

Annual Standards and Specifications
for
Erosion and Sediment Control
and
Stormwater Management

Revision 6

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INTRODUCTION

The Radford University (RU) Annual Standards and Specifications (AS&S) for Erosion and Sediment Control (ESC) and Stormwater Management (SWM) are integral components of RU's design, construction, maintenance, and management of the campus facilities and land. The RU Annual Standards and Specifications for ESC and SWM have been developed to provide information regarding RU's implementation in accordance with the Virginia Stormwater Management Act (§62.1-44.15:24. to :50), the Virginia Stormwater Management Program (VSMP) Regulations

1.0 ANNUAL STANDARDS AND SPECIFICATIONS ADMINISTRATION

1.1 All projects involving land disturbing activity subject to the Virginia Erosion and Sediment Control Law (§62.1-44.15:51 to :50) and the Virginia Erosion and Sediment Control Regulations (9VAC25-840) shall be bound by the Annual Standards and Specifications for Erosion and Sediment Control and Stormwater Management approved by DEQ. All projects involving land disturbing activity subject to the Virginia Stormwater Management Act (§62.1-44.15:24. to :50) and the SMP Regulations (9VAC25-870) shall be bound by the Annual Standards and Specifications for Erosion and Sediment Control and Stormwater Management approved by DEQ.

1.2 The Annual Standards and Specifications for Erosion and Sediment Control (ESC) and Stormwater Management (SWM) are composed of general specifications for ESC and SWM. The general specifications for ESC and SWM that apply to the land disturbing activities listed in Section 1.1 above include by reference the following regulations as amended:

1.2.1 Virginia Stormwater Management Act (§62.1-44.15:24. To :50);

1.2.2 Virginia Erosion and Sediment Control Law (§62.1-44.15:51. to :50);

1.2.3 Virginia Erosion and Sediment Control Regulations (9VAC25-840);

1.2.4 Virginia Erosion and Sediment Control Certification Regulations (9VAC25-850);

1.2.5 Virginia Stormwater Management Program Regulation (9VAC25-870);

1.2.6 Reports and Recordkeeping (9VAC25-126)

1.2.7 General Permit for Discharges of Construction Stormwater from Construction

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“Land disturbance” or “land-disturbing activity” (Stormwater Management) means a ~~made~~ change to the land surface that potentially changes its runoff characteristics including clearing, grading, or excavation, except the term shall not include those exemptions specified in Art. 62.1 – 44.15:34.

“Layout” means a conceptual drawing sufficient to provide for the specified stormwater management facilities required at the time of approval.

“Minor modification” means an amendment to an existing general permit before its expiration not requiring extensive review and evaluation including, but ~~not~~ ~~into~~, changes in EPA promulgated test protocols, increasing monitoring frequency requirements, changes in sampling locations, and changes to compliance dates within the overall compliance schedules. A minor general permit modification or amendment ~~does~~ substantially alter general permit conditions, substantially increase or detu pS/o9 (eq)ante ofsorfe3 (es7)12.92 (t)-1.9 (e)1ori mact.6 (i)ns,6.6 (i).6 (an

“State waters” means all water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction, including wetlands.

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

“Stormwater management plan” means a document(s) containing materials describing methods for complying w-3.9 (i)-4.6 (b)1h8/.6cengra6 (h)10.9 (i)-4.7 (n i)6.3 (t)-4.6 (s)-2.3 ()10.9 (j)-4.6 (ur)6.9 (i)

Annual Standards and Specifications for ESC and SWM. The following personnel are assigned

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Radford University
Facilities Planning and Construction Office
501 Stockton Street
Radford, VA 24142

4.1.3 The RU Facilities Planning and Construction Office will retain one set of the approved plans.

4.1.4 Design Submittal and Plan Review Checklists

4.1.4.1 ESC and SWM plans, to include narrative, calculations, and drawings. The plans shall be submitted to the Facilities Planning and Construction Office for review and approval. The approved plans shall be submitted to the appropriate regulatory agency for review and approval. The approved plans shall be submitted to the appropriate regulatory agency for review and approval.

4.3.2 If the facility system or conveyance system or both have not been constructed and installed in accordance with the approved plan, then the licensed

4.6.1.2 Where the person responsible for carrying out the approved plan finds that because of changed circumstances or for other reasons the approved plan cannot be effectively carried out, and proposed amendments to the plan, consistent with the requirements of this article, are agreed to by the approving authority and the person responsible for carrying out the plan.

