MASON LD HOW-TO GUIDE:
NAVIGATING THE LAND DISTURBANCE PERMITTING PROCESS

JUNE 2011
All land disturbing activities pose a potential risk to the local natural environment. Certain measures and precautions historically have been taken to minimize these risks. To ensure compliance with Federal and State laws and regulations, Virginia’s Department of Conservation and Recreation (DCR) has been mandated the responsibility of reviewing, permitting, and inspecting the implementation of construction design plans. Recently, DCR delegated its plan permitting and construction inspection authority to George Mason University. In order to streamline the Land Disturbance Permit Process, George Mason University Land Development (Mason LD) has created the following ‘How-to’ document to clearly identify each step of the process and associated expectations. All required forms are referenced can be found in the appendices.

The Pre-Construction Land Disturbance Process (Appendix A) illustrates the internal steps taken by Mason LD once project applications and plans are submitted. The associated table goes into further detail regarding the required submittals and expected review durations.

For a land disturbing project of any size a Land Disturbance Application (Appendix B) must be completed and submitted to Mason LD. A scaled drawing that shows the scope and vicinity of the project must accompany the application.

In addition to a detailed plan set, projects that disturb an area greater than 2500 SF require the following documentation: a completed Plan Preparer’s E&S Checklist (Appendix C) and a completed Storm Water Pollution Prevention Plan (SWPPP) Template (Appendix D) are to be included along with the Land Disturbance Permit Application. These items may also be required on projects less than 2500 SF at the discretion of Mason LD. The exact composition of the detailed plan set is project specific, however, the plan set typically includes:

- Cover Sheet (General Notes, Vicinity Map, Soils Map)
- General Construction Details (handicap ramp, cross-sections, sidewalk, etc.)
- Existing Conditions and Grading (2’ contours)
- Existing Drainage Divides (include calculated areas, impervious areas, and C-values)
- Proposed Site Plan
- Proposed Grading Plan (1’-2’ contours and spot elevations @ high/low points and )
- Proposed Drainage Divides (include calculated areas, impervious areas, and C-values)
- Phase 1 E&S w/ Drainage Divides
- Phase 2 E&S w/ Drainage Divides
- E&S Narrative
- E&S/BMP/SWM Details
- Stormwater Pipe Profiles (include dimensioned utility crossings; V=1:5 H=1:25 and HGL)
- Stormwater Calculations (ex. ditch comps, pipe comps, inlet comps, pond routings, etc.)
- Detailed Landscaping plan (include planting schedule)

All plan submissions must include (1) hardcopy and (1) electronic copy (PDF). A Civil3D model must accompany submissions for all capital projects and non-capital projects that include infrastructure/utility work within its scope. CAD models must conform to University CAD standards regarding layers, plot styles, line types, etc. Revisions in subsequent submissions must be clouded. Be advised, Mason LD grants (2) complimentary reviews. Additional reviews are subject to guidelines set forth in the Supplementary General Conditions. Note: Mason LD’s Storm Water Pollution Prevention Plan (SWPPP) Template is available electronically by request.

Each submission is reviewed using the Plan Reviewer’s Checklists (Appendix E).
Upon review, the contact person will either receive the Mason LD’s comments or a Land Disturbance Permit (Appendix F). By law, Mason LD has 30 days to review and comment on plans, therefore, projects that are time sensitive should be noted as such. Once all review comments have been incorporated into the plan set and a permit is issued, a minimum of (4) hardcopies of a clean plan set must be sent to Mason LD for final stamp of approval (1-Mason LD, 1-Contractor, 1-Inspector, 1-Engineer of Record). The number of plan sets required is subject to change as applicable.

In addition, to submitting to Mason LD, the Contractor is responsible to apply for a VSMP Permit as required by law. Throughout the duration of the project, DCR may conduct VSMP inspections periodically. At the conclusion of the project, it is the Contractor’s responsibility to terminate the VSMP permit. A copy of the VSMP Permit and Notice of Termination must be furnished to Mason LD. All documents associated with the VSMP process are available in Appendix G.

Prior to any site disturbance, a permit is required. In addition, the Contractor must read and agree by signature to Mason LD’s Pre-Construction Statement (Appendix H). A copy of this agreement must be kept with the permit on-site at all times.

A qualified Mason LD representative will inspect the site at least bi-weekly and/or after each significant rainfall event. A Land Disturbance Inspection Report (Appendix I) will be generated, distributed, and archived. The report will describe the infractions and the actions required for correction.

At the conclusion of a project, a final Land Disturbance Inspection will be conducted to determine recommendation for permit termination. Once a Mason LD inspector’s recommendation is received, the Permit Notice of Termination (Appendix J) will be completed and executed by the Contractor and a Mason LD administrator.

Attached for reference is Engineers’ Toolkit (Appendix K) provided by DCR. If you have any questions regarding the Land Development Process, please email Brad Glatfelter at bglatfel@gmu.edu.
APPENDIX A:

Pre-construction Land Disturbance Process
PRE-CONSTRUCTION LAND DISTURBANCE PROCESS

1. Project Conception

2. Does the project disturb land?
   - NO: No LD Review Required
   - YES: Project Log-in & Site Use/Layout Review

3. Project Log-in & Site Use/Layout Review

4. Office of Code Compliance Site Review

5. Review Site Design
   - NO: Environmental Review
   - YES: Does the Project Affect Infrastructure?

6. Does the Project Affect Infrastructure?
   - NO: Issue LD Permit
   - YES: Environmental Review

7. Environmental Review
   - NO: Issue LD Permit
   - YES: Issue LD/E&S/SW Permits

8. Issue LD/E&S/SW Permits

9. Issue LD/E&S Permits ONLY

10. E&S/Stormwater Design Review
    - NO: Issue LD Permit
    - YES: > 2500sf or Special Condition

11. > 2500sf or Special Condition
    - NO: Issue LD Permit
    - YES: Issue LD/E&S/SW Permits
# PRE-CONSTRUCTION LAND DISTURBANCE PROCESS

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<thead>
<tr>
<th>STEP</th>
<th>Description</th>
<th>Submittals Required</th>
<th>Expected Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does Project Disturb Land?</td>
<td>Complete LD Application</td>
<td>Completed LD Application; Construction Schematic; Vicinity Map</td>
<td>1 Day</td>
</tr>
<tr>
<td>Project Login &amp; Site Use/Layout Review</td>
<td>Login Project; Ensure Project Aligns with University Master Use/Utility Plan; Does It Make Sense?</td>
<td>Schematic Layout; Project Description</td>
<td>2-3 Days</td>
</tr>
<tr>
<td>Project Does/Does NOT Affect or Include Infrastructure</td>
<td>Does the project affect/include utilities, roads, etc?</td>
<td>Site Design (1 Full Size Plan Set)</td>
<td>3-5 Days</td>
</tr>
<tr>
<td>Review Site Design</td>
<td>Complete/In-Depth Review of Site Design</td>
<td>Site Design (Plan &amp; Profiles) and Details (1 Full Size Plan Set)</td>
<td>3-5 Days</td>
</tr>
<tr>
<td>Office of Code Compliance Site Review</td>
<td>GMU Local Permitting Authority Review</td>
<td>Copy of Completed BCS Permit Request Form</td>
<td></td>
</tr>
<tr>
<td>Environmental Review</td>
<td>EIR; VSMP; SWPPP; Special Surveys; Etc.</td>
<td>As Needed Per Project</td>
<td></td>
</tr>
</tbody>
</table>

Note: Once the proposed plans have been approved and a permit has been issued (5) plan sets and (2) SWPPPs must be submitted to be stamped by the Mason LD.
APPENDIX B:
Mason LD Land Disturbance Application
LAND DEVELOPMENT PERMIT APPLICATION

University Administrator
Brad Glatfelter 571-265-1977

Date:

Applicant:1 ___________________________ Contact #: __________________
Address: ___________________________________________________________
_____________________________________________________________

Contractor:2 ___________________________ Contact #: __________________
Address: __________________________________________________________
Contact:  _________________________________________________________
Responsible Land Disturber: __________________ Certificate Number: ________

Project:
Project Number (if applicable):3 ___________________________ Campus:4 __________
Project Description:5 ________________________________________________
____________________________________________________________
____________________________________________________________
____________________________________________________________

Start Date: ____________  Completion Date: _________________

Documentation Included:

☐ Drawings6  ☐ E&S Checklist7  ☐ SWPPP8  ☐ Stormwater Plan9
☐ Other: __________________________________________________________

Proposed Increase of Impervious Area: __________________ square feet10
Proposed Reduction of Impervious Area: __________________ square feet11

Type of Review:

☐ Land Development12  ☐ Erosion & Sediment Control13  ☐ Stormwater Design14

Note: Completed Drawings must be included for all reviews. A completed E&S Checklist and
Stormwater Concept Plan must be included for Erosion & Sediment Control Review. A completed
SWPPP must be included for Stormwater Design Review. All required documents must be included
or it will not be reviewed.
## LAND DEVELOPMENT APPLICATION DEFINITIONS

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicant</td>
<td>the person applying for the review/permit, usually the Project Manager or Project Engineer</td>
</tr>
<tr>
<td>Contractor</td>
<td>the person or company doing the work proposed</td>
</tr>
<tr>
<td>Project Number</td>
<td>BCOM tracking number or Work Order</td>
</tr>
<tr>
<td>Campus</td>
<td>Fairfax/Prince William/Arlington/Loudoun</td>
</tr>
<tr>
<td>Project Description</td>
<td>a brief summary describing the extent of proposed work</td>
</tr>
<tr>
<td>Drawings</td>
<td>engineered, scaled drawings including details of proposed work</td>
</tr>
<tr>
<td>E&amp;S Checklist</td>
<td>PDF provided in M:\shared\fmgt.landdevelopment\E&amp;S</td>
</tr>
<tr>
<td>SWPPP</td>
<td>StormWater Pollution Protection Plan should be developed by a Professional Engineer according DCR standards and expectations</td>
</tr>
<tr>
<td>Stormwater Plan</td>
<td>a conceptual drawing showing the proposed routing of stormwater; only needed if a stormwater design is not included in the drawings</td>
</tr>
<tr>
<td>Increase of Impervious Area</td>
<td>surface that does not allow water to percolate through; includes roofs, concrete, asphalt, brick, aggregate, stone, etc.</td>
</tr>
<tr>
<td>Reduction of Impervious Area</td>
<td>replaces impervious area with surfaces that allow water to percolate, such as, grass, dirt, mulch, etc.</td>
</tr>
<tr>
<td>Land Development</td>
<td>Initial review of project concept and how it affects the proposed site and adjacent property. Determines extent of additional submissions.</td>
</tr>
<tr>
<td>Erosion &amp; Sediment Control</td>
<td>review of the E&amp;S drawings, SWPPP, and Stormwater Plan</td>
</tr>
<tr>
<td>Stormwater Design</td>
<td>review of stormwater design</td>
</tr>
</tbody>
</table>
APPENDIX C:
Plan Preparer’s Checklist
(E & S)
CHECKLIST

NARRATIVE

Project description – Briefly describes the nature and purpose of the land-disturbing activity, and the area (acres) to be disturbed.

- What time of year will the project start and finish? (construction sequence)
- How long will it take to complete the project?
- How many acres will be disturbed for completion of this project?
- How much impervious area will the project have in post-developed conditions?
- What will be the ultimate developed conditions of the site?

Existing site conditions – A description of the existing topography, vegetation and drainage.

- Should list percentages of slope on the site.
- Types of existing vegetation that can be used as erosion control, or areas to be left undisturbed.
- Discuss marking areas where existing vegetation is to be preserved.
- Discuss size of drainage areas in pre-development and post-development conditions.
- Discuss any existing drainage or erosion problems and how they are to be corrected.
- Discuss orientation of slopes (north or south facing).
- Discuss how existing site conditions can be used to reduce the potential for erosion and how proposed E & S controls will be designed to “fit” the site.
- Photographs?

Adjacent areas – A description of neighboring areas such as streams, lakes, residential areas, roads, etc., which might be affected by the land disturbance.

- The potential for off-site damages must be considered and discussed.
- ANY environmentally sensitive areas should be mentioned.
- Other private or public lands adjacent to the site should be described and considered for possible problems during and after construction (traffic problems, dust control, increases in runoff, etc…)
- Discuss perimeter controls to be used.

Off-site-areas – Describe any off-site land-disturbing activities that will occur (including borrow sites, waste or surplus areas, etc.). Will any other areas be disturbed?

- Any off-site borrow or spoil areas should have approved plan to supplement the overall project plan.
- If off-site areas are under other permits, proof of permits should be provided.
- List specific locations of all off-site areas.
- Discuss who will be responsible for final stabilization and maintenance of off-site areas.
Soils – A brief description of the soils on the site giving such information as soil name, mapping unit, erodibility, permeability, depth, texture and soil structure.

- Indicate references for soil information.
- Provide a copy of soil survey map.
- Indicate what sheet of site plan that soils are delineated.
- Check for soils with a high K factor, or poor drainage, low pH, etc...

Critical areas – A description of areas on the site which have potentially serious erosion problems (e.g. steep slopes, channels, wet weather/underground springs, etc.).

- Discuss any area of the project which may become critical during the project. Some areas of the site may have long or steep slopes during a certain phase of the grading.
- Indicate areas to be left alone until they can be graded and stabilized in favorable conditions.
- Discuss precautions to communicate limits of these areas to contractors and equipment operators.

Erosion and sediment control measures – A description of the methods which will be used to control erosion and sedimentation on the site. (Controls should meet the specifications in Chapter 3.)

- List all controls used, list specification numbers (3.02) and location of practice.
- Discuss why it was selected.
- Sequence of installation, maintenance and removal for each control.
- Discuss temporary seeding as a means of erosion control, list the types to be used.

Permanent stabilization – A brief description, including specifications, of how the site will be stabilized after construction is completed.

