ATTACHMENT D

2012 MS4 PERMIT IMPLEMENTATION

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Summary of the Implementation of the 2012 MS4 Permit Requirements

This Attachment contains information about the Los Angeles County Flood Control District's activities with respect to the following:

Discharge Prohibitions

By ordinance, the Los Angeles County Flood Control District (LACFCD) prohibits all non-authorized non-stormwater discharges through its MS4. The LACFCD continues to implement a program to permit authorized discharges directly into its system. Permits are required for all discharges and connections into LACFCD facilities. The permit required dischargers to notify the LACFCD in advance of scheduled discharges and to implement any necessary Best Management Practices.

In March 2014, the LACFCD sent a letter to drinking water suppliers in Los Angeles County to reiterate the MS4 Permit requirements for their discharges. This letter served as a reminder of their responsibility to give prior notification, implement BMPs, monitor, and maintain records.

In November 2014, a second letter was sent to the drinking water suppliers requesting submittal of records for each of their discharges over 100,000 gallons from December 28, 2012, to June 30, 2014. As of the submittal date of this Annual Report, we are continuing to receive information in response to this request. The LACFCD, in collaboration with the County of Los Angeles, will evaluate any available monitoring data for these drinking water discharges to determine if they may be a source of pollutants. If it is determined that these discharges have caused or contributed to an exceedance of Receiving Water Limitations or Water Quality Based Effluent Limitations, the Regional Board will be notified pursuant to the 2012 MS4 Permit. A summary of these actions will be included in future Annual Reports.

The LACFCD has continued to work with a representative group of drinking water suppliers and Regional Board staff on a draft Memorandum of Understanding (MOU) and related BMP Manual, as a means to manage their discharges in accordance with the requirements in the 2012 MS4Permit. While some progress has been made, as of the submittal date of this Annual Report, final consensus on the terms of the MOU and content of the BMP Manual has not been reached and the documents have not yet been finalized. The LACFCD will continue discussion with the dischargers and Regional Board staff with the goal of reaching agreement on the remaining outstanding issues.

Watershed Management Programs Activities

The 2012 MS4 Permit allows permittees the option to customize their stormwater programs to comply with applicable receiving water limitations and water quality-based effluent limits by developing and implementing Watershed Management Programs (WMPs) or an Enhanced Watershed Management Programs (EWMPs). This section summarizes the activities of the LACFCD related to the WMP and EWMP programs.

WMPs

In June 2014, the LACFCD, along with other agencies, submitted WMP Plans to the Regional Board for the following groups:

1. Los Angeles River Upper Reach 2 Sub Watershed Group
2. Lower Los Angeles River Watershed Group
3. Lower San Gabriel River Watershed Group
4. Los Cerritos Channel Watershed Group
5. Alamitos Bay/Los Cerritos Channel Group
6. Santa Monica Bay J7 Group

EWMPs

In June 2014, the LACFCD, along with other agencies, submitted to the Regional Board EWMP Work Plans for the following groups:

1. Upper Santa Clara River Watershed Group
2. Upper Los Angeles River Watershed Group
3. Rio Hondo/San Gabriel River Water Quality Group
4. Upper San Gabriel River EWMP Group
5. Malibu Creek Watershed Group
6. Marina del Rey Watershed Group
7. North Santa Monica Bay Coastal Watershed Group
8. Beach Cities Watershed Management Group
9. Santa Monica Bay Jurisdictional Groups 2 and 3
10. Peninsula EWMP Agencies
11. Ballona Creek Watershed Group
12. Dominguez Channel Watershed Management Area Group

The LACFCD is in the process of preparing a Program Environmental Impact Report (PEIR) for the EWMP Final Plans, since projects in the EWMP Final Plans could have an environmental impact. The Notice of Preparation was submitted on August 29, 2014, and three scoping meetings were held on September 9, September 10, and September 15, 2014. The comment period for the Notice of Preparation was extended to October 29, 2014, to allow for more comments. More information can be obtained at www.LACoH2Osheds.com.

Technical Advisory Committee

The LACFCD attended all Technical Advisory Committee meetings held during the current reporting period.

Stakeholder Outreach

The LACFCD participated in all the stakeholder outreach meetings conducted by the WMP and EWMP Groups of which it is a member. The purpose of the meetings was to inform interested stakeholders of the WMP/EWMP process and to solicit project ideas for each of the watershed management areas.

