

APPENDIX D

MCM#4 Construction Site Stormwater Runoff Control

Supporting Documents



**Fort Belvoir Directorate of Public Works
Municipal Separate Storm Sewer System (MS4) Program
Bulletin #1: STORMWATER DESIGN, REVIEW AND PLAN
APPROVAL PROCEDURES AND EROSION AND
SEDIMENT CONTROL (ESC) COMPLIANCE PROCEDURES DURING
CONSTRUCTION**

APPLICABILITY

This bulletin is applicable to Garrison, Tenant and Contractor Operations for stormwater design and construction of projects disturbing areas of 2500 square feet and greater.

BACKGROUND

In order to comply with the Virginia Pollution Discharge Elimination System, Virginia Stormwater Management Program (VSMP) Permits and the Virginia Erosion and Sediment Control (ESC) Regulations published by the Commonwealth of Virginia, specific guidelines must be followed during design and construction of projects disturbing areas of 2500 square feet and greater. As authorized by the MS4 Permit that was issued by Virginia Department of Environmental Quality to Fort Belvoir on July 1, 2013, Fort Belvoir Directorate of Public Works, Environmental and Natural Resources Division (DPW ENRD) has review and approval authority for design plans for construction projects sited on properties owned by Fort Belvoir.

***STORMWATER DESIGN, EROSION & SEDIMENT CONTROL & REVIEW
PROCEDURES***

The construction design plans shall identify all stormwater management structures and facilities and the accompanying documents shall include stormwater management calculations. In addition, the construction design plans shall identify both the Phase I and Phase II Erosion and Sediment Control Plans and shall include a narrative describing these controls and the construction sequencing of these controls. Guidance on development of Erosion and Sediment Control (ESC) Plans can be found in the Virginia Erosion and Sediment Control Handbook (VESCH), Chapter 6 at the Virginia Department of Environmental Quality (VADEQ) website: <http://www.deq.virginia.gov/ConnectWithDEQ/TrainingCertification.aspx> (Go to right toolbar and under Erosion and Sediment Control click on the tab, "ESC – Publications & Product Order Form". Look under title "Erosion and Sediment Control" and click on tab "Virginia Erosion and Sediment Control Handbook, Third Edition, 1992.)

All regulated land-disturbing activities must comply with 19 Minimum Standards specified in 9VAC25-840-40 and the applicable minimum standards should be addressed in the ESC Plan. Standards and Specifications for erosion and sediment control measures can be found in the VESCH, Chapter 3 at the VADEQ VESCH website listed above and standard nomenclature for each ESC measure shall be utilized in the ESC plan.

Stormwater design shall meet federal, state and county stormwater management requirements (Virginia stormwater and erosion and sediment control laws and regulations, the Virginia

Stormwater Management Handbook (VSMH), the Virginia Erosion and Sediment Control Handbook, the Fairfax County Public Facilities Manual and Section 483 of the Energy Independence and Security Act). The following websites are provided for reference:

Section 438 of the Energy Independence and Security Act:

http://www.epa.gov/oaintrnt/documents/epa_swm_guidance.pdf

Department of Defense Unified Facilities Criteria – Low Impact Development

http://wbdg.org/ccb/DOD/UFC/ufc_3_210_10.pdf

Virginia website for Stormwater Management Program (VSMP) Permit Regulations (9VAC25-870): <http://leg1.state.va.us/cgi-bin/legp504.exe?000+reg+9VAC25-870>

Virginia website for Erosion & Sediment Control Regulations (9VAC25-840):

<http://leg1.state.va.us/cgi-bin/legp504.exe?000+reg+9VAC25-840>

Virginia Stormwater Management Handbook (VSMH):

<http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/Publications.aspx> Look under Virginia Stormwater Management Program Heading for VSMH

Fairfax County website for the Fairfax County Public Facilities Manual:

<http://www.fairfaxcounty.gov/dpwes/publications/pfm>

DPW ENRD Virginia certified personnel will review hard copies of design plans and accompanying documentation (stormwater design calculations) to ensure design plans meet federal, state and county stormwater management requirements. Comments generated from the review will be provided to the project proponent through Dr. Checks, by email or by 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 construction plans before the plan is approved by the Director, Directorate of Public Works.