- Final stabilization needs careful review.
- Is the timing of seeding correct with the construction sequence?
- List soil testing requirements.
- Provide seeding specifications (pure live seed minimums), fertilizer and liming specifications. Seeding tables and rates.
- Is the type of permanent vegetation appropriate for the site?
- Discuss all other areas to be stabilized other than vegetation (gravel, paved, etc…).

Stormwater runoff considerations – Will the development site cause an increase in peak runoff rates? Will the increase in runoff cause flooding or channel degradation downstream? Describe the strategy to control stormwater runoff.

- Discuss how downstream properties and waterways will be protected (basins, channel improvements, easements).
- Discuss how increased runoff will be managed during construction.
- List or discuss all other references for design of permanent facilities.
Calculations – Detailed calculations for the design of temporary sediment basins, permanent stormwater detention basins, diversions, channels, etc. Include calculations for pre- and post-development runoff.

- All calculations showing pre-development and post-development runoff should be provided. Worksheets, assumptions and engineering decisions should be clearly presented to assists the plan reviewer in his or her duties.
- Calculation methods should be clearly presented and organized.
- Have the calculations shown adequate protection of downstream properties and waterways?

Maintenance – A schedule of maintenance for permanent stormwater control measure should be provided.

- Should list who is responsible during construction and who will be responsible once project is complete.
- Should provide a schedule of inspections to be conducted.
- List maintenance items to check and perform as well as precautions for large storm events.

SITE PLAN

Vicinity map – A small map locating the site in relation to the surrounding area. Include any landmarks which might assist in locating the site.

- Provide a reproduction of a topo map, road map, etc...

Indicate north – The direction of north in relation to the site.

- Useful tool for determining slope orientation.
- Useful for communicating written inspection reports and plan review comments.
- Useful in predicting areas off-site that might be effected by dust drift.

Limits of clearing and grading – Areas which are to be cleared and graded.

- Show all areas to be disturbed on the site plan.
- Provide notes on how areas will be marked.
- Provide notes and illustrations to clearly indicate areas NOT to be disturbed.

Existing contours – The existing contours of the site.

- Should be shown as dashed light lines in intervals from 1 to 5 feet.
- Represent pre-developed drainage areas (check these areas for accuracy).
- Show potential critical areas, (slopes).
- Helps to determine cut or fill areas low spots.
- Helps to determine if E & S controls have been designed properly.

Final contours – Changes to the existing contours, including final drainage patterns.

- Should be shown as heavy solid lines.
- Determines final drainage areas.
- Check to see if pre-developed drainage areas have increased.
- Check final grade of slopes to see if they will become critical (may need diversions or flumes).
- Check vegetative specifications for final grade of slopes (low or high maintenance). Are erosion control blankets needed?

Existing vegetation – The existing tree lines, grassed areas, or unique vegetation.
- Clearly indicate existing tree lines, vegetation areas to remain.
- Provide notes on the plan for areas to be undisturbed.

Soils – The boundaries of different soil types.
- Indicate soil boundaries of all soil types on the site.
- List K factor and soil survey classifications.
- Provide notes of soil properties (texture, etc...).

Existing drainage patterns – The dividing lines and the direction of flow for the different drainage areas. Include the size (acreage) of each drainage area.
- Should be indicated by acres and show the direction of flow for all existing drainage areas.
- Indicates the need for basins, traps, or other structural measures.
- Helps to determine if controls are designed correctly.
- Helps to determine if off-site drainage needs to be diverted.
- Useful in planning to break up drainage areas into smaller more manageable areas during construction.

Critical erosion areas – Areas with potentially serious erosion problems. (See Chapter 6 of the Virginia Erosion and Sediment Control Handbook for criteria).
- All critical, environmentally sensitive or prohibited areas should be denoted on the plan and notes provided to state reasons for critical nature.
- Stream considerations; temporary crossings, other permits, location of stock piles, trash & debris removal, fuel storage, etc...

Site Development – Show all improvements such as buildings, parking lots, access roads, utility construction, etc.
- All improvements such as building, roads, temporary access roads, right-of-ways and temporary easements should be shown on the plan.
- Utility improvements on and off-site should be shown.

Location of practices – The locations of erosion and sediment controls and stormwater management practices used on the site. Use the standard symbols and abbreviations in Chapter 3 of the Virginia Erosion and Sediment Control Handbook.
- The exact location of all practices including vegetation should be clearly shown on the plan.
- A legend denoting symbols, line uses and other special characters should be provided.
Off-site areas – Identify any off-site land-disturbing activities (e.g., borrow sites, waste areas, etc.). Show location of erosion controls. (Is there sufficient information to assure adequate protection and stabilization?)

- Are separate Plans required for off-site borrow or disposal areas?
- How will off-site areas be stabilized?
- Are there any temporary easements to be disturbed during construction?
- Who has final responsibility for off-site areas?

Detail drawings – Any structural practices used that are not referenced to the E&S handbook or local handbooks should be explained and illustrated with detail drawings.

- Details should be provided which are clearly dimensioned and reflected the ability to be “built” in the field according to the proper design criteria.
- Alternative E & S measures must have proper drawings to indicate how and where they are to be constructed.
- All plan drawings, elevations and cross section drawings should show scales used to prepare the drawings.
- Outlet protection schedules should be provided.
- Sizes and materials should be shown for all pipes, flumes and slope drains.
- All details should list the specification number from the VESCH.
- If more than one type of specification is being used (inlet protection) details of all practices shall be provided.

Maintenance – A schedule of regular inspections and repair of erosion and sediment control structures should be set forth.

- Indicate who is responsible for maintenance and repair of all E & S measures on the project.
- Indicate who is the primary contact for emergencies, for notification of problems (owner), etc…
- Provide clean-out and maintenance specifications for all major structures such as basins, traps, silt fence, etc…
- Require monitoring reports from the RLD if needed.
NARRATIVE

____ Project description – Briefly describes the nature and purpose of the land-disturbing activity, and the area (acres) to be disturbed.

____ Existing site conditions – A description of the existing topography, vegetation and drainage.

____ Adjacent areas – A description of neighboring areas such as streams, lakes, residential areas, roads, etc., which might be affected by the land disturbance.

____ Off-site-areas – Describe any off-site land-disturbing activities that will occur (including borrow sites, waste or surplus areas, etc.). Will any other areas be disturbed?

____ Soils – A brief description of the soils on the site giving such information as soil name, mapping unit, erodibility, permeability, depth, texture and soil structure.

____ Critical areas – A description of areas on the site which have potentially serious erosion problems (e.g. steep slopes, channels, wet weather/underground springs, etc.).

____ Erosion and sediment control measures – A description of the methods which will be used to control erosion and sedimentation on the site. (Controls should meet the specifications in Chapter 3.)

____ Permanent stabilization – A brief description, including specifications, of how the site will be stabilized after construction is completed.

____ Stormwater runoff considerations – Will the development site cause an increase in peak runoff rates? Will the increase in runoff cause flooding or channel degradation downstream? Describe the strategy to control stormwater runoff.

____ Calculations – Detailed calculations for the design of temporary sediment basins, permanent stormwater detention basins, diversions, channels, etc. Include calculations for pre- and post-development runoff.
SITE PLAN

____ Vicinity map – A small map locating the site in relation to the surrounding area. Include any landmarks which might assist in locating the site.

____ Indicate north – The direction of north in relation to the site.

____ Limits of clearing and grading – Areas which are to be cleared and graded.

____ Existing contours – The existing contours of the site.

____ Final contours – Changes to the existing contours, including final drainage patterns.

____ Existing vegetation – The existing tree lines, grassed areas, or unique vegetation.

____ Soils – The boundaries of different soil types.

____ Existing drainage patterns – The dividing lines and the direction of flow for the different drainage areas. Include the size (acreage) of each drainage area.

____ Critical erosion areas – Areas with potentially serious erosion problems. (See Chapter 6 for criteria).

____ Site Development – Show all improvements such as buildings, parking lots, access roads, utility construction, etc.

____ Location of practices – The locations of erosion and sediment controls and stormwater management practices used on the site. Use the standard symbols and abbreviations in Chapter 3 of the Virginia Erosion and Sediment Control Handbook.

____ Off-site areas – Identify any off-site land-disturbing activities (e.g., borrow sites, waste areas, etc.). Show location of erosion controls. (Is there sufficient information to assure adequate protection and stabilization?)

____ Detail drawings – Any structural practices used that are not referenced to the E&S handbook or local handbooks should be explained and illustrated with detail drawings.

____ Maintenance – A schedule of regular inspections and repair of erosion and sediment control structures should be set forth.
APPENDIX D:
Stormwater Pollution Prevention Plan Template (SWPPP)
SWPPP Template – George Mason University

Instructions

To help develop the narrative section of the construction site StormWater Pollution Prevention Plan (SWPPP), George Mason University Land Development (Mason LD) has created this electronic SWPPP template. The template is designed to guide through the development of the SWPPP and help ensure that the SWPPP addresses all the necessary elements stated in the construction general permit. This template is adapted and customized from the Environmental Protection Agency’s (EPA) SWPPP template. For further guidance on compiling the SWPPP, the EPA published Developing Your Stormwater Pollution Prevention Plan, which is available on-line at www.epa.gov/npdes/swpppguide. In addition, for Virginia laws and regulations reference Virginia Department of Conservation and Recreation’s (DCR) Virginia Erosion and Sediment Control Handbook, which is available on their website http://www.dcr.virginia.gov/soil_and_water/e_and_s.shtml. Finally, local provisions are detailed in George Mason University Annual Standards and Specifications for Erosion and Sediment Control and Stormwater Management which can be found at http://facilities.gmu.edu/planning/PoliciesStandardCodes.htm#erosion.

Using the Mason SWPPP Template

Each section of this template includes “instructions” and space for project information. Please read the instructions for each section before you complete that section. This template was developed in Word so that you can easily add tables and additional text. Some sections may require only a brief description while others may require several pages of explanation. Information areas required to be completed are indicated in [blue].

Tips for completing the SWPPP template

- If there is more than one land disturber for your project, consider coordinating development of your SWPPP with the other disturber.
- Multiple disturbers may share the same SWPPP, but make sure that responsibilities are clearly described.

Further Information

Please contact George Mason University Land Development:

George Jennings  Brad Glatfelter
gjenning@gmu.edu  bglatfel@gmu.edu
804-761-7432  571-265-1977
Stormwater Pollution Prevention Plan (SWPPP)

[Insert Project Name]

[Insert Project Site Location/Address]
[Insert City, State, Zip Code]
[Insert Project Site Telephone Number (if applicable)]

Operator(s):

[Insert Company or Organization Name]
[Insert Name]
[Insert Address]
[Insert City, State, Zip Code]
[Insert Telephone Number]
[Insert Fax/Email]

SWPPP Contact(s):

[Insert Company or Organization Name]
[Insert Name]
[Insert Address]
[Insert City, State, Zip Code]
[Insert Telephone Number]
[Insert Fax/Email]

SWPPP Preparation Date:

[___/___/____]

Estimated Project Dates:

Project Start Date: [___/___/____]
Project Completion Date: [___/___/____]
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GEORGE MASON UNIVERSITY SWPPP Template, Version 1.0, January 2010
SWPPP APPENDICES

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Appendix D – Copy of Permit Authorization from MASON
Appendix E – Inspection Reports
Appendix F – Corrective Action Log (or in Part 5.3)
Appendix G – SWPPP Amendment Log (or in Part 6.2)
Appendix H – Subcontractor Certifications/Agreements
Appendix I – Grading and Stabilization Activities Log (or in Part 6.1)
Appendix J – Training Log
Appendix K – Additional Information (e.g., Endangered Species and Historic Preservation Documentation)
SECTION 1: SITE EVALUATION, ASSESSMENT, AND PLANNING

1.1 Project/Site Information

Instructions:

- In this section, you can gather some basic site information that will be helpful to you later when you file for permit coverage.
- For more information, see Developing Your Stormwater Pollution Prevention Plan: A SWPPP Guide for Construction Sites (also known as the SWPPP Guide), Chapter 2
- Detailed information on determining your site’s latitude and longitude can be found at www.epa.gov/npdes/stormwater/latlong

Project/Site Name: ____________________________
Project Street/Location: ____________________________
City: ____________________________ State: _______ ZIP Code: _______
County or Similar Subdivision: ____________________________

Latitude/Longitude (Use one of three possible formats, and specify method)

Latitude:
1. ___ ° ___ ’ ___ ” N (degrees, minutes, seconds)
2. ___ ° ___ . ___ ’ N (degrees, minutes, decimal)
3. ___ . ___ ___ ° N (decimal)

Longitude:
1. ___ ° ___ ’ ___ ” W (degrees, minutes, seconds)
2. ___ ° ___ . ___ ’ W (degrees, minutes, decimal)
3. ___ . ___ ___ ° W (decimal)

Method for determining latitude/longitude:
☐ USGS topographic map (specify scale: ___________)
☐ EPA Web site ☐ GPS
☐ Other (please specify): ____________________________

What campus is this project located on?
☐ Fairfax ☐ Prince William ☐ Arlington ☐ Loudoun ☐ Other: ____________________________

Is this project considered a federal facility?
☐ Yes ☐ No

NPDES project or permit tracking number*: ____________________________

*(This is the unique identifying number assigned to your project by your permitting authority after you have applied for coverage under the appropriate National Pollutant Discharge Elimination System (NPDES) construction general permit.)

Registered Responsible Land Disturber: ____________________________
Certificate Number: ____________________________ Expires: ____________________________
1.2 **Contact Information/Responsible Parties**

**Instructions:**

- List the operator(s), project managers, stormwater contact(s), and person or organization that prepared the SWPPP. Indicate respective responsibilities, where appropriate.
- Also, list subcontractors expected to work on-site. Notify subcontractors of stormwater requirements applicable to their work.
- See *SWPPP Guide*, Chapter 2.B.

