

# SC-43 Parking Area Maintenance

## Description

Parking lots can contribute a number of substances such as trash, suspended solids, hydrocarbons, oil and grease, and heavy metals that can enter receiving waters through stormwater runoff or non-stormwater discharges. The protocols in this fact sheet are intended to prevent or reduce the discharge of pollutants from parking areas and include using good housekeeping practices, following appropriate cleaning practices, following appropriate cleaning practices, following appropriate cleaning practices (BMPs), and training employees.

BMPs for other outdoor areas on-site (loading/unloading, material storage, and equipment operations) are described in fact sheets SC-30 through SC-33.

## Approach

The goal of this program is to ensure that stormwater pollution prevention practices are considered when conducting activities on or around parking areas to reduce potential for pollutant discharge to receiving waters. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

## General Pollution Prevention Protocols

- Encourage advanced designs and maintenance strategies for impervious parking lots. Refer to the treatment control BMP fact sheets in this Handbook for additional information.
- Keep accurate maintenance logs to evaluate BMP implementation.



### Good Housekeeping

- Keep all parking areas clean and orderly. Remove debris, litter, and sediments in a timely fashion.
- Post “No littering” signs, and enforce antilitter laws.
- Provide an adequate number of litter receptacles.

## Objectives

- *Cover*
- *Contain*
- *Educate*
- *Reduce/Minimize*
- *Substitute Products*

## Targeted Constituents

<i>Sediment</i>	✓
<i>Nutrients</i>	
<i>Trash</i>	✓
<i>Metals</i>	✓
<i>Bacteria</i>	
<i>Oil and Grease</i>	✓
<i>Organics</i>	✓

## Minimum BMPs Covered

 <i>Good Housekeeping</i>	✓
 <i>Preventative Maintenance</i>	✓
 <i>Spill and Leak Prevention and Response</i>	✓
 <i>Material Handling &amp; Waste Management</i>	
 <i>Erosion and Sediment Controls</i>	
 <i>Employee Training Program</i>	✓
 <i>Quality Assurance and Record Keeping</i>	✓



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- Clean out litter receptacles frequently and cover them to prevent spillage.



## **Preventative Maintenance**

### ***Inspection***

- Have designated personnel conduct inspections of parking facilities and stormwater conveyance systems associated with parking facilities on a regular basis.
- Inspect cleaning equipment/sweepers for leaks on a regular basis.

### ***Surface Cleaning***

- Use dry cleaning methods (e.g., sweeping, vacuuming) to prevent the discharge of pollutants into the stormwater conveyance system if possible.
- Establish frequency of public parking lot sweeping based on usage and field observations of waste accumulation.
- Sweep all parking lots at least once before the onset of the wet season.
- Dispose of parking lot sweeping debris and dirt at a landfill.
- Follow the procedures below if water is used to clean surfaces:
  - ✓ Block the storm drain or contain runoff.
  - ✓ Collect and pump wash water to the sanitary sewer or discharge to a pervious surface. Do not allow wash water to enter storm drains.
- Follow the procedures below when cleaning heavy oily deposits:
  - ✓ Clean oily spots with absorbent materials.
  - ✓ Use a screen or filter fabric over inlet, then wash surfaces.
  - ✓ Do not allow discharges to the storm drain.
  - ✓ Vacuum/pump discharges to a tank or discharge to sanitary sewer.
  - ✓ Dispose of spilled materials and absorbents appropriately.

### ***Surface Repair***

- Check local ordinances for standard urban stormwater mitigation plan/low impact development (SUSMP/LID) ordinance.
- Preheat, transfer, or load hot bituminous material away from storm drain inlets.
- Apply concrete, asphalt, and seal coat during dry weather to prevent contamination from contacting stormwater runoff.
- Cover and seal nearby storm drain inlets where applicable (with waterproof material or mesh) and manholes before applying seal coat, slurry seal, and so forth. Leave

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covers in place until the job is completed and all water from emulsified oil sealants has drained or evaporated. Clean any debris from these covered manholes and drains for proper disposal.

- Use only as much water as necessary for dust control during sweeping to avoid runoff.
- Catch drips from paving equipment that is not in use with pans or absorbent material placed under the machines. Dispose of collected material and absorbents properly.



## Spill and Leak Prevention and Response

- Keep your spill prevention, control, and countermeasure (SPCC) plan up to date.
- Place a stockpile of spill cleanup materials where they are readily accessible or at a central location.
- Clean up fluid spills immediately with absorbent rags or material.
- Dispose of spilled material and absorbents properly.



## Employee Training Program

- Provide regular training to field employees and/or contractors regarding cleaning of paved areas and proper operation of equipment.
- Train employees and contractors in proper techniques for spill containment and cleanup.
- Use a training log or similar method to document training.



## Quality Assurance and Record Keeping

- Keep accurate maintenance logs that document minimum BMP activities performed for parking area maintenance, types and quantities of waste disposed of, and any improvement actions.
- Keep accurate logs of spill response actions that document what was spilled, how it was cleaned up, and the method used to dispose of the waste.
- Establish procedures to complete logs and file them in the central office.

## Potential Capital Facility Costs and Operation & Maintenance Requirements Facilities

- Capital investments may be required at some sites to purchase sweeping equipment, train sweeper operators, install oil/water/sand separators, or implement advanced BMPs. These costs can vary significantly depending upon site conditions and the number of BMPs required.

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## Maintenance

- Sweep and clean parking lots regularly to minimize pollutant transport into storm drains from stormwater runoff.
- Clean out oil/water/sand separators regularly, especially after heavy storms.
- Maintain advanced BMPs such as vegetated swales, infiltration trenches, or detention basins as appropriate. Refer to the treatment control fact sheets for more information.

## Supplemental Information

### Advanced BMPs

Some parking areas may require advanced BMPs to further reduce pollutants in stormwater runoff, and a few examples are listed below. Refer to the treatment control fact sheets and the *Development BMP Handbook* for more information.

- When possible, direct sheet runoff to flow into biofilters (vegetated strip and swale) and/or infiltration devices.
- Use sand filters or oleophilic collectors for oily waste in low quantities.
- Arrange rooftop drains to prevent drainage directly onto paved surfaces.
- Design lots to include semipermeable hardscape.

## References and Resources

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