California Regional Water Quality Control Board
Los Angeles Region

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Linda S. Adams
Cal/EPA Secretary

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Governor

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Shahram Kharaghani, Ph.D, P.E.
City of Los Angeles, Department of Public Works
Bureau of Sanitation, Watershed Protection Division
1149 South Broadway, 10th Floor
Los Angeles, CA 90015

CERTIFICATION OF CATCH BASIN INSERT SCREEN DEVICES AS FULL CAPTURE SYSTEMS FOR TRASH REMOVAL

Dear Dr. Kharaghani:

We have reviewed the City of Los Angeles' (City) October 19, 2006, letter requesting "Full Capture Certification" for trash capture devices in two different configurations - a horizontal trash capture device and a vertical trash capture device. Subsequent to receiving this letter, additional information was provided to the Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) staff during meetings between our respective staff on January 31, 2007 and February 21, 2007.

The purpose of this letter is to inform you of our approval of both configurations of your catch basin trash capture devices as "Full Capture Systems."

The definition of "full capture system" for the Ballona Creek Trash Total Maximum Daily Load (TMDL) was amended per Resolution No. 04-023 adopted on March 4, 2004 by the Los Angeles Regional Water Quality Control Board. It is likely that this definition will be applicable in future revisions of the Los Angeles River Trash TMDL. As a result, the Los Angeles Water Board staff has also analyzed your Report for compliance with the Ballona Creek Trash TMDL's full capture system definition. The definition of a "full capture system" as defined in the Resolution No. 04-023 as the following:

" A full capture system is any single device or series of devices that traps all particles retained by a 5 mm mesh screen and has a design treatment capacity of not less than the peak flow rate (Q) resulting from a one-year, one-hour, storm in the subdrainage area. Rational equation is used to compute the peak flow rate: Q = C x I x A, where Q = design flow rate (cubic feet per second, cfs); C = runoff coefficient (dimensionless); I = design rainfall intensity (inches per hour, as determined per the rainfall isohyetal map in Figure A), and A = subdrainage area (acres)."

The Los Angeles Water Board's criterion for certification as a full capture device is that it must trap all particles retained by a 5-mm mesh screen, and have a treatment capacity exceeding peak flow rate resulting from a one-year, one-hour, storm in the subdrainage area. In addition, the following requirements must be met: 1. End-of-Pipe Configuration - Certain BMPs, which

can create a pressure drop, must have an end-of-pipe configuration and not rely on diversion weirs; 2. Adequate Pipe Sizing - The pipes carrying the flows from the subdrainage area should be able to handle peak flows; and 3. Regular Inspections and Maintenance - The full capture system must be regularly inspected and serviced to continually maintain adequate flow through capacity.

The City of Los Angeles' installations

1. The horizontal screen inserts and vertical trash capture screen inserts were installed in the City of Los Angeles in the area of Exposition Park and the LA Coliseum with a watershed of approximately 138 acres, in an effort to comply with the Ballona Creek and Los Angeles River Trash TMDLs. Based on the City's Pilot Study as submitted on October 19, 2006 and revised in February 2007, (Report), the above 2 types of devices meet the performance criteria for full capture certification.

Summary of City of Los Angeles Information Submitted

- Based on the City's Report, both inserts have a 5 mm mesh screen and meet the particle capture criteria for a full capture system. These inserts are designed for greater than a 1-year, 1-hour peak flow, and therefore satisfy the minimum 1-year, 1-hour design criteria;

- The flow capacity is greater than the estimated flow rate, therefore the inserts meet the design criteria for a full capture system;

- The drainage criterion is not part of the definition for a full capture system. However, it is important to note that the inserts do not retain storm water and therefore avoid any vector issues; and

- The Gross Solids Storage Capacity ranges depending on the size of each catch basin and its configuration. Some trash capture screen inserts may require cleaning more than once per year.

Based on the above information, the City of Los Angeles' trash capture screen inserts meet the definition of full capture system and are certified as a full capture system under the following conditions:

1. Adequate Pipe Sizing: The pipes carrying the flows from the subdrainage area should be able to handle peak flows.

2. Regular Inspections: The trash capture screen inserts should be visually inspected before and after rain events to allow for cleaning for optimal performance.

3. Regular Maintenance: The trash capture screen inserts shall be adequately maintained and cleaned ensure full capture of trash during the design storm.

This letter serves as a determination that the vertical and horizontal trash capture screen inserts, when installed and maintained in appropriately sized catch basins, satisfy the full capture definition of the trash TMDL and will allow the systems to be used elsewhere in the region. However, all parties installing these devices will have an on-going obligation to demonstrate that the installation of a particular system is appropriately sized and meets the intent of this program. Likewise, dischargers will be responsible for on-going maintenance to ensure the systems perform to design specifications. The Regional Water Board will review and consider performance data on a continuing basis. In the event data demonstrate that the systems are not performing to the full capture design standard established by the trash TMDL, this Los Angeles Water Board Executive Officer reserves the right and ability to rescind the certification for subsequent installations deemed non-conforming or inappropriate.

If you should have any questions regarding this Full Capture Certification, please feel free to contact Carlos Urrunaga at (213) 620-2083.

Sincerely,

Jonathan S. Bishop, P.E.
Executive Officer

Attachment

cc: Mr. Michael Levy, Office of the Chief Counsel, State Water Resources Control Board
Mr. Terry Fleming, Water Division, U.S. Environmental Protection Agency, Region 9
Mr. Eugene Bromley, U.S. Environmental Protection Agency, Region 9
Mr. Mark Pestrella, Los Angeles County Department of Public Works
Mr. Tom Leary, City of Long Beach
All Los Angeles County Municipal Storm Water Permittees
All Ventura County Municipal Storm Water Permittees