A-30: In and Over Surface Water Activities

Stormwater runoff (rainwater and snow melt) is the largest source of pollution to our lakes, streams and Puget Sound. King County requires businesses to implement measures to protect our shared waters. If the requirements below do not prevent pollution, additional measures are necessary.

The following best management practices (BMPs) apply to businesses that operate in or over the marine environment. Marine activities include:

- operations not covered by a National Pollutant Discharge Elimination System (NPDES) permit from the Washington State Department of Ecology (e.g., boatyard general permit);
- transferring fuels from a fueling station to vehicles or equipment in or over surface waters; and
- washing docks, wharves, piers, floats, and boat ramps.

Ship/Boat/Watercraft Building, Maintenance and Repair

Required BMPs

- Move maintenance and repair activities onshore, if possible.
- Enclose blasting and spray-painting activities by deploying tarps to prevent dust and overspray from escaping. Use sanders that have dust containment bags. Collect drips and spills using drop cloths or drip pans.
- Collect bilge and ballast water that has an oily sheen on the surface. Properly dispose of it rather than dumping it in surface waters or on land.
- Perform paint and solvent mixing, fuel mixing, and similar handling of liquids on land to avoid spilling into the water. Clean up spills immediately. Do not wash spills to the stormwater drainage system or surface waters.
- Collect and properly dispose of wash water from washing painted boat hulls. Never dispose of wash water containing soap or other chemicals to the stormwater drainage system or surface waters.
- Cover boat construction and structural repair activities.
- Place a tarp underneath the work area on boats or piers to collect drips, spills, paint chips, and loose solids when work is performed over water.
- Do not use soaps or detergents of any kind to wash the topsides or hulls of boats where the wash water will enter surface waters.

Required Routine Maintenance

- Store and maintain appropriate spill cleanup materials in a readily accessible location.
- Have a current spill control plan and train all employees on proper spill cleanup procedures.

- Sweep maintenance yard areas, piers, wharves, and boat ramps to collect sandblasting material, paint chips, oils, and other loose debris. Properly dispose of these collected materials. Do not hose down the area to the water or to a storm drain.

Additional Information

- Potential pollutants can include: hydrocarbons—such as gasoline and diesel, metals, nutrients, oil and grease, oxygen demanding substances, pH, sediment, and other pollutants.
- *Stormwater Pollution Prevention Manual*, Chapter 3: Commercial and Multifamily BMPs
    - A-3: Storage of Liquid Materials in Portable Containers
    - A-11: Cleaning or Washing of Tools and Equipment
    - A-18: Vehicle and Equipment Repair and Maintenance
- *Stormwater Pollution Prevention Manual*, Chapter 5: Information Sheets
    - Disposal
- Washington State Department of Ecology's *Vehicle and Equipment Wash Water Discharges/Best Management Practices Manual* https://fortress.wa.gov/ecy/publications/summarypages/95056.html

In-Water and Over-Water Fueling Operations

Required BMPs

- Facilities that load or unload petroleum products must comply with U.S. Coast Guard requirements. Refer to specifications in Coast Guard Requirements for Marine Transfer of Petroleum Products.
- Refer to activity sheets A-17: Stationary Fueling Operations for applicable best management practices.

Required BMPs – Training and Fuel Dock Supervision

- Have a trained employee supervise the fuel dock during fueling activities.
- Do not allow self-service on a marina dock without some means of controlling the dock activity. This can be done via camera, intercom, and shutoff abilities in the office.

Required BMPs – Fueling Dock Setup, Maintenance, and Inspection

- Install personal watercraft floats at fuel docks to stabilize personal watercraft/jet skis while refueling.
- Use automatic shut-off nozzles and promote the use of "whistles" and fuel/air separators on air vents or tank stems of inboard fuel tanks to reduce the amount of fuel spilled into receiving waters during fueling of boats.
- Have spill containment booms, pads, and absorbents easily accessible and clearly marked.

- Post a spill response and cleanup plan where employees can easily see it and keep contact information current.
- Post readable refueling directions, BMPs, and emergency protocols at the fueling station.
- Post a sign with emergency spill reporting phone numbers clearly visible. Marinas on land leased from the Washington Department of Natural Resources (DNR) are required to post the "Spills Aren't Slick" signage.
- Display "No Smoking" signs on fuel docks.
- Create a regular inspection, maintenance, and replacement schedule for fuel hoses, pipes, tanks, and spill cleanup materials. Have staff walk the dock fuel lines from dispenser to tank to look for signs of leakage at joints and determine hose condition from end to end.

Required BMPs – Fueling Practices

- Discourage operators from "topping off". Fuel expands and can slosh out of the vent when temperatures rise or waters become choppy.
- When handing over the nozzle, wrap an absorbent pad around the nozzle end or plug inside the nozzle end to prevent fuel in the nozzle from spilling.
- Have the boat operator place an absorbent pad or suction cup bottle under the vent(s) to capture fuel spurts from the vent.
- Never block open the fuel nozzle trigger and always disable hands-free clips to ensure the boater remains with the nozzle to prevent overfilling. Hands-free clips are not allowed in Washington, per WAC 296-24-33015.
- Always keep the nozzle tip pointing up and hang the nozzle vertically when not in use.
- During fueling operations, visually monitor the liquid level indicator to prevent the tank from being overfilled.
- The maximum amount of product received must not exceed 95 percent capacity of the receiving tank.

