

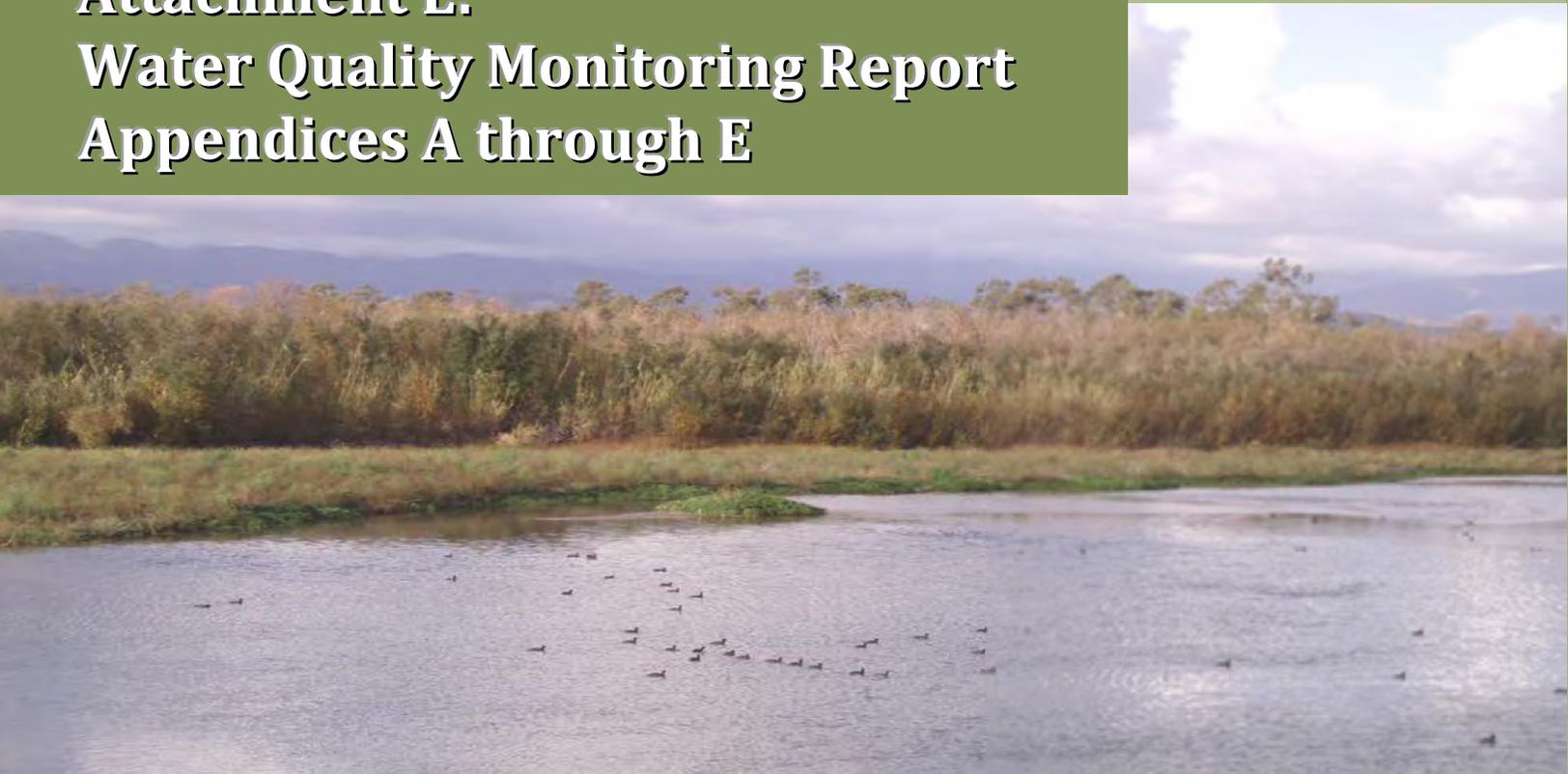


*Ventura Countywide
Stormwater Quality
Management Program*

**2011-2012
Permit Year**

Ventura Countywide Stormwater Quality
Management Program Annual Report

**Attachment E:
Water Quality Monitoring Report
Appendices A through E**



December 15, 2012

Camarillo
County of Ventura
Fillmore
Moorpark
Ojai
Oxnard
Port Hueneme
Santa Paula
Simi Valley
Thousand Oaks
Ventura
Ventura County Watershed Protection
District

Attachment E: Water Quality Monitoring Report Appendices

- Appendix A: Major Outfall Station Fact Sheets**
- Appendix B: Event Hydrographs**
- Appendix C: NRCS Curve Number Methodology Discussion**
- Appendix D: Event Summaries**
- Appendix E: Chain-of Custody Forms**
- Appendix F: Laboratory QA/QC Analysis Results**
- Appendix G: Laboratory Environmental Analysis Results**
- Appendix H: RWQCB Permission of Toxicity Species Substitution**
- Appendix I: Aquatic Toxicity Testing Lab Results**
- Appendix J: Dry-Weather Analytical Monitoring Results**

Appendix A: Major Outfall Station Fact Sheets

Camarillo

Waterbody: Camarillo Hills Drain (tributary to Revolon Slough)

Location: Daily Rd. overcrossing (34°13'10.00"N, 119° 3'58.06"W)

Pros: Likely well-defined rating table

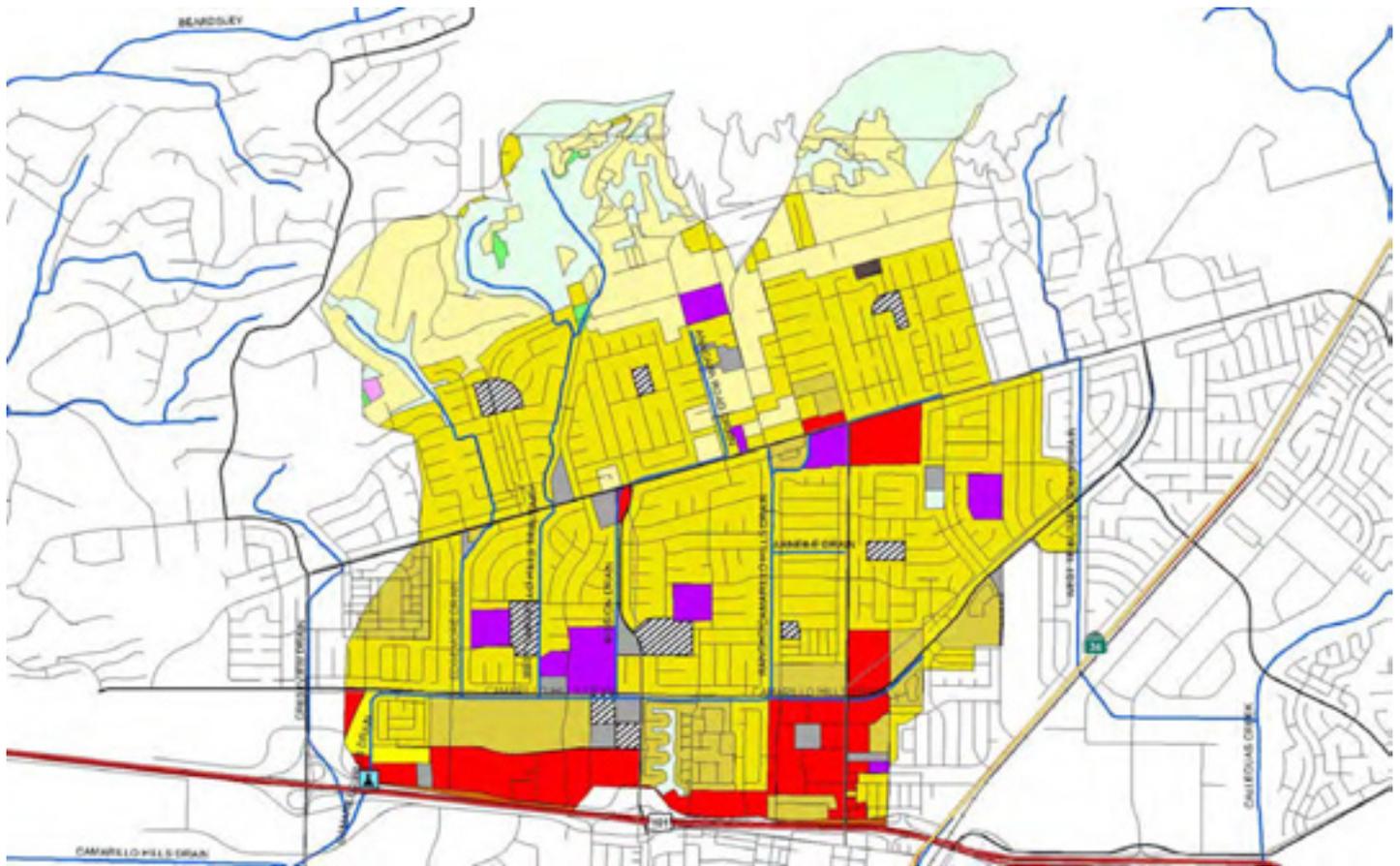
Cons: Moderate potential for vandalism

Outstanding Site Selection Tasks: None

Other Potential Sites: None

Dry Season Flow Potential: Likely intermittent year-round flow due to urban runoff





Entire City

Land Use	Acres	% of Total Watershed
Agriculture	1585.8	12.6%
Com_Indus. Mix	12.5	0.1%
Commer.	657.2	5.2%
Extraction	58.4	0.5%
Facility	129.5	1.0%
Industrial_1	32.2	0.2%
Industrial_3	622.6	4.9%
Military_2	5.7	0.1%
No Info Given	202.2	1.6%
Recreation	489.4	3.9%
Res.1	1305.9	10.4%
Res.2	443.4	3.5%
Res.3	3253.5	25.9%
Res.4	525.0	4.2%
Schools	325.0	2.6%
Transportation	954.2	7.6%
Under Construction	294.8	2.3%
Utilities	255.8	2.0%
Vacant Undifferentiated	1423.4	11.4%
Totals	12576.4	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Agriculture	6.1	0.2%
Commercial	213.5	7.7%
Facility	48.5	1.7%
No Info Given	57.4	2.1%
Res.1	453.4	16.3%
Res.2	235.0	8.5%
Res.3	1365.5	49.1%
Res.4	15.2	0.5%
Schools	80.6	2.9%
Transportation	11.7	0.4%
Under Construction	2.6	0.1%
Utilities	2.3	0.1%
Vacant Undifferentiated	287.4	10.3%
Totals	2779.1	100.0%

Fillmore

Waterbody: North Fillmore Drain (tributary to Sespe Creek)

Location: 75 yds. southwest of Old Telegraph Rd.
(34°24'16.51"N, 118°55'50.47"W)

Pros: Some portion of vegetation could be cleared by City of Fillmore

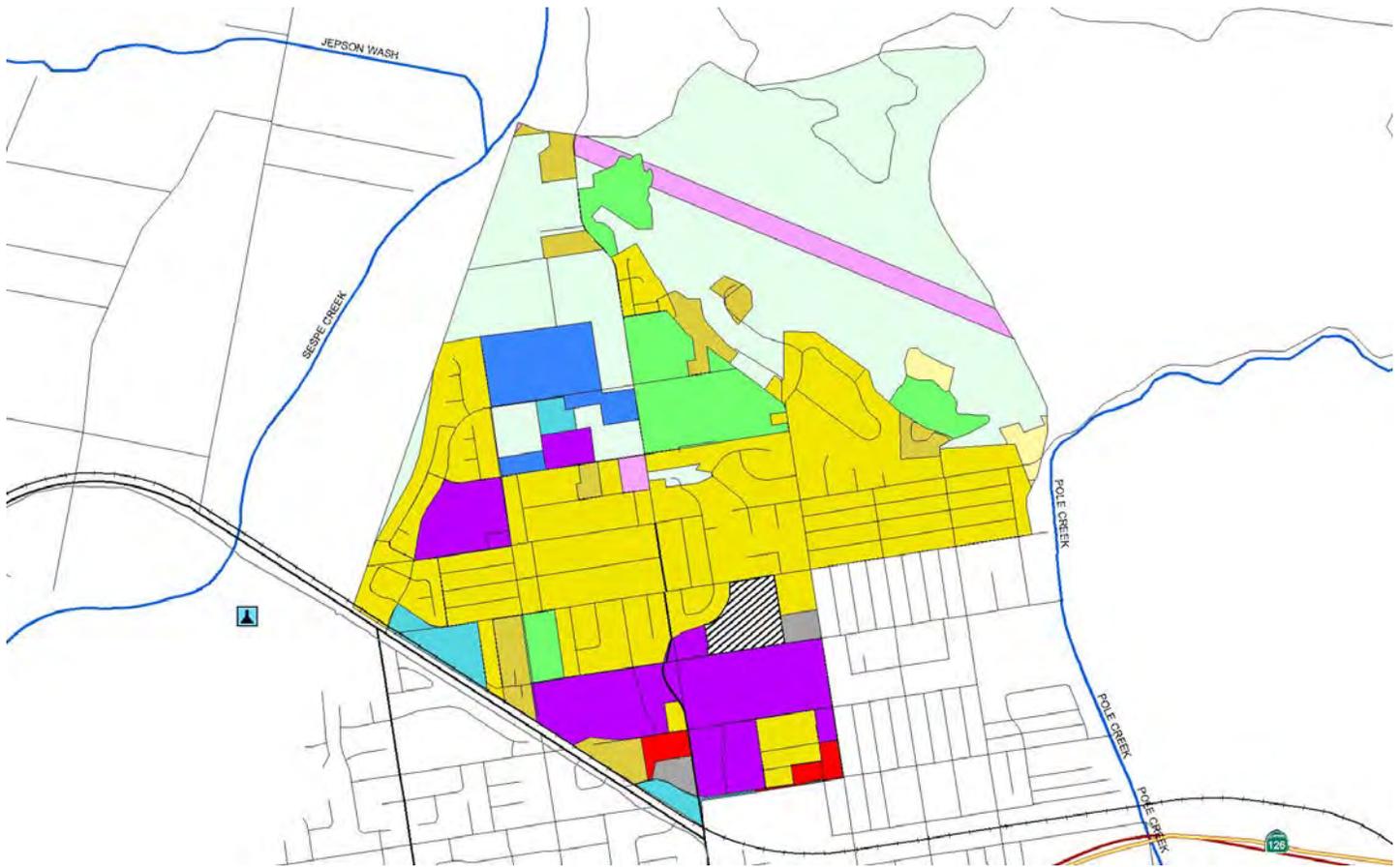
Cons: Potential for vandalism

Outstanding Site Selection Tasks: None

Other Potential Sites: C Street Drain and Central Ave. Drain

Dry Season Flow Potential: Likely intermittent year-round flow due to urban runoff





Entire City

Land Use	Acres	% of Total Watershed
Agriculture	274.8	13.0%
Com_Indus. Mix	10.4	1.0%
Commercial	103.2	5.0%
Facility	27.3	1.0%
Industrial_1	31.3	2.0%
Industrial_3	28.7	1.0%
No Info Given	21.9	1.0%
Res.1	52.8	3.0%
Res.2	44.6	2.0%
Res.3	693.1	34.0%
Schools	87.6	4.0%
Transportation	6.4	0.0%
Under Constructoni	58.4	3.0%
Utilities	45.8	2.0%
Vacant Undifferentiated	582.5	28.0%
Totals	2068.7	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Agriculture	52.5	6.9%
Commercial	6.3	0.8%
Facility	5.1	0.7%
Industrial_1	14.1	1.9%
Industrial_3	23.4	3.1%
No Info Given	9.9	1.3%
Res.1	6.1	0.8%
Res.2	29.7	3.9%
Res.3	255.7	33.6%
Schools	75.3	9.9%
Utilities	23.1	3.0%
Vacant Undifferentiated	260.6	34.2%
Totals	761.7	100.0%

Meiners Oaks (Unincorporated)

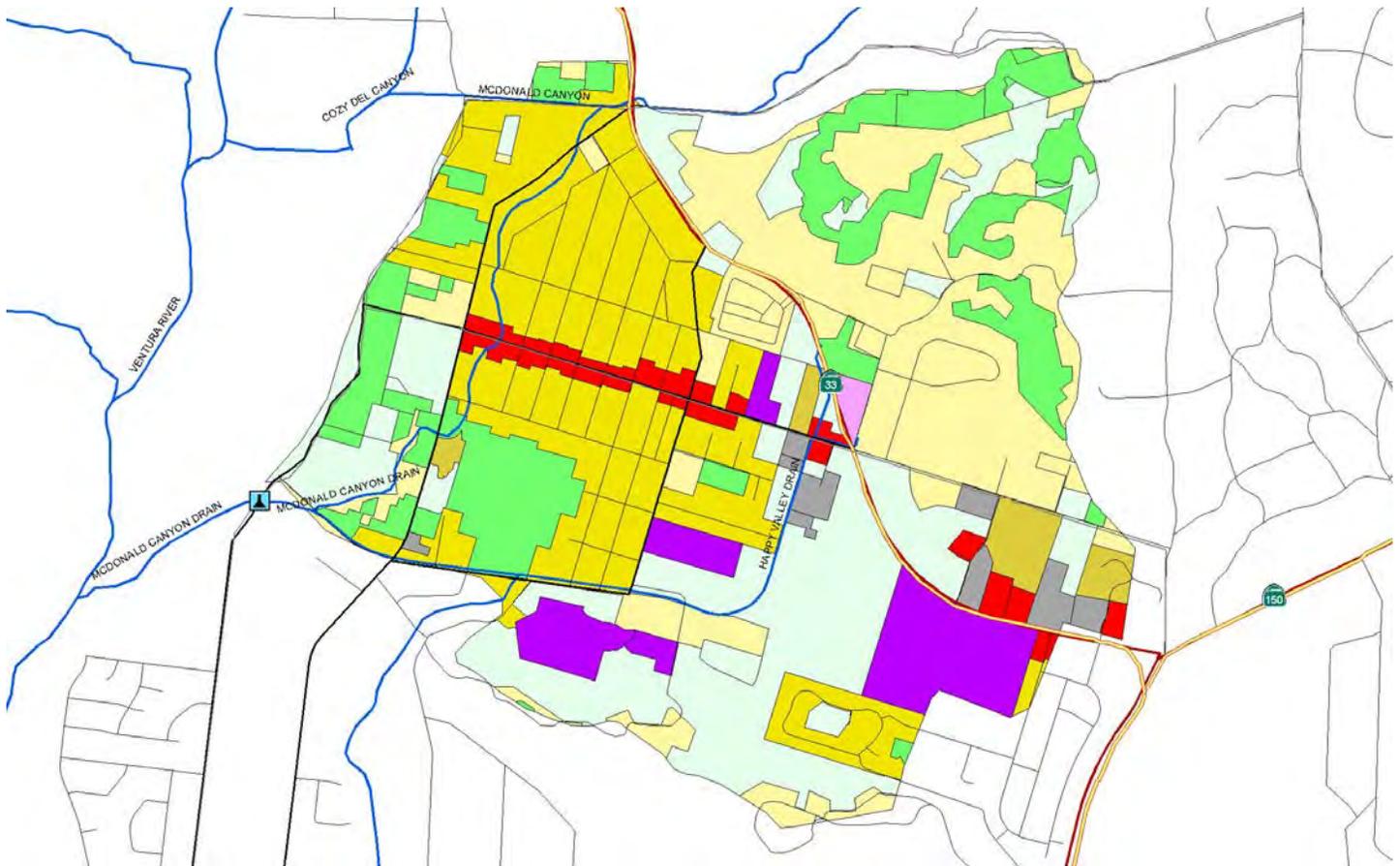
Waterbody: Happy Valley Drain (tributary to Ventura River)

Location: Southwest of Lomita Rd. and Rice Rd. intersection (34°26'43.98"N, 119°17'25.18"W)

Pros: Good control, good access, existing stream flow gauge

Dry Season Flow Potential: Unknown at end of rainy season; unlikely later in summer





Entire City

Land Use	Acres	% of Total Watershed
Agriculture	658.0	21.5%
Cemeteries	0.0	0.0%
Commercial	33.0	1.1%
Facility	15.5	0.5%
Recreation	29.9	1.0%
Res.1	812.3	26.5%
Res.2	43.9	1.4%
Res.3	463.4	15.1%
Schools	46.5	1.5%
Utilities	19.3	0.6%
Vacant Undifferentiated	945.0	30.8%
Totals	3066.8	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Agriculture	152.1	14.8%
Commercial	30.8	3.0%
Facility	20.8	2.0%
Res.1	234.0	22.8%
Res.2	22.0	2.1%
Res.3	249.9	24.4%
Schools	63.6	6.2%
Utilities	3.8	0.4%
Vacant Undifferentiated	248.8	24.3%
Totals	1025.9	100.0%

Moorpark

Waterbody: Gabbert Canyon Drain (tributary to Arroyo Las Posas)

Location: North side of SR 118 near southwest corner of So. Cal. Edison property (34°16'44.29"N, 118°54'19.40"W)

Pros: Likely well-defined rating table

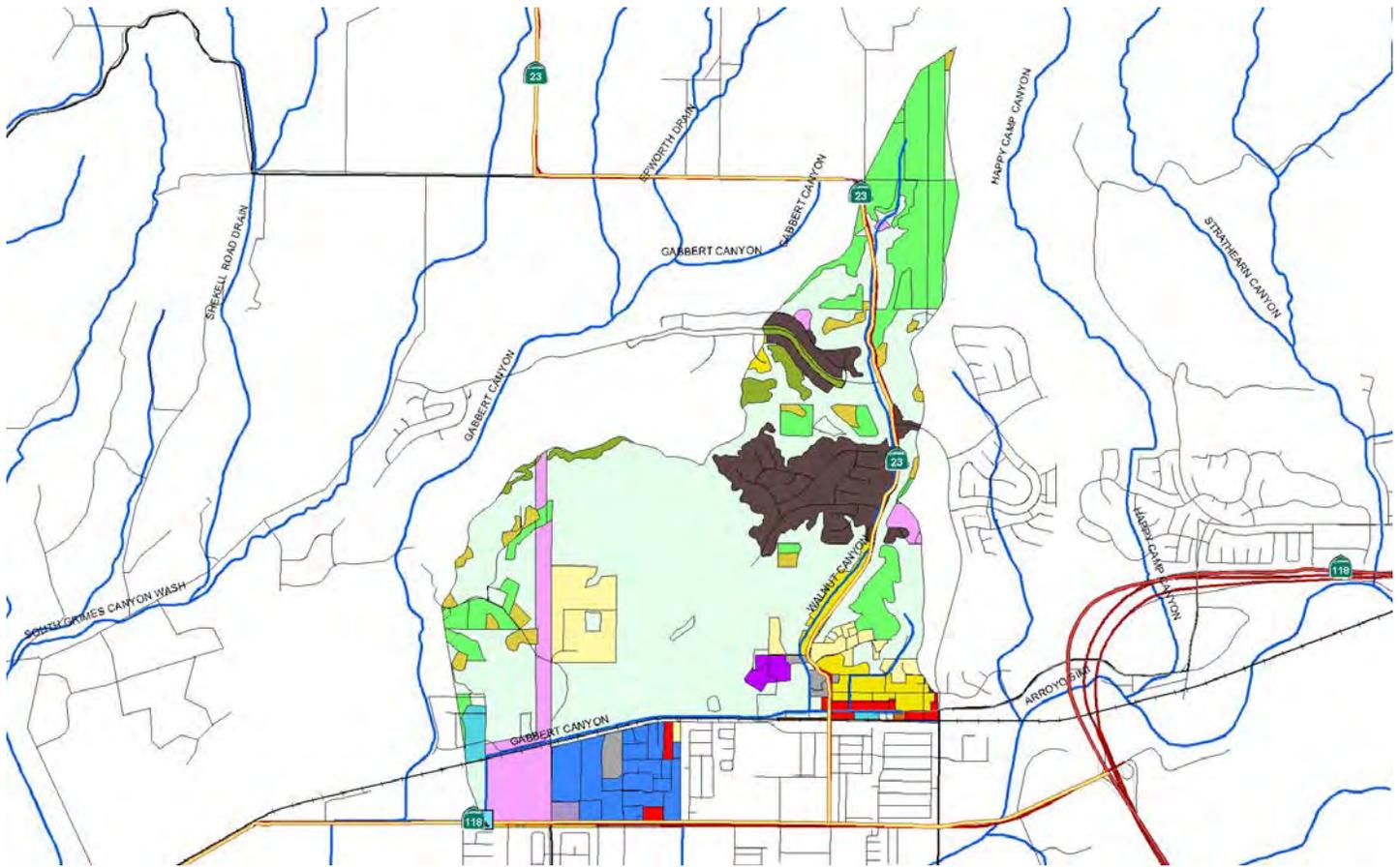
Cons: Aerial deposition from vehicular traffic on 118, potential for vandalism

Outstanding Site Selection Tasks: Move sampling location shown on watershed map

Other Potential Sites: Upstream current location, although site would interfere with access road

Dry Season Flow Potential: Likely intermittent year-round flow due to urban runoff





Entire City

Land Use	Acres	% of Total Watershed
Land Use	Acres	% of Total Watershed
Agriculture	351.7	4.0%
Com_Indus. Mix	9.1	0.0%
Commercial	196.3	2.0%
Extraction	39.2	0.0%
Facility	40.9	1.0%
Industrial_1	21.3	0.0%
Industrial_3	225.2	3.0%
No Info Given	148.3	2.0%
Recreation	186.1	2.0%
Res.1	213.5	3.0%
Res.2	190.4	2.0%
Res.3	1854.6	23.0%
Res.4	106.8	1.0%
Schools	302.1	4.0%
Transportation	198.0	2.0%
Under Construction	472.9	6.0%
Utilities	211.9	3.0%
Vacant Undifferentiated	3213.1	40.0%
Totals	7981.5	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Agriculture	230.0	12.7%
Commercial	19.9	1.1%
Extraction	5.8	0.3%
Facility	16.8	0.9%
Industrial_1	13.3	0.7%
Industrial_3	90.4	5.0%
Recreation	31.0	1.7%
Res.1	82.3	4.5%
Res.2	37.4	2.1%
Res.3	56.3	3.1%
Res.4	1.5	0.1%
Schools	10.5	0.6%
Transportation	3.1	0.2%
Under Construction	166.2	9.2%
Utilities	100.7	5.5%
Vacant Undifferentiated	950.8	52.4%
Totals	1816.2	100.0%

Ojai

Waterbody: Fox Canyon Barranca (tributary to San Antonio Creek)

Location: Concrete box channel upstream Ojai Valley Athletic Club and downstream pedestrian walkway (34°26'41.25"N, 119°14'28.43"W)

Pros: Numerous bridges to sample from, located behind VCWPD gate, likely well-defined rating table

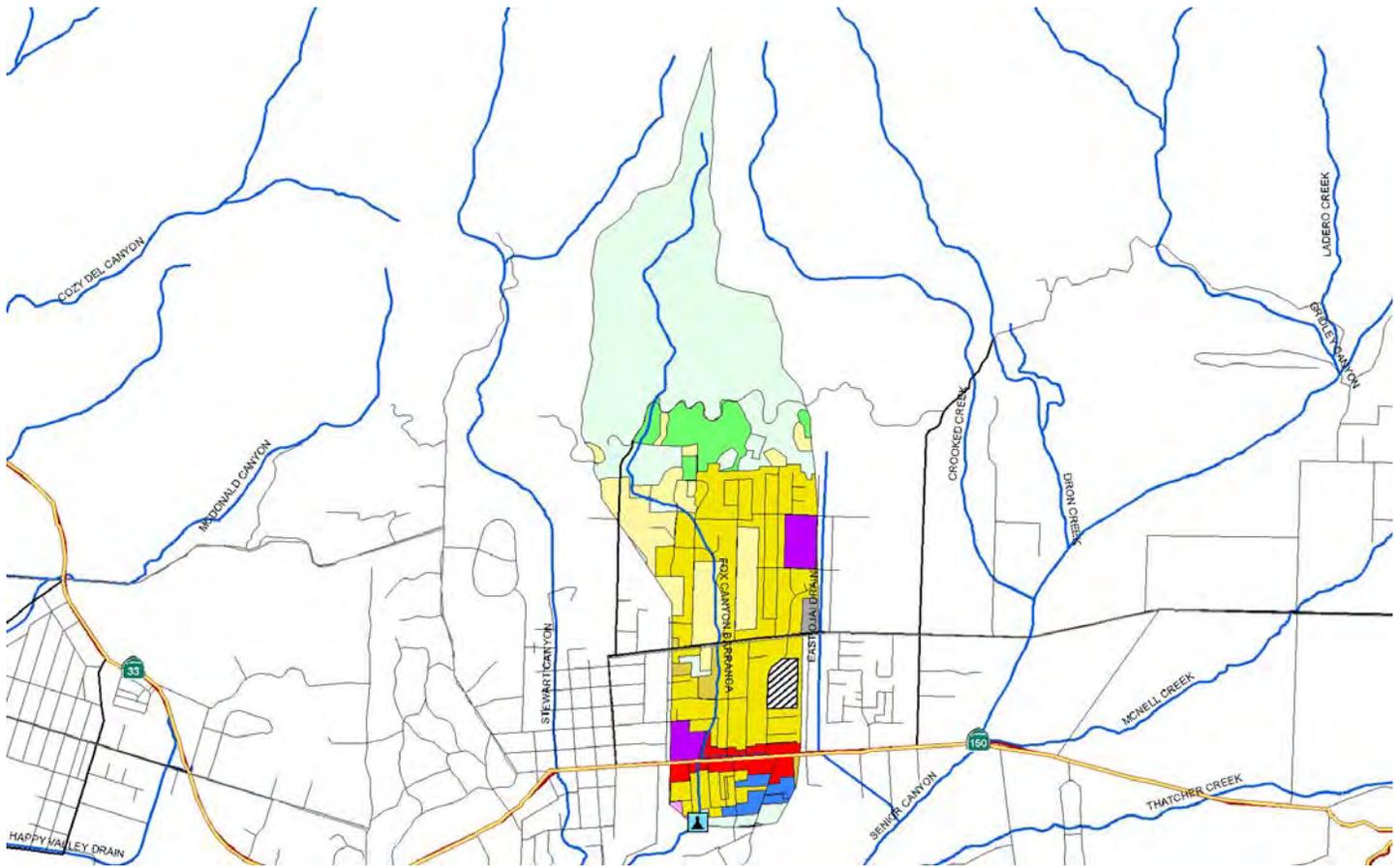
Cons: Some potential for vandalism

Outstanding Site Selection Tasks: Work with VCWPD O&M to ensure enclosure doesn't interfere with maintenance activities

Other Potential Sites: Downstream where Stewart Canyon crosses beneath Ventura St. (bioassessment #8)

Dry Season Flow Potential: Likely intermittent year-round flow due to urban runoff





Entire Watershed

Land Use	Acres	% of Total Watershed
Agriculture	83.1	3.0%
Cemeteries	3.8	0.1%
Com_Indus. Mix	7.6	0.3%
Commercial	155.1	5.6%
Facility	43.2	1.5%
Industrial_3	13.2	0.5%
No Info Given	55.6	2.0%
Recreation	312.1	11.2%
Res.1	620.7	22.2%
Res.2	61.3	2.2%
Res.3	534.8	19.1%
Res.4	3.3	0.1%
Schools	100.6	3.6%
Utilities	32.9	1.2%
Vacant Undifferentiated	767.1	27.5%
Totals	2794.7	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Agriculture	37.3	5.0%
Commercial	23.8	3.2%
Facility	4.1	0.6%
Industrial_3	11.4	1.5%
No Info Given	10.0	1.3%
Recreation	0.1	0.0%
Res.1	84.3	11.3%
Res.2	8.0	1.1%
Res.3	210.9	28.2%
Res.4	0.1	0.0%
Schools	20.2	2.7%
Utilities	1.0	0.1%
Vacant Undifferentiated	337.5	45.1%
Totals	748.6	100.0%