PRE-CONSTRUCTION PROCEDURES

Once all comments have been addressed and determined to be complete, the project proponent will be directed to complete the following steps:

- Submit to DPW ENRD Stormwater Point of Contact (POC), 4 copies of the Virginia PE (required by 9VAC25-870-55) sealed and stamped construction plans (which include erosion and sediment control plans) for signature approval and 1 CD with sealed and stamped construction plans and stormwater calculations. CD must be formatted so that ESC inspection reports, Virginia Stormwater Management Program (VSMP) permit, Responsible Land Disturber (RLD) certificate and SWPPP may be added at a future date;

Submit to DPW ENRD Stormwater POC, an electronic copy (pdf) of the Stormwater Pollution Prevention Plan (SWPPP). This document is typically either prepared by the designer of record

or by the construction contractor and is necessary for the construction contractor's VSMP Permit registration statement. Guidance on required components of the SWPPP may be found at 9VAC25-880-70: <http://lis.virginia.gov/cgi-bin/legp604.exe?000+reg+9VAC25-880-70> and SWPPPs shall follow the template provided by U.S. Environmental Protection Agency website at: <http://cfpub.epa.gov/npdes/stormwater/swppp.cfm> . Once the SWPPP is deemed adequate by DPW ENRD Virginia certified personnel, the construction contractor will submit a copy of the signed SWPPP to DPW ENRD for their records. The SWPPP must be approved prior to the issuance of the Land Disturbance Letter (LDL) by the Director.

- Submit to DPW ENRD Stormwater POC, an electronic copies (pdf) of the VSMP Permit Registration Statement and proof of application fee to the VADEQ; The construction contractor is responsible for obtaining a VSMP General Permit for Discharges of Stormwater from Construction Activities from VADEQ. The VADEQ website for the registration statement required to apply for a General Permit for Discharges of Stormwater from Construction Activities is: <http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMPPermits/ConstructionGeneralPermit.aspx>

The General Permit for Discharges of Stormwater from Construction Activities can be found at 9VAC25-880: <http://leg1.state.va.us/cgi-bin/legp504.exe?000+reg+9VAC25-880>

- Submit to DPW ENRD Stormwater POC, the name of the construction contractor's Responsible Land Disturber (RLD) and an electronic copy of their VADEQ certification (pdf) to the DPW ENRD Stormwater POC. The VADEQ website for information on RLD certification is: <http://www.deq.virginia.gov/ConnectWithDEQ/TrainingCertification.aspx>
- Submit the Excavation Permit application with location map to Janet Lower. Ms. Lower is located at Directorate of Public Works, Building 1442, Fort Belvoir; Phone: 703-806-3925.

After the Excavation Permit is assigned a number by Ms. Lower, DPW ENRD will prepare the Land Disturbance Letter for the Director of DPW's signature. At this time the Director will also sign the stamped construction plans.

Two copies of the signed, approved construction plans along with the signed Land Disturbance Letter (LDL) will be provided to the project proponent and the LDL. One of these sets of signed construction plans must be kept on the construction site during construction.

Two sets of the signed approved plans and the signed Land Disturbance Letter shall be retained by Directorate of Public works for Erosion & Sediment control inspections.

ESC COMPLIANCE DURING CONSTRUCTION

Prior to groundbreaking, the construction contractor is required to contact the DPW ENRD Stormwater Point of Contact for assignment to a Fort Belvoir DPW ENRD Virginia certified ESC inspector. The contractor will make arrangements with the assigned inspector for a pre-construction meeting to review requirements of ESC plans, SWPPP and the VSMP. Once the construction project has started, the DPW ENRD ESC inspector will conduct routine site

inspections every two weeks or within 48 hours after a rainfall event which produces greater than 0.5” of rain. ESC inspections are based upon the Virginia Minimum Standards found at 9VAC25-840-40: <http://leg1.state.va.us/cgi-bin/legp504.exe?000+reg+9VAC25-840-40> and conditions specified the General Permit for Discharges of Stormwater from Construction Activities (General Permit No. VAR10, (9VAC25-880-70)). Upon completion of the construction project, the DPW ENRD ESC inspector will perform a final ESC inspection and release the contractor when all deficiencies that were noted have been corrected. The contractor is responsible for submission of the notice of termination of the VSMP permit. The VADEQ Notice of Termination can be found at: <http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMPPermits/ConstructionGeneralPermit.aspx> under subheading “Forms and Fees”.

In addition, per 9VAC25-870-55, one hard copy & CD of a construction record drawing for permanent stormwater management facilities shall be submitted to DPW ENRD. The construction record drawing shall be appropriately sealed and signed by a professional registered in the Commonwealth of Virginia certifying that the stormwater management facilities have been constructed in accordance with the approved plan.

DPW ENRD STORMWATER POINT OF CONTACT:

Name: Ms. Pamela Couch, MS4 Permit Compliance

Physical Location: Bldg 1442, 2nd Floor, Room 227

Mailing Address: 9430 Jackson Loop, Bldg 1442
Directorate of Public Works
Fort Belvoir, VA 22060