Minimum Control Measures

The LACFCD continues to implement its stormwater quality management program (SQMP), now referred to as the Minimum Control Measures (MCMs), as required under the 2001 MS4 Permit. The LACFCD will continue to implement its SQMP until the Watershed Management Programs and Enhanced Watershed Management Programs the LACFCD is participating in are approved by the Regional Board. In the meantime, the LACFCD is developing strategies, procedures, and manuals for implementation of the MCMs required by the 2012 MS4 Permit.

Coordinated Integrated Monitoring Program Activities

In June 2014, the LACFCD along with other agencies submitted Coordinated Integrated Monitoring Program (CIMP) Plans for the following groups:

1. Upper Santa Clara River Watershed Group
2. Upper Los Angeles River Watershed Group
3. Rio Hondo/San Gabriel River Water Quality Group
4. Upper San Gabriel River Enhanced Watershed Management Program (EWMP) Group
5. Malibu Creek Watershed Group
6. Marina del Rey Watershed Group
7. North Santa Monica Bay Coastal Watersheds Group
8. Santa Monica Bay Jurisdictional Groups 2 and 3
9. Peninsula EWMP Agencies
10. Ballona Creek Watershed Group
11. Dominguez Channel Watershed Management Area Group
12. Alamitos Bay/Los Cerritos Channel Group
13. Los Angeles River Upper Reach 2 Sub Watershed Group
14. Lower Los Angeles River Watershed Group
15. Lower San Gabriel River Watershed Group
16. Los Cerritos Channel Watershed Group
17. Alamitos Bay/Los Cerritos Channel Group
18. Santa Monica Bay J7 Group

Although the CIMP plans are still being reviewed, various watershed groups began implementing the Non-Stormwater Screening portion of their CIMP plans in order to meet interim source identification milestones and Bacteria TMDL requirements in the 2012 MS4 Permit. Per the commitment made in some of the draft CIMPs submitted to the Regional Board, this Annual Report includes a status report of the non-stormwater screening activities for the following groups:

1. Upper San Gabriel River EWMP Group – See Attachment D1.
2. Lower Los Angeles River Watershed Group – See Attachment D2
3. Lower San Gabriel River Watershed Group – See Attachment D3
4. Los Cerritos Channel Watershed Group – See Attachment D4

Responses to 2012 MS4 Permit Attachment E Part XVIII

XVIII.A.1 Storm Water Control Measures

a. Effective Impervious Area and change in storm water runoff volume during the 85th percentile storm event

The Planning and Land Development Program is not applicable to the LACFCD because the LACFCD does not have land use jurisdiction.

b. Summary of New Development/Re-development Projects constructed within the Permittee's jurisdictional area during the reporting year.

The Planning and Land Development Program is not applicable to the LACFCD because the LACFCD does not have land use jurisdiction.

c. Summary of Retrofit Projects that reduced or disconnected impervious areas from the MS4 during the reporting year.

In July 2013, the LACFCD completed construction of the San Gabriel River Bike Trail Phase 4 (183rd St Tunnel Realignment). The project entails realignment and reconstruction of a deteriorated underpass tunnel of the existing San Gabriel River Bicycle Trail at 183rd Street. As part of the project, two new catch basins with pervious inverts were installed to facilitate the capture and infiltration of stormwater.

d. Summary of other projects designed to intercept storm water runoff prior to discharge to the MS4 during the reporting year.

In September 2014, the LACFCD completed construction of the Los Angeles River Headwaters Project. This $11 million project, located in Canoga Park, revitalized 2.5 miles of previously restricted right-of-way into a greenway for the public in a highly urbanized area. The project connects nearby communities and businesses to the River through newly built, ADA-compliant pedestrian walkways and trails. Among the many amenities of this project is the use of bioswales and rain gardens to reduce runoff to the River.

In July 2014, the LACFCD completed construction of the North Valleyheart Greenway Project. The $3 million project, located in Studio City, is a multi-benefit project consistent with the Los Angeles River Master Plan goals of developing a continuous greenway, enhancing water quality, providing recreational opportunities and restoring the natural environment along the Los Angeles River. The project provides habitat restoration and water conservation benefits with drought-tolerant landscaping, recreational benefits with 0.5 miles of continuous pedestrian paths, educational opportunities through interpretive signage, and aesthetic enhancements through decorative fencing, rest area amenities, and artwork.

e. For the projects summarized above in 1.b through 1.d, estimate the total runoff volume retained on site by the implemented projects.

Project	Runoff volume retained onsite(1)
San Gabriel River Bike Trail Phase 4 (183rd St Tunnel Realignment)	**137 ft^3**
Los Angeles River Headwaters Project	**587,000 gal/year**
North Valleyheart Greenway Project	**117,000 gal/year**

(1) Design volume of the control measure

f. Summary of actions taken in compliance with TMDL implementation plans or approved Watershed Management Programs to implement TMDL provisions in Part VI.E and Attachments L-R of this Order.

