

## CHAPTER 6: NATURAL AND ENVIRONMENTAL RESOURCES (NER)

### 6.01 River and Stream Corridor Resources

**Purpose.** *The purpose of this section is to identify, establish, and regulate River and Stream Corridor Resources (RSCR) in order to:*

- *Protect natural ecosystems, restore water quality, serve Loudoun’s population, and support the built environment through healthy surface and groundwater resources.*
- *Maintain a healthy river and stream corridor ecosystem that promotes desired water quality standards, prevents soil erosion and flooding, and supports biological diversity.*
- *Promote river and stream health through streambank/streambed stability, temperature moderation, nutrient removal, sediment removal, flood control, and sustained aquatic habitat and food resources.*
- *Protect and improve stream quality and watershed health by decreasing the amount of stormwater runoff and pollutants from reaching local waters.*
- *Protect and enhance impaired streams and their tributaries to improve water quality and provide ecological benefits while also providing opportunities for passive recreation.*
- *Protect rivers and public drinking water reservoirs to ensure a clean, safe, and adequate supply of drinking water.*
- *Conserve and protect wildlife habitats, wildlife travel corridors, and access to streams and water sources through the preservation of natural resources, such as native vegetation, forest cover, woodlands, floodplains, streams and stream corridors, wetlands, and undeveloped steep slopes and defined associated areas.*

#### A. **Applicability.**

1. **Areas of Applicability.** Section 6.01 applies to the RSCR as identified in Section 6.01.C:

- a. **Floodplain Overlay District and Steep Slope Areas.** The Resource Area Width of the RSCR includes applicable FOD and Steep Slope Areas, which are used for determining the width of the RSCR pursuant to Section 6.01.C, and the applicable RSCR Buffer Area. Refer to Section 5.03 for FOD regulations applicable to Major Floodplain and Minor Floodplain, and Section 6.02 for Steep Slope Areas regulations.

2. **Uses or Activities Not Subject to Regulations in Section 6.01.** Covered Activities are subject to Section 6.01 except as follows:

- a. **Bona Fide Agriculture.** Bona Fide Agriculture (not including any building or structure) pursuant to Section 4.08.01. Buildings and structures, and Agriculture that is not Bona Fide Agriculture, is subject Section 6.01.
- b. **Existing Lots of Record.** On any existing lot of record as of the adoption date of this Zoning Ordinance, up to 1 single-family dwelling and an accessory unpaved or permeable surfaced and maintained driveway or parking area, and/or detached garage, and incidental structures permitted pursuant to FOD Sections 5.03.E.1.a, 5.03.E.1.i, 5.03.F.5 are permitted within the RSCR Buffer Area established pursuant to Section 6.03.C. below; or
- c. **Existing Buildings and Structures.** Existing buildings and structures within the RSCR Buffer Area as of the adoption date of this Ordinance are not considered nonconforming, however, additions must not increase the total floor area of the building or structure by more than 25%. If destroyed by fire or casualty, such buildings and structures may be rebuilt to the same or an equivalent footprint, subject to compliance with any other county, state, and federal law or regulation.

- B. **Uses and Activities.** Except for any exemptions under Section 6.01.A.2, refer to table 6.03 for uses and activities allowed within the RSCR Buffer Area.
- C. **Determining The Width of the RSCR.** The RSCR must be provided in accordance with Table 6.01-1.

