TRASH BASELINE MONITORING RESULTS

LOS ANGELES RIVER AND BALLONA CREEK WATERSHEDS

May 3, 2004

County of Los Angeles Department of Public Works
Watershed Management Division

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

JAMES A. NOYES, Director

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
www.ladpw.org

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

May 6, 2004

IN REPLY PLEASE
REFER TO FILE: WM-9

Mr. Dennis Dickerson
Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Dear Mr. Dickerson:

TRASH BASELINE MONITORING FOR
LOS ANGELES RIVER AND BALLONA CREEK WATERSHEDS

As required in our National Pollutant Discharge Elimination Stormwater Permit, we are conducting a trash baseline study in the Los Angeles River and Ballona Creek Watersheds. On February 17, 2004, we submitted an interim report containing the current trash data at that time. We are now submitting a supplemental report including all the data up to April 15, 2004. Our study will be complete by October 15, 2004. We will submit a final report once the data has been compiled.

If you have any questions, please contact Mr. Frank Kuo at (626) 458-4350, Monday through Thursday, 7:15 a.m. to 6 p.m.

Very truly yours,

JAMES A. NOYES
Director of Public Works
Rod H Kubomoto

ROD H. KUBOMOTO
Assistant Deputy Director
Watershed Management Division

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Trash Baseline Monitoring Results

Executive Summary

As requested by the Los Angeles Regional Water Quality Control Board, the County of Los Angeles Department of Public Works is conducting a trash baseline study in the Los Angeles River and Ballona Creek watersheds. As required, on February 17, 2004, an interim report was submitted to the Board containing the current trash data at that time. This supplemental report includes all the data to April 15, 2004 and, thus, contains the completed data set for the 2003-04 wet season. This report also includes refinements to the interim report based on input from the permittees and corrections to any data that was in error.

In the Los Angeles River watershed, a total amount of 7,224 lb. of litter and 153,601 lb. of sediment/vegetation were collected from October 15, 2002 to April 15, 2004. The greatest litter production occurred in the industrial land use with 2,571 lb. and the greatest sediment/vegetation generation was in the open space/parks land use with 51,120 lb. In the Ballona Creek watershed, a total amount of 5,337 lb. of litter and 64,189 lb. of sediment/vegetation were collected. The commercial land use produced the most litter with 1,643 lb. and the LDSFR land use produced the most sediment/vegetation with 17,303 lb.

Introduction

As requested by the Los Angeles Regional Water Quality Control Board, the County of Los Angeles Department of Public Works is conducting a trash baseline study in the Los Angeles River and Ballona Creek watersheds. As required, on February 17, 2004, an interim report was submitted to the Board containing the current trash data at that time. This supplemental report includes all the data to April 15, 2004 and, thus, contains the completed data set for the 2003-04 wet season. This report also includes refinements to the interim report based on input from the permittees and corrections to any data that was in error. At the end of the dry season, after October 15, 2004, another report will be submitted, including the data for the entire 2003-04 storm season.

As a result of comments received from the cities, it was noted that some oversights had been made in the previous submittal. This supplemental report includes the appropriate changes (see **Modifications** below).

Background

On June 27, 2002, the Regional Water Quality Control Board conditionally approved the County of Los Angeles Litter Monitoring Plan for the Los Angeles River and Ballona Creek watersheds. The plan consisted of installing a minimum of 500 catch basin inserts, 250 each in the Los Angeles River and Ballona Creek watersheds, with a minimum of 10 sites per land use having at least 5 catch basins per site. The plan also included the installation of five Continuous Deflective Separator (CDS) units in the two watersheds. One CDS unit was placed in each land use with the upstream catch basins fitted with inserts. The following land use categories were monitored:

1. High-density single-family residential (HDSFR)
2. Low-density single-family residential (LDSFR)
3. Commercial
4. Industrial
5. Open Space/Parks

The Regional Water Quality Control Board requested the following data analysis in their conditional approval letter:

- Summary of cleanout data showing amount of litter per unit area for each land use within each watershed
- Data collected from the CDS units and their corresponding upstream catch basin inserts should be compiled to show the relative efficiencies of both systems
- For each rainfall event, the total litter generated for each site per unit area
- The amount of rainfall per storm; and
- The drainage area per each site

Summary

In the first year of monitoring, there were nine wet-weather and one dry-weather cleanouts. In the second year of monitoring, including October 15, 2003 to April 15, 2004, there were eight wet-weather cleanouts for the Los Angeles River Watershed and six wet-weather cleanouts for the Ballona Creek Watershed.