During this reporting period, the LACFCD completed the removal of contaminated sediment from Wilmington Drain pursuant to the multi-pollutant implementation plan for the Machado Lake Toxics and Nutrients TMDLs. A total of 27,300 cubic yards of sediment was removed between Lomita Boulevard and Pacific Coast Highway.

g. Summary of riparian buffer/wetland restoration projects completed during the reporting year.

During this reporting year, the LACFCD did not complete any riparian buffer or wetland restoration projects.

h. Summary of other Minimum Control Measures implemented during the reporting year, as the Permittee deems relevant.

Please see Form U-4.

i. Status of multi-year efforts that were not completed in the current year and will therefore continue into subsequent years.

Oxford Retention Basin Multiuse Enhancement Project - This project is an enhancement of the existing Oxford Retention Basin. The project will improve circulation within the basin, enhance flood protection, improve the quality of plant and wildlife habitat within the facility, and provide aesthetic and recreational enhancements. Construction is expected to begin in December 2014.

Rory M. Shaw Wetlands Park Project — A partnership between LACFCD and City of Los Angeles, this project is designed to convert a 46-acre inert debris landfill into a multi-benefit wetlands park in the Sun Valley Watershed. The project will create a 21-acre detention pond, 15 acres of open space, and 10 acres of wetlands habitat to provide flood protection, recreational opportunities, water quality improvements, habitat restoration, and groundwater recharge. The wetlands park is a component of the Sun Valley Watershed Multi-Benefit Project which received the ISI Envision Platinum award in August 2014. The project is at 60 percent design, and construction is estimated to begin in April of 2017.

XVIII.A.2 Effectiveness Assessment of Storm Water Control Measures

a. Rainfall summary for the reporting year

The LACFCD collects rainfall data at the following LACFCD Receiving Water Mass Emission Stations and Malibu Creek tributary sites:

- **Ballona Creek (S01)**
- **Coyote Creek (S13)**
- **Dominguez Channel (S28)**
- **Los Angeles River at Wardlow (S10)**
- **Malibu Creek (S02)**
- **San Gabriel River (S14)**
- **Santa Clara River (S29)**
- **Cheseboro Canyon (TS26)**
- **Liberty Canyon (TS29)**
- **Lower Lindero Creek (TS27)**
- **Medea Creek (TS28)**
- **Upper Las Virgenes Creek (TS25)**

The table below provides a summary of the rainfall data at those sites.

	S01	**S02**	**S10**	**S13**	**S14**	**S28**	**S29**	**TS25**	**TS26**	**TS27**	**TS28**	**TS29**
Total No. of Storm Events	5	2	6	7	4	6	3	2	2	2	2	2
Highest Volume Event (in/24 hr)	1.26	3.16	0.85	1.28	3.37	1.17	2.28	3.4	3.4	3.4	3.4	3.4
Highest No. of Consecutive days of rainfall	3	3	3	3	3	3	3	3	3	3	3	3
Total Rainfall (in)	3.43	4.93	5.99	3.6	7.52	3.78	6.27	5.13	5.13	5.13	5.13	5.13

b. Provide a summary table describing rainfall during storm water outfall and wet-weather receiving water monitoring events

Outfall monitoring had not commenced as of June 30, 2014.

The table below provides a summary of rainfall during wet-weather receiving monitoring events.

