

## Chapter 3 BMPs for Homeowners

Actions taken each day in and around homes have a profound effect on surface water quality and fish habitat in this region. Stormwater goes directly to lakes, streams and to Puget Sound. Stormwater does not go to the wastewater treatment plant. Any pollutants that get into the stormwater go directly to surface water. Small amounts of pollution from many different sources can significantly affect our waterways. Yard maintenance, waste storage, car washing and maintenance, and pool cleaning are some of the activities that can adversely impact water quality. The best management practices (BMPs) discussed in this section are practical ways to keep stormwater from becoming polluted in the first place. It is recommended that all residents in Tacoma use these BMPs. Please note that some of these procedures are required by various state, or city laws, and are noted as required BMPs.

A general list of best management practices (BMPs) for homeowners is described in this chapter. Some of the BMPs described in Chapter 4 may also be applicable to homeowners.

- Section 3.1 – Automobile Washing
- Section 3.2 – Automobile Maintenance
- Section 3.3 – Storage of Solid Wastes and Food Wastes
- Section 3.4 – Composting
- Section 3.5 – Yard Maintenance and Gardening
- Section 3.6 – Swimming Pool and Spa Cleaning and Maintenance
- Section 3.7 – Household Hazardous Material Use, Storage, and Disposal
- Section 3.8 – General Home Maintenance

### 3.1 Automobile Washing (for Single-Family Residences)

Car washing at home will cause washwater to enter the storm system and flow untreated into surface waters. Soaps and detergents, even the biodegradable ones, can have immediate and long-term effects.

#### 3.1.1 Required BMPs

Engine degreasing or washing of internal engine components is not permitted at home. Take car to a commercial car wash that allows engine washing.

#### 3.1.2 Suggested BMPs

The best option is to take cars to a commercial car wash that has a recycle system and discharges wastewater to the sanitary system for treatment. If this option is not feasible, use the suggested BMPs below.

##### 3.1.2.1 At Home:

- Wash cars directly over lawn areas or make sure the wash water drains to a vegetated area.
- Ideally, no soaps or detergents should be used, but if one is used, select one without phosphates.
- Consider using commercial products that allow cleaning a vehicle without water.
- Use a hose nozzle with a shut-off valve to save water.

- Do not wash cars if rain is expected.
- Pour the bucket of soapy, dirty washwater down your sink.

### 3.1.2.2 Away from Home:

- Go to fundraising car washes where sponsors use Tacoma's Clean Bay Car Wash loaner kits. Look for the Clean Bay Car Wash logo. Use a Clean Bay Car Wash loaner kit. If your group is planning a car wash in Tacoma, call 253-502-2220 or refer to the City of Tacoma website to reserve a Clean Bay Car Wash loaner kit.

## 3.2 Automobile Maintenance

### 3.2.1 Required BMPs

- Recycle all oils, antifreeze, solvents, and batteries. Many local car parts dealers and gas stations accept used oil. The Household Hazardous Waste facility at the Tacoma Landfill accepts oil, oil filters, antifreeze, and solvents. Old batteries can actually be worth money. Recycle old batteries at battery shops or the Tacoma Landfill.
- Never dump new or used automotive fluids or solvents on the ground, in a storm drain or street gutter, or in a waterbody.
- Do not mix wastes. Always keep your wastes in separate containers which are properly labeled and store them under cover.
- Household Hazardous Waste cannot be disposed of with regular garbage. Contact the City of Tacoma Household Hazardous Waste Facility at 253.591.5418 or go to [www.cityoftacoma.org/solidwaste](http://www.cityoftacoma.org/solidwaste) for additional information.

### 3.2.2 Suggested BMPs

- Fix all leaks, to keep the leaky material off the streets and out of the surface water.
- To dispose of oil filters:
  - Punch a hole in the top and let drain into a plastic container for at least 24 hours.
  - Once the filter is drained, wrap the filter in 2 layers of plastic and dispose of it in your regular garbage. The used motor oil may not be disposed of with household garbage.OR
  - Recycle the used oil filter by taking it to the Tacoma Landfill, Household Hazardous Waste facility.

