



Fort Belvoir Directorate of Public Works (DPW) Municipal Separate Storm Sewer System (MS4) Program

Bulletin #1: STORMWATER MANAGEMENT (SWM) AND EROSION AND SEDIMENT CONTROL (ESC) COMPLIANCE REQUIREMENTS AND PROCEDURES FOR LAND DISTURBANCE

A. APPLICABILITY

This bulletin is applicable to Garrison, Tenant and Contractor Operations for stormwater and erosion and sediment control design for projects disturbing land areas of 2,500 square feet and greater.

B. BACKGROUND

To comply with the Fort Belvoir General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 Permit #VAR040093), Energy Independence and Security Act Section 438 (EISA 438) and the Virginia Erosion and Sediment Control, Stormwater Management and Chesapeake Bay laws and regulations. Specific guidelines must be followed during design and construction of projects disturbing areas of 2,500 square feet and greater. As of July 1, 2014 Virginia Department of Environmental Quality (VADEQ) has review and approval authority for erosion and sediment control design plans for construction projects disturbing 10,000 feet or greater of land and stormwater management design plans for projects disturbing one acre or greater of land on properties owned by Fort Belvoir.

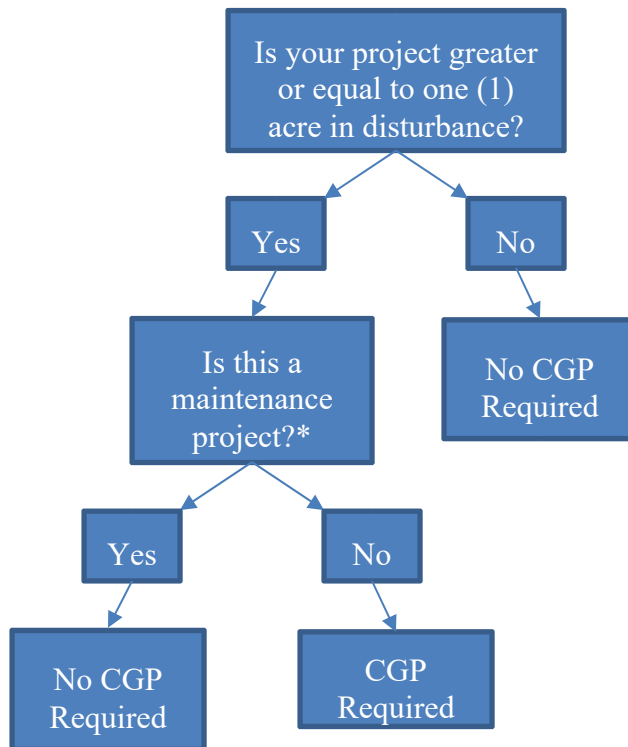
C. LAND DISTURBANCE COMPLIANCE REQUIREMENTS AND PROCEDURES

1. Plans Required based on Land Disturbance Thresholds

Please note that if your project involves land disturbance of greater than 5,000 square feet, AND includes the construction of a federal facility (See Section C.3.a. (1) for full definition), stormwater design must also comply with EISA 438.

| Table 1. ESC and SWM Plans Requirements by Project Size | | |
|---|-----------------|-------------------------------------|
| Project Size | Plans Required | Review Authority |
| Less than 2,499 sq.ft. | None | DPW-Environmental Division |
| Between 2,500 sq.ft. and 9,999 sq.ft. | ESC & SWM Plans | DPW-Environmental Division |
| Between 10,000 sq.ft. and 43,559 sq.ft. | ESC & SWM Plans | VADEQ (for ESC & SWM) |
| Greater than or equal to one (1) acre | ESC & SWM Plans | VADEQ (for ESC & SWM) CGP Issued |

2. Construction General Permit (CGP) Threshold



*Virginia Code 62.1-44.15:34 C.7, which states that “routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original construction of a project.” A maintenance project means you are ONLY exempt from requiring a Construction General Permit and SWPPP. All other requirements still apply; please consult with DPW-Environmental to determine if your project may be considered maintenance.

3. Plan Requirements

a. Stormwater Management Plan Requirements

- (1) If the project includes the construction of a federal facility and disturbs greater than 5,000 square feet, the SWM Plan shall comply with Section 438 of the Energy Independence and Security Act (EISA 438). A federal facility is defined as any building that is constructed, renovated, leased, or purchased in part or in whole for use by the Federal Government. Technical guidance is located online at: https://www.epa.gov/sites/production/files/2015-08/documents/epa_swm_guidance.pdf.
- (2) Incorporation of Low Impact Development Best Management Practices will be used to meet requirements of EISA 438. The design objective of LID is to maintain or

restore the hydrology of the site prior to the planned project being constructed with regard to the temperature, rate, volume and duration of flow. See <https://mrsi.erc.dren.mil/sustain/cx/lid> for further guidance.

