Washington Cty Car Washes

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Project Background

MnTAP hired a student researcher in May 2018 to evaluate best practices to conserve water in the car wash industry. The 45 car washes in Washington County collectively use about 35 million gallons of water annually, which makes them one of the top water using industries. With support from Washington County Public Health and Environment, this year-long effort involves a comprehensive literature review, site visits to various types of car washes, and the establishment of key best-practices and their associated water conservation potential.

Why Reduce Water Use?

Water and sewer costs make up a large portion of the utility costs for car wash businesses, and the prices continue to rise. There are multiple water-saving measures that apply to all types of car washes. Recycling water and maintaining or upgrading equipment are some ways that car washes can reduce water usage and save on their sewer and water supply fees. These efficient practices not only help save water, but aid in their business efforts to stay competitive in the car wash industry.

Project Goal

The main goal is to inform car washes on their water saving opportunities. Specific goals include:

- Evaluating literature on the car wash systems and water saving recommendations.
- Contacting car wash professionals to gain insight on water use and conservation in car washes
- Reaching out to car wash operators in the county to inform them about their opportunities to conserve water
- Gathering data on the types of car wash systems in the county and their water usage
- Visiting car washes to learn about the operations and offer water saving recommendations when possible
- Developing technical resources for the county and other communities

Key Research Findings

The main concern for car wash operators is to have their systems running smoothly and to clean cars in a cost-effective manner. Saving water may not be high on their to-do list, but high sewer costs give them an incentive to use less water.

Soft-touch/friction wash methods are the most effective means of cleaning the cars, and they generally use less water than touch-free methods. However, customers prefer to have the choice of a touch-free wash.

Some states in the US offer certification programs to incentivize car washes to use less water in their wash. This is an approach that may appeal to consumers and help drive conservation as a whole for the industry in Minnesota.

Recommendation	Average Cost	Water Reduction
Water reclaim system	$50,000	50-90%
RO reject water reuse	$2,000	10%
Upgrade nozzles	$5,000	15%
Rainwater recapture	$6,000	5-10%
Repair leaks	$300	0-10%

MnTAP Advisor: Matt Domski, Waste Reduction Specialist