THE ISSUES

Many homeowners choose to service their automobiles, boats, and other motorized vehicles at home. Responsibly servicing a vehicle at home is an excellent way to reduce maintenance costs and ensure reliable performance of that vehicle. However, this regular maintenance can pollute ponds, streams, and groundwater when done improperly and homeowners are often unaware of the impacts that home vehicle service has on their local waters.

The most harmful pollutants associated with motor vehicles are the lubricants and internal fluids such as motor oil, brake and steering fluids, transmission fluid, and antifreeze. All of these compounds are extremely toxic to aquatic ecosystems, even in small concentrations. For instance, a single pint of motor oil can form a slick the size of a football field. Considering that most vehicles contain approximately 4 quarts of motor oil, the used oil from a single vehicle has the potential to contaminate 8 football fields of surface water.

The simple activity of washing the car can dramatically impair freshwater resources because soaps and detergents are frequently washed into storm drains which drain to nearby lakes and rivers. These solvents alter water chemistry and pollute freshwater resources. Dirt and debris are washed into the storm drains along with the soaps and solvents, as are heavy metals from brakes and engine parts, and residues from various chemicals and fluids.

Working on your car in the driveway or street allows for spills and deposits of these substances. Some people wash them away with water hoses, which easily transports them into nearby storm drains. Spills that aren’t cleaned up are washed away by stormwater during the next rain event. Worse, many people unknowing of the consequences dump car-based chemicals and fluids directly into storm drains for disposal.

Not only does improper home servicing of vehicles threaten local water resources, but overall improper maintenance can have similar impacts. Without proper inspection and upkeep, your vehicle is likely to deposit heavy metals, fluids, and oils on driveways, parking lots, and roadways where these pollutants can be picked up by stormwater. Over time, even a small leak or maintenance need can have widespread impacts on waterways. Considering how many vehicles there are on our local roads and filling up large parking lots, the impact of improperly maintained vehicles becomes an even greater concern.

WHAT CAN I DO?

If you regularly work on your car or boat at home, take some of the following precautions to minimize the chance that fluids and chemicals are released into lakes and rivers.

To avoid contamination of waterways from soaps, residues, and heavy metals from car washing, wash vehicles over a pervious surface such as in the yard or over gravel where water seeps into the ground rather than in the driveway or road where the soapy water flows into storm drains. Most car soaps will not harm turf. Another solution is to wash vehicles at designated car washes that are equipped to dispose of soapy waste water.

Simply spreading a cloth or other material underneath your work area to catch spills and unseen chemical deposits when working on a vehicle can go a long way towards protecting nearby waterways from polluted runoff.
Properly Maintain Your Vehicle… continued.

Dispose of used oil and fluids at a solid waste convenience center or recycling center. NEVER POUR USED AUTOMOBILE FLUIDS DOWN A STORMDRAIN!!!

Dispose of used filters and dirty rags at a convenience center or recycling center.

Change fluids over absorbent material such as newspaper or cardboard.

Check for engine leaks regularly, and repair them at first sign.

Remove any stains or spills from your driveway using saw dust or cat litter, and discard in trash.

Although the soaps and engine fluids associated with motor vehicle maintenance can be very toxic to freshwater resources, they cannot cause problems if they remain contained and are disposed of properly. Next time you wash your car, change its oil, or consider whether to get your engine serviced, consider the impact of vehicles on lakes and rivers, and take steps to prevent car-based pollutants from making their way into our local waters.

FOR MORE INFORMATION

See CWSEC “Never Put Anything Into a Storm Drain” Fact Sheet

EPA Auto Repair and Fleet Maintenance Pollution Prevention
http://www.epa.gov/region09/waste/p2/autofleet/index.html