4.6.2 Revisions to an approved ESC and SWM Plan must be submitted in writing to the RU Facilities Planning and Construction Office. Revisions shall not be considered if they do not meet the following criteria:

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- 5.9 ESC/SWM construction drawings shall include manufacturer's recommendation on maintenance and inspection of manufactured BMPs. So long as the manufacturer's recommendation is in compliance with the requirements listed in Section 1.2
 - 5.10 ESC/SWM construction drawings shall provide information on the post-construction inspections required for each BMP or reference the narrative section that contains the information. SWM BMPs shall have unique identifications and the identifications shall be referenced/used in all documentation, but not limited to, SWP Narrative, ESC and SWM plans and calculations.
 - 5.11 Profiles shall be included for storm sewer systems and conveyance channels. The profile shall include the final surface channel/pipe and hydraulic grade line. Surcharges shall be clearly indicated on the profile.
 - 5.12 The amount of disturbed area listed per phase and proposed net increase in impervious area shall be listed on the ESC/SWM construction drawings
- 6.0 INSPECTIONS, a caedca 3 ()JTJpe(r)-4 6 (t)6.2 (i)-4.6 (on d)JT3 ()JTJ,9 (a)-1.6 (r)-4.6 ()10.9 (i)-4.6 (r)-

one acre but part of a common plan of development or sale that is greater than or equal to one acre, the RLD is required to conduct inspections per 9VAC2540-60.A, and in accordance with the specific maintenance requirements of each control measure as laid out in the Virginia Erosion and Sediment Control Handbook. The inspection reports shall be maintained onsite and shall be available for review by RU, DEQ, and other regulatory agencies. The RLD Inspection Report provided in Appendix B shall be completed by the RLD.

6.5 Stormwater Management Inspections

6.5.1

- 8.1.2.8 Project start and finish date.
- 8.1.2.9 Any variances/exemptions/waivers associated with this project.

9.0 LONG-TERM MAINTENANCE :

- 9.1 Projects specific plans (plan sheets and narrative) shall contain information on long-term maintenance of BMPs. The following information shall be printed on the approved stormwater management plans:
 - 9.1.1 A description of requirements for maintenance and maintenance inspection of the stormwater management facilities and a recommended schedule of maintenance inspection and maintenance.
 - 9.1.2 The identification of a person or persons who will be responsible for maintenance inspection and maintenance.
 - 9.1.3 The maintenance inspection schedule and maintenance requirements should be in accordance with the Virginia BMP Clearinghouse, the Virginia SWM Handbook, the MS4 permit (if applicable) and/or the manufacturer's specifications.
 - 9.1.4 Clearly depict the types of land cover on the site (i.e. different type of hatching for each land cover), including the acreage for each cover type. The acreage should be labeled in all the subareas. Provide a table that adds the land cover up by type on the sheet.
 - 9.1.5 Draw metes and bounds all the way around any conserved space.
 - 9.1.6 Label any conserved open space as "Runoff Reduction Compliance Forest / Open Space."
 - 9.1.7 Include the following note on the sheet: "The Runoff Reduction Compliance Forest / Open Space area shown here shall be maintained in a forest / open space manner until such time an amended storm water management plan is approved by the VSMP Authority."
- 9.2 RU shall track stormwater management facilities and associated watersheds.
- 9.3 The RUBMP will be updated quarterly with information as related to the BMP.

9.4. SIT J 0 Tc-t2 T-(s)-2, Tw 28,696b RT2 T/s 1035 (b4 (p2) 1749.222718 p2.3 (0) 4.8 1.6 (a) 2wd 6272/M

10.1 ESC record retention – RU shall maintain, ~~site~~ and in AS&S files, a copy of the approved ESC plan and a record of inspections for each active ~~disturbing~~ activity.

11.5.1 Inspection reports conducted by ~~PA~~ as well as complaint logs and complaint

ESC/SWM PLAN PREPARER/REVIEWER CHECKLIST

The Erosion and Sediment Control (ESC) and Storm Water Management (SWM) plan consists of the narrative (including any supporting calculations) and the ~~plans~~ ~~plans~~, as noted below.

