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LAND DISTURBING PERMIT APPLICATION

SUBMISSION REQUIREMENTS FOR PROJECTS LESS THAN 1 ACRE OF DISTURBANCE (NOT PART OF A COMMON PLAN OF DEVELOPMENT)

DIVISION OF ZONING & DEVELOPMENT SERVICES
Third Floor – Court and Office Building
29 Ashby Street, Suite 310 Warrenton, VA 20186

Erosion & Sediment Phone: 540-422-8240
Community Development Phone: 540-422-8200
Facsimile: 540-422-8231

Items below are required for the Land Disturbance/Zoning Permit application:

- ☐ Land Disturbance/Zoning Permit Application with original signatures
  (If applicant is other than the property owner, applicant must submit proof of authority to act as agent for the owner in this application)
- ☐ Responsible Land Disturber (RLD) Certification
  http://www.deq.virginia.gov/ConnectWithDEQ/TrainingCertification/RLDGeneralInformation.aspx
- ☐ Two copies of the Erosion & Sediment Control narrative and plan
- ☐ VDOT entrance permit (540)347-6441
- ☐ Health Department Construction Permit (540) 347-6363
- ☐ Farm Structure Affidavit (if applicable)
  http://www.fauquiercounty.gov/home/showdocument?id=7064
- ☐ Single-Family Home Stormwater Pollution Prevention Plan (SWPPP)
  (land disturbance for 1 acre or more associated with SFHs only)
  http://www.fauquiercounty.gov/home/showdocument?id=13046
- ☐ Permits for Wetland Impacts, or Pond/stream work will require additional permitting from the US Army Corp of Engineers and/or Virginia Department of Environmental Quality). Contact Anna Lawston at (540)764-4459 or at Anna.R.Lawston@usace.army.mil
- ☐ Minimum Standard 19 requirements: three cross-sections & calculations for areas of concentrated flow. *Example- stream crossings, replacing existing pipe is not exempt from this criteria*.
- ☐ Floodplain certification – required for crossings and access built in floodplain
- ☐ Thumb drive containing individual PDFs of all submission materials
- ☐ Fees
  - ☐ Land Disturbance Permit fee - $200.00 + $50.00 x (acres) = $_____
  - ☐ Zoning Permit fee - = $ 75.00
  - ☐ Land Disturbing w/out permit fee (if applicable) $250 = $_____

Total Amount Due: = $_____

Revised 3/4/20

LAND DISTURBING PERMIT APPLICATION

Zoning Permit #: _____
Land Disturbing Permit #: _____

DIVISION OF ZONING & DEVELOPMENT SERVICES
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29 Ashby Street, Suite 310 Warrenton, VA 20186

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Application is made for a land disturbing permit in accord with the description and for the purposes hereinafter set forth and in accordance with the Fauquier County E&S and SWM Control Ordinance, adopted June 12, 2014, as amended, and Section 13-501 of the Fauquier County Zoning Ordinance.

☐ Land Disturbing Permit ☐ Supplemental Land Disturbing Plan ☐ Stop Work Reinstatement
☐ Zoning Permit ☐ Annual LDP Maintenance Renewal Fee ☐ Notice to Comply Fee
☐ Annual State Maintenance Renewal Fee ☐ Other: _____

Project Name: _____ Approved Site Plan Case No.:_____
Project Location (Rte. /St#):_____ PIN #:_____
Acreage to be Disturbed: _____ Project Completion Date: _____
Provide a brief description of the type of work (ex: building a road or driveway, single family home) and the land area involved (square feet, acres, length of road):

_____
_____

DESIGNATED RESPONSIBLE LAND DISTURBER	
Name: _____	Certificate No.: _____
Address: _____	Phone: _____
_____	Email Address:_____

As owner, I hereby certify that:

- I have read and examined this application and know the information provided is true and correct.
- I agree to comply with the Erosion and Sediment Control Plan, approved by the County and with the Fauquier County Stormwater Management & Erosion and Sediment Control Ordinance.
- I further grant right-of-entry onto the property described above and in that attached plan, to the agents and employees of Fauquier County for purposes of inspection or monitoring of the installation or re-installation, of erosion and sediment control measures.
- I further agree to comply with all applicable provisions of the Fauquier County Zoning ordinance for purposes of satisfying Section 13-501 of the Fauquier County Zoning Ordinances.

I understand that the issuance of this Land Disturbing Permit under the provisions of Chapter 11 of the Code of Fauquier County in no way guarantees or vests me with any other type of administrative or legislative permit approval in regard to this property, which is the subject of the Land Disturbing Permit. I agree to comply with the inspection and monitoring report schedule that has been/or will be set for me during the Erosion and Sediment Control Plan review process.

