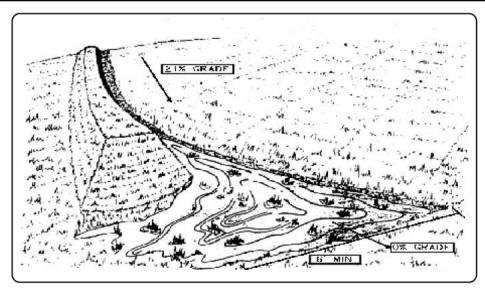
# **BMP: Level Spreaders**



#### **DESCRIPTION:**

Level spreaders are devices used at stormwater outlets to spread out collected stormwater flows into sheetflow (runoff that flows over ground surface in a thin, even layer). Typically, a level spreader consists of a depression in the soil surface that spreads the flow onto a flat area across a gentle slope. Level spreaders then release the stormwater flow onto level areas stabilized by vegetation to reduce speed and increase infiltration.

#### **APPLICATION:**

Level spreaders are most often used as an outlet for temporary or permanent stormwater conveyances or dikes. Runoff that contains high sediment loads should be treated in a sediment trapping device prior to release into a level spreader.

# INSTALLATION/APPLICATION CRITERIA:

- The length of the spreader depends upon the amount of water that flows through the conveyance.
- Larger volumes of water need more space to even out.
- Level spreaders are generally used with filter strips (see Filter Strips BMP).
- The depressions are seeded with vegetation (see Permanent & Temporary Seeding BMP).
- Level spreaders should be constructed on natural soils and not on fill material.
- The entrance to the spreader should be level so that the flow can spread out evenly.
- Level Spreader should have a grade of 0%; minimum width should be 6' and minimum depth should be 6" minimum.

#### LIMITATIONS:

- Can easily develop "short circuiting" (concentration of flows into small streams instead of sheetflow over the spreader) because of erosion or other disturbance.
- Cannot handle large quantities of sediment-laden stormwater.

#### **MAINTENANCE:**

- The spreader should be inspected after every storm event to check for damage.
- If ponding or erosion channels develop, the spreader should be regraded.
- Dense vegetation should be maintained and damaged areas reseeded as needed.

# CONSIDERATIONS

- 🗷 Soils
- Area Required
- 🗷 Slope
- □ Water Availability
- Aesthetics
- □ Hydraulic Head
- Environmental Side Effects



#### **ENGINEERING DEPARTMENT**

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## **TARGETED POLLUTANTS**

- Sediment
- Nutrients
- □ Heavy Metals
- □ Toxic Materials
- Oxygen Demanding Substance
- □ Oil & Grease
- □ Floatable Materials
- □ Bacteria & Viruses
- High Impact
- Medium Impact
- □ Low or Unknown Impact

## IMPLEMENTATION REQUIREMENTS

- Capital Costs
- O&M Costs
- Maintenance
- □ Training
- High
- 🗷 Medium
- □ Low