STORMWATER PROGRAM

California State University, Sacramento
University of California, Davis (UCD)
California Department of Transportation (Caltrans)

Performance Evaluation of Structural BMPs: Drain Inlet Inserts (Fossil Filter™ and StreamGuard™) and Oil/Water Separator

Presented at:

Authors:

Edward F. Othmer Jr., P.E.
Gary Friedman
J. Steven Borroum, T.E., P.E.
Brian K. Currier, P.E.

Disclaimer:

This work reflects the author's opinions and does not represent official policy or endorsement by the California Department of Transportation, the California State University, or the University of California.

Performance Evaluation of Structural BMPs: Drain Inlet Inserts (Fossil Filter™ and StreamGuard™) and Oil/Water Separator

Abstract:

The performance of Drain Inlet Inserts (Fossil Filtero.si and StreamGuardo.si) in treating runoff from three California Department of Transportation (Caltrans) maintenance stations was evaluated as part of the Best Management Practice (BMP) Retrofit Pilot Program. Additionally, the effectiveness of an oil/water separator was evaluated at one Caltrans maintenance station. The study included 1) retrofitting the structural BMPs in existing maintenance stations and documenting those costs; 2) estimating percent pollutant removal efficiencies; 3) assessing the causes and frequency of flow bypass; and 4) documenting the type and level of effort required to maintain the structural BMPs. Drain Inlet Insert results to date show that reductions in metals, hydrocarbons, and solids are consistent with expectations for the technology; however, frequent flow bypass required more maintenance than anticipated. Oil/water separator results show no discernable difference between influent and effluent hydrocarbon concentrations at the low levels measured.