Telephone: 703-806-3406

Email: pamela.j.couch2.civ@mail.mil

Fort Belvoir Construction Project Status

Project Title	VSMPT PERMIT	Date Plans Approved	Date LDL Issued	Construction Start Date	Construction End Date	Area of Disturbance (acres)	Plan Reviewer/Inspector	Project Status	Comments & Notes
MAIN POST									
DMFWR Pet Grooming and Lodging Facility							K. Ross	Design (Criteria IIB)	65% Design Review comments submitted 8/14/14
Fort Belvoir Credit Union						0.55	K. Ross	Design (Criteria IIB)	65% Design Review comments submitted 8/26/14
DLA Visitor Control Center								Conceptual	
DAAF OSEG Skills Training Facility								Design (Criteria IIB)	Design kickoff meeting held 2/21/13
DLA Retail Fuel Facility							G. Hawes	Design (Criteria IIB)	Design kickoff meeting held November 2012
OSEG MILVAN Storage						Approx 17,000 sq ft	G. Hawes	Design (EISA 438)	25% submission 4/25/14; Comments provided 4/28/14
Hospital Communication Node							K. Ross	Design (Criteria IIB)	Comments provided on 9/5/14
Dogue Creek Playground						Approx 2 acres	K. Ross	Design (Criteria IIB, EISA 438)	Conceptual 1/20/13; Comments on 35% on 4/10/14

Fort Belvoir Construction Project Status

Project Title	VSMP PERMIT	Date Plans Approved	Date LDL Issued	Construction Start Date	Construction End Date	Area of Disturbance (acres)	Plan Reviewer/ Inspector	Project Status	Comments & Notes
Fort Belvoir Elementary School							G. Hawes	Design	Design kickoff held April 9, 2014
Bldg 808 - Dewitt Hospital Demolition								Design	Requires ESC Plan only
Bldg 1126 Parking						13,000 square feet		Design (EISA 438)	
South Post Fire Station	(2009) VAR10C809	23-Dec-13	23-Dec-13	1-Apr-14		1.83	G. Hawes	Under Construction	
CMS Landfill Work Plan								Design	Requires ESC Plan only

Fort Belvoir Construction Project Status

Project Title	VSMP PERMIT	Date Plans Approved	Date LDL Issued	Construction Start Date	Construction End Date	Area of Disturbance (acres)	Plan Reviewer/ Inspector	Project Status	Comments & Notes
INSCOM - SCIF Phase I Parking Garage	(2014) VAR101937 (2009) VAR10-14-100514	Early Grading & Demolition Phases I, A & B 24-Sept-13	27-Sep-13	1-Oct-13		4.42	G. Hawes / K. Ross	Under Construction	
INSCOM - SCIF Phase I Parking Garage	(2014) VAR101937 (2009) VAR10-14-100514	Rough Grading & Deomolition Phase 1C 4-Feb-14	Issued 8-Jan-14 Re-issued 5-March-14	4-Feb-14		6.67 additional acres	G. Hawes / K. Ross	Under Construction	
INSCOM - SCIF Phase I Parking Garage	(2014) VAR101937 (2009) VAR10-14-100514	Rough Grading & Demolition Phase 1D 1-April-14	Issued 14-April-14 Re-issued 30-April-14	5-May-14		6.10 additional acres	G. Hawes / K. Ross	Under Construction	
Alert Building	(2009) VAR10-11-100346	19-Aug-13	4-Sep-13	18 Sep 13		1.00	G.Hawes/W. Harback	Under Construction	

Fort Belvoir Construction Project Status

Project Title	VSMP PERMIT	Date Plans Approved	Date LDL Issued	Construction Start Date	Construction End Date	Area of Disturbance (acres)	Plan Reviewer/ Inspector	Project Status	Comments & Notes
Davison Army Airfield Fire Station Expansion	(2009) VAR10-13-101528	2-May-13	2-May-13	1-Jul-13		0.68	G. Hawes/K. Ross	Under Construction	Waiting Stabilization
Golf Course Reconfiguration							G. Hawes/	Design (Criteria IIC)	Redesign Meetings held on 7/29 - 7/30/14
DAAF Safety Re-Grading & Filling	(2014) VAR10G191	23-Jun-14	23-Jun-14			20.77	G. Hawes/	Plan Approved	
Privatization of Army Lodging (PAL) C - Staybridge Suites	(2014) VAR101745 (2009) VAR10-14-100299	2-Oct-13	2-Oct-13	Jan-14		6.69	G. Hawes	Under Construction	
Commissary							G. Hawes/	Design (Criteria IIC)	Comments submitted 7/3/13 on 90% design.
North Post Access Control Point (Lieber Gate)							C. Glassmoyer/ G. Hawes	Design (Criteria IIC)	Plan finalized. Contract bidders site visit 5/3/13. Awaiting reprogramming of funding.

Fort Belvoir Construction Project Status

Project Title	VSMF PERMIT	Date Plans Approved	Date LDL Issued	Construction Start Date	Construction End Date	Area of Disturbance (acres)	Plan Reviewer/ Inspector	Project Status	Comments & Notes
National Museum United States Army (NIMUSA)							G. Hawes	Design (Criteria IIC)	NCP submission in January 2013
Stream Restoration SRA-1 Meade Run							C. Glassmoyer, S. Vega/	Design Complete	Per Sybille on 7/18/12, Awaiting contract & wetlands permit
DFMWR Travel Camp	(2009) VAR10-12-101286	13-Jun-12	13-Jun-12	15-Jun-12	12-Jun-14	9.90	G. Hawes/ W. Harback	Completed	
AAFES Shoppette	(2009) VAR10-13-101522	3-Jan-11	2-Feb-11	7-Feb-11	8-Aug-13	3.10	C. Glassmoyer/ K. Ross	Completed	
Davison Army Airfield Flight Control Tower	(2009) VAR10-11-100794	22-Dec-12	22-Dec-12	19-Jan-11		1.86	C. Glassmoyer/ K. Ross	Under construction	Stockpile removal and awaiting final stabilization.

Fort Belvoir Construction Project Status

Project Title	VSMP PERMIT	Date Plans Approved	Date LDL Issued	Construction Start Date	Construction End Date	Area of Disturbance (acres)	Plan Reviewer/ Inspector	Project Status	Comments & Notes
Main Post Infrastructure Phase II - Gunston, Goethals & 9th Street		20-Jul-10	9-Jul-10	29-Jul-10	14-Jan-14	53.31	C. Glassmoyer/ G. Hawes	Completed	
DLA CDC Addition	(2009) VAR10-12-101032	26-Apr-12	26-Apr-12	10-Apr-12	May-13	1.49	M. Frisch/ K. Ross	Completed	
Mulligan Road - Phase II	(2014) VAR107606 (2009) VAR10-10-100522	20-Jan-12	29-Feb-12	19-Jan-12		63.90	C. Glassmoyer/ K. Ross	Under Construction	
USO Building	(2009) VAR10-11-101307	19-Apr-11	5-Jul-11	21-Dec-11	6-Feb-14	3.20	C. Glassmoyer/ G. Fleming	Completed	
ADF-E MVP-Site E							G. Hawes	Design (Criteria IIB)	Submitted to VADEQ on 9/16/13

Fort Belvoir Construction Project Status

Project Title	VSWP PERMIT	Date Plans Approved	Date LDL Issued	Construction Start Date	Construction End Date	Area of Disturbance (acres)	Plan Reviewer/ Inspector	Project Status	Comments & Notes
Woodlawn Village InFill ADA Units	(2009) VAR10-13-100513	12-Jan-11	12-Jan-11	Anticipated construction of houses Unknown		32.30	C. Glassmoyer/ G. Hawes/K. Ross	Area has been stabilized from initial site clearing. Silt fence and construction entrance in place. Houses are awaiting construction.	Lots 13 and 14 have been cleared and utilities have been installed. Excavation permit for 2 units (Lots 13&14) approved.
Buildings 2303, 2907 and 2903 Demolition	(2009) VAR10C686	24-Jan-14		27-Jan-14		8.30	P. Couch/G. Fleming		Waiting Stabilization
AMERICAN WATER									
Franklin Road Watermain Replacement (Kelvic)	(2009) VAR10-12-101348	21-Jul-12	24-Jul-12	2-Aug-13	28-Aug-13	1.36	Greg Hawes / G. Fleming	Completed	
Area 300 Water Upgrades (Bowen)	(2014) VAR101467 (2009) VAR10-11-100959	9-Aug-12	9-Aug-12	20-May-13		6.35	Greg Hawes G. Fleming	Under Construction	Awaiting Stabilization
McCree Barracks (Kelvic)	(2009) VAR10-13-100856	1-Mar-13	14-Mar-13	20-Mar-13	21-Nov-13	0.33	G. Hawes / G. Fleming	Completed	

Fort Belvoir Construction Project Status

Project Title	VSMPT PERMIT	Date Plans Approved	Date LDL Issued	Construction Start Date	Construction End Date	Area of Disturbance (acres)	Plan Reviewer/ Inspector	Project Status	Comments & Notes
Pohick Road (3 Phases) (Bowen)	(2014) VAR101467 (2009) VAR10-11-100959	18-Jun-13	18-Jun-13	24-Jun-13			G. Hawes / G. Fleming	Under Construction	Awaiting final stabilization.
DAAF Water (Bowen)	(2014) VAR101467 (2009) VAR10-11-100959	4-Sep-13	4-Sep-13	22-Jul-13		7.81	G. Hawes / G. Fleming	Under Construction	Awaiting final stabilization.
Woodlawn Sewer Replacement (Bowen)	(2014) VAR101467 (2009) VAR10-11-100959	30-May-14	30-May-14	26-Jun-14		0.14	G. Hawes / G. Fleming	Under Construction	
American Water administration Building (Williams)	(2014) VAR10C564	1-Apr-14	14-Apr-14	26-Apr-14		2.35	K. Ross / G. Fleming	Under Construction	
ISDC Water Storage Tank Replacements (#1190 16th Street, #2324 Commissary, #589 23rd Street)	(2014) VAR101467 (2009) VAR10-11-100959	18-Nov-13	19-Nov-13	21-Nov-13		4.00	G. Hawes/ G. Fleming	Under Construction	Rcvd IFC 8/2/13
FORT BELVOIR NORTH AREA (FBNA)									
EPG-Water Tank and Pump House (AKHI)	(2009) VAR10-10-100415	14-Sep-11	3-Oct-11	13-Jul-12		3.80	Glassmoyer, G. Hawes / P. Couch	Under Construction	Awaiting final stabilization.

