

The Drain Is Just for Rain

What do motor oil, lawn fertilizers, cigarette butts, grass clippings, and pet poop all have in common? They all contribute to what the U.S. Environmental Protection Agency (EPA) warns is the number one threat to our drinking water supplies: nonpoint source pollution.

Today, most oil pollution in North America's coastal waters comes not from leaking oil tankers or oil rigs but from countless leaks in the more than 263 million cars currently on the road in this country. Automobiles make daily oil deposits on roadways, parking lots, driveways, and neighborhood streets. When it rains, storm water runoff carries with it globs and sheens of oil from paved surfaces into storm drains. Then it moves on to creeks and streams and, ultimately, into bays and estuaries, or it finally dumps into the Gulf of Mexico, as is the case here in Houston.

Storm drains collect water from outside our homes and commercial establishments and take it, untreated, directly to streams, creeks, and rivers. Sewers, on the other hand, collect water from inside homes and businesses and carry it to treatment plants, where it is cleaned before being released back into nature.

Most water pollution does not come from illegal dumping of chemicals and toxic waste, which in fact, accounts for less than 10 percent of it. Forty percent of water pollution originates with automotive fluids washing off paved surfaces from normal rainfall and cleaning activities.

Twenty-five years ago, most point-source pollution, where the source was easily identified, was eliminated when industries cleaned up their discharge to public waters to comply with the Clean Water Act or face crippling fines. Today, most water pollution comes from far more benign-looking causes: pastures, construction sites, parking lots, housetops, lawns, and driveways.

Since the pollution comes from so many diverse sources that may also vary by season, it is often difficult to determine

the exact point of origin. Consider who causes this pollution; it's you and me, doing things we do every day without thinking about a more global impact.

Much has been written about the many causes of nonpoint-source pollution such as lawn fertilizer, silt from construction projects, hazardous household chemicals, and pesticides. There have been major public information campaigns about the impact of "pet poop" on local streams and waterways. People are getting the message from homeowner associations and parks that if their dog makes a deposit in a public place, the owner has a responsibility to scoop the poop and deposit it in the trash or provided receptacles. How bad is this problem, you ask? In the densely-populated Washington D.C. suburb of Arlington, Virginia, scientists estimate that dogs in one community park, Four Mile Run, deposit more than 5,000 pounds of poop in a day!

There are two other major sources of nonpoint source pollution, however, that haven't received the same kind of attention: power washers and car washing. Power washers are powerful

cleaning machines that use water under pressure to make quick work of cleaning commercial parking structures and asphalt surfaces as well as residential driveways, patios, and homes. Power washers can generate 10,000 to 20,000 gallons of wastewater for every 100,000 to 150,000 square feet of surface being cleaned.

When the weather warms up, on any given weekend, you can hear the distinct sound of gasoline-generated power washers in a neighborhood. Residents wash driveway oils and deposits, molds, and other patio stains and discolorations—a veritable cocktail of toxic deposits—right down the drain, the storm drain, that is. Even simple motor oil contains lead, copper, cadmium, and chromium, which are all toxic to humans, fish, and wildlife.

Then there is the simple matter of washing the family car. Just pull it up in the driveway, get out the hose and a bucket of soapy water, and you're ready to begin. Maybe once upon a time, but today we're paying a whole lot more attention to how we impact the environment. It's not just the quantity of water used; now consider the soap. Most soap contains phosphates and other chemicals that may be harmful to fish and marine life. Phosphates cause excess algae to grow that not only looks bad but smells awful and harms water quality. As algae decays, it uses up oxygen in the water that fish need to survive.

Make a commitment to do everything you can to minimize the risk that your activities will endanger the environment. When washing the car, use soap sparingly, pour the bucket of soapy water into the sink, not the storm drain. Also, consider washing the car while it is parked on a grassy area, not the driveway. Best of all choices, have your car washed commercially at a business that uses state-of-the-art, environmentally-friendly equipment and processes such as recycling the water. **N**

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What You Can Do

Learn more about nonpoint source pollution. Make a commitment to do everything you can to minimize the risk that your activities will endanger the environment.



Consider constructing a wooden deck or a rock garden to keep the natural ground cover intact and allow rainwater to slowly seep into the ground. This acts as a natural filtering process and reduces harmful water quality impact from rainfall that carries chemicals and pollutants with it into storm sewers and eventually into nearby streams and lakes.