**Operator(s):**

[Insert Company or Organization Name]
[Insert Name]
[Insert Address]
[Insert City, State, Zip Code]
[Insert Telephone Number]
[Insert Fax/Email]
[Insert area of control (if more than one operator at site)]
Repeat as necessary

**Project Manager(s) or Site Supervisor(s):**

[Insert Company or Organization Name]
[Insert Name]
[Insert Address]
[Insert City, State, Zip Code]
[Insert Telephone Number]
[Insert Fax/Email]
[Insert area of control (if more than one operator at site)]
Repeat as necessary

**SWPPP Contact(s):**

[Insert Company or Organization Name]
[Insert Name]
[Insert Address]
[Insert City, State, Zip Code]
[Insert Telephone Number]
[Insert Fax/Email]
[Insert area of control (if more than one operator at site)]
Repeat as necessary
This SWPPP was Prepared by:
[Insert Company or Organization Name]
[Insert Name]
[Insert Address]
[Insert City, State, Zip Code]
[Insert Telephone Number]
[Insert Fax/Email]

Subcontractor(s):
[Insert Company or Organization Name]
[Insert Name]
[Insert Address]
[Insert City, State, Zip Code]
[Insert Telephone Number]
[Insert Fax/Email]
Repeat as necessary

Emergency 24-Hour Contact:
[Insert Company or Organization Name]
[Insert Name]
[Insert Telephone Number]

Registered Land Disturber:
[Insert Name]
[Insert Certificate Number]
[Insert Telephone Number]
Repeat as necessary
1.3 **Nature and Sequence of Construction Activity**

Instructions:
- Briefly describe the nature of the construction activity and approximate time frames (one or more paragraphs, depending on the nature and complexity of the project).
- For more information, see SWPPP Guide, Chapter 3.A.
- Also, see Virginia Erosion and Sediment Control Handbook

Describe the general scope of the work for the project, major phases of construction, etc:

[INSERT TEXT HERE]

What is the function of the construction activity?

- Residential
- Academic
- Athletic
- Road Construction
- Linear Utility
- Other (please specify):

Estimated Project Start Date: [__ __/ __ __/ __ __ __ __]
Estimated Project Completion Date: [__ __/ __ __/ __ __ __ __]

1.4 **Soils, Slopes, Vegetation, and Current Drainage Patterns**

Instructions:
- Briefly describe the nature of the construction activity and approximate time frames (one or more paragraphs, depending on the nature and complexity of the project).
- For more information, see SWPPP Guide, Chapter 3.A.
- Also, see Virginia Erosion and Sediment Control Handbook

Soil type(s): [INSERT TEXT HERE]

Slopes (describe current slopes and note any changes due to grading or fill activities):

[INSERT TEXT HERE]

Drainage Patterns (describe current drainage patterns and note any changes due to grading or fill activities): [INSERT TEXT HERE]

Vegetation: [INSERT TEXT HERE]

Other: [INSERT TEXT HERE]
1.5 Construction Site Estimates

Instructions:

- Estimate the area to be disturbed by excavation, grading, or other construction activities, including dedicated off-site borrow and fill areas.
- Calculate the percentage of impervious surface area before and after construction.
- Calculate the runoff coefficients before and after construction.
- For more information, see SWPPP Guide, Chapter 3.A and Appendix C.

The following are estimates of the construction site.

Total project area: acres
Construction site area to be disturbed: acres
Existing Impervious Area sf/ac
Percentage impervious area before construction: %
Runoff coefficient before construction:
Proposed Impervious Area sf/ac
Percentage impervious area after construction: %
Runoff coefficient after construction

1.6 Receiving Waters

Instructions:

- List the waterbody(s) that would receive stormwater from your site, including streams, rivers, lakes, coastal waters, and wetlands. Describe each as clearly as possible, such as Mill Creek, a tributary to the Potomac River, and so on.
- Indicate the location of all waters, including wetlands, on the site map.
- Note any stream crossings, if applicable.
- List the storm sewer system or drainage system that stormwater from your site could discharge to and the waterbody(s) that it ultimately discharges to.
- If any of the waterbodies above are impaired and/or subject to Total Maximum Daily Loads (TMDLs), please list the pollutants causing the impairment and any specific requirements in the TMDL(s) that are applicable to construction sites. Your SWPPP should specifically include measures to prevent the discharge of these pollutants.
- For more information, see SWPPP Guide, Chapter 3.A and 3.B.
- Also, for more information and a list of TMDL contacts and links by state, visit www.epa.gov/npdes/stormwater/tmdl.

Description of receiving waters: [INSERT TEXT HERE]

Description of storm sewer systems: [INSERT TEXT HERE]
Description of unique features that are to be preserved: [INSERT TEXT HERE]

Describe measures to protect these features: [INSERT TEXT HERE]

Description of impaired waters or waters subject to TMDLs: [INSERT TEXT HERE]

Other: [INSERT TEXT HERE]

### 1.7 Site Features and Sensitive Areas to be Protected

Instructions:
- Describe unique site features including streams, stream buffers, wetlands, specimen trees, natural vegetation, steep slopes, or highly erodible soils that are to be preserved.
- Describe measures to protect these features.
- Include these features and areas on your site maps.
- For more information, see SWPPP Guide, Chapter 3.A and 3.B.

### 1.8 Potential Sources of Pollution

Instructions:
- Identify and list all potential sources of sediment, which may reasonably be expected to affect the quality of stormwater discharges from the construction site.
- Identify and list all potential sources of pollution, other than sediment, which may reasonably be expected to affect the quality of stormwater discharges from the construction site.
- For more information, see SWPPP Guide, Chapter 3.A.

Potential sources of sediment to stormwater runoff:
[INSERT TEXT OR TABLE HERE]

Potential pollutants and sources, other than sediment, to stormwater runoff:
[INSERT TEXT OR USE TABLE BELOW]

<table>
<thead>
<tr>
<th>Trade Name Material</th>
<th>Stormwater Pollutants</th>
<th>Location</th>
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1.9 **Endangered Species Certification**

Instructions:

- Before beginning construction, determine whether endangered or threatened species or their critical habitats are on or near your site.
- Adapt this section as needed for state or tribal endangered species requirements and, if applicable, document any measures deemed necessary to protect endangered or threatened species or their critical habitats.
- For more information on this topic, see SWPPP Guide, Chapter 3.B.
- Additional information on Endangered Species Act (ESA) provisions is at www.epa.gov/npdes/stormwater/esa

Are endangered or threatened species and critical habitats on or near the project area?

☐ Yes  ☐ No

Describe how this determination was made:

[INSERT TEXT HERE]

If yes, describe the species and/or critical habitat:

[INSERT TEXT HERE]

If yes, describe or refer to documentation that determines the likelihood of an impact on identified species and/or habitat and the steps taken to address that impact. (Note, if species are on or near your project site, EPA strongly recommends that the site operator work closely with the appropriate field office of the U.S. Fish and Wildlife Service or National Marine Fisheries Service. For concerns related to state or tribal listing of species, please contact a state or tribal official.)

[INSERT TEXT HERE]
1.10 Historic Preservation

Instructions:

– Before you begin construction, you should review federal and any applicable state, local, or tribal historic preservation laws and determine if there are historic sites on or near your project. If so, you might need to make adjustments to your construction plans or to your stormwater controls to ensure that these historic sites are not damaged.

– For more information, see SWPPP Guide, Chapter 3.B or contact your state or tribal historic preservation officer.

Are there any historic sites on or near the construction site?

☐ Yes        ☐ No

Describe how this determination was made:

[INSERT TEXT HERE]

If yes, describe or refer to documentation that determines the likelihood of an impact on this historic site and the steps taken to address that impact.

[INSERT TEXT HERE]

1.11 Applicable Federal, Tribal, State or Local Programs

Instructions:

– Note other applicable federal, tribal, state or local soil and erosion control and stormwater management requirements that apply to your construction site.

[INSERT TEXT HERE]
1.12 Maps

Instructions:
— Attach/Reference site plans. For most projects, a series of site maps is recommended. The first should show the undeveloped site and its current features. An additional map or maps should be created to show the developed site or for more complicated sites show the major phases of development.

These plans should include the following:
— Vicinity Map
— Existing Features/Conditions
— Direction(s) of stormwater flow and approximate slopes before and after major grading activities;
— Existing and Proposed Drainage Divides (including areas, C-values, and impervious areas calculated per drainage divide)
— Classified Soils Map
— Areas and timing of soil disturbance;
— Areas that will not be disturbed;
— Natural features to be preserved (e.g. tree protection areas, RPA, wetlands, etc.);
— Locations of major structural and non-structural BMPs identified in the SWPPP;
— Locations and timing of stabilization measures;
— Locations of off-site material, waste, borrow, or equipment storage areas;
— Locations of all waters of the United States, including wetlands;
— Locations where stormwater discharges to a surface water;
— Locations of storm drain inlets; and
— Areas where final stabilization has been accomplished.
— Existing Features (e.g. buildings, utilities, roads, vegetation, etc.)
— Proposed Features (e.g. buildings, utilities, roads, etc.)
— Proposed Landscape Plan and Planting Schedule
— Stormwater Calculations/Computations (e.g. pipes, inlets, ditches, BMP, etc.)
— Necessary Narratives
— E&SC Plans (Phase 1 & Phase 2 with Drainage Divides per practice)
— SWM Plans (e.g. profiles, routings, details, etc.)
— Final Grading Plan

Include the site maps with the SWPPP.
SECTION 2: EROSION AND SEDIMENT CONTROL BMPS

Instructions:

— Describe the BMPs that will be implemented to control pollutants in stormwater discharges. For each major activity identified, do the following
  ✔ Clearly describe appropriate control measures.
  ✔ Describe the general sequence during the construction process in which the measures will be implemented.
  ✔ Describe the maintenance and inspection procedures that will be used for that specific BMP.
  ✔ Include protocols, thresholds, and schedules for cleaning, repairing, or replacing damaged or failing BMPs.
  ✔ Identify staff responsible for maintaining BMPs.
  ✔ (If your SWPPP is shared by multiple operators, indicate the operator responsible for each BMP.)
— Categorize each BMP under one of the following 10 areas of BMP activity as described below:
  
  2.1 Minimize disturbed area and protect natural features and soil
  2.2 Phase Construction Activity
  2.3 Control Stormwater flowing onto and through the project
  2.4 Stabilize Soils
  2.5 Protect Slopes
  2.6 Protect Storm Drain Inlets
  2.7 Establish Perimeter Controls and Sediment Barriers
  2.8 Retain Sediment On-Site and Control Dewatering Practices
  2.9 Establish Stabilized Construction Exits
  2.10 Any Additional BMPs
— Note the location of each BMP on your site map(s).
— For any structural BMPs, you should provide design specifications and details and refer to them. Attach them as appendices to the SWPPP or within the text of the SWPPP.
— For more information, see SWPPP Guide, Chapter 4.
— Responsible Staff refers to that of the Disturber. Reliance on designated site inspector is NOT acceptable.
— For more information or ideas on BMPs, see EPA’s National Menu of BMPs http://www.epa.gov/npdes/stormwater/menubmps
— Also, refer to George Mason University Annual Standards and Specifications for Erosion and Sediment Control and Stormwater Management.
2.1 Minimize Disturbed Area and Protect Natural Features and Soil

Instructions:

— Describe the areas that will be disturbed with each phase of construction and the methods (e.g., signs, fences) that you will use to protect those areas that should not be disturbed. Describe natural features identified earlier and how each will be protected during construction activity. Include/Reference an Earth Take-off Analysis. Also describe how topsoil will be preserved. Include these areas and associated BMPs on your site map(s) also. (For more information, see SWPPP Guide, Chapter 4, ESC Principle 1.)

— Also, see EPA’s Preserving Natural Vegetation BMP Fact Sheet at www.epa.gov/npdes/stormwater/menuofbmps/construction/preserve_veg

[INSERT TEXT or TABLE HERE. Include inspection and maintenance schedules as appropriate and staff responsible for maintenance]

2.2 Phase Construction Activity

Instructions:

— Describe the intended construction sequencing and timing of major activities, including any opportunities for phasing grading and stabilization activities to minimize the overall amount of disturbed soil that will be subject to potential erosion at one time. Also, describe opportunities for timing grading and stabilization so that all or a majority of the soil disturbance occurs during a time of year with less erosion potential (e.g., during the dry or less windy season). (For more information, see SWPPP Guide, Chapter 4, ESC Principle 2.) It might be useful to develop a separate, detailed site map for each phase of construction.

— Also, see EPA’s Construction Sequencing BMP Fact Sheet at http://www.epa.gov/npdes/stormwater/menuofbmps/construction/cons_seq

- Phase I
  - [Describe phase]
  - [Duration of phase (start date, end date)]
  - [List BMPs associated with this phase]
  - [Describe stabilization methods for this phase (describe any temporary stabilization methods that will be used before final stabilization)]

- Phase II
  - [Describe phase]
  - [Duration of phase (start date, end date)]
  - [List BMPs associated with this phase]
  - [Describe stabilization methods for this phase (describe any temporary stabilization methods that will be used before final stabilization)]

Repeat as needed
2.3 Control Stormwater Flowing onto and through the Project

Instructions:
- Describe structural practices (e.g., diversions, berms, ditches, storage basins) including design specifications and details used to divert flows from exposed soils, retain or detain flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. (For more information, see SWPPP Guide, Chapter 4, ESC Principle 3.)

