

PC-37 STREET SWEEPING



BMP Objectives

- Perimeter Control
- Slope Protection
- Borrow and Stockpiles
- Drainage Areas
- Sediment Trapping
- Stream Protection
- Temporary Stabilizing
- Permanent Stabilizing

Definition and Purpose

In this BMP, mechanical vehicles are used to physically remove solids and other pollutants from impervious surfaces. New street sweeping technologies, including vacuum-assisted sweeping, can potentially reduce total annual suspended solids and pollutants up to 80 percent.

Appropriate Applications

- Well-suited in urban environments where little land is available for structural or sediment controls.
- Can be used in commercial districts and industrial sites and in intensely developed areas near receiving waters.
- Should be considered for highway applications along road shoulders, rest stops, parking areas, or maintenance yards.
- Best results when most sophisticated sweepers are used at a weekly to bimonthly frequency, depending on local regulations and conditions.
- Types of sweepers and practices include: vacuum-assisted sweepers, mechanical sweepers, regenerative air sweepers, vacuum-assisted dry sweepers, and tandem sweeping.

Limitations

- Not a good application in removing oil and grease.
- Older mechanical sweepers are limited in their ability to remove fine sediment.

Design Parameters

- Sweepers need to be operated at optimum speeds and sweeping patterns, with brushes properly adjusted, for maximum particulate removal from surfaces.

- Generally, 50 percent of particulates can be removed if sweeping is done at least once between storms with two passes per run. Depending on local traffic conditions and storm frequencies, sweeping may need to be done at more frequent intervals to achieve desired particulate removal.
- Arrangements shall be made for the disposal of collected wastes.
- Street sweeping is more effective if upstream erosion control and stormwater BMPs are implemented, especially at construction sites.

Maintenance and Inspection

- Conduct inspections as required by the NPDES permit or contract specifications during construction.
- Periodic inspection and maintenance will be required based on post-construction site conditions.
- Make any repairs necessary to ensure the measure is operating properly.
- Maintenance requirements are greater for certain types of sweepers.