Event ID	Date	Station Name	Rain Gauge[(1)]	Storm Start (AM/PM)	Storm Duration (hrs)	15 min-Highest Storm intensity (in/hr)	Total Storm Volume (in)	Span Between sample event & previous event (hrs)
2013-14Event09	11/21/2013	L.A. River at Wardlow (S10)	314	9:00 PM	5	0.12	0.18	4,752
2013-14Event09	11/21/2013	Dominguez Channel (S28)	315	9:00 PM	7	0.12	0.25	4,752
2013-14Event09	11/21/2013	Malibu Creek (S02)	319	9:00 PM	8	0.44	0.35	4,752
2013-14Event09	11/21/2013	Coyote Creek (S13)	328[(2)]	1:00 AM	7	0.16	0.31	4,752
2013-14Event09	11/21/2013	San Gabriel River (S14)	416	2:00 AM	21	0.48	0.78	4,752
2013-14Event09	11/21/2013	Ballona Creek (S01)	370	11:00 PM	8	0.16	0.16	4,752
2013-14Event09	11/21/2013	Santa Clara River (S29)	406	1:00 AM	19	0.48	0.67	4,752
2013-14Event09	11/21/2013	Upper Las Virgenes Creek (TS25)	317[(3)]	9:00 PM	9	0.64	0.39	6,192
2013-14Event09	11/21/2013	Cheseboro Canyon (TS26)				0.64	0.39	6,192
2013-14Event09	11/21/2013	Lower Lindero Creek (TS27)				0.64	0.39	6,192
2013-14Event09	11/21/2013	Medea Creek (TS28)				0.64	0.39	6,192
2013-14Event09	11/21/2013	Liberty Canyon (TS29)				0.64	0.39	6,192
2013-14Event10	11/29/2013	L.A. River at Wardlow (S10)	314	7:00 AM	5	0.24	0.51	192
2013-14Event10	11/29/2013	Dominguez Channel (S28)	315	7:00 AM	5	0.20	0.49	192
2013-14Event10	11/29/2013	Malibu Creek (S02)	319	5:00 AM	8	0.16	0.08	NS
2013-14Event10	11/29/2013	Coyote Creek (S13)	326	8:00 AM	3	0.20	0.23	192

Event ID	Date	Station Name	Rain Gauge[(1)]	Storm Start (AM/PM)	Storm Duration (hrs)	15 min-Highest Storm intensity (in/hr)	Total Storm Volume (in)	Span Between sample event & previous event (hrs)
2013-14Event10	11/29/2013	San Gabriel River (S14)	416	11:00 AM	1	0.16	0.08	NS
2013-14Event10	11/29/2013	Ballona Creek (S01)	370	9:00 AM	4	0.16	0.19	192
2013-14Event10	11/29/2013	Santa Clara River (S29)	406	1:00 PM	1	0.16	0.04	NS
2013-14Event11	12/07/2013	L.A. River at Wardlow (S10)	314	9:00 AM	4	0.08	0.15	192
2013-14Event11	12/07/2013	Dominguez Channel (S28)	315	9:00 AM	4	0.36	0.32	192
2013-14Event11	12/07/2013	Malibu Creek (S02)	319	9:00 AM	2	0.16	0.20	N/A
2013-14Event11	12/07/2013	Coyote Creek (S13)	326	10:00 AM	3	0.16	0.14	192
2013-14Event11	12/07/2013	San Gabriel River (S14)	416	11:00 AM	2	0.16	0.12	NS
2013-14Event11	12/07/2013	Ballona Creek (S01)	370	9:00 AM	1	0.16	0.12	NS
2013-14Event11	12/07/2013	Santa Clara River (S29)	406	10:00 AM	1	0.16	0.04	NS
2013-14Event12	12/19/2013	L.A. River at Wardlow (S10)	314	11:00 AM	2	0.36	0.36	288
2013-14Event12	12/19/2013	Dominguez Channel (S28)	315	11:00 AM	5	0.56	0.28	288
2013-14Event12	12/19/2013	Malibu Creek (S02)	319	N/A	0	N/A	0	N/A
2013-14Event12	12/19/2013	Coyote Creek (S13)	326	12:00 PM	3	0.76	0.36	4,608
2013-14Event12	12/19/2013	San Gabriel River (S14)	416	7:00 AM	11	0.48	0.63	672
2013-14Event12	12/19/2013	Ballona Creek (S01)	370	11:00 AM	1	0.16	0.12	480
2013-14Event12	12/19/2013	Santa Clara River (S29)	406	10:00 AM	4	0.16	0.12	NS
2013-14Event13	02/26/2014	L.A. River at Wardlow (S10)	314	12:00 AM	66	0.28	1.84	912
2013-14Event13	02/26/2014	Dominguez Channel (S28)	315	1:00 AM	84	0.56	3.20	912
2013-14Event13	02/26/2014	Malibu Creek (S02)	319	8:00 PM	68	0.76	5.12	1,200

