Erosion Control Permit Application

Please use this form when the Developer and Builder are not the same financially responsible party/person and will be less than one (1) acre of land disturbance on any one (1) lot.

Lot(s) to be Developed Information

Site Address: ________________________________

Subdivision Name: ________________________________

Anticipated Dates of Construction Activity: Start: ____________ Completion: ____________

*** Complete the LOT INFORMATION TABLE for each lot to be developed; ensure that the appropriate drainage pattern type is denoted. Attach a corresponding, existing platted survey for each lot with your application, please. If not, your permit application may not be accepted for review. ***

Financially Responsible Party/Person

Name: ________________________________

Address: ________________________________

City/State/Zip: ________________________________ Office Phone: ________________________________

Mobile Phone: ________________________________ Email Address: ________________________________

My signature hereto signifies I am the owner/financially responsible party for job site compliance with the Erosion Control Ordinance as outlined in Chapter, Section 8.4 of the Unified Development Ordinances (UDO) of the City of Winston-Salem/Forsyth County or Article IV of the UDO of the Village of Clemmons, Town of Lewisville, or Town of Walkertown. I hereby acknowledge that the Best Management Practices annotated on the attached sketch plan must be properly installed and maintained to retain soil within the constructed lot.

I understand that if the total disturbed area for any reason becomes greater than one acre on any one (1) lot, a professionally designed and sealed Erosion Control Plan will be required to be submitted and approved before the start of the land disturbing activity on the lot. I further acknowledge that City Inspection’s staff may refuse to make building inspections and the Erosion Control Division may issue Notices of Violation, Stop Work Orders and/or Civil Penalty Assessments for failure to comply with Erosion Control requirements.

Print Name of Financially Responsible Person ________________________________ Signature of Financially Responsible Person ________________________________

TO BE COMPLETED BY CITY STAFF ONLY:

Date of Application Submittal: ________________________________

Permit Number: ________________________________
NOTES AND APPLICABILITY TO LOT DEVELOPMENT

1. This plan is for lots with an individual disturbed area of 1.00 acre or less for individual single family dwellings.
2. A vicinity map showing the boundaries of the project and access to the site is to either be shown on this standard plan or to accompany this standard plan.
3. A subdivision plat or plan showing numbered lots and the Limits of Disturbance (LoD) is to accompany this standard plan. The LoD includes lots, access to measures, staging areas, and utilities that may extend off-site.
4. Lots are "Finished", or at final grade. Mass grading with full stabilization has already occurred or mass grading is not to occur.
5. The property does not contain nor have jurisdictional waters within 100 feet of the lots.
6. The site is not located in a High Quality Water Zone.
7. No discharges are allowed into impaired waters.
8. On-site vehicle or equipment washing is not allowed.
9. This site involves no off-site material storage, waste disposal, or borrow areas.
10. All disturbed areas not built upon shall be provided with permanent ground cover.
11. As of April 1, 2019, applicant must apply on-line at deq.nc.gov/NCG01 for the NCG01 permit, if applicable.
12. The Approval Authority reserves the right to require a site-specific erosion control plan to be prepared and submitted for the 15 day review cycle.

GENERAL CONSTRUCTION SEQUENCE FOR SMALL RESIDENTIAL LOT EROSION AND SEDIMENT CONTROL

1. Prior to the start of construction, contact the Erosion Control Division to schedule an on-site preconstruction meeting with the Erosion Control Inspector.
2. Install construction entrances(s).
3. Install check dams and/or erosion control blankets in roadside ditch, where exists.
4. Install yard inlet protection and perimeter controls (silt fence, silt fence outlets, etc.) according to the plan. For contiguous lots with different builders or land owners, it is suggested that each builder/owner install their own silt fence along the shared parcel boundary.
5. Ensure inlets downgrade of disturbances are protected from siltation.
6. Proceed with individual lot construction.
7. Maintain erosion and sedimentation controls during construction.
8. Provide for ground stabilization after completion of any phase of grading in accordance with the NPDES timeframes table. Persons responsible for land disturbing activities are responsible for phased inspections to ensure the approved erosion and sedimentation control plan is being followed. All erosion control measures shall be inspected at least once per week and after each storm event of 1.0 inches or more in a 24-hour period. The self-inspection report, as well as instructions for the self-inspection program, can be found at deq.nc.gov/NCG01.
9. Once construction is complete and all areas are stabilized, remove any remaining erosion or sedimentation controls and stabilize any areas disturbed by their removal.
10. Once the last approved lot is complete, notify the Erosion Control Division for a close-out inspection.
LOT INFORMATION TABLE (ADD TABLE(S) IF NECESSARY)

