

SOURCE CONTROL BEST MANAGEMENT PRACTICES (BMPs)

(excerpted, with minor revision from the Model Standard Urban Storm Water Mitigation Plan for San Diego County, Port of San Diego, and Cities in San Diego. Revised October 31, 2007.)

Provide Storm Drain System Stenciling and Signage

- Storm drain stencils are highly visible source control messages, typically placed directly adjacent to storm drain inlets. The stencils contain a brief statement that prohibits the dumping of improper materials into the urban runoff conveyance system. Graphical icons, either illustrating anti-dumping symbols or images of receiving water fauna, are effective supplements to the anti-dumping message. Priority projects shall include the following requirements in the project design.
 - Provide stenciling or labeling of all storm drain inlets and catch basins within the project area with prohibitive language (such as: “NO DUMPING – I LIVE IN <<name receiving water>>”) and/or graphical icons to discourage illegal dumping.
 - Post signs and prohibitive language and/or graphical icons, which prohibit illegal dumping at public access points along channels and creeks within the project area.
 - Maintain legibility of stencils and signs.

Design Outdoor Material Storage Areas to Reduce Pollution Introduction

- Improper storage of materials outdoors may increase the potential for toxic compounds, oil and grease, heavy metals, nutrients, suspended solids, and other pollutants to enter the urban runoff conveyance system. Where the priority project plans include outdoor areas for storage of hazardous materials that may contribute pollutants to the urban runoff conveyance system, the following storm water BMPs are required:
 - Hazardous materials with the potential to contaminate urban runoff shall either be: (1) placed in an enclosure such as, but not limited to, a cabinet, shed, or similar structure that prevents contact with runoff or spillage to the storm water conveyance system; or (2) protected by secondary containment structures such as berms, dikes, or curbs.
 - The storage area shall be paved and sufficiently impervious to contain leaks and spills.
 - The storage area shall have a roof or awning to minimize direct precipitation within the secondary containment area.

Design Trash Storage Areas to Reduce Pollution Introduction

- All trash container areas shall meet the following requirements:

- Paved with an impervious surface, designed not to allow run-on from adjoining areas, screened or walled to prevent off-site transport of trash; and
- Provide attached lids on all trash containers that exclude rain, or roof or awning to minimize direct precipitation.

Use Efficient Irrigation Systems & Landscape Design

- Priority projects shall design the timing and application methods of irrigation water to minimize the runoff of excess irrigation water into the storm water conveyance system. In compliance with the Water Conservation in Landscaping Act, the following methods to reduce excessive irrigation runoff shall be considered, and incorporated and implemented where determined applicable and feasible:
 - Employing rain shutoff devices to prevent irrigation after precipitation.
 - Designing irrigation systems to each landscape area's specific water requirements.
 - Using flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines.
 - Employing other comparable, equally effective, methods to reduce irrigation water runoff.

Private Roads

- The design of private roadway drainage shall use at least one of the following where feasible:
 - Rural swale system: street sheet flows to vegetated swale or gravel shoulder, curbs at street corners, culverts under driveways and street crossings;
 - Urban curb/swale system: street slopes to curb, periodic swale inlets drain to vegetated swale/biofilter;
 - Dual drainage system: First flush captured in street catch basins and discharged to adjacent vegetated swale or gravel shoulder, high flows connect directly to storm water conveyance system.
 - Other methods that are comparable and equally effective within the project.

Dock Areas

- Loading/unloading dock areas shall include the following:
 - Cover loading dock areas, or design drainage to preclude urban run-on and runoff.
 - Direct connections to storm drains from depressed loading docks (truck wells) are prohibited.
 - Other features which are comparable and equally effective.

Maintenance Bays

- Maintenance bays shall include the following:
 - Repair/maintenance bays shall be indoors; or, designed to preclude urban run-on and runoff; and

- Design a repair/maintenance bay drainage system to capture all wash water, leaks and spills. Connect drains to a sump for collection and disposal. Direct connection of the repair/maintenance bays to the storm drain system is prohibited. If required by local jurisdiction, obtain an Industrial Waste Discharge Permit.
- Other features which are comparable and equally effective.

Vehicle Wash Areas

- Priority projects that include areas for washing/steam cleaning of vehicles shall use the following :
 - Self-contained; or covered with a roof or overhang;
 - Equipped with a clarifier or other pretreatment facility;
 - Properly connected to a sanitary sewer.
 - Other features which are comparable and equally effective.

Outdoor Processing Areas

- Outdoor process equipment operations, such as rock grinding or crushing, painting or coating, grinding or sanding, degreasing or parts cleaning, landfills, waste piles, and wastewater and solid waste treatment and disposal, and other operations determined to be a potential threat to water quality shall adhere to the following requirements.
 - Cover or enclose areas that would be the most significant source of pollutants; or, slope the area toward a dead-end sump; or, discharge to the sanitary sewer system following appropriate treatment in accordance with conditions established by the applicable sewer agency.
 - Grade or berm area to prevent run-on from surrounding areas.
 - Installation of storm drains in areas of equipment repair is prohibited.
 - Other features which are comparable or equally effective.

Equipment Wash Areas

- Outdoor equipment/accessory washing and steam cleaning activities at priority projects shall use the following:
 - Be self-contained; or covered with a roof or overhang;
 - Be equipped with a clarifier, grease trap or other pretreatment facility, as appropriate;
 - Be properly connected to a sanitary sewer.
 - Other features which are comparable or equally effective.

Parking Areas

- To minimize the offsite transport of pollutants from parking areas, the following design concepts shall be considered, and incorporated and implemented where determined applicable and feasible by the Copermitttee:
 - Where landscaping is proposed in parking areas, incorporate landscape areas into the drainage design.
 - Overflow parking should be constructed with permeable paving.

- Other design concepts that are comparable and equally effective.

Fueling Area

- Retail and non-retail fuel dispensing areas shall contain the following:
 - Overhanging roof structure or canopy. The cover's minimum dimensions must be equal to or greater than the area within the grade break. The cover must not drain onto the fuel dispensing area and the downspouts must be routed to prevent drainage across the fueling area. The fueling area shall drain to the project's treatment control BMP(s) prior to discharging to the storm water conveyance system.
 - Paved with Portland cement concrete (or equivalent smooth impervious surface). The use of asphalt concrete shall be prohibited.
 - Have an appropriate slope to prevent ponding, and must be separated from the rest of the site by a grade break that prevents run-on of urban runoff.
 - At a minimum, the concrete fuel dispensing area must extend 6.5 feet (2.0 meters) from the corner of each fuel dispenser, or the length at which the hose and nozzle assembly may be operated plus 1 foot (0.3 meter), whichever is less.

Hillside Landscaping

- Hillside areas, as defined in this Model SUSMP, that are disturbed by project development shall be landscaped with deep-rooted, drought tolerant plant species selected for erosion control.