Design and Performance of Non-Proprietary Devices for Highway Runoff Litter Removal


*Associate, CDM, 2920 Inland Empire Blvd., Suite 108, Ontario, CA 91764; PH 909-945-3000; FAX 909-945-1333; E-Mail endicottjd@cdm.com
**Transportation Engineer, California Department of Transportation, Division of Environmental Analysis, 1415 11th St., MS-27, Sacramento, CA 95814; PH 916-653-8369; E-Mail byron_berger@dot.ca.gov
***Project Engineer, CDM, 2920 Inland Empire Blvd., Suite 108, Ontario, CA 91764; PH 909-945-3000; FAX 909-945-1333; E-Mail stonesj@cdm.com

Abstract

A Total Maximum Daily Load for discharges of trash to the Los Angeles River has been incorporated by the Regional Water Quality Control Board into the Water Quality Control Plan – Los Angeles Region. The California Department of Transportation operates highways and ancillary facilities served by storm drains discharging to the Los Angeles River and therefore must comply with the waste load allocation for discharges of trash in storm water. This paper presents the results of a pilot study investigation of the effectiveness of non-proprietary devices for removing trash from discharges of highway runoff.

Background

The California Regional Water Quality Control Board, Los Angeles Region (LARWQCB) has developed a Total Maximum Daily Load (TMDL) for discharges of trash to the Los Angeles River (LARWQCB, 2001a). The TMDL sets the maximum amount of trash that can be discharged to the Los Angeles River consistent with achieving the beneficial uses of the river designated in the Water Quality Control Plan – Los Angeles Region (Basin Plan) (LARWQCB, 2001b). The TMDL for discharges of trash to the Los Angeles River is set at zero.

The LARWQCB has identified storm drain systems discharging to the Los Angeles River as a major source of trash. In order to achieve the allowable TMDL for trash, the LARWQCB has assigned a waste load allocation to operators of storm drain systems discharging to the river. The waste load allocation calls for a phased reduction of trash from current levels to zero over a 10-year period ending September 30, 2013 (LARWQCB, 2001a).

The United States Environmental Protection Agency (USEPA) has also developed a TMDL for discharges of trash to the Los Angeles River (USEPA, 2001). The USEPA is taking this action in order to ensure that a trash TMDL for the Los Angeles River is established on or before the March 22, 2002 deadline set forth in a consent decree (Heal the Bay, Santa Monica Baykeeper, et al. v. Browner, et al., No. 98-4825, March 22, 1999). The USEPA has taken this action because the California State Water Resources Control Board might not establish the LARWQCB’s trash TMDL before the deadline. The USEPA TMDL is substantially similar to the LARWQCB’s TMDL, with the substantive difference being the elimination of the process to