



## CONSIDERATIONS

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



# WEBER COUNTY

## ENGINEERING DEPARTMENT

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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