Event ID	Date	Station Name	Rain Gauge[1]	Storm Start (AM/PM)	Storm Duration (hrs)	15 min-Highest Storm intensity (in/hr)	Total Storm Volume (in)	Span Between sample event & previous event (hrs)
2013-14Event13	02/26/2014	Coyote Creek (S13)	326	2:00 AM	84	1.44	2.33	912
2013-14Event13	02/26/2014	San Gabriel River (S14)	416	1:00 AM	66	0.64	5.20	912
2013-14Event13	02/26/2014	Ballona Creek (S01)	370	12:00 AM	67	0.64	2.88	912
2013-14Event13	02/26/2014	Santa Clara River (S29)	406	10:00 PM	70	0.80	5.16	1,584
2013-14Event13	02/26/2014	Upper Las Virgenes Creek (TS25)	317[3]	12:00 AM	72	0.80	3.83	1,584
2013-14Event13	02/26/2014	Cheseboro Canyon (TS26)				0.80	3.83	1,584
2013-14Event13	02/26/2014	Lower Lindero Creek (TS27)				0.80	3.83	1,584
2013-14Event13	02/26/2014	Medea Creek (TS28)				0.80	3.83	1,584
2013-14Event13	02/26/2014	Liberty Canyon (TS29)				0.80	3.83	1,584
2013-14Event15	04/01/2014	L.A. River at Wardlow (S10)	314	2:00 AM	24	0.44	0.28	792
2013-14Event15	04/01/2014	Dominguez Channel (S28)	315	2:00 AM	24	0.36	0.26	792
2013-14Event15	04/01/2014	Malibu Creek (S02)	319	1:00 AM	24	0.32	0.24	NS
2013-14Event15	04/01/2014	Coyote Creek (S13)	326	3:00 AM	2	0.04	0.02	792
2013-14Event15	04/01/2014	San Gabriel River (S14)	416	2:00 AM	3	0.32	0.31	792
2013-14Event15	04/01/2014	Ballona Creek (S01)	370	1:00 AM	6	0.48	0.31	792
2013-14Event15	04/01/2014	Santa Clara River (S29)	406	1:00 AM	5	0.32	0.24	792
2013-14Event16	04/26/2014	L.A. River at Wardlow (S10)	314	11:00 PM	2	0.16	0.11	NS
2013-14Event16	04/26/2014	Dominguez Channel (S28)	315	11:00 PM	2	0.16	0.13	NS
2013-14Event16	04/26/2014	Malibu Creek (S02)	319	N/A	0	N/A	0	N/A
2013-14Event16	04/26/2014	Coyote Creek (S13)	326	10:00 PM	3	0.20	0.21	600

Event ID	Date	Station Name	Rain Gauge[(1)]	Storm Start (AM/PM)	Storm Duration (hrs)	15 min-Highest Storm intensity (in/hr)	Total Storm Volume (in)	Span Between sample event & previous event (hrs)
2013-14Event16	04/26/2014	San Gabriel River (S14)	416	10:00 PM	3	0.32	0.40	600
2013-14Event16	04/26/2014	Ballona Creek (S01)	370	N/A	0	N/A	0.00	NS
2013-14Event16	04/26/2014	Santa Clara River (S29)	406	N/A	0	N/A	0.00	NS

(1) The rain gauges used are the rain gauges maintained by the County of Los Angeles Department of Public Works' Water Resources Division

(2) Rain gauge 328 was used for Coyote Creek (S13) for Event 09 since rain gauge 326 did not have data available.