- (3) The Stormwater Management (SWM) Plan must address all components outlined in 9VAC25-870-55.
- (4) Per 9VAC25-870-63 and 65, the SWM Plan must utilize stormwater management BMPs from the Virginia BMP Clearinghouse to obtain the required water quality pollutant reductions. The required water quality pollutant reductions shall be calculated by using the Virginia Runoff Reduction Method (VRRM) Spreadsheet for site-specific project conditions. It should be noted Fort Belvoir does not allow purchasing of off-site nutrient credits to offset the requirements of water quality under 9VAC25-870-63 as it is not authorized under the National Defense Authorization Act (NDAA). Project proponents will need to meet all phosphorous load reduction requirements on-site. The VRRM Spreadsheets (currently version 3.0) are located online at:
<https://www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMPPermits/ConstructionGeneralPermit.aspx>
- (5) Per 9VAC25-870-66, each stormwater outfall location on the project site must be evaluated for Channel Protection and Flood Protection to the defined Limits of Analysis. Different design criteria are specified in the regulation dependent on whether the outfall is discharging into a natural or manmade system.
- (6) The SWM Plan shall comply with Chapter 6 of the Fairfax County Public Facilities Manual (PFM), located online at:
<https://www.fairfaxcounty.gov/landdevelopment/public-facilities-manual>
- (7) The VADEQ SWM Plan Review Checklist must also be completed by the designer and provided with plan submittal. This checklist is located online at:
<http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMPPermits/ConstructionGeneralPermit.aspx>
- (8) Per 9VAC25-870-55, stormwater management plans shall be appropriately sealed and signed by a professional registered in the Commonwealth of Virginia pursuant to Article 1 of Chapter 4 of Title 54.1 of the Code of Virginia.

b. Erosion and Sediment Control Plan Requirements

- (1) Erosion and Sediment Control (ESC) plans must be developed to comply with the 19 Virginia Minimum Standards (9VAC25-840-40). The plan shall also utilize erosion and sediment control standards and specifications listed in Chapter 3 of the Virginia

Erosion and Sediment Control Handbook (VESCH). Nomenclature for erosion and sediment control measures shall be consistent with the VESCH and the ESC Plan must follow the Virginia Uniform Coding System:

<http://www.deq.virginia.gov/Portals/0/DEQ/Water/StormwaterManagement/ErosionSedimentControlHandbook/Uniform%20Coding.pdf>

(2) Guidance on development of ESC Plans can be found in Chapter 6 of the VESCH at the Virginia Department of Environmental Quality (VADEQ) website:

<http://www.deq.virginia.gov/Programs/Water/Laws,Regulations,Guidance/Guidance/StormwaterManagementGuidance.aspx>

(3) The ESC Plan shall also comply with Chapter 11 of the Fairfax County Public Facilities Manual (PFM) and is located online at:

<https://www.fairfaxcounty.gov/landdevelopment/public-facilities-manual>

(4) The VADEQ ESC Plan Review Checklist must also be completed by the designer and provided with plan submittal. The checklist is located online at:

<http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMPPermits/ConstructionGeneralPermit.aspx>

4. Plan Review and Approval Procedures

The following steps are required for SWM and ESC plan approval. Table 1 (*found in Section C.1*) specifies the type of plan(s) necessary for submittal to DPW-Environmental and VADEQ based on land disturbance thresholds.

a. Submit Applicable Documents to DPW-Environmental

All Projects Start Here

(1) The project proponent is responsible for submitting one (1) hard copy and one (1) CD of the required plan(s) and supporting documentation (Ex: computations, geotechnical reports, etc.) to the DPW-Environmental Division National Environmental Policy Act (NEPA) Point of Contact (POC). Plan(s)/documents will be reviewed in accordance with permit requirements specified in the Fort Belvoir Small Municipal Separate Stormwater System (MS4) Permit.

(2) Comments will be generated from the review and provided to the project proponent through USACE ProjNet (formerly Dr. Checks), email, or other means identified by the project proponent. The project proponent is responsible for responding to all comments in writing and for making all required revisions to the project plan(s) before re-submitting. This process will continue until the plan(s) is determined to be adequate for signature by the Director of Public Works.

