

# Stormwater Management

## Best Management Practices for County Operations



### What is Stormwater Runoff?

Stormwater runoff occurs when precipitation from rain flows over the ground. Impervious surfaces like driveways, sidewalks and streets prevent stormwater from naturally soaking into the ground.

### What are the Different Pollutants Involved?

Sediments, excess nutrients, debris and household hazardous wastes products (insecticides, pesticides, paint, solvents, used motor oil, and other auto fluids) are just a few common pollutants in stormwater runoff.

### Why Should We Care?

Stormwater can pick up debris, chemicals, dirt and other pollutants and flow into a storm sewer system, or directly to a lake, stream, river, wetland, or reservoir. Anything that enters a storm sewer system is discharged untreated into local waterbodies and can have many adverse effects on plants, fish, animals, and people.

### What are the Sources of Pollution from County Operations?

Litter, spills and leaks, chemicals, stockpiles of raw materials, vehicle and equipment fueling, maintenance and washing activities, dumpsters, and painting are among a few of the common activities involved in county operations that can be a direct source of pollutants in stormwater.

## ***Prevention is Better Than Cure!!***

### Good Housekeeping Practices

1. Perform vehicle/equipment maintenance and washing in a single, designated covered facility.
2. Provide a dead-end sump in maintenance areas for collecting all spills and leaks.
3. Cover stored bulk materials.
4. Make sure all containers are labeled and stored correctly.

5. Make sure that building drains or drains in outside storage or processing areas do not discharge to the storm sewer system.
6. Inspect parking areas for leaks and spills and address leaking vehicles as soon as possible.
7. Clean up spills promptly.
8. Use drip pans and other containment devices to prevent spills while servicing vehicles, or for vehicles and equipment parked for extended periods.
9. Drain fluids out of equipment and vehicles that sit idle for more than a month.
10. Enclose fuel tanks and other large liquid containers within secondary containment.
11. For bulk materials stored without cover, provide containment berms or walls and install inlet protection on nearby storm sewer drains.
12. Any uncovered containers must be labeled and stored correctly within secondary containment areas.
13. Use dumpsters with lids for storage of waste materials and garbage.

## ***A Clean Workplace is Safer!!***

### Road Maintenance Practices

#### Street Cleaning

1. Use a more effective street sweeper.
2. Eliminate street flushing activities, or temporarily protect storm drain inlets during flushing.
3. Recycle street sweeping debris.
4. Recycle leaf material as compost.
5. Use only covered roll-off trucks and drop boxes to temporarily store street cleaning debris and leaf material.
6. Deal quickly with illegal dumps. Establish a county procedure for quickly dealing with illegally dumped materials discovered by street cleaning crews. Consider posting "do not dump" signs in areas where dumping tends to occur the most.
7. Create a recordkeeping system that allows crews to track curb miles swept, amount of debris collected, and problems requiring follow-up. Set up a routing procedure for the forms to make sure incidents are followed up promptly.

# Stormwater Management

## Best Management Practices for County Operations



### Maintaining Road Side Areas

1. Use native vegetation which can require less water, chemical, and fertilizer use.
2. Contain plant and grass clippings and recycle as compost for use elsewhere.
3. Use only covered roll-off trucks and drop boxes to temporarily store vegetative waste.
4. Limit irrigation water by installing low-flow automatic sprinkler systems.
5. Don't kill all the vegetation. Vegetation is one of the most cost-effective erosion controls available.
6. Follow application guidelines on all chemical products. Do not apply chemicals near sensitive waterways or small streams.

### Inspections

1. Inspect your facilities regularly for any spills, leaking vehicles or other such problems.
2. Inspect certain parts of your facilities more frequently. Target spaces that need extra attention such as storm drain inlets, rooftop equipment and so on.
3. Always document any problems you find and those that are identified by staff.

### Inspection Reports

1. Complete an inspection report after each inspection.
2. You should retain copies of all inspection reports and keep them with or in your SWPPP.
3. Consider taking digital photographs during inspections to document BMPs, problems identified, and progress in implementing the SWPPP.

### Recordkeeping

1. You must keep an updated copy of your SWPPP and Spill Response Plan at an easily accessible location in the facility at all times.
2. You must maintain a record of the following:
  - Inspection forms, including the date, place, and time of BMP inspections.
  - Name of inspector(s).
  - The date, time, exact location, and a characterization of significant observations, including the spills and leaks.
  - Records of any non-stormwater discharges.

**INSPECT!! REPORT!! DOCUMENT!!**

### What are My Responsibilities?

#### **Don't generate additional water**

Sweep, vacuum or mop floors, sidewalks, and pavement rather than hosing them down. Dispose of swept materials properly. Use absorbents to soak up leaks and spills.

#### **Reduce chemical use whenever possible**

Consider adopting new practices that use less or no chemicals, as a way to save money and protect the environment.

#### **Recycle wastes**

Recycle used oil, solvent, grease rags, wash water, and other spent liquids.

#### **Consider alternative products**

Consider using less harmful materials, such as non-phosphorus soaps and cleaners without petroleum solvents.

#### **Maintain an updated SWPPP**

Perform regular inspections; keep the SWPPP updated with new information regarding storm drains, spills, maintenance activities and training; and educate facility workers using the SWPPP.

#### **Keep water out of dumpsters**

Install lids on dumpsters to keep rainwater from contacting garbage and leaching out to the ground surface.

#### **Post signs at maintenance facilities and yards**

Post good housekeeping signs wherever there is a chance that spills and leaks can occur. Make items such as drip pans and spill kits readily available at these locations to prevent spills and leaks from coming in contact with stormwater runoff.

#### **Educate staff**

Regular safety and maintenance training should be carried out. New staff orientation should include storm water training.