<table>
<thead>
<tr>
<th>PARCEL NUMBER</th>
<th>LOT NUMBER</th>
<th>DISTURBED AREA (ACRE)</th>
<th>TOTAL LOT SIZE (ACRE)</th>
<th>DRAINAGE PATTERN TYPE</th>
<th>SPECIAL NOTES</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>
Notes:
1. If needed, Tree Protection fencing should be installed along the buffer zone, wetland boundary and/or around protected trees, providing a radius of at least 1.25 feet for each inch of trunk diameter.
2. Install Silt Fence on the low elevation sides of each lot. Install Silt Fence outlets shown on schematic/diagram and field adjusted, if necessary, for placement at low points. If lots are contiguous and have different land owners or builders, each lot should have individual Silt Fences.
3. Install required Silt Fence within 10 feet of property line to ensure there is no conflict with septic system. It is the responsibility of the builder to ensure the installation of sediment control measures does not impact the septic system and repair area(s).
4. At least one Construction Entrance/Exit is to be installed per lot.
5. Waste bins and other areas dedicated for managing building material waste shall be at least 50 feet away from storm drain inlets or drainage ditches unless it can be shown that no other alternative exists. If this separation cannot be achieved, these areas must be contained behind Silt Fence.
6. Inlets downstream of disturbances should be protected; streets should be swept when sediment from the construction activity is present.
7. Details for Silt Fence, Silt Fence Outlets, Construction Entrances and other measures are provided on additional sheets. Erosion and sediment control details are not drawn to scale.
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7. Details for Silt Fence, Silt Fence Outlets, Construction Entrances and other measures are provided on additional sheets. Erosion and sediment control details are not drawn to scale.
PART II. SECTION C. ITEM (4)

DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

(a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,
(b) The non-surface withdrawal has been reported in accordance with Part III, Section C, Item (5) of this permit,
(c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems,
(d) Vegetated, upland areas of the sites or a properly designed stone pad is used to extent the feasibility of the outlet of the dewatering treatment devices described in (c) above,
(e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
(f) Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause sedimentation of the United States waters.

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be jeopardized, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection should be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

<table>
<thead>
<tr>
<th>Event</th>
<th>Frequency during normal business hours</th>
<th>Inspection records must include:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rain gauge recorded</td>
<td>Daily</td>
<td>Daily rainfall amounts.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If no daily rain gauge observations are made during weekend on holiday periods, and no individual-day rainfall information is available, record the cumulative rainfall measurement for those unattended days (this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as &quot;Zero.&quot; The permits may use an additional rain-monitoring device approved by the Division.</td>
</tr>
</tbody>
</table>

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

(a) The approved E&SC plan must be kept as complete as possible, and does not significantly deviate from the locations, dimensions, and relative elevations shown on the approved E&SC plan.
(b) A phase of grading has been completed

Item to Document Document Requirements

1. Identification of the measures inspected
2. Date and Time of the inspection
3. Name of the person performing the inspection
4. Indication of whether the measures were operating properly or exceedance needs to be investigated
5. Description, Evidence, and date of corrective actions taken

2. Stormwater discharge outfalls (if applicable)

(a) All stormwater discharge outfalls (if applicable) shall be inspected
(b) Stormwater discharge outfalls (if applicable) shall be located and included in the approved E&SC plan.
(c) All maintenance and repair requirements for all stormwater discharge outfalls (if applicable) shall be included.

3. Perimeter of Site

(a) The perimeter of the site shall be located and included in the approved E&SC plan.
(b) A phase of grading has been completed

4. Streams or wetlands on or offsite (if applicable)

(a) All streams or wetlands that have increased visibility sedimentation or have had visible suspended matter from the construction activity, then the record of the following shall be made.
(b) Description, Evidence and date of corrective actions taken

5. Ground stabilization Measures

(a) After each phase of grading, the following shall be performed:
1. A phase of grading (installation ofpermanent E&SC measures, or providing and maintaining installation of stormwater drainage facilities, completion of all land-stabilizing activity, and reclamation, permanent ground cover).
2. Documentation that the required ground stabilization measures have been provided within the required timeframe or assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.
GROWTH STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NC DWR STORMWATER MANAGEMENT REGULATIONS