- (3) The DPW-Environmental Division has a minimum review time of two (2) weeks for initial submittal and subsequent re-submittals.
- (4) Follow instructions below in section b or c according to project size:
- Section b: for projects less than 10,000 square feet of land disturbance, OR
 - Section c: for projects over 10, 000 square feet of land disturbance

b. Submit Approved Applicable Documents to DPW-Environmental

Projects Requiring DPW Plan Approval Only (Less than 10,000 square feet of Land Disturbance)

- (1) Once the plans are determined to be adequate, four (4) hard copies of the plans will be submitted to the DPW-Environmental Division Stormwater POC for signature by the Director of Public Works. Once signed, two hard copies will be returned to the project proponent (one for construction contractor, one for the contracting authority) and two copies will be retained by the DPW (one hard copy for DPW ESC/SWM inspector and one hard copy for file). The project proponent is responsible for submitting one (1) CD that contains signed plans and any supporting documentation (calculations), if applicable, to the DPW-Environmental Division Stormwater POC for the Fort Belvoir permit files.

c. Submit Approved Applicable Documents to DPW and VADEQ

Projects Requiring DPW and VADEQ Approval (10,000 square feet and greater of Land Disturbance)

In addition to Steps in section C.4.a. (1) – (3) outlined above, if the project plan(s) also requires VADEQ approval (See Table 1, Section 1), the following steps will be completed prior to construction commencement.

- (1) The designer is responsible for submittal of all required documents to VADEQ for review and approval. Required submittal documents include, but are not limited to: one (1) hard copy of SWM and/or ESC plans, one (1) copy of all supporting documents (calculations, geotechnical reports, etc.), one (1) copy of the applicable SWM and/or ESC checklists, one (1) copy of the Completed Construction General Permit Registration Statement (original ink, signed and dated), one (1) electronic copy (CD) of all documents submitted, and designer POC, phone number and email address. The complete package should be sent to the Virginia Department of Environmental Quality through a file-sharing service to NROSWMPlanReview@deq.virginia.gov

- (2) The designer is also responsible for submittal of (1) CD to the DPW-Environmental Division Stormwater POC that contains all documents (plans and supporting stormwater calculations, geotechnical reports, plan review checklists, etc.) that were submitted to VADEQ for review and approval.
- (3) The designer is responsible for addressing any comments received by VADEQ during the review and approval process and subsequent resubmittals until the plan is approved. For subsequent resubmittal(s) to VADEQ, one (1) copy of all documents (response to VADEQ comments, corrected plan set, corrected stormwater calculations, etc.) must be provided. In addition, one (1) CD of all documents resubmitted to VADEQ must be provided to the DPW-Environmental Division Stormwater POC at the time of resubmittal.
- (4) Per 9VAC25-870-108, VADEQ has 15 calendar days to determine if plan is complete, 60 calendar days to review initial submittal and 45 days to review for each subsequent resubmittal. Based on past plan submittals, this process takes an average of three months to obtain VADEQ approval. Approval time may be less, dependent upon the size of the project, amount of VADEQ comments, and the turnaround time for document correction by the designer. Once the plan set is approved by VADEQ, the designer is responsible for submitting to the DPW-Environmental Division Stormwater POC the following: four (4) hard copies of the VADEQ approved plans (with approval block) and one (1) CD that contains the VADEQ approved plans with the VADEQ stamped cover sheet, all supporting documents (final stormwater calculations, geotechnical reports, plan review checklist(s), etc.) submitted to VADEQ and the VADEQ Approval Letter.
- (5) Please keep in mind that a project must commence within 180 calendar days from receiving VADEQ approval. Plans that will begin outside of this time frame may be required to re-submit to VADEQ to start the review and approval process over again.