Oxnard

Waterbody: El Rio Drain (tributary to Santa Clara River)

Location: Pedestrian bridge 50 yds. southwest bend of Winchester Dr. (34°14'10.10"N, 119°11'3.93"W)

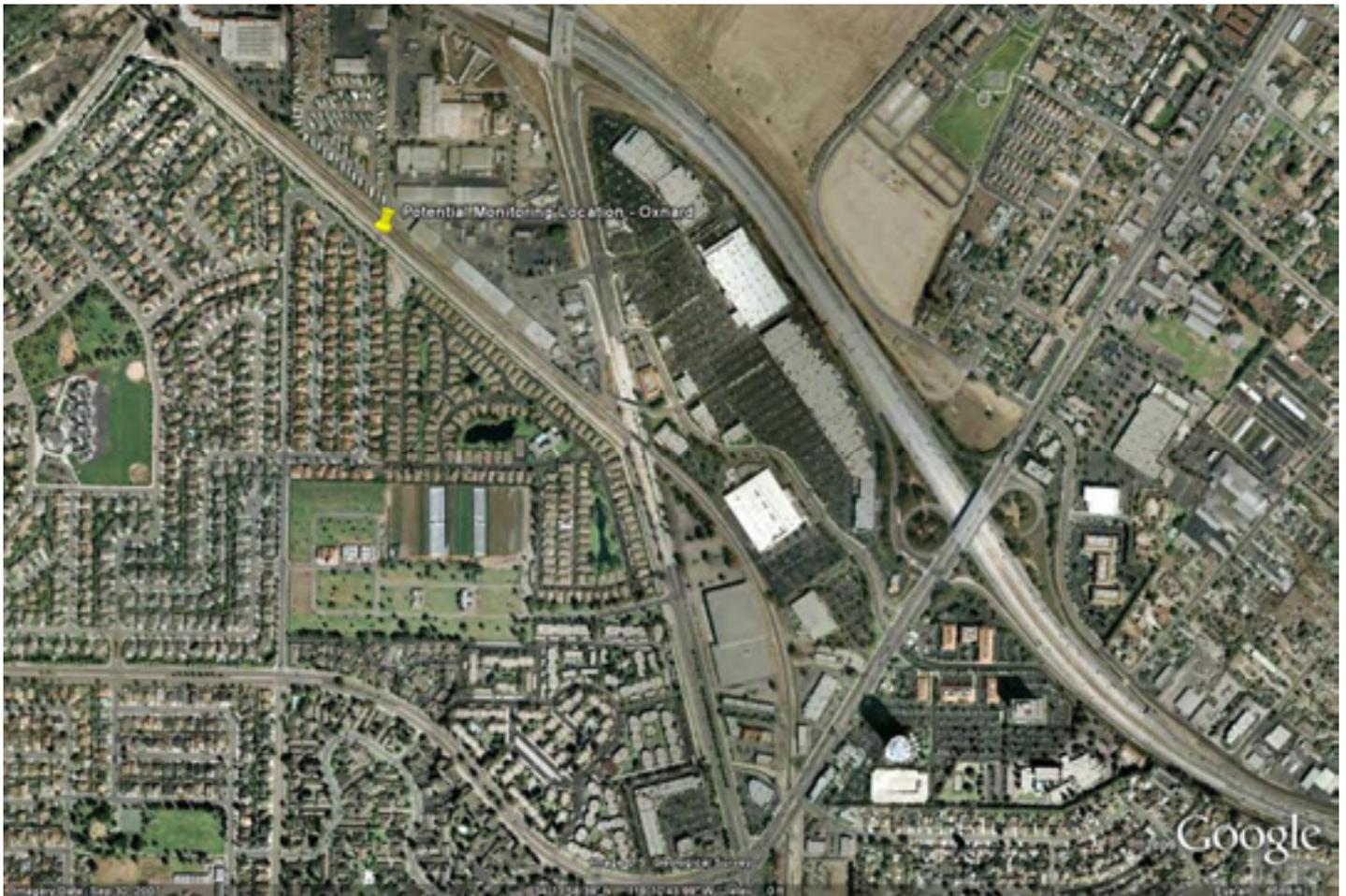
Pros: Likely well-defined rating table

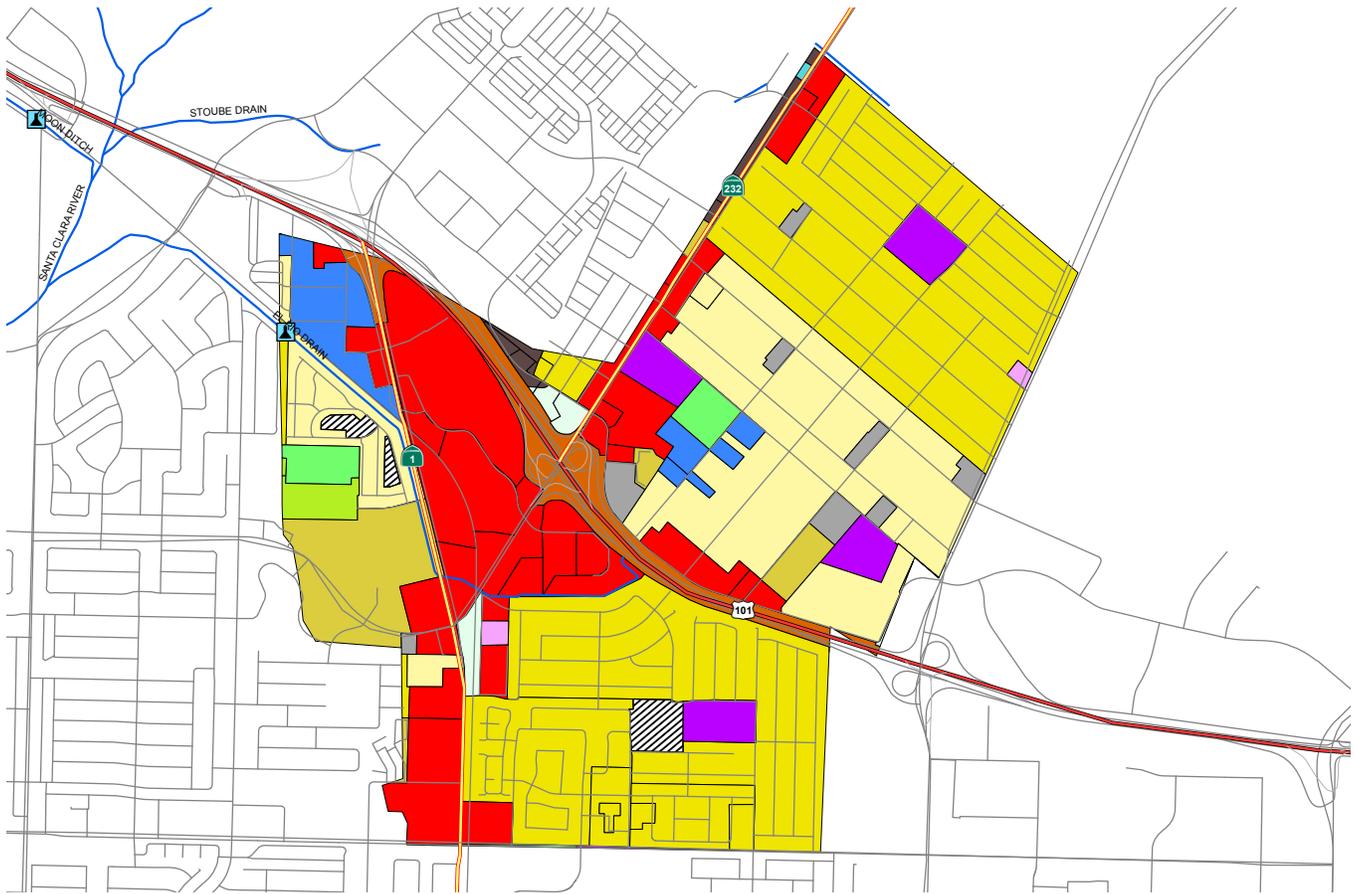
Cons: High potential for vandalism

Outstanding Site Selection Tasks: None

Other Potential Sites: None

Dry Season Flow Potential: Likely intermittent year-round flow due to urban runoff





Entire City

Land Use	Acres	% of Total Watershed
Agriculture	969.4	5.6%
Cemeteries	22.4	0.1%
Com_Indus. Mix	165.1	0.9%
Commercial	1385.9	8.0%
Extraction	227.3	1.3%
Facility	244.8	1.4%
Industrial_1	163.7	1.0%
Industrial_3	1104.0	6.5%
Industrial_4	62.3	0.4%
Military_1	1.7	0.0%
Military_2	4.0	0.0%
No Info Given	371.6	2.2%
Recreation	679.4	3.9%
Res.1	369.1	2.2%
Res.2	1149.3	6.7%
Res.3	5892.4	34.3%
Res.4	163.0	1.0%
Schools	703.5	4.1%
Transportation	560.5	3.3%
Under Construction	802.6	4.7%
Utilities	298.0	1.8%
Vacant Undifferentiated	1740.2	10.1%
Water	82.0	0.5%
Totals	17162.2	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Agriculture	19.0	1.5%
Cemeteries	9.7	0.7%
Commercial	253.5	19.5%
Facility	22.1	1.7%
Industrial_1	0.7	0.1%
Industrial_3	40.4	3.1%
No Info Given	14.0	1.1%
Res.1	243.3	18.7%
Res.2	69.8	5.4%
Res.3	500.1	38.5%
Schools	42.9	3.3%
Transportation	55.3	4.3%
Under Construction	12.4	1.0%
Utilities	3.5	0.3%
Vacant Undifferentiated	11.7	0.9%
Totals	1298.2	100.0%

Port Hueneme

Waterbody: Hueneme Drain (tributary to Pacific Ocean)

Location: Pump Station 300 yds. downstream Surfside Dr. (34°8'26.91"N, 119°11'17.58"W)

Pros: Grass-covered sides fairly stable

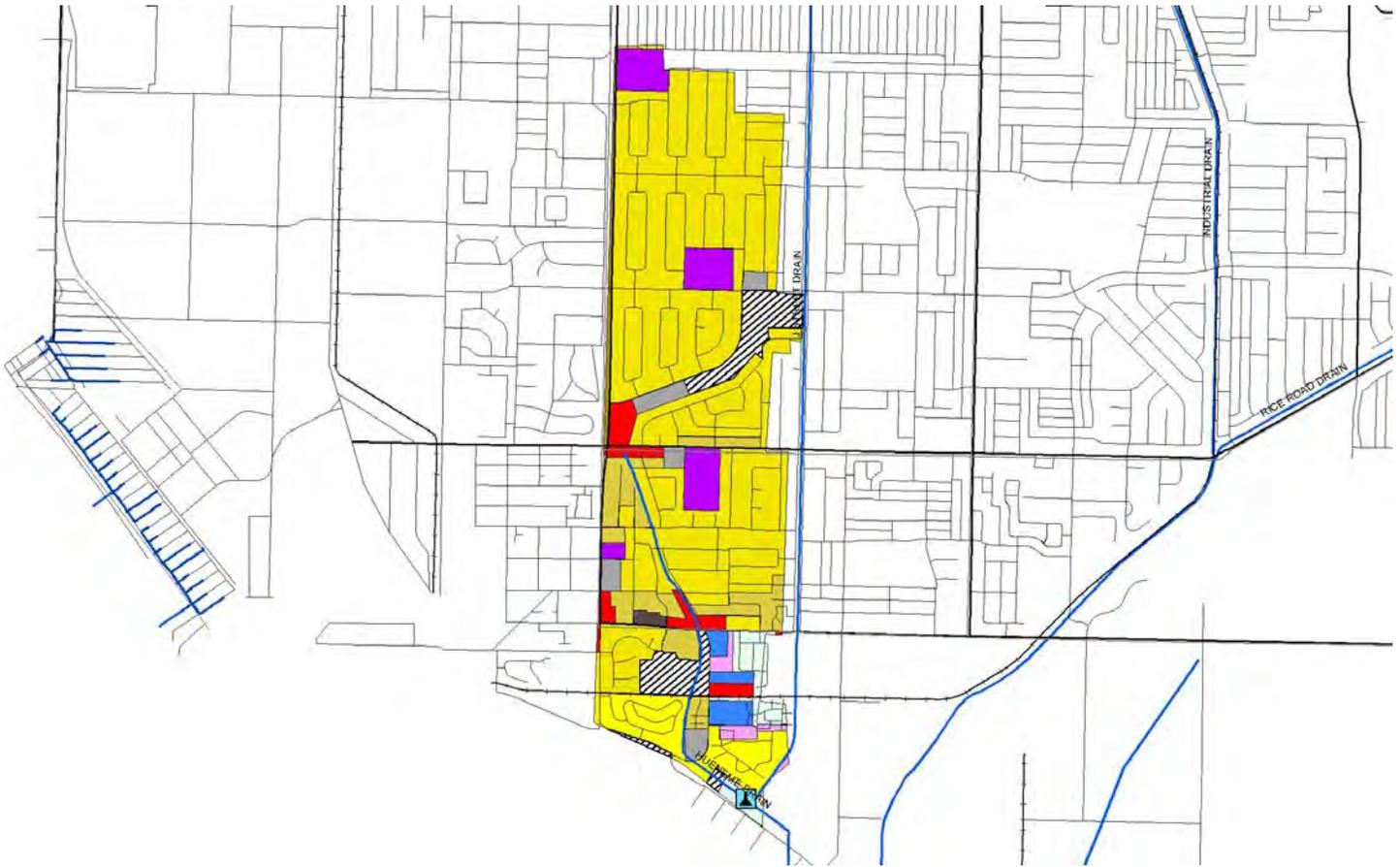
Cons: Lots of activity nearby, high potential for vandalism, stagnant water

Outstanding Site Selection Tasks: Verify positive flow

Other Potential Sites: At Surfside Rd. at lower end of Bubbling Springs Park

Dry Season Flow Potential: Likely year-round flow due to urban runoff and groundwater contribution





Entire City

Land Use	Acres	% of Total Watershed
Commercial	105.4	3.7%
Facility	20.4	0.7%
Industrial_1	32.5	1.1%
Industrial_3	34.9	1.2%
Military_2	1558.4	54.0%
No Info Given	53.7	1.9%
Recreation	38.5	1.3%
Res.2	308.3	10.7%
Res.3	432.9	15.0%
Res.4	104.3	3.6%
Schools	41.6	1.4%
Transportation	29.7	1.0%
Under Construction	2.1	0.1%
Utilities	6.0	0.2%
Vacant Undifferentiated	35.4	1.2%
Water	83.6	2.9%
Totals	2887.9	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Commercial	19.2	3.3%
Facility	15.1	2.6%
Industrial_3	10.0	1.7%
Military_2	5.7	1.0%
No Info Given	35.8	6.1%
Res.2	45.5	7.7%
Res.3	359.1	60.9%
Res.4	40.9	6.9%
Schools	32.6	5.5%
Under Construction	2.1	0.4%
Utilities	6.5	1.1%
Vacant Undifferentiated	16.8	2.9%
Totals	589.4	100.0%

Santa Paula

Waterbody: 11th Street Drain (tributary to Santa Clara River)

Location: Upstream Santa Paula Airport (34°20'54.99"N, 119° 3'19.82"W)

Pros: Excellent flat pad on top of outfall for sampling equipment

Cons: High potential for vandalism

Outstanding Site Selection Tasks: None

Other Potential Sites: None

Dry Season Flow Potential: Likely intermittent year-round flow due to urban runoff. No flow at time of initial observation





Entire City

Land Use	Acres	% of Total Watershed
Agriculture	210.3	7.0%
Cemeteries	19.4	0.7%
Com_Indus. Mix	4.6	0.2%
Commercial	235.4	7.8%
Extraction	30.5	1.0%
Facility	42.4	1.4%
Industrial_1	73.7	2.4%
Industrial_3	133.0	4.5%
No Info Given	33.5	1.1%
Recreation	4.7	0.2%
Res.1	266.9	8.9%
Res.2	86.8	2.9%
Res.3	1065.9	35.5%
Res.4	46.8	1.6%
Schools	91.7	3.1%
Transportation	166.4	5.5%
Under Construction	8.7	0.3%
Utilities	41.1	1.4%
Vacant Undifferentiated	440.6	14.7%
Totals	3002.4	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Commercial	9.4	14.7%
Industrial_1	2.5	4.0%
Res.2	2.8	4.3%
Res.3	30.5	47.7%
Schools	6.4	10.0%
Transportation	6.8	10.6%
Utilities	4.9	7.6%
Vacant Undifferentiated	0.8	1.2%
Totals	64.0	100.0%

Simi Valley

Waterbody: Bus Canyon Drain (tributary to Arroyo Simi)

Location: North of intersection at 5th St. and Los Angeles Ave. (34°16'18.59"N, 118°47'1.51"W)

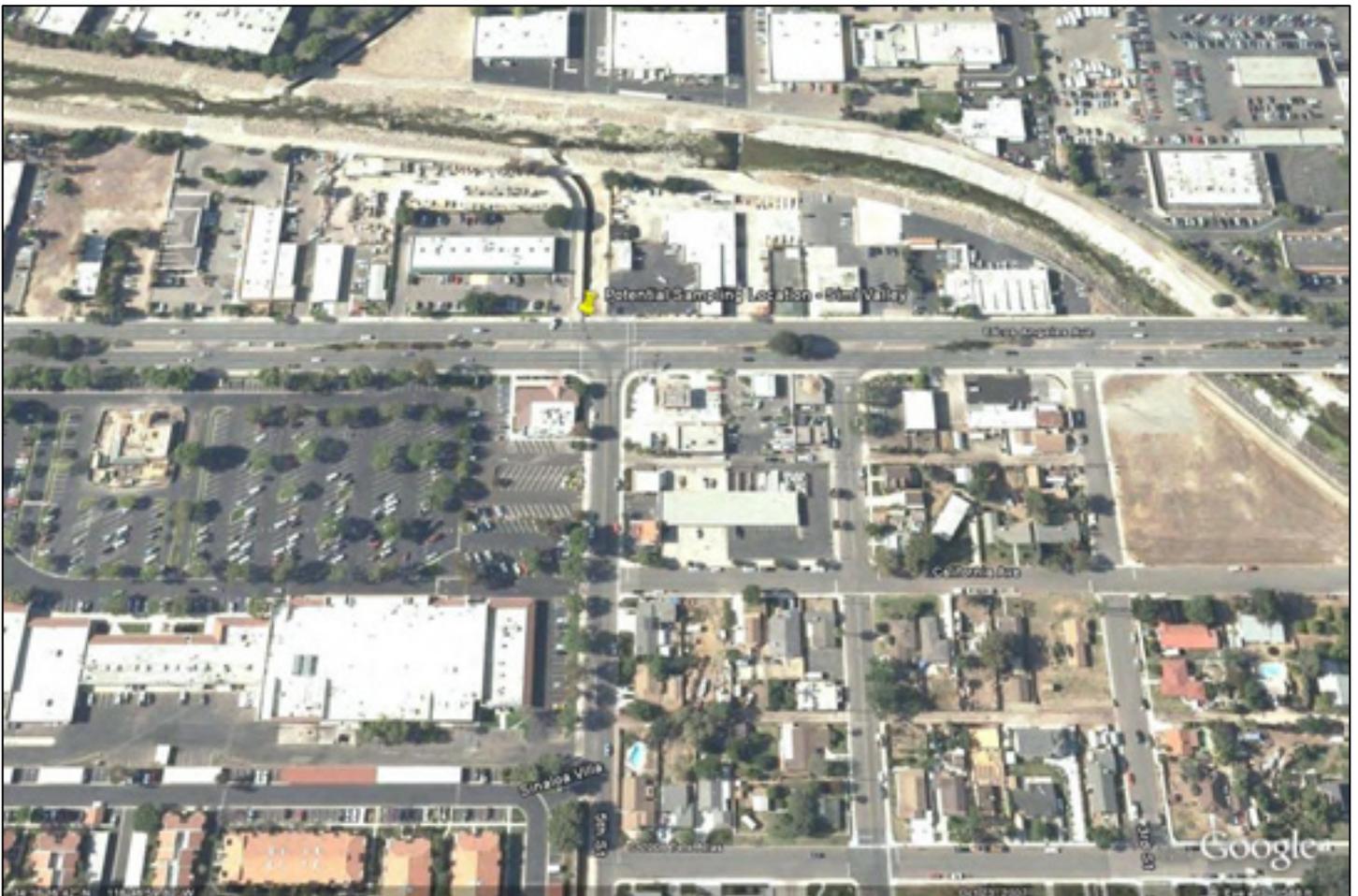
Pros: Likely well-defined rating table, located behind VCWPD gate

Cons: Pedestrian traffic on levee nearby

Outstanding Site Selection Tasks: Assess impacts of large groundwater discharge upstream, move sampling location shown on watershed map

Other Potential Sites: Upstream at 5th and Ventura Ave.

Dry Season Flow Potential: Likely year round flow due to urban runoff and groundwater discharge upstream



Thousand Oaks

Waterbody: North Fork Arroyo Conejo (tributary to Conejo Creek)

Location: Hill Canyon WWTP sampling location R-1(34°12'49.16"N, 118°55'16.24"W)

Pros: Very secure, helpful staff onsite, fairly well-defined channel, accessible via concrete stairs

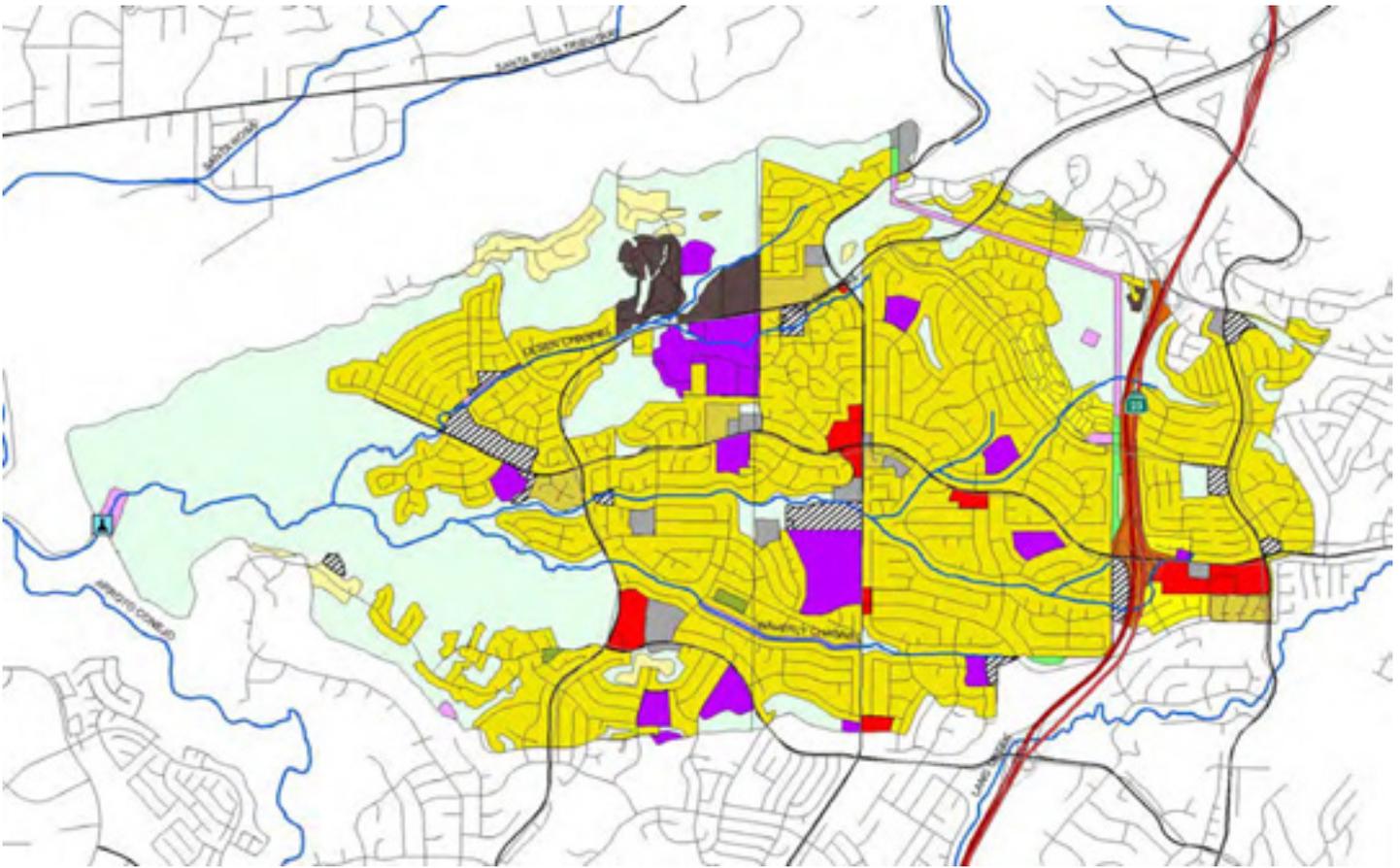
Cons: Late-night access to WWTP could present problem

Outstanding Site Selection Tasks: None

Other Potential Sites: None

Dry Season Flow Potential: Likely year-round flow due to urban runoff





Entire City

Land Use	Acres	% of Total Watershed
Agriculture	207.0	0.6%
Com_Indus. Mix	23.2	0.1%
Commercial	1499.7	4.2%
Extraction	9.0	0.0%
Facility	291.6	0.8%
Industrial_1	94.3	0.3%
Industrial_3	457.7	1.3%
No Info Given	459.2	1.3%
Recreation	574.2	1.7%
Res.1	1683.9	4.7%
Res.2	1000.3	2.8%
Res.3	9323.6	26.4%
Res.4	288.1	0.8%
Schools	587.6	1.7%
Transportation	605.4	1.7%
Under Construction	281.6	0.8%
Utilities	260.6	0.7%
Vacant Undifferentiated	17465.1	49.7%
Totals	35111.8	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Agriculture	13.5	0.3%
Commercial	83.5	1.6%
Facility	67.3	1.3%
No Info Given	95.4	1.8%
Recreation	8.7	0.2%
Res.1	89.8	1.7%
Res.2	71.5	1.4%
Res.3	2643.8	51.0%
Res.4	84.0	1.6%
Schools	224.2	4.3%
Transportation	61.5	1.2%
Under Construction	79.4	1.5%
Utilities	53.3	1.0%
Vacant Undifferentiated	1603.6	31.0%
Totals	5179.3	100.0%

Ventura

Waterbody: Moon Ditch (tributary to Santa Clara River)

Location: Between Leland St. and US 101, north of Johnson Dr. (34°14'35.86"N, 119°11'40.86"W)

Pros: Likely well-defined rating table, fairly good protection (located behind VCWPD gate)

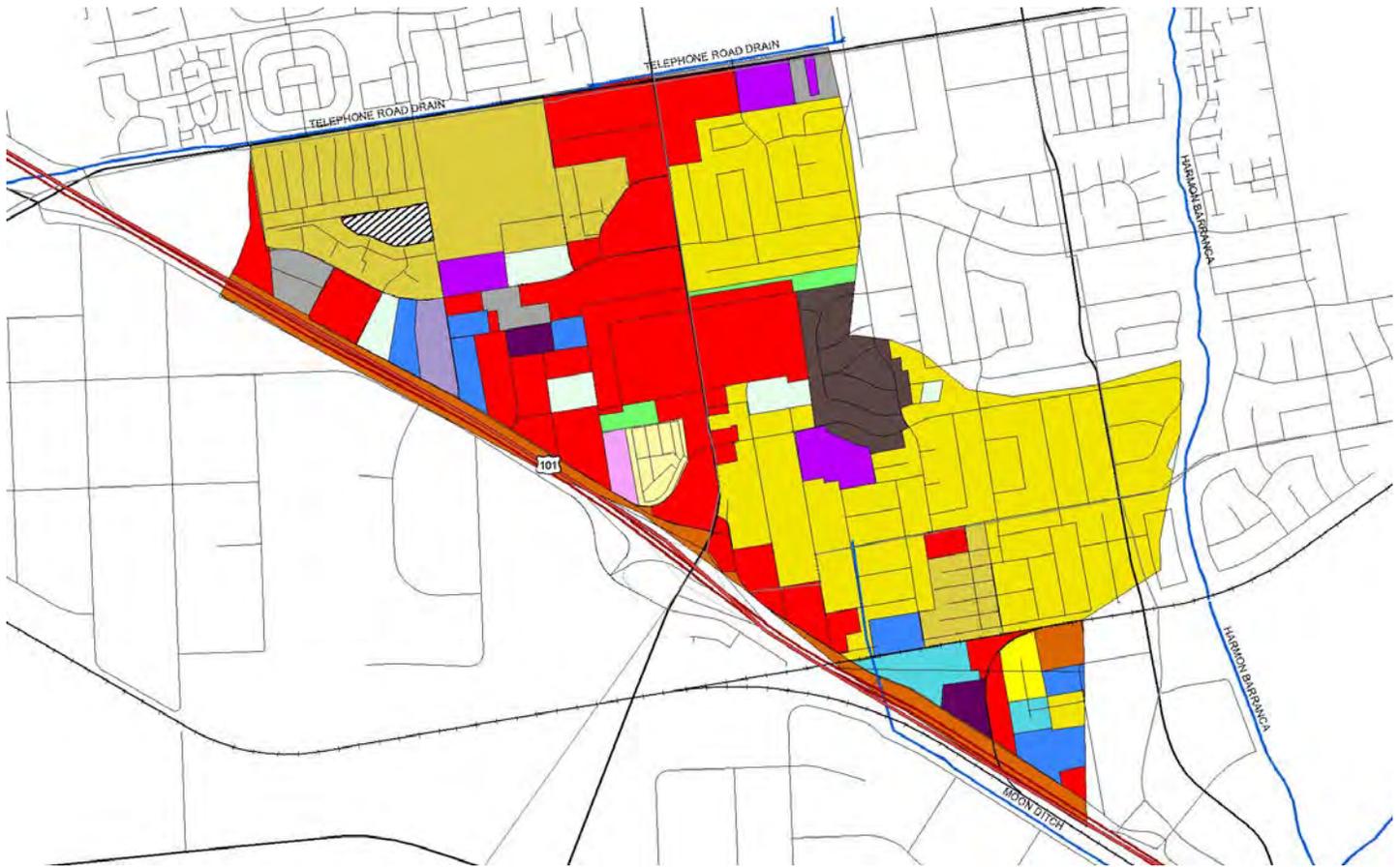
Cons: Wide concrete bottom will spread out low flows, placement of intake somewhat difficult

Outstanding Site Selection Tasks: None

Other Potential Sites: None

Dry Season Flow Potential: Likely intermittent year-round flow due to urban runoff