Date:

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling requirements of the NCGW-01 Stormwater General Permit (Sections A and B, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not depend on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

**Site Area Description**

<table>
<thead>
<tr>
<th>Required Ground Stabilization Timeframes</th>
<th>Stabilize within this many calendar days after ceasing land disturbance</th>
<th>Timeframe variations</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Perimeter dikes, swales, ditches, and perimeter slopes</td>
<td>7</td>
<td>None</td>
</tr>
<tr>
<td>(ii) High Quality Water (HQW) Zones</td>
<td>7</td>
<td>None</td>
</tr>
<tr>
<td>(c) Slopes steeper than 3:1</td>
<td>7</td>
<td>None</td>
</tr>
<tr>
<td>(iii) Slopes 3:1 to 4:1</td>
<td>14</td>
<td>-7 days for slopes greater than 50 ft in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed -10 days for Cedar Creek Watershed unless there is a zero slope</td>
</tr>
</tbody>
</table>

**Temporary Stabilization**

- Temporary grass seed covered with straw or other mulches and tackifiers
- Hydroseeding
- Rolled erosion control products with or without temporary grass seed
- Appropriately applied straw or other mulch
- Plastic sheeting

**Permanently Stabilized**

- Permanent grass seed covered with straw or other mulches and tackifiers
- Geotextile fabric such as permanent soil reinforcement matting
- Hydroseeding
- Shrub or other permanent plantings covered with mulch
- Uniform and evenly distributed ground cover sufficient to retain erosion
- Structural methods such as concrete, asphalt or retaining walls
- Rolled erosion control products with grass seed

**POLYACRYLAMIDES (PAMS) AND FLOCULANTS**

1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMS/Floculants.
2. Apply flocculants at or below the maximum concentrations shown on the NC DWR List of Approved PAMS/Floculants and in accordance with the manufacturer’s instructions.
3. Provide ponding area for containment of treated Stormwater before discharging offsite.
4. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

**GROWTH STABILIZATION SPECIFICATION**

Stabilize the surface sufficiently that rain will not dislodge the soil. Use one of the techniques in the table below:

- Perimeter dikes, swales, ditches, and perimeter slopes
- High Quality Water (HQW) Zones
- Areas with slopes steeper than 3:1
- Slopes 3:1 to 4:1

**EARTHEN STOCKPILE MANAGEMENT**

1. Store earthen material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown that other alternatives are reasonably available.
2. Protect stockpile with silt fence installed along slope of site with a minimum of five feet from the toe of the stockpile.
3. Provide stable stone access point when feasible.
4. Stable stockpile within the timeframe provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative stabilization or chemical cover application techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

**HERBICIDES, PESTICIDES AND RODENTICIDES**

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental exposure.
3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill into lakes, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
4. Do not store these materials onsite.
TEMPORARY SEEDING RECOMMENDATIONS FOR LATE WINTER AND EARLY SPRING

Seeding Mixture

<table>
<thead>
<tr>
<th>Species</th>
<th>Rate (lb/acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rye (grain)</td>
<td>120</td>
</tr>
<tr>
<td>Annual lespedeza (Kobe in Piedmont and Coastal Plain, Korean in Mountains)</td>
<td>50</td>
</tr>
</tbody>
</table>

Omit annual lespedeza when duration of temporary cover is not to extend beyond June.

Seeding Dates

Mountains—Above 2500 feet: Feb. 15 - May 1
Below 2500 feet: Feb. 1 - May 1
Piedmont—Jan. 1 - May 1
Coastal Plain—Dec. 1 - Apr. 15

Mulch

Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance

Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

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TEMPORARY SEEDING RECOMMENDATIONS FOR SUMMER

Seeding Mixture

<table>
<thead>
<tr>
<th>Species</th>
<th>Rate (lb/acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>German millet</td>
<td>40</td>
</tr>
</tbody>
</table>

In the Piedmont and Mountains, a small-stemmed Sudangrass may be substituted at a rate of 50 lb/acre.

Seeding Dates

Mountains—May 15 - Aug. 15
Piedmont—May 1 - Aug. 15
Coastal Plain—Apr. 15 - Aug. 15

Mulch

Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance

Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

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TEMPORARY SEEDING RECOMMENDATIONS FOR FALL

Seeding Mixture

<table>
<thead>
<tr>
<th>Species</th>
<th>Rate (lb/acre)</th>
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<tbody>
<tr>
<td>Rye (grain)</td>
<td>120</td>
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</tbody>
</table>

In the Piedmont and Mountains, a small-stemmed Sudangrass may be substituted at a rate of 50 lb/acre.

