

## Level Spreader-Filter Strip Maintenance Requirements

Important operation and maintenance procedures:

- Immediately after the filter strip is established, any newly planted vegetation will be watered twice weekly if needed until the plants become established (commonly six weeks).
- Stable groundcover will be maintained in the drainage area to reduce the sediment load to the level spreader-filter strip.
- Every two weeks during the growing season, the filter strip will be mowed. Turf grass should not be cut shorter than 4-6 inches and may be allowed to grow as tall as 12 inches depending on aesthetic requirements (NIPC, 1993).
- Once a year, the soil will be aerated if necessary and the filter strip will be reseeded to maintain a dense growth of vegetation.
- Once a year, soil pH will be tested and lime will be added if necessary.

For the first two years after the LS-FS is established, it shall be inspected **quarterly and within 24 hours after every storm event greater than 1.0 inches**. After two years of successful performance, it will be inspected quarterly. Records of operation and maintenance shall be kept in a known set location and shall be available upon request.

Inspection activities shall be performed as follows. Any problems that are found shall be repaired immediately.

SCM element:	Potential problem:	How to remediate the problem:
<b>The entire LS-FS</b>	Trash/debris is present.	Remove the trash/debris.
<b>The flow splitter device (if applicable)</b>	The flow splitter device is clogged.	Unclog the conveyance and dispose of any sediment off-site.
	The flow splitter device is damaged.	Make any necessary repairs or replace if damage is too large for repair.
<b>The blind swale</b>	The swale is clogged with sediment.	Remove the sediment and dispose of it off-site.
	The swale is overgrown with vegetation.	Mow vegetation. Regrade and vegetate if the swale has become silted in.
<b>The level spreader</b>	The level lip is cracked, settled, undercut, eroded or otherwise damaged.	Repair or replace the lip.
	There is erosion around the end of the level spreader that show stormwater has bypassed it.	Regrade the soil to create a berm that is higher than the level lip, plant ground cover and water until it is established. Provide lime and a one-time fertilizer application.
	Trees or shrubs have begun to grow on the swale or just downslope of the level lip.	Remove the shrubs or trees.
<b>The bypass channel</b>	Areas of bare soil and/or erosive gullies have formed.	Regrade the soil if necessary to remove the gully, plant ground cover and water until it is established. Provide lime and a one-time fertilizer application.
	Turf reinforcement is damaged or riprap is rolling downhill.	Study the site to see if a larger bypass channel is needed (enlarge if necessary). After this, reestablish the erosion control material.

**Level Spreader-Vegetated Filter Strip Maintenance Requirements (continued)**

<b>SCM element:</b>	<b>Potential problem:</b>	<b>How to remediate the problem:</b>
<b>The filter strip</b>	Grass is too short or too long.	Maintain grass at a height of approximately three to six inches.
	Areas of bare soil and/or erosive gullies have formed.	Regrade the soil if necessary to remove the gully, plant ground cover and water until it is established. Provide lime and a one-time fertilizer application.
	Sediment is building up on the filter strip.	Remove the sediment and restabilize the soil with vegetation if necessary. Provide lime and a one-time fertilizer application.
	Grass is dead, diseased or dying.	Determine the source of the problem: soils, hydrology, disease, etc. Remedy the problem and replace plants. Provide a one-time fertilizer application to establish the ground cover if necessary.
	Plants are dead, diseased or dying.	Determine the source of the problem: soils, hydrology, disease, etc. Remedy the problem and replace plants. Provide a one-time fertilizer application to establish the ground cover if a soil test indicates it is necessary. If sod was used, check to see that it was not grown on clay or impermeable soils. Replace sod if necessary.
	Nuisance vegetation is choking out the grass.	Remove vegetation by hand if possible. If pesticide is used, do not allow it to get into the receiving water.
<b>The receiving water</b>	Erosion or other signs of damage have occurred at the outlet.	Repair the damage and improve the flow dissipation structure.
	Discharges from the LS-FS are causing erosion or sedimentation in the receiving water.	Contact Wake County Watershed Management and the NCDEQ Raleigh Regional Office.