Entire City

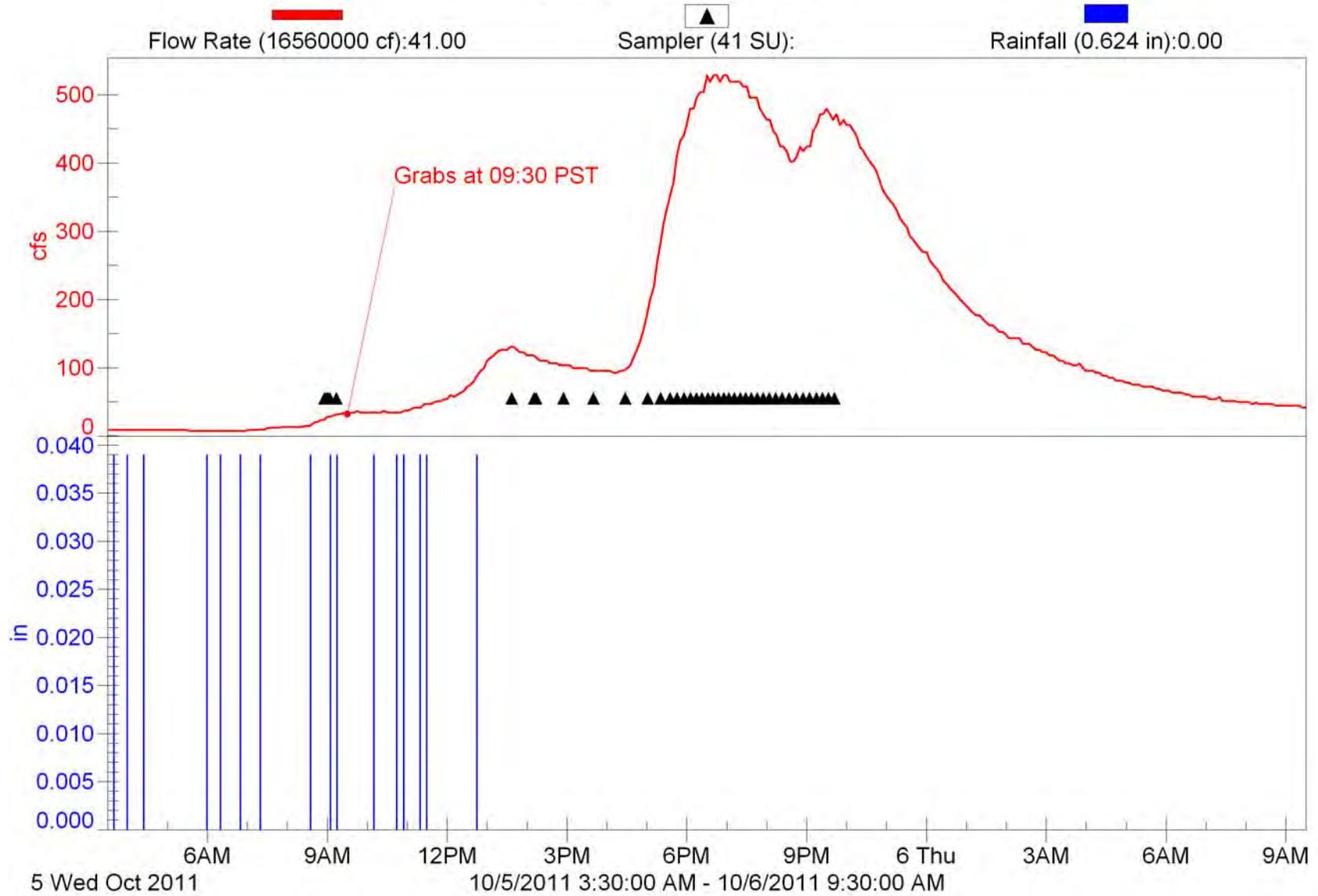
Land Use	Acres	% of Total Watershed
Agriculture	667.6	4.7%
Cemeteries	72.6	0.5%
Com_Indus. Mix	95.4	0.7%
Commercial	1402.9	10.0%
Extraction	39.2	0.3%
Facility	303.8	2.2%
Industrial_1	90.5	0.6%
Industrial_3	619.6	4.5%
Military_2	3.6	0.0%
No Info Given	285.7	2.1%
Recreation	516.3	3.7%
Res.1	361.1	2.6%
Res.2	924.0	6.6%
Res.3	5209.6	37.2%
Res.4	72.4	0.5%
Res.5	2.8	0.0%
Schools	495.8	3.6%
Transportation	570.0	4.1%
Under Construction	73.7	0.5%
Utilities	125.4	0.9%
Vacant Undifferentiated	2018.1	14.4%
Water	61.5	0.4%
Totals	14011.6	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Agriculture	5.8	0.8%
Com_Indus. Mix	6.5	0.9%
Commercial	171.7	24.3%
Extraction	6.3	0.9%
Facility	14.6	2.1%
Industrial_1	10.8	1.5%
Industrial_3	23.0	3.2%
No Info Given	5.4	0.8%
Res.1	8.7	1.2%
Res.2	109.1	15.4%
Res.3	234.8	33.2%
Res.4	4.8	0.7%
Schools	18.4	2.6%
Transportation	40.7	5.8%
Under Construction	26.6	3.8%
Utilities	3.5	0.5%
Vacant Undifferentiated	16.3	2.3%
Totals	707.1	100.0%

Appendix B. Event Hydrographs

ME-CC
2011/12 NPDES Event 1 (Wet)

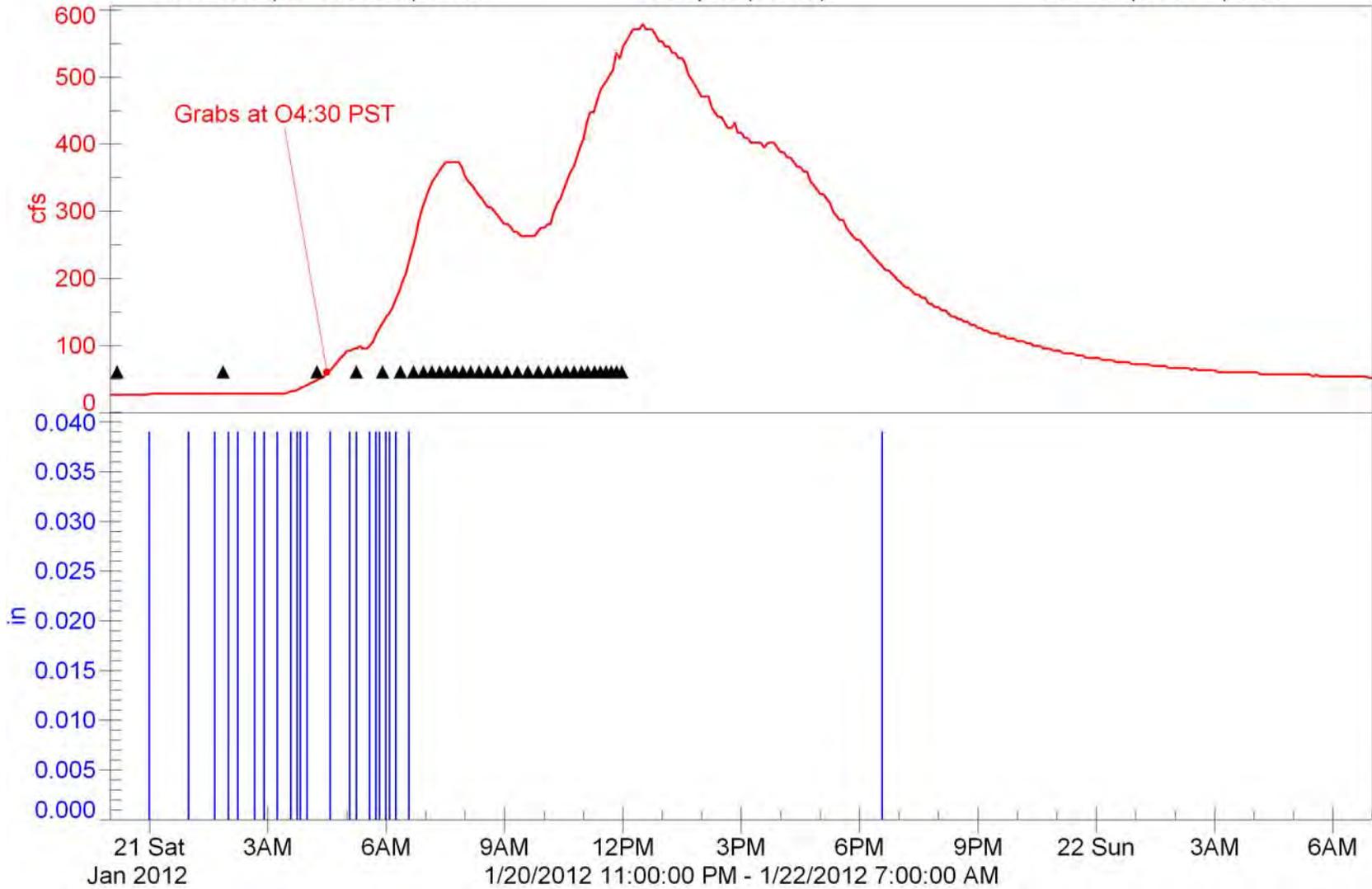


ME-CC
2011/12 NPDES Event 2 (Wet)

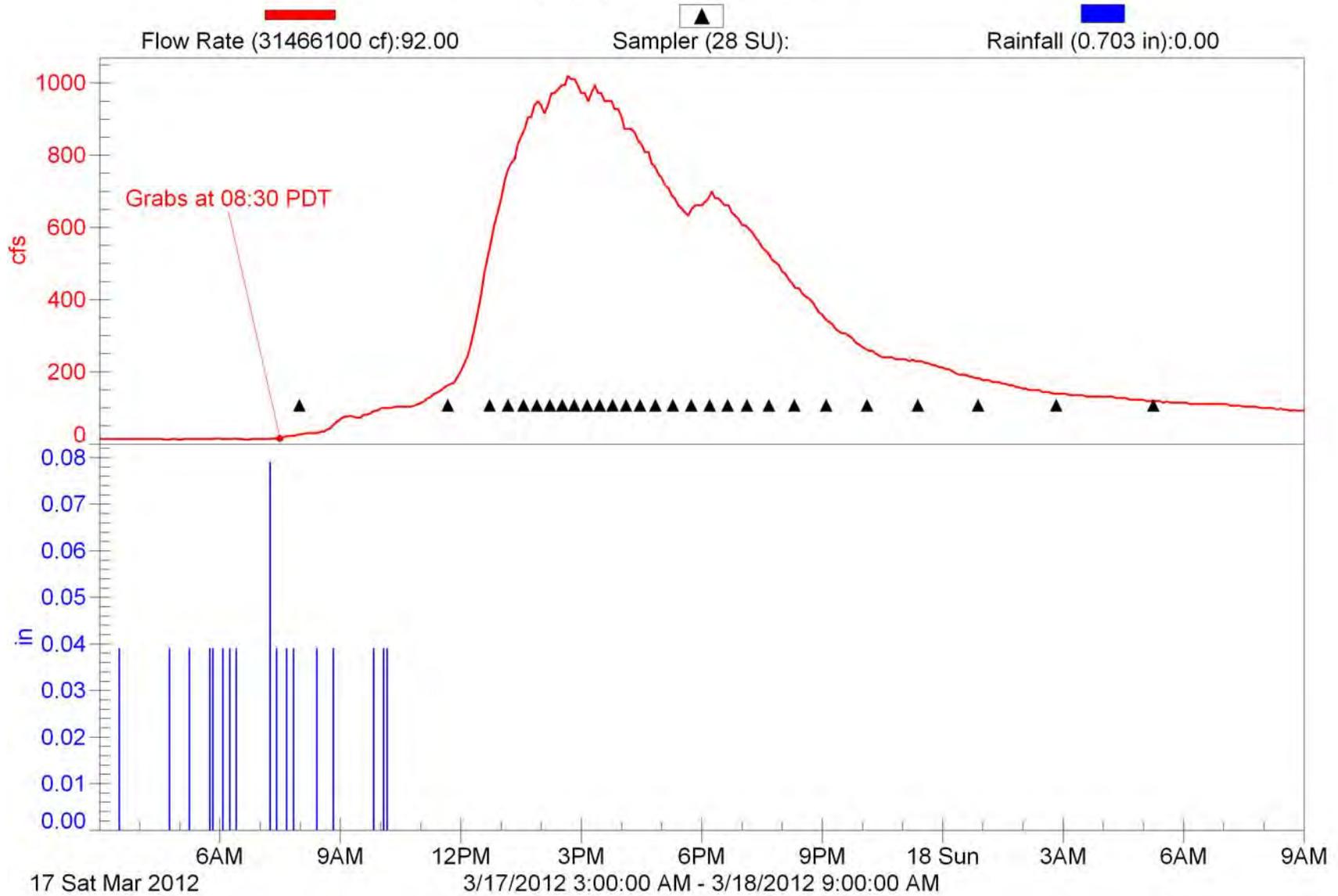
Flow Rate (22131600 cf):51.00

Sampler (33 SU):

Rainfall (0.897 in):0.00

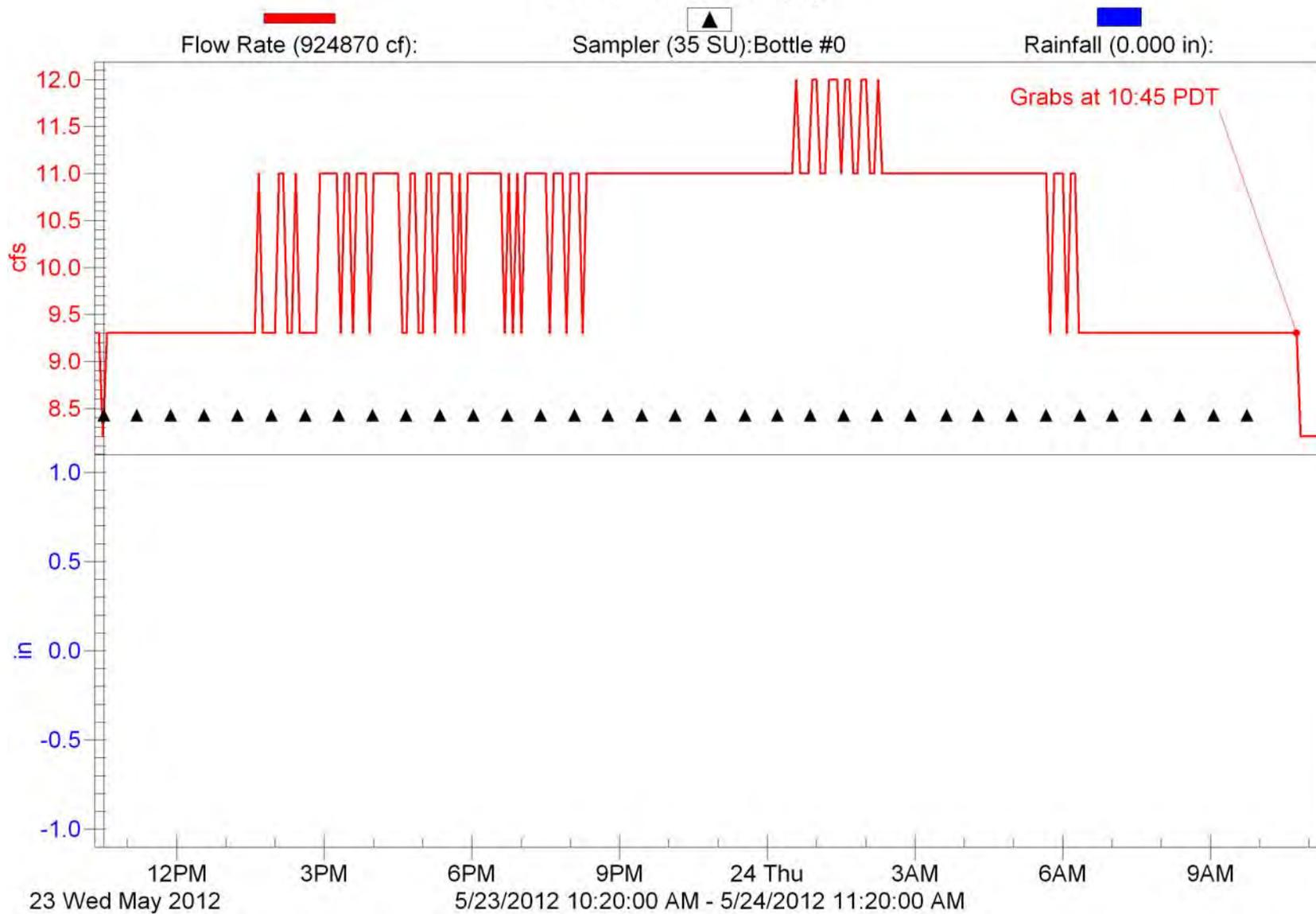


ME-CC
2011/12 NPDES Event 3 (Wet)



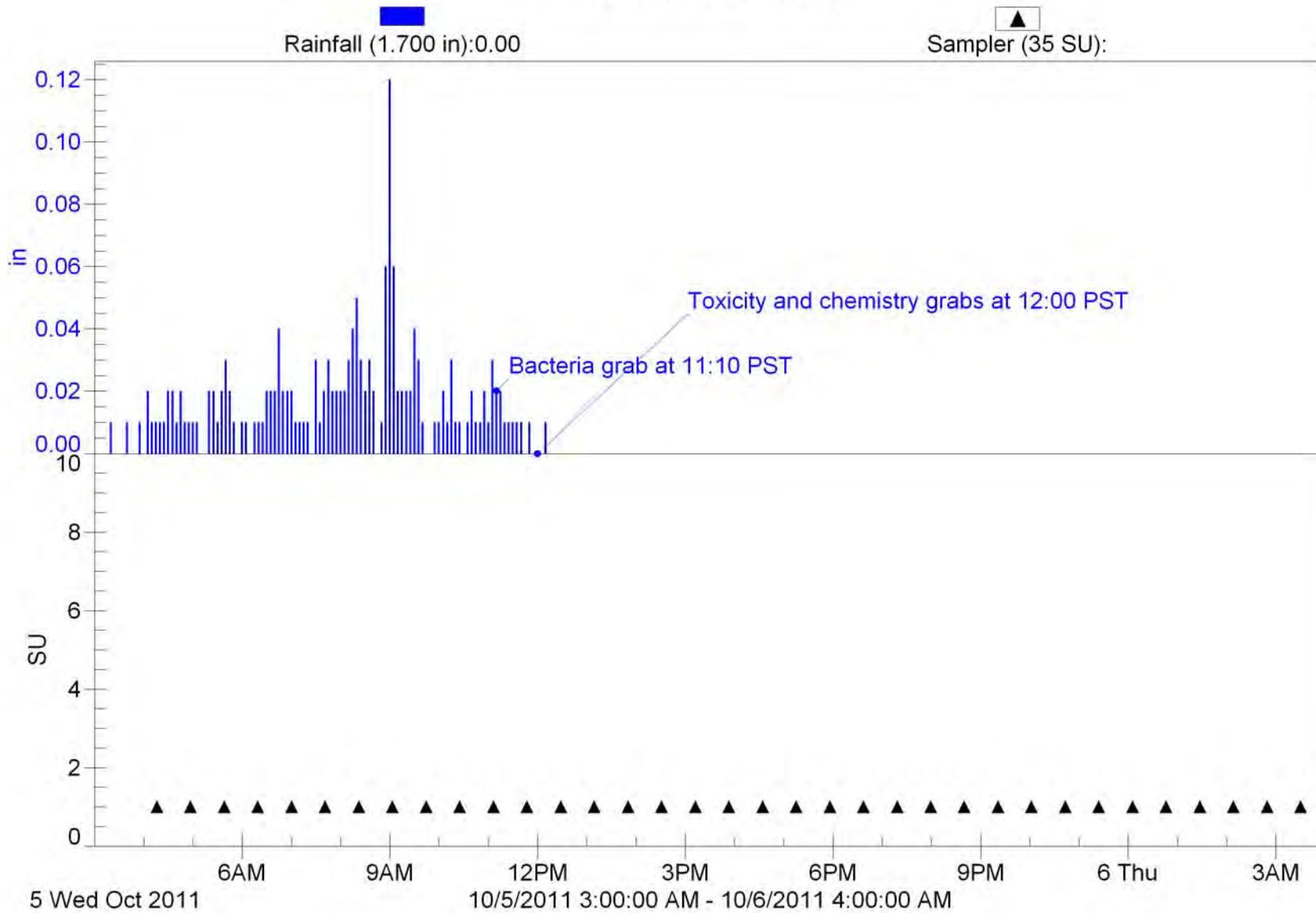
ME-CC

2011/12 NPDES Event 4 (Dry)



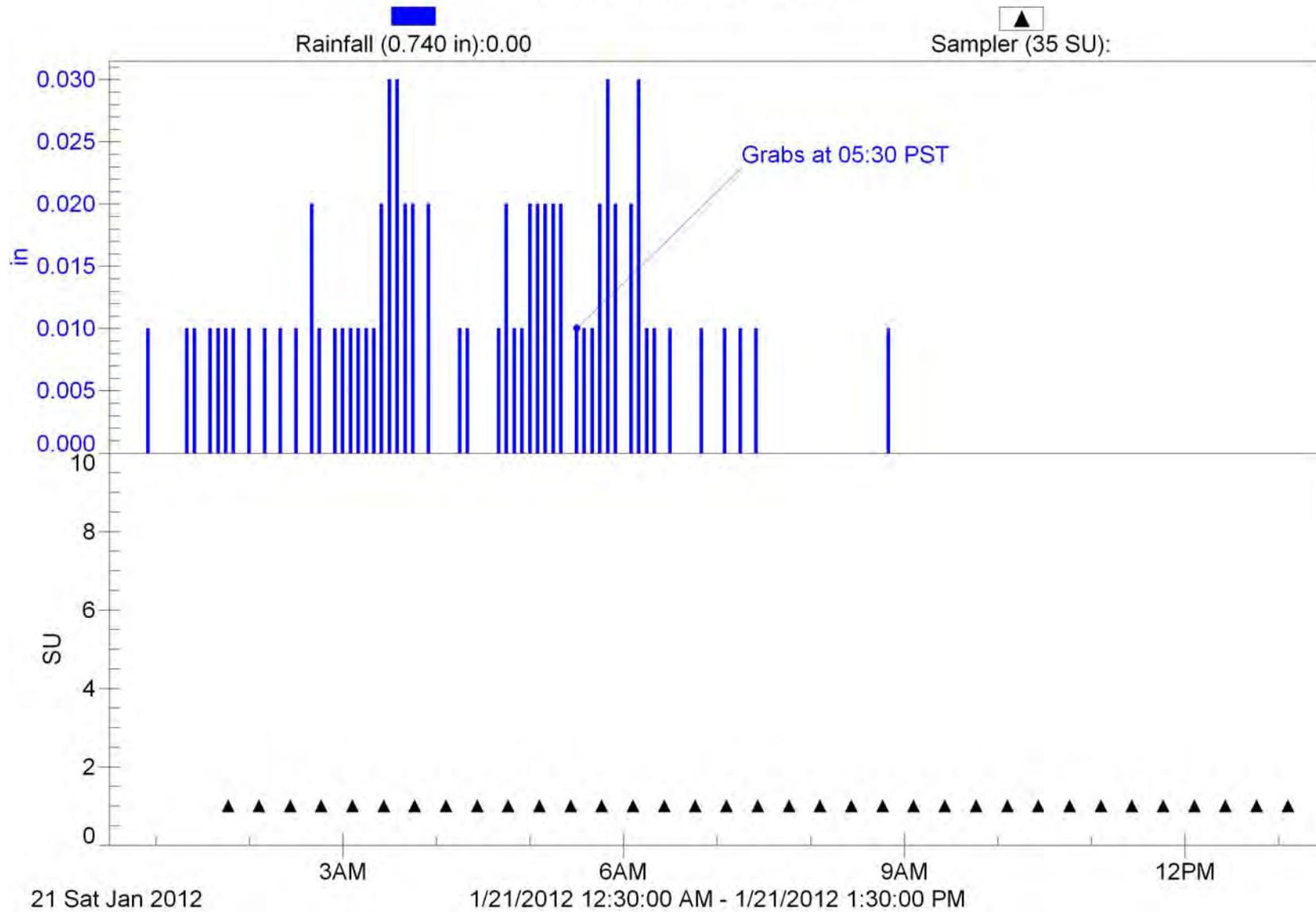
ME-SCR

2011/12 NPDES Event #1 (Wet)



ME-SCR

2011/12 NPDES Event #2 (Wet)



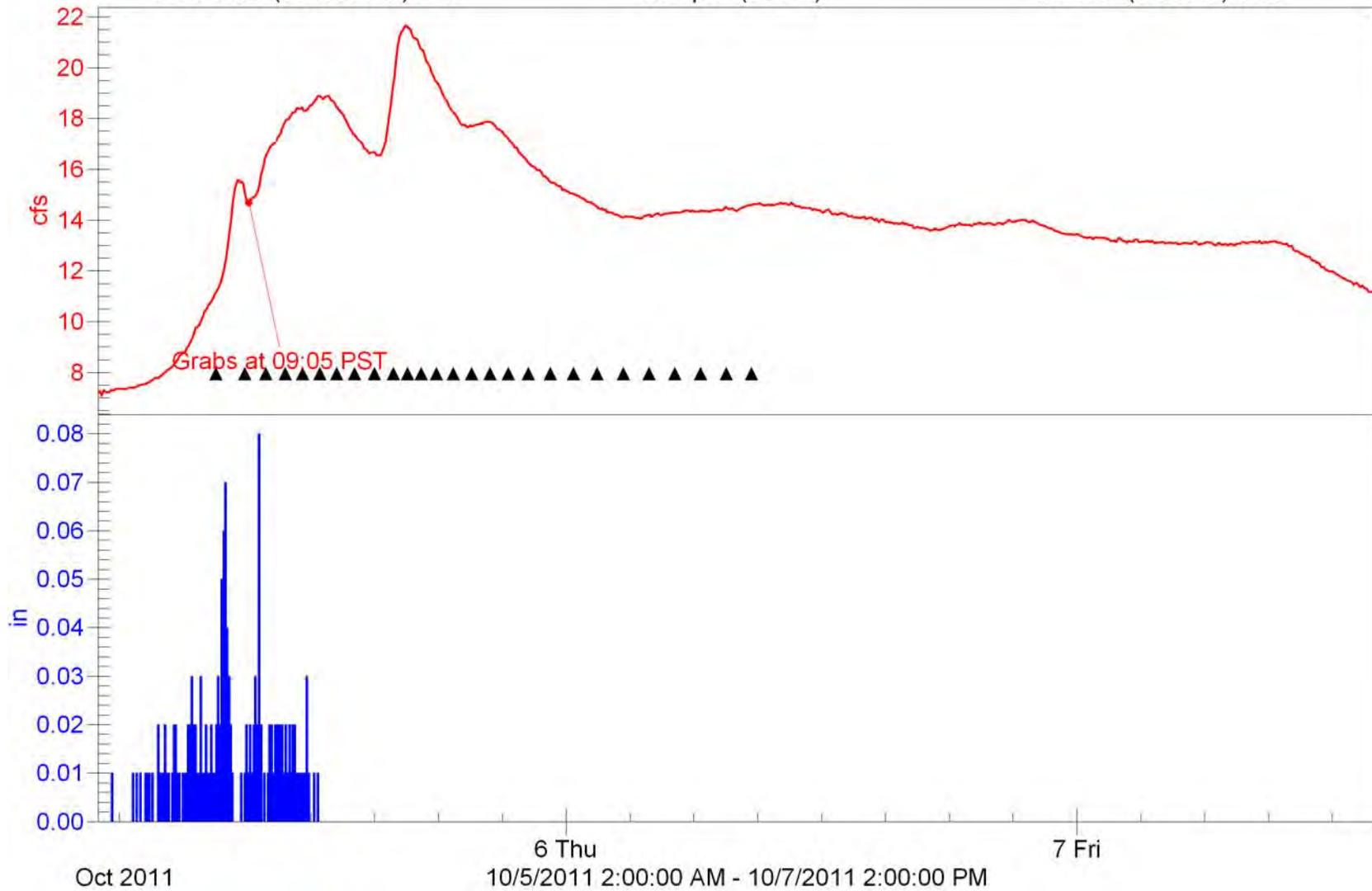
ME-VR2

2011/12 NPDES Event #1 (Wet)

Flow Rate (3066510 cf):7.21

Sampler (27 SU):

Rainfall (1.530 in):0.00



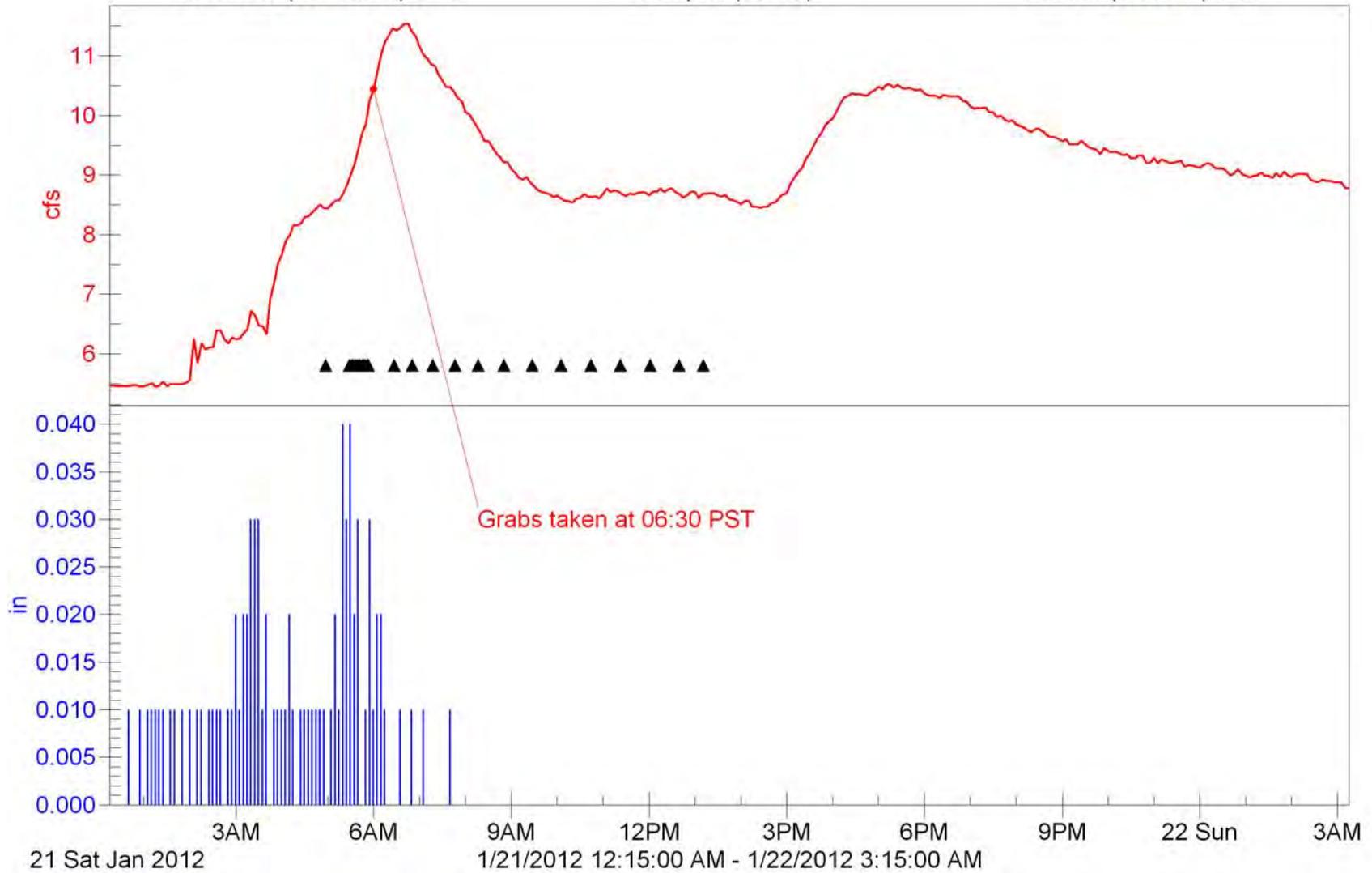
ME-VR2

2011/12 NPDES Event #2 (Wet)

