

Frequent Sweeping Key to Cleaner Streams & Waterways

Brian Giles, sweeper products manager for Elgin Sweeper—and a frequent speaker on environmental protection topics—often tells municipal and local government officials that the key to preventing surface water pollution is through frequent sweeping to keep debris from entering the storm sewers.

“Sweeping is a classic pollution prevention technique to remove pollutants before they enter sewers and streams,” Giles said. “While catch basin cleaning certainly is an important part of an overall strategy to keep sewers free of debris and silt, an effective sweeping program features frequent sweeping.”

A variety of street surface pollutants, including silt, enter sewers and eventually waterways. Less than 80 μ in diameter, silt is inorganic matter that tends to remain suspended in solution and is difficult to remove from surface water.

“Eighty percent of silt—or debris that could become silt—is found within several feet of the gutter,” Giles said, adding that the average street contains about 1,000 lb of debris per mile.

A mechanical sweeper using standard wet dust-control technology has an approximate efficiency rate of 85%, while a regenerative air sweeper using both pressurized air and vacuum air to move material from the street surface and into the machine’s debris body has an efficiency rate of up to 98%. According to Giles, sweeping twice a week with a sweeper that is 85% efficient is more beneficial for water pollution prevention than sweeping once a week with a sweeper that has a higher efficiency rate.

With municipalities facing mounting pressure due to funding cuts and limited budgets, Giles said it is still more cost-effective to sweep more frequently to keep streets



clean than it is to let silt and other debris progress all the way to catch basins and sewers. Industry experts consider street sweeping an effective best management practice for storm water control, estimating the cost of street sweeping to be between \$3 and \$5 per pound of total suspended solids—including particulates and debris—removed from storm water.

Giles advises municipal officials to become familiar with the science and technology of street sweeping, including the importance of frequent sweeping. “Local governments need to understand that frequent, routine street sweeping can be an effective water pollution prevention strategy—it’s not just to make streets look nice,” he said. **SWS**

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