MINIMUM STANDARDS FOR EROSION AND SEDIMENT CONTROL

MS-1 Any area that has reached final grade must receive temporary or permanent soil stabilization within seven days. Areas not at final grade that will remain dormant longer than 14 days must have temporary soil stabilization within seven days. Areas that will be dormant longer than one year must have permanent soil stabilization.

MS-2 All soil stockpiles and borrow areas must be stabilized or protected with sediment trapping measures. Temporary protection and permanent stabilization shall be applied to all on-site soil stockpiles and borrow areas and soil intentionally transported from the project site.

MS-3 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.

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

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

MS-6 Sediment basin and trap design information. **

MS-7 Cut and fill slopes must 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.

MS-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.

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

MS-10 Inlet protection is required for all storm inlets that will be made operable during construction

MS-11 Before newly constructed storm water conveyance systems are made operational, adequate outlet protection and any required channel lining must be installed in both the conveyance channel and receiving channel.

MS-12 When work in a live watercourse is performed, precautions must be taken to minimize encroachment, control sediment transport, and stabilize the work area to the greatest extent during construction. Non-erodible material shall be used for the construction of causeways and cofferdams. Earthen fill may be used if armored by non-erodible cover materials.

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

MS-16 Underground utility lines shall be installed in accordance with the following standards in additions 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 so that it 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. Re-stabilization shall be accomplished in accordance with these regulations.

f. Comply with all applicable safety regulations.

MS-17 Construction entrances are required at all access points to the construction site. 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 applies to individual development lots as well as to larger land-disturbing activities.

MS-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 local program authority. Trapped sediment and the disturbed soil areas resulting from the disposition of temporary measures must be permanently stabilized to prevent further erosion and sedimentation.

MS-19 Adequate outfall information **

** MS-6 and MS-19 deal with the design aspects of the plan. For further information, please consult the latest edition of the Virginia Erosion and Sediment Control Handbook. Also, refer to the sediment basin/trap design tables and the adequate outfall table located on the "Erosion and Sediment Control – Standard Details/Calcs." sheet.

Any variance to the above listed minimum standards must be requested and approved in writing.

UTILITY NOTES

All excavated material is to be placed on the uphill side of trench.

All storm and sanitary sewer lines not in streets are to be mulched and seeded within 7 days after backfill. No more than 500 feet of trench is to be open at one time.

Construction access roads shall be located on the uphill side of the trench or over the trench whenever possible.

All construction discharge water shall be adequately filtered to remove silt prior to discharge into waterways and wetlands.

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

All work must be in compliance with applicable safety regulations.

All stream crossings and stream diversions require approval from the Environmental Inspector prior to any instream work (see STREAM CROSSINGS / DIVERSIONS / WORK IN STREAMS).

SILT FENCE NOTES

Silt fence and filter fabric must be entrenched.

Posts for silt fences shall be either 2-inch diameter oak, 4-inch diameter pine or 1.33 pounds per linear foot steel. Posts will be a minimum of 5 feet in length. Steel posts shall have projections for fastening wire to them.

Wire fence reinforcement for silt fences using standard strength filter cloth shall be a minimum of 42 inches in height, a minimum of 14 gauge and shall have a maximum mesh spacing of 6 inches.

Post shall be spaced a maximum of 10 feet apart at the barrier location and driven securely into the ground (min. of 12 inches) when extra strength fabric is used. Without the wire support fence, post spacing shall not exceed 6 feet.

When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric is stapled or wired directly to the post.

Sediment must be removed when deposits reach approximately one – half the height of the barrier.

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

Under no circumstances should silt fence be installed in live streams.

Silt fence shall be removed upon completion of the project.

STREAM CROSSINGS / DIVERSIONS / WORK IN STREAMS

When a live watercourse must be crossed by construction vehicles or temporarily diverted, a plan/sketch showing appropriate details of the crossing/diversion must be submitted for approval to Goochland County's Stormwater Engineer prior to any work involving the stream. The plan shall include but is not limited to: all pipes, mats, channel details, erosion control devices, sequence for construction, etc. Guidelines for pipe diameters can be found in table 3.24-A of the Virginia Erosion and Sediment Control Handbook. Channel liners will be in accordance with Section 3.25 of the Handbook.

