



BUILDING MAINTENANCE AND REPAIR

Stormwater runoff from building repair, remodeling, and other maintenance activities can be contaminated with toxic hydrocarbons in solvents, other toxic organic compounds, suspended solids, heavy metals, abnormal pH, and oils and greases. Specific activities may involve one or more of the following:

1. Building Maintenance
2. Material Storage
3. Building Cleaning
4. Graffiti Cleaning
5. Painting

POLLUTION PREVENTION:

Pollution prevention measures have been considered and incorporated in the model procedures. Implementation of these measures may be more effective and reduce or eliminate the need to implement other more complicated or costly procedures. Possible pollution prevention measures for building maintenance and repair include:

- Use dry cleaning methods whenever feasible.
- Use a waterless and non-toxic chemical cleaning method for graffiti removal.
- Once per year, educate municipal staff on pollution prevention measures.

MODEL PROCEDURES:

1. Building Maintenance

General Guide lines

See Minor Construction procedure sheet

- ✓ Review maintenance activities to verify that they minimize the amount of pollutants discharged. Keep accurate maintenance logs to evaluate materials removed and improvements made.
- ✓ If when repairing roofs, small particles have accumulated in the gutter, either sweep out the gutter or wash the gutter and trap the particles at the outlet of the downspout. A sock or geofabric placed over the outlet may effectively trap the materials. If the downspout is tight lined, place a

temporary plug at the first convenient point in the storm drain and pump out the water with a vactor truck and clean the storm drain inlet where you placed the plug if necessary.

- ✓ If water is used for cleaning out gutters, seal storm drain inlets to prevent water from entering. Either direct the water to a landscaped area or dispose of properly.
- ✓ When the work involves exposing large areas of soil, employ the appropriate soil erosion and control techniques.
- ✓ Clean storm drain inlets in the immediate vicinity of the construction activity after it is completed if necessary.

OPTIONAL:

- Recycle residual paints, solvents, lumber, and other materials

Good Housekeeping

- ✓ Keep the work site clean and orderly. Remove debris in a timely fashion. Sweep the area.
- ✓ Cover materials of particular concern that must be left out, particularly during the rainy season.
- ✓ Do not dump waste liquids down the storm drain.
- ✓ Properly dispose of wash water, sweepings, and sediments; do not allow these materials to enter the storm drain.

Spill Response

Also see Spill Prevention and Control procedure sheet

- ✓ Clean up spills immediately.
- ✓ If a spill occurs on dirt, excavate and remove the contaminated (stained) soil.

2. Material Storage

Also see Material Storage/ Handling/ Disposal procedure sheet

- ✓ Properly store and cover materials that are normally used in repair and remodeling such as paints and solvents, to protect them from rain.
- ✓ Properly store and dispose waste generated from the activity.

3 Building Cleaning

General Guidelines

- ✓ When cleaning building exteriors and walls composed of glass, steel, or painted surfaces with no lead or mercury:
 - Do not allow wash water to enter the storm drain.
 - When washing without soap, discharges can be directed to landscaped or dirt areas.

→ *Note: Permission must be obtained for any discharge of wash water to the sanitary sewer from the local sewerage agency.*

- When washing with soap, direct discharges to the sanitary sewer if permitted to do so or vacuum/pump water to a tank and dispose of properly
- ✓ When washing building exteriors painted with lead-based or mercury additive paint:
 - Do not allow discharges to enter storm drain
 - Vacuum/pump discharges to a tank
 - Dispose of as a hazardous waste as needed
- ✓ When acid washing mineral deposits:
 - Do not allow discharges to enter storm drain.
 - Rinse treated area with alkaline soap and direct washwater to a landscaped or dirt area
 - Alternatively, washwater may be collected and neutralized to a pH between 6 and 8, and disposed of properly.

OPTIONAL:

- If cleaning agents are used, select biodegradable products whenever feasible.

4. Graffiti Cleaning

Graffiti Removal

Also see Roads, Streets, and Highways Operation and Maintenance procedure sheet.

- ✓ Avoid graffiti abatement activities during rain events.
- ✓ When graffiti is removed by painting over, implement the procedures under Painting and Paint Removal in the *Roads, Streets, and Highway Operation and Maintenance* procedure sheet.
- ✓ Protect nearby storm drain inlets prior to removing graffiti from walls, signs, sidewalks, or other structures needing graffiti abatement. Clean up afterwards by sweeping or vacuuming thoroughly, and/or by using absorbent and properly disposing of the absorbent.
- ✓ Note that care should be taken when disposing of waste since it may need to be disposed of as hazardous waste.
- ✓ OPTIONAL:
- ✓ Consider using a waterless and non-toxic chemical cleaning method for graffiti removal (e.g. gels or spray compounds).

5. Painting

General Guidelines

- ✓ Develop paint handling procedures for proper use, storage, and disposal of paints.
- ✓ Painting operations should be properly enclosed or covered to avoid drift.

- ✓ If transporting paint and materials to and from job sites, use containers with secure lids and tie down to the transport vehicle.
- ✓ Test and inspect spray equipment prior to starting to paint. Tighten all hoses and connections and do not overfill paint container.
- ✓ Mix paint indoors before using so that any spill will not be exposed to rain. Do so even during dry weather because cleanup of a spill will never be 100% effective.
- ✓ Transfer and load paint and hot thermoplastic away from storm drain inlets.
- ✓ Replace paints containing lead or tributyltin with less toxic alternatives.
- ✓ Where there is significant risk of a spill reaching storm drains, plug nearby storm drain inlets prior to starting painting and remove plugs when job is complete.
- ✓ If sand blasting is used to remove paint, cover nearby storm drain inlets prior to starting work and collect wash water and dispose of properly.
- ✓ If painting requires scraping or sand blasting of the existing surface, use a ground cloth to collect the chips. Dispose of the residue properly.
- ✓ If using water based paints, clean the application equipment in a sink that is connected to the sanitary sewer.
- ✓ Brushes and tools covered with non-water-based paints, finishes, or other materials must be cleaned in a manner that enables collection of used solvents (e.g., paint thinner, turpentine, etc.) for recycling or proper disposal. Waste solvents or oil based paints must be disposed of as hazardous waste.

Paint Disposal

- ✓ Paints containing lead or tributyl tin are considered a hazardous waste and must be disposed of at an appropriate hazardous waste facility.
- ✓ Properly store leftover paints if they are to be kept for the next job.

OPTIONAL:

- Recycle paint whenever possible.

LIMITATIONS:

Safer alternative products may not be available, suitable, or effective in every case.

REFERENCES:

California Storm Water Best Management Practice Handbooks. Municipal Best Management Practice Handbook. Prepared by Camp Dresser & McKee, Larry Walker Associates, Uribe and Associates, Resources Planning Associates for Stormwater Quality Task Force. March 1993.

Model Urban Runoff Program: A How-To Guide for Developing Urban Runoff Programs for Small Municipalities. Prepared by City of Monterey, City of Santa Cruz, California Coastal Commission, Monterey Bay National Marine Sanctuary, Association of Monterey Bay Area Governments, Woodward-Clyde, Central Coast Regional Water Quality Control Board. July. 1998.

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Oregon Association of Clean Water Agencies. Oregon Municipal Stormwater Toolbox for Maintenance Practices. June 1998.

Santa Clara Valley Urban Runoff Pollution Prevention Program. 1997 Urban Runoff Management Plan. September 1997, updated October 2000.