Fort Belvoir Construction Project Status

Project Title	VSMPT PERMIT	Date Plans Approved	Date LDL Issued	Construction Start Date	Construction End Date	Area of Disturbance (acres)	Plan Reviewer/ Inspector	Project Status	Comments & Notes
CDC 124's Infrastructure (AKHI)	(2009) VAR10-10-100415	16-Oct-12	21-Mar-13	15-Apr-13		11.29	M. Frisch, G. Hawes / P. Couch	Under Construction	Entrance Road complete, stormwater pond repair, regrading and stabilization required
CDC 124 Building and Parking Lot	(2009) VAR10-13-101238	17-May-13	4-Sep-13	9-Sep-13		6.50	G. Hawes / P. Couch	Under Construction	Completing final grading and sodding
NCE Canine Care Facility								Conceptual	Conceptual Received 9/10/14
RIVANNA									
CDC 124	(2009) VAR10-13-100561	7-Sep-12	3-Dec-12	7-Dec-12	26-Sep-13	2.12	G. Hawes/ W. Harback	Completed	
Remote Delivery Facility	(2014) VAR10C564	14-Nov-14	14-Nov-14	2-Jan-14		1.20	G. Hawes/ W. Harback	Under Construction	

Fort Belvoir Erosion and Sediment Control Inspection Report

Project Name:	Project Authority:	<input type="checkbox"/> Scheduled Inspection	Date:
RLD Name:	RLD No.	<input type="checkbox"/> Post Rain Inspection	Time:
Project Location:	Attendees:	<input type="checkbox"/> Re-Inspection	
Inspector Name:		<input type="checkbox"/> Other	

Item #	State/Local Regulation ⁽¹⁾	Violation		Description & Location of Problem/Violation ⁽²⁾ , Required or Recommended Corrective Actions and Other Comments/Notes
		Initial	Repeat	
	MS-1 & 5			
	MS-2			
	MS-3			
	MS-4 & 6			
	MS- 7			
	MS-8, 9 & 11			
	MS-10			
	MS-12-15			
	MS-16			
	MS-17			
	MS-18			
	MS-19			

(1) Refers to applicable regulation found in the most recent publication of the *Virginia Erosion and Sediment Control Regulations* (9VAC25-840-40), *Virginia Stormwater Management Regulations* (9VAC25-870), or local ESC/SWM ordinance.

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

REQUIRED CORRECTIVE ACTION DEADLINE DATE:	Re-inspection Date:
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The required corrective action deadline date applies to **all violations** noted on this report. If listed violation(s) currently constitute non-compliance and/or required corrective actions are not completed by the deadline, 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 Signature:	Date:
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Acknowledgement of on site report incident:

Print Name	Signature	Date
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This report will be provided to the following parties via mail, fax or e-mail within 24 hours of inspection:



Fort Belvoir Directorate of Public Works Erosion & Sediment Control Technical Bulletin #1: DEWATERING OPERATIONS

APPLICABILITY

This bulletin is applicable to Garrison, Tenant and Contractor Operations for emergency and non-emergency dewatering operation.

BACKGROUND

In order to comply with the Virginia Pollution Discharge Elimination System, Virginia Stormwater Management Program (VSMP) Permits and the Virginia Erosion and Sediment Control (ESC) Regulations published by the Virginia Department of Environmental Quality (VADEQ) and the Virginia Department of Conservation and Recreation (VADCR), specific guidelines must be followed during dewatering operations on construction sites and during maintenance and repair operations to prevent unauthorized discharges of sediment into the Fort Belvoir storm sewer system and wetlands.

NOTIFICATION

For construction sites, when dewatering operations, either emergency or non-emergency, are to be employed, please contact the E&SC inspector that has been assigned to your project. All others may contact Ms. Pam Couch at 703-806-3406.

GENERAL CONSIDERATIONS

1. IN ALL INSTANCES, PUMPING DIRECTLY INTO THE STORM SEWER SYSTEM IS PROHIBITED!
2. The accumulated sediment which is removed from a dewatering device must be spread on-site and stabilized.
3. Furnishing materials necessary for meeting dewatering best management practice standards is the responsibility of the personnel performing the construction/maintenance activity.