GENERAL

_____ Complete set of plans Include all sheets pertaining to the site grading and stormwater and any activities impacting erosion and sediment control and drainage:

- Existing conditions
- Demolition
- Site grading
- Erosion and sediment control
-

Yes No NA

- MS-11 Are adequate outlet protection and/or channel linings provided for all stormwater conveyance channels and receiving creeks? Is there a schedule indicating:
 Dimensions of the outlet protection? Lining? Size of riprap?
 Cross section and slope of the channels? Type of lining? Size of riprap, if used?
- MS-12 Are in-stream protection measures required so that channel impacts are minimized?
- MS-13 Are temporary stream crossings of non-erodible material required where applicable?
- MS-14 Are all applicable federal, state and local regulations pertaining to working in or crossing live watercourses being followed?
- MS-15 Has immediate stabilization of areas subject to stream construction (bed and banks) been adequately addressed?
- MS-16 Have disturbances from underground utility line installations been addressed?
 No more than 500 linear feet of trench open at one time?
 Effluent from dewatering filtered or passed through a sediment trapping device?
 Proper backfill, compaction, and stabilization?
- MS-17 Is the transport of soil and mud onto public roadways properly controlled? (i.e., construction entrances, wash racks, transport of sediment to a trapping facility, cleaning of roadways at the end of each day, no washing before sweeping and shoveling)
- MS-18 Has the...

NARRATIVE

showing predevelopment and postdevelopment runoff should be provided including any worksheets, assumptions and engineering plans.

_____ Stormwater management considerations Will the development of the site cause an increase in

_____ Soils Map– The boundaries of different soil types, factor and soil survey classifications.



APPENDIX B

ESC/SWM AND RLD INSPECTION REPORTS

INSPECTION REPORT

Project Name:

Project Authority:

RLD Name:

RLD No.:

Project Location:

Project No:

Inspector Name ⁽³⁾:

Inspection Date:

Time:

Date of Most Recent Precipitation Event:

Equivalent rainfall

STAGE OF CONSTRUCTION

Pre-Construction Conference

Building Construction

Construction of SWM Facilities

Clearing & Grubbing

Finish Grading

Maintenance of SWM Facilities

Rough Grading

Final Stabilization

Other _____

Item#	State/Local Regulation ⁽¹⁾	Violation		Description and Location of Problem/Violation ⁽²⁾ , Required or Recommended Corrective Actions, and Other Comments/Notes
		Initial	Repeat	



APPENDIX C

VARIANCE/EXCEPTION REQUEST FORM

VARIANCE /EXCEPTION REQUEST

Requested by: _____ Date: _____

Street Address: _____

City/Town/Zip: _____

Telephone #: _____ Fax #: _____ E-mail address: _____

Introduction : _____

Project Description: _____

Minimum Standards Variance Requests _____

Existing Conditions and Adjacent Areas: _____

Soil Characterization: _____

Critical and Sensitive Areas (Karst, wetland, etc:) _____

Mitigation (EPC Measures; Permanent Stabilization; Vegetative Restoration, Maintenance;
Critical and Sensitive Areas; Self Inspection, Reporting and DEQ Certified Personnel) _____

Designers Signature: _____ Date: _____

Signature of applicant: _____ Date: _____

Providing supporting documentation (sketches, calculations, etc...) as necessary to support request
(NOTE: All approved Variance Requests will be considered part of the Erosion and Sediment Control Plan).



APPENDIX D

Annual Standards and Specifications Entity Information Form

Annual Standards & Specification (AS&S) Entity Information Sheet

1. Annual Standards & Specifications Ent	
2. AS&S Coverage Verification	
a. Operator:	
b. Project name:	
c. Estimated Area to be Disturbed (acres):	
3. Plan Approval Verificatic	
a. Erosion & Sediment Control (ESC) Plan	
i. ESC Plan Reviewer Name and Certification Number:	
ii. ESC Plan Date:	
iii. ESC Plan Approval Date:	
b. Stormwater Management (SWM) Plan:	
i. Technical Criteria Use	
ii. SWM Plan Reviewer Name and Certification Number:	
iii. SWM Plan Date:	
iv. SWM Plan Approval Date:	
4. Comments	

Printed Name	Title:
Signature	Date:

(Please sign in ink. This must be signed by an employee of the AS&S entity who has oversight of this project and is aware of its coverage under their AS&S.)

(Retain a copy of this form onsite and within project specific AS&S files.)

Instructions for completion:

1. AS&S Entity/Holder Names it

APPENDIX E