No motorized equipment will at any time be within a waterway unless supported by floatation equipment or a temporary construction pad composed of clean non-erodible material (rocks, rip-rap, mats).

Clearing and grubbing of wetland areas will be kept to a minimum. All wetlands temporarily disturbed during construction will be restored to their original elevation, by removing excess material, grading and seeding with a wetland seed mix. In no case shall wetland areas be reseeded with any species of fescue.

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

BMP INSPECTIONS / CERTIFICATIONS

Inspections of proposed BMPs must be conducted at two phases of construction – "rough grading" and "final conformance". County staff, the Developer or his/her representative, and the Developer's engineer should be present at the inspections.

The Developer or his/her representative is responsible for notifying the Environmental Inspector at the appropriate times during construction when the inspections should occur. Failure to request the inspections may result in delay of final acceptance of the BMP. Three inches of topsoil is required for areas of the BMP that will be stabilized with vegetation.

The Developer's Engineer/Surveyor will provide a letter of conformance once the final conformance inspection has been performed and all issues resolved.

Prior to release of the Erosion and Sediment Control bond, the Developer's Engineer/Surveyor will provide a BMP Certification using standard County forms.

RESPONSIBLE LAND DISTURBER (RLD) POLICY

As a prerequisite to engaging in the land-disturbing activities shown on this plan, the individual responsible for carrying out the plan and holding a certificate of competence shall be identified (the RLD).

The RLD will:

1. Attend the Pre-Construction meeting and sign the approved plans,
2. Inspect the ESC measures periodically at least once every two weeks, or within 48 hours of any runoff producing storm event,
3. For projects with site area of 1 acre or greater, submit inspection reports using a standard form supplied by the County to the Environmental Inspector listing all deficiencies or stating no deficiencies were found, and
4. Coordinate the implementation and maintenance of all erosion and sediment control measures in accordance with the approved plan.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

Goochland County's Environmental Inspector (804-657-2002) must be contacted at least 48 hours prior to any land disturbing activity.

All activities on the site must comply with Chapter 5 of the Goochland County Code.

All erosion and sediment control (ESC) measures must be placed prior to, or as the first step in grading. The preliminary limits of disturbance must be the minimum necessary to allow installation of the ESC measures and should include all areas necessary for installing the initial ESC measures, including stockpiles, borrow areas, staging areas, etc. Disturbance outside of the preliminary limits of land disturbance may not occur until the Environmental Inspector has approved the ESC measure installation.

If additional ESC devices are found necessary during construction, they must be installed as directed by the Environmental Inspector for Goochland County.

Unless otherwise approved by the Environmental Engineer, all runoff must drain to a sediment basin or trap during all phases of construction.

All ESC devices must be installed and maintained in accordance with the latest version of the Virginia Erosion and Sediment Control Handbook and the Virginia Erosion and Sediment Control Regulations.

A construction entrance must be constructed and properly maintained in accordance with Std. & Spec. 3.05 – Construction Entrance, in the latest version of the Virginia Erosion and Sediment Control Handbook. If mud tracking becomes a problem, the Environmental Inspector will require additional measures (i.e. wash rack).

If dust becomes a problem during construction, a water truck will be required on-site at all times, and dust must be controlled in accordance with Std. & Spec. 3.39 – Dust Control, in the latest version of the Virginia Erosion and Sediment Control Handbook.

Dewatering of footings, excavated trenches, sediment basins/traps, etc. must be done in accordance with Std. & Spec. 3.26 – Dewatering Structure, in the latest version of the Virginia Erosion and Sediment Control Handbook. The Environmental Inspector must approve the method prior to beginning dewatering.

All temporary stockpile locations must be shown on the plan. Stockpiles may remain in place one year from the final plan approval date, unless the POD Administrator grants an extension in response to a written request.

Any soil or fill material intentionally transported from the project site must be taken to an approved location, such as an active landfill or other active site that is operating under an approved Erosion and Sediment Control Plan.

SEEDING NOTES

All stabilization/seeding will be accomplished in accordance with the Virginia Erosion and Sedimentation Control Handbook.

Any disturbed area not paved, sodded, or built upon, will have a vegetative cover prior to final inspection, and in the opinion of the Environmental Inspector will be mature enough to control soil erosion satisfactorily and survive severe weather conditions.