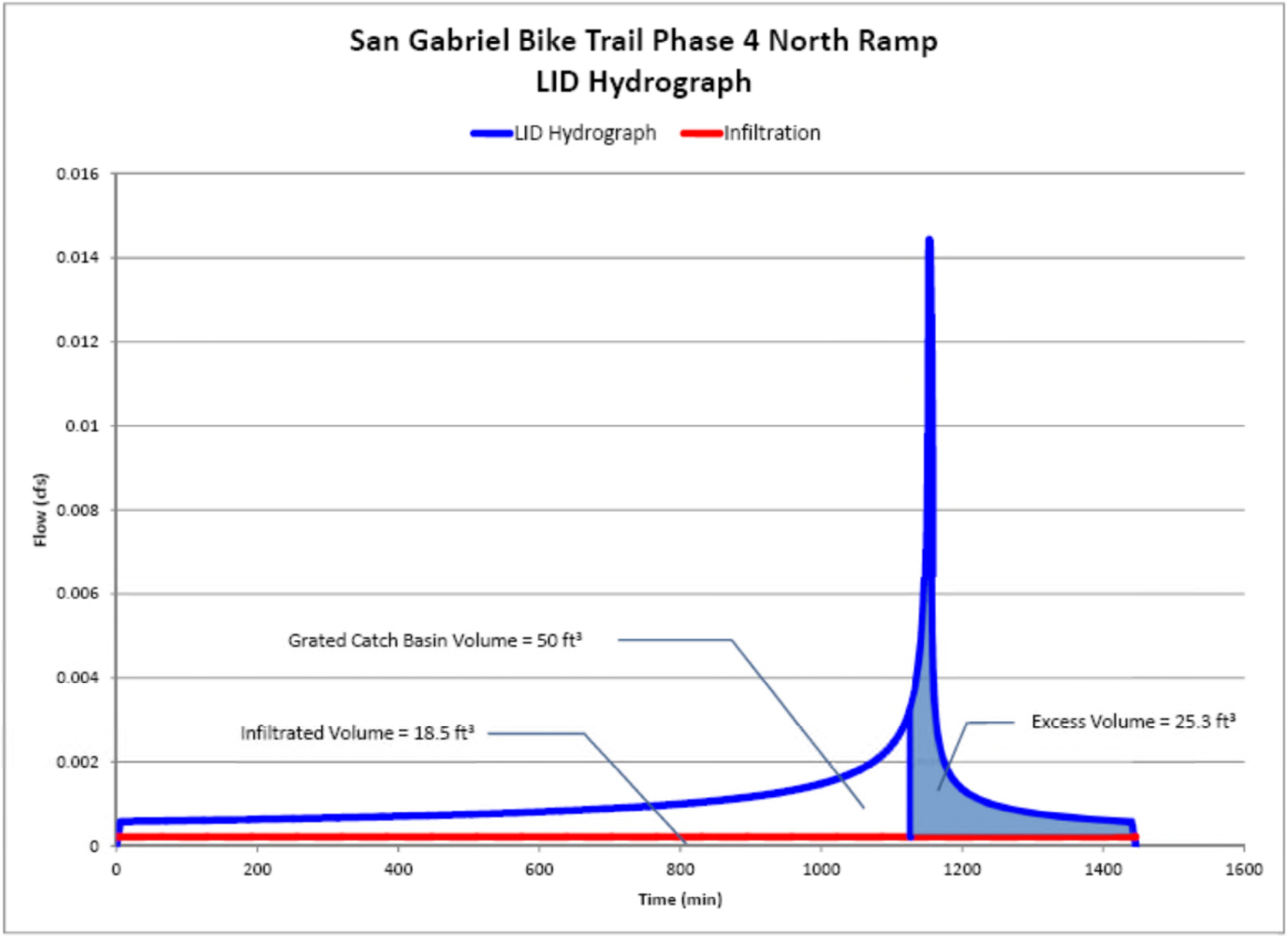
(3) Rain gage 317 is the only gauge in the subwatershed for all Malibu tributary monitoring sites.

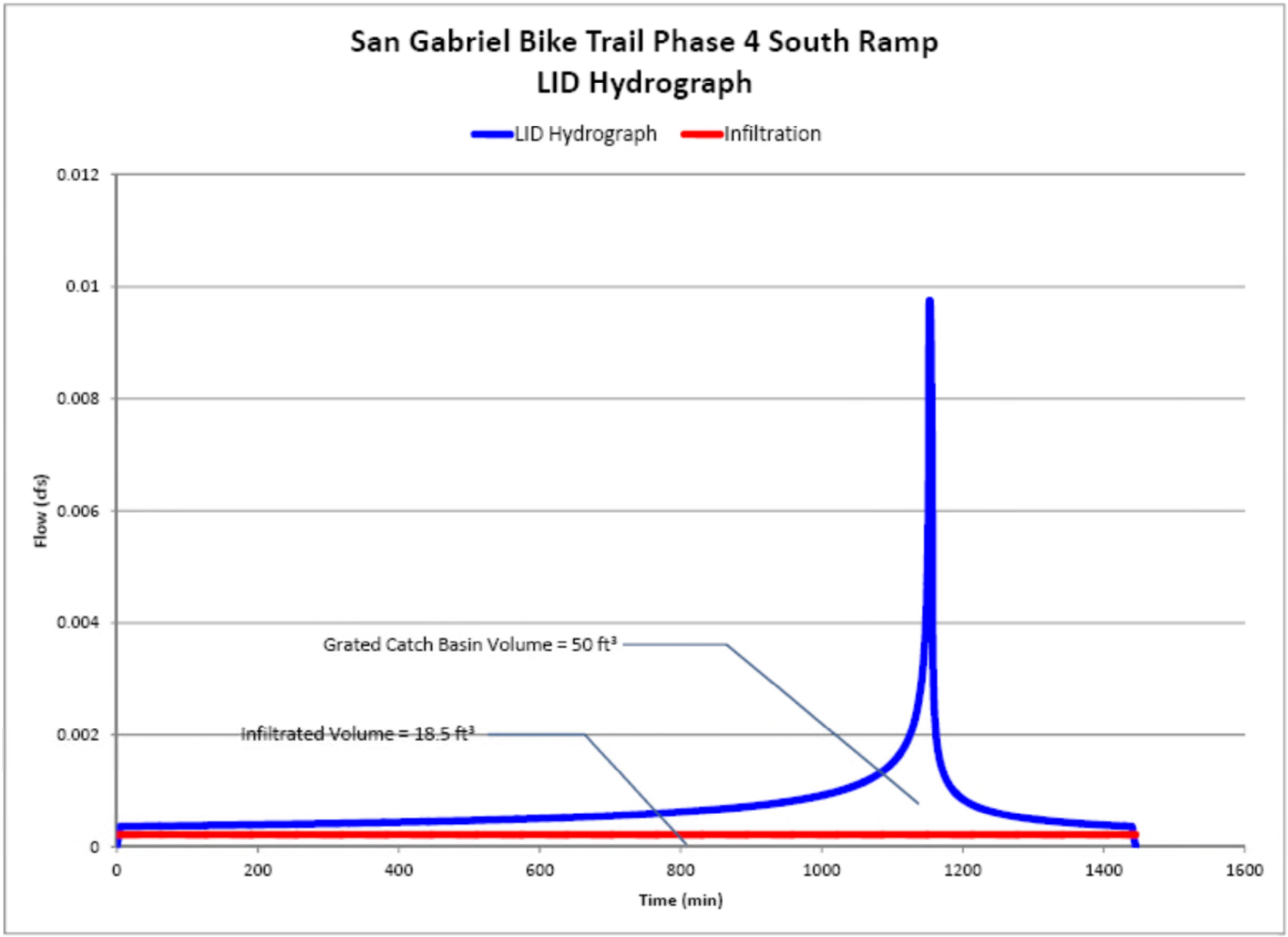
NS No sampling was conducted during the event.