Seeding Dates

Mountains—Aug. 15 - Dec. 15
Coastal Plain and Piedmont—Aug. 15 - Dec. 31

Mulch

Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance

Repair and refertilize damaged areas immediately. Topdress with 50 lb/acre of nitrogen in March. If it is necessary to extend temporary cover beyond June 15, overseed with 50 lb/acre Kobe (Piedmont and Coastal Plain) or Korean (Mountains) lespedeza in late February or early March.

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SEED BED PREPARATION:

LIMING- Apply lime according to soil test recommendations. If the pH (acidity) of the soil is not known, an application of ground agricultural limestone at the rate of 1-1 \( \frac{1}{2} \) tons/acre on coarse-textured soils and 2-3 tons/acre on fine-textured soils is usually sufficient. Apply limestone uniformly and incorporate into the top 4-6 inches of soil. Soils with a pH of 6 or higher need not be limed.

FERTILIZER- Base application rates on soil tests. When these are not possible, apply a 10-10-10 grade fertilizer at 700-1,000 lb/acre. Both fertilizer and lime should be incorporated into the top 4-6 inches of soil. If a hydraulic seeder is used, do not mix seed and fertilizer more than 30 minutes before application.

SURFACE ROUGHENING- If recent tillage operations have resulted in a loose surface additional roughening may not be required, except to break up large clods. If rainfall causes the surface to become sealed or crusted, loosen it just prior to seeding by raking, harrowing, or other suitable methods for fine grading. The finished grade shall be a smooth even soil surface with a loosen uniformly fine texture. All ridges and depressions shall be removed and filled to provide the approved surface drainage. Planting is to be done immediately after finished grades are obtained and seedbed preparation is completed.
NOTES:
1. Permanent seeding, sodding or other means of stabilization are required when all construction work is completed according to the NPDES timeframe's table.
2. A North Carolina Department of Agriculture soils test (or equal) is highly recommended to be obtained for all areas to be seeded, sprigged, sodded or planted.
3. Use a seeding mix that will produce fast growing nurse crops and includes non-invasive species that will eventually provide a permanent groundcover. Soil blankets may be used in lieu of nurse crops. Mat, tack or crimp mulch, as needed to stabilize seeded areas until root establishment. Mulch must be applied uniformly over the soil with a cover density of at least 80%.
4. Ground cover shall be maintained until permanent vegetation is established and stable against accelerated erosion.

SEED BED PREPARATION:
LIMING- Apply lime according to soil test recommendations. If the pH (acidity) of the soil is not known, an application of ground agricultural limestone at the rate of 1 to 1.5 tons/acre on coarse-textured soils and 2-3 tons/acre on fine-textured soils is usually sufficient. Apply limestone uniformly and incorporate into the top 4-6 inches of soil. Soils with a pH of 6 or higher need not be limed.
FERTILIZER- Base application rates on soil tests. When these are not possible, apply a 10-10-10 grade fertilizer at 700-1,000 lb/acre. Both fertilizer and lime should be incorporated into the top 4-6 inches of soil. If a hydraulic seeder is used, do not mix seed and fertilizer more than 30 minutes before application.
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SEEDING MIXTURE

<table>
<thead>
<tr>
<th>Species</th>
<th>Rate</th>
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</thead>
<tbody>
<tr>
<td>Centipede</td>
<td>5 lbs/acre</td>
</tr>
<tr>
<td>Indian Woodoats</td>
<td>1.5-2.5 lbs/acre*</td>
</tr>
<tr>
<td>Virginia Wild Rye</td>
<td>4-6 lbs/acre*</td>
</tr>
</tbody>
</table>

*Depending upon mix with other species. See table 6.11.d from Chapter 6 of the NC Erosion and Sediment Control Planning and Design Manual.

Seeding Dates
Coastal or Eastern Piedmont for Centipede- Sept. 1 - May 1
Coastal and Piedmont for Indian Woodoats and Virginia Wild Rye- Feb 15 - April 1
Mountains for Indian Woodoats and Virginia Wild Rye- March 1 - May 1

Maintenance:
Significant maintenance may be required to obtain desired cover once centipede is planted. Acceptable for sodding.

