

SOURCE CONTROL

Best Management Practices (BMPs) Applicable to All Sites

Provided by the City of Port Angeles to support BMP compliance. All BMPs provided in this manual are adapted directly from the 2019 [Stormwater Management Manual for Western Washington, Volume IV](#) (available online). It is the responsibility of business/site owners to ensure adherence to all applicable stormwater BMPs. This manual is provided for convenience only. For more information about the City's Source Control Program, visit www.cityofpa.us/sourcecontrol/, or contact the Source Control Specialist, Howard Carlseen, at hcarlseen@cityofpa.us or (360) 417-4693.



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Source Control BMP Index

The following is a list of all Source Control BMPs found in the [Stormwater Management Manual for Western Washington, Volume IV](#) (2019 SWMMWW). Business/site owners and Pollution Prevention Team members are responsible for ensuring adherence to all other applicable BMPs listed below, per PAMC 13.63.275. BMP identification numbers, titles, and page numbers all correspond to the 2019 SWMMWW.

IV-1 Source Control BMPs Applicable to All Sites

1. (S454) Preventative Maintenance and Good Housekeeping *p. 499*
2. (S455) Spill Prevention and Cleanup *p. 501*
3. (S410) Correcting Illicit Discharges to Storm Drains *p. 497*
4. (S453) Formation of a Pollution Prevention Team *p. 498*
5. (S456) Employee Training *p. 502*
6. (S457) Inspections *p. 503*
7. (S458) Record Keeping *p. 503*

IV-2 Cleaning or Washing

8. (S431) Washing and Steam Cleaning Vehicles, Equipment, and Buildings *p. 505*
9. (S434) Dock Washing *p. 507*
10. (S441) Potable Water Line Flushing, Water Tank Maintenance, & Hydrant Testing *p. 509*

IV-3 Roads, Ditches, and Parking Lots

11. (S405) De-icing and Anti-icing Operations at Airports *p. 511*
12. (S406) Streets and Highways (De-icing) *p. 512*
13. (S415) Maintenance of Private and Public Utility Corridors and Facilities *p. 513*
14. (S416) Maintenance of Roadside Ditches *p. 515*
15. (S417) Maintenance of Stormwater Drainage and Treatment Systems *p. 516*
16. (S421) Parking and Storage of Vehicles and Equipment *p. 517*
17. (S430) Urban Streets and Paved Driving Areas *p. 518*

IV-4 Soil Erosion, Sediment Control, and Landscaping

18. (S407) Dust Control at Disturbed Land Areas and Unpaved Roadways/Parking Lots *p. 521*
19. (S408) Dust Control at Manufacturing Areas *p. 522*
20. (S411) Landscaping and Lawn/Vegetation Management *p. 523*
21. (S425) Soil Erosion and Sediment Control at Industrial Sites *p. 527*
22. (S435) Pesticides and an Integrated Pest Management Program *p. 528*
23. (S444) Storage of Dry Pesticides and Fertilizers *p. 532*
24. (S449) Nurseries and Greenhouses *p. 533*
25. (S450) Irrigation *p. 535*

IV-5 Storage and Stockpiling

- 26. (S427) Outdoor Storage of Liquid, Food Waste, or Dangerous Waste Containers *p. 537*
- 27. (S428) Storage of Liquids in Permanent Aboveground Tanks *p. 545*
- 28. (S429) Outdoor Storage or Transfer of Solid Products or By Products *p. 548*
- 29. (S445) Temporary Fruit Storage *p. 553*

IV-6 Transfer of Liquid or Solid Materials

- 30. (S409) Fueling at Dedication Stations *p. 555*
- 31. (S412) Loading and Unloading Areas for Liquid or Solid Material *p. 559*
- 32. (S419) Mobile Fueling of Vehicles and Heavy Equipment *p. 567*
- 33. (S426) Spills of Oil and Hazardous Substances *p. 569*
- 34. (S439) In-Water and Over-Water Fueling *p. 571*