N/A Not Applicable

c. Where control measures were designed to reduce impervious cover or storm water peak flow and flow duration, provide hydrographs and flow data of pre- and post-control activity for the 85th percentile, 24-hour event, if available.

The following pages contain available hydrographs or flow data of pre- and post-control activity for the 85th percentile, 24-hour rain event where control measures were designed to reduce impervious cover or storm water peak flow and flow duration.


San Gabriel Bike Trail Phase 4 North Ramp
LID Hydrograph
LID Hydrograph
Infiltration
Flow (cfs)
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
0
200
400
600
800
1000
1200
1400
1600
Time (min)
Grated Catch Basin Volume = 50 ft³
Infiltrated Volume = 18.5 ft³
Excess Volume = 25.3 ft³


San Gabriel Bike Trail Phase 4 South Ramp
LID Hydrograph
LID Hydrograph
Infiltration
0.012
0.01
0.008
0.006
0.004
0.002
0
Flow (cfs)
Grated Catch Basin Volume = 50 ft³
Infiltrated Volume = 18.5 ft³
0
200
400
600
800
1000
1200
1400
1600
Time (min)

d. For natural drainage systems, develop a reference watershed flow duration curve and compare it to a flow duration curve for subwatershed under current conditions.

Reference flow duration curves have not been developed for the various watersheds with natural drainage systems. The LACFCD expects that this will be done in the future as part of the watershed-specific annual reports to be prepared by WMP and EWMP Groups.

e. Provide an assessment as to whether the quality of storm water discharges as measured at designed outfalls is improving, staying the same, or declining.

Outfall monitoring had not begun as of June 30, 2014. This assessment will be completed in future reporting years.

f. Provide an assessment as to whether wet-weather receiving water quality within the jurisdiction of the Permittee is improving, staying the same, or declining, when normalized for variations in rainfall patterns.

As a subjective assessment, wet weather receiving water quality appears to be staying the same. It is expected that more detailed analyses will be performed on a watershed basis in future watershed-based annual reports after a consistent assessment framework and approach has been established among the various WMP and EWMP groups.

g. Status of multi-year efforts, including TMDL implementation, that were not completed in the current year and will continue into the subsequent year(s).

Please refer to XVIII.A.1.i above.

XVIII.A.3. Non-Storm Water Control Measures

a. thru g. Outfall screening

Although generally outfall screening has not begun because the CIMPs and outfall screening plans have not been approved, the groups listed below (of which the LACFCD is a member) have initiated early outfall screening and have provided updates in the following exhibits to this Attachment.