**NOTE:** The used oil shall be recycled at an approved facility and cannot be disposed of with your regular garbage.

- Use care in draining and collecting antifreeze to prevent accidental spills. Spilled antifreeze can be deadly to cats and dogs that ingest it.
- A tarp, ground cloth, sheet of cardboard, drip pans, or other materials to contain drips must be used beneath the vehicle or equipment to capture all spills and drips. Keep a bag of kitty litter on hand to absorb any spills. Sprinkle a layer on the spill, let it absorb and sweep it up. Dispose of the contaminated litter in the regular garbage in a tied plastic bag. Do not leave kitty litter out in the rain.
- If body work is performed outside, be sure to use a tarp to catch material resulting from grinding, sanding, and painting. Dispose of this waste by double bagging in plastic and placing in garbage.

### **3.3 Storage of Solid Wastes and Food Wastes**

Improper storage of food and solid waste at residences can lead not only to water pollution problems, but problems with neighborhood pets and vermin as well.

#### **3.3.1 Required BMPs**

- City of Tacoma residents shall use the City of Tacoma Solid Waste Management waste containers. These containers should have lids. If the lid is damaged, please call Tacoma Solid Waste Management at 253-591-5543 to get the lid repaired or replaced.
- Leaking waste containers should be replaced. If the container is damaged, please call Tacoma Solid Waste Management at 253-591-5543.

#### **3.3.2 Suggested BMPs**

- Store waste containers under cover if possible, or on grassy areas.
- Use the Tacoma Call-2-Haul program to pick up bulky materials and excess waste material. Call 253-573-2468 for more information and details, or to set up an appointment for waste pickup.
- Inspect the storage area regularly to pick up loose scraps of material and dispose of them properly.
- Recycle as much as you can. Tacoma offers curbside recycling. Also, look under "Recycling" in the phone book for firms which take other recyclables.
- Purchase products which have the least amount of packaging materials.
- Compost biodegradable materials such as grass clippings and vegetable scraps instead of throwing them away. Call Tacoma Solid Waste Utility Recycling and Composting at 253-565-5955 for more information on composting. See the section on Composting for BMPs relating to that activity.
- An alternative to traditional composting is worm composting. For more information on getting started with worm composting, call the number listed above.

### **3.4 Composting**

Composting is an earth-friendly activity as long as the rules outlined below are followed. The following BMPs are applicable to composting.

#### **3.4.1 Required BMPs**

- Locate compost piles on an unpaved area that is not subject to stormwater runoff or runoff; that is not prone to water ponding during storms; and well away from wetlands, streams, lakes and other drainage ways.

#### **3.4.2 Suggested BMPs**

- Compost piles must be maintained and turned over regularly to work properly. Large piles of unattended compost may create odor and vermin problems.
- Do not put hazardous or non-decomposable waste in the pile.
- Cover the compost pile for two reasons:
  - To keep stormwater from washing nutrients into waterways.

- To keep excess water from cooling down the pile, which will slow down the rate of decomposition.
- Build bins of wood, chicken wire, or fencing material to contain compost so it can't be washed away. Call Tacoma Solid Waste Utility Recycling and Composting at 253-565-5955 to get free composter designs and materials lists.
- Building a small earthen dike around a compost pile is an effective means of preventing nutrient-rich compost drainage from reaching stormwater paths.

### **3.5 Yard Maintenance and Gardening**

This section deals with the normal yard maintenance activities typically performed at residences. Overwatering, overfertilizing, improper herbicide application, and improper disposal of trimmings and clippings can all contribute to serious water pollution problems. Following the BMPs listed below will help alleviate pollutant runoff.

#### **3.5.1 Required BMPs**

- Follow the manufacturer's directions exactly for mixing and applying herbicides, fungicides, and pesticides, and use them sparingly. Never apply when it is windy or when rain is expected. Never apply over water, within 100 feet of a well-head, or adjacent to streams, wetlands, or other waterbodies. Triple-rinse empty containers, using the rinsate for mixing your next batch of spray, and then double-bag and dispose of the empty container in your regular garbage.
- Never dispose of grass clippings or other vegetation in or near storm drains, streams, lakes, or Puget Sound.
- Make sure all fertilizers and pesticides are stored in a covered location.

