

**2017 Los Angeles River Trash TMDL Annual Report
for the City of South El Monte**

Prepared for the Los Angeles Regional Water Quality Control Board
Submitted as part of the 2016-2017 Individual MS4 NPDES Annual Report

December 15, 2017

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City of South El Monte Trash TMDL Annual Report

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1. Background

The City of South El Monte (City) is complying with the Los Angeles River Trash TMDL (Trash TMDL) through an alternative compliance option, as allowed by the June 11, 2015, Los Angeles Regional Water Quality Control Board (Regional Board) Amendment to the Trash TMDL. The City is employing a combination of full capture systems, partial capture systems, and institutional controls—all properly sized, operated, and maintained—to achieve a reduction in trash discharge of 99% or greater from the baseline load. The percent reduction is determined through a mass balance approach, based on a daily generation rate (DGR) study as described in the Regional Board’s August 9, 2007, Trash TMDL Staff Report for the Los Angeles River Watershed.

2. Compliance Status

The Regional Board’s mass balance worksheets (Reporting Forms) were used to calculate the percent reduction in trash discharge for reporting year 2016-2017. They are discussed in Section 5 and included in Section 6 of this report.

The City will conduct a DGR study in 2018 and will continue to properly maintain its trash capture devices and institutional controls and anticipates loading reductions above 99% in future reporting years. After the 2018 study, the City requests the Executive Officer’s concurrence to reduce the frequency of DGR studies from annually to once every five years. The City will report annually on the continued implementation at the same level of capture devices and institutional controls and any drastic land use changes that occur.

3. Full Capture Systems, Partial Capture Systems, and Institutional Controls

Institutional controls include littering ordinances, annual catch basin cleaning, weekly street sweeping, public education and stormwater pollution prevention outreach, residential curbside recycling, hazardous and electronic waste roundups, and bulky item collection.

4. Daily Generation Rate (DGR) Study

The City’s trash discharge for the reporting year was estimated using a mass balance approach based on a trash DGR calculated for land use areas within the City. The representative land use areas studied were residential, commercial, industrial areas, and public/educational. All catch basins within open space areas are retrofitted with full-capture devices, so these areas were not studied. The DGR was calculated by weighing trash collected over a 30-day period in the summer along representative street sweeping collection routes within the study areas, then extrapolating that weight across the City. See Figures 1-5 for the designated routes. The results of the DGR study are included as part of the Regional Board Reporting Forms in Section 6.

4.1 Study method

Trash¹ was manually picked up with a reaching tool along the collection routes. (See Figure 6.) The manual pickup was conducted one day prior to street sweeping for each route. Catch basins along the study routes have curb screens to prevent trash from being swept into them. (See Figure 7.) Only trash a quarter of an inch or larger was collected. Collected trash in each area was weighed using a calibrated digital scale. (See Figure 8.) Five gallon buckets were used to estimate the volume. The trash was then separated and quantified by material type. A standard health and safety plan was followed at all times. The health and safety plan is available upon request.

4.2 Collection routes

Figures 1-5 show the collection routes for the DGR Study. Each figure includes a brief description.