BMP Description:

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<thead>
<tr>
<th>Installation Schedule:</th>
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<tr>
<td>Maintenance and Inspection:</td>
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<td>Responsible Staff:</td>
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Repeat as needed

2.4 Stabilize Soils

Instructions:
- Describe controls (e.g., interim seeding with native vegetation, hydroseeding) to stabilize exposed soils where construction activities have temporarily or permanently ceased. Also describe measures to control dust generation. Avoid using impervious surfaces for stabilization whenever possible. (For more information, see SWPPP Guide, Chapter 4, ESC Principle 4.)
- Also, see EPA's Seeding BMP Fact Sheet at www.epa.gov/npdes/stormwater/menuofbmps/construction/seeding

BMP Description:

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<th>□ Permanent</th>
<th>□ Temporary</th>
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BMP Description:

- Permanent
- Temporary

Installation Schedule: [INSERT TEXT HERE]

Maintenance and Inspection: [INSERT TEXT HERE]

Responsible Staff: [INSERT TEXT HERE]

Repeat as needed

2.5 Protect Slopes

Instructions:
- Describe controls (e.g., erosion control blankets, tackifiers) including design specifications and details that will be implemented to protect all slopes. (For more information, see SWPPP Guide, Chapter 4, ESC Principle 5.)
- Also, see EPA's Geotextiles BMP Fact Sheet at www.epa.gov/npdes/stormwater/menuofbmps/construction/geotextiles

BMP Description:

- Permanent
- Temporary

Installation Schedule: [INSERT TEXT HERE]

Maintenance and Inspection: [INSERT TEXT HERE]

Responsible Staff: [INSERT TEXT HERE]

BMP Description:

- Permanent
- Temporary

Installation Schedule: [INSERT TEXT HERE]

Maintenance and Inspection: [INSERT TEXT HERE]

Responsible Staff: [INSERT TEXT HERE]

Repeat as needed
2.6  Protect Storm Drain Inlets

Instructions:
- Describe controls (e.g., inserts, rock-filled bags, or block and gravel) including design specifications and details that will be implemented to protect all inlets receiving stormwater from the project during the entire project. (For more information, see SWPPP Guide, Chapter 4, ESC Principle 6.)
- Also, see EPA's Storm Drain Inlet Protection BMP Fact Sheet at www.epa.gov/npdes/stormwater/menuofbmps/construction/storm_drain

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Repeat as needed

2.7  Establish Perimeter Controls and Sediment Barriers

Instructions:
- Describe structural practices (e.g., silt fences or fiber rolls) including design specifications and details to filter and trap sediment before it leaves the construction site. (For more information, see SWPPP Guide, Chapter 4, ESC Principle 7.)
- Also see, EPA's Silt Fence BMP Fact Sheet at www.epa.gov/npdes/stormwater/menuofbmps/construction/silt_fences, or Fiber Rolls BMP Fact Sheet at www.epa.gov/npdes/stormwater/menuofbmps/construction/fiber_rolls

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</table>
2.8 Retain Sediment On-Site

Instructions:
- Describe sediment control practices (e.g., sediment trap or sediment basin), including design specifications and details (volume, dimensions, outlet structure) that will be implemented at the construction site to retain sediments on-site. (For more information, see SWPPP Guide, Chapter 4, ESC Principle 8.)
- Also, see EPA’s Sediment Basin BMP Fact Sheet at www.epa.gov/npdes/stormwater/menuofbmps/construction/sediment_basins

Repeat as needed
2.9 Establish Stabilized Construction Exits

Instructions:

- Describe location(s) of vehicle entrance(s) and exit(s), procedures to remove accumulated sediment off-site (e.g., vehicle tracking), and stabilization practices (e.g., stone pads or wash racks or both) to minimize off-site vehicle tracking of sediments and discharges to stormwater. (For more information, see SWPPP Guide, Chapter 4, ESC Principle 9.)
- Also, see EPA’s Construction Entrances BMP Fact Sheet at www.epa.gov/npdes/stormwater/menuofbmps/construction/cons_entrance

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Repeat as needed
### 2.10 Additional BMPs

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<th>Instructions:</th>
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<tbody>
<tr>
<td>— Describe additional BMPs that do not fit into the above categories.</td>
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<th>BMP Description:</th>
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<td><strong>Responsible Staff:</strong></td>
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Repeat as needed
SECTION 3: GOOD HOUSEKEEPING BMPS

Instructions:
- Describe the key good housekeeping and pollution prevention (P2) BMPs that will be implemented to control pollutants in stormwater.
- Categorize each good housekeeping and pollution prevention (P2) BMP under one of the following seven categories:
  3.1 Material Handling and Waste Management
  3.2 Establish Proper Building Material Staging Areas
  3.3 Designate Washout Areas
  3.4 Establish Proper Equipment/Vehicle Fueling and Maintenance Practices
  3.5 Allowable Non-Stormwater Discharges and Control Equipment/Vehicle Washing
  3.6 Spill Prevention and Control Plan
  3.7 Any Additional BMPS
- For more information, see SWPPP Guide, Chapter 5.
- Responsible Staff refers to that of the Disturber. Reliance on designated site inspector is NOT acceptable.
- Consult Virginia Erosion and Sediment Control Handbook or resources in Appendix D of the SWPPP Guide.
- For more information or ideas on BMPs, see EPA's National Menu of BMPs [http://www.epa.gov/npdes/stormwater/menuofbmps]

3.1 Material Handling and Waste Management

Instructions:
- Describe measures (e.g., trash disposal, sanitary wastes, recycling, and proper material handling) to prevent the discharge of solid materials to receiving waters, except as authorized by a permit issued under section 404 of the CWA (For more information, see SWPPP Guide, Chapter 5, P2 Principle 1.)
- Also, see EPA's General Construction Site Waste Management BMP Fact Sheet at [www.epa.gov/npdes/stormwater/menuofbmps/construction/cons_wasteman]

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### 3.2 Establish Proper Building Material Staging Areas

**Instructions:**
- Describe construction materials expected to be stored on-site and procedures for storage of materials to minimize exposure of the materials to stormwater. (For more information, see *SWPPP Guide*, Chapter 5, P2 Principle 2.)

### 3.3 Designate Washout Areas

**Instructions:**
- Describe location(s) and controls to eliminate the potential for discharges from washout areas for concrete mixers, paint, stucco, and so on. (For more information, see *SWPPP Guide*, Chapter 5, P2 Principle 3.)
- Also, see EPA’s *Concrete Washout BMP Fact Sheet* at [www.epa.gov/npdes/stormwater/menuofbmps/construction/concrete_wash](http://www.epa.gov/npdes/stormwater/menuofbmps/construction/concrete_wash)
3.4 Establish Proper Equipment/Vehicle Fueling and Maintenance Practices

Instructions:

— Describe equipment/vehicle fueling and maintenance practices that will be implemented to control pollutants to stormwater (e.g., secondary containment, drip pans, and spill kits) (For more information, see SWPPP Guide, Chapter 5, P2 Principle 4.)

— Also, see EPA's Vehicle Maintenance and Washing Areas BMP Fact Sheet at www.epa.gov/npdes/stormwater/menuofbmps/construction/vehicle_maintain

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Repeat as needed
### 3.5 Control Equipment/Vehicle Washing

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<th>Instructions:</th>
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<tr>
<td>— Describe equipment/vehicle washing practices that will be implemented to control pollutants to stormwater. (For more information, see SWPPP Guide, Chapter 5, P2 Principle 5.)</td>
</tr>
<tr>
<td>— Also, see EPA's Vehicle Maintenance and Washing Areas BMP Fact Sheet at <a href="http://www.epa.gov/npdes/stormwater/menuofbm/vehicile_maintain">www.epa.gov/npdes/stormwater/menuofbm/vehicile_maintain</a></td>
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Repeat as needed

### 3.6 Spill Prevention and Control Plan

<table>
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<tr>
<td>— Describe the spill prevention and control plan to include ways to reduce the chance of spills, stop the source of spills, contain and clean up spills, dispose of materials contaminated by spills, and train personnel responsible for spill prevention and control. (For more information, see SWPPP Guide, Chapter 5, P2 Principle 6.)</td>
</tr>
<tr>
<td>— Also, see EPA's Spill Prevention and Control Plan BMP Fact sheet at <a href="http://www.epa.gov/npdes/stormwater/menuofbm/const/spill_control">www.epa.gov/npdes/stormwater/menuofbm/const/spill_control</a></td>
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[INSERT TEXT HERE or REFERENCE ATTACHMENT]
3.7 Any Additional BMPs

Instructions:
— Describe any additional BMPs that do not fit into the above categories. Indicate the problem they are intended to address.

BMP Description:

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<tr>
<th>Installation Schedule:</th>
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<tbody>
<tr>
<td>Maintenance and Inspection:</td>
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<tr>
<td>Responsible Staff:</td>
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Repeat as needed

3.8 Allowable Non-Stormwater Discharge Management

Instructions:
— Identify all allowable sources of non-stormwater discharges that are not identified. The allowable non-stormwater discharges identified might include the following (see your permit for an exact list):
  ✔ Waters used to wash vehicles where detergents are not used
  ✔ Water used to control dust
  ✔ Potable water including uncontaminated water line flushings
  ✔ Routine external building wash down that does not use detergents
  ✔ Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used
  ✔ Uncontaminated air conditioning or compressor condensate
  ✔ Uncontaminated ground water or spring water
  ✔ Foundation or footing drains where flows are not contaminated with process materials such as solvents
  ✔ Uncontaminated excavation dewatering
  ✔ Landscape irrigation
— Identify measures used to eliminate or reduce these discharges and the BMPs used to prevent them from becoming contaminated.
— For more information, see SWPPP Guide, Chapter 3.A.
List allowable non-stormwater discharges and the measures used to eliminate or reduce them and to prevent them from becoming contaminated:

| BMP Description: | | |
|-----------------|------------------|
| **Installation Schedule:** | [INSERT TEXT HERE] |
| **Maintenance and Inspection:** | [INSERT TEXT HERE] |
| **Responsible Staff:** | [INSERT TEXT HERE] |

| BMP Description: | | |
|-----------------|------------------|
| **Installation Schedule:** | [INSERT TEXT HERE] |
| **Maintenance and Inspection:** | [INSERT TEXT HERE] |
| **Responsible Staff:** | [INSERT TEXT HERE] |

Repeat as needed
SECTION 4: SELECTING POST-CONSTRUCTION BMPs

Instructions:

- Describe all post-construction stormwater management measures that will be installed during the construction process to control pollutants in stormwater discharges after construction operations have been completed. Examples of post-construction BMPs include the following:
  - Biofilters
  - Detention/retention devices
  - Earth dikes, drainage swales, and lined ditches
  - Infiltration basins
  - Porous pavement
  - Other proprietary permanent structural BMPs
  - Outlet protection/velocity dissipation devices
  - Slope protection
  - Vegetated strips and/or swales
- Identify any applicable federal, state, local, or tribal requirements for design or installation.
- Identify Post-Construction BMPs in accordance with George Mason University BMP Identification Specifications.
- Describe how low-impact designs or smart growth considerations have been incorporated into the design.
- For any structural BMPs, you should have design specifications and details and refer to them. Attach them as appendices to the SWPPP or within the text of the SWPPP.
- For more information on this topic, see your state’s stormwater manual.
- You might also want to consult one of the references listed in Appendix D of the SWPPP Guide.
- Visit the post-construction section of EPA’s Menu of BMPs at: www.epa.gov/npes/menuofbmps

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<td><strong>Maintenance and Inspection:</strong></td>
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<tr>
<td><strong>Responsible Staff:</strong></td>
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Repeat as needed
SECTION 5: INSPECTIONS

5.1 Inspections

Instructions:

- Identify the individual(s) responsible for conducting inspections and describe their qualifications. Reference or attach the inspection form that will be used.
- Describe the frequency that inspections will occur at your site including any correlations to storm frequency and intensity.
- Note that inspection details for particular BMPs should be included in Sections 2 and 3.
- You should also document the repairs and maintenance that you undertake as a result of your inspections. These actions can be documented in the corrective action log described in Part 5.3 below.
- For more on this topic, see SWPPP Guide, Chapters 6 and 8.
- Also, see suggested inspection form in Appendix B of the SWPPP Guide.
- Please Note: This is in addition to the official site inspections made by George Mason University

1. Inspection Personnel: Identify the person(s) who will be responsible for conducting inspections and describe their qualifications:

2. Inspection Schedule and Procedures:

Describe the inspection schedules and procedures you have developed for your site (include frequency of inspections for each BMP or group of BMPs, indicate when you will inspect, e.g., before/during/and after rain events, spot inspections):

Describe the general procedures for correcting problems when they are identified. Include responsible staff and time frames for making corrections:

Attach a copy of the inspection report you will use for your site.

[REFERENCE ATTACHMENT]
5.2 Corrective Action Log

Instructions:

- Create here, or as an attachment, a corrective action log. This log should describe repair, replacement, and maintenance of BMPs undertaken as a result of the inspections and maintenance procedures described above. Actions related to the findings of inspections should reference the specific inspection report.
- This log should describe actions taken, date completed, and note the person that completed the work.

Corrective Action Log:
INSERT LOG HERE or REFERENCE ATTACHMENT
SECTION 6: RECORDKEEPING AND TRAINING

6.1 Recordkeeping

Instructions:

- The following is a list of records you should keep at your project site available for inspectors to review:
- Dates of grading, construction activity, and stabilization (which is covered in Sections 2 and 3)
- A copy of the construction general permit (attach)
- The signed and certified NOI form or permit application form (attach)
- A copy of the letter from EPA or the state notifying you of their receipt of your complete NOI/application (attach)
- Inspection reports (attach)
- Records relating to endangered species and historic preservation (attach)
- Check your permit for additional details
- For more on this subject, see SWPPP Guide, Chapter 6.C.

Records will be retained for a minimum period of at least 3 years after the permit is terminated.

Date(s) when major grading activities occur: [INSERT LOG HERE or REFERENCE ATTACHMENT]

Date(s) when construction activities temporarily or permanently cease on a portion of the site: [INSERT LOG HERE or REFERENCE ATTACHMENT]

Date(s) when an area is either temporarily or permanently stabilized: [INSERT LOG HERE or REFERENCE ATTACHMENT]

6.2 Log of Changes to the SWPPP

Instructions:

- Create a log here, or as an attachment, of changes and updates to the SWPPP. You should include additions of new BMPs, replacement of failed BMPs, significant changes in the activities or their timing on the project, changes in personnel, changes in inspection and maintenance procedures, updates to site maps, and so on.

Log of changes and updates to the SWPPP [INSERT LOG HERE or REFERENCE ATTACHMENT]
6.3 Training

**Instructions:**

- Training your staff and subcontractors is an effective BMP. As with the other steps you take to prevent stormwater problems at your site, you should document the training that you conduct for your staff, for those with specific stormwater responsibilities (e.g. installing, inspecting, and maintaining BMPs), and for subcontractors.
- Include dates, number of attendees, subjects covered, and length of training.
- For more on this subject, see *SWPPP Guide*, Chapter 8.