SEEDING MIXTURE

<table>
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<th>Rate</th>
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</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

*Depending upon mix with other species. See table 6.11.d from Chapter 6 of the NC Erosion and Sediment Control Planning and Design Manual.

Seeding Dates
Mountains - July 15- Aug 15
Piedmont - Aug 15 - Oct 15

Maintenance:
Indian Woodoats and Virginia Wild Rye are both sun and shade tolerant.

SEED BED PREPARATION:
SEEDING MIXTURE

<table>
<thead>
<tr>
<th>Species</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Fescue</td>
<td>15 lbs/acre</td>
</tr>
<tr>
<td>Switchgrass</td>
<td>2.5-3.5 lbs/acre*</td>
</tr>
<tr>
<td>Indian Grass</td>
<td>5-7 lbs/acre*</td>
</tr>
<tr>
<td>Big Bluestem</td>
<td>5-7 lbs/acre*</td>
</tr>
<tr>
<td>Indian Woodoats</td>
<td>1.5-2.5 lbs/acre*</td>
</tr>
<tr>
<td>Virginia Wild Rye</td>
<td>4-6 lbs/acre*</td>
</tr>
</tbody>
</table>

*Depending upon mix with other species. See table 6.11.d from Chapter 6 of the NC Erosion and Sediment Control Planning and Design Manual.

Seeding Dates
Mountains - Hard Fescue- Aug 1 - June 1
Mountains- Switchgrass, Indian Grass, Big Bluestem- Dec 1 - April 15
Piedmont and Coastal- Switchgrass, Indian Grass, Big Bluestem- Dec 1 - April 1
Coastal- Indian Woodoats and Virginia Wild Rye- Sept 1 - Nov 1

Maintenance:
Indian Woodoats and Virginia Wild Rye are both sun and shade tolerant.

SEEDING MIXTURE

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<tr>
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*Depending upon mix with other species. See table 6.11.d from Chapter 6 of the NC Erosion and Sediment Control Planning and Design Manual.

Seeding Dates
Mountains - Hard Fescue- Aug 1 - June 1
Mountains- Switchgrass, Indian Grass, Big Bluestem- Dec 1 - April 15
Piedmont and Coastal- Switchgrass, Indian Grass, Big Bluestem- Dec 1 - April 1
Coastal- Indian Woodoats and Virginia Wild Rye- Sept 1 - Nov 1

Maintenance:
Indian Woodoats and Virginia Wild Rye are both sun and shade tolerant.

SEED BED PREPARATION:

SEEDING MIXTURE

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Maintenance:
Indian Woodoats and Virginia Wild Rye are both sun and shade tolerant.

SEED BED PREPARATION:
Construction:
1. Clear the entrance and exit area of all vegetation, roots, and other objectionable material and properly grade it.
2. Place the gravel to the specific grade and dimensions shown on the plans, and smooth it.
3. Provide drainage to carry water to a sediment trap or other suitable outlet.
4. Use geotextile fabrics in order to improve stability of the foundation in locations subject to seepage or high water table.

Maintenance:
1. Per NCG-01 inspect at least once a week and after each 1 inch or greater rainfall; make any required repairs immediately.
2. Maintain the gravel pad in a condition to prevent mud or sediment from leaving the construction site. This may require periodic topdressing with 2 inch stone.
3. Immediately remove all objectionable materials spilled, washed or tracked onto public roadways.
Construction:
1. Uniformly grade a shallow depression approaching the inlet.
2. Drive 5-foot steel posts 2 feet into the ground surrounding the inlet. Space posts evenly around the perimeter of the inlet, a maximum of 4 feet apart.
3. Surround the posts with wire mesh hardware cloth. Secure the wire mesh to the steel posts at the top, middle, and bottom. Placing a 2-foot flap of the wire mesh under the gravel for anchoring is recommended.
4. Place clean gravel (NC DOT #5 or #57 stone) on a 2:1 slope with a height of 16 inches around the wire, and smooth to an even grade.
5. Once the contributing drainage area has been stabilized, remove accumulated sediment, and establish final grading elevations.
6. Compact the area properly and stabilize with groundcover.