BEST MANAGEMENT PRACTICES

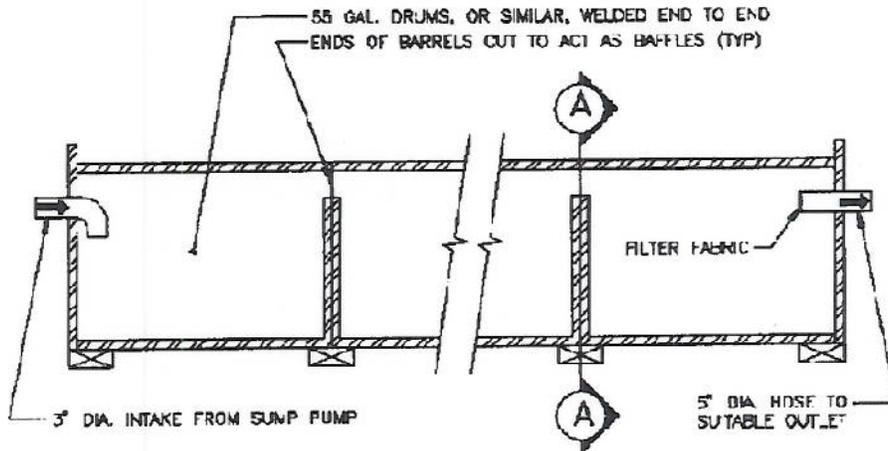
The following practices are examples of potential best management practices to meet the minimum standards and regulations from VADEQ and VADCR for use during both emergency and non-emergency dewatering operations

1. **Geotextile Silt Bag:** Direct all pump discharge into a geotextile silt bag. The following specifications must be followed to insure proper use of a silt bag:
 - The silt bag must be sized according to the pump size.
 - The silt bag must be located on top of non-erodible material. This can be well established grass, stone, pavement, etc. In no case can the silt bag be located on top of bare earth/mud.

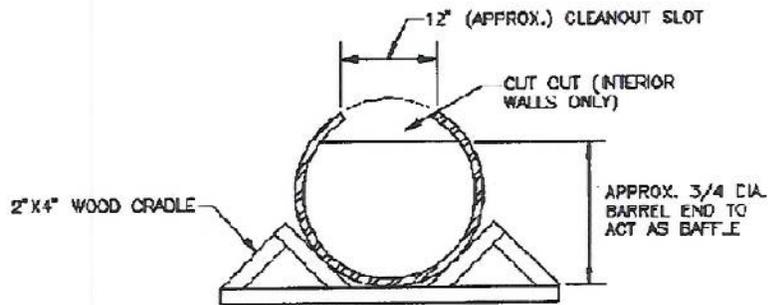
- If the silt bag is located adjacent to a stormwater structure (curb inlet, yard inlet, etc), another erosion and sediment control measure should be used on that structure to further filter the water. For example, if the silt bag is placed on the pavement next to a curb inlet, install stone inlet protection or a gutter buddy on the curb inlet for additional filtration.
 - The area where the silt bag is positioned must be flat or gently sloped to encourage the runoff to drain properly.
 - Ensure that the water runoff from the silt bag is not causing erosion.
 - Tie a water-tight connection between the hose and silt bag to prevent unfiltered water from leaving the silt bag.
 - The silt bag should be checked on a regular basis to ensure there is **CLEAR** water leaving it.
 - Replace the bag if it is damaged, when it no longer filters sediment (ie the exiting water is no longer clear), or is not passing water at a reasonable rate.
 - Once full, the silt bag can either be disposed of altogether or opened up and the sediment distributed back onsite and stabilized.
 - Restore the surface area beneath the bag to original condition upon removal of the silt bag.
2. **Existing Sediment Traps or Basins:** All pump discharge should be directed toward existing sediment traps or basins located within the construction site Limits of Disturbance (LOD) in such a manner not to cause bank erosion of the trap or basin.
- Pump discharge into the trap or basin should be directed toward the point furthest away from the outfall to allow for the settling out of sediment before the water reaches the outfall.
 - Discharging directly into outlet or riser is not authorized.
 - Additional slope and/or inlet protection may be warranted.
 - Existing sediment trap or basin must be properly maintained in accordance with Virginia Erosion and Sediment Control Handbook (VESCH) Standard and Specification 3.13 and 3.14.
3. **Filter Box (VESCH) Std & Spec 3.26, page III-241:** Direct all pump discharge through a filter box (DCR plate 3.26-2).
- Consult VESCH for design and construction of the filter box.
 - The discharge from the filter box must be directed onto an a well-established grass area a minimum distance of 50 feet between the discharge point and any channel.
 - Install gravel curb inlet sediment filters (DCR plate 3.07-6), or “rock socks”, to all curb inlets that may receive discharge water.
 - The device must be properly maintained in accordance with VESCH specifications to insure that the device adequately performs the function of sediment filtration.
4. **Portable Sediment Tank (VESCH Std & Spec 3.26, page III-239) :**Direct all pump discharge into a portable sediment tank (DCR plate 3.26-1).

- Consult VESCH for design and construction of the portable sediment tank.
 - Transport sediment tanks that have reached their capacity to a location within the construction site LOD and redistribute onsite.
 - The device must be properly maintained in accordance with VESCH specifications to insure that the device adequately performs the function of sediment filtration.
5. **Straw Bale/Silt Fence Pit (VESCH Std & Spec 3.26, page III-243):** For exceptionally large dewatering operations construct a straw bale/silt fence pit (DCR plate 3.26-3) in an area without underground utilities or environmental constraints. Install gravel curb inlet sediment filters (DCR plate 3.07-6), or “rock socks”, to all curb inlets that may receive discharge water.