Flow Rate (867186 cf):8.78

Sampler (28 SU):

Rainfall (0.860 in):0.00



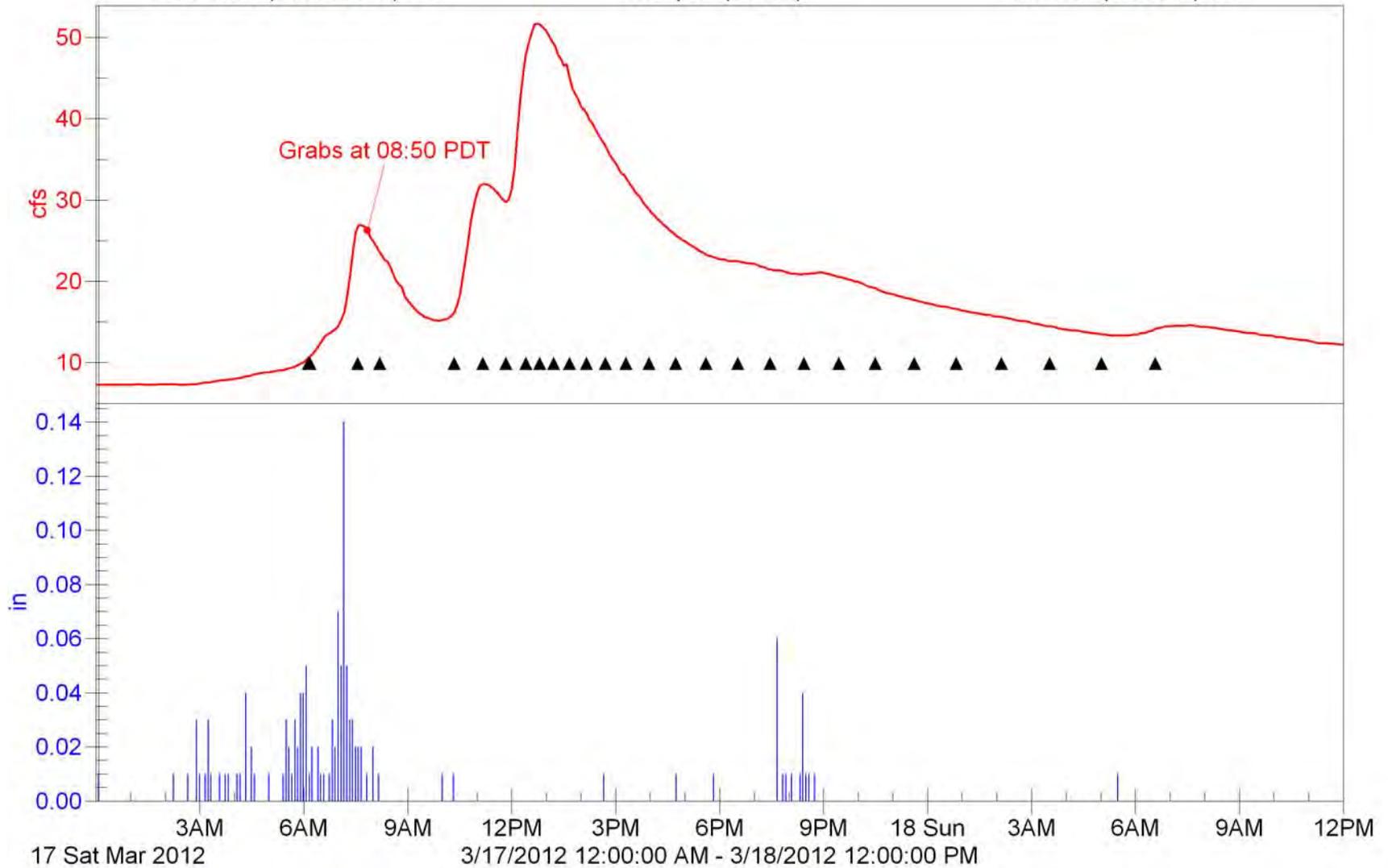
ME-VR2

2011/12 NPDES Event #3 (Wet)

Flow Rate (2439490 cf):7.27

Sampler (28 SU):

Rainfall (1.330 in):0.01

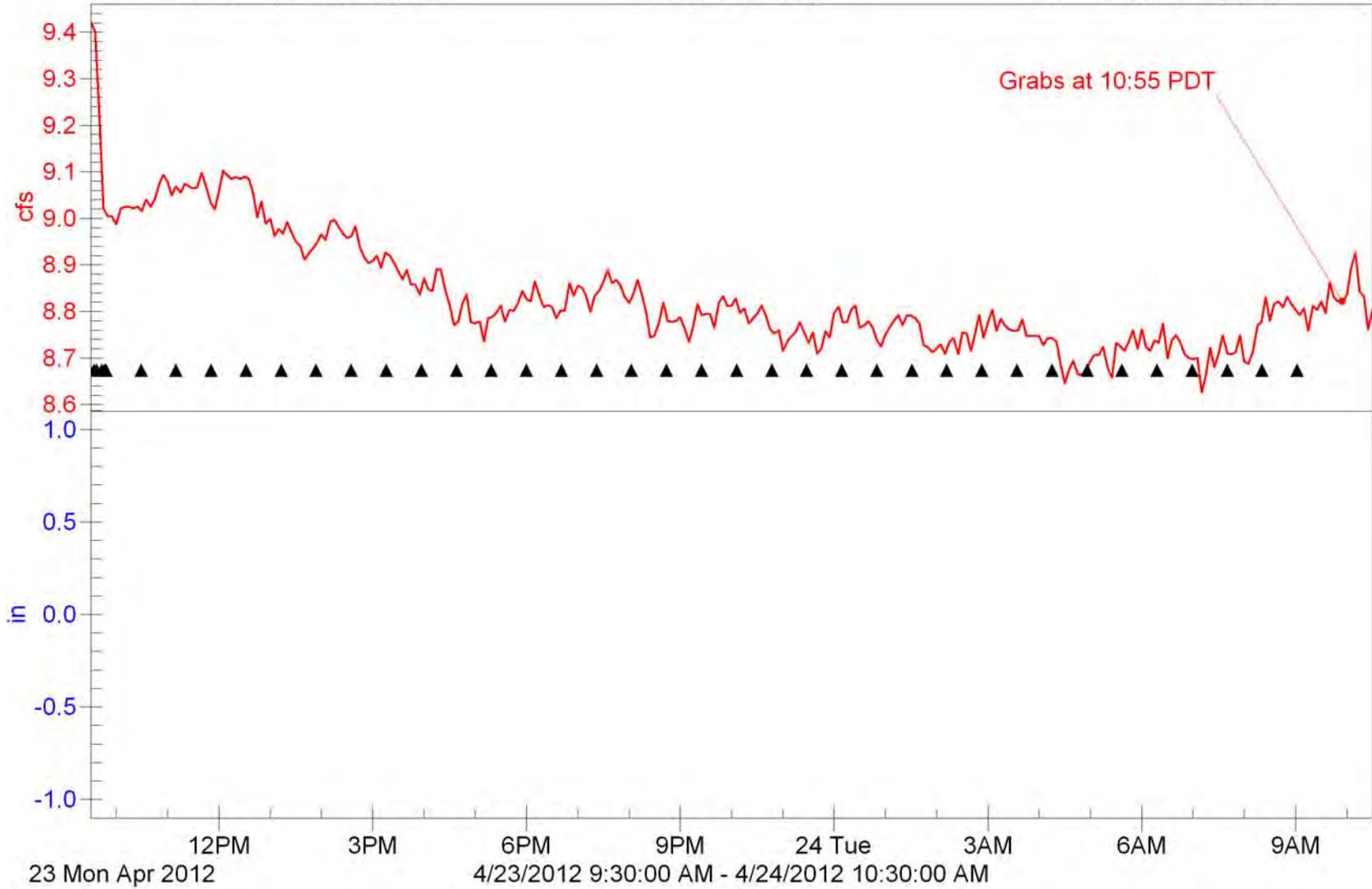


ME-VR2
2011/12 NPDES Event #4 (Dry)

Flow Rate (794965 cf):9.42

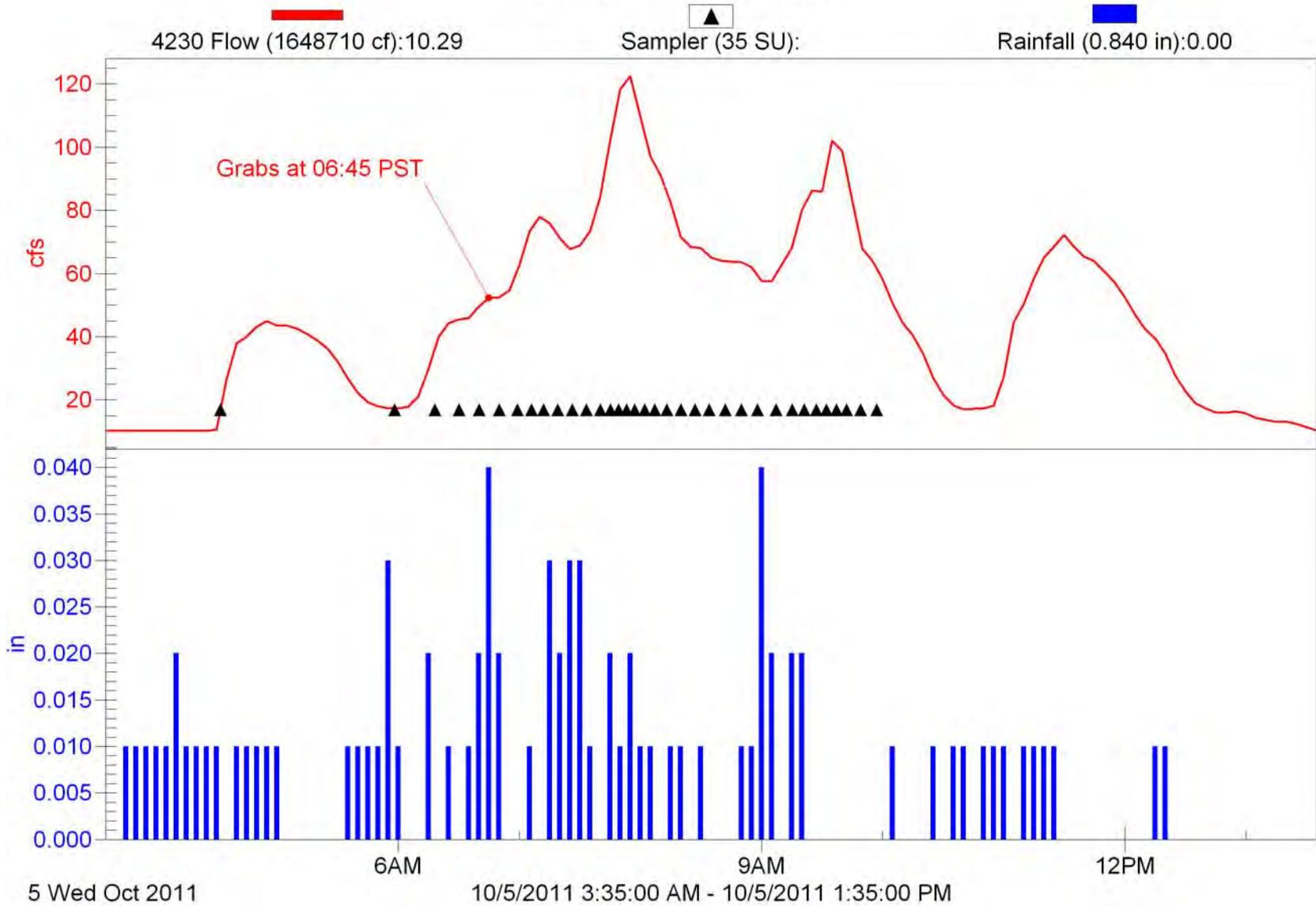
Sampler (39 SU):

Rainfall (0.000 in):0.00



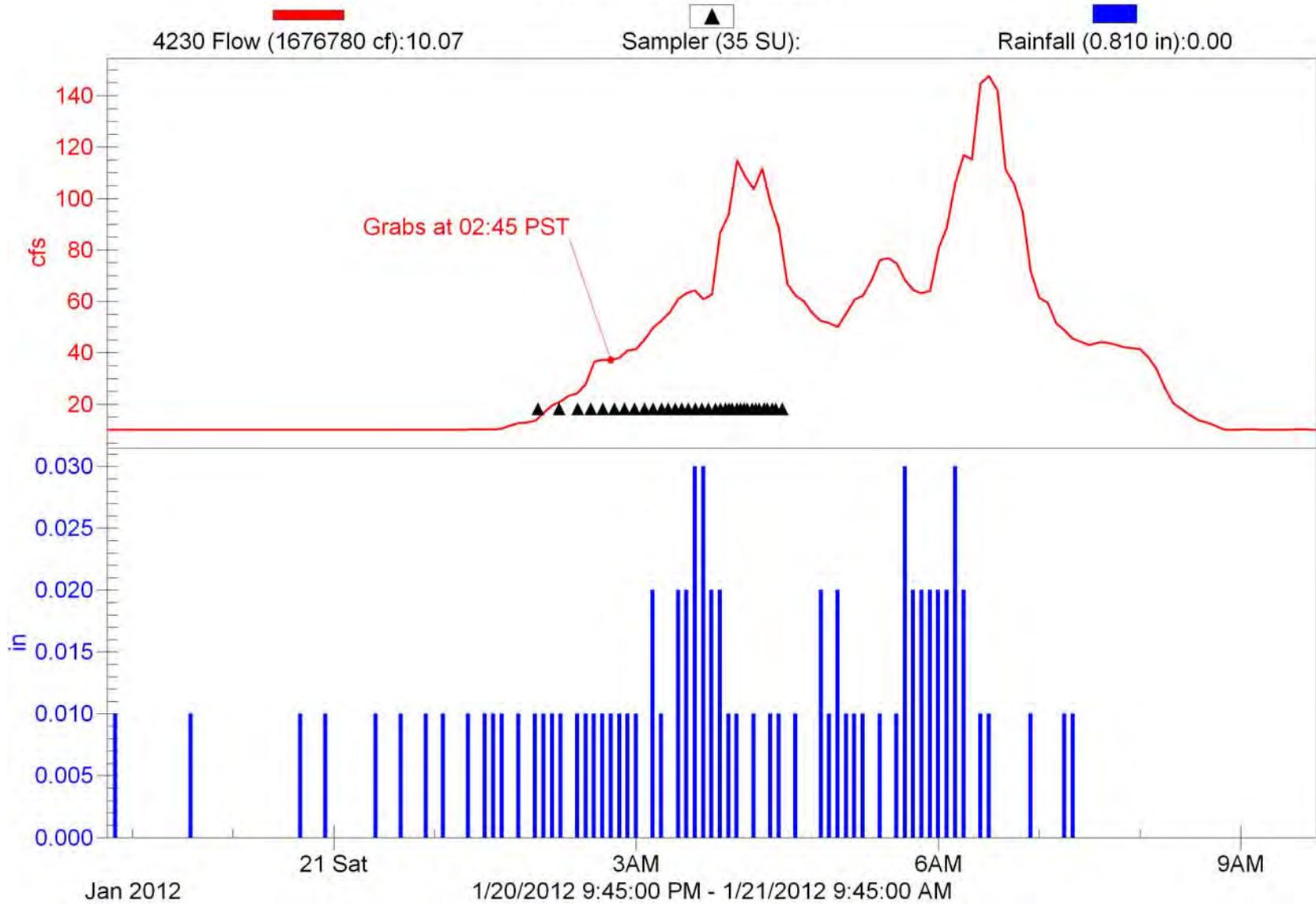
Camarillo-1

2011/12 NPDES Event #1 (Wet)



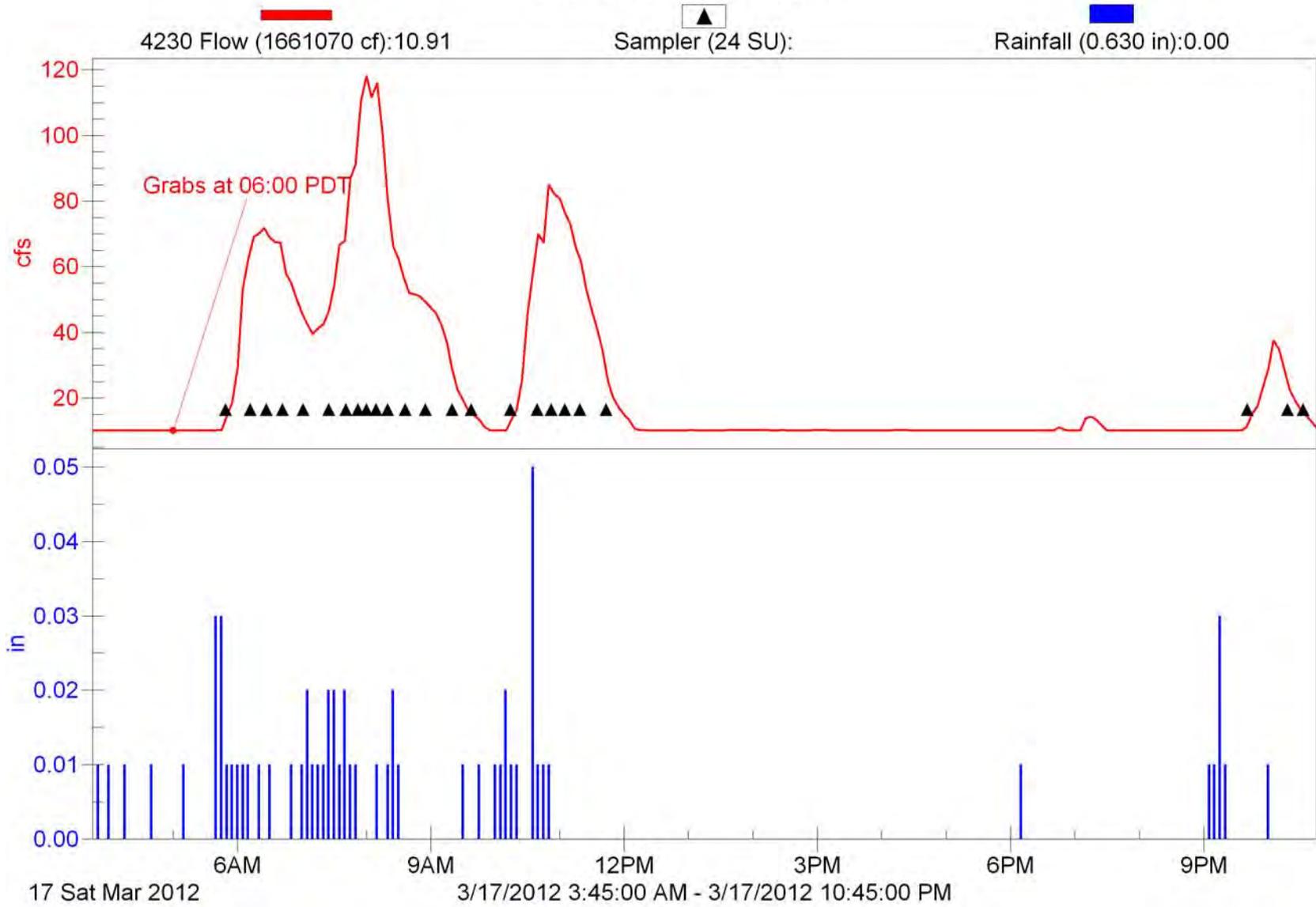
Camarillo-1

2011/12 NPDES Event #2 (Wet)



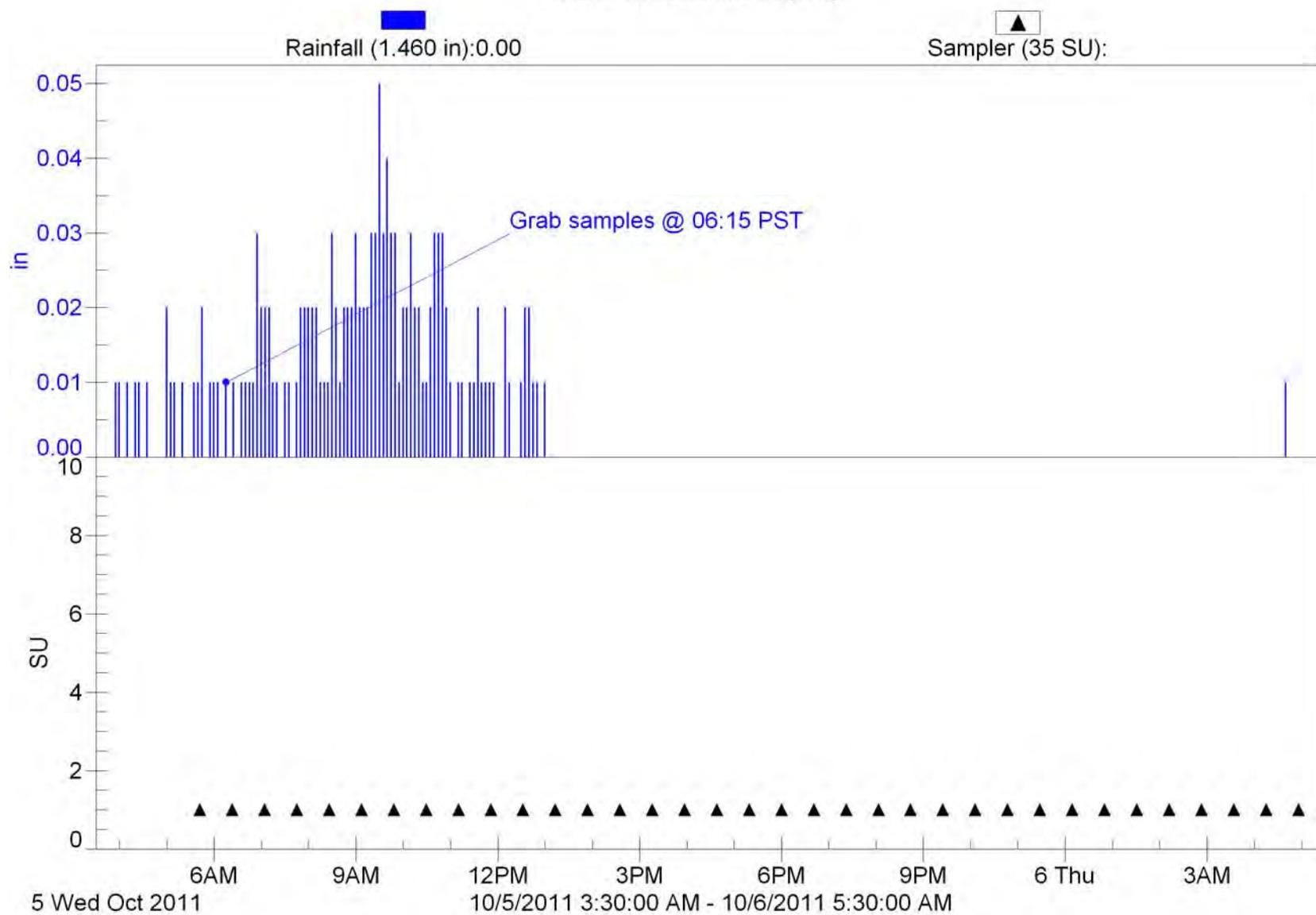
Camarillo-1

2011/12 NPDES Event #3 (Wet)



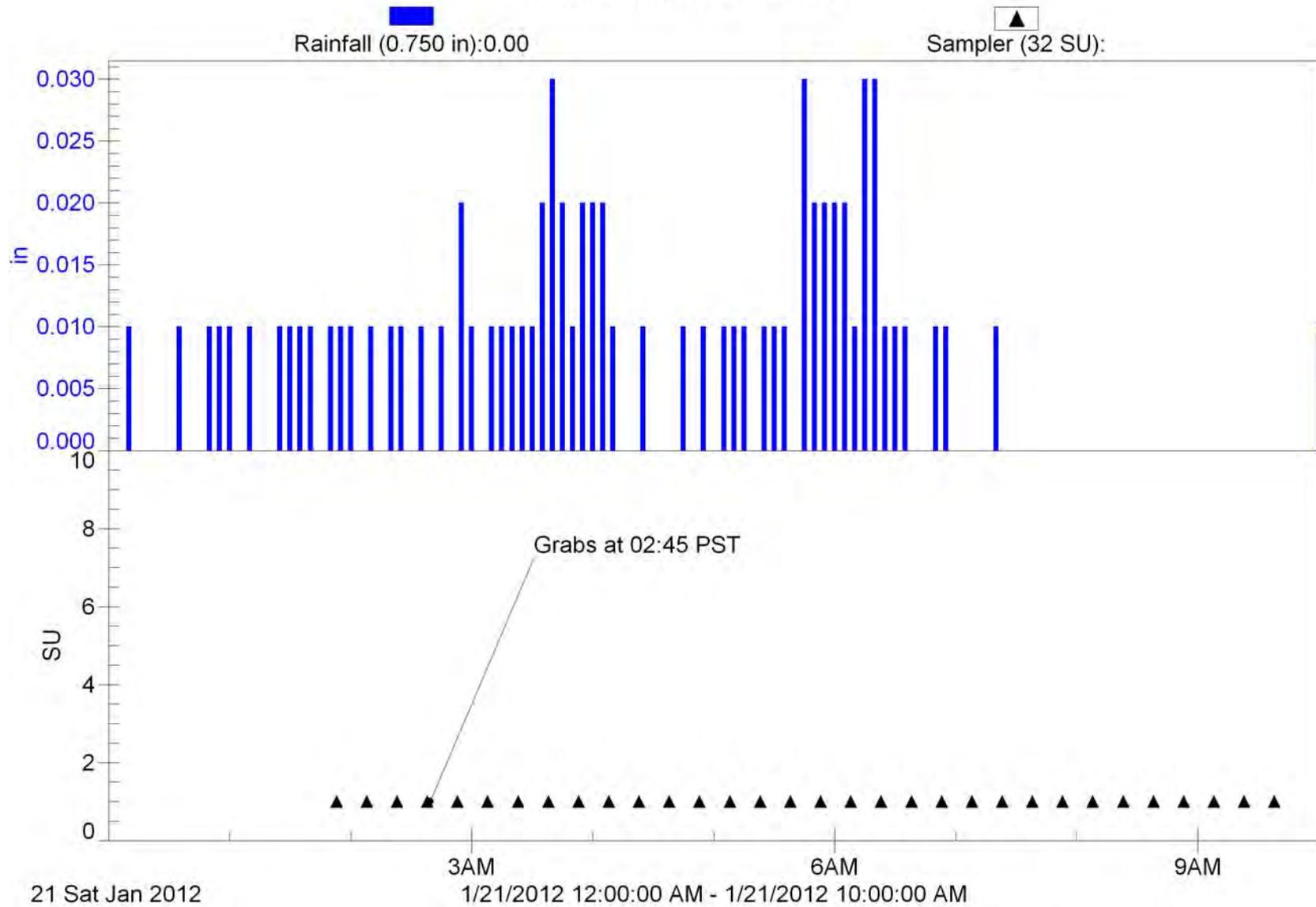
Fillmore-1

2011/12 NPDES Event #1 (Wet)



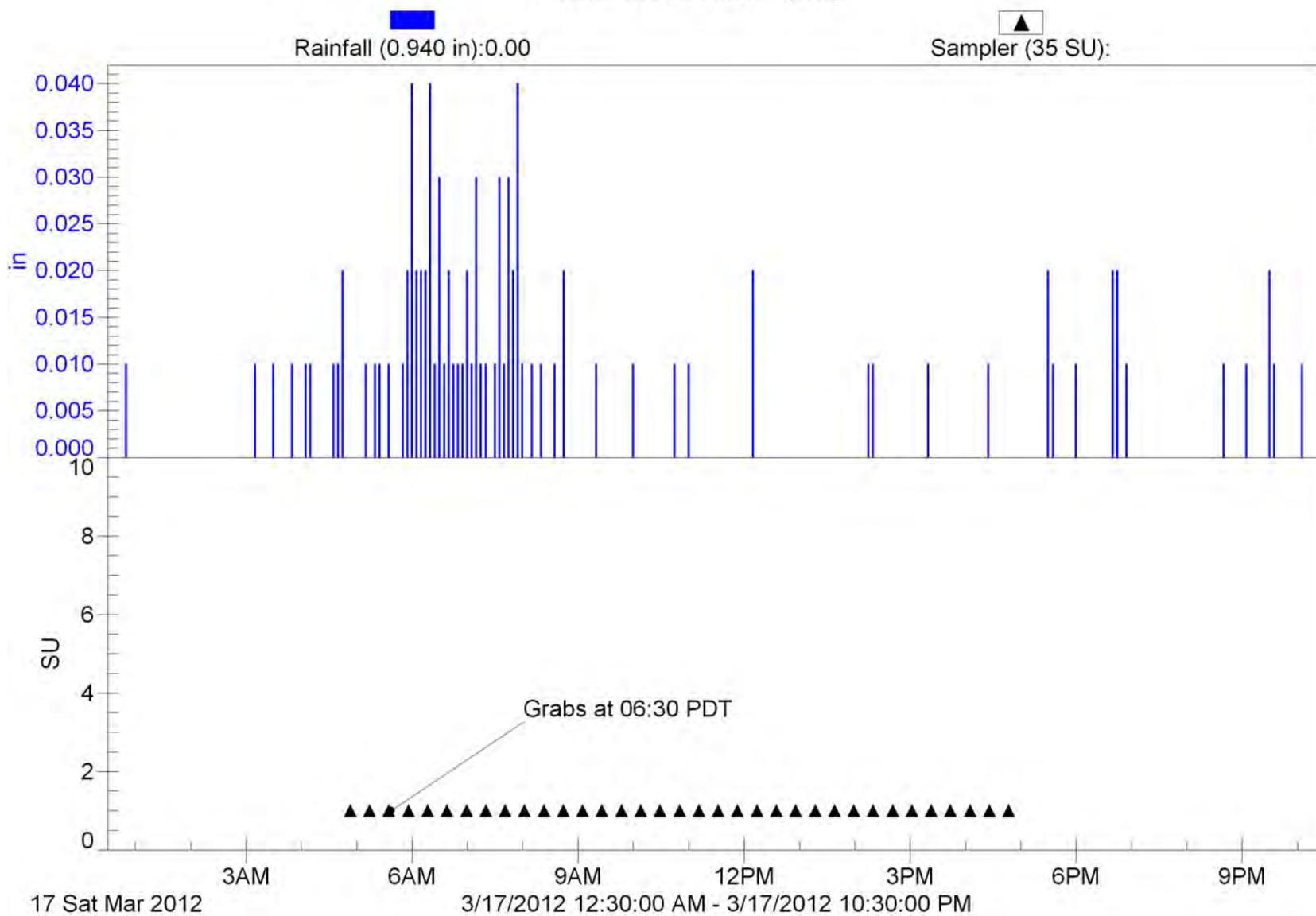
Fillmore-1

2011/12 NPDES Event #2 (Wet)