Maintenance:
1. Inspect sediment fences at least once a week and after each 1 inch or greater rainfall. Make any required repairs immediately.
2. Clear the mesh wire of any debris or other objects to provide adequate flow for subsequent rains. Take care not to damage or undercut the mesh during sediment removal.
3. Replace stone as needed.
NOTES:
1. Lime, fertilize and seed before installation. Planting of shrubs, trees, etc. should occur after installation.
2. Slope surface shall be smooth before placement for proper soil contact.
3. Design velocities exceeding 2 feet/second require temporary blankets, mats or similar liners to protect seed and soil until vegetation becomes established.
4. Terminal anchor trenches are required at RECP ends and intermittent check slots must be constructed across channels at 25 foot intervals.
5. Terminal anchor trenches should be a minimum of 12 inches in depth and 6 inches in width. Intermittent check slots should be 6 inches deep and 6 inches wide.
6. For installation on a slope, place RECP 2-3 feet over the top of the slope and into an excavated end trench measuring approximately 12 inches deep by 6 inches wide. Pin the RECP at 1 foot intervals along the bottom of the trench, backfill and compact. Unroll the RECP down the slope maintaining direct contact between the soil and RECP. Pin using staples or pins in a 3 feet center-to-center pattern.
7. 11 gauge, at least 6 inch by 1 inch staples or 12 inch minimum length wooden stakes are recommended for anchoring.
8. Grass-lined channels with design velocities exceeding 6 feet/second should include turf reinforcement mats
9. Check slots to be constructed per manufacturers specifications.
10. Staking or stapling layout per manufacturers specification.
11. If there is a berm at the top of slope, anchor upslope of the berm.
12. Do not stretch blankets/mattings tight, allow the rolls to conform to any irregularities.
13. For slopes less than 3H:1V, rolls may be placed in horizontal strips.

MAINTENANCE:
1. Inspect Rolled Erosion Control Products at least weekly and after each rain of 1 inch or greater; repair immediately.
2. Good contact with the ground must be maintained, and erosion must not occur beneath the RECP.
3. Any areas of the RECP that are damaged or not in close contact with the ground shall be repaired and stapled.
4. If erosion occurs due to poorly controlled drainage, the problem shall be fixed and the eroded area protected.
5. Monitor and repair the RECP as necessary until ground cover is established.
Construction:
1. Construct the sediment barrier of standard strength or extra strength synthetic filter fabrics.
2. Ensure that the height of the sediment fence does not exceed 24 inches above the ground. (Higher fences may impound volumes of water sufficient to cause failure of the structure.)
3. Construct the filter fabric from a continuous roll cut to the length of the barrier to avoid joints. When joints are necessary, securely fasten the filter cloth only at a support post with 4 feet minimum overlap to the next post.
4. Support standard strength filter fabric by wire mesh fastened securely to the upslope side of the posts. Extend the wire mesh support to the bottom of the trench. Fasten the wire reinforcement, then fabric on the upslope side of the fence post. Wire or plastic zip ties should have a minimum 50 pound tensile strength.
5. When a wire mesh support fence is used, space posts a maximum of 8 feet apart. Supports should be driven securely into the ground a minimum of 24 inches.
6. Extra strength filter fabric with 6 feet post spacing does not require wire mesh support fence. Securely fasten the filter fabric directly to posts. Wire or plastic zip ties should have a minimum of 50 pound tensile strength.
7. Excavate the trench approximately 4 inches wide and 8 inches deep along the proposed line of the posts and upslope from the barrier.
8. Place 12 inches of fabric along the bottom and side of the trench.
9. Backfill the trench with soil placed over the filter fabric and compact. Thorough compaction of the backfill is critical to silt fence performance.
10. Do not attach filter fabric to existing trees.

Maintenance:
1. Inspect sediment fences at least once a week and after each 1 inch rainfall. Make any required repairs immediately.
2. Should the fabric of a sediment fence collapse, tear, decompose, or become ineffective, replace it promptly.
3. Remove sediment deposits as necessary to provide adequate storage volume for the next rain and reduce pressure on the fence. Take care to avoid undermining the fence during cleanout.
4. Remove all fencing materials and unstable sediment deposits and bring the area to grade and stabilize it after the contributing drainage area has been properly stabilized.
3' FILTER FABRIC ON GROUND