Table 6.01-1. DETERMINING THE WIDTH OF THE RSCR			
Minimum Width <sup>2</sup>	Resource Area Width <sup>2</sup>	RSCR Buffer Area	
		Riparian Protection Buffer Width <sup>1</sup>	Variable Riparian Preservation Buffer Width
<b>For Scenic Rivers, the Potomac River, Bull Run, and Broad Run</b>			
300 feet	If the <b>Resource Area Width</b> is <u>250 feet or more</u>	Additional 50 Feet	None required
300 feet	If the <b>Resource Area Width</b> is <u>less than 250 feet</u>	50 Feet	The remaining width needed to achieve the Minimum Buffer Width (300 feet)
<b>For all Other Rivers and Streams</b>			
100 feet	If the <b>Resource Area Width</b> is <u>50 feet or more</u>	Additional 50 Feet	None required
100 feet	If the <b>Resource Area Width</b> is <u>less than 50 feet</u>	50 Feet	The remaining width needed to achieve the Minimum Buffer Width (100 feet)
1. The addition of the required Riparian Protection Buffer width (50 feet) to the Resource Area Width may result in a total RSCR width that is greater than the Minimum Buffer Width. 2. Widths apply along the entire length of each side of rivers and streams and other waterbodies, and are measured outward from the Ordinary High Water Mark of such rivers or streams, or other waterbodies.			

**D. Approval of Limited Uses in the RSCR Buffer Area.**

- 1. The Zoning Administrator may permit the following uses in any RSCR Buffer Area located beyond the applicable minimum width of the RSCR in Table 6.01-1, subject to any applicable standards under Section 6.04:
  - a. Parking for publicly accessible trails or publicly accessible Passive Recreation or publicly accessible Community Open Space.
  - b. A structure accessory to a principal use or activity permitted in the RSCR Buffer Area under Table 6.03-1.
  - c. Bus stations or Transit or bus shelter structures requiring 1,000 square feet of land disturbance or less.

- E. **Development and Land Disturbance Standards.** Covered Activities permitted in RSCR must be in accordance with the Development and Land Disturbance Standards in Section 6.04.A.
- F. **Additional Use Specific Standards in Adjacent Steep Slopes.** Additional standards required for specific uses and activities within Steep Slope Areas, including Adjacent Steep Slopes are provided in Section 6.04.B
- G. **Additional Scenic River Protection.** The permanent or temporary diversion of any Scenic River is prohibited, except as required for any public utility or for any road crossing identified in the CTP.
- H. **Additional RSCR Specific Procedures.** Refer to Section 11.01F.2.f for additional RSCR specific procedures.

**6.02 Steep Slope Areas**

**Purpose.** The purpose of these regulations for Steep Slope Areas is to limit land disturbing activities on naturally occurring very steep slope areas greater than 25% and to establish performance standards for development on steep slope areas of 15% or greater, in order to promote the following:

- Undertake development in a manner that will protect life and property from hazards due to slope, unstable and erodible soils, earth movement, and other geologic and hydrologic hazards;
- Reduce potential for increased erosion, sedimentation, and surface runoff, and the resulting adverse impacts on water quality;
- Promote a safe means of ingress and egress for vehicular and pedestrian traffic in sloped areas;
- Preserve the visual quality of steep slope areas, which are a valuable natural and economic resource; and
- Encourage innovative and imaginative building techniques to create structures and site plans that are suited to sloped terrain.

## A. Applicability.

1. **Covered Activities.** Covered Activities within Steep Slope Areas, including any structure associated with agricultural operations, are subject to Steep Slope Areas standards except as follows:
  - a. Single Dwelling Unit on Existing Legal Lot. Construction of a single dwelling unit on a legal lot existing as of June 16, 1993, is exempt from Table 6.03-1. Such exemption does not apply to nonresidential uses. Development on such lot is subject to Section 6.04.
  - b. Bona Fide Agriculture Not Subject to Steep Slope Area Standards. Bona Fide Agriculture (not including any building or structure) pursuant to Section 4.08.01 is not subject to standards in Steep Slope Areas. Buildings and structures, and Agriculture that is not Bona Fide Agriculture, is subject to all standards in Steep Slope Areas.