The data is provided in the charts and tables in Appendices A, B, D, and E for the catch basin inserts as follows. Appendices A and D contain information for the Los Angeles River Watershed for the 2002-03 and 2003-04 storm seasons, respectively. Appendices B and E contain information for the Ballona Creek Watershed for the 2002-03 and 2003-04 storm seasons, respectively.

- Table 1: the location and drainage area of each catch basin, organized by site
- Table 2: the amount of litter per drainage area for each site
- Table 3: the amount of sediment/vegetation per drainage area for each site
- Table 4: the total litter and sediment/vegetation for each land use
- Table 5: the amount of rain in inches for each storm that was collected by the appropriate rain gages

- Chart 1: the total litter for each land use
- Chart 2: the total litter per drainage area for each land use
- Chart 3: the total litter per storm for each land use
- Chart 4: the total sediment/vegetation for each land use
- Chart 5: the total sediment/vegetation per drainage area for each land use
- Chart 6: the total sediment/vegetation per storm for each land use

The data for the CDS units is provided in Appendices C and F as follows. Appendix C contains information for the 2002-03 storm season and Appendix F for the 2003-04 storm season.

- Table 1: the location and drainage area of each unit
- Tables 2 through 6: the amount of litter and sediment/vegetation in volume and weight for each storm and the relative effectiveness of the upstream catch basin inserts

Modifications to 2002-03 Catch Basin Insert Data

Due to the oversights, some of the results in the February 17, 2004, report changed. For the Ballona Creek Watershed, the HDSFR land use, as opposed to the open/space parks land use, generated the most sediment/vegetation per drainage area with 68 lb./acre (Appendix B, Chart 5).

In addition, changes were made to the map books (Attachments 1, 2, and 3). The shaded area on the location lists indicates those changes.

Updated 2003-04 Data

2003-04 Los Angeles River Watershed Catch Basin Insert Data

On April 15, 2004, the 2003-04 wet season ended. Due to the five additional storms that occurred after the February 17 report was compiled, the results have changed. The industrial land use produced the most litter per drainage area with 8.21 lb./acre (Appendix D, Chart 2). The open space/park land use generated the most sediment/vegetation per drainage area with 123 lb./acre (Appendix D, Chart 5).

2003-04 Ballona Creek Watershed Catch Basin Insert Data

In the Ballona Creek Watershed, there were four additional storms. The commercial land use produced the most litter per drainage area with 4.6 lb./acre (Appendix E, Chart 2). The HDSFR land use generated the highest sediment/vegetation per drainage area with 33 lb./acre (Appendix E, Chart 5).

2003-04 Los Angeles River and Ballona Creek Watershed CDS Unit Data

The catch basin inserts upstream of the CDS Unit located in the HDSFR land use showed an effectiveness of 44.5 percent, based on weight (Appendix F, Table 2). The inserts in the LDSFR land use showed an effectiveness of 49.3 percent (Appendix F, Table 3). The inserts collecting 50 percent industrial and 50 percent HDSFR were determined to be 48.9 percent effective (Appendix F, Table 4). The inserts in the commercial land use displayed an effectiveness of 67.2 percent (Appendix F, Table 5) and the ones located in the open space/parks land use (Appendix F, Table 6) were shown to be 59 percent effective.

Closing

The total amount of litter collected in the Los Angeles River Watershed for all land uses from October 15, 2002 to April 15, 2004 was 7,724 lb. The total sediment/vegetation was 153,601 lb. The total litter collected for the Ballona Creek Watershed was 5,337 lb. The total sediment/vegetation was 64,189 lb.

A supplemental report including the dry-weather cleanouts will be submitted after the end of the dry season, October 15, 2004.

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