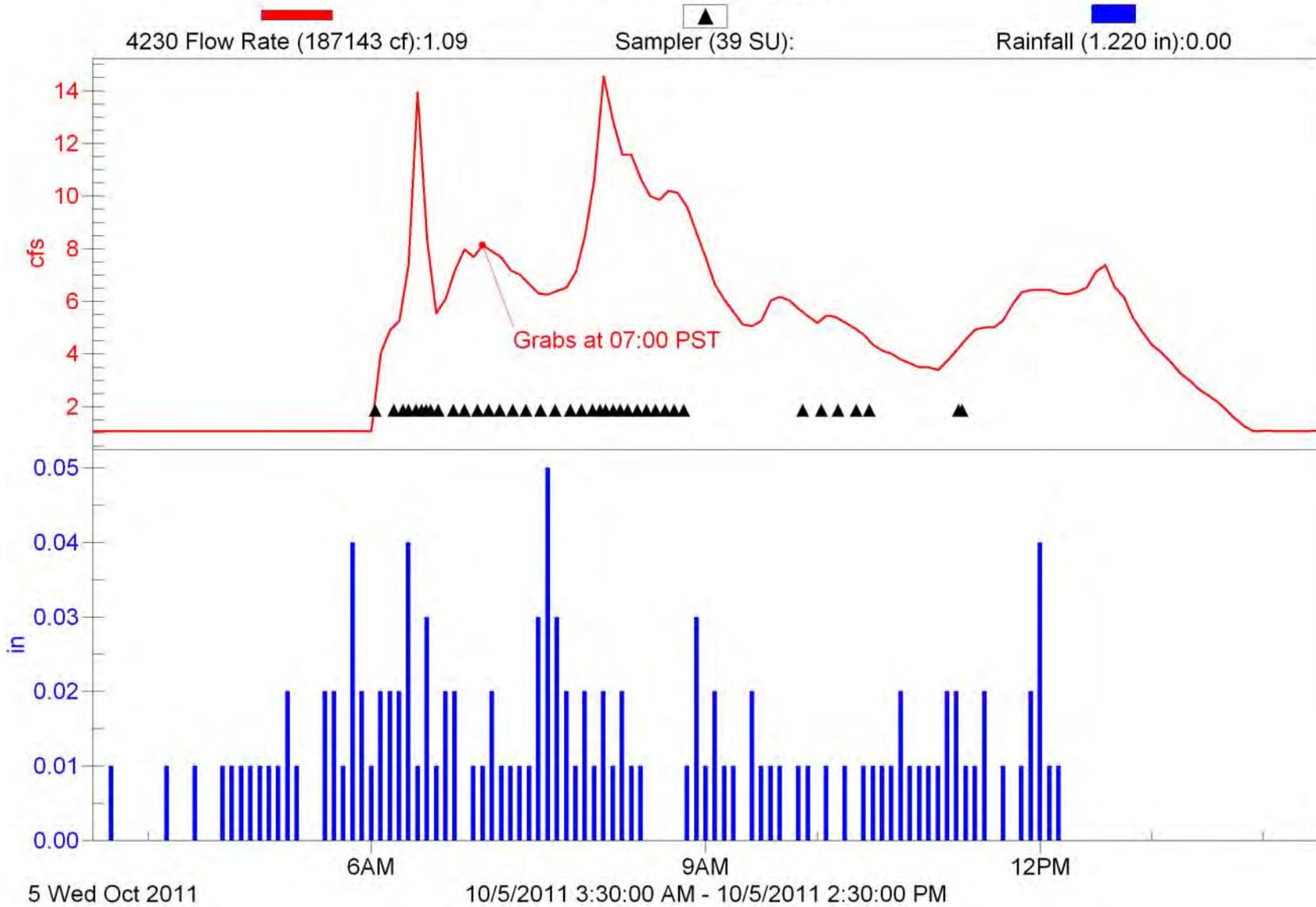
Fillmore-1

2011/12 NPDES Event #3 (Wet)



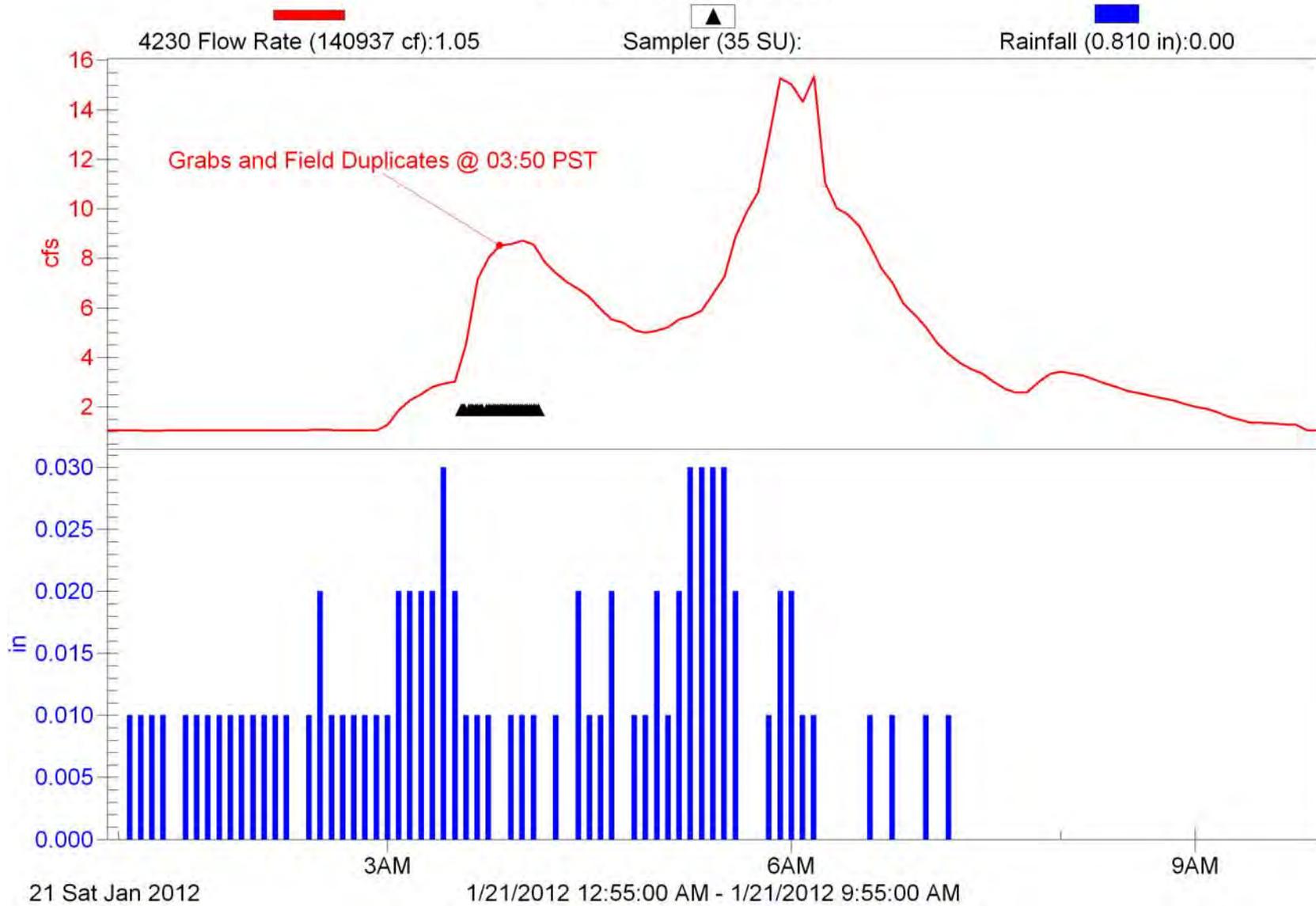
Meiners Oaks-1

2011/12 NPDES Event #1 (Wet)



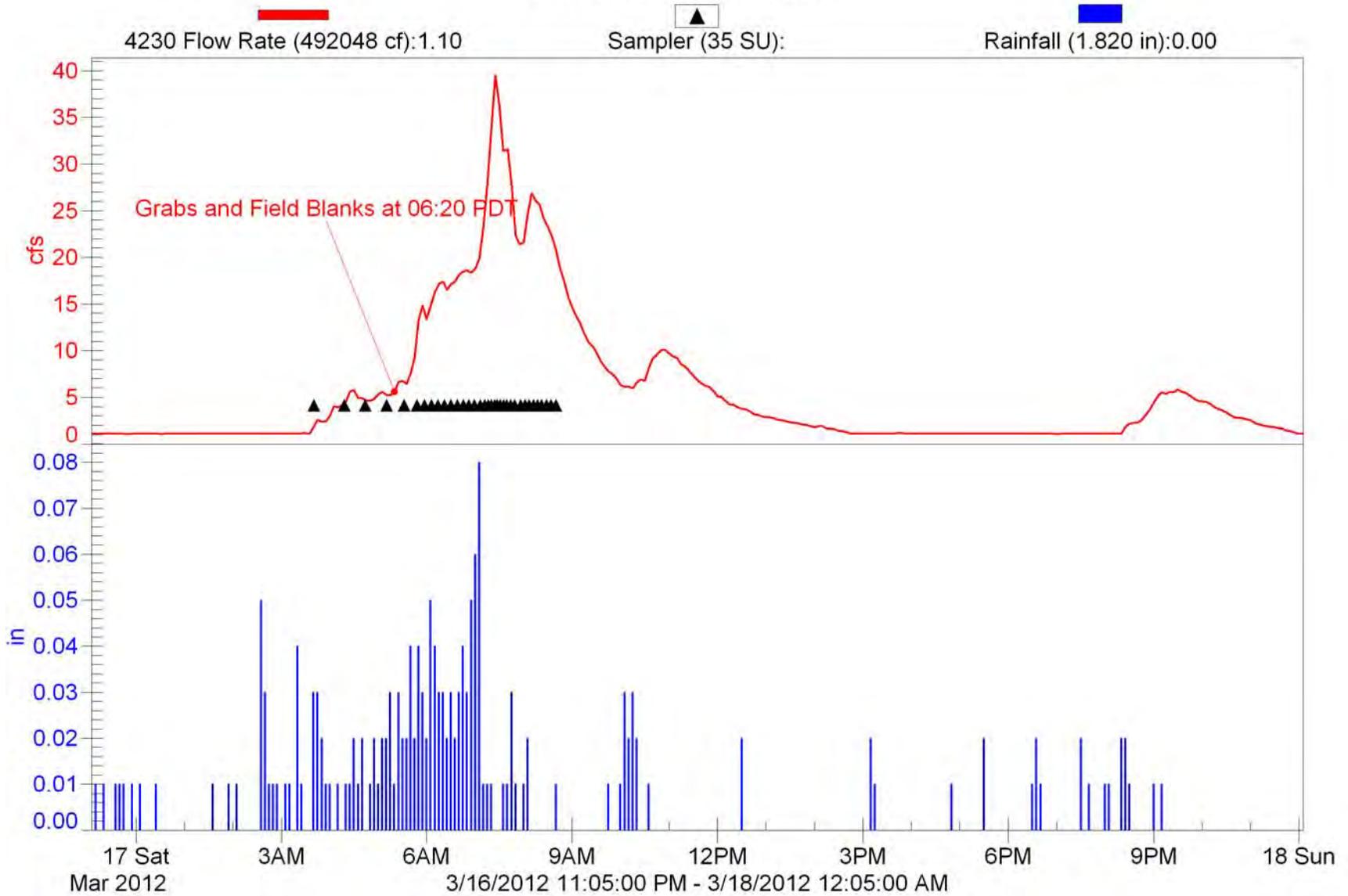
Meiners Oaks-1

2011/12 NPDES Event #2 (Wet)



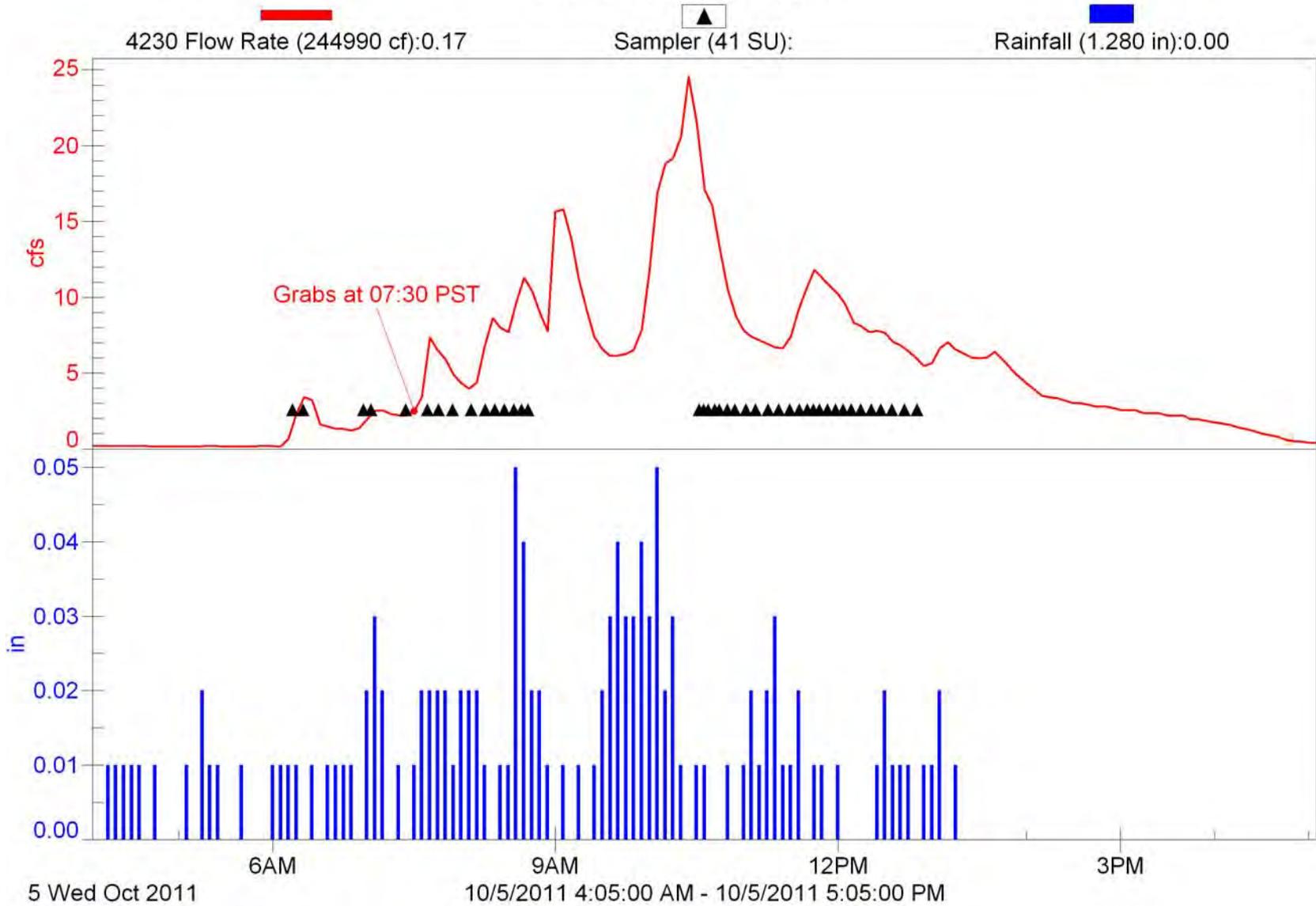
Meiners Oaks-1

2011/12 NPDES Event #3 (Wet)



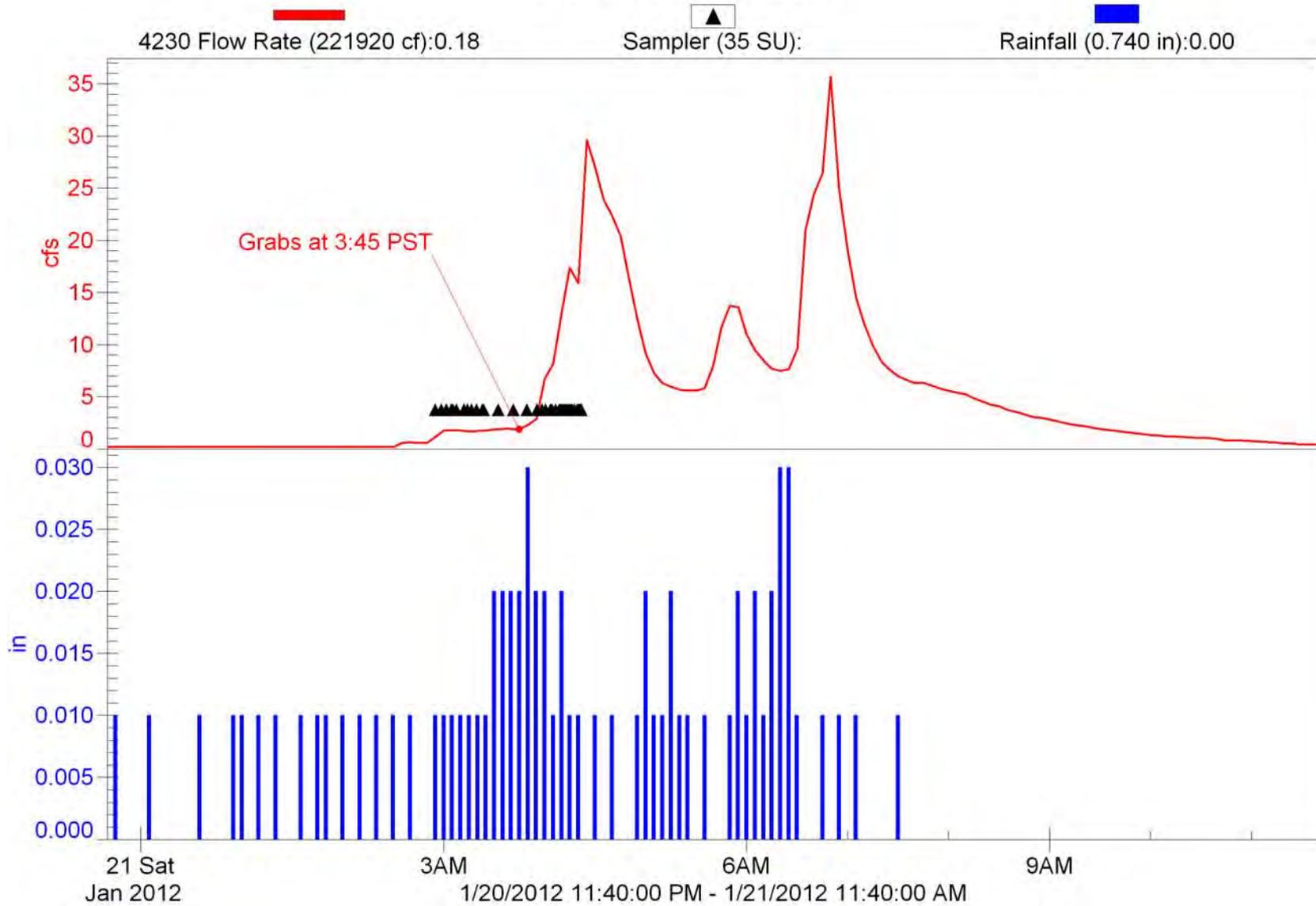
Moorpark-1

2011/12 NPDES Event #1 (Wet)



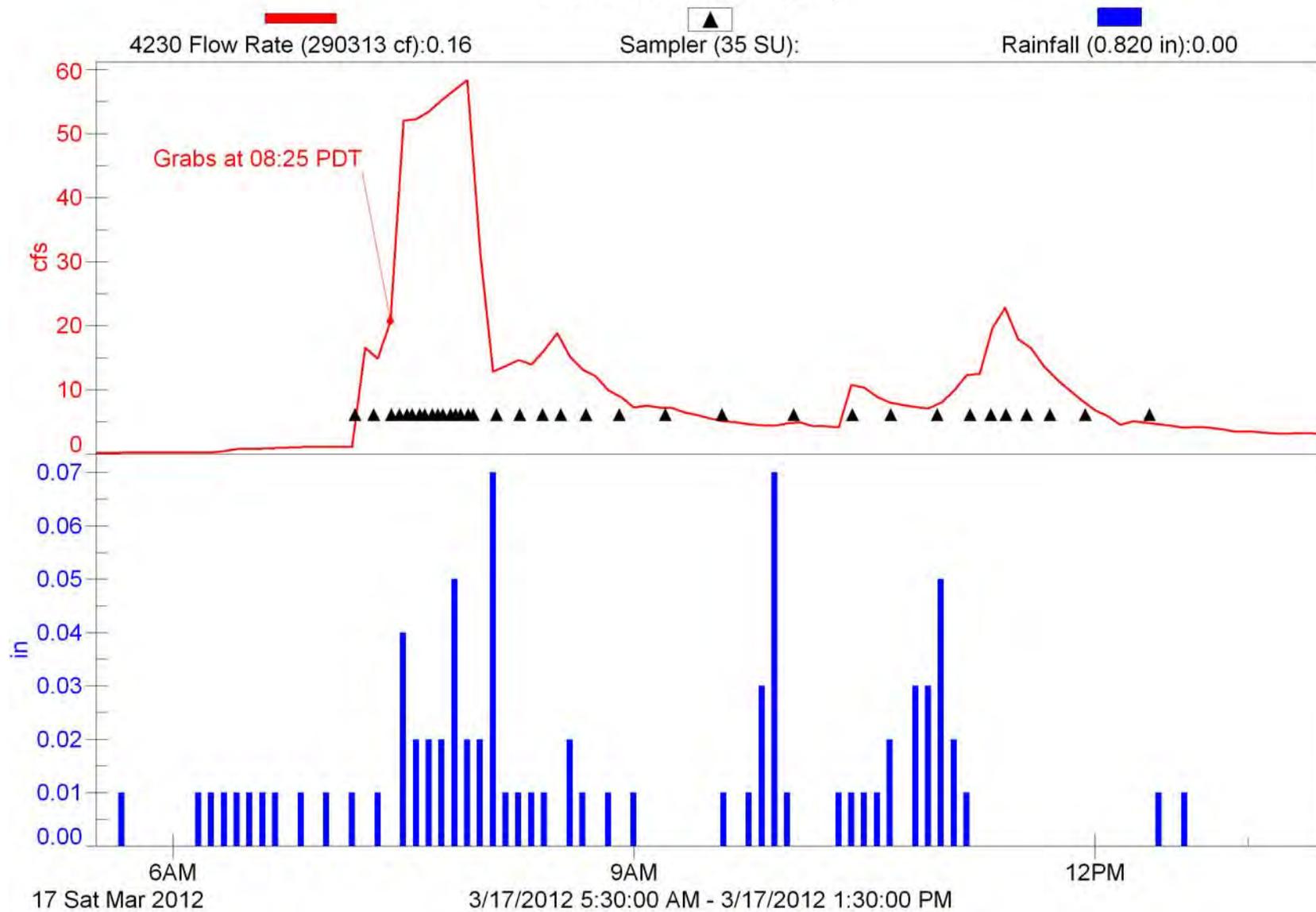
Moorpark-1

2011/12 NPDES Event #2 (Wet)



Moorpark-1

2011/12 NPDES Event #3 (Wet)

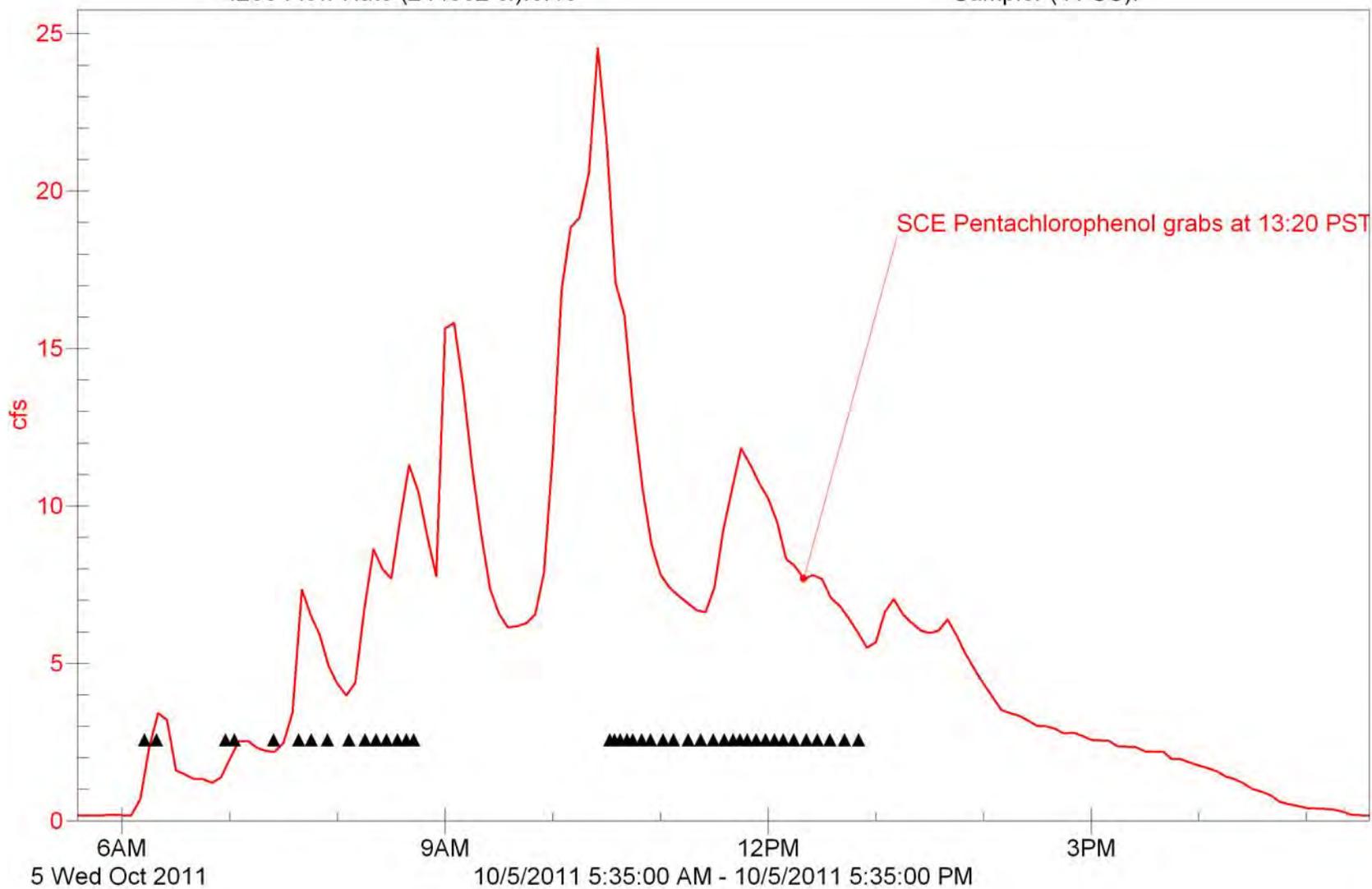


Moorpark-1

2011/12 NPDES Event #1 (Wet)

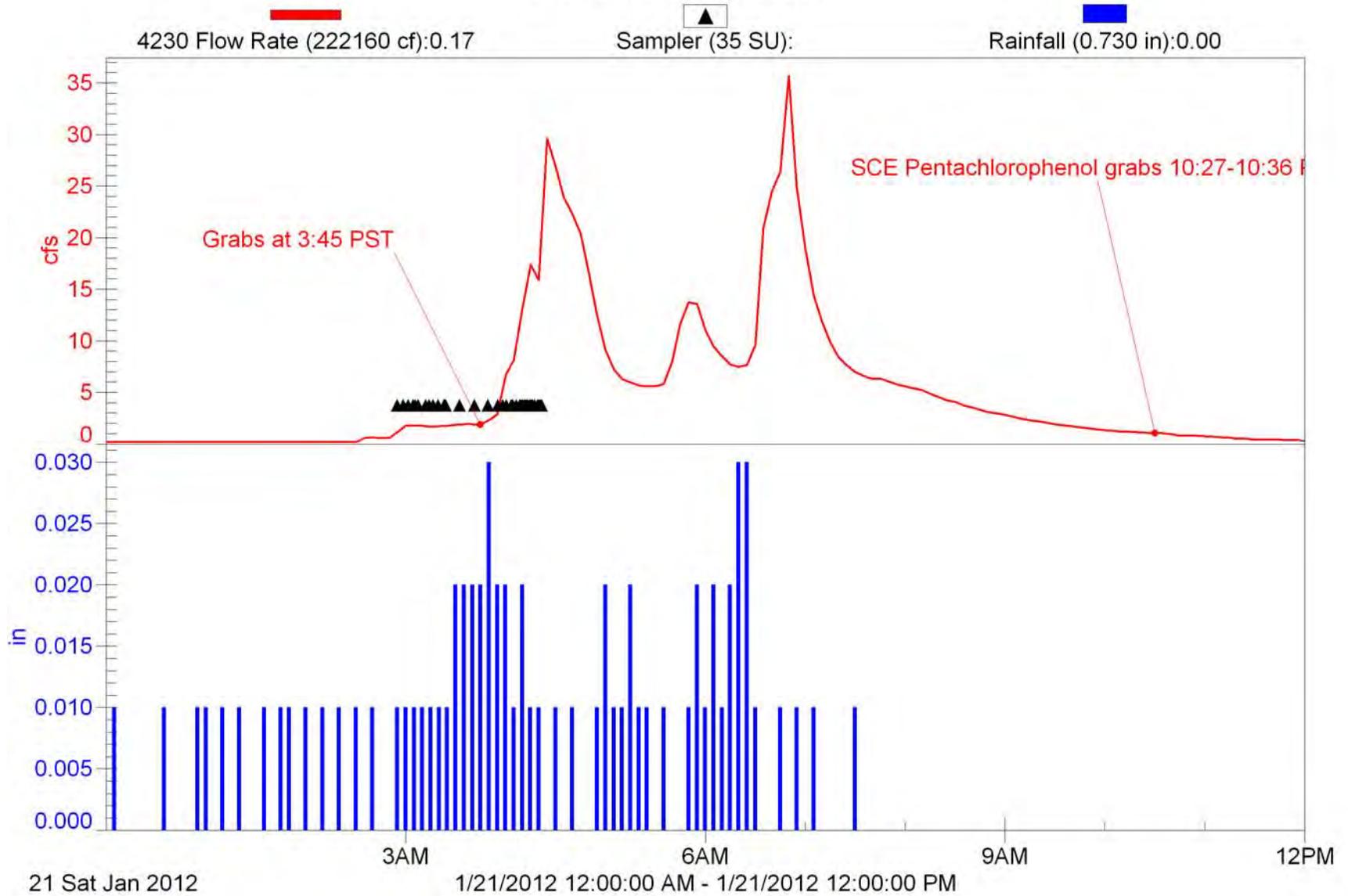
4230 Flow Rate (244552 cf):0.16

Sampler (41 SU):