IV-7 Other Source Control BMPs

- 35. (S401) Building, Repair, and Maintenance of Boats and Ships *p. 575*
- 36. (S402) Commercial Animal Handling Areas *p. 577*
- 37. (S403) Commercial Composting *p. 577*
- 38. (S404) Commercial Printing Operations *p. 579*
- 39. (S413) Log Sorting and Handling *p. 580*
- 40. (S414) Maintenance and Repair of Vehicles and Equipment *p. 581*
- 41. (S418) Outdoor Manufacturing Activities *p. 582*
- 42. (S420) Painting, Finishing, Coating of Vehicles, Boats, Buildings, and Equipment *p. 586*
- 43. (S422) Railroad Yards *p. 587*
- 44. (S423) Recyclers and Scrap Yards *p. 590*
- 45. (S424) Roof/Building Drains at Manufacturing & Commercial Buildings *p. 592*
- 46. (S432) Wood Treatment Areas *p. 592*
- 47. (S433) Pools, Spas, Hot Tubs, and Fountains *p. 594*
- 48. (S436) Color Events *p. 596*
- 49. (S438) Construction Demolition *p. 599*
- 50. (S440) Pet Waste *p. 601*
- 51. (S442) Labeling Storm Drains on Your Property *p. 604*
- 52. (S443) Fertilizer Application *p. 606*
- 53. (S446) Well, Utility, Directional, and Geotechnical Drilling *p. 607*
- 54. (S447) Roof Vents *p. 608*
- 55. (S451) Building, Repair, Remodeling, Painting, and Construction *p. 609*
- 56. (S453) Goose Waste *p. 611*

BMP 1 (S454)

Preventive Maintenance / Good Housekeeping

Preventative maintenance and good housekeeping practices reduce the potential for stormwater to come into contact with pollutants and can reduce maintenance intervals for the drainage system and sewer system.

Applicable BMPs:

- Prevent the discharge of unpermitted liquid or solid wastes, process wastewater, and sewage to ground or surface water, or to storm drains that discharge to surface water, or to the ground. Conduct all oily parts cleaning, steam cleaning, or pressure washing of equipment or containers inside a building, or on an impervious contained area, such as a concrete pad. Direct contaminated stormwater from such an area to a sanitary sewer where allowed by local sewer authority, or to other approved treatment.
- Promptly contain and clean up solid and liquid pollutant leaks and spills including oils, solvents, fuels, and dust from manufacturing operations on an exposed soil, vegetation, or paved area.
- If a contaminated surface must be pressure washed, collect the resulting washwater for proper disposal (usually involves plugging storm drains, or otherwise preventing discharge and pumping or vactoring up washwater, for discharge to sanitary sewer or for vactor truck transport to a wastewater treatment plant for disposal).
- Do not hose down pollutants from any area to the ground, storm drains, conveyance ditches, or receiving water. Convey pollutants before discharge to a treatment system approved by the local jurisdiction.
- Sweep all appropriate surfaces with vacuum sweepers quarterly, or more frequently as needed, for the collection and disposal of dust and debris that could contaminate stormwater. Use mechanical sweepers, and manual sweeping as necessary to access areas that a vacuum sweeper can't reach to ensure that all surface contaminants are routinely removed.
- Do not pave over contaminated soil unless it has been determined that ground water has not been and will not be contaminated by the soil. Call Ecology for assistance.
- Construct impervious areas that are compatible with the materials handled. Portland cement concrete, asphalt, or equivalent material may be considered.
- Use drip pans to collect leaks and spills from industrial/commercial equipment such as cranes at ship/boat building and repair facilities, log stackers, industrial parts, trucks and other vehicles stored outside.
- At industrial and commercial facilities, drain oil and fuel filters before disposal. Discard empty oil and fuel filters, oily rags, and other oily solid waste into appropriately closed and properly labeled containers, and in compliance with the Uniform Fire Code or International Building Code.
- For the storage of liquids use containers, such as steel and plastic drums, that are rigid and

durable, corrosion resistant to the weather and fluid content, non-absorbent, watertight, rodent-proof, and equipped with a close-fitting cover.