**Individual(s) Responsible for Training:**

[INSERT TEXT or TABLE HERE]

**Describe Training Conducted:**

- General stormwater and BMP awareness training for staff and subcontractors:

- Detailed training for staff and subcontractors with specific stormwater responsibilities:

---

**SECTION 7: FINAL STABILIZATION**

*George Mason University SWPPP Template, Version 1.0, January 2010*
Instructions:
- Describe procedures for final stabilization. If you complete major construction activities on part of your site, you can document your final stabilization efforts for that portion of the site. Many permits will allow you to then discontinue inspection activities in these areas (be sure to check your permit for exact requirements). You can amend or add to this section as areas of your project are finally stabilized.
- Update your site plans to indicate areas that have achieved final stabilization.
- Note that dates for areas that have achieved final stabilization should be included in Section 6, Part 6.1 of this SWPPP.
- For more on this topic, see SWPPP Guide, Chapter 9.
- Please Note: Final Stabilization is achieved only after the designated George Mason University Site Inspector concurs.

### BMP Description:

<table>
<thead>
<tr>
<th>Installation Schedule:</th>
<th>[INSERT TEXT HERE]</th>
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<tbody>
<tr>
<td>Maintenance and Inspection:</td>
<td>[INSERT TEXT HERE]</td>
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<td>Responsible Staff:</td>
<td>[INSERT TEXT HERE]</td>
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Repeat as needed
SECTION 8: CERTIFICATION AND NOTIFICATION

Instructions:
- The SWPPP should be signed and certified by the construction operator(s) and signed and sealed by the Site Civil Engineer and signed and approved by George Mason University Department of Land Development.
- Once received, attach a copy of the permit authorization received from George Mason University Department of Land Development and make available on site at all times.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Operator(s): *(Repeat as needed for multiple construction operators at the site)*

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<th>Name:</th>
<th>[INSERT NAME HERE]</th>
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<td>Signature:</td>
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Engineer:

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George Mason University Department of Land Development:

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SWPPP Appendices

Attach the following documentation to the SWPPP:

- **Appendix A** – General Location Map
- **Appendix B** – Site Maps
- **Appendix C** – Construction General Permit (BCOM)
- **Appendix D** – Copy of Permit Authorization from Mason LD
- **Appendix E** – Inspection Reports
- **Appendix F** – Corrective Action Log (or in Part 5.3)
- **Appendix G** – SWPPP Amendment Log (or in Part 6.2)
- **Appendix H** – Subcontractor Certifications/Agreements
- **Appendix I** – Grading and Stabilization Activities Log (or in Part 6.1)
- **Appendix J** – Training Log
- **Appendix K** – Additional Information (e.g., Endangered Species and Historic Preservation Documentation)
# Sample Corrective Action Log

**Project Name:**  
**SWPPP Contact:**

<table>
<thead>
<tr>
<th>Inspection Date</th>
<th>Inspector Name(s)</th>
<th>Description of BMP Deficiency</th>
<th>Corrective Action Needed (including planned date/responsible person)</th>
<th>Date Action Taken/Responsible person</th>
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Appendix G – *Sample* SWPPP Amendment Log

Project Name:  
SWPPP Contact:

<table>
<thead>
<tr>
<th>Amendment No.</th>
<th>Description of the Amendment</th>
<th>Date of Amendment</th>
<th>Amendment Prepared by</th>
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Appendix H – Sample Subcontractor Certifications/Agreements

SUBCONTRACTOR CERTIFICATION
STORMWATER POLLUTION PREVENTION PLAN

Project Number: ___________________________________________

Project Title: _____________________________________________

Operator(s): ______________________________________________

As a subcontractor, you are required to comply with the Stormwater Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.

This certification is hereby signed in reference to the above named project:

Company: _________________________________________________

Address: _________________________________________________

Telephone Number: ____________________________

Type of construction service to be provided: _______________________

_____________________________________________________

_____________________________________________________

Signature: ____________________________

Title: ____________________________

Date: ____________________________

EPA SWPPP Template, Version 1.1, September 17, 2007
Appendix I – *Sample* Grading and Stabilization Activities Log

Project Name:  
SWPPP Contact:  

<table>
<thead>
<tr>
<th>Date Grading Activity Initiated</th>
<th>Description of Grading Activity</th>
<th>Date Grading Activity Ceased (Indicate Temporary or Permanent)</th>
<th>Date When Stabilization Measures are Initiated</th>
<th>Description of Stabilization Measure and Location</th>
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Appendix J – Sample SWPPP Training Log

Stormwater Pollution Prevention Training Log

Project Name:

Project Location:

Instructor’s Name(s):

Instructor’s Title(s):

Course Location: __________________________ Date: __________________________

Course Length (hours): __________________________

Stormwater Training Topic: (check as appropriate)

☐ Erosion Control BMPs ☐ Emergency Procedures

☐ Sediment Control BMPs ☐ Good Housekeeping BMPs

☐ Non-Stormwater BMPs

Specific Training Objective: __________________________

Attendee Roster: (attach additional pages as necessary)

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of Attendee</th>
<th>Company</th>
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<tbody>
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APPENDIX E:
Plan Review Checklist
(E & S)
PLAN REVIEW CHECKLIST

Minimum Standards - All applicable Minimum Standards must be addressed.
- All minimum Standards must be adhered to during the entire project regardless of the phasing.
- Request for a Variance should be addressed

NARRATIVE

Project description - Briefly describes the nature and purpose of the land-disturbing activity, and the area (acres) to be disturbed.
- What time of year will the project start and finish? (construction sequence)
- How long will it take to complete the project?
- How many acres will be disturbed for completion of this project?
- How much impervious area will the project have in post-developed conditions?
- What will be the ultimate developed conditions of the site?

Existing site conditions - A description of the existing topography, vegetation and drainage.
- Should list percentages of slope on the site.
- Types of existing vegetation that can be used as erosion control, or areas to be left undisturbed.
- Discuss marking of areas where existing vegetation is to be preserved.
- Discuss size of drainage areas in pre-development and post-development conditions.
- Discuss any existing drainage or erosion problems and how they are to be corrected.
- Discuss orientation of slopes (north or south facing).
- Discuss how existing site conditions can be used to reduce the potential for erosion and how proposed E&S controls will be designed to “fit” the site.
- Photographs?
Adjacent areas - A description of neighboring areas such as streams, lakes, residential areas, roads, etc., which might be affected by the land disturbance.
- The potential for off-site damages must be considered and discussed
- ANY environmentally sensitive areas should be mentioned.
- Other private or public lands adjacent to the site should be described and considered for possible problems during and after construction (traffic problems, dust control, increases in runoff etc.)
- Discuss perimeter controls to be used.

Off-site areas - Describe any off-site land-disturbing activities that will occur (including borrow sites, waste or surplus areas, etc.). Will any other areas be disturbed?
- Any off-site borrow or spoil areas should have an approved plan to supplement the overall project plan.
- If off-site areas are under other permits, proof of permits should be provided.
- List specific locations of all off-site areas
- Discuss who will be responsible for final stabilization and maintenance of off-site areas.

Soils - A brief description of the soils on the site giving such information as soil name, mapping unit, erodibility, permeability, depth, texture and soil structure.
- Indicate references for soil information
- Provide a copy of soil survey map
- Indicate what sheet of site plan soils are delineated
- Check for soils with a high K factor, or poor drainage, low pH etc.

Critical areas - A description of areas on the site which have potentially serious erosion problems (e.g., steep slopes, channels, wet areas, streams, underground springs, etc.).
- Discuss any area of the project which may become critical during the project. Some areas of the site may have long or steep slopes during a certain phase of the grading.
- Indicate areas to be left alone until they can be graded and stabilized in favorable conditions.
- Discuss precautions to communicate limits of these areas to contractors and equipment operators.
Erosion and sediment control measures - A description of the methods which will be used to control erosion and sedimentation on the site. (Controls should meet the specifications in Chapter 3.)
- List all controls used, list specification numbers (3.02) location of practice.
- Discuss why it was selected.
- Sequence of installation, maintenance and removal for each control.
- Discuss temporary seeding as a means of erosion control, list the types to be used.

Permanent stabilization - A brief description, including specifications, of how the site will be stabilized after construction is completed.
- Final stabilization needs careful review.
- Is the timing of seeding correct with the construction sequence?
- List soil testing requirements
- Provide seeding specifications (pure live seed minimums), fertilizer and liming specifications. Seeding tables and rates.
- Is the type of permanent vegetation appropriate for the site?
- Discuss all other areas to be stabilized other than vegetation (gravel, paved, etc.)

Stormwater runoff considerations - Will the developed site cause an increase in peak runoff rates? Will the increase in runoff cause flooding or channel degradation downstream? Describe the strategy to control stormwater runoff.
- Discuss how downstream properties and waterways will be protected (basins, channel improvements, easements)
- Discuss how increased runoff will be managed during construction
- List or discuss all other references for design of permanent facilities.
Calculations - Detailed calculations for the design of temporary sediment basins, permanent stormwater detention basins, diversions, channels, etc. Include calculations for pre- and post-development runoff.
- All calculations showing pre-development and post-development runoff should be provided. Worksheets, assumptions and engineering decisions should be clearly presented to assist the plan reviewer in his or her duties.
- Calculation methods should be clearly presented and organized.
- Have the calculations shown that adequate protection of down-stream properties and waterways are protected?

Maintenance - A schedule of maintenance for permanent stormwater control measure should be provided.
- Should list who is responsible during construction and who will be responsible once the project is complete
- Should provide a schedule of inspections to be conducted
- List maintenance items to check and perform as well as precautions for large storm events

SITE PLAN

Vicinity map - A small map locating the site in relation to the surrounding area. Include any landmarks which might assist in locating the site.
- Provide a reproduction of a topographic map, road map etc.

Indicate north - The direction of north in relation to the site.
- Useful tool for determining slope orientation
- Useful for communicating written inspection reports and plan review comments
- Useful in predicting areas off-site that might be effected by dust drift
Limits of clearing and grading – Areas which are to be cleared and graded.
- Show all areas to be disturbed on the site plan
- Provide notes on how areas will be marked
- Provide notes and illustrations to clearly indicate areas NOT to be disturbed

Existing contours - The existing contours of the site.
- Should be shown as dashed light lines in intervals from 1 to 5 feet.
- Represent pre-developed drainage areas (check these areas for accuracy)
- Show potential critical areas (slopes)
- Helps to determine cut or fill areas, low spots
- Helps to determine if E&S controls have been designed properly

Final contours - Changes to the existing contours, including final drainage patterns.
- Should be shown as heavy solid lines
- Determines final drainage areas
- Check to see if pre-developed drainage areas have increased
- Check final grade of slopes to see if they will become critical (may need diversions or flumes)
- Check vegetative specifications for final grade of slopes (low or high maintenance). Are erosion controls blankets needed?

Existing vegetation - The existing tree lines, grassed areas, or unique vegetation.
- Clearly indicate existing tree lines, vegetation areas to remain
- Provide notes on the plan for areas to be undisturbed

Soils - The boundaries of different soil types.
- Indicate soil boundaries of all soil types on the site. List K factor and soil survey classifications.
- Provide notes of soil properties (texture, etc.)
Existing drainage patterns - The dividing lines and the direction of flow for the different drainage areas. Include the size (acreage) of each drainage area.
- Should be indicated by acres and show the direction of flow for all existing drainage areas.
- Indicates the need for basins, traps or other structural measures
- Helps to determine if controls are designed correctly
- Helps to determine if off-site drainage needs to be diverted
- Useful in planning to break up drainage areas into smaller more manageable areas during construction

Critical erosion areas - Areas with potentially serious erosion problems.
All critical, environmentally sensitive or prohibited areas should be denoted on the plan and notes provided to state reasons for critical nature
Stream considerations; temporary crossings, other permits, location of stockpiles, trash & debris removal, fuel storage, etc.

Site Development - Show all improvements such as buildings, parking lots, access roads, utility construction, etc.
- All improvements such as building, roads, temporary access roads, right-of-ways and temporary easements should be shown on the plan.
- Utility improvements on and off-site should be shown.

Location of practices - The locations of erosion and sediment controls and stormwater management practices used on the site. Use the standard symbols and abbreviations in Chapter 3 of the VESC handbook.
- The exact location of all practices including vegetation should be clearly shown on the plan.
- A legend denoting symbols, line uses and other special characters should be provided
Off-site areas - Identify any off-site land-disturbing activities (e.g., borrow sites, waste areas, etc.). Show location of erosion controls. (Is there sufficient information to assure adequate protection and stabilization?)
- Are separate plans required for off-site borrow or disposal areas?
- How will off-site areas be stabilized?
- Are there any temporary easements to be disturbed during construction?
- Who has final responsibility for off-site areas?

Detail drawings - Any structural practices used that are not referenced to the E&S handbook or local handbooks should be explained and illustrated with detail drawings.
- Details should be provided which are clearly dimensioned and reflected the ability to be “built” in the field according to the proper design criteria.
- Alternative E&S measures must have proper drawings to indicate how and where they are to be constructed.
- All plan drawings, elevations and cross section drawings should show scales used to prepare the drawings.
- Outlet protection schedules should be provided
- Sizes and materials should be shown for all pipes, flumes and slope drains.
- All details should list the specification number from the VESCH
- If more than one type of specification is being used (inlet protection) details of all practices shall be provided

Maintenance - A schedule of regular inspections and repair of erosion and sediment control structures should be set forth.
- Indicate who is responsible for maintenance and repair of all E&S measures on the project (RLD).
- Indicate who is the primary contact for emergencies, for notification of problems (owner), etc.
- Provide clean-out and maintenance specifications for all major structures such as basins, traps, silt fence etc.
- Require monitoring reports from the RLD if needed
APPENDIX F:
Mason LD Land Disturbance Permit
The permit authorizes the Contractor to the impervious area within the approved Limits of Construction. This represents a cumulative increase. Any further increase in impervious area must be submitted for review and approval to George Mason University Land Development Authority.

