
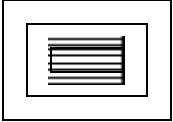


Oak Park Conservancy District Stormwater Best Management Practices (BMPs) Sediment Management Practices (SMPs)		SMP-13
Activity: Temporary Inlet Protection		
PLANNING CONSIDERATIONS: Design Life: 1 yr Acreage Needed: Minimal Estimated Unit Cost: Avg: \$100 Range: \$50-\$150 Annual Maintenance: 60% of Installation		
	TIP	
	Target Pollutants	
	Significant ◆ Partial ◆ Low or Unknown ◇ Sediment ◆ Heavy Metals ◇ Nutrients ◇ Oxygen Demanding Substances ◇ Toxic Materials ◇ Oil & Grease ◇ Bacteria & Viruses ◇ Floatable Materials ◆ Construction Waste ◇	
Description	<p>This BMP allows sediment to settle prior to entering into a stormwater catch basin or inlet. The detainment of sediment-laden runoff through filtering devices allows for a cleaner runoff to be discharged into the environment.</p>	
Suitable Applications	<ul style="list-style-type: none"> ➤ Protection of storm drain inlets or catch basins stems from promoting sedimentation upstream of the inlet or covering the inlet that receives runoff. ➤ Areas where ponds are not encroached into access road or highway traffic. ➤ Disturbed tributary areas have not yet been permanently stabilized. ➤ Areas where drainage is ½ acre or less. ➤ Areas with drainage more than ½ acre must be accompanied by a downstream sediment trap or basin. 	
Installation Procedures	<ul style="list-style-type: none"> ➤ Sediment filters are used as storm inlet protectors. ➤ Filter Fabric Fences are desired for basins less than one acre with less than a 5% slope. Place 2 in. by 2 in. wooden stakes around the perimeter of the inlet a max. of 3 ft apart with an ending depth of at least 8 in. into the ground. Stakes should be 3 ft long. Excavate trench 8 in. wide and 12 in. deep around the outside perimeter of the stakes. Staple fabric to the stakes so that 32 in. of the fabric extends out and can be formed into the trench (use heavy-duty wire staples at least 1 in length). Backfill trench with a ¾ in or less washed gravel all the way around. ➤ Block and Gravel Filter is desired for flows greater than 0.5 cfs. Hardware cloth should be dropped ½ in over drop inlet so that wire extends a minimum of 1 ft on each side. Concrete blocks should be placed lengthwise on their sides in a single row around the perimeter of the inlet with ends abut adjacently. Height can be 4, 8 or 12 in. wide by stacking combinations of concrete. Rows should be no greater than 24 inches 	

Activity: Temporary Inlet Protection**Installation Procedures (Continued)**

high. Wire mesh should be over the outside vertical face of the concrete blocks to prevent stone from washing through blocks. Pile wash stone against the wire mesh to the top of the blocks. Use $\frac{3}{4}$ to 3 in. gravel.

- **Gravel and Wire Mesh Filter** is used on curb or drop inlets where construction equipment may drive over the inlet. Place over drop inlet so that wire extends on both sides at a minimum of 1 ft. Use hardware cloth or wire mesh with $\frac{1}{2}$ in. opening. Place $\frac{3}{4}$ to 3 in. gravel over the filter fabric/wire mesh. Depth should be 12 inches over the entire inlet opening. Excavate drop inlet sediment trap, minimum storage capacity calculated at the rate of 67 cubic yards per acre (yd^3/ac) of tributary area should be sized.
- **Sand Bag Barriers** are used to create a small sediment trap upstream of inlets on sloped, paved streets. Bags should be made of geotextile material and fill with $\frac{3}{4}$ in. rock or $\frac{1}{4}$ in. pea gravel. Leave room upstream for settlement and ponding. Place several layers of bags and pack them tightly together leaving a gap of one bag on the top row to serve as a spillway.
- Excavated Drop Inlet Sediment Traps are excavated areas around inlets to trap sediment.
- Gates and inlets should be a sealed to prevent seepage of sediment-laden water.
- Excavate sediment sumps 1 to 2 feet with 2:1 (H:V) side slopes around the inlet.
- Provide areas around the inlet for water to pond without flooding structures and property.

Maintenance

- Replace clogged fabric immediately.
- Remove sediment when depth exceeds half the height of the filter or half the depth of the sediment trap.
- Inspect all inlets and catch basins weekly before and after each rain event.
- Inspect once every 24 hours during heavy rainfall events.
- After site is stabilized remove all inlet devices within 30 days.
- Bring disturbed area to final grade and smooth and compact it.
- Clean around and inside the storm drain inlet.

Inspection Checklist

- The stakes of filter fabric fence are secure.
- The filter fabric is clean and not torn or clogged.
- Sediment behind the silt fence does not exceed $\frac{1}{3}$ height of the fabric fence.
- Blocks of the block gravel filter are in good working conditions. Gravel around the blocks is preventing wash through.
- Sediment from behind the gravel pack does not exceed $\frac{1}{3}$ height of the fabric fence.
- Bags are cleaned and properly maintained.
- Structures have not been displaced.
- Volume of sediment is less than $\frac{1}{2}$ of the basin's volume.