- For the temporary storage of solid wastes contaminated with liquids or other potential polluted materials use dumpsters, garbage cans, drums, and comparable containers, which are durable, corrosion resistant, non-absorbent, non-leaking, and equipped with either a solid cover or screen cover to prevent littering. If covered with a screen, the container must be stored under a roof or other form of adequate cover.
- Where exposed to stormwater, use containers, piping, tubing, pumps, fittings, and valves that are appropriate for their intended use and for the contained liquid.
- Clean oils, debris, sludge, etc. from all stormwater facilities regularly, including catch basins, settling/detention basins, oil/water separators, boomed areas, and conveyance systems to prevent the contamination of stormwater. Refer to Ecology Requirements for Generators of Dangerous Wastes in I-2.15 Other Requirements for references to assist in handling potentially dangerous waste.
- Promptly repair or replace all substantially cracked or otherwise damaged paved secondary containment, high-intensity parking, and any other drainage areas, subjected to pollutant material leaks or spills. Promptly repair or replace all leaking connections, pipes, hoses, valves, etc., which can contaminate stormwater.
- Do not connect floor drains in potential pollutant source areas to storm drains, surface water, or to the ground.

Recommended BMPs:

- Where feasible, store potential stormwater pollutant materials inside a building or under a cover and/or containment.
- Minimize use of toxic cleaning solvents, such as chlorinated solvents, and other toxic chemicals.
- Use environmentally safe raw materials, products, additives, etc. such as substitutes for zinc used in rubber production.
- Recycle waste materials such as solvents, coolants, oils, degreasers, and batteries to the maximum extent feasible. Contact Ecology's *Hazardous Waste & Toxics Reduction Program* at <https://ecology.wa.gov/About-us/Get-to-know-us/Our-Programs/Hazardous-Waste-Toxics-Reduction> for recommendations on recycling or disposal of vehicle waste liquids and other waste materials.
- Empty drip pans immediately after a spill or leak is collected in an uncovered area.
- Stencil warning signs at stormwater catch basins and drains, e.g., "Dump no waste – Drains to waterbody".
- Use solid absorbents, e.g., clay and peat absorbents and rags for cleanup of liquid spills/leaks, where practicable.
- Promptly repair/replace/reseal damaged paved areas at industrial facilities.

- Recycle materials, such as oils, solvents, and wood waste, to the maximum extent practicable.

Note: Evidence of stormwater contamination by oils and grease can include the presence of visible sheen, color, or turbidity in the runoff, or present or historical operational problems at the facility.

Operators can use simple pH tests, for example with litmus or pH paper. These tests can screen for high or low pH levels (anything outside a 6.5-8.5 range) due to contamination in stormwater.

BMP 2 (S455)

Spill Prevention and Cleanup

Description of Pollutant Sources: Spills and leaks can damage public infrastructure, interfere with sewage treatment, and cause a threat to human health or the environment. Spills are often preventable if appropriate chemical and waste handling techniques are practiced effectively, and the spill response plan is immediately implemented. Additional spill control requirements may be required based on the specific activity occurring on site.

Applicable BMPs:

Spill Prevention

- Clearly label or mark all containers that contain potential pollutants.
- Store and transport liquid materials in appropriate containers with tight-fitting lids.
- Place drip pans underneath all containers, fittings, valves, and where materials are likely to spill or leak.
- Use tarpaulins, ground cloths, or drip pans in areas where materials are mixed, carried, and applied to capture any spilled materials.
- Train employees on the safe techniques for handling materials used on the site and to check for leaks and spills.

Spill Plan

- Develop and implement a spill plan and update it annually or whenever there is a change in activities or staff responsible for spill cleanup. Post a written summary of the plan at areas with a high potential for spills, such as loading docks, product storage areas, waste storage areas, and near a phone. The spill plan may need to be posted at multiple locations. Describe the facility, including the owner's name, address, and telephone number; the nature of the facility activity; and the general types of chemicals used at the facility.
- Designate spill response employees to be on-site during business activities. Provide a current list of the names and telephone numbers (home and office) of designated spill response employees who are responsible for implementing the spill plan.
- Provide a site plan showing the locations of storage areas for chemicals, inlets/catch basins, spill kits and other relevant infrastructure or materials information.
- Describe the emergency cleanup and disposal procedures. Note the location of all spill kits in plan.
- List the names and telephone numbers of public agencies to contact in the event of a spill.