TOP OF SILT FENCE MUST BE AT LEAST 1' ABOVE THE TOP OF THE WASHED STONE

STEEL FENCE POST SET MAX 2' APART MIN. 18" INTO SOLID GROUND

BURY WIRE FENCE, FILTER FABRIC, AND HARDWARE CLOTH IN TRENCH

3' FILTER FABRIC ON GROUND

FILTER OF #57 WASHED STONE

BURIED 6" OF UPPER EDGE OF FILTER FABRIC IN TRENCH

3' FILTER FABRIC ON GROUND

BURIED 6" OF UPPER EDGE OF FILTER FABRIC IN TRENCH

BURIED 6" OF UPPER EDGE OF FILTER FABRIC IN TRENCH

BURIED 6" OF UPPER EDGE OF FILTER FABRIC IN TRENCH

SILT FENCE OUTLET

NOTES:
1. Hardware cloth and gravel should overlay the silt fence at least 12 inches.
2. Stone outlets should be placed on low elevation areas of silt fence and based on field conditions.

MAINTENANCE:
1. Per NCG-01, inspect outlet at least once a week and after each 1 inch or greater rainfall event. Complete any required repairs immediately.
   Freshen stone when sediment accumulation exceeds 6 inches. Keep mesh free of debris to provide adequate flow.
2. Remove sediment when half of stone outlet is covered.
3. Replace stone as needed to facilitate de-watering.
NOTES:
1. Other materials providing equivalent protection against erosive velocities may be substituted for use in silt socks or wattles.
2. Use a minimum 12 inch diameter silt sock/wattle.
3. Fill silt sock/wattle netting uniformly to the desired length such that logs do not deform.
4. Use 24 inch long wooden stakes with a 2 inch x 2 inch nominal cross section.
5. Install silt sock/wattle(s) to a height on slope so flow will not wash around silt sock/wattle and scour slopes, or as directed.
6. Install a minimum of two upslope stakes and four downslope stakes at an angle to wedge silt sock/wattle to ground at bottom ditch.
7. The use of Polyacrylamide (PAM) is recommended. Apply 2-3 ounces of anionic PAM on top of sock/wattle. Apply 1-2 ounces to matting on either side of sock/wattle. Reapply after each 1.0 inch rain event.

MAINTENANCE:
1. Inspect silt sock/wattle(s) weekly and after each 1 inch or greater rain. Remove accumulated sediment and any debris.
2. Silt sock/Wattle must be replaced if clogged or torn.
3. If ponding becomes excessive, the silt sock/wattle may need to be replaced with a larger diameter or a different measure.
4. Reinstall if damaged or dislodged.
5. Silt socks/Wattles shall be inspected until land disturbance is complete and the area above the measure is permanently stabilized.

Ditch Spacing For 12 Inch Silt Sock/Wattle

<table>
<thead>
<tr>
<th>Channel Slope (%)</th>
<th>Space Between Silt Socks/ Wattles (Feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>33</td>
</tr>
<tr>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td>5</td>
<td>20</td>
</tr>
</tbody>
</table>

SILT SOCK / WATTLE FOR CHECK DAMS

EFFECTIVE DATE: 09/28/2021
NOTE:
1. Other materials providing equivalent protection against erosive velocities may be substituted for use in silt socks or wattles.
2. Fill silt sock/wattle netting uniformly with compost to the desired length such that logs do not deform.
3. Silt sock/Wattle(s) should be installed parallel to and a minimum of 10 feet beyond the toe of a graded slope. Silt Sock/Wattle(s) located below flat areas should be located at the edge of the land disturbance. The ends of the silt sock/wattle(s) should be turned slightly upslope to prevent runoff from going around the end of the silt sock/wattle(s).
4. Oak or other durable hardwood stakes with a 2 inch x 2 inch cross section should be driven vertically plumb, through the center of the silt sock/wattle. Stakes should be placed at a maximum interval of 4 feet or a maximum interval of 8 feet if the silt sock/wattle is placed in a 4 inch trench.
5. In the event staking is not possible (ie. when socks/wattles are used on pavement) heavy concrete blocks shall be used behind the silt sock/wattle to hold it in place during runoff events.

MAINTENANCE:
1. Inspect silt sock/wattle at least weekly and after each 1 inch or greater rainfall. Remove accumulated sediment and any debris as needed to allow for adequate flow.
2. Silt sock/Wattle must be replaced if clogged or torn.
3. If ponding becomes excessive, the silt sock/wattle may need to be replaced with a larger diameter or a different measure.
4. Reinstall if damaged or dislodged.
5. Silt socks/wattles shall be inspected until land disturbance is compete and the area above the measure has been permanently stabilized.