OWNER	APPLICANT
Name: _____	Name: _____
Address: _____	Address: _____
Phone: _____	Phone: _____
Email address: _____	Email address: _____
_____ _____	_____ _____
Owner's Signature Date	Applicant's Signature Date

Revised 3/4/20

FOR OFFICIAL USE ONLY: ZONING	
Zoning Permit # _____ LDP Plan Review Case # _____	
Zoning Designation:_____ Required Setbacks – Front: _____ Side:_____ Rear:_____	
Do the following apply to the property? Floodplain: □ No □ Yes BOS Easement: □ No □ Yes Proffers: □ No □ Yes…Case #: _____ Site Plan: □ No □ Yes…Case #: _____ SP or SE: □ No □ Yes…Case #: _____	Notes/Comments For Permit:
_____/ _____ Signature: Zoning Administrator/Staff Date	

Erosion and Sediment Control Checklist for disturbances less than 1 acre

The requirements set forth in this checklist have been adapted from the Virginia Erosion and Sediment Control Handbook (VESCH). A copy of this checklist must be submitted with the land disturbing permit application.

Please read through the E&S narrative below and acknowledge you read these statements with your signature below:

- Minimum Standards 1-19 (attached) from the VESCH will be followed when implementing this plan.
- The E&S Inspector has the ***Authority*** to add or delete E&S controls as necessary in the field as site conditions change. In addition, no E&S controls can be removed without written authorization.
- If a permanent stream crossing is to be installed as a part of this plan, calculations on the adequacy of the culverts used will need to be provided. (Minimum Standard 19)
- Permanent stabilization of the site will be accomplished following the guidelines in tables 3.31B, 3.32D, and 3.35A of the VESCH (tables attached).
- Perimeter sediment trapping measures must be installed on site as a first step. (Minimum Standard 4)
- Once this plan has been approved, a pre-construction conference must be coordinated with an E&S inspector at 422-8240 by the applicant.
- If the RLD changes, notify our office in writing within 7 days with the new RLD information.
- Disturbance beyond the approved limits of clearing and grading will require an amendment to the existing approved plan and **an additional $250.00 fee for disturbing outside limits of clearing and grading.**
- MS-19 calculations and 3 cross sections are required at areas of concentrated flow. ***Existing pipes are not exempt from this criteria.***
- E&S control will be maintained per standards and specifications set forth in the Virginia E&S handbook and/or as required by the E&S inspector. (9VAC25-840)
- If land disturbance exceeds 1 acre, an engineered E&S and SWM plan will be required to be submitted for review as required in the SWM and E&S ordinance approved June 12, 2014.

Please acknowledge you have read the above items with your signature below:

Signature:_____ **Date:**_____

PLAN PREPARATION

Part I: NARRATIVE

Project description – Briefly describes the nature and purpose of the land-disturbing activity (Chapter 6, VESCH).

To include:

_____Total acreage of site

_____Total disturbed acreage

_____How many acres will be permanently stabilized with grass or other vegetation?

_____Provide detailed directions to the site (Google Map/ Mapquest can be used)

_____

_____

_____

_____

Off-site-areas – Describe any off-site land-disturbing activities that will occur (including borrow sites, waste or stockpile areas, etc.) (9VAC25-840-80, Chapter 8, VESCH).

_____Does the site balance in regards to amount of cut and fill?

_____Will offsite areas be used as a borrow area or stockpile?

_____If soil is to be taken off site; an Offsite Soil Tracking Form will be required

_____Soil being taken to another site or brought from another site should always be permitted.

_____Is the stockpile going to be temporary or permanent? Stockpiles are permanent if they will remain in the same location for a year. There are zoning restrictions for stockpiles.

_____

_____

_____

_____

Adjacent areas – A description of neighboring areas such as streams, lakes, residential areas, roads, etc., which might be affected by the land disturbance (Chapter 6, VESCH). Include all adjacent sensitive areas such as wetlands or water bodies.

_____

_____

_____

_____

Critical areas – A description of areas on the site which have potentially serious erosion problems (Chapter 6, VESCH).

_____
_____
_____
_____

Construction Phasing – Explain the phasing of the project incorporating installation of E&S controls and required stabilization.

_____
_____
_____
_____

Stream Crossing Installation- (MS-12 thru 15, Std. 3.24- if a permanent stream crossing is needed, calculations on the adequacy of culverts will need to be provided by an engineer)
Include the type of diversion needs to be provided. How will the work be done in the dry? What type of crossing will be used? Include the stabilization and/or removal process.

_____
_____
_____
_____

Minimum Standard 19 Conclusion: *3 cross sections are required
Adequate channel means a channel that will convey the designated frequency storm event without overtopping the channel bank nor causing erosive damage to the channel bed or banks.
Existing pipes are not exempt from this criteria.