Signature: __________________________
Date: __________________________
APPENDIX G: VSMP Process Documentation
DEPARTMENT OF CONSERVATION AND RECREATION PERMIT FEE FORM

Instructions:
Applicants for an individual Virginia Stormwater Management Program (VSMP) Permit are required to pay permit application fees. Fees are also required for registration coverage under General Permits. Fees must be paid when applications for permit issuance or modification are submitted. Applications will be considered incomplete if the proper fee is not paid and will not be processed until the fee is received.

The permit fee schedule is included with this form. Fees for permit issuance, reissuance, modification and maintenance are included. Once you have determined the fee for the type of application you are submitting, complete this form. The original copy of the form and your check or money order payable to "Treasurer of Virginia" should be mailed to:

Department of Conservation and Recreation
Division of Finance, Accounts Payable
203 Governor Street, 4th Floor
Richmond, Virginia 23219

A copy of the form and a copy of your check or money order should accompany the permit registration statement (application). You should retain a copy for your records. Please direct any questions regarding this form or fee payment to SWMESquestions@dcr.virginia.gov.

Construction Activity Operator:

Name:__________________________________________FIN:________________________

Mailing Address:__________________________________________________________

City:________________________State:______Zip:__________Phone:______________

Daytime Phone Number: (____) ________ - ________

Name and Location of Construction Activity:

Name:__________________________________________________________

Town, City, or County:______________________________________________

Type of VSMP Permit (from Fee Schedule):

_____ MS4 Individual Permit       _____ MS4 General Permit

_____ Construction Individual Permit _____ Construction General Permit

Type of Action: ________ New Issuance ________ Reissuance

______ Modification ________ Maintenance

Amount of Fee Submitted (from Fee Schedule):_____________________________

Existing Permit Number (if applicable):____________________________________

FOR DCR USE ONLY

Date: ____________________   DC #: __________________

(DCR 199-145) (03/09)
Virginia Stormwater Management Program (VSMP) Permit Fee Schedule

A. VSMP Individual Permits. Applications for issuance of new individual VSMP permits, and for permittee initiated major modifications that occur (and become effective) before the stated permit expiration date. [NOTE: Individual VSMP permittees pay an Annual Permit Maintenance Fee instead of a reapplication fee. The permittee is billed separately by DCR for the Annual Permit Maintenance Fee.]

<table>
<thead>
<tr>
<th>TYPE OF VSMP PERMIT</th>
<th>ISSUANCE</th>
<th>MODIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal Stormwater / MS4 Individual (Large and Medium)</td>
<td>$21,300</td>
<td>$10,650</td>
</tr>
<tr>
<td>Municipal Stormwater / MS4 Individual (Small)</td>
<td>$2,000</td>
<td>$1,000</td>
</tr>
<tr>
<td>Construction Stormwater Individual</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

B. Registration Statements for VSMP MS4 General Permit Coverage. The fee for filing a permit application (registration statement) for coverage under a VSMP MS4 stormwater general permit issued by the permit issuing authority is as follows:

<table>
<thead>
<tr>
<th>TYPE OF VSMP PERMIT</th>
<th>ISSUANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal Stormwater / MS4 General Permit (Small)</td>
<td>$600</td>
</tr>
</tbody>
</table>

C. Registration Statements for VSMP Construction General Permit Coverage. The fee for filing a permit application (registration statement) for coverage under a VSMP Construction stormwater general permit issued by the permit issuing authority is as follows:

<table>
<thead>
<tr>
<th>TYPE OF VSMP PERMIT</th>
<th>ISSUANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction General / Stormwater Management - Phase I Land Clearing (&quot;Large&quot; Construction Activity - Sites or common plans of development or sale equal to or greater than 5 acres)</td>
<td>$500</td>
</tr>
<tr>
<td>Construction General / Stormwater Management - Phase II Land Clearing (&quot;Small&quot; Construction Activity - Sites or common plans of development or sale equal to or greater than 1 acre and less than 5 Acres)</td>
<td>$300</td>
</tr>
<tr>
<td>Construction General / Stormwater Management - 2,500 square feet of land disturbance and less than 1 acre in designated Chesapeake Bay Preservations Area and not part of a common plan of development or sale.</td>
<td>$0</td>
</tr>
</tbody>
</table>

D. Permit Maintenance Fees. The annual permit maintenance fees apply to each VSMP permit identified below, including expired permits that have been administratively continued.

<table>
<thead>
<tr>
<th>TYPE OF PERMIT</th>
<th>MAINTENANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSMP Municipal Stormwater / MS4 Individual (Large and Medium)</td>
<td>$3,800</td>
</tr>
<tr>
<td>VSMP Municipal Stormwater / MS4 Individual (Small)</td>
<td>$400</td>
</tr>
<tr>
<td>VSMP General / Stormwater Management - Phase I Land Clearing (&quot;Large&quot; Construction Activity - Sites or common plans of development equal to or greater than 5 acres)</td>
<td>$0</td>
</tr>
<tr>
<td>VSMP General / Stormwater Management - Phase II Land Clearing (&quot;Small&quot; Construction Activity - Sites or common plans of development equal to or greater than 1 acre and less than 5 Acres)</td>
<td>$0</td>
</tr>
</tbody>
</table>

(DCR 199-145) (03/09)
VSMP General Permit for Discharges of Stormwater from Construction Activities (VAR10)

Registration Statement

(Please Type or Print All Information)

1. Construction Activity Operator (The permit will be issued to this operator, and the Certification in Item #13 must be signed by the appropriate person associated with this operator [see the instructions])
   Name: ____________________________
   Mailing Address: ____________________________
   City: __________________ State: ______ Zip: ______ Phone: ____________________

2. (Must be included for renewals of coverage only) Existing Permit Coverage #:

3. Location of Construction Activity
   Name: ____________________________
   Address: ____________________________
   Town, City, County: ____________________ State: ______ Zip: ______
   Decimal degrees to the nearest 15 seconds: Latitude __________ Longitude __________
   Location of all Offsite Support Activities to be Covered Under the Permit
   Name: ____________________________
   Address: ____________________________
   Town, City, or County: ____________________ State: ______ Zip: ______
   If street address unavailable: Latitude __________ Longitude __________

4. Status of Activity: Federal ☐ State ☐ Public ☐ Private ☐ (Check one only)

5. The Nature of the Construction Activity (e.g., commercial, industrial, residential, agricultural, oil and gas, etc.):

6. Name of the Receiving Water(s):
   Hydrologic Unit Code (HUC): ____________________________
   (Receiving waters identified as impaired on the 305(b)/303(d) Water Quality Assessment Integrated Report or for which a TMDL WLA has been established for stormwater discharges from a construction site shall be noted in an attached list.)

7. If the discharge is through a Municipal Separate Storm Sewer System (MS4), the name of the municipal operator of the storm sewer:

8. Estimated Project Start Date (mm/dd/yyyy): __________ Estimated Project Completion Date (mm/dd/yyyy): __________

9. Total Land Area of Development (to the nearest one-tenth acre): __________
   Estimated Area to be Disturbed (to the nearest one-tenth acre): __________

10. Is the area to be disturbed by the construction activity part of a larger common plan of development or sale? Yes ☐ No ☐

11. Are nutrient offsets intended to be acquired for this activity? Yes ☐ No ☐ Under consideration ☐

12. A stormwater pollution prevention plan (SWPPP) must be prepared in accordance with the requirements of the General VSMP Permit for Discharges of Stormwater from Construction Activities prior to submitting this Registration Statement. By signing this Registration Statement the operator is certifying that the SWPPP has been prepared.

13. Certification: "I certify under penalty of law that I have read and understand this Registration Statement and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."
   Print Name: ____________________________ Title: ____________________________
   Signature: ____________________________ Date: __________

(Please sign in INK. The person signing this form must be authorized to sign on behalf the operator identified in Item #1 above.)

Mail to: Department of Conservation and Recreation, Stormwater Permitting, 203 Governor Street, Suite 206 Richmond, VA 23219

(DCR 199-146) (03/09)
Hydrologic Unit Code (HUC) is a watershed unit established in the most recent version of Virginia's 6th order national watershed boundary dataset.

Section 7 Name of MS4 Operator
If the stormwater is discharged through a municipal separate storm sewer system (MS4), enter the name of the operator of the MS4. The name of the MS4 operator is usually the Town, City, County, Institute or Federal facility where the construction activity is located.

Section 8 Estimated Project Start Date
Enter the date (Month/Day/Year) the project is expected to start.

Estimated Project Completion Date
Enter the date (Month/Day/Year) the project is expected to be complete.

Section 9 Total Land Area of the Development
Enter the total area (to the nearest one tenth acre) of the development (meaning the total acreage of the larger common plan of development or sale). Include the total acreage of any offsite support activities to be covered under the permit.

Estimated Area to be Disturbed
Enter an estimate of the total number of acres (to the nearest one tenth acre) to be disturbed. Include in the Estimated Area to be Disturbed the area of disturbance that will occur at off-site support activities to be covered under the permit.

Section 10 Larger Common Plan of Development or Sale
Indicate if the area to be disturbed by the construction activity is part of a larger common plan of development or sale. Larger common plan of development or sale defines a contiguous area where separate and distinct construction may be taking place at different times on different schedules. Plan is broadly defined as any announcement or documentation, including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, etc., or physical demarcation such as boundary signs, lot stake, and surveyor markings indicating that construction activities may occur.

Section 11 Nutrient Offsets
Indicate if nutrient offsets are intended to be acquired in accordance with §10-1-603.8:1 of the Code of Virginia. If the acquisition of offsets is being considered but is not certain, select "under consideration."

Section 12 A stormwater pollution prevention plan (SWPPP) must be prepared in accordance with the requirements of the General VSMP Permit for Discharges of Stormwater from Construction Activities prior to submitting this Registration Statement. By signing this Registration Statement the operator is certifying that the SWPPP has been prepared.

Section 13 Certification
The operator identified in Section 1 of this Registration Statement is responsible for certifying and submitting this Registration Statement. Please sign the form in INK. State statutes provide for severe penalties for submitting false information. State regulations require this Registration Statement to be signed as follows:

For a corporation: by a responsible corporate officer. For the purpose of this part, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making or decision-making functions for the corporation; or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.

For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this part, a principal executive officer of a public agency includes: (i) the chief executive officer of the agency or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
VSMP General Permit Notice Of Termination -
Construction Activity Stormwater Discharges (DCR01)

(Please Type or Print All Information)

1. Construction Activity Operator

Name: _____________________________________________

Mailing Address: _____________________________________________

City: ___________________ State: ________ Zip: __________ Phone: __________

2. Location of Construction Activity

Name: _____________________________________________

Address: ____________________________________________

City: ___________________ State: ________ Zip: __________

If street address unavailable: Latitude __________ Longitude __________

3. VSMP Stormwater General Permit Number: __________________________________________

4. The Reason for Terminating Coverage Under the General Permit (Note: The construction activity operator may only submit a Notice of Termination after one or more of the conditions below have been met):

☐ Final stabilization has been achieved on all portions of the site for which the operator is responsible;

☐ Another operator has assumed control over all areas of the site that have not been finally stabilized;

☐ Coverage under an alternative VPDES or VSMP permit has been obtained; or

☐ For residential construction only, temporary stabilization has been completed and the residence has been transferred to the homeowner.

NOTE: The Notice of Termination must be submitted within 30 days of one of the above conditions being met. Authorization to discharge terminates seven (7) days after the Notice of Termination is submitted. For the purposes of this permit, a Notice of Termination that is mailed is considered to be submitted once it is postmarked.

5. Certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

Print Name: ____________________________ Title: ____________________________

Signature: ____________________________ Date: ____________________________

(Please sign in INK. The person signing this form must be associated with the operator identified in Item #1 above.)

For Department of Conservation and Recreation Use Only

Accepted/Not Accepted by: ____________________________ Date: ____________________________

(DCR 199-147) (03/07)
INSTRUCTIONS for FORM DCR 199-147
VSMP General Permit Notice Of Termination - Construction Activity Stormwater Discharges

General
A VSMP General Permit Notice of Termination must be submitted when an operator no longer wishes to be covered under a VSMP General Permit for Stormwater Discharges From Construction Activities. Mail the completed form to: The Department of Conservation and Recreation, Stormwater Permitting, 203 Governor Street, Suite 208, Richmond, Virginia 23219.

Section 1 Activity Operator Information
Give the legal name of the person, firm, public organization, or any other entity that was issued the general permit for the site described in this Notice of Termination. Do not use a colloquial name. Enter the complete address and phone number of the operator.

Section 2 Activity Location Information
Enter the activity’s official name and complete street address, including city, state and ZIP code. If the activity or site lacks a street address, indicate the latitude and longitude to the nearest 15 seconds of the approximate center of the site.

Section 3 Permit Information
Enter the existing VSMP Stormwater General Permit number assigned to the activity or site identified in Section 1.

Section 4 Reason for Termination
Check the appropriate statement indicating the reason for submitting this Notice of Termination. The Notice of Termination may only be submitted after one or more of the following conditions have been met:

1. Final stabilization has been achieved on all portions of the site for which the operator is responsible;

2. Another operator has assumed control over all areas of the site that have not been finally stabilized;

3. Coverage under an alternative VPDES or VSMP permit has been obtained; or

4. For residential construction only, temporary stabilization has been completed and the residence has been transferred to the homeowner.

The Notice of Termination must be submitted within 30 days of one of the above conditions being met. Authorization to discharge terminates seven (7) days after the Notice of Termination is submitted. For the purposes of this permit, a Notice of Termination that is mailed is considered to be submitted once it is postmarked.

Section 5 Certification
State statutes provide for severe penalties for submitting false information on this Notice of Termination.

State regulations require this Notice of Termination to be signed as follows:

For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (1) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (2) the manager of one or more manufacturing, production, or operating facilities provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures; [Note: if the title of the individual signing this form is "Plant Manager", submit a written verification that the authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures]:

For a partnership or sole proprietorship: by a general partner or the proprietor; or

For a municipality, state, Federal, or other public facility: by either a principal executive officer or ranking elected official.

