

STORMWATER RUNOFF

Unfortunately, we have very little reliable data about the quality of our near shore waters, but for nearly two years we have received some disturbing signals from what some call our “canary in the coal mine.”

Since late 2007 the animals in the aquarium at the end of Spring Street Landing in Friday Harbor have been struggling to survive. Many of the animals associated with the sediment have died. The aquarium pulls water out of the harbor from below the dock, near the primary stormwater discharge outfall at the base of Spring Street, and circulates this water through the aquarium and back into the bay. This system helps to make the aquarium an indicator of what is going into the harbor. If the animals in the aquarium (that we can see) are struggling, chances are some animals in the harbor (that we can't so easily see) are struggling, too.

Friday Harbor is not unique. All urban centers share these problems. Frequently traveled streets are subject to constant accumulation of lubricating fluids, antifreeze, brake dust, and fuels leaking from vehicles. Pesticides and herbicides are often misapplied or over applied. Some people inappropriately use catch basins in the streets to dispose of soapy cleaning agents or other waste. When it rains, all this stuff tends to run downhill, most often into our harbors and bays.

Recent local environmental sampling suggests that stormwater runoff from Eastsound contains unwanted chemicals, as well. Concentrations of pyrethroids pesticides in clams collected from Fishing Bay near the stormwater outfall were higher than concentrations in clams collected other bays in Eastsound (Buck Bay and White Beach). Additionally, water sampled from stormwater outlets has shown elevated concentrations of surfactants, a class of chemicals commonly found in soaps and detergents.

If we want to reduce the amount of contaminants entering the ocean, we have two choices. We can either treat stormwater runoff before it reaches the bay, or we can find ways to reduce the contaminants that end up on the streets and in storm drains so the stormwater itself carries less pollutants into the ocean.

The treatment option may not be a practical alternative. First, treatment is expensive. Second, the soils in much of Eastsound Village are low permeability soils, with above average runoff potential. Since most forms of stormwater treatment involve encouraging the water to infiltrate back into the ground, this option would be difficult to accomplish on a large scale.

This makes the alternative look very attractive. That is, we need to find practical, low or no cost ways to go about the business of living and working in Eastsound while minimizing the amount of pollutants carried away in runoff water.

During the week of November 9th, I will be walking the streets of Eastsound, visiting with business owners and managers as part of a stormwater education outreach program.

I will work with business owners to develop common-sense, low cost ways to handle and dispose of chemicals and detergents that may be finding their way into stormwater entering the bay. But many of the things we can do require no special expertise and very little extra effort. Here are some of those ideas:

1. Stormwater flows downhill. Anything that goes into a storm drain ends up in the harbor, so never dump anything into a storm drain. The only thing that should be going into a stormwater system is rainwater. Dump mop buckets into the sink.
2. Even if a product is labeled as “Biodegradable”, it is still not allowed to go into the storm drains or roadside ditches.
3. Instead of hosing off the sidewalk, parking area or driveway, sweep up the dirt and put it in the trash. Rinse water will pick up dirt and other pollutants on the way to the water.
4. Leaky dumpsters can contribute pollutants to stormwater. Keep rainwater out of your dumpster by closing the lid. Notify your waste hauler if your dumpster is leaking and they can repair or replace it.
5. If you need to wash your car, either use a commercial car wash or direct the wash water to a grassy area where it can infiltrate into the ground without running into storm drains or roadside ditches.
6. Maintain your car. Our notoriously drippy island cars have created some impressive staining in frequently used parking areas. Much of this residue eventually makes its way into the harbor.
7. Try not to use fertilizers, pesticides and herbicides. The chemical residue from these products can wash into the harbor with stormwater. Never use these products if rain is in the forecast.
8. Pick up after pets. Bacteria and pathogens from pet waste will wash into the harbor along with stormwater.
9. Deposit cigarette butts and other trash into the proper receptacles.
10. Plant vegetation or find another way to cover up exposed soil. Soil and sediment that is exposed can erode and wash into the harbor. Suspended sediments in stormwater can both impair marine animals directly and help to carry hydrocarbons, metals and other pollutants into our harbor.
11. Try to think about item #1 (above) as you go about your daily life.

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