5. **DPW-Environmental Final Approval-Land Disturbance Letter**

Once plans are approved and the construction contractor has been selected, the following steps are required prior to issuance of the Land Disturbance Letter by DPW. This letter is the final approval step needed to begin land disturbance activity at Fort Belvoir.

a. Submit Applicable Documents to DPW-Environmental- All Projects Start Here

- (1) The construction contractor will provide DPW-Environmental Stormwater POC with the contractor POC responsible for insuring that SWM and/or ESC plans are executed. This POC should be a VADEQ certified Responsible Land Disturber (RLD), and record of certification shall also be provided to DPW-

Environmental Division at this time. Information on what an RLD is and certification can be found here:

<http://www.deq.virginia.gov/ConnectWithDEQ/TrainingCertification/RLDGeneralInformation.aspx>

- (2) The construction contractor will complete and submit a Fort Belvoir Excavation Permit Application (Dig Permit) for processing to DPW-Business Office and Integration Division via usarmy.belvoir.id-sustainment.mbx.dpw-dig-permits@mail.mil For questions about the process, please contact Vanessa Castrejon at (703) 806-4732 or vanessa.castrejon.civ@army.mil.

b. Submit Construction General Permit Documents to VADEQ and DPW-Environmental – Only applicable to Projects One Acre or Greater of Land Disturbance

For projects greater than or equal to one acre of land disturbance (determined by the limits of construction), the construction contractor will complete steps (1) and (2) listed above and the additional requirements listed below:

- (1) A Construction General Permit (CGP) must be obtained from VADEQ by the construction contractor. The contractor is responsible for completing and submitting the Registration Statement prior to construction commencement. Please see <https://www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMPPPermit/ConstructionGeneralPermit.aspx> for more information on the Registration Statement and associated CGP fees. As a reminder, if the construction contractor signs the Registration Statement, they are certifying that a SWPPP has already been prepared for the site. Land disturbance cannot start until the VADEQ CGP approval letter is received and provided electronically to DPW-Environmental Division Stormwater POC.
- (2) In addition to applying for the CGP, the contractor must also simultaneously prepare a Stormwater Pollution Prevention Plan (SWPPP) (see 9VAC25-870-54). For EPA guidance and SWPPP templates, please see: <https://www.epa.gov/npdes/constructiongeneral-permit-resources-tools-and-templates#swppp> The SWPPP must be submitted to DPW-Environmental along with a completed DPW-Environmental SWPPP checklist for records prior to construction project commencement (9VAC25-880-70 Part II). The DPW-Environmental Division Stormwater POC may be contacted to obtain a copy of the SWPPP checklist.

c. Final Approval-DPW Land Disturbance Letter - All Projects

Once all project documentation has been received by the DPW-Environmental Division Stormwater POC, the Land Disturbance Letter (LDL) will be issued by DPW. This letter

documents that all stormwater requirements have been met and authorizes construction commencement, and is the final piece of paper required for breaking ground.

(1) Submit and ensure that the DPW-Environmental Division Stormwater POC has received the applicable items listed below in order to receive the LDL.

- VADEQ Plan Approval Letter
- VADEQ CGP Approval Letter (for sites greater than or equal to one acre in size)
- SWPPP (for sites greater than or equal to one acre in size)
- RLD Certificate
- Four (4) hard copies of the VADEQ Approved Plans
- Excavation Permit (DIG Permit) Application- **Please note the LDL will be held until dig permit approval. Ensure the dig permit application is submitted along with the documents above.**
- One (1) CD containing all the above documents

(2) Schedule a Pre-Construction Meeting (**Projects over 10,000 sf**)

Prior to groundbreaking, the construction contractor is required to contact the DPW-Environmental Division Stormwater POC (See Section C) to schedule a pre-construction meeting to review requirements of ESC plans, SWPPP and the CGP.

(3) Notify DPW-Stormwater POC Projected Ground-Breaking Day

After receiving the LDL and prior to groundbreaking, the construction contractor is required to contact the DPW-Environmental Division Stormwater POC (See Section C.) for assignment to a Fort Belvoir DPW-Environmental Division, Virginia certified, ESC and SWM inspector.

6. ESC/SWM Compliance During Construction

Once the construction project has started, the DPW-Environmental Division ESC/SWM inspector will conduct routine site inspections once every two weeks and within 48 hours after a rainfall event which produces greater than 0.5” of rain, and provide a written report of any deficiencies noted during the inspection. The RLD and a contracting officer’s representative is required to accompany the DPW-Environmental Division ESC/SWM inspector. ESC inspections are based upon the requirements identified in the Virginia Minimum Standards found at 9VAC25-840-40:

<http://leg1.state.va.us/cgibin/legp504.exe?000+reg+9VAC25-840-40> and conditions specified in the General Permit for Discharges of Stormwater from Construction Activities (General Permit No. VAR10 (9VAC25-880-70)). The DPW-Environmental Division ESC/SWM inspector will periodically conduct site inspections during the construction of the permanent stormwater management facilities.