Stream diversion areas, waterways, banks, and related areas will be seeded and mulched immediately after work in watercourse is completed. In no case shall wetland areas be reseeded with any species of fescue.

Winterization – any disturbed area not paved, sodded, or built upon by October 15 is to be seeded and mulched on that date unless waived by the Environmental Inspector.

Permanent or temporary soil stabilization shall be applied to denuded areas with in seven (7) days after final grade is reached on any portion of the site. Temporary soil stabilization shall be applied within seven (7) days to denuded areas that may not be at final grade, but will remain dormant for longer than fourteen (14) days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.

Electric power, telephone, and gas supply trenches must be compacted, seeded, and mulched within 7 days after backfill.

All temporary earth berms, diversions, and silt dams are to be mulched and seeded for vegetative cover immediately after grading. Straw or hay mulch is required. The same applies to all stockpiles, on site as well as soil (intentionally) transported from the project site.

Nutrients shall be applied in accordance with manufacturer's recommendations or an approved nutrient management plan and shall not be applied during rainfall events.

WETLANDS, AND WATERS OF THE U.S.

Prior to beginning any land disturbing activity, all wetlands, and Waters of the U.S. (WOUS) not permitted for impact shall be delineated for protection with orange safety fence or non-tearable yellow and black barricade tape. This includes, but is not limited to, clearing limits associated with roadways, utilities, and buildings.

Additional restoration or replanting may be required for wetlands, and WOUS disturbed during construction.

ENVIRONMENTAL SITE ASSESSMENT INFORMATION

Plans must accurately show all wetland and other environmentally sensitive features.

ENVIRONMENTAL SITE INFORMATION:

1. Are there any wetlands/waters of the United States located on the parcel? ..... YES NO
2. Is development or land disturbance proposed in any wetlands/waters of the United States? ..... YES NO
3. Are there any floodplains located on the parcel? ..... YES NO
4. Is development or land disturbance proposed in any floodplain on the parcel? ..... YES NO
5. Are there any buffers located on the parcel? ..... YES NO
6. Is development or land disturbance proposed in any buffers? ..... YES NO

Parcels containing wetlands, floodplains and buffers must satisfy all requirements of the Goochland County Code. Land disturbance in wetlands and/or waters of the United States requires either a evidence of U.S. Army Corps of Engineers/Virginia Department of Environmental Quality (DEQ) permits or a certification from a principal in the engineering firm that the proposed wetland impacts are authorized by law.

I hereby certify that the above information is based on a field visit at (project name)

_____

performed on _____
and that I have reviewed all maps and other documentation deemed necessary to certify the accuracy of this information.

_____
Signature

_____
Name (please print)

_____
Date

My Virginia License or Certificate Number is:_____

ACKNOWLEDGMENTS

I hereby acknowledge that prior to any land disturbing activity, all buffer areas and wetlands as defined in the Goochland County code shall be conspicuously flagged or otherwise identified and not disturbed unless authorized by law, and that the applicant shall notify the Environment and Land Development Department upon completion of flagging. (Contact the Environmental Inspector at (804) 657-2002 to arrange a pre-construction meeting to verify the limits of flagging.)

I hereby certify that no more land is being disturbed than is necessary to provide for the desired development use.

I hereby certify that all erosion and sediment control measures shall be maintained, and the owner and/or agent will inspect the erosion and sediment control measures at least once every two week period, and within 48 hours following rainstorm events during construction to ensure compliance with the approved plan. Records of self-inspection shall be maintained on the site and available for review by County Inspectors.

I hereby acknowledge that the U.S. Army Corps of Engineers and/or Virginia Department of Environmental Quality may have additional jurisdiction over any wetlands or waters of the U.S..

I hereby acknowledge that a Virginia Pollutant Discharge Elimination System (VPDES) permit application [including a Virginia Stormwater Management Program (VSMP) permit application], if required, has been made for land disturbing activities of 1 acre or greater.

Signature (Owner/Developer): _____

Name (please print): _____

Date: _____

GOOCHLAND COUNTY
Version: 7-8-2015

Erosion and Sediment Control Standard Notes

Department of Environment & Land Development