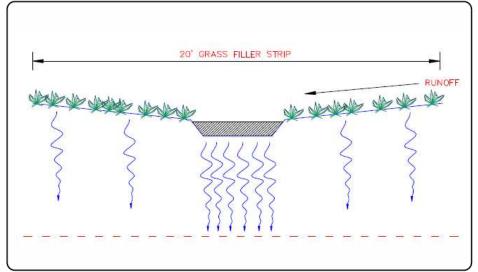
BMP: Infiltration IN



## **CONSIDERATIONS**

- Soils
- Area Required
- Slope
- □ Water Availability
- □ Aesthetics
- ☐ Hydraulic Head

# WEBER COUNTY

# **ENGINEERING DEPARTMENT**

2380 Washington Blvd., Suite 240 Ogden, UT 84401 (801) 399-8374

#### **DESCRIPTION:**

A family of systems in which the majority of the runoff from small storms is infiltrated into the ground rather than discharged to a surface water body. Infiltration systems include: ponds, vaults, trenches, dry wells, porous pavement, and concrete grids.

#### APPLICATION:

 Suitable site soils and geologic conditions; low potential for long-term erosion in the watershed.

## **INSTALLATION/APPLICATION CRITERIA:**

- ▶ Volume sized to capture a particular fraction of annual runoff.
- ▶ Pretreatment is necessary in fine soils.
- Emergency overflow or bypass for larger storms is needed.
- ▶ Observation wells are required in trenches.
- ► Infiltration surface must be protected during construction.
- ▶ Pond sides need vegetation to prevent erosion.
- During construction frequent inspection for clogging is necessary.
- ► Line sides of trench with permeable filter fabric
- ► Trench should be filled with clean washed stone or gravel. (1.5-3.0 in.)
- ► A six inch sand filter layer; cloth lines the bottom of trench.

#### LIMITATIONS:

- Loss of infiltrative capacity and high maintenance cost in fine soils.
- ▶ Low removal of dissolved pollutants in very coarse soils.
- ▶ Not suitable on fill sites or steep slopes.
- ► The risk of ground water contamination in very coarse soils, may require ground water monitoring.

#### **MAINTENANCE:**

- ► Remove sediment at a frequency appropriate to avoid excessive concentrations of pollutants and loss of infiltrative capacity.
- Frequent cleaning of porous pavements is required.
- ▶ Maintenance is difficult and costly for underground trenches.

#### **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