- **Upper San Gabriel River EWMP Group (see Attachment D Exhibit 1)**
- **Lower Los Angeles River Watershed Group (see Attachment D Exhibit 2)**
- **Lower San Gabriel River Watershed Group (see Attachment D Exhibit 3)**
- **Los Cerritos Channel Watershed Group (see Attachment D Exhibit 4)**

h. Status of multi-year efforts to be continued in subsequent years

Project Name	Description
LACFCD Low Flow Diversion Systemwide Upgrade	**The LACFCD is in the process of upgrading its low flow diversions with modern components and enhanced telemetry system. The goal of the project is to reduce the number of bypasses and the amount of downtime. Upgrades have been completed at five low flow diversions; project completion is expected by December 2015.**

Project Name	Description
Los Angeles River Bacteria TMDL Load Reduction Strategy (LRS) for Segment B	**Outfall drainage area assessment for areas tributary to Segment B has been completed. Final LRS Report will be submitted by June 30, 2015.**
Santa Monica Canyon Channel Rubber Dam	**This project consists of removing an existing diversion berm within the Santa Monica Canyon Channel and replacing it with an inflatable rubber dam, which will divert a greater amount of urban runoff into a low flow diversion system for treatment at the Hyperion Sewage Treatment Plan. The project is expected to be completed by December 2015.**

XVIII.A.4. Effectiveness Assessment of Non-Storm Water Control Measures

a. Provide an assessment as to whether receiving water quality within the jurisdiction of the Permittee is impaired, improving, staying the same, or declining during dry weather.

Receiving water quality is variable from year to year and subject to a number of factors. Efforts to control non-stormwater discharges have resulted in noticeable improvements in dry weather receiving water quality in some instances but not in others. The LACFCD is committed to continued efforts including through the WMP/EWMP adaptive management process to implement additional control measures where appropriate.

b. Provide an assessment of the effectiveness of the Permittee's control measures effectively prohibiting non-storm water discharges through the MS4 to receiving waters

The LACFCD prohibits all non-authorized stormwater discharges through its MS4. The outfall screening program is expected to further reduce non-exempt discharges through the MS4.

c. Status of multi-year efforts to be continued in subsequent years

Please refer to XVIII.A.1.i above.

XVIII.A.5. Integrated Monitoring Compliance Report

Please refer to Attachment C of this Annual Report, which contains the LACFCD's Receiving Water Limitations Status Report.

XVIII.A.6. Adaptive Management Strategies

a. Identify the most effective control measures and describe why the measures were effective and how other control measures will be optimized based on past experiences.

Low flow diversions generally have been effective in reducing or eliminating the discharge of non-stormwater runoff into the receiving water. As discussed in Section A.3.h above, the

LACFCD is in the process of upgrading its LFD systems to further improve their performance.

b. Identify the least effective control measures and describe why the measures were deemed ineffective and how the control measures will be modified or terminated.

Assessing the effectiveness of programmatic control measures i.e. minimum control measures, continues to be a challenge; the LACFCD looks forward to working with CASQA and Regional Board staff to utilize some of the assessment techniques in CASQA's forthcoming Program Effectiveness Assessment Manuel to evaluate the effectiveness of programmatic controls.

c. Identify significant changes to control measures during the prior year and the rationale for the changes.

The LACFCD did not make significant changes during this reporting period.

d. Describe all significant changes to control measures anticipated to be made in the next year and the rationale for the changes. Those changes requiring approval of the Regional Water Board or its Executive Office shall be identified at the beginning of the Annual Report.

Any proposed changes are included in the WMP or EWMP plans.

e. Include a detailed description of control measures to be applied to New Development or Re-development projects disturbing more than 50 acres.

The LACFCD does not have jurisdiction over new- or re-development projects. Also, during this reporting period, the LACFCD did not have new- or re-development projects of its own that disturbed more than 50 acres.

f. Provide the status of all multi-year efforts that were not completed.

Please see the response to question "a" above.

XVIII.A.7. Supporting Data and Information

a. All monitoring data and associated meta data used to prepare the Annual Report shall be summarized in an Excel spreadsheet and sorted by watershed, subwatershed and monitoring station/outfall identifier linked to the subwatershed map. The data summary must include the date, sample type (flow-weighted composite, grab, field measurement), sample state and stop times, parameter, analytical method, value, and units. The date field must be linked to a database summarizing the weather data for the sampling date including 24-hour rainfall, rainfall intensity, and days since the previous rain event.

For available information please refer to Attachment M Summary of TMDL Related Activities. The LACFCD will work with its WMP and EWMP partners on the compilation of pertinent monitoring data and associated meta data used to prepare future watershed-specific annual reports.

b. Optional. The Permittee may at its option, provide an additional detailed summary table of control measures that are not otherwise described in the reporting requirements.

None at this time.