


Standard Operating Procedures (SOPs) for:		
Street and Road Maintenance and Repair		
		Revised December 31, 2009
Purpose of SOP:	Stormwater pollution prevention procedures for street maintenance and repair projects including: concrete curb and gutter work, concrete pouring, asphalt re-surfacing, paving, chip sealing, striping and marking.	
Location of SOP:	(Indicate where SOP is kept – electronic or hard copy.)	
Administrator of SOP:	(Indicate who reviews and updates SOP.)	

Prerequisites

1. Employees should attend PACE's general stormwater pollution prevention training. Contact PACE at 303-786-PACE.
2. Employees performing the procedures in this SOP should refer to the materials in the *References and Related Procedures* section of this SOP.
3. Obtain a Colorado Discharge Permit f (if water will enter storm drainage system or waters of the state).
<http://www.cdphe.state.co.us/wq/PermitsUnit/index.html>

Equipment and Materials

1. Inlet protection devices (wattles, drain covers, berms, sand bags, and/or filter fabric)
2. Spill kit and equipment for dry clean up (socks, absorbent pads, kitty litter, broom, and dustpan)
3. Large Shop (Wet) Vacuum
4. Secondary Containment (containers and tarps)
3. Storm drainage system map
5. Appropriate PPE

Standard Operating Procedures

1. Storm Drain Protection

- Locate and block storm drain inlets (within 25 feet and/or down gradient from) during maintenance work such as concrete curb and gutter work, resurfacing, paving, striping/marking, or saw cutting.
- Place covers, rock wattles, sand bags, or filter fabric around inlets to protect them from entry of wastes, dusts, overspray or slurry.
- Inspect site at the beginning of the day and end to ensure operations are not contributing sediment or other pollutants to the flow line or storm drain.
- Clean right of ways (roadways) with brooms or street sweepers – as needed.

2. Concrete Work

- When saw cutting concrete, use the minimum amount of water. Let the waste slurry dry and then sweep it up before leaving the location. A wet vacuum may also be used to pick up the waste slurry immediately after cutting is complete. Do not allow slurry to reach storm drains.
- Designate a "Concrete Wash Out Area" that is as far as possible from any surface waters, storm drain inlets or drainage ditches and is located in a low area where wash water will pool and soak into the ground.
- Concrete trucks must washout in the wash out area or into a container such as a kiddie pool or wheelbarrow.
- Maintain the wash out area, inspect it for clean out needs, and check for run-on and run-off.
- The debris from the wash out area must be taken to a permanent disposal site when the washout is full and when the project is complete.

3. Erosion Control and Storage of Materials

- Cover and contain all liquid and solid materials to prevent run off.
- Avoid storing piles of materials (soil, sand, gravel) in street, near storm drains or gutters. If dirt piles must be stored in

the street, they must have berms or wattles surrounding them to prevent run-off. Rock wattles should be placed around all down gradient storm drains to prevent sediment from reaching the inlets

- Excavated material should be placed on the uphill side of trenches to minimize sediment run-off.
- Control erosion to the maximum extent possible. (See [UDFCD Volume 3](#) and [KICP's Erosion Control Field Manual](#) and the project's SWMP.)
- Inspect and maintain all erosion or sediment control devices or equipment installed in erosion-prone areas in road construction projects as per the Stormwater Management Plan (SWMP).
- Ensure that projects over 1 acre have the proper Colorado Stormwater Discharge Permits (See <http://www.cdphe.state.co.us/wq/PermitsUnit/index.html> and refer to the Stormwater Management Plan.)

4. Painting and Striping

- Schedule painting, marking, and striping projects during dry weather only. Cease all activities when rain threatens.
- Use thermoplastic markings in place of paint whenever feasible.
- Block nearby storm drain inlets (within 25 feet and/or down gradient of project).
- Promptly clean up any spills of paints, cleaners or other chemicals.

5. Re-surfacing or Paving

- Re-seal or pave only on dry days when no rain is expected. Cease all activities when rain threatens
- If possible, transfer, store, pre-heat and load hot asphalt far away from storm drain inlets.
- Protect or block downstream storm drain inlets (within 25 feet) from debris from maintenance work (asphalt cap, chip sealing, concrete breaking, or saw cutting). Leave covers or berms in place until the job is complete

6. Bridge Repair Work

- When working on bridges, transport and store paint and materials in containers with secure lids.
- Do not transfer, store or load paint on a bridge.
- Capture waste, scraps, rust or paint from sanding or painting projects. It may be necessary to suspend nets or tarps below the bridge to catch falling debris. If sanding or sand blasting, use a vacuum bag attachment.

Contracts & Contractors

- Contracts should include stormwater pollution prevention language.
- Ensure that contractors implement proper Best Management Practices (BMPs) to prevent stormwater pollution.

Employee Training

- All applicable employees should be trained in general stormwater pollution prevention: including how to recognize and report illegal connections or discharges.

Record Keeping and Documentation

1. If the site is over an acre, obtain the proper Colorado Discharge permit; prepare and use a Stormwater Management Plan (SWMP) and keep copies of all inspection logs. (See: <http://www.cdphe.state.co.us/wq/PermitsUnit/index.html>)
2. Keep a list of all employees trained in Stormwater Pollution Prevention. (This is recorded in PACE's Training List).
3. Keep copies of MSD Sheets of all products used.

References and Related Procedures

PACE Government Operations website: <http://www.bouldercolorado.gov/www/pace/government/index.html>

1. PACE BMP: *Concrete Pouring*
2. PACE BMP: *Contracts and Property Leasing*
3. PACE BMP: *Street Sweeping and Maintenance*
4. PACE BMP: *Outdoor Materials Storage*
5. PACE BMP: *Utility Installation in Roadway*
6. PACE SOP: *Street Construction and Utility Installation*
7. PACE Resource Sheet: *Street Maintenance*
8. [UDFCD Volume 3](#) and [KICP's Erosion Control Field Manual](#) for erosion control BMP installation
9. Project's Stormwater Management Plan (SWMP)