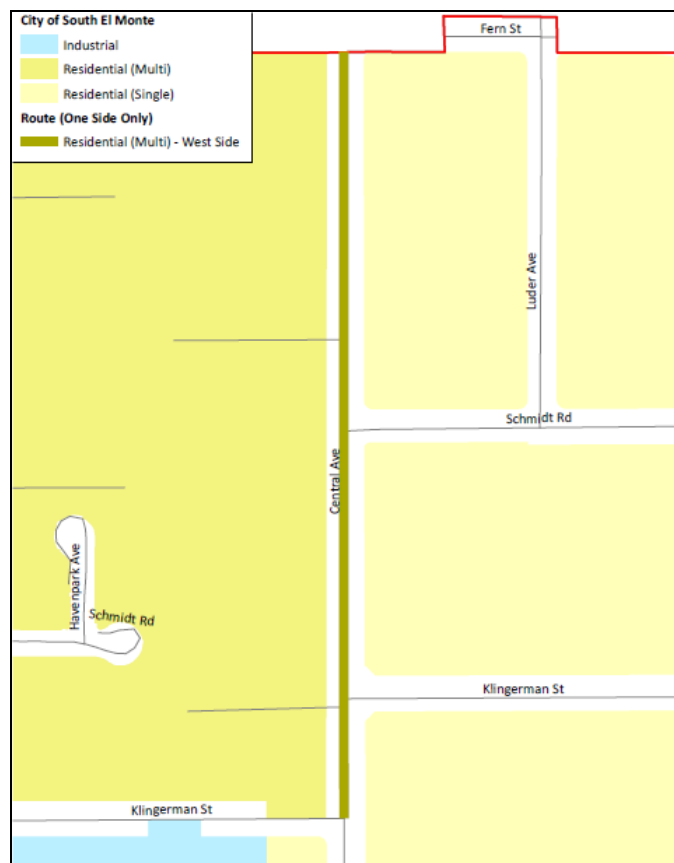


Figure 1. Residential Area Route 1. Collection occurred Monday mornings prior to sweeping. Route includes the side of the street swept Monday only.

¹ Following the Los Angeles River Trash TMDL, “trash” is defined in California Government Code Section 68055.1(g) as “...all improperly discarded waste material, including, but not limited to, convenience food, beverage, and other product packages or containers constructed of steel, aluminum, glass, paper, plastic, and other natural and synthetic materials, thrown or deposited on the lands and waters of the state, but not including the properly discarded waste of the primary processing of agriculture, mining, logging, sawmilling or manufacturing.”

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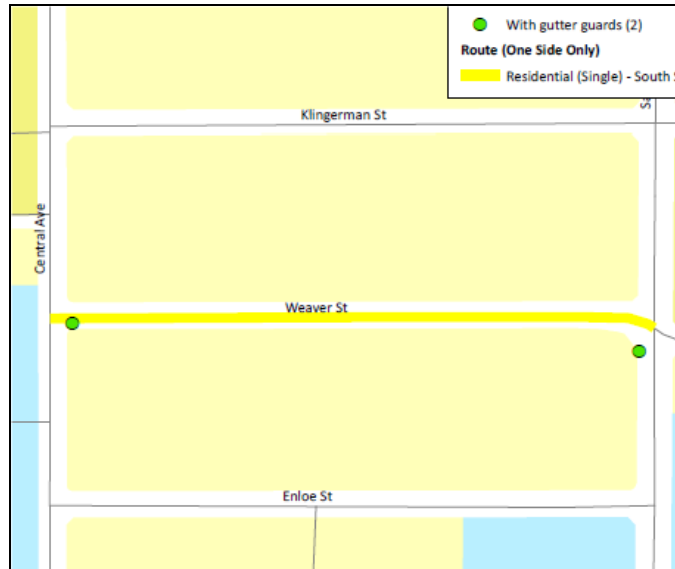


Figure 2. Residential Area Route 2. Collection occurred Monday mornings prior to sweeping. Route includes the side of the street swept Monday only.



Figure 3. Commercial Area Route. Collection occurred Wednesday. Route includes the side of the street swept Thursday only.

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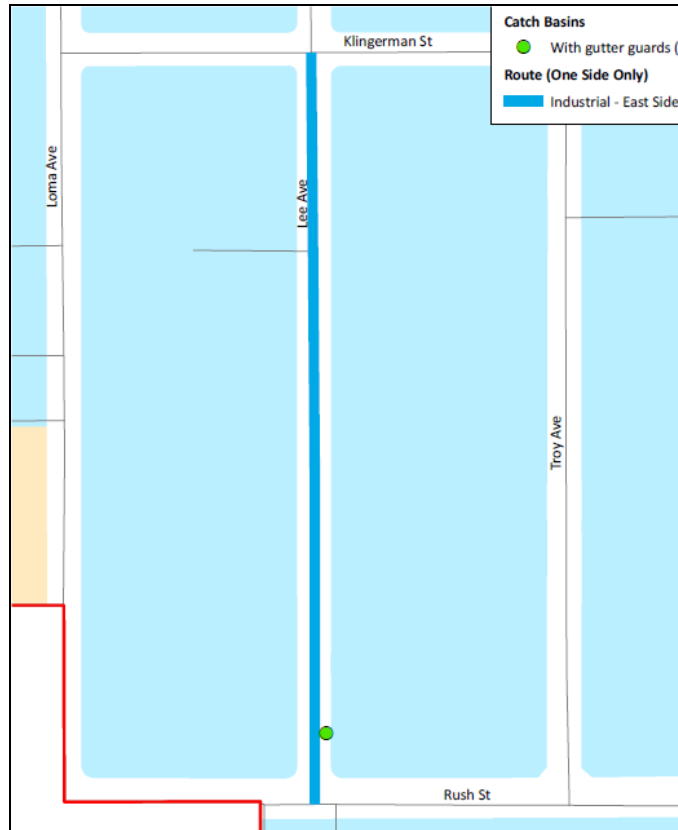


Figure 4. Industrial Area Route. Collection occurred Wednesday. Route includes the side of the street swept Thursday only.