## B. Establishment of Steep Slope Areas.

1. **Identification of Steep Slope Areas.** Naturally occurring steep slope areas are classified into one of the following two categories:
  - a. Very Steep Slope Areas.
  - b. Moderately Steep Slope Areas.
2. **Minimum Size of Steep Slope Area.**
  - a. For the following Zoning Districts and Legacy Zoning Districts under Chapter 2 of this Zoning Ordinance, standards in Steep Slope Areas do not apply to contiguous steep slope areas that are less than 5,000 square feet in land area or less than 15 feet in width. Where the entire contiguous steep slope area is equal to or greater than 5,000 square feet in land area, but the total very steep slope area is less than 5,000 square feet in land area, the entire contiguous steep slope area is subject to the development standards for moderately steep slope areas provided in Section 6.04.
    1. Transition Policy Area Zoning Districts in Section 2.03
    2. Rural Policy Area Zoning Districts in Section 2.04
    3. Joint Land Management Area Zoning Districts in Section 2.05
    4. The following Legacy Zoning Districts: TR-2 (Section 2.03.05.01), JLMA-20 (Section 2.05.02.01), A-3 (Section 2.04.03.02), A-10 (Section 2.04.03.01), and PD-RV (Section 2.04.03.05).
  - b. For the following Zoning Districts and Legacy Zoning Districts under Chapter 2 of this Zoning Ordinance, regulations for Steep Slope Areas do not apply to contiguous steep slope areas that are less than 10,000 square feet in land area, or less than 15 feet in width. Where the entire contiguous steep slope area is equal to or greater than 10,000 square feet in land area, but the total very steep slope area is less than 10,000 square feet in land area, the entire contiguous steep slope area is subject to the development and land disturbance standards for moderately steep slope areas provided in Section 6.04.
    1. Urban Policy Area Zoning Districts in Section 2.01

2. Suburban Policy Area Zoning Districts in Section 2.02,
  3. The following Legacy Zoning Districts: PD-H (Section 2.02.05.06), PD-AAAR (Section 2.02.05.10), R-1, R-2, R-3 (Section 2.02.05.01), and PD-CC (Section 2.02.05.07).
- c. For purposes of calculating the total land area of contiguous steep slopes in subsections (a) and (b) above, the entire contiguous steep slope area must be included, regardless of the number of individual lots or different land ownerships involved.

**C. Uses and Activities.**

1. **Very Steep Slope Areas.** This Section 6.02.E.1 applies to land within very steep slope areas.
  - a. **General Prohibition on Land Disturbance.** Land disturbing activities, including but not limited to clearing, excavation, grading, construction, reconstruction, and investigative land disturbing activities such as test wells, are prohibited on any very steep slope area, except as permitted under Table 6.03
2. **Permitted Uses and Activities.** Except for a Single Dwelling Unit on Existing Legal Lot and Bona Fide Agriculture pursuant to Section 6.02.A, refer to table 6.03 for uses and activities permitted within Steep Slope Areas.

**D. Development and Land Disturbance Standards.** Covered Activities permitted in steep slope areas must be in accordance with the Development and Land Disturbance Standards in Section 6.04.A.

**E. Additional Use Specific Standards.** Additional standards required for specific uses and activities within very steep slope areas are provided in Section 6.04.B

## 6.03 NER Uses and Activities

**A. Uses and Activities.** Table 6.03-1 establishes the uses or other Covered Activities in Natural and Environmental Resources, and indicates whether such uses are subject to additional standards under Section 6.04.B or Section 6.04.C.

1. A use indicated in Table 6.03-1 as "P" is permitted in NERS only if such use also is a permitted use in the underlying Zoning District and any applicable Overlay District.
2. A use indicated in Table 6.03-1 as "P" requires separate special exception approval pursuant to Section 11.11 in NERS if such use is a minor special exception or special exception use in the underlying Zoning District or any applicable Overlay District.
3. A use indicated in Table 6.03-1 as "S" requires separate special exception approval pursuant to Section 11.11 in NERS regardless of whether such use is a permitted, minor special exception, or special exception use in the underlying Zoning District or any applicable Overlay District.
4. Permitted, minor special exception, and special exception uses in underlying Zoning Districts and any applicable Overlay District are prohibited in the RSCR Buffer Area, Very Steep Slope Areas, and Adjacent Steep Slopes if not indicated as "P" or "S" in Table 6.03-1.

Use Table for Natural and Environmental Resource Standards 6.03-1				
	RSCR Buffer Area	Very Steep Slope Areas (non-RSCR) and RSCR Adjacent Steep Slopes	Moderately Steep Slope Areas	Additional Specific Standards
<b>Uses and Activities</b>				
<b>Infrastructure</b>			P <sup>1</sup> /S <sup>2</sup>	
Public crossings for shared-use paths, trails, roads, rail, bridges, and driveways	P	P		

Use Table for Natural and Environmental Resource Standards 6.03-1				
	RSCR Buffer Area	Very Steep Slope Areas (non-RSCR) and RSCR Adjacent Steep Slopes	Moderately Steep Slope Areas	Additional Specific Standards
Public water supply reservoirs, including reclaimed quarries	P	P		
Public water	P	P		6.04.B.2.
Public sewer	P	P		6.04.B.2.
Stormwater Management Improvements	P			
Roads	P	P		6.04.B.1.
Shared-use paths	P	P		
Driveways	P	P		6.04.B.1.
Minor utilities associated with Public Water or Public Sewer only	P	P		6.04.B.1.
Water lines serving an individual water supply system, Septic lines serving an individual sewage disposal system		P		6.04.B.1.
<b>Recreation</b>				
Regional, District, Community, Neighborhood, or Linear parks, provided the use is dependent on RSCR Buffer Area, Adjacent Steep Slopes, or Very Steep Slope Areas	S	S		This use must uniquely require a site located within the RSCR or a very steep slope area and is not compatible with a site that lacks RSCR or very steep slope areas.
Passive recreational uses, outdoor limited to hiking, biking, horseback riding, picnicking, camping, climbing, hunting, fishing, and wildlife viewing	P	P		Motorized recreation is not permitted.
Active Recreation	P			

**Use Table for Natural and Environmental Resource Standards 6.03-1**

	RSCR Buffer Area	Very Steep Slope Areas (non-RSCR) and RSCR Adjacent Steep Slopes	Moderately Steep Slope Areas	Additional Specific Standards
Recreation Establishment, Outdoor, that is uniquely dependent on RSCR Adjacent Steep Slopes or Very Steep Slope areas		S		This use must uniquely require a site located within a RSCR adjacent steep slopes or very steep slope area, and the applicant must demonstrate that the proposed use is not compatible with a site that lacks RSCR or very steep slope areas.
Public Lakes and ponds	P			
Public Trails	P	P		6.04.C
<b>Conservation and Preservation</b>				
Planting Native Vegetation	P	P		
Removal of Invasive Plant Species	P	P		
Historic and archaeological sites	P	P		
Conservation, including stream restoration projects, wetland mitigation banks, facilities and activities; Adopt-A-Stream programs; scientific, nature preserves, archaeological studies; and educational programs	P	P		
Open space, and other conservation uses	P	P		
<b>Agriculture</b>				
Silviculture not otherwise exempt under Section 4.03.02	P			
Agricultural activities not otherwise exempt under Section 6.03.02 (but not structures such as, but not limited to dams)	P			
Agricultural structures (not including dams) when no other alternatives are feasible or available	S	S		
<b>Other/Miscellaneous</b>				
Limited land-disturbing activity for the sole purpose of surveying and land investigation, including any studies required by the FSM.		P		6.04.B.3

Use Table for Natural and Environmental Resource Standards 6.03-1				
	RSCR Buffer Area	Very Steep Slope Areas (non-RSCR) and RSCR Adjacent Steep Slopes	Moderately Steep Slope Areas	Additional Specific Standards
Expansion of Commercial Uses and their associated structures existing as of June 16, 1993, when no other alternatives are feasible or available		S		
In any Suburban Policy Area Zoning District in Section 2.02 or Single-Family Residential Legacy Zoning District in Section 2.07.03, land disturbance less than 5,000 square feet within adjacent steep slopes or very steep slope areas when associated with a Permitted use in the underlying zoning district, and overlay zoning district if applicable		S		
<p>1. Moderately Steep Slope Areas within the RSCR Buffer Area may be developed with the same permitted uses as the RSCR Buffer Area. Moderately Steep Slope Areas outside the RSCR Buffer Area may be developed with the permitted uses of the underlying zoning district, if such uses also are permitted uses in any applicable overlay district.</p> <p>2. Moderately Steep Slope Areas within the RSCR Buffer Area may be developed with the same special exception uses as the RSCR Buffer Area. Moderately Steep Slope Areas outside the RSCR Buffer Area may be developed with the permitted, Minor Special Exception, and Special Exception uses of the underlying zoning district that also are Minor Special Exception or Special Exception uses in any applicable overlay district, subject to separate Special Exception approval pursuant to Section 11.11.</p>				

**6.04 NER Land Disturbance, and Additional Use Specific Standards**

- A. **Development and Land Disturbance Standards.** Covered Activities permitted within the RSCR Buffer Area, Very Steep Slope Areas, or Moderately Steep Slope Areas must be planned to minimize disturbance to soil geology, hydrology, and environmental features. At a minimum, except for the development of roads shown on the Countywide Transportation Plan, and public water utility drinking water supply reservoirs, including reclaimed quarries, all Covered Activities on any parcel of land that includes RSCR Buffer Areas or Steep Slope Areas within its boundaries must comply with the standards in Table 6.04-1:

Table 6.04-1 Natural and Environmental Resource Standards (NER) Development and Land Disturbance Standards			
Standard	RSCR (Buffer Area Only)	Very Steep Slope Areas	Moderately Steep Slope Areas
<b>1. Locational Clearance.</b>	A locational clearance must be obtained from the Department of Building and Development that identifies any RSCR, Very Steep Slope Areas, and Moderately Steep Slope Areas within the proposed area to be disturbed, and the location and extent of land disturbing activities and mitigation measures, including any proposed building sites, paved areas, drainfields, wells, and other uses.		
<b>2. Stormwater Best Management Practices.</b>	Stormwater best management practices and erosion and sediment control practices must be incorporated in accordance with Chapter 1220 and Chapter 1096 of the Codified Ordinances and the Facilities Standards Manual (FSM), and such practices must be approved by the Department of Building and Development prior to approval of a zoning permit.		
<b>3. Grading Permit.</b>	A grading permit is required for all land disturbing activity in accordance with Chapter 1220 of the Codified Ordinances, notwithstanding the exceptions listed in the definition of "land disturbing activity" in Chapter 1220, and the FSM.		
<b>4. Permeable Surfaces</b>	Other than identified roads identified by the CTP or fire apparatus access roads, all roads, paths, trails, driveways, and parking areas must use and maintain surfaces or paving materials that are permeable to stormwater.		
<b>5. Virginia Natural Heritage Resources.</b>	Virginia Natural Heritage Resources must be identified on a site, and any proposed Covered Activities must demonstrate no disturbance or impact to any Natural Heritage Resources as verified by the Virginia Department of Conservation and Recreation.		
<b>6. Virginia Wildlife and Habitat.</b>	Wildlife and habitat in the Northern Virginia Planning Region of the Virginia Wildlife Action Plan must be identified on a site, and any proposed Covered Activities must demonstrate no disturbance or impact to any wildlife or habitat as verified by the Virginia Department of Wildlife Resources.		



Table 6.04-1 Natural and Environmental Resource Standards (NER) Development and Land Disturbance Standards			
Standard	RSCR (Buffer Area Only)	Very Steep Slope Areas	Moderately Steep Slope Areas
<b>7. Geotechnical Study.</b>	All grading and land disturbing activities must be addressed in a geotechnical study prepared in accordance with the FSM.		N/A
<b>8. Grading for Accessory Building Pads Prohibited.</b>	Separate building pads for accessory buildings and structures other than public facilities or private garages, are prohibited. Examples include but are not limited to tennis courts, swimming pools, outbuildings, and similar facilities.		N/A
<b>9. Remedial Revegetation, and Site Restoration.</b>	Any land disturbing activity located outside of the limits of disturbance approved for a permitted use must be revegetated with Native Plant vegetation in accordance with the FSM and restored to pre-land disturbance conditions.		N/A
<b>10. Preservation of Existing Vegetation.</b>	Covered Activities must preserve existing vegetation to the maximum extent possible, except that invasive or nonnative vegetation may be removed and revegetated with native vegetation in accordance with the FSM.		N/A
<b>11. Siting and Disturbance.</b>	Land disturbance or land disturbing activity is limited to the area necessary to provide the Covered Activity, and must be designed and configured to minimize disturbance and have minimal adverse effects on water quality and erosion.		N/A

**B. Additional Use Specific Standards in Steep Slope Areas (RSCR Adjacent Steep Slopes and Very Steep Slope Areas).** In addition to the NER Development Standards provided in Table 6.04-1, the following standards apply when the specific uses and activities listed below are permitted within RSCR Adjacent Steep Slopes or Very Steep Slope Areas:

1. **Roads, Shared-Use Paths, Driveways, Minor Utility, Water Lines Serving an Individual Water Supply System, or Septic Lines Serving an Individual Sewage Disposal System.**
  - a. All roads, shared-use paths, and driveways must follow natural contour lines to the maximum extent feasible.
  - b. No roads, shared-use paths, driveways, minor utilities, water lines serving an individual water supply system, or septic lines serving an individual sewage disposal system are permitted to disturb very steep slope areas with slopes greater than 50%.
  - c. Roads are not permitted to disturb adjacent steep slopes or very steep slope areas with slopes greater than 25% to 50%, unless no other alternative exists to access a legal lot of record approved prior to June 16, 1993.
  - d. The use of directional drilling for the installation of minor utilities, water lines serving an individual water supply system, or septic lines serving an individual sewage disposal system through adjacent steep slopes or very steep slope areas is permitted, in accordance with the following.
    1. Development standards 1, 2, and 3 in Table 6.04-1 do not apply to such directional drilling.
    2. Directional drilling start and end locations must not result in disturbance to adjacent steep slopes or very steep slope areas.
  - e. Shared-use paths, driveways, minor utilities, water lines serving an individual water supply system or septic lines serving an individual sewage disposal system are not permitted to disturb adjacent steep slopes or very steep slope areas with slopes greater than 25% to 50%. However, a short run of no more than 200 feet or 10% of the entire length of the shared-use path, driveway, minor utility, water line and/or septic line, whichever is greater, is permitted to disturb adjacent steep slopes or very steep slope areas with slopes greater than 25% to 50%, based on a geotechnical study or findings from a geotechnical professional that:



1. Such shared-use path, driveway, minor utility, water lines and/or septic lines will not have significant adverse visual, environmental, or safety impacts, or appropriate engineering or other measures will be taken by the developer to substantially mitigate any such adverse impact; and
  2. No alternative location for such shared-use path, access, minor utility, water line and/or septic line is feasible or available.
- f. The use of a private road to provide access to multiple lots in lieu of using separate driveways to provide access to such lots is required to the maximum extent feasible where such private road will minimize or eliminate land disturbance.
  - g. The grade of private roads and driveways must comply with the FSM.
  - h. Storm drainage and culvert design must comply with the FSM.
  - i. Shared-use path design must comply with standards in Section 7.07.03.
- 2. Public Sanitary Sewer and Water Lines.**
- a. No public sanitary sewer and/or water lines are permitted to disturb adjacent steep slopes or very steep slope areas with slopes greater than 50%.
  - b. Public water lines must be located within or directly adjacent to the right-of-way of existing or approved roads. The development standards of this Section do not apply to such water lines.
  - c. The use of directional drilling to install public sanitary sewer and/or water lines through adjacent steep slopes or very steep slope areas is permitted in accordance with the following:
    1. Development standards 1, 2, and 3 in Table 6.04-1 do not apply to such directional drilling
    2. The drilling start and end locations must not result in disturbance to adjacent steep slopes or very steep slope areas.
  - d. Land disturbing activities in adjacent steep slopes or very steep slope areas with slopes greater than 25% to 50% must be avoided to the maximum extent feasible when determining the alignment of gravity sanitary sewer and/or water lines.
  - e. For the purpose of these development standards, the adjacent steep slopes or very steep slope areas designated on the County base planimetric and topographic maps may be used.
  - f. Public sanitary sewer and/or water lines are permitted to cross a maximum distance of 200 feet of any 1 contiguous adjacent steep slopes or very steep slope area.
    1. The Zoning Administrator may approve an increase to this maximum distance of up to an additional 300 feet provided that the longer crossing distance is found to reduce or have minimal impacts to other environmentally sensitive areas (streams, wetlands, riparian buffers, etc.), as demonstrated by applicable information and/or reports/studies requested by the Zoning Administrator, including, but not limited to:
      - a. Geotechnical study,
      - b. Geophysical study,
      - c. Preliminary soils review,
      - d. U.S. Army Corps of Engineers approved wetland delineation,
      - e. Tree cover inventory,
      - f. Phase 1 archeological study; and
      - g. Rare, threatened, and endangered species survey.
    2. Minor Special Exception approval pursuant to Section 11.11 is required for the following public sanitary sewer and/or water line crossing of any 1 contiguous adjacent steep slopes or very steep slope area:

- a. Proposed crossings that exceed 200 feet where the Zoning Administrator finds that the crossing does not minimize impacts to other environmentally sensitive areas.
  - b. Any proposed crossing that exceeds a total of 500 feet.
  - g. If blasting is required for any portion of the public sanitary sewer and/or water line installation, a blasting plan that describes measures that will be utilized to minimize impacts on environmentally sensitive areas must be provided as part of the grading plan.
  - h. Public sanitary sewer and/or water lines must be aligned in a manner that minimizes disturbance to adjacent steep slopes or very steep slope areas with existing tree cover.
    1. In situations where sanitary sewer lines result in the clearing of vegetative cover other than open grassland/pastureland, the associated construction plans must include reforestation and tree protection in accordance with the FSM for all temporary construction easements.
    2. Such reforestation and tree protection must be reviewed and approved by the County Urban Forester.
  - i. Where adjacent steep slopes or very steep slope areas cannot be avoided, construction methods that minimize easement widths and limits of disturbance must be employed to the maximum extent feasible.
  - j. Prior to approval of grading plans, the public entity responsible for the maintenance and operation of the proposed sanitary sewer and/or water line must certify that the grading plan minimizes impacts to adjacent steep slopes or very steep slope areas and shows practical limits of construction.
  - k. To minimize erosion and sediment control failure associated with sliding debris and the operation of machinery within a confined area, 2 rows of super silt fence must be installed as follows:
    1. As a perimeter control on the downslope side of the disturbed area.
    2. The inside row may be installed without filter fabric.
    3. The minimum spacing between the rows must be 3 feet to allow for maintenance.
  - l. At a minimum, stabilization of disturbed areas must consist of Treatment 1 as described in Standard and Specification 3.36 (Soil Stabilization Blankets & Matting) in the Virginia Erosion and Sediment Control Handbook.
    1. In problem areas, as determined by the County, Treatment 2 can be required.
- 3. Limited Land-Disturbing Activity for the Sole Purpose of Surveying and Land Investigation.**
- a. Land disturbing activity for the sole purpose of surveying and land investigation including studies required by the FSM is limited to 5,000 square feet in the aggregate on any property.
  - b. Heavy equipment may be used only when no other less-invasive method is feasible to conduct or undertake such limited land-disturbing activity.
- C. Additional Use Specific Standards in RSCR Areas (RSCR Buffer Areas or RSCR Adjacent Steep Slopes).**
1. **Trails.** Trails that are proposed within RSCR Buffer Areas or RSCR Adjacent Steep Slopes must meet any applicable guidelines of the LPAT and must be reviewed by and obtain approval from the Department of Parks, Recreation, and Community Services.