



## Kitsap County Public Works Street Sweeping and Water Quality



Kitsap County Department of Public Works has purchased two new, high-efficiency street sweepers that will significantly remove more pollution from our roadways than older sweepers. The new sweepers can pick up everything from large debris to fine dust. Most roadway pollutants, such as metals and hydrocarbons, are attached to fine particles. Sweeping up these pollutants before they enter our waterways is one of the most effective source control measures. In combining street sweeping and water quality, this program not only improves the overall appearance of county roads, but also prevents pollution from entering Puget Sound. The water quality street-sweeping program is the first line of defense in protecting Kitsap streams, wetlands, lakes and nearshore areas.

### Traditional Street Sweepers

Street sweepers generally keep the streets safe and looking good. Conventional street sweepers use rotating brooms to remove litter, leaves, and car debris from accidents or vehicle wear. Although they do a good job in removing large debris, these "broom" sweepers were not designed to remove the fine road dust and pollutants that come from asphalt, rubber tires, and wearing of brake discs and pads.

### High-efficiency regenerative air sweepers

The County selected the Tymco Model 500x regenerative air street sweeper because it can collect everything from large debris to very fine sediment, including pollutants that attach to fine particles. Fine road dust, such as metals from brake pads, is so small that it is difficult to see. The regenerative air sweepers effectively pick up this fine material and remove more pollutants than the traditional, broom sweepers.

### How it works

While the regenerative air sweeper still uses a broom to collect large debris, it also uses forced air and a high-power vacuum to collect fine material. First, the sweeper blows high-pressure air onto the road to loosen very fine sediment. Then, a vacuum lifts these small particles and captures them within the machine's hopper. The air is recirculated within the sweeper, as a filtration system cleans the air before returning it to the blower to repeat the process. Filtered exhaust from the sweeper meets federal air quality standards.

### What are the benefits of street sweeping?

Street sweepers remove pollutants near their source, thus improving the quality of stormwater runoff and keeping our waterways healthy.

Street sweeping benefits include:

- Preventing pollution from entering streams, and stormwater systems along roads
- Less trash and debris on roads
- Improved air quality
- More cost effective to remove pollution on the road than after it's entered the stormwater system or natural waters



## Where will the new sweepers work?

The new sweepers will focus on high-traffic roads throughout the county. The sweeper routes also include shoreline roads, and roads with multiple stream-crossings where road runoff and pollution can rapidly flow into sensitive waters. Visit [www.kitsapgov.com/pw](http://www.kitsapgov.com/pw) to see a street sweeping route map.

## How often will the new sweepers clean?

All designated water quality street-sweeping routes will be swept at least once per month, with some roads being swept every two weeks.

## When will the sweepers operate?

The sweepers typically work from 7:00 a.m. to 3:30 p.m. Monday through Friday during the year. They work at night (midnight to 7:00 am) in the winter from December through February. Kitsap County employees operate the sweepers.

## What type of pollution do the street sweepers clean up?

Street runoff contains pollutants from cars, lawns, and businesses, including:

- Oil
- Hydrocarbons
- Heavy metals such as copper, zinc and lead

## How many miles of roads will be cleaned?

The street sweepers clean approximately 10,000 lane miles per year. They remove an average of 2,000 tons of road debris each year. In addition, the street sweepers can pick up most of the sand that is applied on roads during snow and ice storms, and this road sand can be reused.

## Where does the street waste go?

Material collected during street sweeping operations is considered a solid waste and can only be stored at approved facilities. Kitsap County will temporarily store street wastes in designated areas at road maintenance shops. This material will be tested and then will be removed to the waste transfer station on a monthly (or more frequent) basis for disposal in an approved landfill.

## How much do the new sweepers cost?

The sweepers cost approximately \$209,000 each.

## What will happen to the old sweepers?

Kitsap Roads will use the old sweepers to clean up after road maintenance projects and to sweep low-travelled roads.



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