ~~The party responsible for conducting inspections shall be identified. The local~~  
2080 ~~program authority shall maintain, either on-site or in local program files, a copy of~~  
2081 ~~the approved plan and a record of all inspections for each land development~~  
2082 ~~project.~~

2083 ~~B. The department shall periodically review each locality's stormwater management~~  
2084 ~~program, implementing ordinance, and amendments. Subsequent to this review, the~~  
2085 ~~department shall determine if the program and ordinance are consistent with the state~~  
2086 ~~stormwater management regulations and notify the locality of its findings. To the~~  
2087 ~~maximum extent practicable the department will coordinate the reviews with other local~~  
2088 ~~government program reviews to avoid redundancy. The review of a local program shall~~  
2089 ~~consist of the following:~~

- 2090 ~~1. A personal interview between department staff and the local program~~  
2091 ~~administrator or his designee;~~  
2092 ~~2. A review of the local ordinance and other applicable documents;~~  
2093 ~~3. A review of plans approved by the locality and consistency of application;~~  
2094 ~~4. An inspection of regulated activities; and~~  
2095 ~~5. A review of enforcement actions.~~

2096 ~~C. Nothing in this chapter shall be construed as limiting the rights of other federal~~  
2097 ~~and state agencies from imposing stricter technical criteria or other requirements as~~  
2098 ~~allowed by law.~~

2099 **4VAC50-60-122. Qualifying local program exceptions.**

2100 ~~A. A qualifying local program may grant exceptions to the provisions of [ Part II~~  
2101 ~~(4VAC50-60-40 et seq.) Parts II A and II B ] of this chapter through an administrative~~  
2102 ~~process. A request for an exception, including the reasons for making the request, shall~~  
2103 ~~be submitted in writing to the qualifying local program. An exception may be granted~~  
2104 ~~provided that (i) the exception is the minimum necessary to afford relief, (ii) reasonable~~  
2105 ~~and appropriate conditions shall be imposed as necessary upon any exception granted~~  
2106 ~~so that the intent of the Act and this chapter are preserved, (iii) granting the exception~~  
2107 ~~will not confer on the permittee any special privileges that are denied to other permittees~~  
2108 ~~who present similar circumstances, and (iv) exception requests are not based upon~~  
2109 ~~conditions or circumstances that are self-imposed or self-created.~~

2110 ~~B. Economic hardship alone is not sufficient reason to grant an exception from the~~  
2111 ~~requirements of this chapter.~~

2112 ~~C. Under no circumstance shall the qualifying local program grant an exception to~~  
2113 ~~the requirement that the land-disturbing activity obtain a permit.~~

2114 ~~D. [ Any exception to the water quality technical criteria of 4VAC50-60-63~~  
2115 ~~subdivisions 1 and 2 shall require that all available offsite options be utilized before an~~  
2116 ~~exception is granted and that any necessary phosphorus reductions unable to be~~  
2117 ~~achieved on site or through the available offsite options of subsection A of 4VAC50-60-~~  
2118 ~~69 be achieved through a payment made in accordance with subsection B of 4VAC50-~~  
2119 ~~60-69. In the case of the granting of an exception, the minimum on site thresholds of~~  
2120 ~~subsection B of 4VAC50-60-69 shall not apply.~~

2121 ~~E. ] A record of all exceptions [ applied for and ] granted shall be maintained by the~~  
2122 ~~qualifying local program and reported to the department in accordance with 4VAC50-60-~~  
2123 ~~126.~~

2124 **4VAC50-60-124. Qualifying local program stormwater management facility**  
2125 **maintenance.**

2126 A. Responsibility for the operation and maintenance of stormwater management  
2127 facilities in accordance with this chapter, unless assumed by a governmental agency,  
2128 shall remain with the property owner or other legally established entity and shall pass to  
2129 any successor.

