

**Oak Park Conservancy District
Stormwater Best Management Practices (BMPs)
Good Housekeeping Practices (GHPs)**

GHP-17

Activity: Maintenance of Collection Facilities and Appurtenances

PLANNING CONSIDERATIONS:

Training:
Moderate

PE Design Approval:
Not Required

Maintenance:
Moderate

Inspection Frequency:
Monthly, and as needed following significant wet weather events



Target Pollutants

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

Catch basins have a sediment sump at its base designed to catch and retain sediment below the overflow point. This basin removes pollutants, reduce high pollutant concentration during first flush of storms, prevent clogging of the downstream conveyance system and restore the catch basins' sediment trapping capacity. The proper maintenance and siltation removal is required to have an effective storm water pollutant removal system for both wet and dry detention ponds and infiltration devices.

Approach

- Regular maintenance of catch basins and inlets is necessary to ensure their proper functioning. Clogged catch basins are not only useless but may act as a source of sediments and pollutants.
- In the same way, if sediment traps and basins, dry detention and wet detention ponds are not routinely cleaned and dredged then they can act as pollutant sources under certain storm conditions. Proper maintenance of detention pond and infiltration device systems is a source control procedure necessary to ensure effective stormwater pollutant removal efficiency. Routine and corrective maintenance needs should be monitored after storms for proper function of wet ponds, detention basins, and infiltration device structures. Proper maintenance of these structures requires periodic silt/sediment and trash debris removal, as well as timely vegetation control. They should be cleaned out when it is recognized that they have filled from 1/5 to 1/3 of their pollutant (sediment) storage capacity.

Approach

- More frequent sediment removal is recommended, especially in areas where roadway drainage provides a significant runoff component. High accumulation rates of heavy metal contaminants (lead, zinc, and copper) have been identified in these BMP structures adjacent to high traffic areas. In order to avoid situations of hazardous waste disposal, sediment dredging and excavation should be given frequent priority.
- Clean catch basins in high pollutant load areas just before the wet season to remove sediments and debris accumulated during the summer.
- Catch basins should be inspected weekly and cleaned if necessary to reduce the possibility of sediment and other pollutants from leaving the construction site. This should be checked after all areas have been stabilized and at the end of the project.
- To prevent sediment and pollutant build-up in on-site catch basins, be sure to follow the guidelines set out in Temporary Inlet Protection, SMP-13.
- Maintain a clean work site, free of litter that can build-up and clog catch basins and downstream conveyance systems.
- Do not allow dumping into catch basins and stormwater inlets.
- Clean accumulated sediment and silt out of pre-treatment inlets when they have reached 1/3 of their capture volume.
- Removal of accumulated paper, trash, and debris should occur weekly or as needed to prevent clogging of control devices throughout the construction project.
- Vegetation growth in stormwater quality devices should not be allowed to exceed 24 inches (0.61 m) in height.
- Mow the slopes periodically and check for clogging, erosion and tree growth on the embankment.
- Corrective maintenance may require more frequent attention (as required).
- Maintenance of accurate logs to evaluate materials removed and improvements made.

Maintenance

- Maintenance crews may require access vehicles, dump trucks, bulldozers, and dredging/excavation equipment. Manual use equipment (such as rakes, shovels, sickles, and machetes) may suffice for maintenance of dry detention ponds and infiltration device systems. Staffing will require a minimum of two (2) person crews for health and safety reasons and effective structural BMP maintenance.
- Training
- Crews must be trained in proper maintenance, including record keeping and disposal.

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- Maintenance**
- Appropriate excavation and maintenance procedures.
 - Proper waste disposal procedures.
 - Channel maintenance and use of heavy equipment.
 - Identification and handling of hazardous materials/wastes.
 - Application of this technique in "blue line" streams requires permits from the U.S. Army Corps of Engineers, and the Indiana Department of Environmental Management.
 - Frequent sediment removal is labor and cost intensive.
- Inspection Checklist**
- Dredged sludge is dried prior to removal to waste management facility. (See GHP-01: Dewatering Operations.)
 - All drainage activities are approved by IDEM.