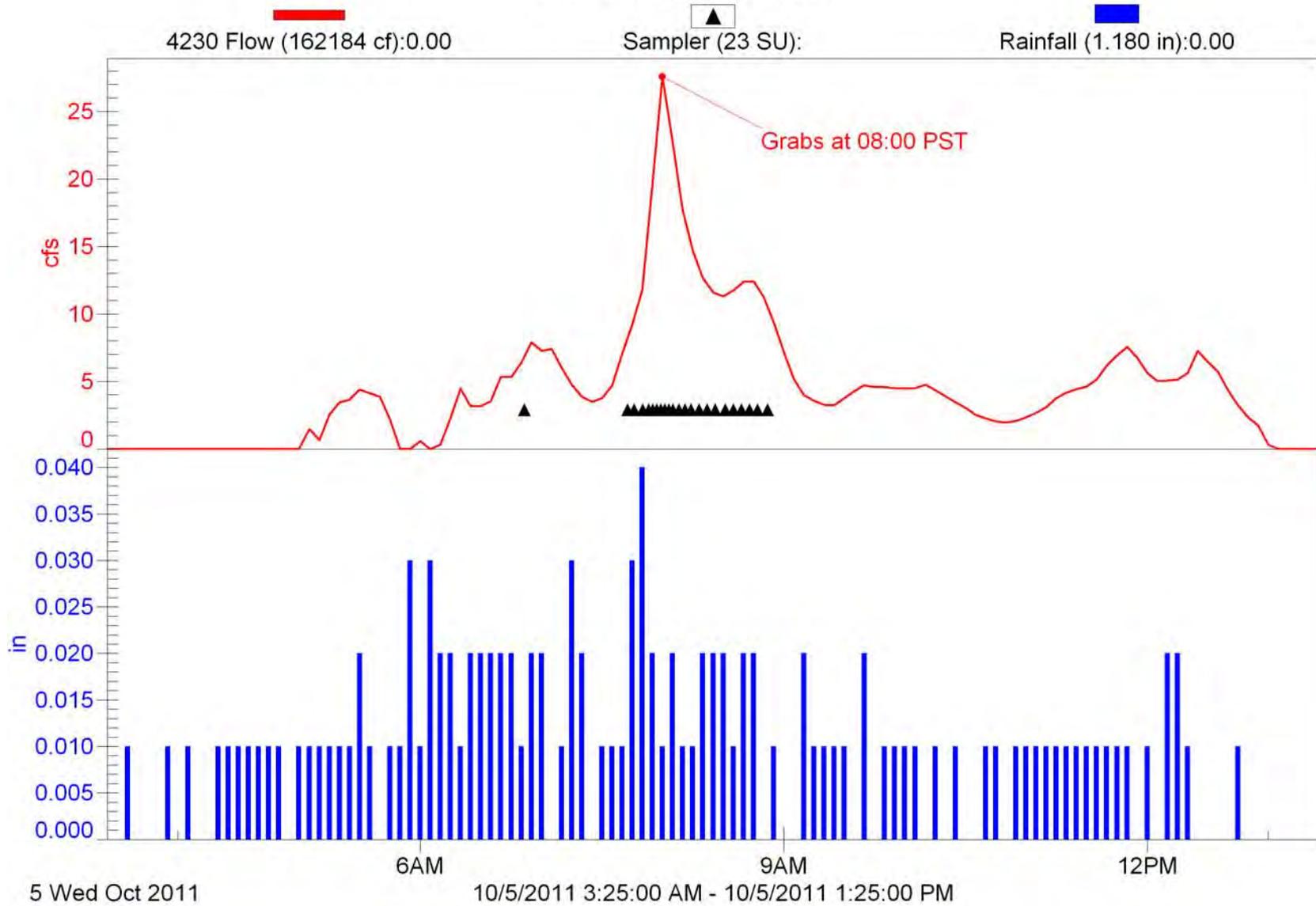
Moorpark-1

2011/12 NPDES Event #2 (Wet)



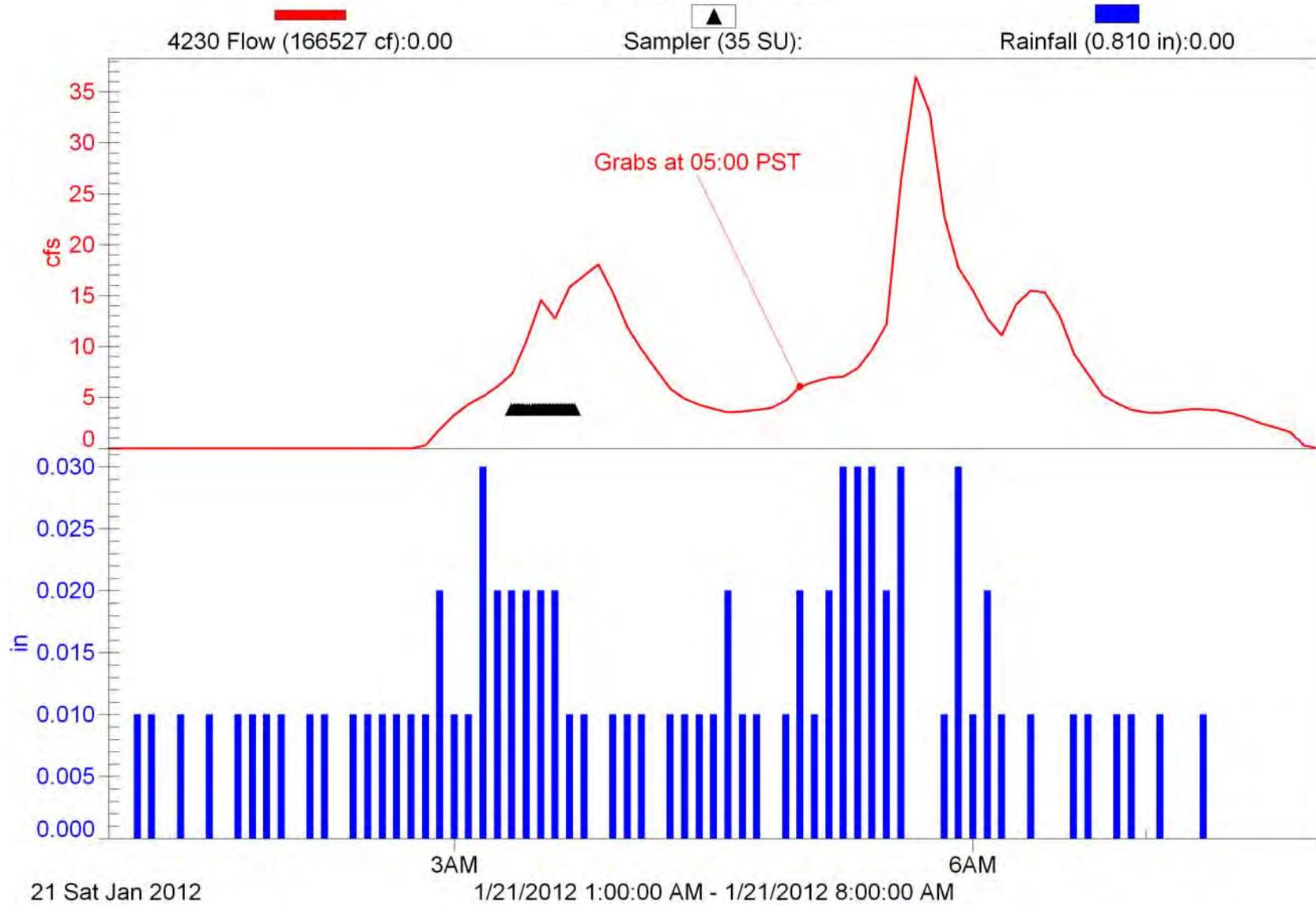
Ojai-1

2011/12 NPDES Event #1 (Wet)



Ojai-1

2011/12 NPDES Event #2 (Wet)



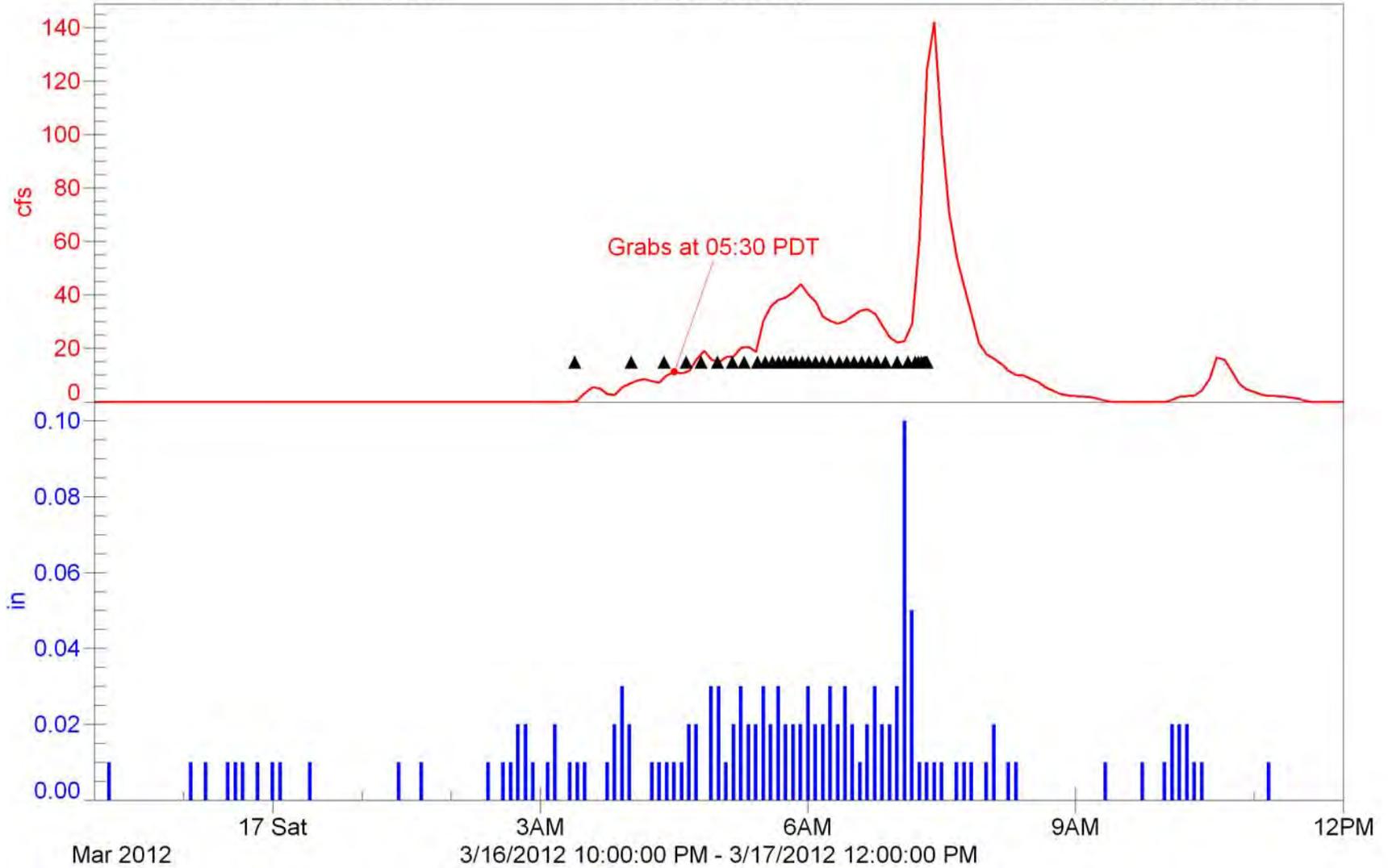
Ojai-1

2011/12 NPDES Event #3 (Wet)

4230 Flow (544852 cf):0.00

Sampler (35 SU):

Rainfall (1.420 in):0.00



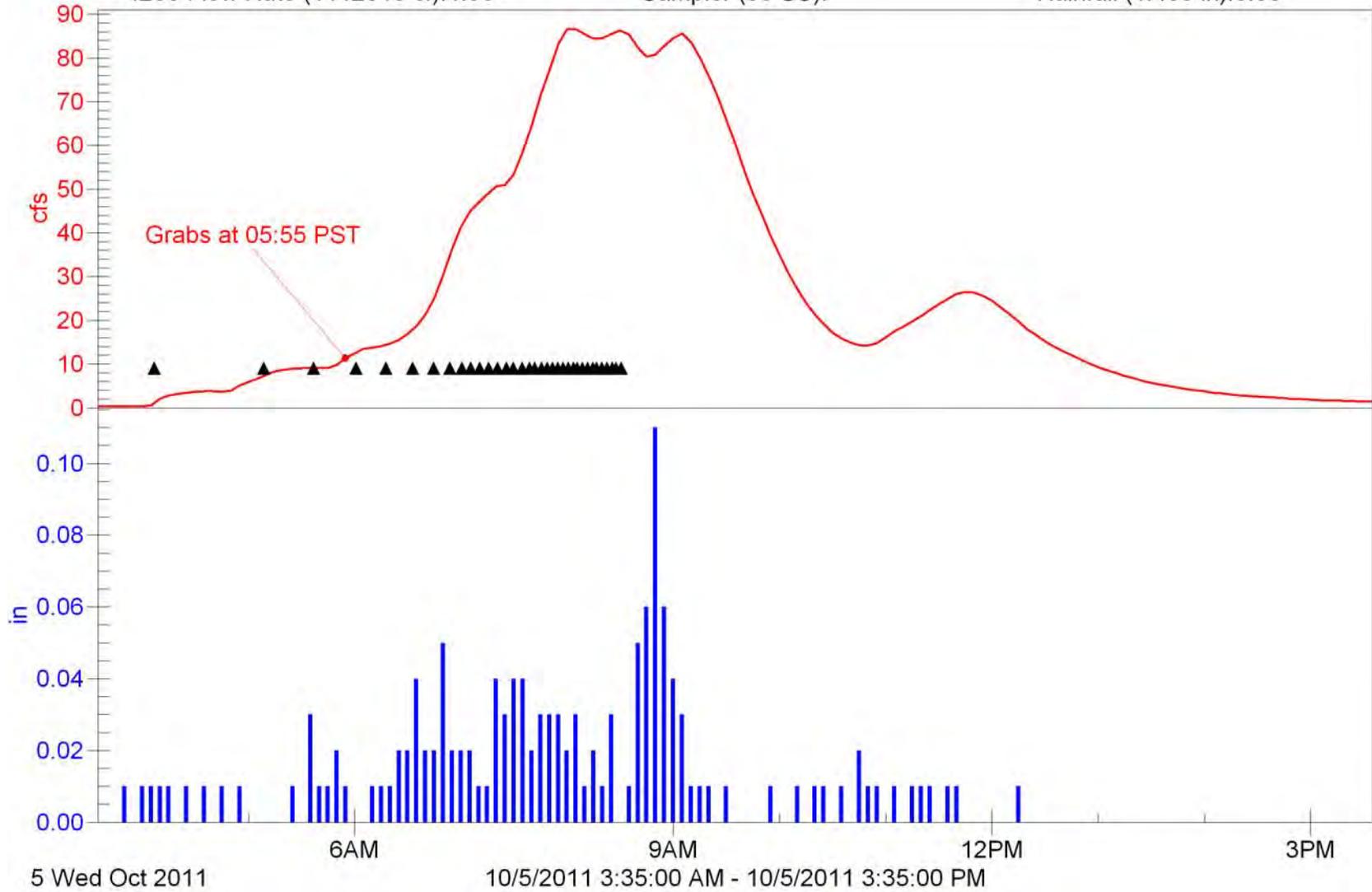
Oxnard-1

2011/12 NPDES Event #1 (Wet)

4230 Flow Rate (1112010 cf): 1.36

Sampler (35 SU):

Rainfall (1.400 in): 0.00



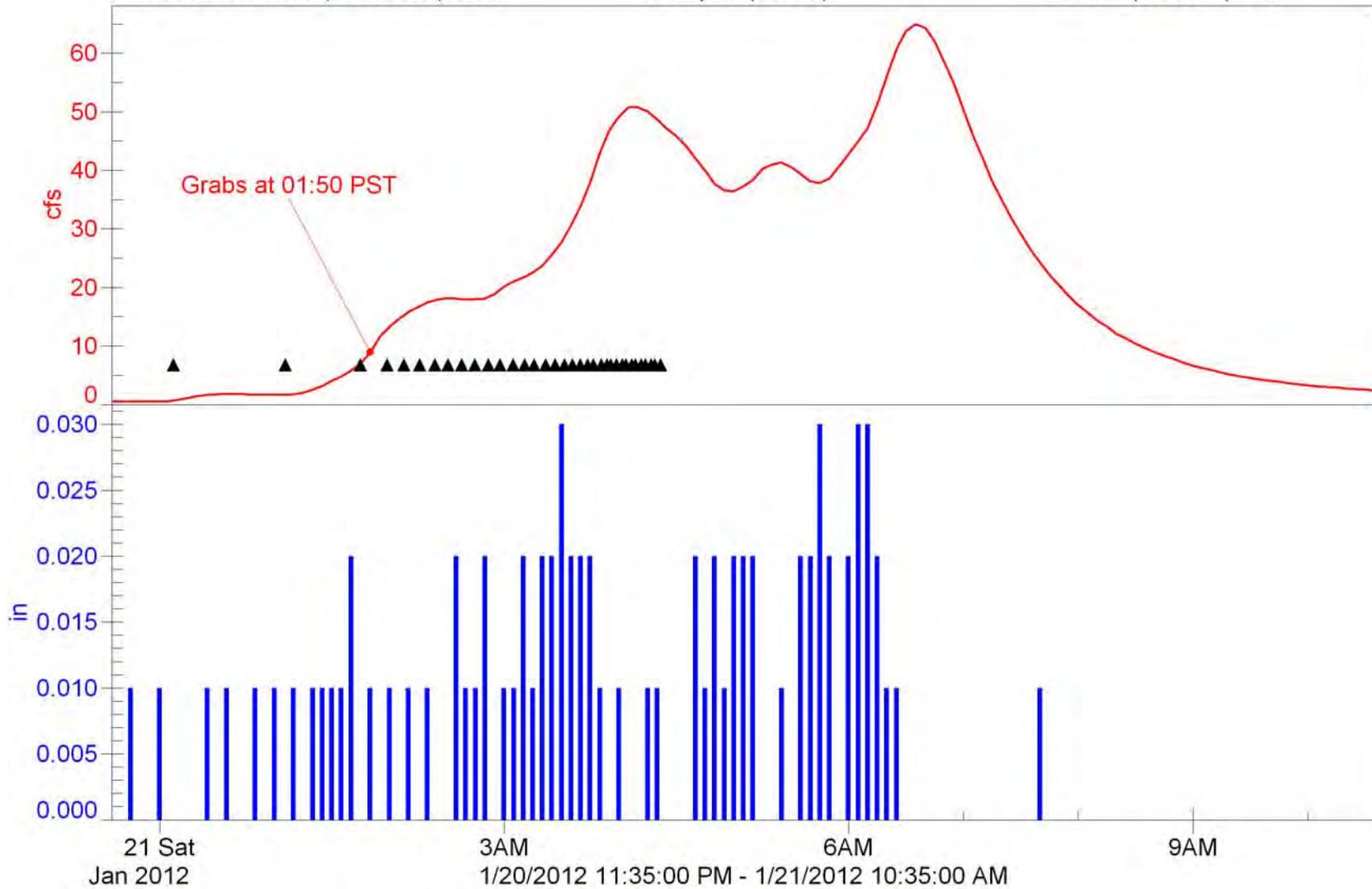
Oxnard-1

2011/12 NPDES Event #2 (Wet)

4230 Flow Rate (875558 cf):2.38

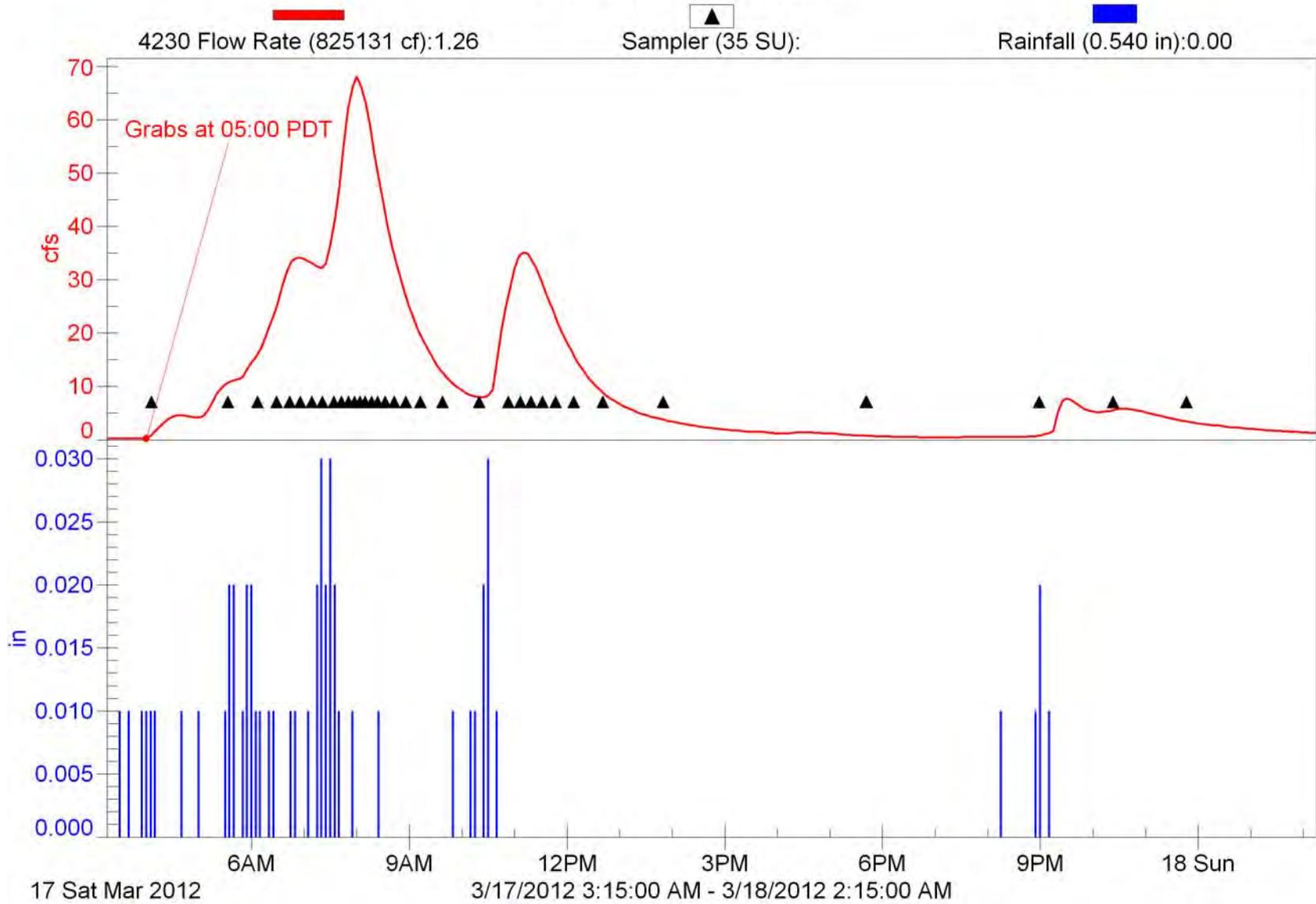
Sampler (35 SU):

Rainfall (0.800 in):0.00



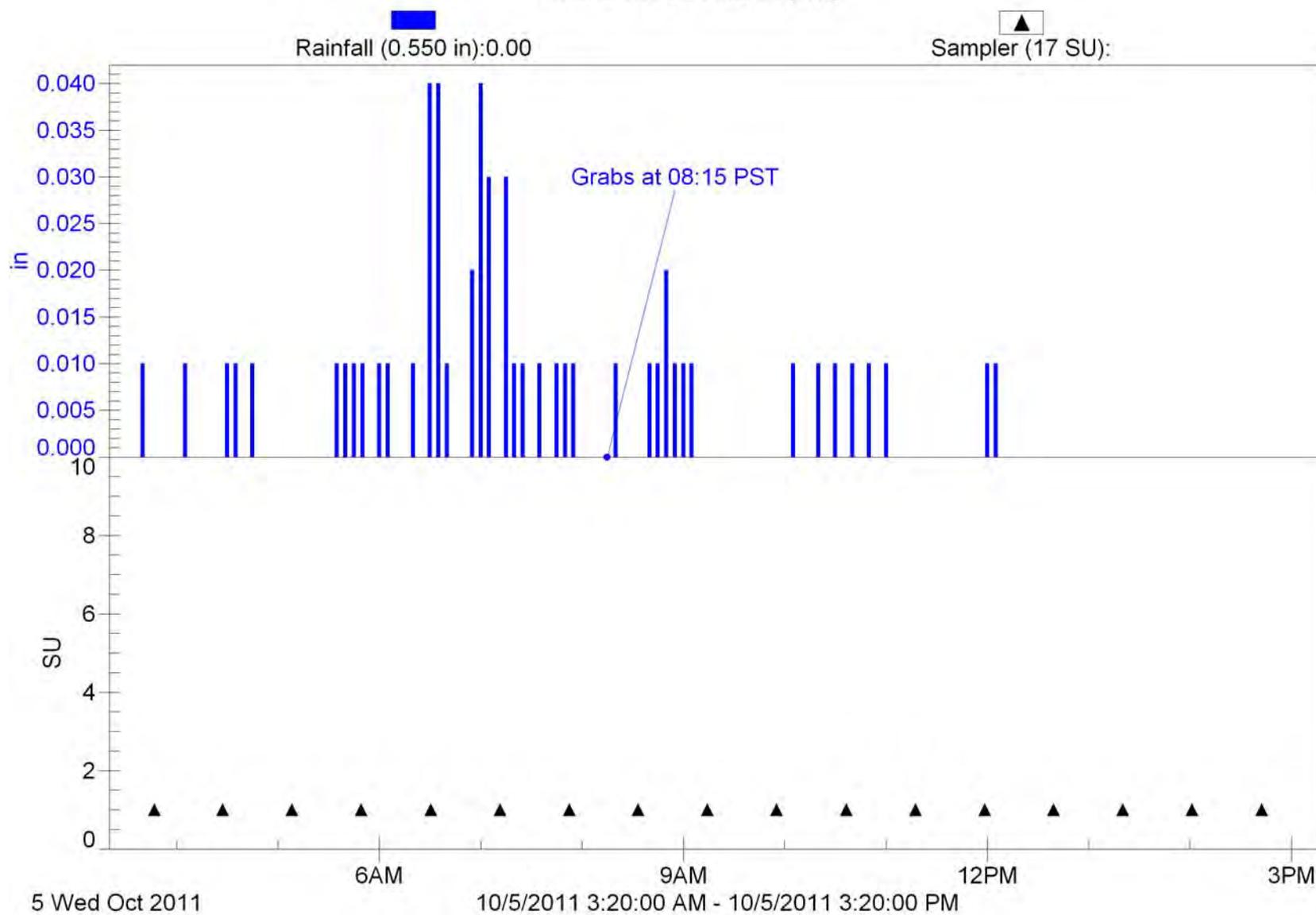
Oxnard-1

2011/12 NPDES Event #3 (Wet)



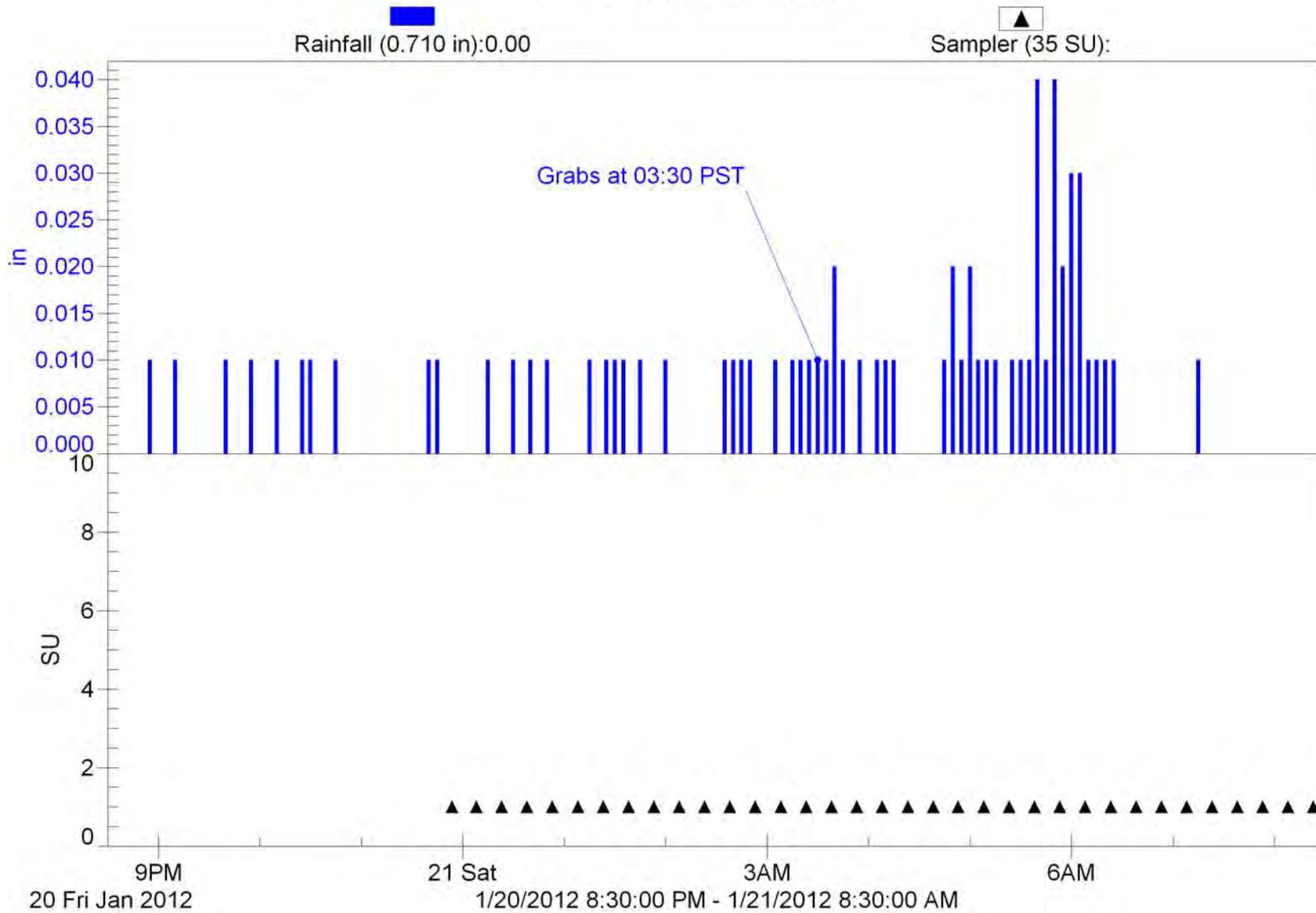
Port Hueneme-1

2011/12 NPDES Event #1 (Wet)



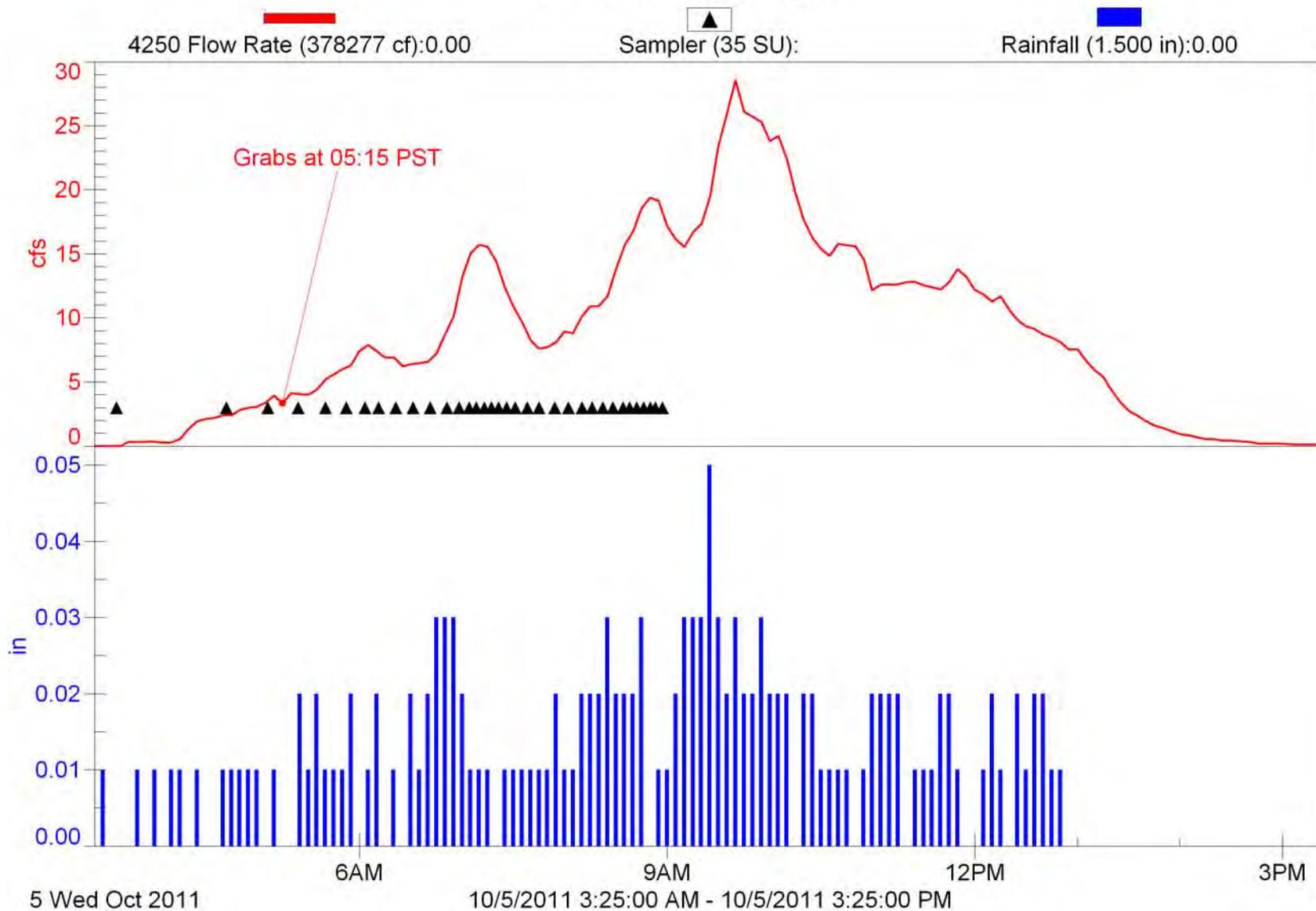
Port Hueneme-1

2011/12 NPDES Event #2 (Wet)



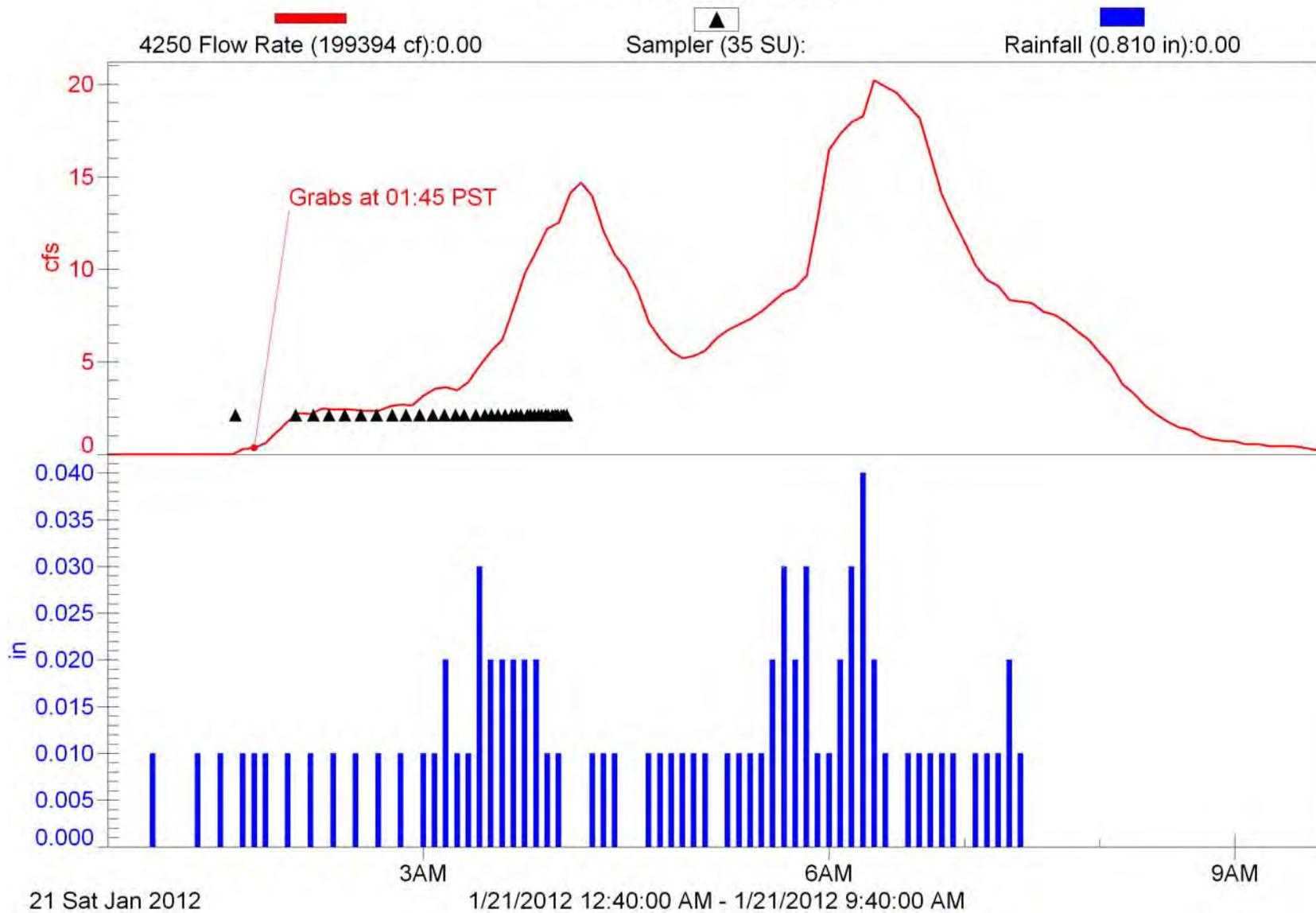
Santa Paula-1

2011/12 NPDES Event #1 (Wet)



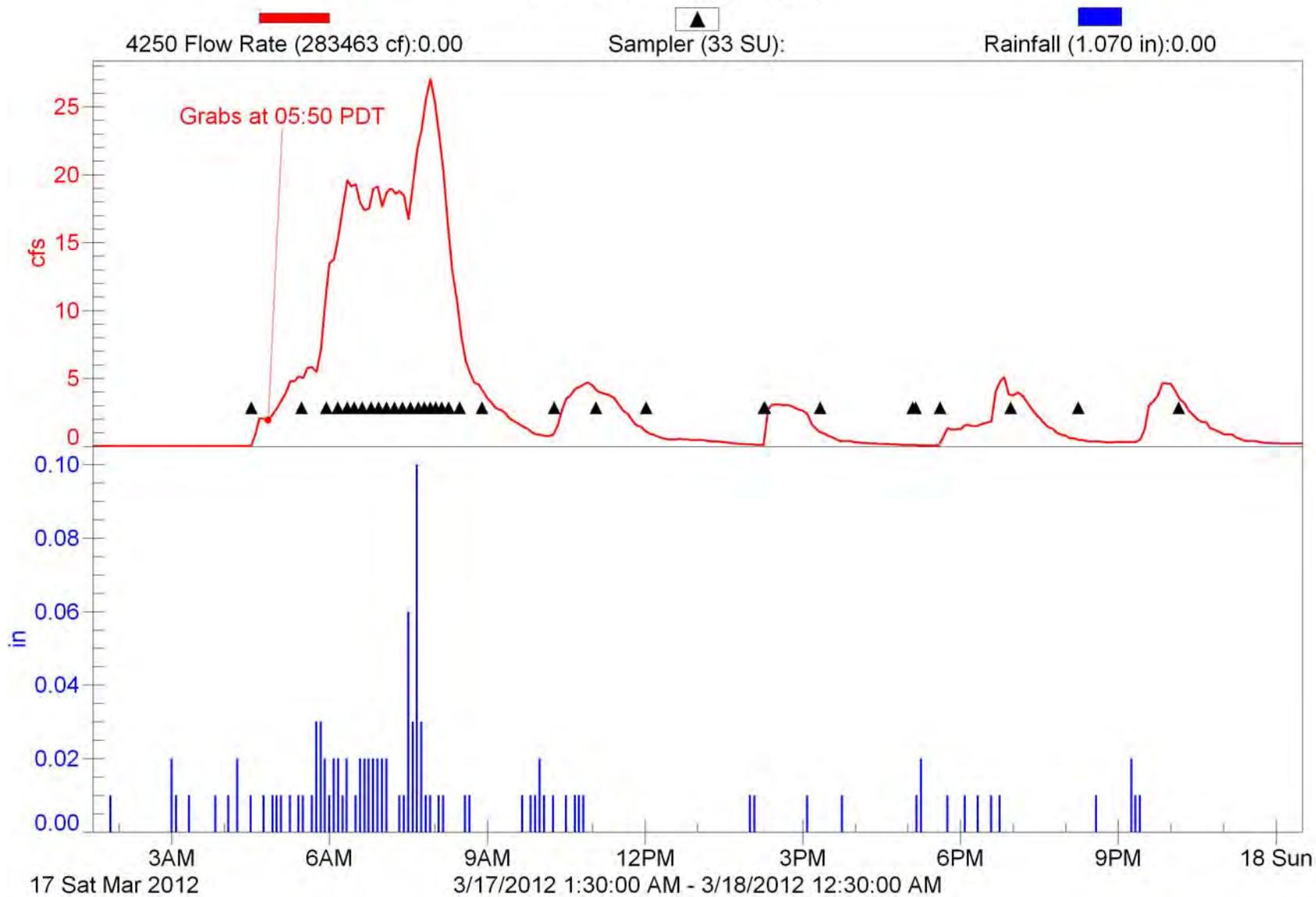
Santa Paula-1

2011/12 NPDES Event #2 (Wet)



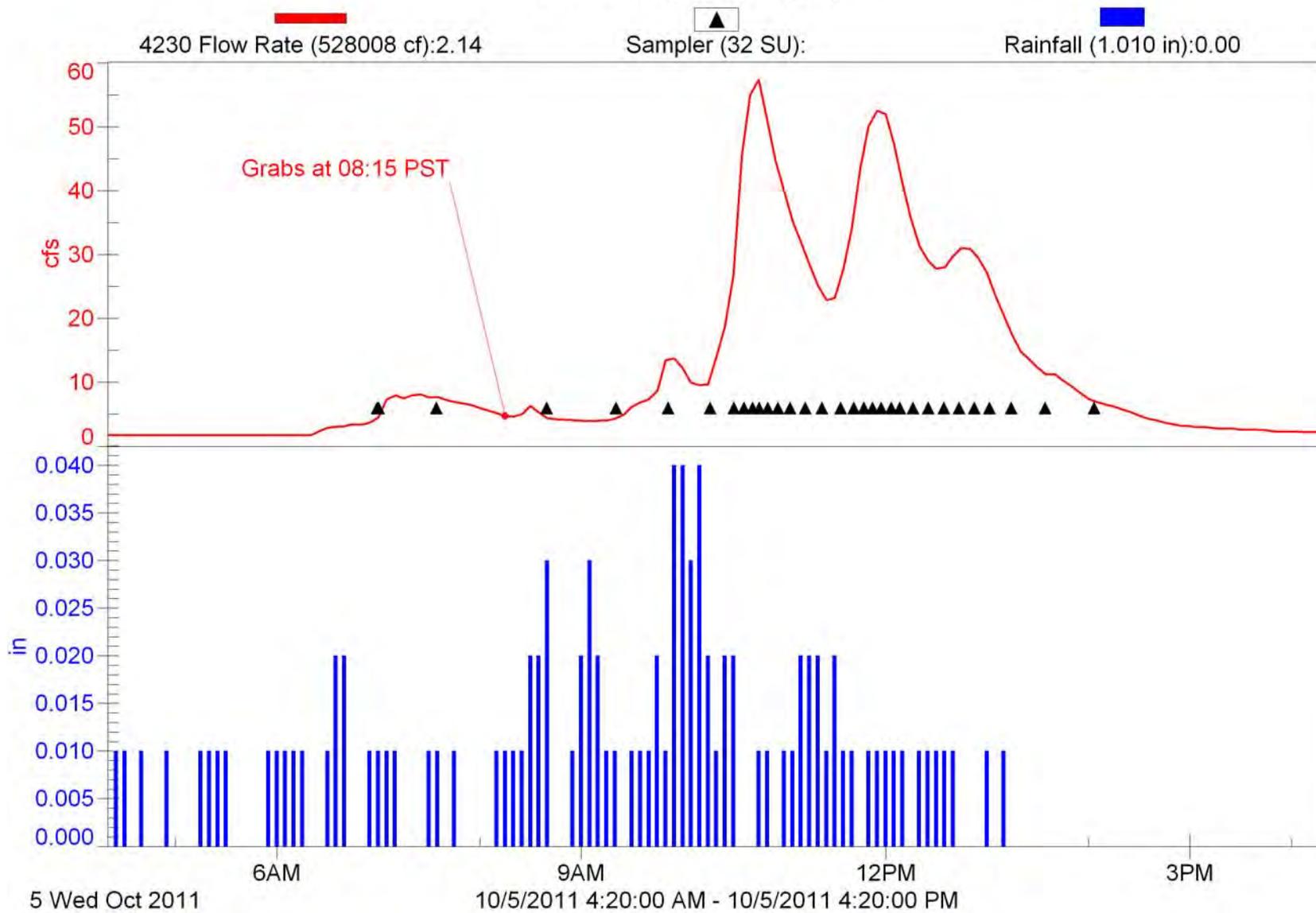
Santa Paula-1

2011/12 NPDES Event #3 (Wet)



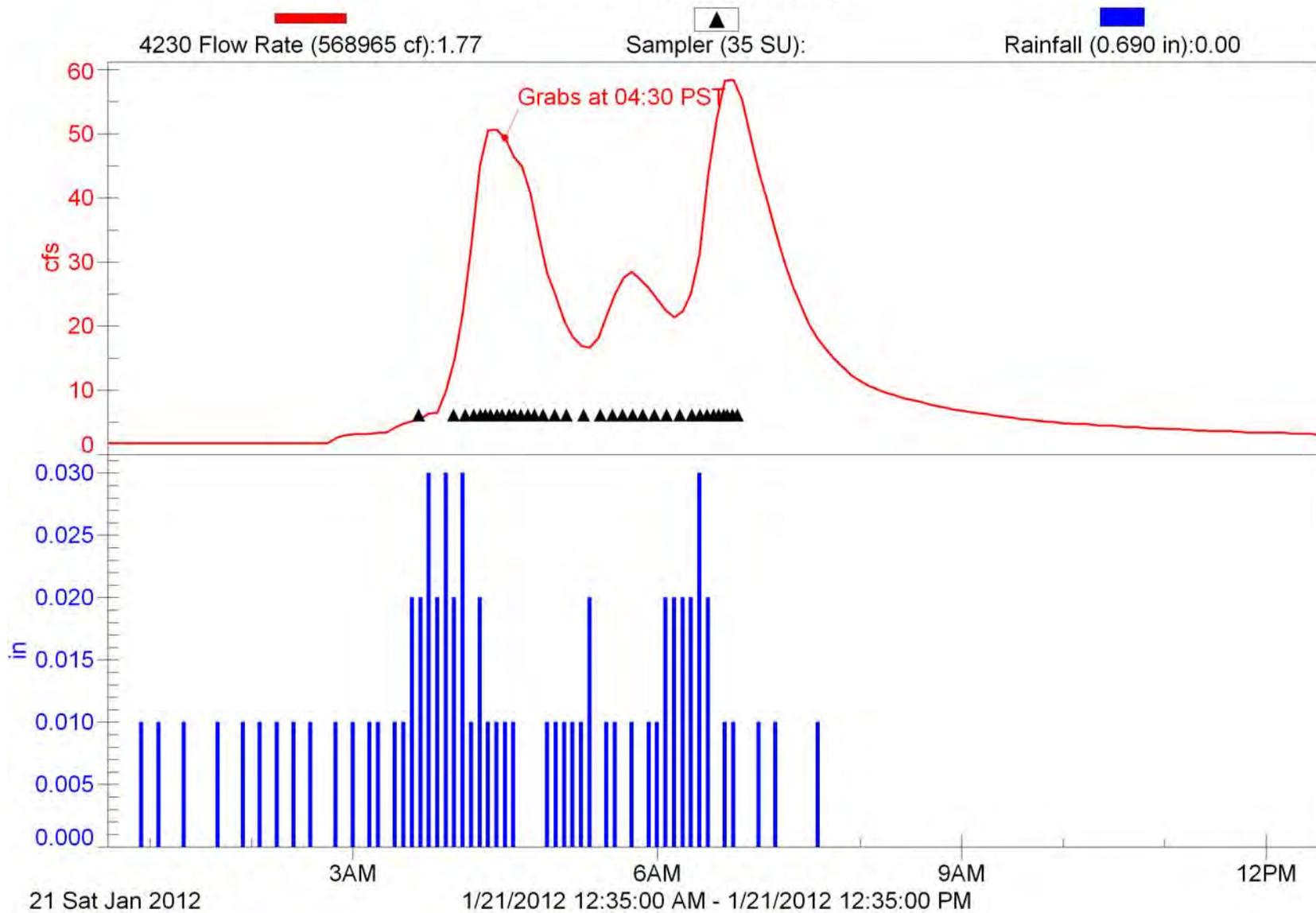
Simi Valley-1

2011/12 NPDES Event #1 (Wet)



Simi Valley-1

2011/12 NPDES Event #2 (Wet)



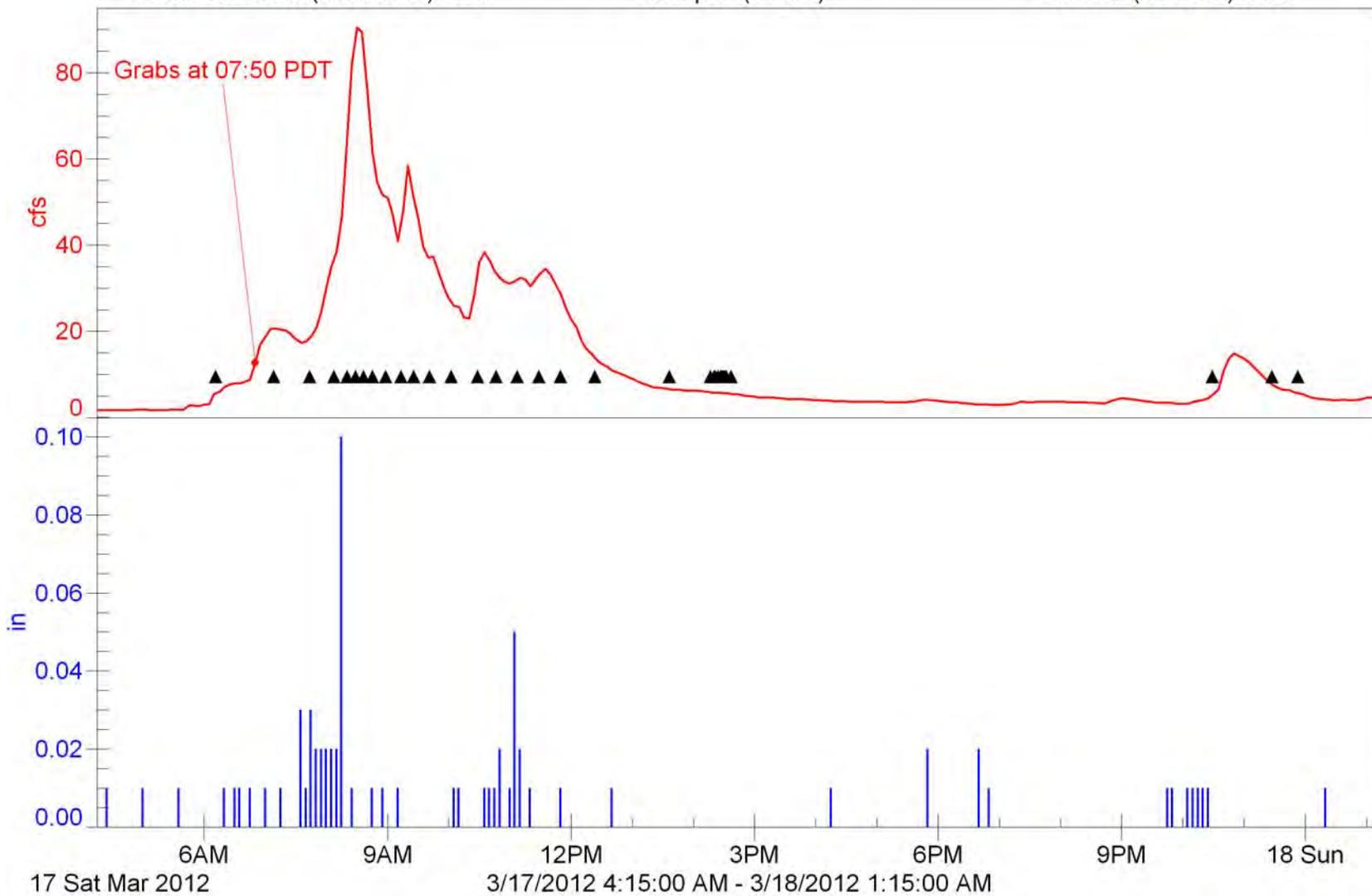
Simi Valley-1

2011/12 NPDES Event #3 (Wet)

4230 Flow Rate (973537 cf):1.73

Sampler (34 SU):

Rainfall (0.720 in):0.00



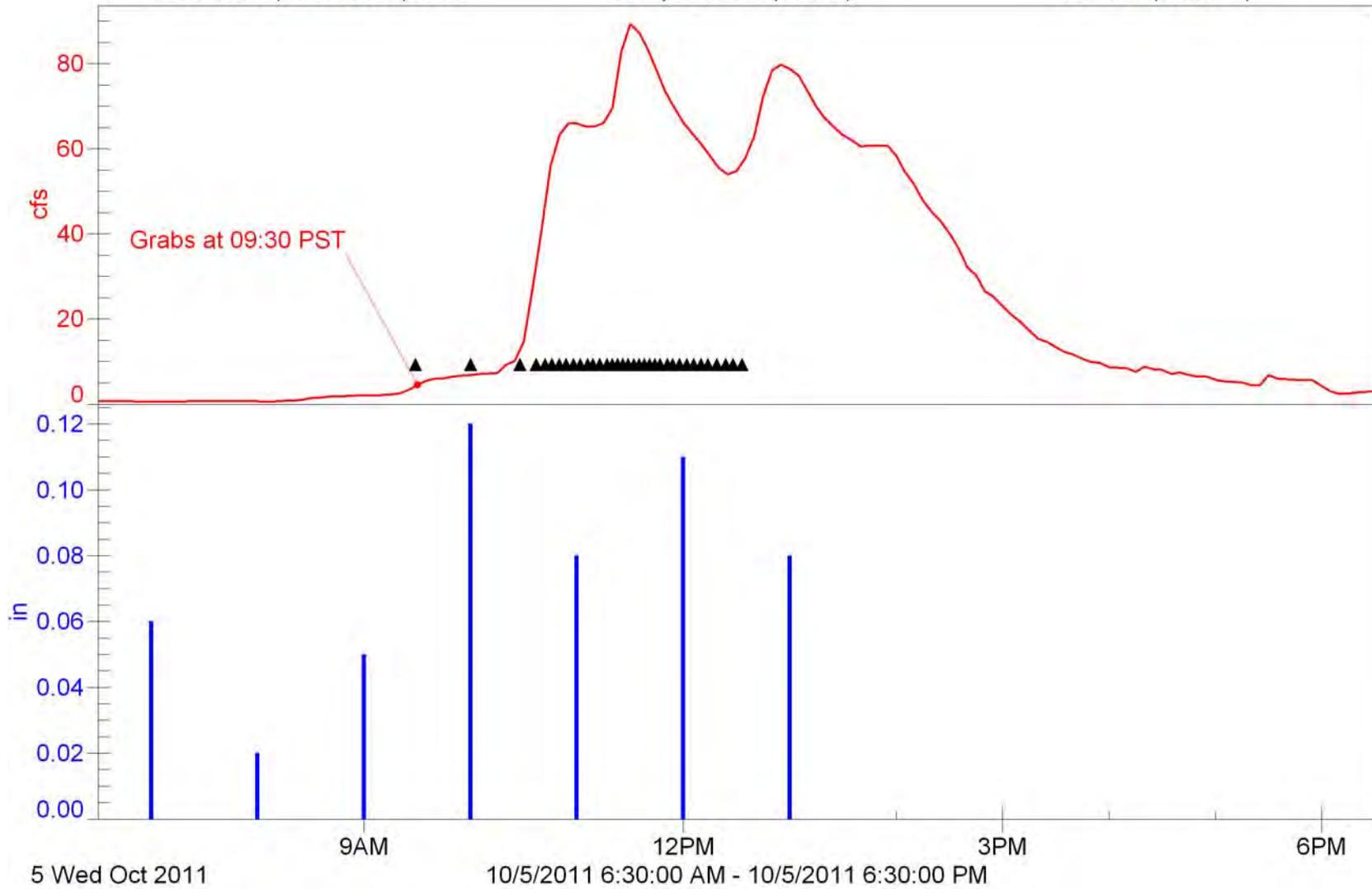
Thousand Oaks-1

2011/12 Event #1 (Wet)

Flow Rate (1110060 cf):0.69

Sample Event (35 SU):

Rainfall (0.520 in):



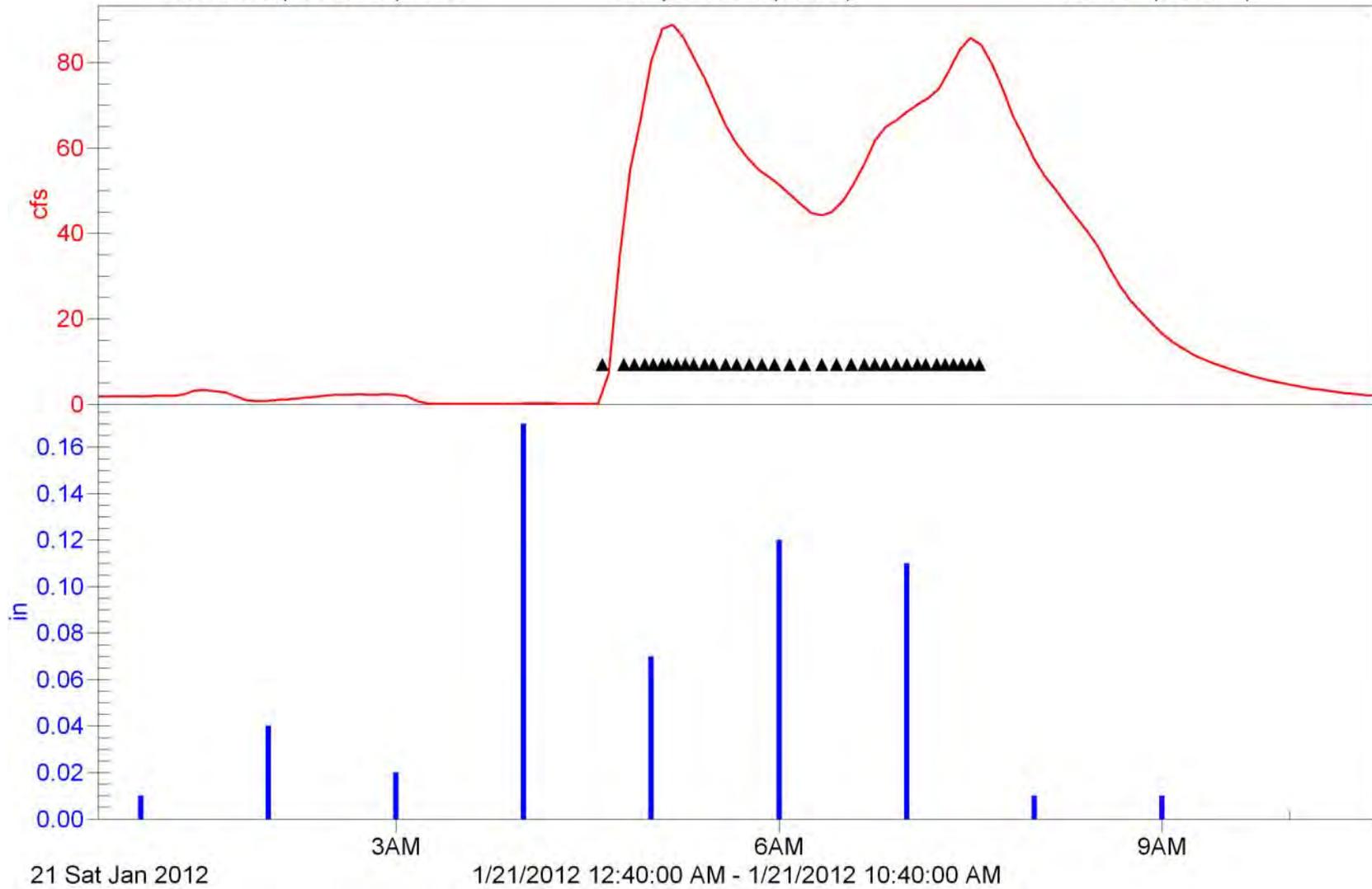
Thousand Oaks-1

2011/12 Event #2 (Wet)

