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Design and working of a compact street sweeper

S. Kesava Babu

Lecturer, Department of Mechanical Engineering,
Government Polytechnic Bellampally, Adilabad
Adilabad, Telangana, India

**Corresponding Author: S. Kesava Babu
Email: kesava.babu86@yahoo.com*

Abstract:

Estimating pollutant wash off characteristics and designing measures to mitigate pollutant effects need knowledge of pollutant characteristics on impermeable surfaces. The findings also suggest that street sweeping may have a negative effect on pollutant wash off, since the finer material is released by the street sweeper and only portion of it is removed, leaving the fine sediment vulnerable to wash off in the next storm. The findings also suggest that the majority of the nutrients are bound to the finer sediments, hence it is essential that treatment facilities be able to properly remove the finer particles in order to successfully decrease nutrient loads in particulates. Most cities spend more than a million dollars a year on street cleaning services. For purely cosmetic reasons, big vehicles are used to clear the streets, a process known as street sweeping. It's often believed that this will result in better environmental circumstances. The research found that street sweeping alone is not enough to minimize the discharge of gross and sediment-associated pollutants in storm water, and that further structural pollutant treatment methods are needed. Increases in street sweeping frequency above what is necessary to fulfill street aesthetic requirements are not likely to have a large impact on water quality. Therefore, there appears to be little use in performing an extensive field-based investigation investigating the efficacy of street sweeping for controlling storm water pollution.

Abstract:

pollutant wash off, street sweeper, cleanliness and sanitation, cylindrical brush, vacuum