

**11.1 Introduction**

The City began applying baseline program effectiveness assessment methodologies soon after they were developed by the San Diego region stormwater Copermittees during the last permit cycle as described in the document titled “A Framework for Assessing the Effectiveness of Jurisdictional Urban Runoff Management Programs” dated October 16, 2003. The City has also actively participated in regional efforts to develop a standardized assessment approach and associated metrics from summer 2007 through winter 2008 and as an ongoing process. The original goal of that group was to produce assessment work products that all Copermittees could use in their JURMPs, so the City prepared its own effectiveness assessment approach and measures modeled after conventional strategies and the existing levels of effectiveness assessment as detailed in the October 2003 document.

Since the submittal of the JURMP in March 2008, no additional progress has been made on regionally standardized approaches to program effectiveness assessment. It is anticipated that the Copermittees’ Fiscal, Reporting, and Assessment Workgroup will undertake the issue of standardized assessment metrics and procedures in the near future. The City is committed to engaging in the process of developing such regional standards and incorporating resulting work products into its own local program effectiveness assessment system. It is in consideration of the evolving and ongoing regional standardization process that the City has endeavored upon fine tuning its local effectiveness assessment approach as presented in the subsequent paragraphs and tables. Further, it is recognized that these methodologies and strategies must be adaptable as regionally developed procedures are solidified in the future.

Implementation of the City’s JURMP is intended to reduce discharges of urban runoff related pollution to the MEP. The core structure of the City’s stormwater program is composed of three primary drivers:

- ❖ Program Planning
- ❖ Program Implementation
- ❖ Effectiveness Assessment

The programmatic process typically proceeds from planning to implementation to assessment, although in practice all three maybe in progress at the same time. The initial step is program planning, which requires identifying potential pollutant sources, establishing BMP requirements, and establishing targeted outcomes and ways to measure those outcomes. Next the program elements developed during the planning step are implemented. Program implementation is assessed each year using the methods developed in the program planning stage and reported in JURMP annual reports. The conclusions from these assessments

are used during the next round of program planning to incorporate improvements to the program and refine the assessment technique.

As part of the JURMP update process, the City has identified a variety of significant activities unique to each program element and metrics (numeric and/or narrative) to assess progress toward targeted outcomes. At the end of each reporting year, the City uses selected metrics to assess the effectiveness of its program implementation. Example metrics are provided in Section 13 of the City's revised 2008 JURMP. The effectiveness assessment approach developed by the Committees during the last permit cycle includes six different levels of targeted outcomes. Each successive level represents a step towards the more difficult level of improvements to water quality in receiving waters. The levels are listed below.

- ❖ Level 1: Compliance with Activity-based Permit Requirements
- ❖ Level 2: Changes in Knowledge/Awareness
- ❖ Level 3: Behavioral Change/BMP Implementation
- ❖ Level 4: Load Reductions
- ❖ Level 5: Changes in Discharge Quality
- ❖ Level 6: Changes in Receiving Water Quality

## **11.2 Effectiveness Assessment Results**

The new Permit requires the City to assess the effectiveness of each significant activity for each program component, for each program component as a whole, and for the stormwater program as a whole. Level 1, Level 5, and Level 6 outcomes for individual program activities or individual programs. As has been noted in the recently released CASQA effectiveness assessment guidance, methods for integrated assessment - assessment that combines both monitoring data and programmatic data - are still under development at regional and statewide levels (CASQA, 2007).

### **11.2.1 Outcome Level Assessments**

#### *Level 1*

A requirements checklist, which includes a directory of permit compliance elements and where each is described within the JURMP annual report, can be found in Appendix G.

#### *Level 2 and 3*

Tables 11-3 at the end of this section include discussions of Level 2 and Level 3 outcomes for activities identified as significant by the City within each program component. Note that only Level 1 assessment applies to fiscal analysis, so a table for fiscal analysis is not included.

#### *Level 4*

The tables at the end of this section provide information for Level 4 assessments where feasible. Assessment of Level 4 outcomes is feasible for some programs that directly measure the amounts of pollutant removal, such as MS4 cleaning. For most other programs, reliable load reduction estimation methods have not yet been or cannot be developed.

#### *Level 5*

On September 10, 2008, the Regional Board adopted Addendum 2 to Order 2007-01, effectively extending the annual due date of the illicit Discharge Detection and Elimination reporting requirements to December 15. It is anticipated, consistent with previous Dry Weather Monitoring reports prepared by the City that baseline trend analysis will be provided for a number of constituents evaluated through the Dry Weather Monitoring Program. This information is further spatially correlated with sub-basins or drainage areas within the City, and evaluated against land-use areas and potential source areas.

