

Appendix X.
Minimum BMPs for Industrial and Commercial Sites/Sources

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Minimum Best Management Practices (BMPs) for Industrial and Commercial Sites/Sources

No.	BMP Title	Description and Examples	Justification for BMP
1	Provide secondary containment to catch spills if storing hazardous materials	Use one of a variety of methods (e.g., containers, curbs, vendor products) to provide secondary containment for areas storing hazardous materials in case of leaks or spills	Prevents pollutants from potentially entering the storm drain system by keeping them onsite
2	Use drip pans, etc. to collect leaks/spills	Repair vehicle leaks promptly. Use drip pans or other means (e.g. sealable containers) to capture spills or leaks of oil and other fluids from vehicles during maintenance; dispose of captured fluids per BMP #11 where applicable.	Prevents pollutants from potentially entering the storm drain system by keeping them onsite
3	Clean floor mats in locations that do not drain directly to storm drain system.	Wash kitchen floor mats and entry/exit door mats such that wash water is captured and directed to sanitary sewer system or wash mats with potable water or biodegradable detergent such that water drains to landscape areas without runoff to storm drain system.	Directs pollutants to sanitary system or landscape areas
4	Properly dispose of process or wash water	Collect wash water from processes such as pressure washing in permanent or temporary capture facilities and direct to landscape areas for infiltration or pump to sanitary sewer. (Coordinate with MWWD and obtain industrial discharge permit if necessary.)	Directs pollutants to sanitary system and avoids non-storm water discharge
5	Immediately clean up spills with dry methods	Use absorbents, sweeping, and other dry cleanup methods to clean up spills and dispose of properly (depending on nature of spill) rather than washing spilled material into the storm drain system. Provide spill kits with dry cleanup materials in readily accessible locations. Train appropriate employees in spill response procedures.	Removes potential pollutants
6	Maintain a spill cleanup kit. Have necessary materials and equipment readily available	Use methods, equipment, and materials appropriate for the spill materials. For hazardous materials call Environmental Services Department. Assure that absorbents and dry cleanup materials are located in close proximity to locations where hazardous materials or potential storm water pollutants are stored or used, and instructions are clearly displayed	Removes potential pollutants
7	Wash vehicles and equipment in designated area and implement practices to prevent water from entering the storm drain.	Discharge to the storm drain system is prohibited. Prevent pollutants from potentially entering the storm drain system by containment, directing flow to landscaped areas, or vacuuming. Use a control nozzle or similar.	Prevents pollutants from potentially entering the storm drain system by keeping them onsite
8	Properly store and dispose of green waste	Do not dump or leave green matter from landscaping maintenance where it could enter the storm drain system. Take to green waste section of landfill or use appropriately on site.	Prevents pollutants from potentially entering the storm drain system
9	Keep animals out of creeks	Fence areas adjacent to channels to keep animals out of creeks and surrounding areas. Provide stock ponds or water tanks away from watercourses.	Prevents deposition of pollutants (nitrates, bacteria, etc.) in drainage way

