"You Paid How Much?" A Sampling of Costs for California Stormwater Programs

ABSTRACT

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“You Paid How Much?” A Sampling of Costs for California Stormwater Programs
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Abstract
Six California stormwater programs were surveyed to determine the range of costs for municipal National Pollutant Discharge Elimination System (NPDES) stormwater permit compliance. The compliance costs were divided into categories based on stormwater quality management measures such as public education. These costs were normalized by the number of households in each program. Only costs paid by the permittees are reported.

The six programs were selected from programs suggested by state regulators based on the quality of the programs. The programs selected were for the Fresno-Clovis Metropolitan Area (FCMA) and the individual cities of Corona, Encinitas, Fremont, Sacramento, and Santa Clarita. Annual compliance cost per household ranged from $18 to $46. Street sweeping alone, which is an activity under the pollution prevention and good housekeeping for municipal operations category, accounts for 41 percent of all stormwater costs.

Introduction
The California State Water Resources Control Board (SWRCB) funded a survey of stormwater programs to develop an understanding of current costs of good stormwater programs. Quantifying current costs was needed to effectively discuss costs in the context of appeals of stormwater permits on the basis of cost.

Cost Categories. The survey collected cost data for major stormwater management measures and support activities. A measure is a collection of stormwater management activities that focus on a particular stormwater management strategy. Based on common stormwater measures and support efforts used by Phase I stormwater programs, the following cost categories were identified:

- public education, outreach, involvement and participation (a combination of two of Phase II minimum measures),
- illicit discharge detection and elimination (IDDE, a.k.a. illicit connection and illicit discharge),
- construction site stormwater runoff control,
- post construction stormwater management in new development and redevelopment,
- pollution prevention and good housekeeping for municipal operations,
- industrial and commercial management programs,
- overall stormwater program management,
- water quality monitoring, and
- watershed management.

Limitations. Only costs paid by the permittees are reported; total societal costs are not reported, nor are the benefits. An example of unreported cost would be the cost of construction and post-construction BMPs which either lowers the profit to the developer or is passed along to the homebuyer. Examples of unreported benefits would be reduced pollutant concentrations or toxicity. Direct accomplishments are reported such as annual curb miles of streets swept.