

STANDARD AND SPECIFICATIONS FOR LEVEL SPREADER



Definition

A temporary non-erosive outlet for concentrated runoff, constructed to disperse flow uniformly across a slope.

Purpose

To convert concentrated flow to sheet flow and release it uniformly over a stabilized area.

Conditions Where Practice Applies

Where sediment-free storm runoff can be released in sheet flow down a stabilized slope without causing erosion; where a level lip can be constructed without filling; where the area below the level lip is uniform with a slope of 10% or less and the runoff will not re-concentrate after release; and where no traffic will be allowed over spreader.

Design Criteria

The design capacity shall be determined by estimating the peak flow from the 10-year storm. The drainage area shall be restricted to limit the maximum flows into the spreader to 30 cfs. The level spreader shall have the following minimum dimension:

Design Flow (cfs)	Minimum		End	
	Entrance Width (ft.)	Depth (ft.)	Width (ft.)	Length (ft.)
0-10	10	0.5	3	10
10-20	16	0.6	3	20
20-30	24	0.7	3	30

A transition section 20 feet in length shall be constructed from the width of the diversion or channel to the width of the spreader to ensure uniform outflow. This last transition section will blend the diversion grade to zero grade at the beginning of the spreader.

Construct the level lip in undisturbed soil to a uniform height and zeros grade over the length of the spreader. Protect the lip with an erosion resistant material or mat to prevent erosion and allow vegetation to become established.

The outlet area should be a generally smooth, well-vegetated areas no steeper than 10 percent.

See Figure 5A.5 on page 5A.14 for details.

**Figure 5A.5
Level Spreader**

