



Stormwater Best Management Practices for Municipal Street Maintenance Operations

Federal regulations require stormwater protection practices to be in place in municipal operations and businesses that have the potential to pollute stormwater. Street sweeping and maintenance operations can have a significant effect on pollutants entering storm drains. Anything entering a storm sewer system flows untreated into the water bodies we use for swimming, fishing, and drinking water.

Streets, roads, highways and other large paved surfaces are significant sources of pollutants in storm water discharges. Operation and maintenance practices, if not conducted properly, can contribute to the problem. Street sweepings can contain sediments, organics, oil and grease. Maintenance work like concrete repair, saw cut slurry, asphalt repair and painting can also be a source of storm water pollution.

Best Management Practices (BMPs)

The objective in stormwater protection is that **only rainwater and snow melt go down the storm drain**. Best Management Practices (BMPs) are specific steps taken to prevent stormwater pollution as a result of day-to-day activities of street maintenance operations. The BMPs address direct flow of pollutants into storm drains and “threatened discharges” (where there is a high probability for stormwater pollution to occur such as a leaking waste oil drum without secondary containment or any spills or wastes that have been released and are not actively being cleaned up). All affected employees shall review this information sheet as a training tool, and make every effort to keep pollutants from going down the storm drain by putting the following BMPs into practice.

Activity	Best Management Practices
General	<ul style="list-style-type: none"> Do not dump any liquids or other materials outside. Materials that are no longer contained in a pipe, tank, or other container are considered to be “threatened discharges” to stormwater unless they are actively being cleaned up. Direct flow of pollutants as well as threatened discharges to storm drains, gutters, or waterways are illegal. *See <i>list of allowable discharges on back page</i>.
Bridge Maintenance	<ul style="list-style-type: none"> Do not transfer or load any materials directly over water or waterways. Secure lids and caps on all containers when on bridges. Place drop cloths or nets below any bridgework where wastes, scraps or drips might threaten waterways.
Concrete Pouring or Finishing	<ul style="list-style-type: none"> Designate a “Wash Out Area” on the job site in a grassy or graveled area where pooled water can soak into the ground. Use for all equipment. Never wash out in street, creek, ditch or storm drain. If no “Wash Out Area” is available, wash out into a container, dispose in a posted Wash Out Area at another job site (with site owner permission) or return to the batch plant for disposal.
Illicit Discharge Reporting	<ul style="list-style-type: none"> Stay alert for any signs of “illicit discharges or connections” (anything except rain water that is allowed to flow into any storm drain inlet or drainage ditch). This includes dry weather flows, pipes or hoses emptying into storm drains, and “threatened discharges”. Report any suspicious discharges to your supervisor or Storm Water Coordinator promptly (see list on back).
Painting & Striping	<ul style="list-style-type: none"> Schedule painting and striping projects during dry weather only. Use thermoplastic markings in place of paint whenever feasible.
Street Maintenance	<ul style="list-style-type: none"> Install storm drain protection devices (hay bales, “pigs”, socks or drain covers) around or over storm drain inlets when doing any maintenance work within 25 feet of the inlet(s). Coordinate street sweeping with normal maintenance activities. Sweep or vacuum up wastes from all maintenance work (e.g. saw cutting and chip sealing) throughout and after the project and dispose of wastes properly. ** Schedule chip sealing projects during dry weather only. Store maintenance materials and supplies such as cement bags, tars and sealants on pallets and under cover (such as tarps) when not in use. Provide for erosion and/or sediment control on all areas subject to erosion.
Street Sweeping	<ul style="list-style-type: none"> Operate all sweepers according to manufacturer’s recommended settings and standards including sweeper speed, brush alignment and rotation rate. Schedule special sweepings immediately after all events like street fairs, art shows and parades and after street maintenance projects such as saw cutting, chip sealing and new

