

Stormwater Best Management Practices

NEW BUILDING DESIGN

STORMWATER PROTECTION

Federal regulations require stormwater protection practices to be in place in municipal operations and businesses that have the potential to pollute stormwater. Many practices in municipal and business operations may contribute to stormwater pollution. These include storing chemicals outside, allowing dumpsters to become full of water and leak out, allowing leaves and landscaping wastes to pile up and blow or be washed into the storm sewer, and discharging secondary containment or other polluted water to the street where it can be washed into the storm sewer. Anything entering a storm sewer system flows untreated into the water bodies we use for swimming, fishing, and drinking water. Improperly designed building can negatively impact stormwater. Designing a building properly in the first place will ensure that runoff from pressure washing, cooling tower wastewater, fueling spills, or vehicle washing do not pollute our waterways.

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. These BMPs can ensure that buildings are designed with stormwater protection in mind. All employees involved with building design or renovation process 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
Building Maintenance	<ul style="list-style-type: none"> • If it is expected that a building or structure will be pressure washed regularly, design the landscaping to allow wastewater to soak into the soil or vegetation (<i>See BMP: Building Maintenance and Operation</i>). • Design rooftop cooling towers to drain to a sanitary drain, if permitted. Cooling tower wastewater must <u>not</u> enter roof drains. • Design boiler rooms to allow blow-down from utility boilers to be discharged to sanitary sewer. • Air conditioner or HVAC unit condensate that has been treated with algae inhibitors must be discharged to the sanitary sewer (not to storm drain) as allowed by the local wastewater treatment facility. • Install secondary containment and cover for air compressors located outside of buildings. • Ensure fire sprinkler systems discharge to the sanitary sewer, not to storm drains or outside.
Contracts	<ul style="list-style-type: none"> • All contracts and property leases must stipulate that contractors and lessees comply with applicable storm water BMPs in the conduct of their services or occupancy. (<i>See BMP: Contracting and Leasing</i> and www.pacepartners.com)
Bulk Liquid Storage & Transfer Areas	<ul style="list-style-type: none"> • All bulk liquid storage areas (i.e. tanks) must have adequate secondary containment (either double-wall containers or separate impervious structures). • Provide secondary containment around all bulk liquid transfer areas such as tank truck loading and unloading areas. • Drainage devices installed in secondary containment structures must be capable of being locked and sealed in the closed position. • Do not install bulk liquid storage tanks within 100 feet of any surface water. • Spill kits appropriate for the material(s) being stored must be maintained near storage areas and signage must be posted at the storage area identifying the location of the spill kit.

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ACTIVITY

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Food Waste Areas or Kitchens	<ul style="list-style-type: none"> • If food and grease waste containers must be stored outdoors, design a bermed or diked area where run-on and run-off can be diverted. Dumpsters or containers must be covered. • Install a mop sink in the kitchen for disposal of cleaning wastewater.
Fueling Stations	<ul style="list-style-type: none"> • Construct impervious berms around fueling stations to contain spills and to divert run-on and run-off. Grade, contour and install pavement around fueling stations to divert stormwater away from fueling area. • Do not install storm drain inlets inside fueling station berms unless they are equipped with shut-off valves, covers or oil/water separators. • Install oil/water separators in any storm drain that may receive run-off from a fueling area. • Construct canopies or covers over all fueling stations. • Do not install fueling stations within 100 feet of any surface water. • Post signage instructing personnel to remain with vehicles throughout fueling and alerting them as to the location of spill kits. Keep spill kits at fueling area.
Landscaping	<ul style="list-style-type: none"> • Design new or re-landscaped areas using xeriscaping techniques to the maximum extent possible. Use hardy plants appropriate to the climate. • Where possible, utilize grassy swales and other vegetative buffer areas to slow down run-off and provide a natural filter. • Ensure that overflow drains from decorative ponds and fountains are discharged to the sanitary sewer or re-used for irrigation. If treated with algacides or other chemicals, discharge must be approved by the local wastewater treatment facility.
Material Loading & Unloading Areas	<ul style="list-style-type: none"> • All loading and unloading areas must be designed to have a roof, canopy or overhang and must be paved, graded and/or sloped to prevent stormwater run-on. • Do not design or install storm drain inlets in loading/unloading areas unless they are equipped with shut-off valves.
Salt & Sand Storage Areas	<ul style="list-style-type: none"> • Rock Salt, Salt/Sand mix or "Ice Slicer" storage areas must be paved, totally enclosed with impervious berms, covered, and protected from run-on and run-off.
Storm Drainage System Connections	<ul style="list-style-type: none"> • No connections are allowed from any indoor drains to the storm drainage system. • No connections to stormwater are allowed from outdoors drains located within 25 feet of areas where supplies, chemicals or containers will be transferred, mixed, handled or stored. • Do not install any storm drain inlet or drainage ditch within 100 feet of any bulk liquid storage tanks such as gasoline, diesel, motor oil or other chemicals. • Do not design or install down spouts that discharge in or near areas that are designated for handling, transfer, or storage of chemicals, liquids and/or other materials. • Illicit connections to storm drainage systems discovered during renovations must be disconnected immediately and reported to the Boulder County Illicit Discharge Hotline at 303-441-4444.
Vehicle/Equipment Maintenance and Washing	<ul style="list-style-type: none"> • Perform all vehicle or equipment maintenance indoors <i>only</i>. • Install floor traps or other engineered structures along bay door thresholds to capture spills and floor washing liquids. • Construct vehicle and equipment washing bays or racks indoors <i>only</i>. Connect wash rack drains to the local sanitary sewer. • Recycle wash water via a closed-loop system.
Waste Management	<ul style="list-style-type: none"> • Dumpsters and compactors must be on a paved, sloped surface, with berms to protect from run-on and run-off. If a drain is installed, it must be plumbed to sanitary sewer with permission from the local wastewater treatment facility. • All waste receptacles must be sturdy, leak-tight, and equipped with lids or covers.

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