2130 [ 1. ] The [ government entity implementing the ] qualifying local program shall  
2131 [ be a party to each require a ] maintenance agreement [ for each stormwater  
2132 management facility except as provided in subdivision 2 ] . Such maintenance  
2133 agreement shall [ include a schedule for require the owner to (i) perform ]  
2134 inspections [ by the owner, and, in addition to ensuring that each on a specified  
2135 schedule, (ii) maintain the ] facility [ is maintained ] as designed, [ shall ensure  
2136 that and (iii) maintain ] the designed flow and drainage patterns from the site to a  
2137 permanent facility [ are maintained ] . Such agreements may also contain  
2138 provisions specifying that, where maintenance or repair of a stormwater  
2139 management facility located on the owner's property is neglected, or the  
2140 stormwater management facility becomes a public health or safety concern and  
2141 the owner has failed to perform the necessary maintenance and repairs after  
2142 receiving notice from the locality, the qualifying local program may perform the  
2143 necessary maintenance and repairs and recover the costs from the owner. In the  
2144 specific case of a public health or safety danger, the agreement may provide that  
2145 the written notice may be waived by the locality.

2146 [ 2. Maintenance agreements, at the discretion of the qualifying local program,  
2147 shall not be required for stormwater management facilities designed to treat  
2148 stormwater runoff solely from an individual residential lot on which they are  
2149 located, provided it is demonstrated to the satisfaction of the qualifying local  
2150 program that future maintenance of such facilities will be addressed through a  
2151 deed restriction or other mechanism enforceable by the qualifying local  
2152 program. ]

2153 B. [ The Where a maintenance agreement is required for a stormwater management  
2154 facility, the ] qualifying local program shall be notified of any transfer or conveyance of  
2155 ownership or responsibility for maintenance of a stormwater management facility.

2156 C. [ The Where a maintenance agreement is required for a stormwater management  
2157 facility, the ] qualifying local program shall require right-of-entry agreements or  
2158 easements from the property owner for purposes of inspection and maintenance.

2159 **4VAC50-60-126. Qualifying local program report and recordkeeping.**

2160 A. On a fiscal year basis (July 1 to June 30), a qualifying local program shall report to  
2161 the department by October 1 of each year in a format provided by the department. The  
2162 information to be provided shall include the following:

2163 1. Information on each permanent stormwater management facility completed  
2164 during the fiscal year to include type of stormwater management facility,  
2165 coordinates, acres treated, and the surface waters or karst features into which  
2166 the stormwater management facility will discharge;

2167 2. Number of VSMP General Permit for Discharges of Stormwater from  
2168 Construction Activities projects inspected and the total number of inspections by  
2169 acreage categories determined by the department during the fiscal year;

2170 3. Number and type of enforcement actions during the fiscal year; and

2171 4. Number of exceptions applied for and the number granted or denied during the  
2172 fiscal year.

2173 B. A qualifying local program shall make information set out in subsection A of this  
2174 section available to the department upon request.

2175 C. A qualifying local program shall keep records in accordance with the following:

2176 1. Permit files shall be kept for three years after permit termination. After three  
2177 years, the permit file shall be delivered to the department by October 1 of each  
2178 year.

2179 2. Stormwater maintenance facility inspection reports shall be kept for five years  
2180 from the date of inspection.

2181 3. Stormwater maintenance agreements, design standards and specifications,  
2182 [ ~~postconstruction surveys~~ construction record drawings ] , and maintenance  
2183 records shall be maintained in perpetuity [ or until a stormwater management  
2184 facility is removed due to redevelopment of the site ] .

#### Part III B

#### Department of Conservation and Recreation Administered Local Programs

#### **2187 4VAC50-60-128. Authority and applicability.**

2188 In the absence of a qualifying local program, the department, in accordance with an  
2189 adoption and implementation schedule set by the board and upon board approval, shall  
2190 administer the local stormwater management program in a locality in accordance with §  
2191 10.1-603.3 C of the Code of Virginia. This part specifies the minimum technical criteria  
2192 for a department-administered local stormwater management program in accordance  
2193 with the Virginia Stormwater Management Act (§ 10.1-603.2 et seq. of the Code of  
2194 Virginia), and the standards and criteria established in these regulations by the board  
2195 pursuant to its authority under that article. Such criteria include but are not limited to  
2196 administration, plan review, issuance of coverage under the Virginia Stormwater  
2197 Management Program (VSMP) General Permit for Discharges of Stormwater from  
2198 Construction Activities, issuance of individual permits, inspection, enforcement, and  
2199 education and outreach components.