The Department of Conservation and Recreation reserves the right to request additional information not directly addressed by the registration statement if, in its discretion, a facility or operation poses a potential impact on water quality.

(DCR 199-147) (03/07)
# VSMP CONSTRUCTION PERMIT INSPECTION REPORT

**Attachment 2A**

- **Project Name:**
- **Project Address:**
- **Project Operator:**
- **Operator Address:**
- **Inspector Name:**
- **Type of Inspection:**
  - [ ] Routine
  - [ ] Re-inspection
  - [ ] Complaint
  - [ ] Termination
- **Permit Number:**
- **County/City:**
- **Operator Telephone:**
- **County/City:**
- **ZIP:**
- **Inspection Date:**
- **Time:**

## Item # | Question | Yes | No | Comments/Notes
--- | --- | --- | --- | ---
1 | Has a complete registration statement been submitted? 4VAC50-60-1-150 |  |  |  |
2 | Is a coverage letter and permit on-site? § II B.2. |  |  |  |
3 | Is SWPPP signed and available on-site? § II |  |  |  |
4 | Is an approved Erosion and Sediment Control Plan been incorporated and is available on-site? § II |  |  |  |
5 | Are contractors identified in SWPPP? § II C.4 |  |  |  |
6 | Has detailed site map? § II D.1.g. (1) – (9) |  |  |  |
7 | Does the SWPPP contain all required items? § II |  |  |  |
8 | Are stabilization practices implemented and effective? § II D.2.a.(1) |  |  |  |
9 | Are dates of major grading activities recorded? § II D.2.a.(1) (a) |  |  |  |
10 | Are structural practices in place and effective? § II D.2.a.(2) |  |  |  |
11 | Have sediment escapes been removed at a frequency sufficient to minimize off-site impacts? § II D.2.b.(2) |  |  |  |
12 | Have litter, debris, and chemicals been controlled from becoming a pollutant source? § II D.2.b.(3) |  |  |  |
13 | Have post-construction stormwater management practices been installed and effective? § II D.2.c.(1 & 2) |  |  |  |
14 | Is discharge from stormwater facilities or conveyance systems to an adequate channel? § II D.2.c.(3) |  |  |  |
15 | Are there significant impacts to receiving waters? § II D.2.c.(3) |  |  |  |
16 | Are public roads cleaned as required? § II D.2.d.(2) |  |  |  |
17 | Are controls being maintained? § II D.3.a. |  |  |  |
18 | Are inspections conducted by “Qualified Personnel”? § II D.4. |  |  |  |
19 | Are inspections conducted at required frequency? § II D.4.a. |  |  |  |
20 | Do inspection reports summarize the scope of the inspections including corrective actions? § II D.4.c. (1-5) |  |  |  |

**Recommended Corrective Action**

---

(DCR - VSWB - 012) (02/06)
(DCR - 199 -169) (02/06)
STORMWATER PROGRAMS SITE INSPECTION REPORT

Project Name: ___________________________  Permit Number: ___________________________
Project Address: ___________________________  County/City: ___________________________
Inspector Name: ___________________________  Inspection Date: ________  Time: ________

STAGE OF CONSTRUCTION

- Pre-Construction Conference [ ]
- Clearing & Grubbing [ ]
- Rough Grading [ ]
- Building Construction [ ]
- Finish Grading [ ]
- Final Stabilization [ ]
- Construction of SWM Facilities [ ]
- Maintenance of SWM Facilities [ ]
- Other [ ]

<table>
<thead>
<tr>
<th>Item#</th>
<th>State Regulation(f)</th>
<th>Initial</th>
<th>Repeat</th>
<th>Description and Location of condition observed(1), Recommended Corrective Actions, and Other Comments/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

(1) Refers to applicable regulation found in the most recent publication of the Virginia Erosion and Sediment Control Regulations (4VAC50-30) or the Virginia Stormwater Management Program Permit Regulations (4VAC50-60)

(2) Note whether or not off-site damage resulting from the condition observed was evident during the inspection.

RECOMMENDED CORRECTIVE ACTION DEADLINE DATE: ________  Re-inspection Date: ________

The recommended corrective action deadline date applies to all conditions noted on this report unless otherwise noted. If listed condition(s) currently constitute non-compliance and/or corrective actions are not completed by the deadline, a NOTICE OF CORRECTIVE ACTION and/or other enforcement actions may be issued to the entity responsible for ensuring compliance on the above project.

Inspector: ___________________________  Signature: ___________________________  Date: ________

Acknowledgement of on-site receipt: ___________________________  Print Name: ___________________________  Signature: ___________________________  Date: ________

(DCR – VSWB – 012) (02/06)
(DCR – 199 – 169) (02/06)
VSMP CONSTRUCTION PERMIT INSPECTION REPORT  Attachment 2B

Project Name: ___________________________ Permit Number: ___________________________
Project Address: ___________________________ County/City: ___________________________
Project Operator: ___________________________ Operator Telephone: ___________________________
Operator Address: ___________________________ County/City: ___________________________ ZIP: __________
Inspector Name: ___________________________ Inspection Date: ___________ Time: ___________

Legal Status (Check one only)
Federal ☐ State ☐ Public ☐ Private ☐

Nature of Project (Check all that apply)
Commercial ☐ Industrial ☐ Residential ☐ Road ☐ Utility ☐ Agriculture ☐ Other: ______________

General Stormwater Pollution Prevention Plan Information

<table>
<thead>
<tr>
<th>Copy of permit</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copy of permit coverage letter</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Approved ESC plan or agreement in lieu of a plan</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

SWPPP prepared and available on site
SWPPP signed/certified by operator
Approved stormwater management plan (if applicable)

Specific SWPPP Information

(If information is not applicable indicate so in comments/notes)

<table>
<thead>
<tr>
<th>SWPPP CONTENT</th>
<th>Yes</th>
<th>No</th>
<th>Comments/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>§ II D.1.a Description &amp; function of project</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ II D.1.b Sequence &amp; timing of land-disturbance activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ II D.1.c Estimate of total land-disturbance area including off-site areas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ II D.1.d Description of potential pollution sources (fuel, chemical storage, sanitary waste, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ II D.1.e Identification of nearest receiving waters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ II D.1.f Location &amp; description of industrial activity discharges covered by this permit (dedicated asphalt &amp; concrete plants)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ II D.1.g Site map indicating:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Direction of final storm flows &amp; slopes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Areas of disturbed &amp; undisturbed sites</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Location of controls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Location of stabilization practices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Surface body water including wetlands</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Location of stormwater discharges</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Location of off-site areas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Location of potential pollution sources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Areas of final stabilization</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Project Name: ___________________________ Project Inspection Date: ___________________________
<table>
<thead>
<tr>
<th>POLLUTANT REDUCTION CONTROLS</th>
<th>Yes</th>
<th>No</th>
<th>Comments/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>§ II D.2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description of pollution controls to be implemented &amp; operator responsible for implementation of the control measures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ II</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>For ESC plans incorporated by reference: plan is approved by the locality or by appropriate plan-approving authority</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>EROSION AND SEDIMENT CONTROLS</td>
<td>Yes</td>
<td>No</td>
<td>Comments/Notes</td>
</tr>
<tr>
<td>§ II D.2.a. (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stabilization practices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Dates of major grading activities</td>
<td></td>
<td></td>
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<tr>
<td>Dates when grading temporarily or permanently cease</td>
<td></td>
<td></td>
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<tr>
<td>Dates when stabilization measures are initiated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Stabilization measures initiated within 7 days after construction has temporarily or permanently ceased (except as provided in § II D.2.a (1) (c), (d), &amp; (e))</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ II D.2.a. (2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural practices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Sediment basin for disturbed areas of 3 acres or greater or equivalent control measures provided until final stabilization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Where basins are not attainable, smaller sediment traps or at a minimum silt fence, vegetative buffer strips or equivalent sediment controls are installed for all down and side slope boundaries as appropriate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Sediment traps are used for areas &lt; 3 acres or at a minimum silt fence, vegetative buffer strips or equivalent sediment controls are required for all down and side slope boundaries as appropriate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ II D.2.b.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management practices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Control measures properly selected, installed and maintained</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Off-site sediment accumulation removed to minimize off-site impacts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Litter, construction debris, and chemicals prevented from becoming a pollutant source</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ II D.2.c.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stormwater management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Calculations supporting all post-construction stormwater management measures to be installed and measures designed and installed in accordance with applicable local and state requirements</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(2) Technical explanation for practices selected to control pollutants and flows that exceed predevelopment levels

(3) Outflows from stormwater facility or conveyance system discharge to an adequate channel (no significant changes in the hydrologic regime of receiving water)

§ II D.2.d. Other controls

(1) Measures to prevent discharge of solid materials to surface waters

(2) Construction entrance (MS-17)

(3) Compliance with state or local waste disposal, sanitary sewer or septic system regulations

(4) Description of construction and waste materials, updates, controls to reduce storage, and storage practices

(5) Description of pollutant sources from areas other than construction (dedicated asphalt or concrete plants) and control measures to be used at those sites

§ II D.2.e. SWPPP consistent with applicable requirements for ESC & SW management

<table>
<thead>
<tr>
<th>MAINTENANCE OF CONTROLS</th>
<th>Yes</th>
<th>No</th>
<th>Comments/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>§ II D.3.a</td>
<td>Description and schedule of procedures to maintain all controls in effective operational condition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ II D.4.b</td>
<td>Existing BMPs modified or additional BMPs installed prior to next storm event. (If impractical to implement prior to storm event, documented in SWPPP)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INSPECTIONS</th>
<th>Yes</th>
<th>No</th>
<th>Comments/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>§ II D.4</td>
<td>Conducted by &quot;Qualified Personnel&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ II D.4.a</td>
<td>Once every 14 days and within 48 hours after any runoff producing storm event</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ II D.4.b</td>
<td>Inspection of discharge locations to ascertain whether ESC measures are effective in preventing significant impact to receiving waters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ II D.4.c</td>
<td>Linear projects inspected 0.25 miles above and below each access point</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ II D.4.d</td>
<td>Based on results of inspections, the site, activity description, and pollution prevention measures are modified as appropriate within 7 calendar days following the inspection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ II D.4.e</td>
<td>Report summarizing scope of inspection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Locations of pollutant discharges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Locations of BMPs needing maintenance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Locations of inadequate or failed BMPs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Locations where BMPs are needed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Corrective action required</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NONSTORMWATER DISCHARGE MANAGEMENT**  

<table>
<thead>
<tr>
<th>§ II D.5</th>
<th>SWPPP identifies all allowable discharges</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Fire fighting controls</td>
</tr>
<tr>
<td>b.</td>
<td>Fire hydrant flushing</td>
</tr>
<tr>
<td>c.</td>
<td>Vehicle washing (no detergent)</td>
</tr>
<tr>
<td>d.</td>
<td>Water used for dust control</td>
</tr>
<tr>
<td>e.</td>
<td>Potable water source</td>
</tr>
<tr>
<td>f.</td>
<td>Water for hydrostatic testing of pipelines</td>
</tr>
<tr>
<td>g.</td>
<td>Building washing (no detergent)</td>
</tr>
<tr>
<td>h.</td>
<td>Pavement washwaters (no hazardous materials or detergent used on pavement)</td>
</tr>
<tr>
<td>i.</td>
<td>Air conditioner or compressor condensation is uncontaminated</td>
</tr>
<tr>
<td>j.</td>
<td>Uncontaminated ground water or springs</td>
</tr>
<tr>
<td>k.</td>
<td>Foundation or footing drains</td>
</tr>
<tr>
<td>l.</td>
<td>Uncontaminated excavation dewatering</td>
</tr>
<tr>
<td>m.</td>
<td>Landscape irrigation</td>
</tr>
</tbody>
</table>
MASON LD PRE-CONSTRUCTION STATEMENT

Regardless of the extent of a project or the size of its budget, the University expects the highest level of professionalism and craftsmanship from our Contractors. The protection of our environment is of great concern and a priority at George Mason University. Obviously, construction creates the largest and most noticeable impact on our local environment. The burden is on each project team to minimize this disturbance. In concurrence with this sentiment, Erosion and Sediment Control (ESC) and Storm Water Management (SWM) are taken very seriously on our sites. Aside from those special issues that inevitably arise on each project; there are several common guidelines that every Contractor must follow:

- At all times, the Contractor is expected to adhere to all Federal, State, Local, and University laws and regulations.
- When required by law or by University regulations, an Erosion and Sediment (E&S) Plan is prepared. The approved plan, specifications, permit, SWPPP and/or VSMP Permit must be available on-site at all times.
- Installation of ESC devices is necessary prior to any land disturbance as described in the approved plans.
- An Initial inspection by the assigned Mason LD E&S Inspector is required prior to any land disturbance activity. Please contact your Project Manager (PM) to schedule inspection.
- The assigned Mason LD E&S Inspector can be expected to examine the site and its controls at least bi-weekly and/or 48 hours after a significant hydrologic event.
- Additionally, the Contractor is expected to inspect the site and its control daily. If it becomes necessary, a log of these inspection and their findings may be required to be maintained.
- If a project is not required to submit an E&S Plan for review, the Contractor is still expected to demonstrate a reasonable degree of E&S protection.
- If construction is expected to encroach upon wetlands, within an RPA, and/or in a significant concentrated waterway, 24-hour notice is required prior to encroachment.
- Removal of E&S devices is strictly prohibited unless otherwise directed by the Mason LD E&S Inspector. Phasing is permitted, but remains at the discretion of the Mason LD E&S Inspector.
Final stabilization is determined by the Mason LD E&S Inspector.
Mason LD retains the right to amend the approved plan based on site conditions or specific E&S device effectiveness.
Contact Mason LD immediately at the first sign of inadequacy or failure. In other words, be proactive, not reactive.

Thank you in advance for your adherence to the above guidelines. If you have any questions or concerns please contact your Project Manager.