#### *Level 6*

It has been determined, through ongoing development and discourse over long-term effectiveness assessment methodologies that relationships between programmatic activities and changes in receiving water quality are difficult to establish on an annual basis or a jurisdictional scale. As such, the City will point to future regionally coordinated efforts including Report of Waste Discharge (ROWD) and Long Term Effectiveness Assessment (LTEA) development to more holistically evaluate changes in receiving water quality. It is anticipated that such efforts will be further refined and supported by ongoing data gathering efforts both locally and regionally.

### **11.2.2 Overall Component Assessments**

#### *Development Planning*

The City's review process for development projects is effectively requiring higher removal efficiency treatment control BMPs. Further, two new significant program elements were in production and in early stages of implementation within the defined reporting period of this report; both new programs are demonstrating positive trends. BMP installation verification and BMP operation and maintenance verification efforts, while not wholly implemented at the time of report production, have resulted in the establishment of programs that will support long term effectiveness assessment measures for development planning.

*Construction*

The City’s review and approval process for construction related plans and documents is effectively verifying proposed construction specific BMPs. BMP implementation and maintenance is being effectively managed through construction site inspection activities, and validated through associated assessment measures. It is anticipated that in response to increased inspection frequencies and refined data gathering practices that this trend will continue.

*Municipal*

The defined reporting period of this report is marked by significant expansion of municipal operations and maintenance activities to meet the standards established in Order 2007-01. Enhanced stormwater conveyance, drainage facility, channel maintenance and inspection and street sweeping activities, were developed and implemented, equating to the removal of salient volumes of debris. Effective operations and maintenance activities are demonstrated in the Table 11-1 below, and it is anticipated that this continued level of service as well as enhancements in data gathering methods will support the efficacy of municipal activities.

**Table 11-1**

Activity	Amount Collected	Adjustment Factor	Estimated Load Reduction
Street Sweeping	150.75 tons	None	150.75 tons
MS4 Cleaning	3,360 pounds (1.815 tons)	None	3,360 pounds (1.815) tons

**Total 152.565 tons**

*Industrial and Commercial*

Stormwater activities and actions related to industrial and commercial entities have exhibited positive trends within the defined reporting period. The City has identified inspection activities coupled with complaint response and enforcement as the significant activities by which to evaluate program effectiveness. During the defined reporting period, the City has been able to evaluate effectiveness on a number of levels (See Table 11-2) through the gathering of critical statistics, including a knowledge and BMP assessment scoring system. Data gathered and evaluated during the defined reporting period indicate that identified significant program activities targeting industrial and commercial sources have been effective.

**Table 11-2 Program Scores for 2009-10\*\***

	Knowledge Assessment *	BMP Assessment
<b>Average Rating</b>	2.6	3.5
<b>Median Rating</b>	3	3

# of "Level 5" Ratings	6	25
# of "Level 4" Ratings	28	34
# of "Level 3" Ratings	30	49
# of "Level 2" Ratings	22	12
# of "Level 1" Ratings	33	4

\*Deft Companies was not assigned a knowledge assessment score because no business representative was onsite at the time of inspection.

\*\*The scores from these two reporting periods were consistent.

**Table 11-2 cont. Program Scores for FY 2005-06**

(This was the first year the analysis was done and is provided for comparison)

	Knowledge Assessment *	BMP Assessment
<b>Average Rating</b>	2.39	3.33
<b>Median Rating</b>	2	3
# of "Level 5" Ratings	0	14
# of "Level 4" Ratings	9	26
# of "Level 3" Ratings	34	30
# of "Level 2" Ratings	26	11
# of "Level 1" Ratings	18	7

\*Deft Companies was not assigned a knowledge assessment score because no business representative was onsite at the time of inspection.

### *Residential*

Residential BMP implementation has been identified as the significant activity by which effectiveness has been assessed. Residential complaint response and enforcement constitute the core of residential BMP implementation assurance actions. Based upon an evaluation of data associated with these elements, including the number of incidents responded to and the ultimate resolution of these events, the City has demonstrated a notably effective program and level of service to the community of Lemon Grove.

**Table 11-3**

Activity	Amount Collected	Adjustment Factor	Estimated Load Reduction
Used Oil Recycling	25,600 gallons	10%	2,560 gallons
C&D Ordinance Recycling	17,852 pounds	1%	179 pounds

### *Education*

Education effectiveness is assessed for a variety of program elements. In terms of education opportunities provided to the various community sectors and City staff and contractors, identified as the significant metric by which to evaluate education activities, the City has achieved a high level of success.

### *Public Participation*

The City provides a variety of venues and outlets in support of public participation. The City has identified a number of measures to evaluate the effective implementation of this program element. As with education, public participation translates across a number of program areas; however the assessment measure are focused on success of the venues ad outlets supported by the City. From the measures identified and quantified, community partnerships, event attendance, hotline calls, and volumes of debris and hazardous materials collected through public participation, the City has established exceptional trends.

## **11.3 Program Review and Modification**

No significant changes to the effectiveness assessment approach presented in the City's March 2008 JURMP have been made since the submittal of this document.