#### **2200 ~~4VAC50-60-130. Administrative procedures: stormwater management plans.~~** 2201 **~~(Repealed.)~~**

2202 ~~A. Localities shall approve or disapprove stormwater management plans according~~  
2203 ~~to the following:~~

2204 ~~1. A maximum of 60 calendar days from the day a complete stormwater~~  
2205 ~~management plan is accepted for review will be allowed for the review of the~~  
2206 ~~plan. During the 60-day review period, the locality shall either approve or~~  
2207 ~~disapprove the plan and communicate its decision to the applicant in writing.~~  
2208 ~~Approval or denial shall be based on the plan's compliance with the locality's~~  
2209 ~~stormwater management program.~~

2210 ~~2. A disapproval of a plan shall contain the reasons for disapproval.~~

2211 ~~B. Each plan approved by a locality shall be subject to the following conditions:~~

2212 ~~1. The applicant shall comply with all applicable requirements of the approved~~  
2213 ~~plan, the local program, this chapter and the Act, and shall certify that all land~~  
2214 ~~clearing, construction, land development and drainage will be done according to~~  
2215 ~~the approved plan.~~

- 2216 2. ~~The land development project shall be conducted only within the area~~  
2217 ~~specified in the approved plan.~~
- 2218 3. ~~The locality shall be allowed, after giving notice to the owner, occupier or~~  
2219 ~~operator of the land development project, to conduct periodic inspections of the~~  
2220 ~~project.~~
- 2221 4. ~~The person responsible for implementing the approved plan shall conduct~~  
2222 ~~monitoring and submit reports as the locality may require to ensure compliance~~  
2223 ~~with the approved plan and to determine whether the plan provides effective~~  
2224 ~~stormwater management.~~
- 2225 5. ~~No changes may be made to an approved plan without review and written~~  
2226 ~~approval by the locality.~~

2227 **4VAC50-60-132. Technical criteria.**

2228 A. The department-administered local stormwater management programs shall  
2229 require compliance with the provisions of [ ~~Part II~~ Part II A and Part II B as applicable ]  
2230 (4VAC50-60-40 et seq.) of this chapter unless an exception is granted pursuant to  
2231 4VAC50-60-142 D and shall comply with the requirements of 4VAC50-60-460 L.

2232 B. When reviewing a federal project, the department shall apply the provisions of this  
2233 chapter.

2234 C. Nothing in this chapter shall be construed as limiting the rights of other federal  
2235 and state agencies to impose stricter technical criteria or other requirements as allowed  
2236 by law.

2237 **4VAC50-60-134. Administrative authorities.**

2238 A. The department is the permit-issuing authority, plan approving authority, and the  
2239 enforcement authority.

2240 B. The department or its designee is the plan reviewing authority and the inspection  
2241 authority.

2242 C. The department shall assess and collect fees.

2243 D. The department may require the submission of a reasonable performance bond or  
2244 other financial surety in accordance with the criteria set forth in § 10.1-603.8 of the Code  
2245 of Virginia prior to the issuance of coverage under the VSMP General Permit for  
2246 Discharges of Stormwater from Construction Activities and in accordance with the  
2247 following:

2248 1. The amount of the installation performance security shall be the total  
2249 estimated construction cost of the stormwater management BMPs approved  
2250 under the stormwater management plan, plus 25%;

2251 2. The performance security shall contain forfeiture provisions for failure, after  
2252 proper notice, to complete work within the time specified, or to initiate or maintain  
2253 appropriate actions that may be required in accordance with the approved  
2254 stormwater management plan;

2255 3. Upon failure by the applicant to take such action as required, the department  
2256 may act and may collect from the applicant the difference should the amount of  
2257 the reasonable cost of such action exceed the amount of the security held; and

2258 4. Within 60 days of the completion of the requirements and conditions of the  
2259 VSMP General Permit for Discharges of Stormwater from Construction Activities  
2260 and the department's acceptance of the Notice of Termination, such bond, cash

2261 escrow, letter of credit, or other legal arrangement shall be refunded to the  
2262 applicant.

