

Unveiling the Truth Regarding Residential Car Washing and Pollution – A Study You Can Use

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The truth is out! Residential car washing pollutes this country's waterway. You know this, I know this and most logically thinking people know this and now some US cities are doing something about it. One city in particular – Federal Way, Washington – has given us the study to help your city do something about. I'm referring to a recent study on residential car washing conducted by the Federal Way Surface Water Management Division and I'm going to add to this study a tool you can use to present this study to your local city and water management officials.

For years, environmentalists have told the public that washing cars in the driveway is detrimental to local waterways. Federal Way city staff now has the numbers to prove it. *The Residential Car Washwater Monitoring Study*, published in July 2009, illustrates the connection between residential car washing, stormwater, local surface waters and the Puget Sound. Federal Way is a city located between Seattle and Tacoma, Washington – a state that takes protecting the local waterways very seriously and Federal City is no different. The city will use their findings from this study in consumer education to target preventing stormwater pollution.

Their findings back up our industry and, in my opinion, this study is one of the most powerful and important studies to affect our industry in many years. This study can be used as a resource for any owner or operator who is facing drought restrictions or pollution issues. Federal Way may be a city in Washington State, but it could be Logan, Utah or Cedar Rapids, Iowa – water is water and pollution is pollution and this study provides valuable talking points regarding the proper way to wash a vehicle at home and the real “low-down” on what is the most environmentally sound way to wash a vehicle.

The national program, Phase II Municipal Stormwater Permit, requires municipalities across our nation to put in place programs to manage pollution that is mixed in with stormwater discharge. The permit also requires the jurisdictions to reduce or eliminate stormwater pollution by educating the public. Your own local community is likely engaged with their own programs at this very time. This information and report might be very timely for your city and beneficial to you as you use it efficiently.

Because it was nearly impossible to get samples from individual driveway car wash occurrences, the City of Federal Way collected samples from 5 different weekend fundraising car wash events. These samples indicate some startling findings and make it easy to understand why a professional car wash is mandated to trap and only dispose of all wastewater runoff thru the municipal sewer system.

The Federal Way study indicated oil, phosphorous, ammonia, surfactants and solid wastes as the typical contaminants from residential car washing. Staff estimates that the residents with an estimated 62,000 registered vehicles in the City of Federal Way annually deposit the following pollution loads into the city's stormwater drainage system:

- **190 gallons of gasoline, diesel and motor oil,**
- **400 pounds of phosphorous and nitrogen,**
- **60 pounds of ammonia,**
- **2,200 pounds of surfactants and**
- **30,000 pounds of solid wastes**

Breaking the Federal Way study results down into pollution-generated-per-registered cars in their community provides a formula which you could use to determine the amount of pollution generated in your own community by residential car washing. You'll frequently be able to find the number of registered cars by calling your local city traffic department or your State Department of Motor Vehicles.

If you still cannot arrive at the number of registered vehicles, then you're relatively safe in using the following formula based on the population of your community:

Multiply your population base by .688 to arrive at a national average of registered vehicles based on population. For Ex: 10,000 population = 6,880 registered vehicles.

***Formula of pollution for every 10, 000 registered cars:**

- **30.6** **gallons of gasoline, diesel and motor oil:** **per 10,000 registered cars.**
- **64.51** **pounds of phosphorous and nitrogen,** **per 10,000 registered cars.**
- **9.7** **pounds of ammonia,** **per 10,000 registered cars**
- **355** **pounds of surfactants** **per 10,000 registered cars**
- **4,838** **pounds of solid wastes** **per 10,000 registered cars**

When you have multiplied these numbers out for your own community and determine the amount of pollution created by residential car washing, prepare a personal letter to accompany your findings and present your report with printed copies of the Federal Way Study to your city officials, stormwater regulators, and private environmental groups. Most public officials will become equally concerned when you provide a sum total of pollution coming from residential car washing and emphasize the fact according to the Federal EPA "*Water is going to be the biggest environmental issue that we face in terms of both quantity and quality*", Christine Whitman 2001. The sooner we act to educate consumers the better off we all will be.

Follow the formula for your own community and determine the amount of pollution created by residential car washing. Prepare a personal letter to accompany your findings and present your report with printed copies of the Federal Way Study to your city officials, stormwater regulators, and private environmental groups. Most of these public officials will become equally concerned, as the City of Federal Way learned, when you provide a sum total of pollution coming from residential car washing. Quote the statement of the Federal EPA "*Water is going to be the biggest environmental issue that we face in the 21st century, in terms of both quantity and quality*", Christine Whitman 2001, and the sooner we act to educate consumers the better off we all will be.

Ask your local officials to support educating consumers about the pollution they create each and every time they wash their car in their driveway or at a charity event not located at a professional car wash facility. I am willing to bet that the majority of consumers don't know that with each driveway or parking lot car wash the dirty waste water flows to our natural wetlands environment carrying with it amounts of gasoline, diesel, motor oil, phosphorous, nitrogen, ammonia, surfactants (soaps) and solid waste. With the urgent need being created by local and federal environmental groups to protect the United States natural resources, if each city or water municipality added something as simple as an educational flyer to their monthly invoices, using the statistics you provided, imagine the change that could occur – a change you helped orchestrate.

We all want to protect our environment and the natural resources that sustain our way of life. As people understand, they'll begin the process of making a profound difference in improving your own communities' watershed environment, but you will in turn see far more homeowners making the

conscientious change to wash their cars at a professional car wash, hopefully yours. Read the full [study by visiting the City's Web site](#), and clicking on "Surface Water Management." You can also access this information from the WCA Web site at www.wcwa.org.

In January 2010 WCA members, water regulators and consumers will have access to a "Drought and Pollution Tool Kit" to effect change in their communities. Don't wait until a drought affects your area! Become proactive now! Arm yourself with information and the tools and proactively begin working in your own community to change the way people wash their cars.

Attend the Western Carwash Convention October 5th - 7th, in Las Vegas at the MGM Grand to learn more about our "WCA Drought Tool Kit", and what you can do to create change and grow your carwash business.