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10	Prevent discharge of water from fire sprinkler system maintenance activities to the storm drain system, if feasible	<p><u>Fire sprinkler systems containing corrosion inhibitors, fire suppressants, or antifreeze:</u></p> <ul style="list-style-type: none"> • Prevent discharge to storm drain system • Collect and dispose of discharge to sanitary sewer system <p><u>Fire sprinkler systems without corrosion inhibitors, fire suppressants, or antifreeze:</u></p> <ul style="list-style-type: none"> • Discharge to the sanitary sewer system, if feasible. • If infeasible, conduct one or a combination of the following on days without a prediction for rain: <ul style="list-style-type: none"> – Direct flows to a paved area for evaporation/wet vacuuming and sweeping, and/or – Infiltrate flows in suitable landscape area without causing erosion or runoff. – For any portion of the flows that cannot be managed with the above methods, clean trash and debris from the flow path to the storm drain inlet and mechanically filter remaining flow with an appropriate filter fabric or other equivalent media prior to discharge to the storm drain system. <p><u>Main water lines into buildings (Potable water):</u> Discharge to the storm drain system, provided that the flow path to the storm drain inlet has been swept of debris, the water is dechlorinated, and the water has a pH between 6 and 9.</p>	Prevents or reduces pollutants from potentially entering the storm drain system by keeping them onsite
11	Properly store and dispose of hazardous materials	Store hazardous materials (paints, solvents, oils, pesticides) such that they will not come into contact with storm water if leaks or spills occur. Dispose of hazardous materials using authorized hazardous material collection services.	Prevents pollutants from potentially entering the storm drain system
12	When there is flexibility, schedule during dry weather any outdoor activities that could release pollutants	When there is flexibility, schedule outdoor activities such as vehicle washing and maintenance, handling of hazardous materials, mobile cleaning operations, etc. for non-rainy days. Or, move activities indoors.	Reduces potential for washing pollutants into storm drain system
13	Label containers and maintain up-to-date inventory to prevent mishandling of hazardous materials	Keep accurate inventory of potentially hazardous materials, especially those stored in outdoor areas. Clearly label containers with contents and any special handling instructions in accordance with current regulations.	Prevents pollutants from potentially entering the storm drain system

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14	Drain and properly dispose of fluids from inoperable vehicles	Drain oil, antifreeze, and other fluids from vehicle stored outside for storage or salvage. Dispose of waste per BMP #11 where applicable.	Prevents pollutants from potentially entering the storm drain system
15	Provide pollution prevention signage for storm drains, material storage, etc.	Provide concrete stamping or equivalent on all onsite drainage inlets and catch basins with prohibitive language (e.g., "No Dumping – Drains to Ocean"). Provide signage indicating nature of materials stored onsite, particularly hazardous materials, in accordance with current regulations.	Reduces potential for employees to inadvertently introduce pollutants into storm drain system
16	Properly manage pesticide/fertilizer use	Apply pesticides and fertilizers in strict accordance with manufacturer's guidance. Safely store chemicals in closed/covered areas. Dispose of waste products per BMP #11. When feasible, use integrated pest management principles (plant selection, biological controls, habitat manipulation) to reduce use of chemicals.	Reduces introduction of pollutants to areas that generate runoff
17	Protect landscaped areas from erosion by maintaining vegetative cover	Plant and maintain healthy ground cover on exposed soils to reduce runoff and erosion of soils that may contain or transport pollutants	Reduces erosion and associated pollutants
18	Temporarily protect storm drains from non-storm water discharges while conducting activities have the potential to result in a discharge	Use temporary covers, sand bags, or other methods to prevent non-storm water from entering storm drain system.	Prevents non-storm water and contaminated storm water from entering storm drain system
19	Eliminate irrigation runoff to the storm drain system	The goal of this BMP is to eliminate irrigation runoff to the storm drain system through proper landscape maintenance and watering practices, though it is recognized that some irrigation runoff may occur due to broken sprinklers, irrigation system failures, etc. Adopt proper watering and site design practices, properly maintain irrigation systems by abating runoff from broken sprinklers and other system components, control overspray, and abide by local watering restrictions.	Reduces potential for non-storm water to enter storm drain system
20	Regularly sweep parking areas	Sweep regularly as needed	Removes potential pollutants
21	Protect trash storage areas from contact with storm water	Trash areas should be either: (1) paved with an impervious surface, designed not to allow run-on from adjoining areas, and screened to prevent off-site transport of trash; (2) contain attached lids that exclude rain; and/or (3) covered to minimize direct precipitation. Locate trash areas downstream of drain inlets where applicable. Keep area free of trash.	Reduces contact of rain water with potential pollutants, and reduces runoff of potentially contaminated storm water