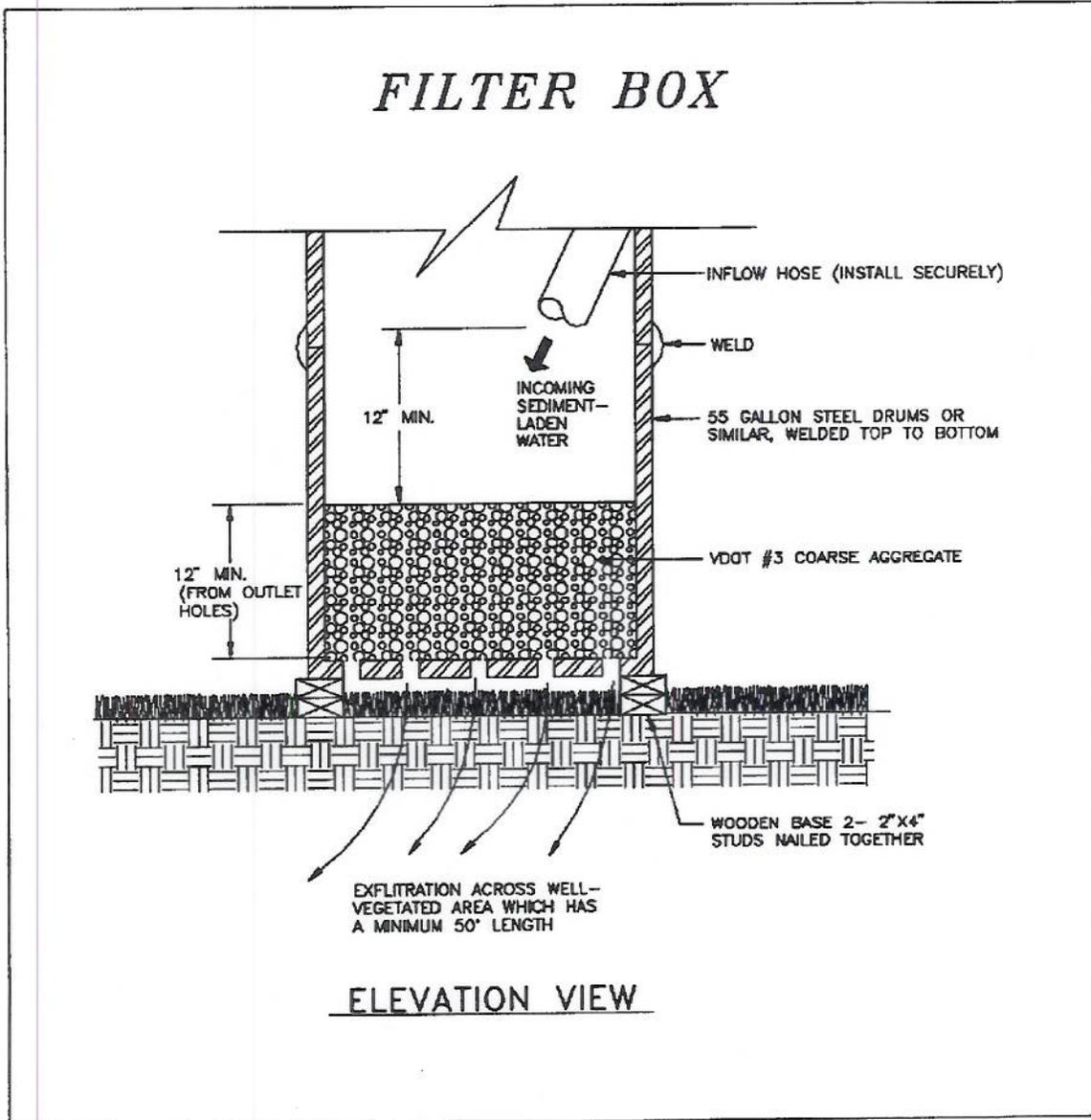
PORTABLE SEDIMENT TANK



ELEVATION



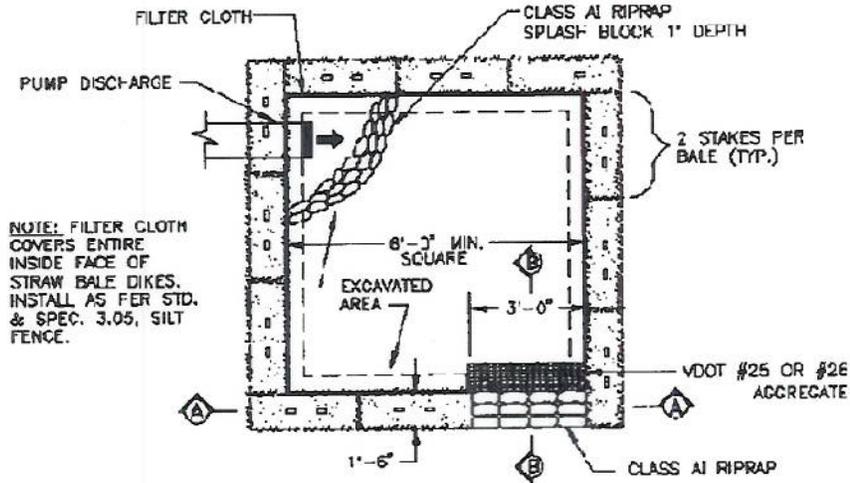
CROSS-SECTION A-A



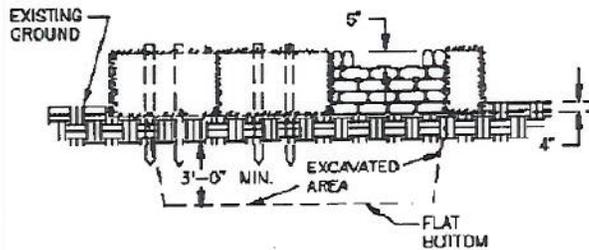
Source: Va. DSWC

Plate 3.26-2

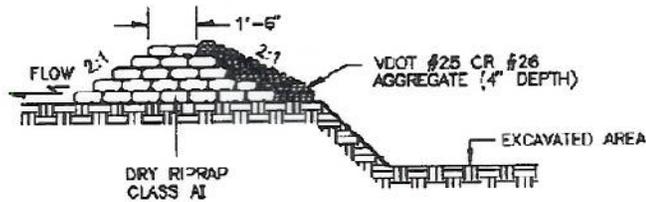
STRAW BALE/SILT FENCE PIT



PLAN VIEW