Required BMPs – Spill Cleanup

- Train all employees on required spill response methods and procedures.
- Manage petroleum-contaminated booms, pads, and absorbents in a designated collection container and properly dispose of these materials.
- Do not use soaps or dispersants in the event of a spill. Use absorbent materials instead.
- See activity sheets A-2: Outdoor Storage of Liquid Materials in Stationary Tanks and A-3: Storage of Liquid Materials in Portable Containers for additional BMPs.

Required BMPs – Fueling by Portable Container

- Have boats fuel on shore or at a fuel dock rather than transport fuel from an upland facility to the boats. Only use hand-held fueling containers or "jerry cans" when necessary or when shore or dock fueling is not practical.

- Always refill portable fuel containers on the pavement or dock to ensure a good electrical ground. While the deck of the boat may seem stable, static electricity can build up and cause a spark.
- On the dock, put an absorbent pad under the container and wrap an absorbent pad around the fuel fill — this can easily be done by putting a hole in the pad.
- Ensure the nozzle stays in contact with the tank opening.
- When transferring fuel from a portable can, use a fuel siphon with a shut-off feature. If a siphon is not available, a nozzle/spout with a shut off is a good alternative.
- Since fueling boats with a portable container can take time, make sure the container is comfortable to carry, hold, and balance.
- Use a high flow funnel. Funnels can help prevent spills by making a larger opening for fueling.
- Place a plug of absorbent pad or paper towel in the nozzle when not in use to capture any extra drops that accumulate.
- Fuel slowly, pour deliberately and watch the container (especially the nozzle mechanism) for signs of wear.
- Store portable fuel tanks out of direct sunlight and keep in a cool, dry place to minimize condensation.

Additional Information

- Potential pollutants can include: hydrocarbons—such as gasoline and diesel, metals, nutrients, oil and grease, oxygen demanding substances, pH, sediment, and other pollutants.
- *Stormwater Pollution Prevention Manual*, Chapter 3: Commercial and Multifamily BMPs
    - A-2: Outdoor Storage of Liquid Materials in Stationary Tanks
    - A-3: Storage of Liquid Materials in Portable Containers
    - A-17: Stationary Fueling Operations
    -
- *Stormwater Pollution Prevention Manual*, Chapter 5: Information Sheets
    - Disposal
    - Spill Response and Cleanup Plan

Dock Washing

Required BMPs – Surface Preparation and Spot Cleaning

- Use dry methods and equipment (scraping, sweeping, vacuuming) to remove debris, bird feces and other contaminants prior to cleaning with water to prevent these pollutants from entering surface water. This will minimize the need for chemical cleaners. Dispose of debris from the dock as solid waste.

- During cleaning activities, if debris, substances, or wash water have the potential to enter surface waters through drains, temporarily block the drains prior to cleaning activities.
- Hose down the area if necessary and to the extent practicable, collect wash water and dispose of it properly.
    - If the dock is paved, the landward area is vegetated, and no soaps or detergents are used, then the wash water does not have to be collected if the water can soak into the ground without discharging to surface waters or the storm drainage system. However, the wash water does have to be filtered to trap solid materials before entering vegetated areas.
    - If the dock and the landward area are both paved, then use a sump pump, wet vacuum or similar device that enables collection of wash water and associated solids so they can be disposed of in a sink or toilet for treatment at your local sewage treatment plant. On-site septic systems should not receive wash water containing harsh chemicals. The wash water must not go to surface waters or storm drainage system.
- Spot clean with water and a coarse cloth before using soaps or detergents or washing down an area.
- If a cleaner is needed for spot cleaning:
    - Mix it in a bucket and use it to scrub down only the areas that need extra attention.
    - Try starting with vinegar and baking soda and move to other options as needed. Spot clean using a rag if harsher cleaning products are needed.
    - Use a mild detergent or soap that is pH neutral. Avoid or minimize the use of petroleum distillates, chlorinated solvents, and ammoniated cleaning agents.
    - Use degreasers or absorbent material to remove residual grease by hand and do not allow this material to enter surface waters.
    - Keep cleaners in sealed containers and keep cleaner containers closed securely when transporting between the shore and docks.
    - Properly dispose of wash water.
- Minimize the scour impact of wash water to any exposed soil at the landward end(s) of the dock or below the dock. Place a tarp over exposed soil, plant vegetation, or put berms to contain eroded soil.

Required BMPs – Dock Washing and Disposal

- For surfaces other than dock, refer to BMP activity sheet A-15: Washing of Buildings, Rooftops, and Other Large Surfaces.
- For information on the use of pressure washers, steam cleaners or similar activities, refer to BMP activity sheet A-58: Pressure Washing, Steam Cleaning, and Similar Activities.

- During cleaning activities, if debris, substances, or wash water could enter surface waters through drains, then temporarily block the drains and collect all of the wash water.
- To the extent practicable, collect any wash water generated from cleaning dock areas, and dispose of it properly.
    - If the dock is paved, the landward area is vegetated and no soaps or detergents are used, then the wash water does not have to be collected if the water can soak into the ground without discharging to surface waters or the storm drainage system. However, the wash water does have to be filtered to trap solid materials before entering vegetated areas.
    - If the dock and the landward area are both paved, then use a sump pump, wet vacuum or similar device that enables collection of wash water and associated solids so they can be disposed of in a sink or toilet for treatment at your local sewage treatment plant. On-site septic systems should not receive wash water containing harsh chemicals. The wash water must not go to surface waters or storm drainage system.
- If pressure washing use only light pressure. Avoid using excessive pressure, which may damage the dock or send flakes of paint and other material into the water. If the surface is painted with lead or other heavy metal-bearing paint (such as chromium or cadmium), use a commercial pressure washing service that will collect, test, and properly dispose of the wash water. For information on the use of pressure washers, steam cleaners or similar activities, refer to BMP activity sheet A-58: Pressure Washing, Steam Cleaning, and Similar Activities.
- Do not place any debris or substances resulting from cleaning activities in shoreline areas, riparian areas, or on adjacent land where these substances may erode into surface waters.
- Where treated wood associated with the structure being washed are present, use non-abrasive methods and tools that, to the maximum extent practicable, minimize removal of the creosote or treated wood fibers when it removes marine growth from creosote or any other treated wood.
- Do not discharge removed marine growth to surface waters.
- Do not discharge emulsifiers, dispersants, solvents, or other toxic deleterious materials to surface waters or storm drainage systems.

Required BMPs – Goose Waste

- If possible, pick up goose waste using shovels, brooms, rakes, power sweepers, and trash cans. Properly dispose of goose waste in the garbage.
- Do not blow, sweep, or wash goose waste into surface waters or storm drainage systems.
- Regularly clean goose waste from areas of chronic deposition.

Supplemental BMPs- Goose Waste

- Do not feed wild geese or other waterfowl.

- Change areas of chronic accumulation of goose waste from goose friendly to goose resistant. Reduce lawn areas and increase the height of shoreline vegetation (tall grass, shrubs) as geese are reluctant to walk through tall vegetation.
- Geese's favorite food is new shoots of grass. Let grass grow to six inches or taller. Stop fertilizing and watering lawn in areas of geese accumulation to reduce the palatability of the lawn.
- Create a natural geese barrier of 20 to 100 feet of herbaceous vegetation at least 3 feet in height to discourage geese. A narrow, winding path through the plantings will allow for beach access, while preventing geese from having a direct line of sight through the planted area. Minimize open sight lines for geese to less than 30 feet.
- Where space is limited, use one or two rows of shrub plantings combined with a fence to construct a geese barrier. Fences should be at least 24 inches tall (3 feet may be better), firmly constructed, and installed to prevent the geese from walking around the ends. Lower openings should be no larger than 4 inches from the ground to prevent goslings from walking under or through the fence.
- Construct bank slopes steeper than 4:1 to discourage geese by preventing a clear view of the bank top and potential predators. Or, separate the beach from the grass with a few steep steps, which makes the ascent too difficult for most geese.
- Plant shrubs or trees near the water's edge to limit takeoff and landing opportunities.
- Scare geese away when they are around. Geese often learn quickly to ignore scare devices that are not a real physical danger. Vary the use, timing, and location of tactics. Examples of harassment and scare tactics include dogs, monitor lizards, eyespot balloons, flags and streamers, and scarecrows.
- Canada geese are protected under federal and state law. A hunting license and open season are required to hunt them. Where lethal control is necessary outside of hunting seasons, it should be carried out only under permits issued by the U.S. Fish and Wildlife Service.

Additional Information

- Potential pollutants can include: hydrocarbons—such as gasoline and diesel, metals, nutrients, oil and grease, oxygen demanding substances, pH, sediment, and other pollutants.
- *Stormwater Pollution Prevention Manual*, Chapter 3: Commercial and Multifamily BMPs
    - A-15: Washing of Buildings, Rooftops, and Other Large Surfaces
    - A-58: Pressure Washing, Steam Cleaning, and Similar Activities
- *Stormwater Pollution Prevention Manual*, Chapter 5: Information Sheets
    - Controlling and Collecting Contaminated Runoff
    - Drainage Maintenance Contractors
    - Spill Response and Cleanup Plan

- The Humane Society of the United States' *Solving Problems with Canada Geese: A Management Plan and Information Guide* http://www.humanesociety.org/assets/pdfs/wild_neighbors/canada_goose_guide.pdf

For more information or assistance contact the King County Stormwater Services at 206–477–4811 and visit kingcounty.gov/stormwater.