

California Department of Transportation BMP Retrofit Pilot Program

**Brian Currier
Scott M. Taylor
Yulya Borroum
Gary Friedman
Doug Robison
Mike Barrett
Steve Borroum
Catherine Beitia**

ABSTRACT

The California Department of Transportation (Caltrans) is conducting a multi-year study in Los Angeles and San Diego to examine the technical feasibility, costs, and operation and maintenance requirements of retrofitting structural Best Management Practices (BMPs) into existing highway and related infrastructure. Thirty-three locations are being retrofitted with thirty-nine BMPs using twelve different types of BMP technology. Automated monitoring stations have been installed upstream and downstream of each BMP to determine removal efficiencies from flow weighted composite samples. Constituents monitored in the runoff include: suspended solids (e.g., sediment), metals, nutrients, and organics (e.g., gasoline). To date, most projects have been sited, designed, constructed and monitored for at least one year. The purpose of the program is to identify the problems and solutions that occur with structural BMP retrofit, and to collect operation, maintenance, and performance data for the BMPs. Results to date indicate that there are substantial construction, maintenance, and cost challenges in retrofitting existing infrastructure with conventional structural BMP technology. Water quality monitoring results to date indicate that average pollutant removal efficiencies are consistent with published values. Upon completion of the study, the information collected will enable more accurate prediction of cost and performance of BMPs for treating highway runoff.