

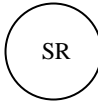
	Glasgow, Kentucky Stormwater Best Management Practices (BMPs) Erosion Prevention Practices (EPPs)	EPP-08															
	Activity: Surface Roughening (SR)																
PLANNING CONSIDERATIONS: Design Life: 1 yr Acreage Needed: Minimal Estimated Unit Cost: Medium Monthly Maintenance: 10% of Installation																	
	<div style="text-align: center;">Target Pollutants</div> <table border="0" style="width: 100%; text-align: center;"> <tr> <td>Significant ♦</td> <td>Partial ♦</td> <td>Low or Unknown ♦</td> </tr> <tr> <td>Sediment ♦</td> <td>Heavy Metals ♦</td> <td>Nutrients ♦</td> </tr> <tr> <td>Oil & Grease ♦</td> <td>Bacteria & Viruses ♦</td> <td>Floatable Materials ♦</td> </tr> <tr> <td></td> <td>Oxygen Demanding Substances ♦</td> <td>Toxic Materials ♦</td> </tr> <tr> <td></td> <td></td> <td>Construction Waste ♦</td> </tr> </table>	Significant ♦	Partial ♦	Low or Unknown ♦	Sediment ♦	Heavy Metals ♦	Nutrients ♦	Oil & Grease ♦	Bacteria & Viruses ♦	Floatable Materials ♦		Oxygen Demanding Substances ♦	Toxic Materials ♦			Construction Waste ♦	<div style="text-align: center;">  <p>SR</p> </div>
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Description Suitable Applications Approach	<p>This BMP corrects the affects of runoff velocities, sediment trapping and sheet flow length by constructing small furrows across a slope, and utilizing construction equipment to track soil surface. The primary function of surface roughening is to temporarily stabilize a slope until it can receive permanent vegetation.</p> <ul style="list-style-type: none"> ➤ All exposed construction slopes. ➤ Exposed soils where seeding, planting, and mulching will benefit from surface roughening. ➤ Areas that have the potential for erosion of clay (smooth, hard surfaces), silt or sand sized particles. <p>Roughening methods include:</p> <ul style="list-style-type: none"> ➤ Terracing, (see EPP-13) ➤ Fill Slope Roughening ➤ Grooving ➤ Roughening with tracked machinery <p>Factors to be considered in choosing a method are:</p> <ul style="list-style-type: none"> ➤ Slope steepness ➤ Mowing requirements ➤ Soil type 																

**Installation
Procedures****Fill Slope Roughening**

- Place fill slopes with a gradient steeper than 3:1 (H:V) in lifts not to exceed 8 in., and make sure each lift is properly compacted.
- The face of the slope should consist of loose, uncompacted fill 4 in. to 6 in. deep.
- Use grooving, furrowing, or tracking to roughen the face of the slopes, if necessary.
- Apply seed, fertilizer and mulch then track or punch in the mulch. See Permanent Seeding ([EPP-06](#)), Temporary Seeding ([EPP-05](#)), and Mulching ([EPP-10](#)) BMPs.
- Do not blade or scrape the final slope face.

Grooving - Cuts, Fills, and Graded Areas

- Slopes that will be maintained by mowing should be no steeper than 3:1 (H:V).
- To roughen these areas, create shallow grooves by normal tilling, disking, harrowing, or use a cultipacker-seeder. Make the final pass of any such tillage on the contour.
- Make grooves formed by such implements close together, less than 10 in. apart and 3 in. deep.
- Excessive roughness is undesirable where mowing is planned.
- Practice should be used on slopes no longer than 200 feet.

Furrowing

- Slope no greater than 3:1 (H:V).
- Use equipment to cut a 6" deep furrow while placing cut material below furrow
- Cut furrows along the contour and at a minimum spacing of 50'.
- Practice should not be used on slope longer than 200 feet.

Roughening with Tracked Machinery

- Limit roughening with tracked machinery to soils with a sandy textural component to avoid undue compaction of the soil surface.
- Operate tracked machinery up and down the slope to leave horizontal depressions in the soil, running with the contours of the slope. Do not back blade during the final grading operation.
- Seed and mulch roughened areas to obtain optimum seed germination and growth.
- Periodically check the seeded or planted slopes for rills and washes, particularly after significant storm events, greater than 0.5 in.
- Fill these areas slightly above the original grade, then reseed and mulch as soon as possible.

Maintenance**Inspection
Checklist**

- Surface roughened areas inspected after recent wet weather events.
- Rills and washed areas have been re-roughened and re-seeded.
- Practice is maintained and properly functioning; other practices are not required.