#### **3.5.2 Suggested BMPs**

- Use natural, organic soil amendments like Tacoma's TAGRO Mix. TAGRO Mix is a 100% recycled blend of de-watered, Class A, "Exceptional Quality" biosolids, mixed with sawdust and sand.
- Use an integrated pest management program (IPM), which is a natural, long-term, ecologically based approach to controlling pest populations. See Section 4.4.6 and Appendix C – Example of an Integrated Best Management Program.
- Save water and prevent pollution problems by watering lawns sensibly. Lawns and gardens typically need the equivalent of 1-inch of rainfall per week. Put a wide mouth jar out where watering is occurring, and measure the water with a small plastic ruler. Overwatering to the point of runoff can carry polluting nutrients to the nearest waterbody.
- Consider planting a vegetated buffer zone adjacent to streams or other water bodies. Call the Pierce County Conservation District at 253-845-2973 for advice and assistance in developing a planting plan.
- Reduce the need for pesticides and fertilizers on lawns by improving the health of the soil. Aerating, thatching, and topdressing with compost will improve soil health and help wanted grasses compete with weeds and moss.
- Use a mulching mower and mow higher to improve soil/grass health and reduce or eliminate pesticide use.
- Compost all yard clippings, or use them as mulch to save water and keep down weeds in your garden. See Section 3.4 for more information.

- Practice organic gardening and virtually eliminate the need to use pesticides and fertilizers. Contact Pierce County Cooperative Extension at 253-591-7180 or the Ask-A-Master Gardener program at 253-591-7170 for information and classes on earth-friendly gardening.
- Pull weeds instead of spraying and get some healthy exercise, too. If you must spray, use the least toxic formulations that will get the job done. The Master Gardener program listed above can help advise you on which spray to use.
- Work fertilizers into the soil instead of letting them lie on the ground surface exposed to the next rain storm.
- Plant vegetation suited to Northwest conditions because they require less water and fewer to no fertilizers and pesticides.
- Tacoma has a curbside yard waste recycling program. Call 253-565-5955 for more information.

### **3.6 Swimming Pool and Spa Cleaning and Maintenance**

Despite the fact that we immerse ourselves in it, the water from pools and spas is far from chemically clean. Nutrients, pH, and chlorine can adversely affect fish and wildlife in waterbodies. Following these BMPs will ensure the cleanliness of your pool and the environment.

#### **3.6.1 Required BMPs**

- Pool and spa water must be dechlorinated if it is to be emptied into a ditch, on the ground or a lawn, or to the storm drainage system. The discharges shall be dechlorinated to a concentration of 0.1 ppm or less, pH-adjusted and reoxygenated if necessary, and volumetrically and velocity controlled to prevent resuspension of sediments in the stormwater system. Contact a pool chemical supplier to obtain the neutralizing chemicals needed. The rate of flow into the ditch or drainage system must be regulated so that it does not cause problems such as erosion, surcharging, or flooding. Water discharged to the ground or a lawn must not cross property lines and must not produce runoff.
- Swimming pool cleaning wastewater and filter backwash shall not be discharged to the MS4.
- If pool and spa water cannot be dechlorinated, it must be discharged to the sanitary sewer. Prior to draining a pool or spa, notify the local wastewater treatment plant to ensure they are aware of the volume of discharge and the potential effects of chlorine levels. A pool service company can help determine the frequency of cleaning and backwash of filters.
- Diatomaceous earth used in pool filters cannot be disposed of in surface waters, on the ground, or into storm drainage systems or septic systems. Dry it out as much as possible, bag it in plastic, and dispose of at the landfill.

#### **3.6.2 Suggested BMPs**

- Hire a professional pool service company to collect all pool water for proper disposal. Make sure to ask where the water will be disposed of and ensure the proper permits have been obtained.

### **3.7 Household Hazardous Material Use, Storage, and Disposal**

Oil-based paints and stains, paint thinner, gasoline, charcoal starter fluid, cleaners, waxes, pesticides, fingernail polish remover, and wood preservatives are just a few hazardous materials typically used in a residential setting.

When hazardous materials are dumped on the ground or in a storm drain, they can be washed directly to receiving waters where fish and wildlife can be harmed. Hazardous materials can also infiltrate into the ground and contaminate drinking water supplies.

With such a diversity of hazardous products present in all homes in Tacoma, a large potential for serious environmental harm exists if improper methods of storage, usage, and disposal are employed. Using the following BMPs will help keep these materials out of soils, sediments, and waters.