CROSS-SECTION A-A

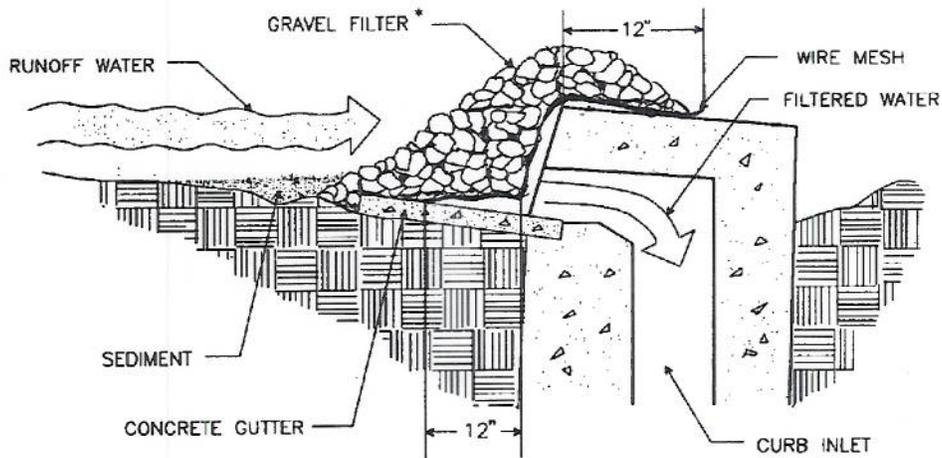
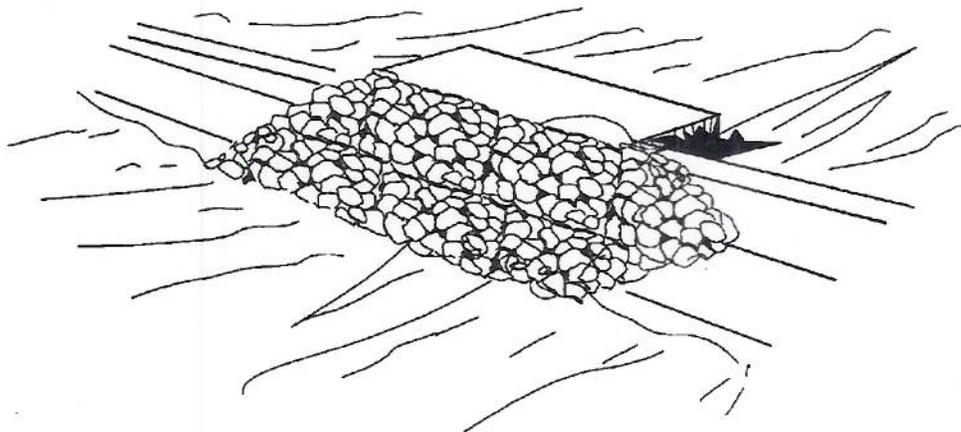


CROSS-SECTION B-B

Source: Va. DSWC

Plate 3.26-3

GRAVEL CURB INLET SEDIMENT FILTER



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

* GRAVEL SHALL BE VDOT #3, #357 OR 5 COARSE AGGREGATE.