2263 **4VAC50-60-136. Stormwater management plan review.**

2264 A. Stormwater management plans shall be reviewed and approved by the  
2265 department prior to commencement of land-disturbing activities.

2266 B. The department shall approve or disapprove a stormwater management plan and  
2267 required accompanying information according to the criteria set out for a qualifying local  
2268 program in 4VAC50-60-108 B.

2269 C. The department shall not [ ~~accept~~ review or approve ] initial stormwater  
2270 management plans.

2271 D. Each approved stormwater management plan may be modified in accordance  
2272 with the criteria set out for a qualifying local program in 4VAC50-60-108 D.

2273 **4VAC50-60-138. Issuance of coverage under the VSMP General Permit for**  
2274 **Discharges of Stormwater from Construction Activities.**

2275 The department shall issue coverage under the VSMP General Permit for  
2276 Discharges of Stormwater from Construction Activities in accordance with the following:

2277 1. The applicant must have a department-approved stormwater management  
2278 plan for the land-disturbing activity.

2279 2. The applicant must have submitted a complete registration statement for the  
2280 VSMP General Permit for Discharges of Stormwater from Construction Activities  
2281 in accordance with Part VII (4VAC50-60-360 et seq.) of this chapter and the  
2282 requirements of the VSMP General Permit for Discharges of Stormwater from  
2283 Construction Activities, which acknowledges that a SWPPP has been developed  
2284 and will be implemented, and the registration statement must have been  
2285 reviewed and approved prior to the commencement of land disturbance.

2286 3. The applicant must have submitted the required fee form and fee for the  
2287 registration statement seeking coverage under the VSMP General Permit for  
2288 Discharges of Stormwater from Construction Activities.

2289 4. Applicants submitting registration statements deemed to be incomplete must  
2290 be notified within 15 working days of receipt by the department that the  
2291 registration statement is not complete and be notified (i) of what material needs  
2292 to be submitted to complete the registration statement, and (ii) that the land-  
2293 disturbing activity does not have coverage under the VSMP General Permit for  
2294 Discharges of Stormwater from Construction Activities.

2295 5. The applicant shall be notified of authorization of permit coverage by the  
2296 department.

2297 6. Individual permits for qualifying land-disturbing activities may be issued at the  
2298 discretion of the board or its designee pursuant to 4VAC50-60-410 B 3.

2299 **4VAC50-60-140. Administrative procedures: exceptions. (Repealed.)**

2300 ~~A. A request for an exception shall be submitted, in writing, to the locality. An~~  
2301 ~~exception from the stormwater management regulations may be granted, provided that:~~  
2302 ~~(i) exceptions to the criteria are the minimum necessary to afford relief and (ii)~~  
2303 ~~reasonable and appropriate conditions shall be imposed as necessary upon any~~  
2304 ~~exception granted so that the intent of the Act and this chapter are preserved.~~

2305 ~~B. Economic hardship is not sufficient reason to grant an exception from the~~  
2306 ~~requirements of this chapter.~~

2307 **4VAC50-60-142. Inspections, enforcement, hearings, exceptions, and stormwater**  
2308 **management facility maintenance.**

2309 A. Inspections shall be conducted by the department in accordance with 4VAC50-60-  
2310 114.

2311 B. Enforcement actions shall be conducted by the department in accordance with  
2312 4VAC50-60-116. The department's Stormwater Management Enforcement Manual shall  
2313 serve as guidance to be utilized in enforcement actions under the Stormwater  
2314 Management Act and attendant regulations. Any amounts assessed by a court as a  
2315 result of a summons issued by the board or the department shall be paid into the state  
2316 treasury and deposited by the State Treasurer into the Virginia Stormwater Management  
2317 Fund established pursuant to § 10.1-603.4:1 of the Code of Virginia.