Figure 5. Public/Educational Area Route. Collection occurred Monday mornings prior to sweeping. Route includes the side of the street swept Monday only.

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4.3 Field pictures

Figures 6-9 were taken during the 2017 DGR study. Each picture includes a brief description.



Figure 6. DGR crew member collecting trash using a reaching tool.

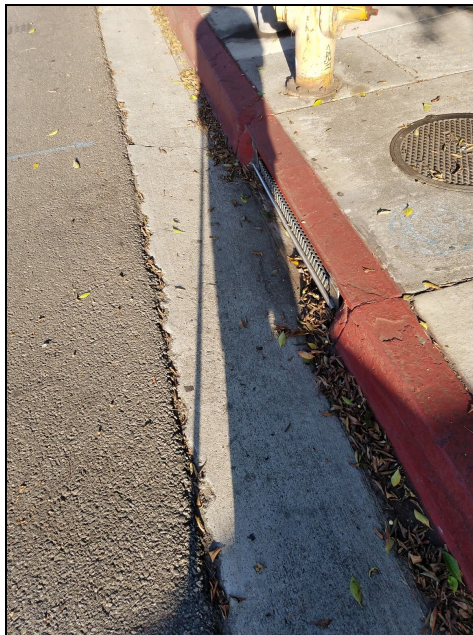


Figure 7. Catch basins along the study routes have curb screens to prevent trash from being swept into them.



Figure 8. DGR crew member weighing collected trash using a digital scale.



Figure 9. Sorted trash pile from the Commercial Area route on 9-6-17.

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5. Mass Balance Approach

The mass balance Reporting Forms provided by the Regional Board were used to calculate total trash discharge. (See Section 6.) Deviations from the Reporting Forms are noted and explained in the comments sections. This includes the following:

- The City was unable to obtain catch basin clean-out data for the reporting year. It is possible that 357 lbs of trash or more was recovered from catch basins through this process. If subtracted from the "Storm Year Trash Discharge" weight for the reporting year, this would equate to 99.0% reduction or more.
- The City's streets are not swept in one day. Approximately equal parts are swept Monday through Friday. Accounting for this effect results in fractional days of trash accumulation for a given storm event.

6. Trash TMDL Reporting Forms

The 2017 Trash TMDL Reporting Forms are included on the following pages.

