

# Street Sweeping

## Why Sweep Streets?

A swept street looks good. Municipal officials with clean streets also look good. Street sweeping removes glass and other hazards to motorists and pedestrians. Water flows off roads after highway departments sweep street gutters and surfaces. Sweeping protects drainage system capacity. It removes sediments and debris before they clog catch basins, piping, and ditches.

For these reasons alone, municipalities have swept streets. The increasing focus on water quality makes street sweeping even more important. This article provides information to make street sweeping more efficient.

## Vacuum Sweepers

Traditional brush type sweepers remove only about 15 percent of fine materials. Modern vacuum machines can remove over 90 percent. Although often too expensive for a town to own, it can contract for sweeping by modern machines.

The more efficient machines also reduce water pollution. Solids, and contaminants attached to them, can pollute receiving waters at drainage system discharges. Vacuum sweepers remove solids before they enter a drainage system.

Efficient street sweeping can reduce filter, interceptor, and detention pond construction. These devices are expensive to construct and maintain. Instead, some public works officials use the new sweepers to *clean* streets monthly, sometimes weekly

## Sweeping Practices

Highway departments use mechanical equipment to pick up sediment and debris, or create piles for immediate pick up in trucks. In pollution sensitive areas, they should use modern sweepers. They should not use water flushing to clean roads and parking lots.

Many road managers apply the following best practices.

1. **Inventory.** Maps should show all roads and parking lots. A database should describe the sweeping program for each paved surface.
2. **Scheduling.** They schedule sweeping based on:

- a) Sweeping and catch basin cleaning records that show the amount and type of material removed. These provide expected quantities for future sweeping.
  - b) A goal to reduce catch basin cleaning material. Street sweeping is usually less expensive than catch basin cleaning. In addition, less material in catch basins reduces contamination.
  - c) Removing sand and salt as early as possible in the spring.
  - d) Sweeping before water system flushing and catch basin cleaning.
  - e) Sweeping residential streets only in the spring and fall.
3. **Operations.** The following practices increase effectiveness and efficiency.
    - a) Crews working longer shifts, such as four 10-hour days, when sweeping periods are short.
    - b) Double shifts, especially in the spring, to reduce material quantities washed into drainage systems.
    - c) Some road managers use a water truck to wet the surface instead of the sweeper spray. The spray is seldom effective. Sweepers can operate longer when not refilling their water tanks. One driver can drive both the water truck and the debris pick up truck.
  4. **Hazardous Materials.** If sweeping crews see evidence of oil or other chemicals, they should skip the area. The municipality should test the material. It must remove and dispose of hazardous waste in accordance with applicable regulations.
  5. **Training Operators.** Skilled operators should train less experienced and new operators. This increases efficiency and reduces mistakes when the operator “goes solo.”

### Sources

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