_____
_____
_____
_____

Part II: SITE PLAN –*Aerial, plats, topo maps can be used.*

Provide a site plan that will be a graphical representation of the site from a "bird's eye" point of view. All applicable items below should be provided on one plat or aerial photo.

Provide the following items and/or show all of the applicable items on the E&S plan: *The E&S plan should be at a scale of at least 1" = 200'* (Chapter 6, VESCH)	
Identify all erosion & sediment controls that will be used onsite: *Recommended Symbols to be used: -- -- -- -- -- -- -- (dashed lines) Limits of clearing and grading –X—X—X—X—X Silt fence (SF) 00000000000 Construction entrance (CE) 00000000000	
☐ Limits of clearing and grading (all disturbed areas should be included) ☐ House site ☐ Accessory structures (barns, sheds, etc) ☐ Riding rings ☐ Driveway ☐ Drainfields ☐ Construction entrance at all access points ☐ Staging areas "equipment or parking area" ☐ Stockpile/borrow areas ☐ Areas of safety fence (drainfield location) ☐ Existing conditions (aerial photo) ☐ Existing vegetation (tree line, grassed area, or unique vegetation)	☐ Phase 1 E&S controls ☐ Offsite stockpile areas ☐ Well installation ☐ Power line/utility installation ☐ Stream crossings ☐ Drainage/Utility easements if available ☐ Critical areas (streams, wetlands, channels, etc.) ☐ Existing contours : provide a topographic map ☐ Final contours ☐ Vicinity map ☐ Provide north arrow on each plan sheet

E&S Controls Used onsite (additional controls may be required depending on the site)

- **Construction Entrance (STD & SPEC 3.02):** A stabilized stone pad with filter fabric underliner located at points of vehicular ingress and egress on a construction site.
- **Silt fence (STD & SPEC 3.05):** A temporary sediment barrier consisting of a synthetic filter fabric stretched across and attached to supporting posts and entrenched.
- **Berm (STD & SPEC 3.09):** A temporary ridge of compacted soil constructed at the top or base of a sloping disturbed area – used in conjunction with sediment trap or check dam based on drainage area.
- **Sediment trap (STD & SPEC 3.13):** A temporary ponding area formed by constructing an earthen embankment with a stone outlet
- **Culvert inlet protection (STD & SPEC. 3.09):** A sediment filter located at the inlet to storm sewer culverts.
- **Outlet protection (STD & SPEC. 3.18):** Structurally lined aprons or other acceptable energy dissipating devices placed at the outlets of pipes or paved channel sections.

Please acknowledge you have read the above items with your signature below:

Signature:_____ **Date:**_____

Provide soils information *– A brief description of the soils on the site giving such information as (Chapter 6, VESCH): Interpretive Type 1 Soils Guide can be found at http://www.fauquiercounty.gov/home/showdocument?id=7292

- **If land disturbance is occurring in soil locations that are identified potentially hydric inclusions or hydric may require additional requirements for the Corp of Engineers. Please contact our office to discuss what is required.**

Mapping Unit	Soil Name	Erodibility	Permeability	Depth	Texture	Soil Structure	Hydric or Hydric Inclusions

*Specify micaceous soils *Specify high water table soils

Temporary Stabilization: Std. & Spec. 3.31

Areas that will be denuded for more than 14 days will be temporarily seeded with appropriate annual plants. These areas may include but not limited to denuded areas, soil stockpiles, dikes, and temporary roadbanks, etc.

Maintenance

Stabilized areas will be inspected weekly and after storm events until a dense cover of vegetation has become established. Areas which fail to establish vegetative cover adequately will be reseeded as soon as such areas are identified.

TABLE 3.31-B

ACCEPTABLE TEMPORARY SEEDING PLANT MATERIALS

"QUICK REFERENCE FOR ALL REGIONS"

Planting Dates	Species	Rate (lbs./acre)
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass (Lolium multi-florum) & Cereal (Winter) Rye (Secale cereale)	50 - 100
Feb. 16 - Apr. 30	Annual Ryegrass (Lolium multi-florum)	60 - 100
May 1 - Aug 31	German Millet (Setaria italica)	50

Source: Va. DSWC

Final / Permanent Stabilization: Std. & Spec. 3.32

Areas that are at final grade will be stabilized within 7 days with the appropriate permanent perennial plants.

Maintenance

All seeded areas will be inspected weekly during construction activities for failure and after storm events until a dense cover of vegetation has been established. If failure is noticed at the seeded area, the area will be reseeded, fertilized, and mulched immediately. After construction is completed at the site, permanently stabilized areas will be monitored until final stabilization is achieved.

