

BEST PRACTICES



Small Leaks: Big impact

Vehicle Fluids in our Waterways

A drip here, a little trickle there... it all can add up to big trouble for our local waterways when those drips and leaks are automotive fluids. Power steering, transmission and brake fluids, motor oil and gasoline leaking from vehicles fall onto roadways and parking lots. Rain washes these fluids into storm drains, most of which flow directly to the nearest water body.

An uncontained spill, allowed to enter the storm drain system during an automotive repair, can do damage on a rapid and devastating scale. According to the U.S. Environmental Protection Agency, one gallon of oil can contaminate one million gallons of water. Oil allowed to flow down storm drains, whether by the gallon or by the drop, can contaminate our local streams, lakes and Puget Sound.

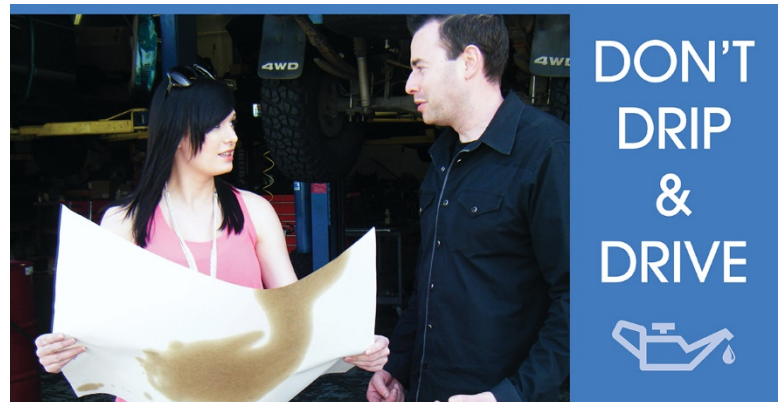
The chemicals contained in automotive fluids have a hazardous effect on area wildlife, and can pose a threat to our drinking water supplies by contaminating groundwater. Oil and other greasy fluids can coat the feathers of birds and harm the gills of fish. Chemicals added to oil and other vehicle fluids during the refining and manufacturing process add to this harm. Vehicle fluids also typically contain metals from mechanical wear and corrosion of engine parts, transaxles and brake pads.

Most radiator coolant ingredients, ethylene or propylene, will eventually break down in water into less harmful substances. However, puddles of coolant, especially those that are ethylene-based, pose a poisoning risk to both animals and humans, especially dogs, cats, birds and children. Coolant which is allowed to reach our waterways contributes to higher biological oxygen demand (BOD) levels, which can have a detrimental effect on wildlife.

In addition to the health impacts of vehicle fluids leaks into our waters, there is a public financial impact as well. According to the Washington State Department of Transportation, it costs \$319,000 per lane mile to implement stormwater runoff Best Management Practices to mitigate harmful substances carried by stormwater along our state's highways.

To determine if your vehicle is leaking fluids, give it 'the cardboard test'. Place a large piece of cardboard under your vehicle and leave it overnight. Check the next day to see if there are any leaks. To help determine what maybe leaking from your vehicle, the location of the leak and the color can often be diagnostic.

If you find that your vehicle is leaking fluid, the fix may be easier and cheaper than you think! Often, it is just a matter of a small part, such as an oil plug, that needs replaced or simply screwed on tighter or with threads aligned properly. Take your vehicle to a local mechanic to have the leak diagnosed. Tell the mechanic what color the fluid is and from what area of the vehicle it seems to be leaking. Use your cardboard test to help narrow it down.



If the repair is within your budget, get it fixed immediately. This will prolong the life of your vehicle, protecting your investment as well as our waterways. If you are unable to repair the leak right away, place cardboard, drip pans or newspaper under your car while it is parked until you can get it fixed. An absorbent material, such as sand or kitty litter, can be sprinkled on spills, swept up and placed in a bag in the trash.

When making vehicle repairs at home, keep your work space tidy. Keep tools, vehicle parts and stored fluids up off the ground and under cover. Place a drop cloth under your vehicle while you are working on it. Use absorbent materials to catch any drips or spills. Bag and dispose of any contaminated materials, including used oil filters and empty motor oil and vehicle fluid containers, in a covered trash bin that will be hauled to a landfill. Containers which held vehicle fluids are not recyclable.

Used vehicle fluids should be placed in clearly labeled containers with tight-fitting lids and taken to the Thurston County Hazo House. Used motor oil maybe recycled at a number of locations. For details, and to find a nearby recycling location, visit: http://www.co.thurston.wa.us/health/ehhw/pdf/used_oil_bro.pdf

Fluid Color ON WHITE CARDBOARD OR PAPER	POSSIBLE SOURCE
Lt. to Dk. Brown	Oil, Light brown if changed often; dark brown if changed infrequently
Lt. Brown	With a rotten egg smell. Lube oil coming from center of rear axle or manual transmission.
Lt. Yellow to Dk. Brown	Brake fluid. Becomes darker as it gets older and absorbs water.
Amber	With a gas odor. Gasoline.
Clear	Power steering fluid or water.
Green	Radiator coolant.
Red	Radiator coolant, automatic transmission or power steering fluid.
Blue	Windshield washer fluid.
Orange, Pink or Yellow	Winter windshield washer fluid.

Source: Stream Team News, Summer 2012