Spill Cleanup Kits

- Store all cleanup kits near areas with a high potential for spills so that they are easily accessible in the event of a spill. The contents of the spill kit must be appropriate to the types and quantities of materials stored or otherwise used at the facility and refilled when the materials are used. Spill kits must be located within 25 feet of all fueling/fuel transfer areas, including on-board mobile fuel trucks.

Note: Ecology recommends that the kit(s) include salvage drums or containers, such as high-density polyethylene, polypropylene, or polyethylene sheet-lined steel; polyethylene or equivalent disposal bags; an emergency response guidebook; safety gloves/clothes/equipment; shovels or other soil removal equipment; and oil containment booms and absorbent pads; all stored in an impervious container.

Spill Cleanup and Proper Disposal of Waste

- Stop, contain, and clean up all spills immediately upon discovery.
- Implement the spill plan immediately.
- Contact the designated spill response employees.
- Block off and seal nearby inlets/catch basins to prevent materials from entering the drainage system or combined sewer.
- Use the appropriate material to clean up the spill.
- Do not use emulsifiers or dispersants such as liquid detergents or degreasers unless disposed of properly. Emulsifiers and dispersants are not allowed to be used on surface water, or in a place where they may enter storm drains, surface waters, treatments systems, or sanitary sewers.
- Immediately notify Ecology and the local jurisdiction if a spill has reached or may reach a sanitary or storm sewer, ground water, or surface water. Notification must comply with state and federal spill reporting requirements.
- Do not wash absorbent material into interior floor drains or inlets/catch basins.
- Place used spill control materials in appropriate containers and dispose of according to regulations.

BMP 3 (S410)

Correcting Illicit Discharges to Storm Drains

Description of Pollutant Sources: Illicit discharges are unpermitted sanitary or process wastewater discharges to a storm sewer or to surface water, rather than to a sanitary sewer, industrial process wastewater, or other appropriate treatment. They can also include swimming pool water, filter backwash, cleaning solutions/washwaters, cooling water, etc. Experience has shown that illicit discharges are common, particularly in older buildings.

Pollutant Control Approach: Identify and eliminate unpermitted discharges or obtain an NPDES permit, where necessary, particularly at industrial and commercial facilities.

Applicable Operational BMPs:

- For all real properties, responsible parties must examine their plumbing systems to identify any potential illicit discharges. Review site plans, engineering drawings, or other sources of information for the plumbing systems on the property.
- If an illicit discharge is suspected, trace the source using an appropriate method such as visual reconnaissance, smoke test, flow test, dye test with a nontoxic dye, or closed-circuit television (CCTV) inspection. These tests are to be performed by qualified personnel such as a plumbing contractor. Note: Contact Ecology prior to performing a dye test which may result in a discharge to a receiving water.
- If illicit connections are found, permanently plug, or disconnect the connections.
- Eliminate prohibited discharges to storm sewer, ground water, or surface water.
- Convey unpermitted discharges to a sanitary sewer if allowed by the local sewer authority, or to other approved treatment.
- Obtain all necessary permits for altering or repairing side sewers and plumbing fixtures. Restrictions on certain types of discharges, particularly industrial process waters, may require pretreatment of discharges before they enter the sanitary sewer. It is the responsibility of the property owner or business operator to obtain the necessary permits and to replace the connection.
- Obtain appropriate state and local permits for these discharges.

Recommended Additional Operational BMPs:

At commercial and industrial facilities, conduct a survey of wastewater discharge connections to storm drains and to surface water as follows:

- Conduct a field survey of buildings, particularly older buildings, and other industrial areas to locate storm drains from buildings and paved surfaces. Note where these discharge.
- During non-stormwater conditions, inspect each storm drain for non-stormwater discharges. Record the locations of all non-stormwater discharges. Include all permitted discharges.

- If useful, prepare a map of each area. Show on the map the known location of storm sewers, sanitary sewers, and permitted and unpermitted discharges. Aerial photos may be useful. Check records such as piping schematics to identify known side sewer connections and show these on the map. Consider using smoke, dye, or chemical analysis tests to detect connections between two conveyance systems (e.g., process water and stormwater). If desirable, conduct TV inspections of the storm drains and record the footage on videotape.
- Compare the observed locations of connections with the information on the map and revise the map accordingly. Note suspect connections that are inconsistent with the field survey.
- Identify all connections to storm sewers or to surface water and take the actions specified above as applicable BMPs.