1992 3.32

TABLE 3.32-D
SITE SPECIFIC SEEDING MIXTURES FOR PIEDMONT AREA

	Total Lbs. Per Acre
Minimum Care Lawn	
- Commercial or Residential	175-200 lbs.
- Kentucky 31 or Turf-Type Tall Fescue	95-100%
- Improved Perennial Ryegrass	0-5%
- Kentucky Bluegrass	0-5%
High-Maintenance Lawn	200-250 lbs.
- Kentucky 31 or Turf-Type Tall Fescue	100%
General Slope (3:1 or less)	
- Kentucky 31 Fescue	128 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop *	20 lbs.
	150 lbs.
Low-Maintenance Slope (Steeper than 3:1)	
- Kentucky 31 Fescue	108 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop *	20 lbs.
- Crownvetch **	20 lbs.
	150 lbs.

* Use seasonal nurse crop in accordance with seeding dates as stated below:
February 16th through April ..... Annual Rye
May 1st through August 15th ..... Foxtail Millet
August 16th through October ..... Annual Rye
November through February 15th ..... Winter Rye

** Substitute Sericea lespedeza for Crownvetch east of Farmville, Va. (May through September use hulled Sericea, all other periods, use unhulled Sericea). If Flatpea is used in lieu of Crownvetch, increase rate to 30 lbs./acre. All legume seed must be properly inoculated. Weeping Lovegrass may be added to any slope or low-maintenance mix during warmer seeding periods; add 10-20 lbs./acre in mixes.

Mulching: Std and Spec. 3.35

Mulching with seed will provide a temporary cover for immediate protection to exposed soil until there is vegetative growth.

Maintenance

Mulched areas will be inspected weekly and after storm events to check for washout or erosion. Mulch will be re-applied if areas of failure are identified.

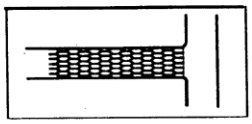
TABLE 3.35-A

ORGANIC MULCH MATERIALS AND APPLICATION RATES

MULCHES:	RATES:		NOTES:
	Per Acre	Per 1000 sq. ft.	
Straw or Hay	1½ - 2 tons (Minimum 2 tons for winter cover)	70 - 90 lbs.	Free from weeds and coarse matter. Must be anchored. Spread with mulch blower or by hand.
Fiber Mulch	Minimum 1500 lbs.	35 lbs.	Do not use as mulch for winter cover or during hot, dry periods.* Apply as slurry.
Corn Stalks	4 - 6 tons	185 - 275 lbs.	Cut or shredded in 4-6" lengths. Air-dried. Do not use in fine turf areas. Apply with mulch blower or by hand.
Wood Chips	4 - 6 tons	185 - 275 lbs.	Free of coarse matter. Air-dried. Treat with 12 lbs nitrogen per ton. Do not use in fine turf areas. Apply with mulch blower, chip handler, or by hand.
Bark Chips or Shredded Bark	50 - 70 cu. yds.	1-2 cu. yds.	Free of coarse matter. Air-dried. Do not use in fine turf areas. Apply with mulch blower, chip handler, or by hand.

* When fiber mulch is the only available mulch during periods when straw should be used, apply at a minimum rate of 2000 lbs./ac. or 45 lbs./1000 sq. ft.

STD & SPEC 3.02



TEMPORARY STONE CONSTRUCTION ENTRANCE

CE

Definition

A stabilized stone pad with a filter fabric underliner located at points of vehicular ingress and egress on a construction site.

Purpose

To reduce the amount of mud transported onto paved public roads by motor vehicles or runoff.

