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MASTEP Technology Review

Technology Name: Storm Flo Screen

Studies Reviewed: Gross Solids Removal Devices Pilot Study – Interim and Final Reports

Date: August 10, 2007

Reviewer: Jerry Schoen

Rating: 2

Brief rationale for rating:

A prototype of this product was tested in a two-year study by the California Department of Transportation, documented in two Caltrans interim and final reports. Roscoe Moss Company asserts that the LR1 I10 device (one of 8 devices tested) used in the study is functionally similar to commercial models now sold by the company.

The study was planned and conducted according to sound scientific principles. Some important information was lacking. No precipitation data was provided for year two of the study, which limits the reader's ability to evaluate consistent performance under a full range of conditions. In addition, the study made some presumptions (i.e. that windblown materials accounted for small amounts of solids in a bypass capture receptacle; that the device met its design hydraulic capacity) that would have been better tested by further study. The study was able to document that under conditions studied, the device was capable of capturing all solids > 5 mm. The study did not cover summer and fall months in either of the two study years. According to the manufacturer, the Rosemeade area in California received no significant rain during those periods. Therefore the focus on winter/spring sampling only appears justified.

TARP Requirements Not Met:

Due to the nature of the study objectives, this study was not conducted according to TARP protocols. The program objective was to design and test devices that can meet criteria set for a Total Maximum Daily Load allocation for the Los Angeles River Basin. The TMDL requires that devices be capable of capturing of all gross solids from all runoff generated by a one-year, one-hour storm, and that it not require maintenance other than one yearly cleaning. To evaluate the ability of a device to meet these objectives, the study was designed to visually inspect the device during qualifying storms, but to collect and measure gross solids only once, at the end of the storm season. Consequently, several of the TARP criteria, such as number of sampling events, number of samples taken per storm, influent pollution concentration or particle size, etc. are not applicable to this device or study.

Other Comments: