City of Guelph Outside Water Use By-law
Vehicle Washing

This fact sheet deals with residential car washing. Commercial car washes and fleet vehicle washing are addressed in a separate document.

Extent of End Use in City of Guelph

There are no data on how often cars are washed at home in Guelph, or the ratio of home washing compared to taking them to commercial facilities. However, it is certainly a popular and common summertime activity for many residents.

Best Management Practices for Efficient Use

There is some debate about the relative water use efficiency of home versus commercial car washing. The International Car Wash Association considers efficient commercial operations to use less than 151.5 Lpv (Litres per vehicle) and compares this to home-based consumption of 227 Lpv (ICWA, 2013). However, the latter estimate is at the high upper end because it assumes a hose running continuously at a high volume. Very efficient home washing could use as little as around 50 Lpv.

Efficient car washing at home can be accomplished with simple technology and behaviour changes including the following:

- wash the car with soapy water from a bucket; limit hosing to quick rinses;
- make sure that hoses are equipped with automatic shut off nozzles and do not leak;
- if possible, wash the car on dirt or grass so that soil can act as a natural filtration system and prevent run-off to storm drains; and,
- wash cars less frequently or only when really needed.

Using these methods it is possible to clean a car using only one or two 15-litre buckets and a quick rinse with the hose before and after.

There are also a variety of waterless car wash products on the market, with multiple types and brands to choose from including:

- spray-on waterless formulas you wipe away instead of rinsing;
- waxes with cleaning properties; and,
- car dusters that lift dust off the vehicle without water.

Other Considerations

Frequently, the emphasis upon reuse in car washes has been driven by water quality and sanitary sewer discharge requirements, not necessarily by water use efficiency goals.

One advantage of commercial car washes is that they have systems in place to collect and treat wastewater then route remaining effluent to municipal treatment facilities through the sewer system. In contrast, run-off from home-based washing in driveways and parking lots will typically contain pollutants including petroleum products, phosphorous, nitrogen, surfactants and other solids. These eventually enter waterways through storm drains.

A small study conducted by City of Federal Way (near Seattle, Washington) completed in 2009 illustrated the links between home-based car washing, stormwater, local surface waters, and ocean discharges. It showed that most wash water from residential car washing is a source of stormwater pollution. It also demonstrated that any single uncontrolled residential car wash activity might be inconsequential with respect to its contribution to the pollutant load. However, when extrapolated over the entire city over a year, the pollutant loading becomes significant (City of Federal Way, 2009).

Contribution to Overall Outdoor Water Use

Indicator	Impact
Portion of customers that practice the end use	Medium
Average volume of water used each time the end use is practiced	Medium
Average frequency with which customers practice the end use	Infrequent
Contribution of end use to overall outdoor consumption	Medium