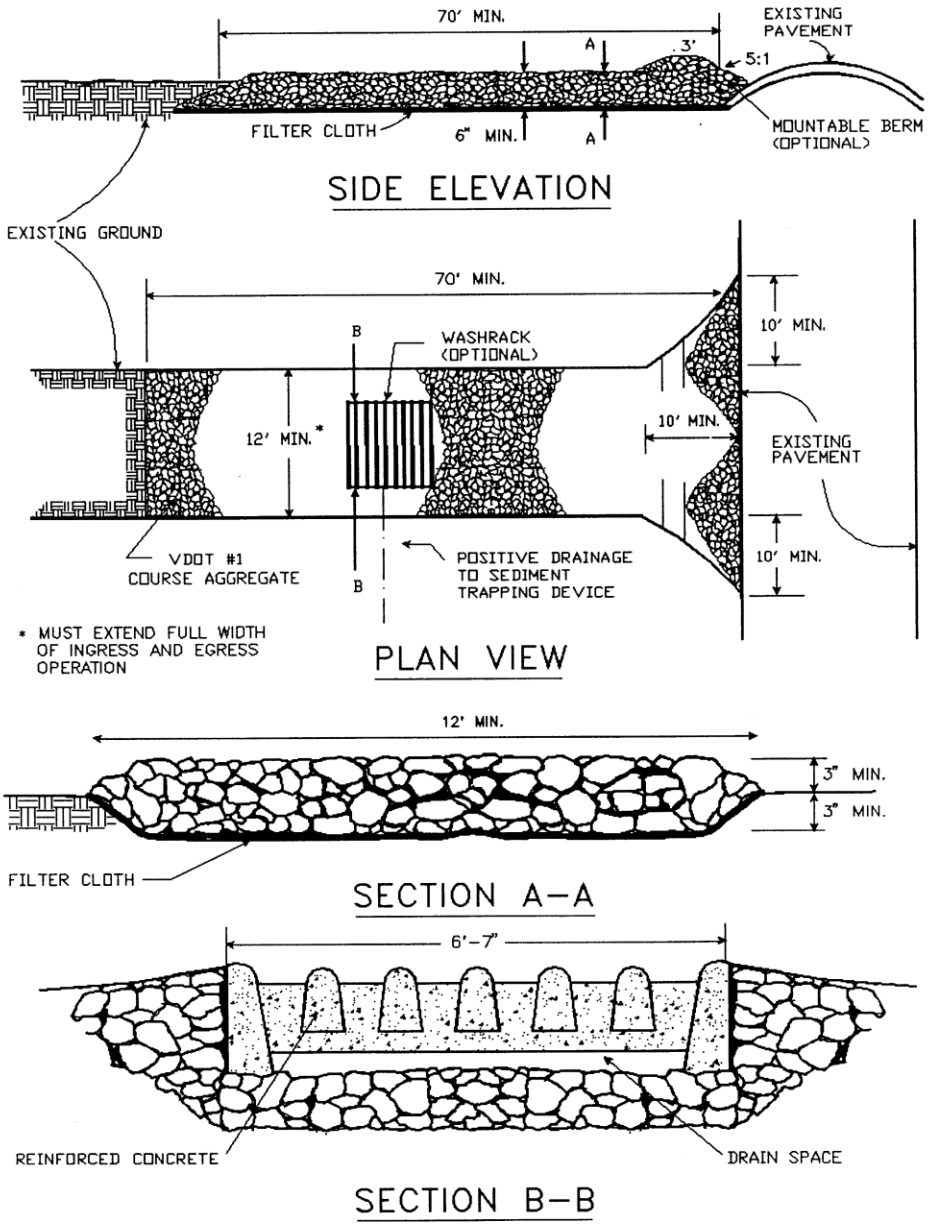
Conditions Where Practice Applies

Wherever traffic will be leaving a construction site and move directly onto a public road or other paved area.

Maintenance

The entrance shall be maintained in a condition which will prevent tracking or flow of mud onto public rights-of-way. This may require periodic top dressing with additional stone or the washing and reworking of existing stone as conditions demand and repair and/or cleanout of any structures used to trap sediment. All materials spilled, dropped, washed, or tracked from vehicles onto roadways or into storm drains must be removed immediately. The use of water trucks to remove materials dropped, washed, or tracked onto roadways will not be permitted under any circumstances.

STONE CONSTRUCTION ENTRANCE



Source: Adapted from 1983 Maryland Standards for Soil Erosion and Sediment Control, and Va. DSWC

Plate 3.02-1

TABLE 3.02-A

CONSTRUCTION SPECIFICATIONS FOR FILTER CLOTH UNDERLINER

Fabric Properties[1]	Light-Duty Entrance[2] (Graded Subgrade)	Heavy-Duty Entrance[3] (Rough Graded)	Test Method
Grab Tensile Strength (lbs.)	200	220	ASTM D1682
Elongation at Failure (%)	50	220	ASTM D1682
Mullen Burst Strength (lbs.)	190	430	ASTM D3786
Puncture Strength (lbs.)	40	125	ASTM D751 (modified)
Equivalent Opening Size (mm)	40-80	40-80	U.S. Standard Sieve CW-02215

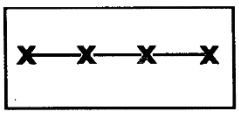
[1] Fabrics not meeting these specifications may be used only when design procedure and supporting documentation are supplied to determine aggregate depth and fabric strength.

[2] Light Duty Entrance: Sites that have been graded to subgrade and where most travel would be single axle vehicles and an occasional multi-axle truck. Examples of fabrics which can be used are: Trevira Spunbond 1115, Mirafi 100X, Typar 3401, or equivalent.

[3] Heavy Duty Entrance: Sites with only rough grading and where most travel would be multi-axle vehicles. Examples of fabrics which can be used are: Trevira Spunbond 1135, Mirafi 600X, or equivalent.