#### **3.7.1 Required BMPs**

- Hazardous materials must be stored out of the reach of children.
- Dispose of hazardous materials and their containers properly. Never dump products labeled as poisonous, corrosive, caustic, flammable, inflammable, volatile, explosive danger, warning, caution, or dangerous outdoors, in a storm drain, or into sinks, toilets, drains or septic systems. Call the Household Hazardous Waste Facility at 253-591-5418 or the Hazardous Waste Line at 1-800-287-6429 for information on disposal methods, collection events, and alternative products. Household hazardous wastes from City of Tacoma residents are accepted at the Tacoma Landfill.
- Store hazardous materials containers under cover and off the ground. Keep them out of the weather to avoid rusting, freezing, cracking, labels being washed off, etc.

#### **3.7.2 Suggested BMPs**

- Check hazardous material containers frequently for signs of leakage. If a container is rusty and has the potential of leaking soon, place it in a secondary container before the leak occurs and prevent a clean-up problem.
- Keep appropriate spill cleanup materials on hand. Kitty litter is good for many oil-based spills.
- Ground cloths and drip pans must be used under any work outdoors which involves hazardous materials such as oil-based paints, stains, rust removers, masonry cleaners, and others bearing label warnings as outlined above.
- Latex paints are not a hazardous waste, but are not accepted in liquid form at the landfill. To dispose, leave uncovered in a protected place until dry, then place in the garbage. If you wish to dry waste paint quickly, just pour kitty litter in the can to absorb the paint. Once paint is dry, leave the lid off when you place it in the garbage so the garbage collector can see that it is no longer liquid.
- Use less toxic products whenever possible. The Hazardous Waste Line at 1-800-287-6429 and the Washington Toxics Coalition at 206-632-1545 have information detailing alternatives to toxic products.
- If an activity involving the use of a hazardous material can be moved indoors out of the weather, then do so. Make sure proper ventilation is provided.

- Follow manufacturers' directions in the use of all materials. Over-application of yard chemicals, for instance, can result in the washing of these compounds into receiving waterbodies. Never apply pesticides when rain is expected.
- When hazardous materials are in use, place the container inside a tub or bucket to minimize spills.
- Purchase only the amount of product that's needed.

### **3.8 General Home Maintenance**

This section deals with the normal maintenance activities typically performed in residential settings. Following the BMPs listed below will help alleviate pollutant runoff.

#### **3.8.1 Required BMPs**

- Pressure washing of building facades, rooftops, pavement, and other large objects must be conducted in such a way that all of the runoff is collected for proper disposal. No runoff shall leave the site. Temporary curbs, dikes, or berms may be used to direct the water away from storm drains. Water should be directed to the sanitary system or directed to an area where it can evaporate. Debris generated from pressure washing must be swept and disposed as solid waste.

#### **3.8.2 Suggested BMPs**

- Carpet cleaning wash water must be disposed of to the sanitary sewer. It is preferred that the dirty wash water be discharged into a toilet or mop sink at the place where it was generated.
- Clean brushes and tools coated with non-water-based paints, finishes, or other materials in a manner that allow collection of used solvents (e.g. paint thinner, turpentine, xylol, etc.) for proper disposal at a Household Hazardous Waste Facility. Call the Household Hazardous Waste Facility at 253-591-5418 or the Hazardous Waste Line at 1-800-287-6429 for information on disposal methods, collection events, and alternative products. Household hazardous wastes from City of Tacoma residents are accepted at the Tacoma Landfill.

## 3.9 Pet Waste

Pets can generate pollutants from pet waste, animal washing, and cage or kennel cleaning. Pollutants include bacteria which can pollute water ways and make people sick. To prevent pet waste pollutants from entering the storm drains, follow the BMPs listed below.

### 3.9.1 Required BMPs

- Regularly scoop, sweep and clean up pet waste deposited on walks and at home. Dispose of pet waste in the garbage or flush it down the toilet. Kitty litter shall not be flushed down a toilet. Dispose of it with garbage.
- When cleaning out cages and kennels, wash directly over lawn areas or make sure the wash water drains to a vegetated area. Alternately, dispose of the wash water down the toilet or a mop sink.
- Do not dispose of unused pet pharmaceuticals in a storm drain, flush down a toilet, or wash down a sink. Visit [www.takebackyourmeds.com](http://www.takebackyourmeds.com) for a list of locations that take back unused pharmaceuticals.
- Refer to BMP A701: Commercial Animal Handling Areas for kennels, boarding areas, veterinarians, etc.