Table 2 outlines the progressive compliance and enforcement strategy that Fort Belvoir DPW will implement to ensure that contractors are conducting land disturbance responsibly and in accordance with Virginia Department of Environmental Quality stormwater management and erosion and sediment control regulations.

| Non-Compliance Item | DPW ED Action |
|---|---|
| Failure to obtain a Land Disturbance Letter prior to start of construction projects involving land disturbance of 2,500 square feet or greater. | Email notice of Non-Compliance sent to the Contracting Officer (CO); Document in ESC inspection report. |
| Failure to obtain a Construction General Permit (CGP) and/or an approved SWM and/or ESC plan from VADEQ prior to start of construction projects involving land disturbance of 10,000 square feet or greater. | Email notice of Non-Compliance sent to the Contracting Officer (CO); VADEQ Northern Regional Office notified via telephone within 24 hours of discovery. |
| Failure to provide copies of approved SWM and/or ESC plans, CGP authorization letter, SWPPP and/ or Responsible Land Disturber certification to DPW ED. | Email notice of Non-Compliance sent to the Contracting Officer's Representative (COR); Land Disturbance letter not issued by DPW until approved plans, permits, SWPPP and Responsible Land Disturber certification are received by DPW ED. |
| Non-compliance with ESC minimum standards (9VAC25-840-40), failure to update SWPPP, failure to install ESC measures as a first step before any land disturbance; failure to store construction materials correctly. | <p><u>1st violation:</u> DPW ED Inspector notes on ESC inspection report with corrective action due date and contractor is expected to complete the corrective action by the due date;</p> <p><u>2nd violation:</u> Email warning notice sent to the Contract Representative from the MS4 Stormwater Program Administrator;</p> <p><u>3rd violation:</u> Warning Letter sent to the Contract Representative signed by the Director of Public Works; A courtesy copy of the report will be provided to VADEQ staff administering the CGP (or ESC) program oversight.</p> <p><u>4th violation:</u> Notice of Non-Compliance sent to the Contract Representative signed by the Garrison Commander;</p> <p><u>5th repeat violation:</u> Referred to VADEQ for compliance assistance.</p> |
| Release of any substance causing a reportable spill (including concrete wash out, paint runoff, or excess sediment). | DPW Director notified and email warning notice sent to the Contract Representative. |

7. ESC/SWM Compliance upon Construction Completion

- (1) Upon completion of the construction project, the DPW-Environmental Division ESC/SWM inspector will perform a final inspection and release the contractor when all deficiencies that were noted have been corrected. At this time, copies of all close out documents (Notice of Termination Form, construction as-built drawings, and any manufacturer maintenance specifications for permanent SWM facilities) shall be submitted to the DPW-Environmental Division Stormwater POC on one (1) CD for records purposes and review prior to the next step.
- (2) The contractor is responsible for submission of the Notice of Termination (NOT) of the CGP to the VADEQ (Department of Environmental Quality, Office of Stormwater Management, Suite 1400, P.O. Box 1105, Richmond, Virginia 23218, constructiongp@deq.virginia.gov). A blank VADEQ NOT is located online at: <https://www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMPPermits/ConstructionGeneralPermit.aspx>. As part of this submission, the contractor is required to submit the construction as-built drawings (9VAC25-870-55) to the VADEQ on one (1) CD. The construction as-built drawing shall be appropriately sealed and signed by a professional registered in the Commonwealth of Virginia, certifying that the SWM facilities have been constructed in accordance with the approved plan.
- (3) Contractor cannot close out the CGP without complete and final permanent stabilization of the project site. VADEQ defines this as a stand of grass that is “uniform, mature enough to survive and inhibit erosion.

C. DPW-ENVIRONMENTAL POINT OF CONTACTS

1. DPW-Environmental Division NEPA POC:

| | |
|-------------------------------|--|
| Name, Email and Phone Number: | Ms. Janesse Colon-Ruiz, NEPA Program Manager janesse.s.colonruiz.civ@army.mil 703-806-4008 |
| Physical Location: | Bldg 1442, 2 nd Floor, Room 226 |
| Mailing Address: | 9430 Jackson Loop, Bldg 1442 Directorate of Public Works |

Fort Belvoir, VA 22060

2. DPW-Environmental Division Stormwater POC:

Name, Email and Phone Number: Ashely McMahon, Acting MS4 Program Manager
ashley.c.mcmahon2.civ@army.mil
703-806-0627

Physical Location: Bldg 1442, 2nd Floor, Room 226

Mailing Address: 9430 Jackson Loop, Bldg 1442
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