Source: Virginia Highway and Transportation Research Council (VHTRC)

STD & SPEC 3.05



SILT FENCE

SF

Definition

A temporary sediment barrier consisting of a synthetic filter fabric stretched across and attached to supporting posts and entrenched.

Purposes

1. To intercept and detain small amounts of sediment from disturbed areas during construction operations in order to prevent sediment from leaving the site.

2. To decrease the velocity of sheet flows and low-to-moderate level channel flows.

Conditions Where Practice Applies

1. Below disturbed areas where erosion would occur in the form of sheet and rill erosion.

2. Where the size of the drainage area is no more than one quarter acre per 100 feet of silt fence length; the maximum slope length behind the barrier is 100 feet; and the maximum gradient behind the barrier is 50 percent (2:1).

3. In minor swales or ditch lines where the maximum contributing drainage area is no greater than 1 acre and flow is no greater than 1 cfs.

4. Silt fence will not be used in areas where rock or some other hard surface prevents the full and uniform depth anchoring of the barrier.

Maintenance

1. Silt fences shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately.

2. Close attention shall be paid to the repair of damaged silt fence resulting from end runs and undercutting.

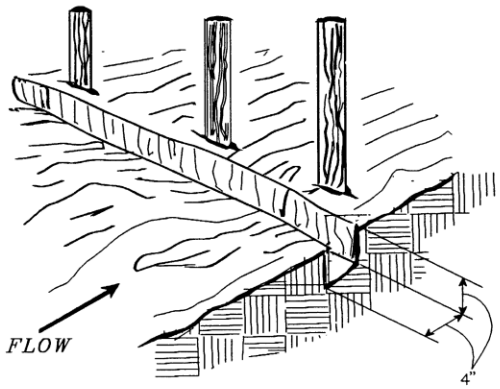
3. Should the fabric on a silt fence decompose or become ineffective prior to the end of the expected usable life and the barrier still be necessary, the fabric shall be replaced promptly.

4. Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately one-half the height of the barrier.

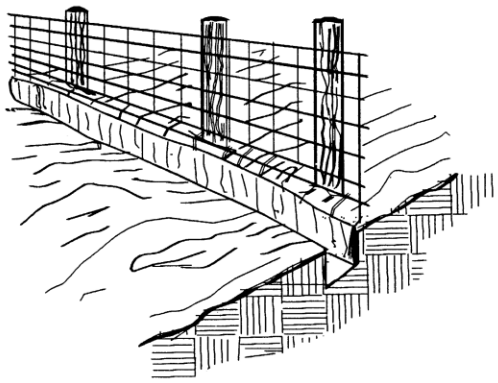
5. Any sediment deposits remaining in place after the silt fence is no longer required shall be dressed to conform with the existing grade, prepared and seeded.

CONSTRUCTION OF A SILT FENCE (WITH WIRE SUPPORT)

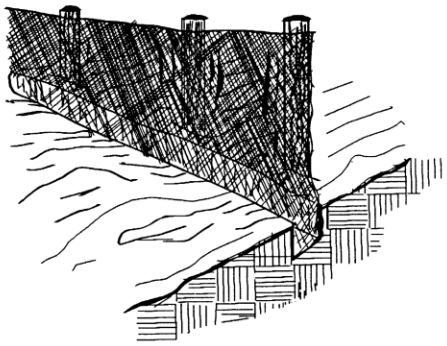
1. SET POSTS AND EXCAVATE A 4"X4" TRENCH UPSLOPE ALONG THE LINE OF POSTS.



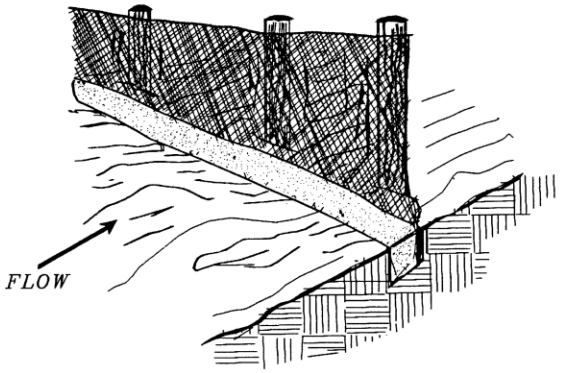
2. STAPLE WIRE FENCING TO THE POSTS.



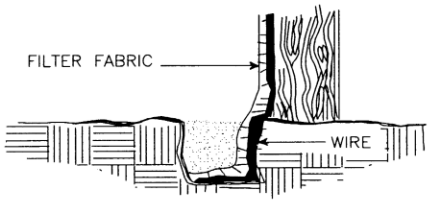
3. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH.



4. BACKFILL AND COMPACT THE EXCAVATED SOIL.



EXTENSION OF FABRIC AND WIRE INTO THE TRENCH.