| Trash Collection for Calculation of Daily Generation Rate, DGR | | | | | | | | | | |
|--|--|---|------------------------------|----------------------|-----------------------------|---|---|--|--|--|
| Col. 1 | Col. 2 | Col. 3 | Col. 4 | Col. 5 | Col. 6 | Col. 7 | Col. 8 | Col. 9 | Col. 10 | Col. 11 |
| Land Use Category | Total Area within Jurisdiction | Representative Area for DGR Calculation | Date of Last Street Sweeping | Date of DGR Sampling | Length of Collection Period | Trash Collection from Representative Area (lb. or gal.) | Trash Cleaned Out from Catchbasin(s) within the Representative Area (lb. or gal.) | Total Amount of Trash Generated in Representative area | Total Trash Generated within Representative Area | Comments |
| Low Density | 4.08 | 0.26 | 08/01/17 | 8/7/17 | 7 | 0.31 | 0 | 0.31 | | Residential areas swept weekly. DGR sampling collected weekly (Monday) by hand, and prior to street sweeping activities (Monday). Thus a seven-day period elapsed between sweeping and collection events. |
| | | | 08/08/17 | 8/14/17 | 7 | 0.25 | 0 | 0.25 | | |
| | | | 08/15/17 | 8/21/17 | 7 | 0.44 | 0 | 0.44 | | |
| | | | 08/22/17 | 8/28/17 | 7 | 0.38 | 0 | 0.38 | | |
| | | | 08/29/17 | 9/4/17 | 7 | 1.13 | 0 | 1.13 | 1.11 | |
| | | | Total Days: | | 35 | | | | | |
| Commercial | 2.53 | 0.25 | 08/03/17 | 8/9/17 | 6 | 0.63 | 0 | 0.63 | | Commercial areas swept weekly. DGR sampling collected weekly by hand (Wednesday) and prior to street sweeping (Thursday), thus a six-day period elapsed between sweeping and collection events. |
| | | | 08/10/17 | 8/16/17 | 6 | 1.69 | 0 | 1.69 | | |
| | | | 08/17/17 | 8/23/17 | 6 | 0.69 | 0 | 0.69 | | |
| | | | 08/24/17 | 8/30/17 | 6 | 1.44 | 0 | 1.44 | | |
| | | | 08/31/17 | 9/6/17 | 6 | 0.88 | 0 | 0.88 | 1.81 | |
| | | | Total Days: | | 30 | | | | | |
| High Density | 4.81 | 0.24 | 08/01/17 | 8/7/17 | 7 | 3.00 | 0 | 3.00 | | Residential areas swept weekly. DGR sampling collected weekly (Monday) by hand, and prior to street sweeping activities (Monday). Thus a seven-day period elapsed between sweeping and collection events. |
| | | | 08/08/17 | 8/14/17 | 7 | 1.00 | 0 | 1.00 | | |
| | | | 08/15/17 | 8/21/17 | 7 | 3.06 | 0 | 3.06 | | |
| | | | 08/22/17 | 8/28/17 | 7 | 1.25 | 0 | 1.25 | | |
| | | | 08/29/17 | 9/4/17 | 7 | 0.94 | 0 | 0.94 | 5.21 | |
| | | | Total Days: | | 35 | | | | | |
| Public Facilities / Educational Institutions | 0.30 | 0.13 | 08/01/17 | 8/7/17 | 7 | 0.31 | 0 | 0.31 | | Public/Educational areas swept weekly. DGR sampling collected weekly (Monday) by hand, and prior to street sweeping activities (Monday). Thus a seven-day period elapsed between sweeping and collection events. |
| | | | 08/08/17 | 8/14/17 | 7 | 0.50 | 0 | 0.50 | | |
| | | | 08/15/17 | 8/21/17 | 7 | 0.13 | 0 | 0.13 | | |
| | | | 08/22/17 | 8/28/17 | 7 | 0.31 | 0 | 0.31 | | |
| | | | 08/29/17 | 9/4/17 | 7 | 0.13 | 0 | 0.13 | 0.09 | |
| | | | Total Days: | | 35 | | | | | |
| Industrial | 20.98 | 0.25 | 08/03/17 | 8/9/17 | 6 | 1.25 | 0 | 1.25 | | Industrial areas swept weekly. DGR sampling collected weekly (Wednesday) by hand, and prior to street sweeping activities (Thursdays), thus a six-day period elapsed between sweeping and collection events. |
| | | | 08/10/17 | 8/16/17 | 6 | 1.13 | 0 | 1.13 | | |
| | | | 08/17/17 | 8/23/17 | 6 | 0.63 | 0 | 0.63 | | |
| | | | 08/24/17 | 8/30/17 | 6 | 1.44 | 0 | 1.44 | | |
| | | | 08/31/17 | 9/6/17 | 6 | 0.69 | 0 | 0.69 | 14.32 | |
| | | | Total Days: | | 30 | | | | | |
| Total Area | 32.70 | 1.13 | | | | | Total Trash (lbs) | 23.56 | | |
| | | | | | | | DGR (lbs/day) | 22.54 | | |
| Notes: | * Total collection period must equal 30 days for each representative land use area. | | | | | | | | | |
| Col. 1 | Land Use Category - Categories based on Baseline Monitoring Program conducted by LACDPW baseline monitoring group. Alternatively, describe land use type as designated by the City. | | | | | | | | | |
| Col. 2 | Total area of said land use within jurisdiction (fill in once in gray-highlighted row for each land use category). Total area may be accounted for using other approved measurement units, e.g. curb miles. | | | | | | | | | |
| Col. 3 | Representative area for DGR calculation (fill in once in gray-highlighted row for each land use category). Representative area may be accounted for using other approved measurement units, e.g. curb miles. Collectively, the areas used for DGR calculation should be representative, proportionally, of the land uses within the jurisdiction and must be approved by the EO prior to the 30-day collection period. | | | | | | | | | |
| Col. 4 | Date of last street sweeping | | | | | | | | | |
| Col. 5 | Date of DGR sampling (direct measurement of deposited trash) - The DGR collection period(s) must fall between June 22nd and September 22nd | | | | | | | | | |
| Col. 6 | Length of Collection Period in days - The DGR collection period must be 30 days, total, for each representative land use area | | | | | | | | | |
| Col. 7 | Trash collection from representative area through street sweeping or other method, lb. or gal. | | | | | | | | | |
| Col. 8 | Trash cleaned out from catchbasins within the representative area (lb. or gal.). Trash accumulated in the CBs during the DGR collection period must be included in the total trash generated. Where CBs are closed off such that no trash can enter them for the purpose of DGR sampling, this value will be zero (0). | | | | | | | | | |
| Col. 9 | Total amount of trash generated in representative area (sum of Col. 7 and Col. 8), lb. or gal. | | | | | | | | | |
| Col. 10 | Total Trash Generated within Representative Area (estimated in 30 day period) | | | | | | | | | |
| Col. 11 | Provide comments, if necessary | | | | | | | | | |
| Note: Sampling must be conducted during any 30-day period, starting June 22nd through September 22nd of each year. | | | | | | | | | | |