Contractor Representative: _________________________________

Signature: _________________________________

Date: __________
APPENDIX H:
Mason LD Pre-Construction Statement
APPENDIX I:
Mason LD Land Disturbance Inspection Report
URBAN PROGRAMS INSPECTION REPORT

Project Name: Krasnow Addition Phase II
Project Authority: GMU
Inspector(s): Johnny Trejos & Kenex Sevilla

Project Location: Fairfax
Permit No.: BDG
Insp. Date/Time: Sep 2, 2010 T: 13:30

STAGE OF CONSTRUCTION
Pre-Cons. Conference ☐ Building Construction ☑ Construction SWM Facilities ☐
Clearing & Grubbing ☐ Finish Grading ☐ Maintenance of SWM Facilities ☐
Rough Grading ☐ Final Stabilization ☐

<table>
<thead>
<tr>
<th>State/Local Regulation (4VAC30-30-40) (citation)</th>
<th>Violation</th>
<th>Practice/Problem/Violation Location and Description(2)</th>
<th>Corrective Action Required, Completed, and/or Recommendations/Comments</th>
<th>Reference Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>STD &amp; SPEC 3.05 (x)</td>
<td>Initial</td>
<td>soil covering more than half of the fence</td>
<td>remove and reinstall stake for proper fence installation</td>
<td>Figure 1 &amp; 2</td>
</tr>
<tr>
<td>STD &amp; SPEC 3.05 (x)</td>
<td>Repeat</td>
<td>construction material on silt fence</td>
<td>remove construction material off of fence</td>
<td>Figure-3</td>
</tr>
</tbody>
</table>

Comments:

(1) Refers to applicable regulation found in the most recent publication of the Virginia Erosion and Sediment Control Regulations (4VAC50-30-40), Virginia Stormwater Management Regulations (4VAC3-20), or local ESC/SWM ordinance.

(2) Note whether or not off-site damage resulting from the practice, problem, or violation was evident during the inspection.

REQUIRED CORRECTIVE ACTION DEADLINE DATE: Sep 9, 2010 Re-inspection +/-: 2 Weeks

The required corrective action deadline date applies to all violations noted on this report. If listed violation(s) currently constitute non-compliance as defined in the current version of the DCR Urban Programs Policy & Procedures Manual and/or required corrective actions are not completed by the deadline date, a NOTICE TO COMPLY, STOP WORK ORDER, and/or other enforcement actions may be issued to the entity responsible for ensuring compliance on the above project.

Inspector: Johnny Trejos Signature: Johnny Trejos Date: 9/2/2010

Hand deliver or fax written notification to all appropriate parties within 24 hours of inspection date.

On-Site Recipient: Signature: Date:

Comments:
Land Disturbance Permit Notice of Termination

Permit #: __________________________
Project: ____________________________ Campus: ____________________________
Contractor: __________________________ Contact #: __________________________
Address: ____________________________
Contact: ____________________________
Responsible Land Disturber: ______________ Certificate Number: __________

Termination Recommended By: ______________ Date: ______________

Reasons for Terminating:
☐ Final stabilization has been achieved on all portions of the site for which the operator is responsible;
☐ Another operator has assumed control over all areas of the site that have not been fully stabilized; or
☐ Coverage under Mason LD permit number: ________ has been obtained.

Permit Termination Checklist (if applicable):
☐ Verify permanent stabilization
☐ Inspect permanent BMP/LIDs (Functional)
☐ Confirm positive drainage

Contractor Certification Statement:
"I certify that to the best of my knowledge that the referenced project is constructed according to the approved plans and accepted industry standards. I guarantee the performance of said construction, under reasonable circumstances, for one year after the signed date. This includes but not limited to installed vegetation, hardscape, and structural practices. In the event of failure the Contractor is responsible for replacement and/or repair and the performance warranty period will start over after Owner acceptance. If the Owner modifies the installed, this performance guarantee is null and void."

Print Name: __________________________ Title: __________________________
Signature: __________________________ Date: __________________________

Terminated By: __________________________ Termination Date: ________________
APPENDIX J:
Mason LD Permit Notice of Termination
Enginers’ Toolkit
Virginia Stormwater Management Program (VSMP) Permit Regulations
Effective January 29, 2005

Contents

1. Introduction
   A. Act
   B. Applicability
   C. Exemptions
   D. Regulations
2. Technical Criteria for Stormwater Management Plans
   A. 4VAC50-60-40. Applicability.
   C. 4VAC50-60-60. Water quality.
   D. 4VAC50-60-70. Stream channel erosion.
   E. 4VAC50-60-80. Flooding.
3. References
   A. Water Quality
   B. Stream Channel Erosion
   C. Flooding
1. Introduction

A. Act (Virginia Stormwater Management Act) can be viewed at:
(http://www.dcr.virginia.gov/soil__water/documents/vaswrmlaw.pdf)

    Enacted in 2004, the Virginia Stormwater Management Act, Code of Virginia
    (§ 10.1-603 et seq.), states that the Virginia Soil and Water Conservation Board “is
    authorized to adopt regulations that specify minimum technical criteria and
    administrative procedures for stormwater management programs in Virginia” (§ 10.1-
    603.4).

B. Applicability

    According to the Act (§ 10.1-603.4.6), the regulations shall “Establish statewide
    standards for stormwater management from land disturbing activities of one acre or
    greater, except as specified otherwise within this article, and allow for the consolidation
    in the permit of a comprehensive approach to addressing stormwater management and
    erosion and sediment control, consistent with the provisions of the Erosion and Sediment
    Control Law (§ 10.1-560 et seq.) and this article. However, such standards shall also
    apply to land disturbing activity exceeding an area of 2500 square feet in all areas of the
    jurisdictions designated as subject to the Chesapeake Bay Preservation Area Designation
    and Management Regulations (9 VAC 10-20 et seq.) adopted pursuant to the Chesapeake
    Bay Preservation Act (§ 10.1-2100 et seq.).”

C. Exemptions

    According to the Act (§ 10.1-603.8.B), “Notwithstanding any other provisions of
    this article, the following activities are exempt:

    1. Permitted surface or deep mining operations and projects, or oil and gas
       operations and projects conducted under the provisions of Title 45.1;
    2. Clearing of lands specifically for agricultural purposes and the management,
       tilling, planting or harvesting of agricultural, horticultural, or forest crops;
    3. Single-family residences separately built and disturbing less than one-acre and not
       part of a larger common plan of development or sale, including additions or
       modifications to existing single-family detached residential structures. However,
       localities subject to the Chesapeake Bay Preservation Act (§ 10.1-2100 et seq.)
       may regulate these single family residences where land disturbance exceeds
       2,500 square feet;
    4. Land disturbing activities that disturb less than one acre of land area except for
       land disturbing activity exceeding an area of 2,500 square feet in all areas of the
       jurisdictions designated as subject to the Chesapeake Bay Preservation Area
       Designation and Management Regulations (9 VAC 10-20 et seq.) adopted
       pursuant to the Chesapeake Bay Preservation Act (§ 10.1-2100 et seq.) or
       activities that are part of a larger common plan of development or sale that is one
       acre or greater of disturbance;...
5. Linear development projects, provided that (i) less than one acre of land will be
disturbed per outfall or watershed, (ii) there will be insignificant increases in peak
flow rates, and (iii) there are no existing or anticipated flooding or erosion
problems downstream of the discharge point;
6. Discharges to a sanitary sewer or a combined sewer system;
7. Activities under a State or federal reclamation program to return an abandoned
property to an agricultural or open land use; and
8. Routine maintenance that is performed to maintain the original line and grade,
hydraulic capacity, or original construction of the project and that disturbs less
than five acres of land.”

D. Regulations (Virginia Stormwater Management Program (VSMP) Permit
Regulations) can be viewed at:
(http://www.dcr.virginia.gov/soil_&_water/documents/vaswmregs.pdf)

The Virginia Stormwater Management Program (VSMP) Permit Regulations,
Virginia Administrative Code (4 VAC 50-60 et seq.) became effective January 29, 2005.
Following are the Technical Criteria for Stormwater Management Plans from the
Regulations.

2. Technical Criteria for Stormwater Management Plans

4VAC50-60-40. Applicability.
This part specifies technical criteria for every stormwater management program and land-
disturbing activity.

A. Determination of flooding and channel erosion impacts to receiving streams due
to land-disturbing activities shall be measured at each point of discharge from the
land disturbance and such determination shall include any runoff from the balance
of the watershed which also contributes to that point of discharge.
B. The specified design storms shall be defined as either a 24-hour storm using the
rainfall distribution recommended by the U.S. Department of Agriculture’s
Natural Resources Conservation Service (NRCS) when using NRCS methods or
as the storm of critical duration that produces the greatest required storage volume
at the site when using a design method such as Modified Rational Method.
C. For purposes of computing runoff, all pervious lands in the site shall be assumed
prior to development to be in good condition (if the lands are pastures, lawns, or
parks), with good cover (if the lands are woods), or with conservation treatment
(if the lands are cultivated); regardless of conditions existing at the time of computation.

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

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

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

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

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

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

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

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

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

M. Flood control and stormwater management facilities that drain or treat water from multiple development projects or from a significant portion of a watershed may be allowed in Resource Protection Areas defined in the Chesapeake Bay Preservation Act, provided that (i) the local government has conclusively established that the location of the facility within the Resource Protection Area is the optimum location; (ii) the size of the facility is the minimum necessary to provide necessary flood control, stormwater treatment, or both; and, (iii) the facility must be consistent with a stormwater management program that has been approved by the board.
4VAC50-60-60. Water quality.

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

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

1. Situation 1 consists of land-disturbing activities where the existing percent impervious cover is less than or equal to the average land cover condition and the proposed improvements will create a total percent impervious cover which is less than the average land cover condition.
   Requirement: No reduction in the after disturbance pollutant discharge is required.

2. Situation 2 consists of land-disturbing activities where the existing percent impervious cover is less than or equal to the average land cover condition and the proposed improvements will create a total percent impervious cover which is greater than the average land cover condition.
   Requirement: The pollutant discharge after disturbance shall not exceed the existing pollutant discharge based on the average land cover condition.

3. Situation 3 consists of land disturbing activities where the existing percent impervious cover is greater than the average land cover condition.
   Requirement: The pollutant discharge after disturbance shall not exceed (i) the pollutant discharge based on existing conditions less 10% or (ii) the pollutant discharge based on the average land cover condition, whichever is greater.

4. Situation 4 consists of land disturbing activities where the existing percent impervious cover is served by an existing stormwater management BMP that addresses water quality.
   Requirement: The pollutant discharge after disturbance shall not exceed the existing pollutant discharge based on the existing percent impervious cover while served by the existing BMP. The existing BMP shall be shown to have been designed and constructed in accordance with proper design standards and specifications, and to be in proper functioning condition.

C. Technology-based criteria. For land-disturbing activities, the post-developed stormwater runoff from the impervious cover shall be treated by an appropriate BMP as required by the post-developed condition percent impervious cover as specified in Table 1. The selected BMP shall be located, designed, and maintained to perform at the target pollutant removal efficiency specified in Table 1. Design standards and specifications for the BMPs in Table 1 that meet the required target pollutant removal efficiency will be available at the department.
Table 1

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

*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 which target appropriate nonpoint source pollution other than phosphorus may be allowed at the discretion of the local program administrator or the department.
4VAC50-60-70. Stream channel erosion.
A. Properties and receiving waterways downstream of any land-disturbing activity shall be protected from erosion and damage due to changes in runoff rate of flow and hydrologic characteristics, including but not limited to, changes in volume, velocity, frequency, duration, and peak flow rate of stormwater runoff in accordance with the minimum design standards set out in this section.
B. The permit-issuing authority shall require compliance with subdivision 19 of 4VAC50-30-40 of the Erosion and Sediment Control Regulations, promulgated pursuant to Article 4 (10.1-560 et seq.) of Chapter 5 of Title 10.1 of the Code of Virginia.
C. The permit-issuing authority may determine that some watersheds or receiving stream systems require enhanced criteria in order to address the increased frequency of bankfull flow conditions (top of bank) brought on by land-disturbing activities. Therefore, in lieu of the reduction of the two-year post-developed peak rate of runoff as required in subsection B of this section, the land development project being considered shall provide 24-hour extended detention of the runoff generated by the one-year, 24-hour duration storm.
D. In addition to subsections B and C of this section permit-issuing authorities, by local ordinance may, or the board by state regulation may, adopt more stringent channel analysis criteria or design standards to ensure that the natural level of channel erosion, to the maximum extent practicable, will not increase due to the land-disturbing activities. These criteria may include, but are not limited to, the following:
1. Criteria and procedures for channel analysis and classification.
2. Procedures for channel data collection.
3. Criteria and procedures for the determination of the magnitude and frequency of natural sediment transport loads.
4. Criteria for the selection of the proposed natural or man-made linings.

4VAC50-60-80. Flooding
A. Downstream properties and waterways shall be protected from damages from localized flooding due to changes in runoff rate of flow and hydrologic characteristics, including but not limited to, changes in volume, velocity, frequency, duration, and peak flow rate of stormwater runoff in accordance with the minimum design standards set out in this section.
B. The 10-year post-developed peak rate of runoff from the development site shall not exceed the 10-year pre-developed peak rate of runoff.
C. In lieu of subsection B of this section, localities may, by ordinance, adopt alternate design criteria based upon geographic, land use, topographic, geologic factors or other downstream conveyance factors as appropriate.
D. Linear development projects shall not be required to control post-developed stormwater runoff for flooding, except in accordance with a watershed or regional stormwater management plan.
3. References/Links

A. Water Quality Calculations


B. Stream Channel Erosion

   http://www.dcr.virginia.gov/soil__water/documents/techbltn1.PDF


C. Flooding

2. Rational Equation Coefficients for SCS Hydrologic Soil Groups (A, B, C, D), Tables 4-5a, b, c, d, Pages 4-21 to 4-24, Chapter 4, Virginia Stormwater Management Handbook, 1999.

APPENDIX K:
Engineers’ Tool Kit