

# BEST PRACTICES



## First Flush: Keep Fall Rain Runoff Clean and Clear

Fall is upon us, and the fall rains will soon come pouring down. During the dry summer months, pollutants have built upon impervious surfaces, such as rooftops, lawns, roadways, parking lots and farmland. These pollutants can include pesticides, fertilizers, heavy metals, automobile fluids, pet waste and more.

When the first fall rains reach the ground, the stormwater runoff picks up the pollutants that have accumulated on the land during the summer. The initial return of fall rains is often referred to as the "first flush." The first flush of stormwater runoff carries with it higher loads of pollutants because they have accumulated over the dry season. Whether it is spring, summer, winter or fall, polluted stormwater runoff flows over impervious surfaces into ditches, swales or storm drains and eventually flows to local water bodies or infiltrates into the ground.



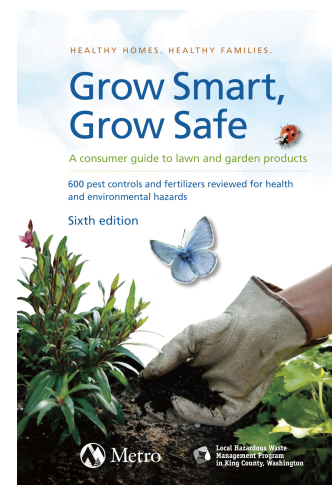
A 2011 study by the Washington State Department of Ecology, "Toxics in Surface Runoff to Puget Sound: Phase III Data and Load Estimates" (Publication No. 11-03-010), reported detections of pollutants in stream samples at higher concentrations when there had been rain events as compared to when they sampled streams during dry periods. The study monitored for eleven classes of toxic chemicals, including pesticides, herbicides, metals, oil and grease, polychlorinated biphenyls (PCBs) and more. The first flush storm that was monitored contained a higher level of oil and grease, total petroleum hydrocarbons and other contaminants compared to subsequent storms.

The impacts of the first flush needs to be further studied, but it is apparent that higher levels of toxic chemicals are found in streams during rain events. Whether it is the first flush, or storm events throughout the year, this study shows that stormwater runoff carries toxic pollutants to our streams, lakes and Puget Sound.

The pollutants come from a variety of sources and activities. The good news is, there are things we each can do to help prevent polluted runoff from entering our streams, lakes and Puget Sound.

**Below is a list of things you can do to help keep our waters clean and clear this fall:**

- Aerate your lawn to improve soil and grass health and reduce runoff over your lawn.
- Use a slow-release, organic fertilizer (make sure to test your soil first so you know exactly what nutrients your soil needs). **Go to [www.streamteam.info](http://www.streamteam.info) to view a copy of *Grow Smart, Grow Safe: A Consumer Guide to Lawn and Garden Products* and to learn more about natural yard care.**
- Instead of fighting moss with chemicals, check your soil pH. If it is too acidic, your soil may need some lime. Reducing shade by pruning nearby trees may also help.
- Use the leaves you rake as mulch in your garden. They provide plants with protection from the cold winter and provide nutrients to the soil as they decompose.



- Replace unused lawn areas with native and/or water-wise plants.
- De-chlorinate your hot tub or pool before draining with acetic acid/Vitamin C.
- Bag and trash your pet's waste.
- If possible, sweep instead of pressure washing. If you do pressure wash, make sure to direct pressure washer wastewater to pervious areas such as lawns or gravel and not down the storm drain. Do not use cleaning chemicals with the power washer.
- Make sure to properly store and dispose of hazardous materials, such as oil, gas, fertilizer, pesticides and household cleaning products. You can safely dispose of hazardous materials at Thurston County's HazoHouse.
- Check your vehicle for oil leaks and fix leaks as soon as possible.

**In case of an accidental spill or to report illegal dumping  
in Washington waters, including storm drains and ponds, call:**

**WA Department of Ecology 24-hr. Emergency Spill Hotline 360-407-6300**

**Thurston County Hazardous Waste Hotline 360-867-2664**

**Monday - Friday, 8 a.m.- 5 p.m.**

**For more ideas on how you can keep pollution out of stormwater, go to Stream Team's website at [www.streamteam.info](http://www.streamteam.info)**

*Source: Stream Team News, Fall 2011*