| Rainfall Station: San Gabriel Fire Dep. | | | | | | | |
|---|------------------------------|---------------------|---------------------|--------|--|-----------------------------|---|
| Total Trash Discharged by Storm Event | | | | | | | |
| Col. 1 | Col. 2 | Col. 3 | Col. 4 | Col. 5 | Col. 6 | Col. 7 | Col. 8 |
| DGR | Date of Last Street Sweeping | Date of Storm Event | Precipitation Depth | Days | Amount of Trash Recovered from Catchbasins | Storm Event Trash Discharge | Comments |
| 22.5 | 11/16/16 | 11/20/16 | 0.44 | 4 | | 90.2 | * Rainfall data was collected from the closest rainfall station. |
| 22.5 | 11/20/16 | 11/21/16 | 0.27 | 0.9 | | 20.3 | |
| 22.5 | 12/12/16 | 12/15/16 | 0.88 | 3 | | 67.6 | |
| 22.5 | 12/15/16 | 12/16/16 | 0.60 | 0.9 | | 20.3 | ** The entire City of South El Monte is not swept in one day. Approximately equal parts of the City are swept Monday through Friday. As such during any given rain event, different parts of the City were swept between 1 to 7 days previously. Accounting for this effect results in fractional days of trash accumulation for a given storm event. |
| 22.5 | 12/18/16 | 12/21/16 | 0.34 | 2.9 | | 65.4 | |
| 22.5 | 12/21/16 | 12/23/16 | 1.24 | 1.6 | | 36.1 | |
| 22.5 | 12/27/16 | 12/30/16 | 0.37 | 2.5 | | 56.3 | |
| 22.5 | 01/01/17 | 01/04/17 | 0.28 | 2.9 | | 65.4 | |
| 22.5 | 01/05/17 | 01/09/17 | 0.51 | 3.7 | | 83.4 | |
| 22.5 | 01/09/17 | 01/11/17 | 0.35 | 1.6 | | 36.1 | |
| 22.5 | 01/11/17 | 01/12/17 | 1.13 | 0.9 | | 20.3 | |
| 22.5 | 01/14/17 | 01/18/17 | 0.32 | 3.3 | | 74.4 | |
| 22.5 | 01/18/17 | 01/19/17 | 0.64 | 0.9 | | 20.3 | |
| 22.5 | 01/19/17 | 01/20/17 | 1.19 | 0.9 | | 20.3 | |
| 22.5 | 01/20/17 | 01/22/17 | 2.20 | 2 | | 45.1 | |
| 22.5 | 01/22/17 | 01/23/17 | 0.42 | 0.9 | | 20.3 | |
| 22.5 | 02/01/17 | 02/06/17 | 0.42 | 4.5 | | 101.4 | |
| 22.5 | 02/07/17 | 02/10/17 | 0.29 | 2.4 | | 54.1 | |
| 22.5 | 02/14/17 | 02/17/17 | 1.80 | 2.5 | | 56.3 | |
| | | | | | | | |
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| | | | | | | | |
| Total Storm Year Trash Discharge | | | | | | 953.4 | |
| | | | | | | | |
| | | | | | | | |