BMP 4 (S453)

Formation of a Pollution Prevention Team

The pollution prevention team should be responsible for implementing and maintaining all BMPs and treatment for the site. This team should be able to address any corrective actions needed on site to mitigate potential stormwater contamination. The team members should:

- Consist of those people who are familiar with the facility and its operations.
- Possess the knowledge and skills to assess conditions and activities that could impact stormwater quality at your facility, and who can evaluate the effectiveness of control measures.
- Assign pollution prevention team staff to be on duty on a daily basis to cover applicable permittee facilities when those facilities are in operation.
- Have the primary responsibility for developing and overseeing facility activities necessary to comply with stormwater requirements.
- Have access to all applicable permit, monitoring, SWPPP, and other records.
- Be trained in the operation, maintenance, and inspections of all BMPs and reporting procedures.
- Establish responsibilities for inspections, operation, maintenance, and emergencies.
- Regularly meet to review overall facility operations and BMP effectiveness.

BMP 5 (S456)

Employee Training

Train all employees that work in pollutant source areas about the following topics:

- Identifying Pollution Prevention Team Members.
- Identifying pollutant sources.
- Understanding pollutant control measures.
- Spill prevention and response.
- Emergency response procedures.
- Handling practices that are environmentally acceptable. Particularly those related to vehicle/equipment liquids such as fuels, and vehicle/equipment cleaning.

Additional specialized training may be needed for staff who will be responsible for handling hazardous materials.

BMP 6 (S457)

Inspections

Qualified personnel shall conduct inspections monthly. Make and maintain a record of each inspection on-site. The following requirements apply to inspections:

- Be conducted by someone familiar with the facility's site, operations, and BMPs.
- Verify the accuracy of the pollutant source descriptions in the SWPPP.
- Assess all BMPs that have been implemented for effectiveness and needed maintenance and locate areas where additional BMPs are needed.
- Reflect current conditions on the site.
- Include written observations of the presence of floating materials, suspended solids, oil and grease, discoloration, turbidity, and odor in the stormwater discharges; in outside vehicle maintenance/repair; and liquid handling, and storage areas. In areas where acid or alkaline materials are handled or stored use a simple litmus or pH paper to identify those types of stormwater contaminants where needed.
- Eliminate or obtain a permit for unpermitted non-stormwater discharges to storm drains or receiving waters, such as process wastewater and vehicle/equipment washwater.
- Identify actions to address inspection deficiencies.

BMP 7 (S458)

Record Keeping

See the applicable permit for specific record-keeping requirements and retention schedules for the following reports. At a minimum, retain the following reports for five years:

- Inspection reports which should include:
 - o Time and date of the inspection
 - o Locations inspected
 - o Statement on status of compliance with the permit
 - o Summary report of any remediation activities required
 - o Name, title, and signature of person conducting the inspection
- Reports on spills of oil or hazardous substances in greater than Reportable Quantities (Code of Federal Regulations Title 40 Parts 302.4 and 117). Report spills of the following: antifreeze, oil, gasoline, or diesel fuel, that cause:
 - o A violation of the State of Washington's Water Quality Standards.
 - o A film or sheen upon or discoloration of the waters of the State or adjoining shorelines.
 - o A sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

To report a spill or to determine if a spill is a substance of a Reportable Quantity, call the Ecology regional office and ask for an oil spill operations or a dangerous waste specialist:

- Northwest Region (425) 649-7000
- Southwest Region (360) 407-6300
- Eastern Region (509) 329-3400
- Central Region (509) 575-2490

In addition, call the Washington Emergency Management Division at 1-800-258-5990 or 1-800-OILS-911 AND the National Response Center at 1-800-424-8802.

Also, refer to *Focus on Emergency Spill Response* ([Ecology, 2009](#)).

The following is additional recommended record keeping:

Maintain records of all related pollutant control and pollutant generating activities such as training, materials purchased, material use and disposal, maintenance performed, etc.