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No.	BMP Title	Description and Examples	Justification for BMP
22	Properly dispose of swimming pool, spa, fountain, and filter backwash water	Discharge swimming pool, spa, and fountain water only if the water is dechlorinated, has a pH in 7-8 range, is within ambient temperature, and has no algae or suspended solids. If any of the above standards are not met, dispose of swimming pool, spa, and fountain water either by (1) discharging water to the sanitary sewer system; and/or (2) draining water to landscaped areas. Dispose of filter backwash water only to a landscaped area or the sanitary sewer system.	Prevents contaminated discharge water from entering storm drain system
23	Clean up regularly with dry methods and non-hazardous cleaning products	Use absorbents, sweeping, and other dry cleanup methods to clean up spills rather than washing spilled material into the storm drain system. Dispose of spilled material properly (e.g., hazardous waste materials per BMP #11). Avoid use of cleaning products containing hazardous substances. Dispose of wash water to landscaped areas or sanitary sewer.	Removes potential pollutants
24	Clean trash disposal areas	Keep trash in dumpsters and other receptacles; prevent trash from blowing offsite; sweep trash storage areas frequently; check dumpsters for leaks; never place liquid waste in dumpsters; use dry cleanup methods in trash disposal areas.	Prevents contact of rain water with pollutants
25	Train appropriate employees on storm water pollution prevention	Provide initiation training and annual refresher training for employees involved in activities that could result in spills or discharges to the storm drain system. Assure all employees are familiar with SWPPP if one exists for the site. Designate and train key employees in proper installation, operation, and maintenance of any onsite BMPs.	Reduces potential for employees to inadvertently introduce pollutants into storm drain system
26	Have written procedures for preventing and responding to spills	Facilities subject to regulations such as SPCC or Hazardous Materials Business Plan regulations already should have developed plans in accordance with guidance provided by State, City, and County emergency management departments. For businesses not subject to emergency response and contingency plans as described above, provide written procedures for preventing and responding to spills. Documents should be appropriate in scale to facility activities and potential discharges. Post procedures in appropriate areas and train appropriate employees in spill response procedures.	Removes potential pollutants

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No.	BMP Title	Description and Examples	Justification for BMP
27	Develop a written plan for identifying appropriate BMPs and describing proper implementation	Maintain a written plan that identifies all BMPs to be used and provides clear instruction on how to properly implement each BMP. For facilities subject to storm water permitting pursuant to State General Industrial Permit regulations, this requirement is met by the required Storm Water Pollution Prevention Plan. For businesses not subject to the State General Industrial Permit, this written plan need be appropriately scaled to the size of the facility and potential for discharges. Update those plans as site conditions or activities change.	Prepares plan to address site specific conditions and pollutant sources
28	Identify and eliminate illegal connections to storm drain	Assure all process water and drainage from loading areas, vehicle maintenance areas, and manufacturing areas is discharged to sanitary sewer system	Prevents pollutants from potentially entering the storm drain system

