

# Keep Your Car *and* Your Creeks Clean

## Car Washing Impacts Water Quality

When a car is washed in a driveway or street, this water flows untreated directly into the storm drain, and then into the local waterways. Essentially, it's like washing the car in Boulder Creek, Coal Creek, or the St. Vrain River.

A study of the wastewater generated from fundraising car wash events was conducted in Federal Way, Washington. The study identified pollutants in the wastewater, including:

- Petroleum hydrocarbons (i.e. gasoline, diesel fuel, motor oil, fluids, and lubricants) from automobile engines, leaks, and fuel combustion processes
- Heavy metals from normal wear of auto brake linings (copper), tires, exhaust, and fluid leaks
- Phosphorous- and nitrogen-containing detergents from cleaning vehicles, which cause nutrient loading
- Surfactants from detergents and cleaning formulas (synthetic and organic), which are used to help loosen dirt or grease
- Solids from vehicle exteriors and surfaces

## The Impact

Considering the estimated number of passenger cars and trucks registered in Federal Way, Washington (62,000), the number of car owners who wash their cars in their driveways (38%), and the estimated annual number of residential car washes that drain to their local creeks, the impact of a simple car wash is astounding.

Pollutant	Estimated Annual Pollutant Discharge
Fuel (gasoline, #2 diesel)	492 lb. (70 gallons)
Motor oil	695 lb. (120 gallons)
Surfactants	2,200 lb.
Chromium	2 lb.
Copper	44 lb.
Lead	4 lb.
Nickel	7 lb.
Zinc	41 lb.
Copper	14 lb.
Total Dissolved Solids	17,500 lb.
Total Suspended Solids	16,200 lb.
Oil and Grease	1,400 lb.
Ammonia	60 lb.
Nitrate-Nitrite	67 lb.
Phosphorous	320 lb.



**KEEP IT CLEAN  
PARTNERSHIP**

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## Wash Your Car on the Grass or at a Carwash

While it isn't illegal to wash your car in your driveway, as a resident, it isn't good.

- Washing the car on the lawn allows the water to be absorbed by grass.
- Commercial carwashes direct used carwash water to treatment systems, and in many cases, they recycle it.

### Biodegradable Soap

Unfortunately, using biodegradable soap

doesn't solve the problem:

- Most pollutants found in the Washington study did not come from the soap.
- Biodegradable helps the treatment of wastewater, but it requires oxygen to break down in a creek - restricting availability to creek life.

## You Can Make a Difference

- Encourage your friends, family, and neighbors to wash their cars on the lawn or at a commercial carwash.
- Look for signs posted at commercial carwashes thanking customers for choosing to use a commercial carwash.
- Visit the Keep It Clean Partnership (KICP) event booth in your community, and ask for a chamois you can take with you to the carwash.
- If you're planning a carwash fundraiser, ask a local carwash if you can use one of their wash bays.



References:

<http://www.stormh2o.com/september-2009/residential-car-washing.aspx>

<http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=96>



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