Source: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant

Plate 3.05-1

III - 24

9VAC25-840-40
Minimum Standards

A VESCP must be consistent with the following criteria, techniques and methods:

1. Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site. Temporary soil stabilization shall be applied within seven days to denuded areas that may not be at final grade but will remain dormant for longer than 14 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.

2. During construction of the project, soil stock piles and borrow areas shall be stabilized or protected with sediment trapping measures. The applicant is responsible for the temporary protection and permanent stabilization of all soil stockpiles on site as well as borrow areas and soil intentionally transported from the project site.

3. A permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized. Permanent vegetation shall not be considered established until a ground cover is achieved that is uniform, mature enough to survive and will inhibit erosion.

4. Sediment basins and traps, perimeter dikes, sediment barriers and other measures intended to trap sediment shall be constructed as a first step in any land-disturbing activity and shall be made functional before upslope land disturbance takes place.

5. Stabilization measures shall be applied to earthen structures such as dams, dikes and diversions immediately after installation.

6. Sediment traps and sediment basins shall be designed and constructed based upon the total drainage area to be served by the trap or basin.

a. The minimum storage capacity of a sediment trap shall be 134 cubic yards per acre of drainage area and the trap shall only control drainage areas less than three acres.

b. Surface runoff from disturbed areas that is comprised of flow from drainage areas greater than or equal to three acres shall be controlled by a sediment basin. The minimum storage capacity of a sediment basin shall be 134 cubic yards per acre of drainage area. The outfall system shall, at a minimum, maintain the structural integrity of the basin during a 25-year storm of 24-hour duration. Runoff coefficients used in runoff calculations shall correspond to a bare earth condition or those conditions expected to exist while the sediment basin is utilized.

7. Cut and fill slopes shall be designed and constructed in a manner that will minimize erosion. Slopes that are found to be eroding excessively within one year of permanent stabilization shall be provided with additional slope stabilizing measures until the problem is corrected.

8. Concentrated runoff shall not flow down cut or fill slopes unless contained within an adequate temporary or permanent channel, flume or slope drain structure.

9. Whenever water seeps from a slope face, adequate drainage or other protection shall be provided.

10. All storm sewer inlets that are made operable during construction shall be protected so that sediment laden water cannot enter the conveyance system without first being filtered or otherwise treated to remove sediment.

11. Before newly constructed stormwater conveyance channels or pipes are made operational, adequate outlet protection and any required temporary or permanent channel lining shall be installed in both the conveyance channel and receiving channel.

12. When work in a live watercourse is performed, precautions shall be taken to minimize encroachment, control sediment transport and stabilize the work area to the greatest extent possible during construction. Nonerodible material shall be used for the construction of causeways and cofferdams. Earthen fill may be used for these structures if armored by nonerodible cover materials.

13. When a live watercourse must be crossed by construction vehicles more than twice in any six-month period, a temporary vehicular stream crossing constructed of nonerodible material shall be provided.

14. All applicable federal, state and local requirements pertaining to working in or crossing live watercourses shall be met.

15. The bed and banks of a watercourse shall be stabilized immediately after work in the watercourse is completed.

16. Underground utility lines shall be installed in accordance with the following standards in addition to other applicable criteria:

a. No more than 500 linear feet of trench may be opened at one time.

b. Excavated material shall be placed on the uphill side of trenches.

c. Effluent from dewatering operations shall be filtered or passed through an approved sediment trapping device, or both, and discharged in a manner that does not adversely affect flowing streams or off-site property.

d. Material used for backfilling trenches shall be properly compacted in order to minimize erosion and promote stabilization.

e. Restabilization shall be accomplished in accordance with this chapter.

f. Applicable safety requirements shall be complied with.

17. Where construction vehicle access routes intersect paved or public roads, provisions shall be made to minimize the transport of sediment by vehicular tracking onto the paved surface. Where sediment is transported onto a paved or public road surface, the road surface shall be cleaned thoroughly at the end of each day. Sediment shall be removed from the roads by shoveling or sweeping and transported to a sediment control disposal area. Street washing shall be allowed only after sediment is removed in this manner. This provision shall apply to individual development lots as well as to larger land-disturbing activities.

18. All temporary erosion and sediment control measures shall be removed within 30 days after final site stabilization or after the temporary measures are no longer needed, unless otherwise authorized by the VESCP authority. Trapped sediment and the disturbed soil areas resulting from the disposition of temporary measures shall be permanently stabilized to prevent further erosion and sedimentation.

