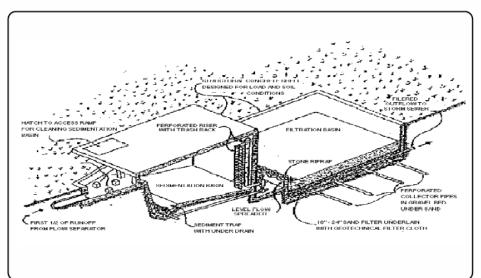
BMP: Surface Sand Filter System



CONSIDERATIONS

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



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DESCRIPTION:

The surface sand filter system (aka Austin sand filter) consists of a sedimentation chamber or pond followed by a surface sand filter with collector under drains in a gravel bed. Filtered runoff is conveyed to a storm sewer or channel by gravity flow or by pumping.

APPLICATIONS:

- Commercial and institutional parking lots, small shopping centers, and infill development.
- Smaller redevelopment sites where the use of conventional BMPs is not practical.

INSTALLATION/APPLICATION CRITERIA:

- Filter bed chambers that are too shallow could freeze, causing the filter to become ineffective.
- Pretreatment may be necessary to protect the filter media from excessive sediment loading.
- ▶ System should be designed for easy maintenance.

LIMITATIONS:

- Sites with little to no gradient may prevent sufficient gravity flow through the system.
- Extended periods of cold weather could affect pollutant removal efficiency.

MAINTENANCE:

- System should be inspected yearly and after storm events to assess the filtration capacity of the filter.
- ► Filter sand should be replaced every few years to maintain pollutant removal efficiency.

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