O&M Staff Training Module 6: Maintenance Best Practices for Water Quality Protection Facility Maintenance



City of Tacoma Environmental Services 2018

How do you select the right BMP for the job?

Many of your work activities require BMPs

- Building and roof equipment cleaning
- Boiler, cooling tower, HVAC, chiller maintenance and fire sprinkler flushing
- Remodel dry wall stucco and painting
- Dumpster maintenance

Selecting Appropriate BMPs

Basic BMPs to use on every activity:

Suggested BMP Strategies	Recommended BMPs
Cover stockpiles	Contain and cover stockpiled materials to prevent runoff.
Good housekeeping	Sweep area when job is complete, do not hose down the storm drain.
Spill prevention	Regularly maintain vehicles and check for leaks. Keep Spill Kit on site and clean up spills immediately.
Chemical Containment	Review chemical storage to verify secondary containment, flammable cabinets and spill kits are at each location, as required.
Trash and pet waste management	Keep dumpsters and trash can lids closed and garbage picked up. Scoop pet waste, bag it and put it in the trash.





When do you need to contact Environmental Services for a Special Approved Discharge (SAD) Permit?

- For building exterior washing, may need a SAD permit.
- Call Mark Schuler 253-320-8449 or email sad@cityoftacoma.org at least 3 days prior to work to verify SAD permit needs.
- For smaller washing jobs, please follow the washing best management practices in the <u>Stormwater Management Manual Volume 4,</u> <u>Section 4.2 BMP W100, page 611</u>.

When washing down buildings or roof equipment:

- 1. Regularly inspect roofs and sweep up process residues (paper dust, saw dust, steam condensate, paint) to keep from washing down storm drains.
- 2. Clean greasy roof vents on a regular basis.
- 3. <u>Capture wash water from equipment cleaning</u> and discharge to the sanitary sewer system.
- 4. If using detergents, cleaners or acids, wash water shall be captured and routed to sanitary sewer. Contact Environmental Services 502-2222 to check on SAD permit.
- 5. If using cold water with no detergents or other cleaners, building washwater may discharge to landscape or storm drain. Contact Environmental Services 502-2222 to check on SAD permit.





When washing down buildings or roof equipment:

Key steps to remember

Options to capture wash water:

- Berm work area and wet-vac wash water
- Let work area dry and sweep up
- Collect in a plugged catch basin and pump to sanitary sewer drain or landscaping area





When maintaining boilers, cooling towers, HVAC systems and flushing the fire sprinklers:

- Discharge treated
 boiler water to sanitary
 sewer or recycle/reuse
 water in approved
 closed loop system.
- Do not allow discharges
 containing chemical
 additives into the storm
 drain.









When maintaining boilers, cooling towers, HVAC systems and flushing the fire sprinklers:

- 3. <u>Do not discharge fire</u>
 <u>sprinkler system water</u>
 into storm drain
 system.
- 4. Non-contaminated air conditioning and chiller condensate may discharge into the storm drain system.









When remodeling drywall stucco and painting:

- 1. When cleaning and prepping surfaces to apply new finishes, collect scrapings and old finish material on tarp and dispose in garbage.
- **2.** Avoid mixing excess amounts of stucco, drywall mud or plaster.
- 3. Store materials under cover, protected from rain, wind and runoff. Store oil-based paint in a flammable storage cabinet.





When remodeling drywall stucco and painting:

- 4. <u>Designate</u> drywall or plaster wash out areas that will not discharge to storm drain system.
- 5. <u>Dispose of leftover dry</u> material in trash.
- 6. Capture and **properly dispose all oil-base paint as hazardous waste**.
- 7. Wash and clean all latex water-based paint equipment in a sink connected to the sanitary sewer.





When using refuse dumpsters:

- 1. <u>Keep lids closed</u> on trash cans and dumpsters to keep out rainwater and ensure that trash is picked up around the cans and dumpsters at all times.
- 2. Provide adequate trash cans/dumpsters in all appropriate areas. Locate dumpsters and bins away from storm drains.





When using refuse dumpsters:

- 3. <u>Drain to the sanitary sewer any</u> <u>contaminated rain water</u> that has accumulated in an open container.
- Call Solid Waste Management 502-2100 to get leaky dumpsters repaired or replaced.





Field Assistance Need some help with your BMPs?

Call any time:

502-2222



Environmental Services Department - Environmental Compliance Team

Available 24/7

What to watch for in the field...

City Staff Water Pollution Call-in Line

(253) 502-2222

Please call if you notice:

- Muddy construction site track-out or runoff
- Accidental spills or illegal dumping
- Car washing, power washing with soapy water
- People hosing or washing away oil, paint, or other garbage into the street or down the storm drain
- Oily sheen or colored liquid
- Chemical or sewage smell
- Sudsy foam
- Garbage accumulation in or around catch basins
- Liquid seeping from garbage dumpsters
- Hoses connected to catch basins
- What else have you seen?



You are our eyes in the field...







Review Questions

Question #1

Which of these BMPs are generally recommended at all times to prevent stormwater pollution?

- a) Contain and cover stockpiled materials to prevent runoff.
- b) Sweep area when job is complete, do not hose down the storm drain.
- c) Keep Spill Kit on site and clean up spills immediately.
- d) All of the above.

Question #2

Which of these equipment process water discharges may go to the storm drain?

- a) treated boiler water
- b) discharges containing chemical additives
- c) fire sprinkler system water
- d) Non-contaminated air conditioning and chiller condensate

Question #3

Call the Staff Water Pollution Call-in Line (253-502-222), if you see which of the following:

- a) People hosing or washing away oil, paint, or other garbage into the street or down the storm drain
- b) Oily sheen, muddy runoff or sudsy foam
- c) Car accident
- d) Garbage accumulation or liquid seeping from garbage dumpsters

Quiz Answers

- Question #1: d)
- Question #2: d)
- Question #3: a), b) and d)