| | | | | | | | |
|--|---|---------------------|---------------------|--------|--|-----------------------------|----------|
| Rainfall Station: San Gabriel Fire Dep. | | | | | | | |
| Total Trash Discharged by Storm Event | | | | | | | |
| Col. 1 | Col. 2 | Col. 3 | Col. 4 | Col. 5 | Col. 6 | Col. 7 | Col. 8 |
| DGR | Date of Last Street Sweeping | Date of Storm Event | Precipitation Depth | Days | Amount of Trash Recovered from Catchbasins | Storm Event Trash Discharge | Comments |
| Notations: | | | | | | | |
| Form | Add additional rows for storm events, if necessary | | | | | | |
| Rainfall Station | Name of rainfall station used, indicate only the L.A. County station number | | | | | | |
| Total Storm Year Trash Discharge = Sum of individual storm event discharges for reporting period (October 1 - September 30). | | | | | | | |
| Col. 1 | DGR for Jurisdiction from DGR Sampling Data worksheet | | | | | | |
| Col. 2 | Date of last street sweeping | | | | | | |
| Col. 3 | Date of storm event with 0.25 inch or more of rainfall | | | | | | |
| Col. 4 | Depth of rainfall taken from nearest rainfall station (in.) | | | | | | |
| Col. 5 | Number of days between date of last street sweeping and storm event. For each day of a storm event that generates precipitation greater than 0.25 inch, the Permittee shall calculate a storm event discharge. When more than one storm event occurs prior to the next street sweeping the discharge shall be calculated from the date of the last storm event discharge calculation. | | | | | | |
| Col. 6 | Amount of trash recovered from catchbasins, if any (lb. or gal.) | | | | | | |
| Col. 7 | Storm Event Discharge = Col. 1 x Col. 5 - Col. 7 [trash discharged by the storm event], lbs. or gal. | | | | | | |
| Col. 8 | Provide comments, if necessary | | | | | | |

| Col. 1 | Col. 2 | Col. 3 | Col. 4 | Col. 5 | Col. 6 | Col. 7 | Col. 8 | Col. 9 | Col. 10 |
|------------------|-------------------------------|---------------------|-----------------------|-------------------------------------|--------------------------------|------------------------------|---------------------------|--------------|--|
| Reporting Period | Institutional Control Measure | | | Structural Control | | Required Trash Abatement (%) | Total Combined Compliance | Compliance | Comments |
| | Total Trash Discharged (lbs.) | Effluent Limitation | Equivalent Compliance | Total # CBs served by FCDs and PCDs | % of CBs served by FCDs / PCDs | | | | |
| 31-Oct-11 | | | | | | | | | |
| 31-Oct-12 | | | | | | | | | |
| 31-Oct-13 | | | | | | | | | |
| 31-Oct-14 | | | | | | | | | |
| 31-Oct-15 | | | | | | | | | |
| 31-Oct-16 | | | | | | | | | |
| 31-Oct-17 | 953 | 243 | 96.1% | 118 | 59.1% | 99.0% | 98.4%* | Within 0.6%* | * The City was unable to obtain catch basin clean-out data for the reporting year. It is possible that 357 lbs of trash or more was recovered from catch basins through this process. If subtracted from the "Storm Year Trash Discharge" weight for the reporting year, this would equate to 99.0% reduction or more. |

Notations:

- Form** Structural Control Measure: Report compliance using land area served by FCD/PCDs or number of catchbasins served by FCD/PCDs
- Column 1: Reporting Period: Part 7.1.(C)(1) of Order No. 01-182 as amended by Order No. R4-2009-0130
- Column 2: As calculated pursuant to Part 7.1.(B)(1)(b)(2) of Order No. 01-182 as amended by Order No. R4-2009-0130
 Alternative approaches per Part 7.1.(B)(1)(b)(3) must be approved in advance by the Executive Officer
- Column 3: Effluent Limitation per Part 7.1, Appendix 7-1, Table 1a or 1b, of Order No. 01-182 as amended by Order No. R4-2009-0130
- Column 4: Compliance = 1-(Col. 2 / Baseline Waste Load Allocation)
- Column 5: Total number of catchbasins, total number of (CBs) served by FCD/PCDs within jurisdiction
- Column 6: Percentage of CBs served by FCD/PCDs within jurisdiction

Column 7: Required Trash Abatement: Part 7.1, Appendix 7-1 of Order No. 01-182 as amended by Order No. R4-2009-0130
Column 8: Total Combined Compliance = (Col. 6) + (1.0-Col.6)*(Col.4)
Column 9: FCD Compliance: Yes, if Col. 8 is greater than Col. 7
Column 10: Provide comments, if necessary