2318 C. Hearings shall be conducted by the department in accordance with 4VAC50-60-  
2319 118.

2320 D. Exceptions may be granted by the department in accordance with 4VAC50-60-  
2321 122.

2322 E. Stormwater management facility maintenance shall be conducted in accordance  
2323 with 4VAC50-60-124.

2324 **4VAC50-60-150. Administrative procedures: maintenance and inspections.**  
2325 **(Repealed.)**

2326 ~~A. Responsibility for the operation and maintenance of stormwater management~~  
2327 ~~facilities, unless assumed by a governmental agency, shall remain with the property~~  
2328 ~~owner and shall pass to any successor or owner. If portions of the land are to be sold,~~  
2329 ~~legally binding arrangements shall be made to pass the basic responsibility to~~  
2330 ~~successors in title. These arrangements shall designate for each project the property~~  
2331 ~~owner, governmental agency, or other legally established entity to be permanently~~  
2332 ~~responsible for maintenance.~~

2333 ~~B. In the case of developments where lots are to be sold, permanent arrangements~~  
2334 ~~satisfactory to the locality shall be made to ensure continued performance of this~~  
2335 ~~chapter.~~

2336 ~~C. A schedule of maintenance inspections shall be incorporated into the local~~  
2337 ~~ordinance. Ordinances shall provide that in cases where maintenance or repair is~~  
2338 ~~neglected, or the stormwater management facility becomes a danger to public health or~~  
2339 ~~safety, the locality has the authority to perform the work and to recover the costs from~~  
2340 ~~the owner.~~

2341 ~~D. Localities may require right-of-entry agreements or easements from the applicant~~  
2342 ~~for purposes of inspection and maintenance.~~

2343 ~~E. Periodic inspections are required for all stormwater management facilities.~~  
2344 ~~Localities shall either:~~

2345 ~~1. Provide for inspection of stormwater management facilities on an annual basis;~~  
2346 ~~or~~

2347 ~~2. Establish an alternative inspection program which ensures that stormwater~~  
2348 ~~management facilities are functioning as intended. Any alternative inspection~~  
2349 ~~program shall be:~~

2350 ~~a. Established in writing;~~

2351 ~~b. Based on a system of priorities that, at a minimum, considers the purpose~~  
2352 ~~of the facility, the contributing drainage area, and downstream conditions; and~~

2353 ~~c. Documented by inspection records.~~

2354 ~~F. During construction of the stormwater management facilities, localities shall make~~  
2355 ~~inspections on a regular basis.~~

2356 ~~G. Inspection reports shall be maintained as part of a land development project file.~~

2357 **4VAC50-60-154. Reporting and recordkeeping.**

2358 A. The department shall maintain a current database of permit coverage information  
2359 for all projects that includes permit number, operator name, activity name, acres  
2360 disturbed, date of permit coverage, and site address and location.

2361 B. On a fiscal year basis (July 1 to June 30), [ a local program shall report to ] the  
2362 department [ shall compile a report on the local programs it administers ] by October 1 in  
2363 accordance with 4VAC50-60-126 A.

2364 ~~C. [ On a fiscal year basis (July 1 to June 30), the department shall compile~~  
2365 ~~information provided by local programs.~~

2366 ~~D. ] Records shall be maintained by the department in accordance with 4VAC50-60-~~  
2367 ~~126 C.~~

2368 Part III C

2369 Department of Conservation and Recreation Procedures for Review of Qualifying Local  
2370 Programs

2371 **4VAC50-60-156. Authority and applicability.**

2372 This part specifies the criteria that the department will utilize in reviewing a locality's  
2373 administration of a qualifying local program pursuant to § 10.1-603.12 of the Code of  
2374 Virginia following the board's approval of such program in accordance with the Virginia  
2375 Stormwater Management Act and these regulations.