19. Properties and waterways downstream from development sites shall be protected from sediment deposition, erosion and damage due to increases in volume, velocity and peak flow rate of stormwater runoff for the stated frequency storm of 24-hour duration in accordance with the following standards and criteria. Stream restoration and relocation projects that incorporate natural channel design concepts are not man-made channels and shall be exempt from any flow rate capacity and velocity requirements for natural or man-made channels:

a. Concentrated stormwater runoff leaving a development site shall be discharged directly into an adequate natural or man-made receiving channel, pipe or storm sewer system. For those sites where runoff is discharged into a pipe or pipe system, downstream stability analyses at the outfall of the pipe or pipe system shall be performed.

b. Adequacy of all channels and pipes shall be verified in the following manner:

(1) The applicant shall demonstrate that the total drainage area to the point of analysis within the channel is one hundred times greater than the contributing drainage area of the project in question; or

(2)(a) Natural channels shall be analyzed by the use of a two-year storm to verify that stormwater will not overtop channel banks nor cause erosion of channel bed or banks.

(b) All previously constructed man-made channels shall be analyzed by the use of a ten-year storm to verify that stormwater will not overtop its banks and by the use of a two-year storm to demonstrate that stormwater will not cause erosion of channel bed or banks; and

(c) Pipes and storm sewer systems shall be analyzed by the use of a ten-year storm to verify that stormwater will be contained within the pipe or system.

c. If existing natural receiving channels or previously constructed man-made channels or pipes are not adequate, the applicant shall:

(1) Improve the channels to a condition where a ten-year storm will not overtop the banks and a two-year storm will not cause erosion to channel the bed or banks; or

(2) Improve the pipe or pipe system to a condition where the ten-year storm is contained within the appurtenances;

(3) Develop a site design that will not cause the pre-development peak runoff rate from a two-year storm to increase when runoff outfalls into a natural channel or will not cause the pre-development peak runoff rate from a ten-year storm to increase when runoff outfalls into a man-made channel; or

(4) Provide a combination of channel improvement, stormwater detention or other measures which is satisfactory to the VESCP authority to prevent downstream erosion.

d. The applicant shall provide evidence of permission to make the improvements.

e. All hydrologic analyses shall be based on the existing watershed characteristics and the ultimate development condition of the subject project.

f. If the applicant chooses an option that includes stormwater detention, he shall obtain approval from the VESCP of a plan for maintenance of the detention facilities. The plan shall set forth the maintenance requirements of the facility and the person responsible for performing the maintenance.

g. Outfall from a detention facility shall be discharged to a receiving channel, and energy dissipators shall be placed at the outfall of all detention facilities as necessary to provide a stabilized transition from the facility to the receiving channel.

h. All on-site channels must be verified to be adequate.

i. Increased volumes of sheet flows that may cause erosion or sedimentation on adjacent property shall be diverted to a stable outlet, adequate channel, pipe or pipe system, or to a detention facility.

j. In applying these stormwater management criteria, individual lots or parcels in a residential, commercial or industrial development shall not be considered to be separate development projects. Instead, the development, as a whole, shall be considered to be a single development project. Hydrologic parameters that reflect the ultimate development condition shall be used in all engineering calculations.

k. All measures used to protect properties and waterways shall be employed in a manner which minimizes impacts on the physical, chemical and biological integrity of rivers, streams and other waters of the state.

l. Any plan approved prior to July 1, 2014, that provides for stormwater management that addresses any flow rate capacity and velocity requirements for natural or man-made channels shall satisfy the flow rate capacity and velocity requirements for natural or man-made channels if the practices are designed to (i) detain the water quality volume and to release it over 48 hours; (ii) detain and release over a 24-hour period the expected rainfall resulting from the one year, 24-hour storm; and (iii) reduce the allowable peak flow rate resulting from the 1.5, 2, and 10-year, 24-hour storms to a level that is less than or equal to the peak flow rate from the site assuming it was in a good forested condition, achieved through multiplication of the forested peak flow rate by a reduction factor that is equal to the runoff volume from the site when it was in a good forested condition divided by the runoff volume from the site in its proposed condition, and shall be exempt from any flow rate capacity and velocity requirements for natural or man-made channels as defined in any regulations promulgated pursuant to § 62.1-44.15:54 or 62.1-44.15:65 of the Act.

m. For plans approved on and after July 1, 2014, the flow rate capacity and velocity requirements of § 62.1-44.15:52 A of the Act and this subsection shall be satisfied by compliance with water quantity requirements in the Stormwater Management Act (§62.1-44.15:24 et seq. of the Code of Virginia) and attendant regulations, unless such land-disturbing activities are in accordance with 9VAC25-870-48 of the Virginia Stormwater Management Program (VSMP) Regulations.

n. Compliance with the water quantity minimum standards set out in 4VAC50-60-66 of the Virginia Stormwater Management Program (VSMP) Permit Regulations shall be deemed to satisfy the requirements of subdivision 19 of this subsection.