	<p>construction and maintenance projects.</p> <ul style="list-style-type: none"> Do not conduct street sweeping during or immediately after rainstorms. Take collected debris directly to a permitted landfill or to a temporary storage area where it will not be released into storm drainage or surface waters.
Salt Storage & Snow Disposal	<ul style="list-style-type: none"> Rock salt (or sand/salt mix) must be stored on paved areas that are bermed or lined with impervious materials to adequately protect the salt from escaping. Covering salt/sand storage areas is also encouraged. Snow disposal areas must be located at least 500 feet from or at a lower elevation from any storm drain inlets, drainage ditches or surface waters.
Spill Response	<ul style="list-style-type: none"> Use spill prevention methods to ensure no hazardous materials reach the floor or ground. Keep spill cleanup equipment in or near all work areas and on vehicles. Uses only "dry" cleanup methods to manage spills. Develop a formal Spill Response Plan. Post the plan near spill cleanup materials.
Stormwater Runoff	<ul style="list-style-type: none"> Maintain a map of the facility, identifying directions of stormwater flow and storm drains. Stencil (decal) storm drains on or near the facility.
Washing	<ul style="list-style-type: none"> Do not wash vehicles/equipment outside unless in a specifically designated wash area that drains to the sanitary sewer. Post signs showing which drains go to sanitary.
Vehicle/Equipment Storage	<ul style="list-style-type: none"> Do not store leaking vehicles or equipment outdoors. Contain the leak, repair immediately, or move indoors and repair.

***Allowable non-storm water discharges include the following only:** *Note: This list may vary per municipality.*

- Water line flushing or other potable water sources
- Landscape irrigation or lawn watering irrigation return flows
- Diverted stream flows
- Rising groundwater
- Uncontaminated ground water infiltration to storm drains (as defined by 40 CFR 35.2005 (20))
- Uncontaminated pumped ground water
- Foundation or footing drains
- Crawl space pumps
- Air conditioning condensation
- Individual residential car washing or car washing of less than two (2) consecutive days in duration for charity or nonprofit fund raising
- Natural springs, riparian habitat or wet-land flows
- Swimming pools (if de-chlorinated or less than 0.05 PPM chlorine)
- Street wash water and any other water source not containing pollutants
- Discharges approved by the authorized enforcement agency as being necessary to protect public health and safety, such as flows from firefighting, and dye testing, provided the person undertaking such testing provides verbal notification to the authorized enforcement agency 24 hours prior to the time of the test.

***Street maintenance wastes may be either non-hazardous or hazardous. Solid non-hazardous waste may be disposed in a sanitary landfill or recycled. Liquid non-hazardous wastes must be absorbed before sanitary landfill disposal. Hazardous waste, as defined under Colorado Hazardous Waste Regulations (6 CCR 1007-3), must be transported and disposed at a RCRA-permitted disposal or treatment facility. Contact the state Dept. of Public Health & Environment, Hazardous Materials and Waste Management Div. for applicable requirements.*

Watershed Approach to Stream Health (WASH)

To cost-effectively meet stormwater regulations and the region's water quality needs, several municipal governments in the Boulder Creek and St. Vrain watersheds joined together as part of the Watershed Approach to Stream Health (WASH) Project. Participants include Boulder County; the cities of Boulder, Longmont and Louisville; and the towns of Superior and Erie. The primary goal of the WASH Project is to implement a regional stormwater management program and to address broader water quality and watershed issues common to the Boulder Creek and St. Vrain Creek drainage areas. WASH is partnering with the PACE Program to help municipal operations and businesses implement stormwater BMPs.



WASH Project Stormwater Coordinators

City of Boulder: Donna Scott, Stormwater Quality Specialist, 303-413-7364

Boulder County: Dave Webster, Boulder County Transportation/Engineering, 303-441-3900 x5185

Mark Williams, Boulder County Public Health, 303-441-1143

Denise Grimm, Boulder County Land Use Planning 303-441-3930

City of Longmont: Ela Nelson, Civil Engineer, 303-774-4390

David Hollingsworth, Civil Engineer, 303-651-8328

City of Louisville: Ken Mason, Public Works, 303-335-7480

Town of Superior: Jeanne Boyle, McLaughlin Water Engineers, 303-458-5550

Town of Erie: Wendi Palmer, 303-926-2875

WASH Project Coordinator, Janice Buswell Lopitz, Boulder County Public Health, 303-441-1439