2376 **4VAC50-60-157. Stormwater management program review.**

2377 A. The department shall review each board-approved qualifying local program at  
2378 least once every five years on a review schedule approved by the board. The  
2379 department may review a qualifying local program on a more frequent basis if deemed  
2380 necessary by the board and shall notify the local government if such review is  
2381 scheduled.

2382 B. The review of a board-approved qualifying local program shall consist of the  
2383 following:

2384 1. An interview between department staff and the qualifying local program  
2385 administrator or his designee;

2386 2. A review of the local ordinance(s) and other applicable documents;

2387 3. A review of a subset of the plans approved by the qualifying local program and  
2388 consistency of application including exceptions granted;

2389 4. An accounting of the receipt and of the expenditure of fees received;

2390 5. An inspection of regulated activities; and

2391 6. A review of enforcement actions and an accounting of amounts recovered  
2392 through enforcement actions.

2393 C. To the extent practicable, the department will coordinate the reviews with other  
2394 local government program reviews to avoid redundancy.

2395 D. The department shall provide its recommendations to the board within 90 days of  
2396 the completion of a review. Such recommendations shall be provided to the locality in  
2397 advance of the meeting.

2398 E. The board shall determine if the qualifying local program and ordinance are  
2399 consistent with the Act and state stormwater management regulations and notify the  
2400 qualifying local program of its findings.

2401 F. If the board determines that the deficiencies noted in the review will cause the  
2402 qualifying local program to be out of compliance with the Stormwater Management Act  
2403 and its attendant regulations, the board shall notify the qualifying local program  
2404 concerning the deficiencies and provide a reasonable period of time for corrective action  
2405 to be taken. If the qualifying local program agrees to the corrective action recommended  
2406 by the board, the qualifying local program will be considered to be conditionally  
2407 compliant with the Stormwater Management Act and its attendant regulations until a  
2408 subsequent finding is issued by the board. If the qualifying local program fails to take the  
2409 corrective action within the specified time, the board may take action pursuant to § 10.1-  
2410 603.12 of the Code of Virginia.

2411 Part III D

2412 Virginia Soil and Water Conservation Board Authorization for Qualifying Local Programs

2413 **4VAC50-60-158. Authority and applicability.**

2414 Subdivision 1 of § 10.1-603.4 of the Code of Virginia requires that the board  
2415 establish standards and procedures for authorizing a locality to administer a stormwater  
2416 management program. In accordance with that requirement, and with the further  
2417 authority conferred upon the board by the Virginia Stormwater Management Act (§ 10.1-  
2418 603.2 et seq. of the Code of Virginia), this part specifies the procedures the board will  
2419 utilize in authorizing a locality to administer a qualifying local program.

2420 **4VAC50-60-159. Authorization procedures for qualifying local programs.**

2421 A. A locality required to adopt a program in accordance with § 10.1-603.3 A of the  
2422 Code of Virginia or those electing to seek authorization to administer a qualifying local  
2423 program must submit to the board an application package which, at a minimum, contains  
2424 the following:

- 2425 1. The local program ordinance(s);  
2426 2. A funding and staffing plan based on the projected permitting fees; and  
2427 3. The policies and procedures, including but not limited to, agreements with Soil  
2428 and Water Conservation Districts, adjacent localities, or other entities, for the  
2429 administration, plan review, permit issuance, inspection, and enforcement  
2430 components of the program.

2431 B. Upon receipt of an application package, the board or its designee shall have [ 20  
2432 30 ] calendar days to determine the completeness of the application package. If an  
2433 application package is deemed to be incomplete based on the criteria set out in  
2434 subsection A of this section, the board or its designee must identify in writing the  
2435 reasons the application package is deemed deficient.

2436 C. Upon receipt of a complete application package, the board or its designee shall  
2437 have 90 calendar days for the review of the application package. During the 90-day  
2438 review period, the board or its designee shall either approve or disapprove the  
2439 application, or notify the locality of a time extension for the review, and communicate its  
2440 decision to the locality in writing. If the application is not approved, the reasons for not  
2441 approving the application shall be provided to the locality in writing. Approval or denial  
2442 shall be based on the application's compliance with the Virginia Stormwater  
2443 Management Act and these regulations.