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MINIMUM REQUIRED BMPs FOR INDUSTRIAL/COMMERCIAL BUSINESSES

Priority Sources	Provide secondary containment to catch spills if storing hazardous materials	Use drip pans, etc. to collect leaks/spills	Clean floor mats in locations that do not drain directly to storm drain system	Properly dispose of process or wash water	Immediately clean up spills with dry methods	Maintain spill cleanup materials and have necessary materials and equipment readily available	Wash vehicles and equipment in designated areas and implement practices to prevent water from entering the storm drain	Properly store and dispose of green waste	Keep animals out of creeks	Prevent discharge water from fire system maintenance activities	Properly store and dispose of hazardous materials	Label containers and maintain up-to-date inventory to prevent mishandling of hazardous materials	Drain and properly dispose of fluids from inoperable vehicles	Protect storm drains from non-storm water discharges	Regularly sweep parking areas	Protect trash storage areas from contact with storm water	Clean up regularly with dry methods and non-hazardous cleaning products	Train employees on storm water pollution prevention (1)	Develop and implement Spill Prevention Plan	Develop and implement SWPPP	Identify and eliminate illegal connections to storm drain	Minimize irrigation runoff (1)	Properly manage pesticide/fertilizer use	Clean trash disposal areas	Properly dispose of swimming pool, spa, fountain, and filter backwash water	
Commercial Categories																										
Automobile repair, maintenance, fueling, or cleaning	√	√		√	√	√	√			√	√	√				√	√	√	√					√		
Airplane repair, maintenance, fueling, or cleaning	√	√		√	√	√	√			√	√	√				√	√	√	√					√		
Boat repair, maintenance, fueling, or cleaning	√			√	√	√	√			√	√	√				√	√	√	√					√	√	
Equipment repair, maintenance, fueling, or cleaning	√	√		√	√	√	√			√	√	√				√	√	√	√					√		
Automobile and other vehicle body repair or painting	√				√	√				√	√	√				√	√	√	√					√		
Automobile (or other vehicle) parking lots and storage facilities				√		√				√	√		√		√		√	√	√					√		
Retail or wholesale fueling	√			√	√	√				√	√	√				√	√	√	√					√		
Eating or drinking establishments, including food markets			√	√		√				√						√	√	√					√	√		
Cement mixing or cutting, Painting, Masonry				√	√	√					√			√		√	√	√	√					√		
Botanical or zoological gardens and exhibits					√	√		√		√	√	√				√	√	√				√	√	√	√	
Landscaping, Nurseries and Greenhouses, Golf courses, parks and recreation facilities, Cemeteries						√		√		√	√	√				√	√	√				√	√	√	√	
Marinas				√	√	√				√	√	√				√	√	√	√				√	√	√	
Building material retailers and storage										√						√		√	√					√		
Animal facilities						√			√	√	√					√	√	√						√		
Fire suppression system testing and maintenance										√								√								√
Industrial Categories																										
Manufacturing Facilities				√	√	√				√	√	√				√	√	√	√	√	√	√			√	
Oil and Gas Mining Facilities	√				√	√				√	√	√				√	√	√	√	√	√			√		

Priority Sources	Provide secondary containment to catch spills if storing hazardous materials	Use drip pans, etc. to collect leaks/spills	Clean floor mats in locations that do not drain directly to storm drain system	Properly dispose of process or wash water	Immediately clean up spills with dry methods	Maintain spill cleanup materials and have necessary materials and equipment readily available	Wash vehicles and equipment in designated areas and implement practices to prevent water from entering the storm drain	Properly store and dispose of green waste	Keep animals out of creeks	Prevent discharge water from fire system maintenance activities	Properly store and dispose of hazardous materials	Label containers and maintain up-to-date inventory to prevent mishandling of hazardous materials	Drain and properly dispose of fluids from inoperable vehicles	Protect storm drains from non-storm water discharges	Regularly sweep parking areas	Protect trash storage areas from contact with storm water	Clean up regularly with dry methods and non-hazardous cleaning products	Train employees on storm water pollution prevention (1)	Develop and implement Spill Prevention Plan	Develop and implement SWPPP	Identify and eliminate illegal connections to storm drain	Minimize irrigation runoff (1)	Properly manage pesticide/fertilizer use	Clean trash disposal areas	Properly dispose of swimming pool, spa, fountain, and filter backwash water
Hazardous Waste Treatment, Disposal, Storage and Recovery Facilities	√			√	√	√				√	√	√				√	√	√	√	√			√		
Landfills, Land Application Sites, and Open Dumps										√								√	√				√		
Recycling Facilities (Metal Scrapyards, Battery Reclaimers, Salvage Yards, Motor Vehicle Dismantlers, Waste Recycling Facilities)	√			√	√	√				√	√		√		√	√	√	√	√	√			√		
Steam Electric Power Generating Facilities	√			√						√						√		√	√	√			√		
Transportation Facilities (Vehicle Maintenance, Equipment Cleaning, Airport Deicing)		√		√						√						√	√	√	√	√			√		
Sewage or Wastewater Treatment Works										√						√	√	√	√	√			√		

Notes: (1) Designated BMPs for areas tributary to 303 (d) listed water bodies, coastal lagoons, and waters on sensitive lands

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