2444 D. A locality required to adopt a qualifying local program in accordance with § 10.1-  
2445 603.3 A of the Code of Virginia shall submit a complete application package for the  
2446 board's review pursuant to a schedule set by the board in accordance with § 10.1-603.3  
2447 and shall adopt a qualifying local program consistent with the Act and this chapter within  
2448 the timeframe established pursuant to § 10.1-603.3.

2449 E. A locality not required to adopt a qualifying local program in accordance with §  
2450 10.1-603.3 A but electing to adopt a qualifying local program shall notify the board in  
2451 accordance with the following:

2452 1. A locality electing to adopt a qualifying local program may notify the board of  
2453 its intention within six months of the effective date of these regulations. Such  
2454 locality shall submit a complete application package for the board's review  
2455 pursuant to a schedule set by the board and shall adopt a qualifying local  
2456 program within the timeframe established by the board.

2457 2. A locality electing to adopt a qualifying local program that does not notify the  
2458 board within the initial six-month period of its intention may thereafter notify the  
2459 board at any regular meeting of the board. Such notification shall include a  
2460 proposed schedule for adoption of a qualifying local program within a timeframe  
2461 agreed upon by the board.

2462 F. The department shall administer the responsibilities of the Act and this chapter in  
2463 any locality in which a qualifying local program has not been adopted. The department  
2464 shall develop a schedule, to be approved by the board, for adoption and implementation  
2465 of the requirements of this chapter in such localities. Such schedule may include phases  
2466 of implementation and shall be based upon considerations including the typical number  
2467 of permitted projects located within a locality, total number of acres disturbed by such  
2468 permitted projects, and such other considerations as may be deemed necessary by the  
2469 board.

#### 2470 DOCUMENTS INCORPORATED BY REFERENCE (4VAC50-60)

2471 Illicit Discharge Detection and Elimination – A Guidance Manual for Program  
2472 Development and Technical Assessments, EPA Cooperative Agreement X-82907801-0,  
2473 October 2004, by Center for Watershed Protection and Robert Pitt, University of  
2474 Alabama, available on the Internet at [http://www.cwp.org/idde\\_verify.htm](http://www.cwp.org/idde_verify.htm).

2475 Getting in Step – A Guide for Conducting Watershed Outreach Campaigns, EPA-  
2476 841-B-03-002, December 2003, U.S. Environmental Protection Agency, Office of  
2477 Wetlands, Oceans, and Watersheds, available on the Internet at  
2478 <http://www.epa.gov/owow/watershed/outreach/documents/getnstep.pdf>, or may be  
2479 ordered from National Service Center for Environmental Publications, telephone 1-800-  
2480 490-9198.

2481 Municipal Stormwater Program Evaluation Guidance, EPA-833-R-07-003, January  
2482 2007 (field test version), U.S. Environmental Protection Agency, Office of Wastewater  
2483 Management, available on the Internet at  
2484 [http://cfpub.epa.gov/npdes/docs.cfm?program\\_id=6&view=allprog&sort=name#ms4\\_gui](http://cfpub.epa.gov/npdes/docs.cfm?program_id=6&view=allprog&sort=name#ms4_guidance)  
2485 dance, or may be ordered from National Technical Information Service, 5285 Port Royal  
2486 Road, Springfield, VA 22161, telephone 1-800-553-6847 or (703) 605-6000.

2487 Technical Bulletin #1 - Stream Channel Erosion Control, Virginia Department of  
2488 Conservation and Recreation, 2000.

2489 Technical Memorandum – The Runoff Reduction Method, April 2008, and [ ~~beta-~~  
2490 version addendum addendums ] , September [ ~~2008~~ 2009 ] .

- 2491**      Virginia Runoff Reduction Method Worksheet, September [ ~~2008~~ 2009 ] .
- 2492**      [ Virginia Runoff Reduction Method Worksheet – Redevelopment, September 2009. ]