Flow Rate (963407 cf): 1.76

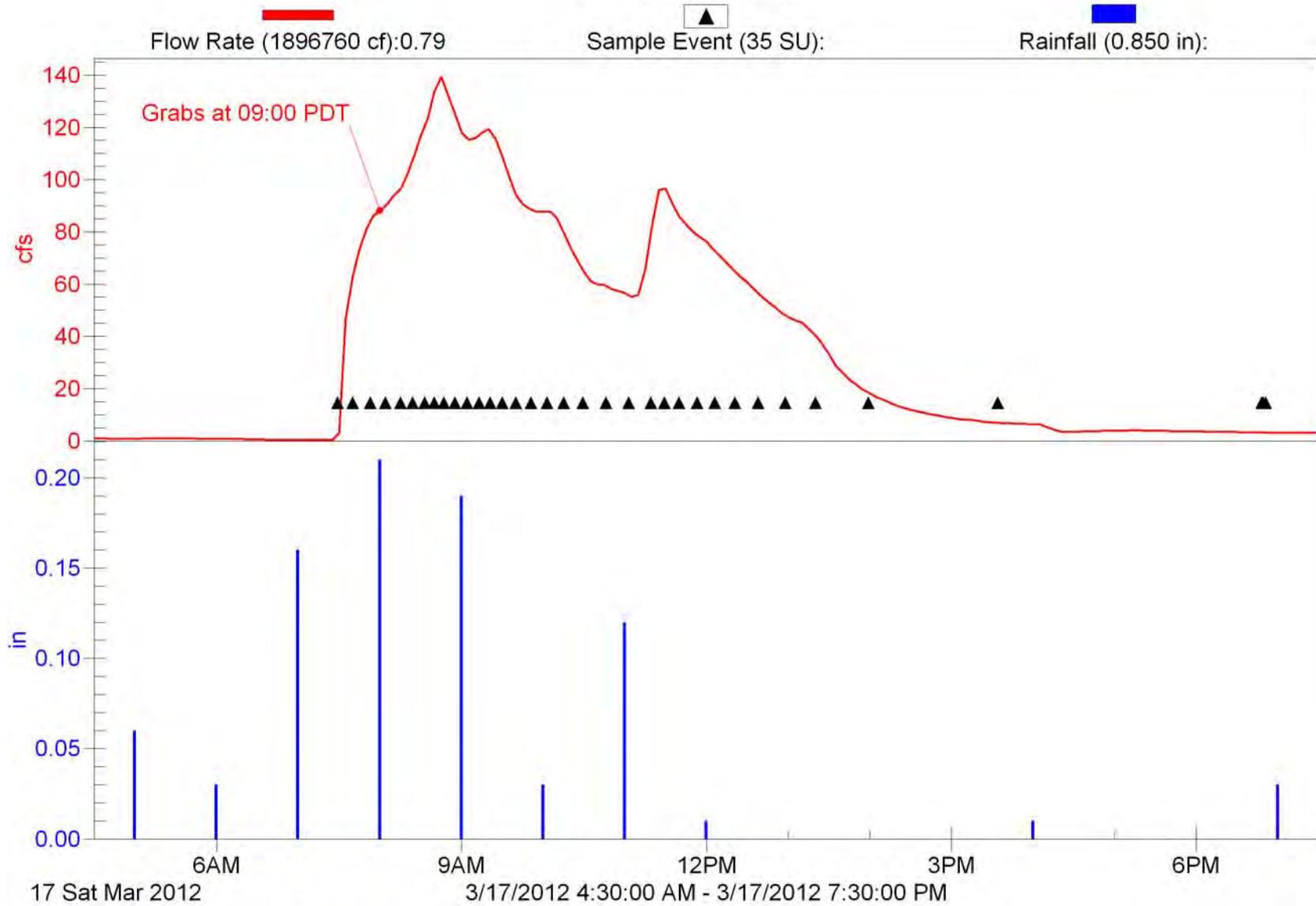
Sample Event (35 SU):

Rainfall (0.560 in):



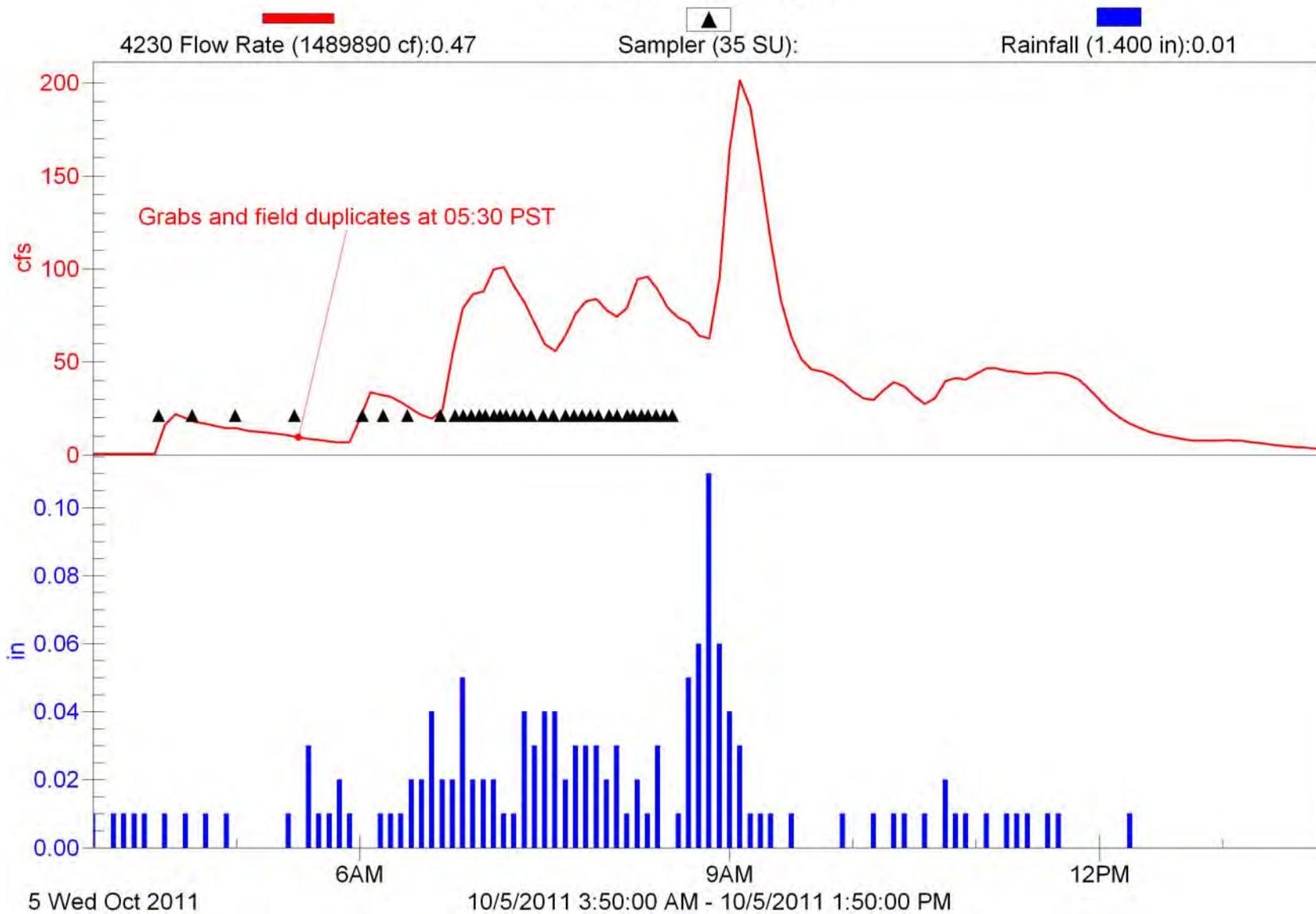
Thousand Oaks-1

2011/12 Event #3 (Wet)



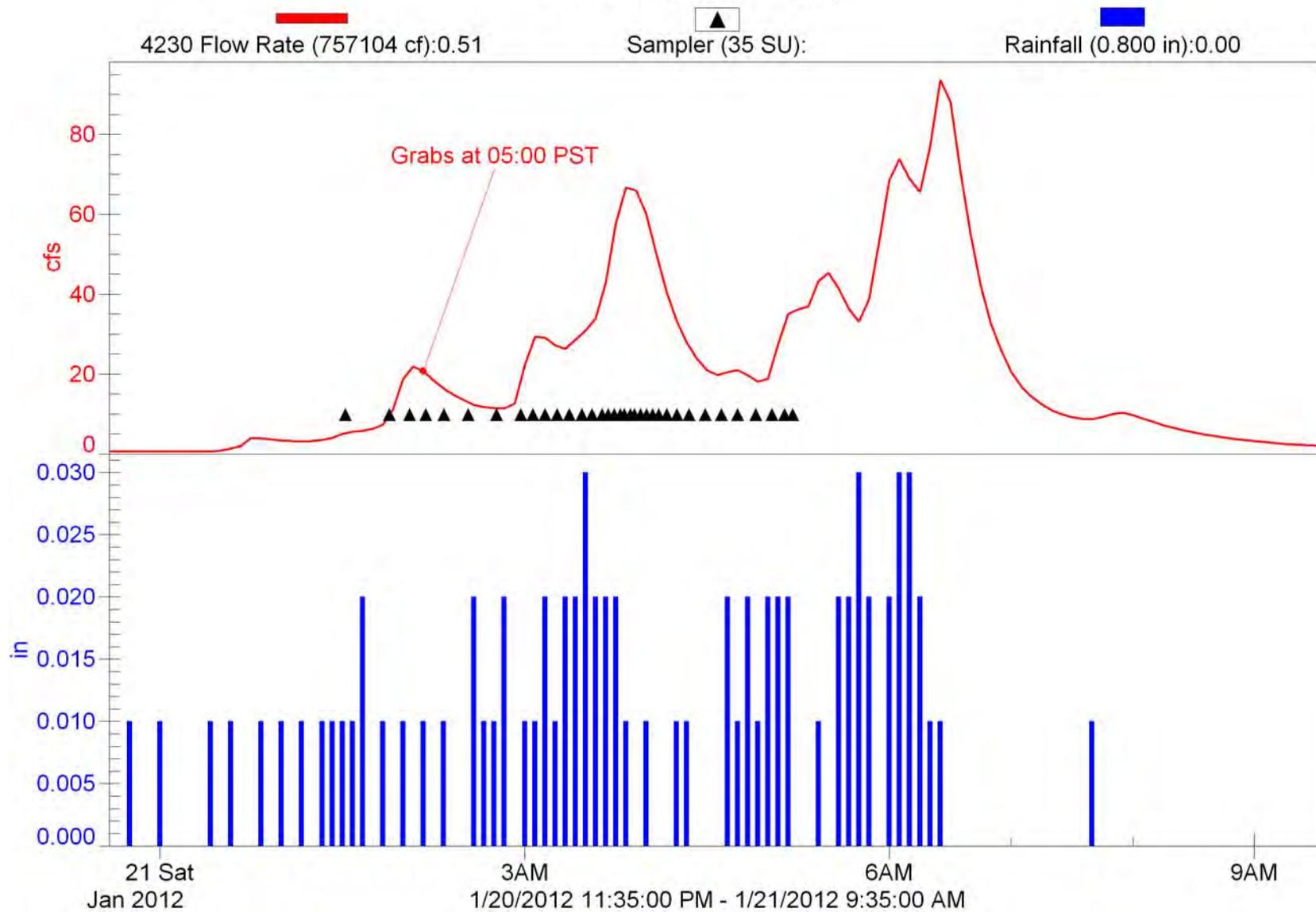
Ventura-1

2011/12 NPDES Event #1 (Wet)



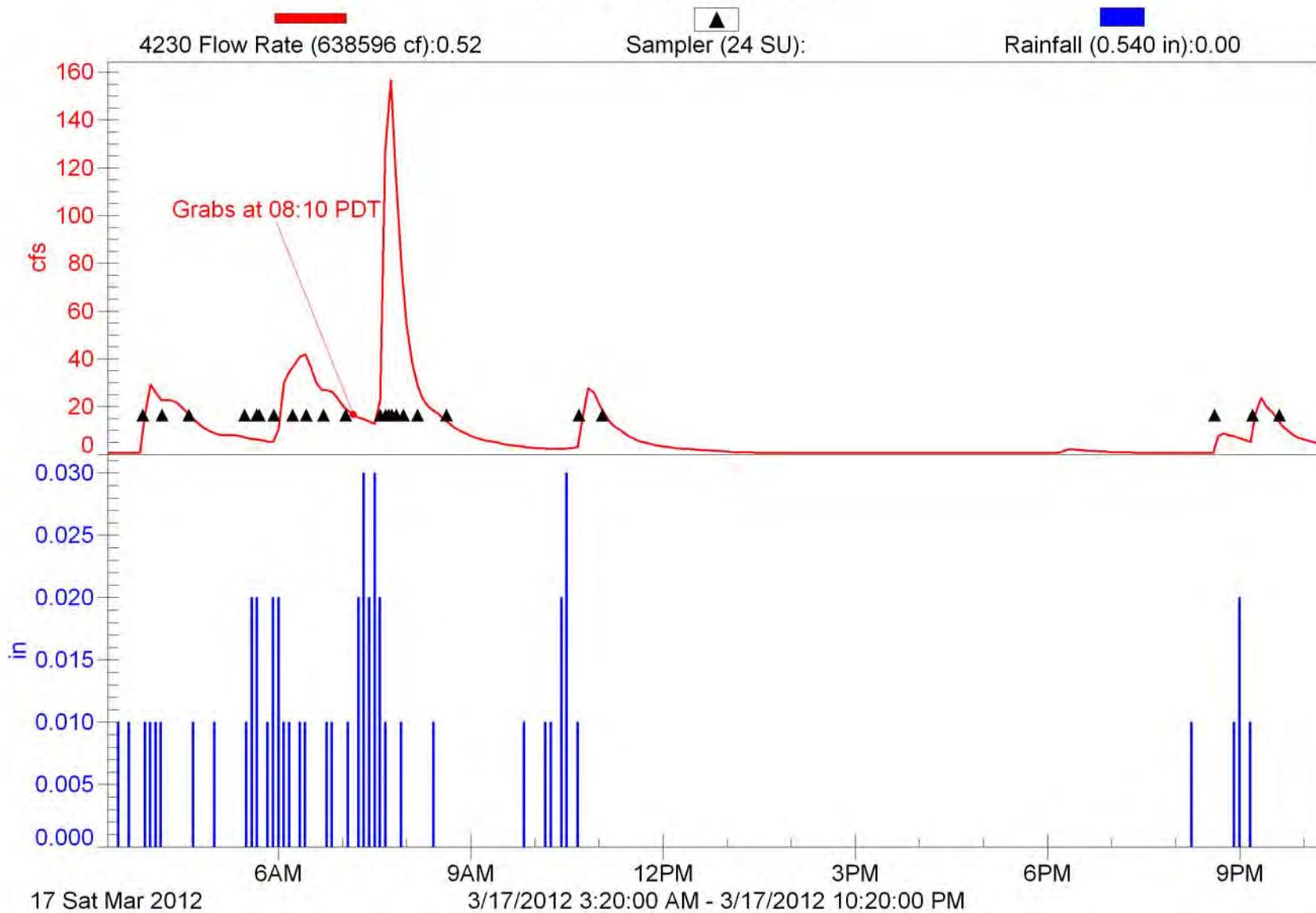
Ventura-1

2011/12 NPDES Event #2 (Wet)



Ventura-1

2011/12 NPDES Event #3 (Wet)



Appendix C. NRCS Curve Number Methodology Discussion



Ventura County Watershed Protection District

Planning & Regulatory Hydrology Section

MEMORANDUM

DATE: September 4, 2009 Updated August 12, 2010

TO: Tommy Liddell

VIA: Bruce Rindahl

FROM: Mark Bandurraga

SUBJECT: NPDES Monitoring Site Yield Evaluation

Per your request, we have used the land use and watershed information you provided to prepare a spreadsheet that can be used to estimate the runoff quantities from storm forecasts. The runoff quantity is estimated using the NRCS Curve Number approach that is a common method in hydrology. The results show that the weighed Curve Numbers estimated from the evaluation range from a low of about 74 for the rural Fox Canyon Drain watershed in Ojai to a high of about 91 for the urbanized watershed in the City of Ventura. The methodology and files used to calculate the Curve Numbers are described in this memo for the watersheds shown in Figures 1-4.

In August 2010 you requested results for another 7 monitoring sites across the county. This memo describes the additional work done for that request.

Curve Number Calculation Methodology

Land Use Data

Land Use data used in the study were provided by the Water Quality Section already clipped to the monitoring site boundaries and in a geodatabase. The land use data were extracted from the Assessor's Parcel database which is considered to be current as of the date of extraction (Feb 12, 2009). The various classifications in the file based on the assessor's 4-digit site use codes were sorted and assigned hydrologic land use names associated with the various classifications contained in the Curve Number (CN) Table from the Hydrology Manual (2006) as shown in Table 1. The categories in the land use file corresponded well with the land uses in the VCWPD CN Table with the following exceptions:

1. Vacant undifferentiated land was assumed be open brush in fair condition in rural areas and open space with 50% grass cover in urban areas.
2. Mixed urban land uses were assumed to correspond to commercial properties with 50% effective impervious.
3. Fire stations, public buildings, and schools were assigned to the low industrial use category with an effective impervious value of 36% due to the potential for large landscaped areas.

Table 1 Land Uses In NPDES Database (Assessor's Land Uses)

KVM_CAT1	SHORT_	Name
Agriculture	Abandoned Orchards and Vineyards	Orchard
Agriculture	Horse Ranches	open
Agriculture	Nurseries	Orchard
Agriculture	Orchards and Vineyards	Orchard
Agriculture	Vacant With Limited Improvements	open
Com_Indus. Mix	Mixed Commercial and Industrial	Comm
Commer.	Commercial Recreation	Comm
Commer.	Commercial Storage	Comm
Commer.	Low- to Medium-Rise Major Office Use	comm
Commer.	Modern Strip Development	comm
Commer.	Retail Centers (Non-Strip with Contiguous Interconnected Off-Street Parking)	comm
Extraction	WHOLESALE AND WAREHOUSING	indhigh
Facility	Fire Stations**	indlow
Facility	Government Offices	indlow
Facility	Major Medical Health Care Facilities	comm
Facility	Other Public Facilities	indlow
Facility	Other Special Use Facilities	indlow
Facility	Police and Sheriff Stations**	indlow
Facility	Religious Facilities	indlow
Facility	Special Care Facilities	indlow
Industrial_1	Open Storage	indlow
Industrial_1	Packing Houses and Grain Elevators	indlow
Industrial_3	Manufacturing, Assembly, and Industrial Services	indhigh
No Info Given		open
Recreation	Other Open Space and Recreation	open
Res.1	Low Density Single Family Residential	reslow
Res.1	Trailer Parks and Mobile Home Courts, High Density	reshigh
Res.2	Low-Rise Apartments, Condominiums, and Townhouses	reshigh
Res.2	Rural Residential Low Density	resrural
Res.3	High Density Single Family Residential	reshigh
Res.4	Duplexes, Triplexes, and 2- or 3-Unit Condominiums and Townhouses	reshigh
Res.4	Medium-Rise Apartments and Condominiums	reshigh
Res.4	Mixed Urban	comm
Schools	Elementary Schools**	indlow
Schools	Junior High Schools**	indlow
Schools	Senior High Schools**	indlow
Transportation	Freeways and Major Roads	paved
Transportation	Mixed Transportation	paved
Transportation	Truck Terminals	paved
Under Constructi	Under Construction	indlow
Utilities	Electrical Power Facilities	indlow
Vacant Undiffere	Vacant Undifferentiated (rural)	brushfair
Vacant Undiffere	Vacant Undifferentiated (city)	open

Soils Information

The soils information was obtained from the District soils shapefile that groups the soil info into categories 1 through 7 corresponding to the NRCS soil categories D through A, respectively. The soils info was clipped to the watershed boundaries using the watershed shapefile. The areas

obtained from the soils files were checked against the total watershed areas to make sure they were identical.

Combined Soils and Land Use Information and Weighted Curve Numbers

The soils and land use shapefiles were then unioned in GIS to obtain the combinations of soil type and land uses in the watersheds. The resulting table was imported into excel and sorted to group the various land uses. The land uses were then assigned a name associated with the data in the District CN Table. Based on the name and soil number, excel functions “match” and “offset” were used to obtain a CN from the CN Table. The weighted soil number and Curve Number for each watershed were calculated using the areas, soil numbers, and CN’s. The weighted soil types were checked against the data in the original watershed soil files and were found to be the same. The weighted Curve Numbers were linked to a summary worksheet to be used to calculate the yields by the Water Quality Section. This procedure was also applied to the 7 additional watersheds added to the study in August 2010. The results are shown in Table 2.

Table 2: Storm Yield Results- Weighted Average Curve Numbers

Watershed Name	Size ac	Composite CN	Rain (in)	Initial Abs S (no units)	Rain cutoff (in)	Yield (in)	% Yield
Camarillo	2,779	85.12	5.00	1.75	0.35	3.38	68%
Happy Valley	1,026	77.29	5.00	2.94	0.59	2.65	53%
Fox	749	74.19	5.00	3.48	0.70	2.38	48%
Ventura	707	90.93	5.00	1.00	0.20	3.97	79%
Fillmore	762	74.77	5.00	3.37	0.67	2.43	49%
Port Hueneme	589	85.60	5.00	1.68	0.34	3.43	69%
Moorpark	1,816	63.34	5.00	5.79	1.16	1.53	31%
Oxnard	1,374	84.07	5.00	1.89	0.38	3.28	66%
Simi Valley	3,321	71.04	5.00	4.08	0.82	2.12	42%
Santa Paula	64	80.07	5.00	2.49	0.50	2.90	58%
Thousand Oaks	5,179	81.54	5.00	2.26	0.45	3.04	61%

Between the first request and present, the Hydrology Section has updated their Curve Number tables to make them more consistent with reported infiltration rates in the Hydrology Manual. The resultant CNs were used in the study to see the effect on the yields as shown in Table 3.

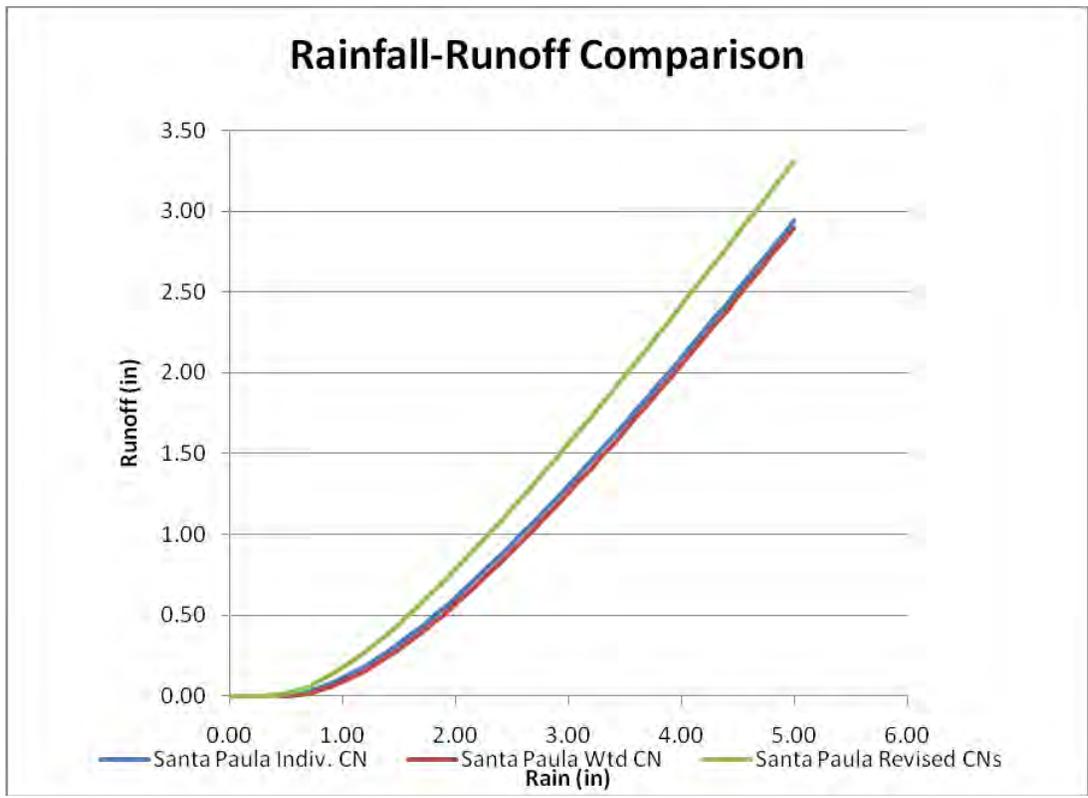
Table 3: Storm Yield Results- Weighted Average Curve Numbers with Updated CNs

Watershed Name	Size ac	Composite CN	Rain (in)	Initial Abs S (no units)	Rain Cutoff (in)	Yield (in)	% Yield
Camarillo	2,779	84.72	5.00	1.80	0.36	3.34	67%
Happy Valley	1,026	77.22	5.00	2.95	0.59	2.64	53%
Fox	749	73.48	5.00	3.61	0.72	2.32	46%
Ventura	707	91.24	5.00	0.96	0.19	4.01	80%
Fillmore	762	74.39	5.00	3.44	0.69	2.40	48%
Port Hueneme	589	86.14	5.00	1.61	0.32	3.48	70%
Moorpark	1,816	64.63	5.00	5.47	1.09	1.63	33%
Oxnard	1,374	84.01	5.00	1.90	0.38	3.27	65%
Simi Valley	3,321	71.11	5.00	4.06	0.81	2.13	43%
Santa Paula	64	84.22	5.00	1.87	0.37	3.29	66%
Thousand Oaks	5,179	81.27	5.00	2.30	0.46	3.01	60%

The results showed that the revised CNs provided yields that were 1 or 2% higher than the 2006 CN set except for the Santa Paula watershed. This watershed was soil type 6, which had CNs that were more affected by the updates than most of the CNs for the other soils.

While working on the 2nd request, it was realized that the Hydrology Section could provide more precise estimates of flow at lower rainfall levels by analyzing each soil/land use combination individually and summing the results rather than using a weighted average CN in the runoff equation. So the individual CN results were calculated and summed for both the 7 sites in this update and the previous 4 sites. The resultant spreadsheets provide tables of runoff vs rainfall data. Figure 1 shows a comparison of the rainfall and runoff from a highly developed watershed Camarillo using the weighted average CN, individual CNs, and revised individual CNs.

Figure 1



Conclusions and Limitations

The provided weighted CNs can be used to estimate runoff from low to moderately saturated watersheds. It has been our experience that it is necessary to use Antecedent Moisture Condition III CNs for highly saturated watersheds which only occurs after many days of heavy rainfall such as January 10, 2005. The provided CNs probably will overpredict the runoff coming from the first storms of the season due to the very dry antecedent moisture conditions present then. If necessary further work can be done to provide CNs representing AMC I conditions. Also, the CNs assigned to the various land uses can be calibrated after enough storms have occurred to evaluate the predictive accuracy of the current yield equations provided to the NPDES group. It should also be possible to provide forecasts of runoff from the HSPF forecast model of the Ventura River watershed that more accurately reflect saturated/unsaturated conditions.

List of Files in Work Directory K:\PR\hydrology\Watersheds\NPDES\Monitoring_Sites

Filename	Description
GIS	Contains GIS files used in evaluation
GIS2010	Contains 2010 GIS files used in updated evaluation
ClippedLandUse.mdb	Geodatabase with land uses clipped to watershed boundaries provided by WQ section
*_SelectedWatershed.shp	shapefiles showing boundaries of monitoring watersheds
*soils.shp	soils shapefiles clipped to watershed boundaries
*soilsunion.shp	Union of soils and land use data shapefile for watersheds
Allsoil.shp	VCWPD soils shapefile showing numbers for hydrology calcs
NPDES_MonitoringSitesRunoff9-09.xls	9-09 CN data
NPDES_MonitoringSitesRunoff8-10.xls	8-10 updated analysis for 11 sites total
NPDES_MonitoringSitesRunoff8-10RevCNs.xls	8-10 analysis using revised CNs
MonitoringSites9-09.mxd	ArcMap project file for analysis

Ventura Watershed

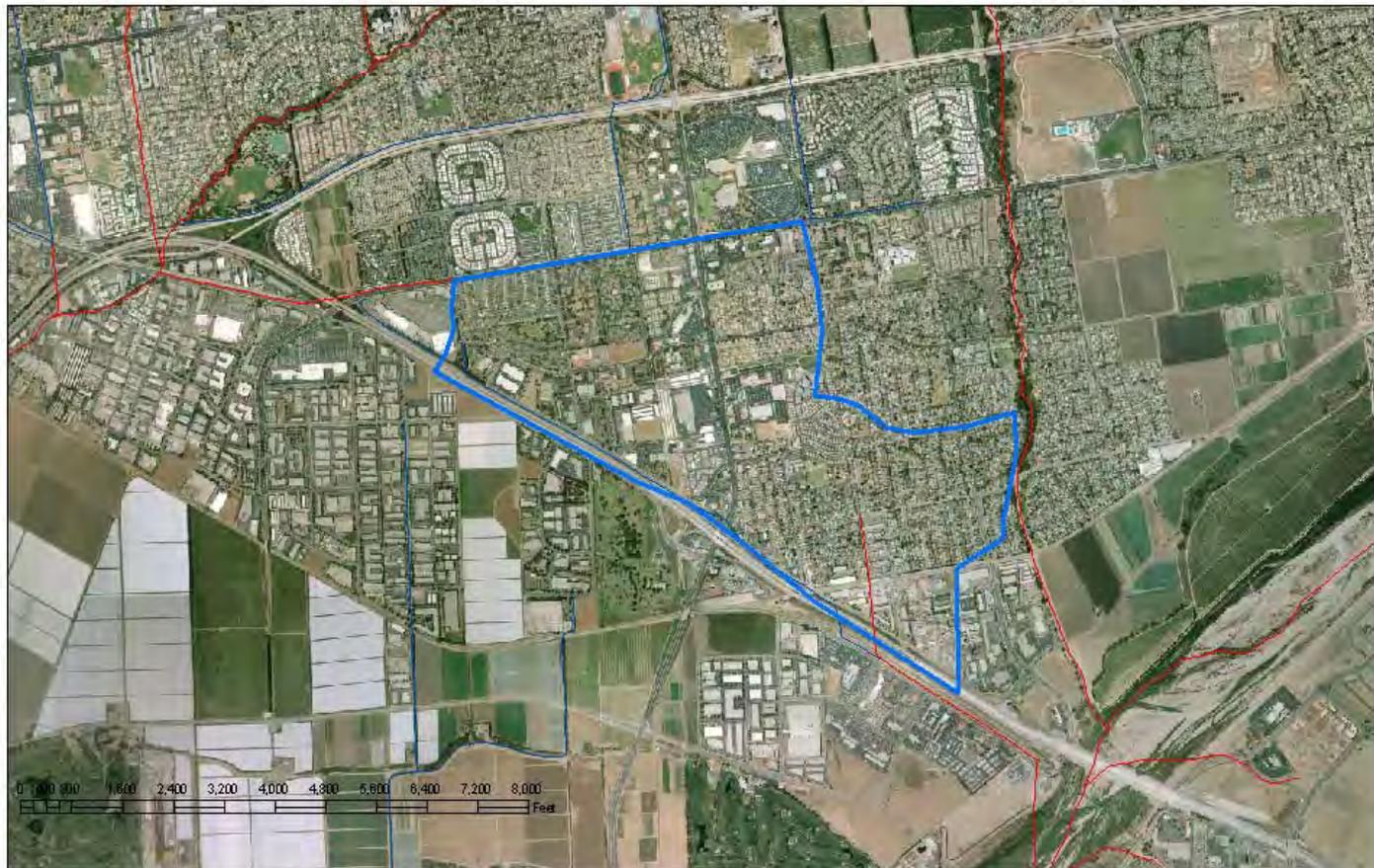


Figure 2

Meiners Oaks Happy Valley Watershed

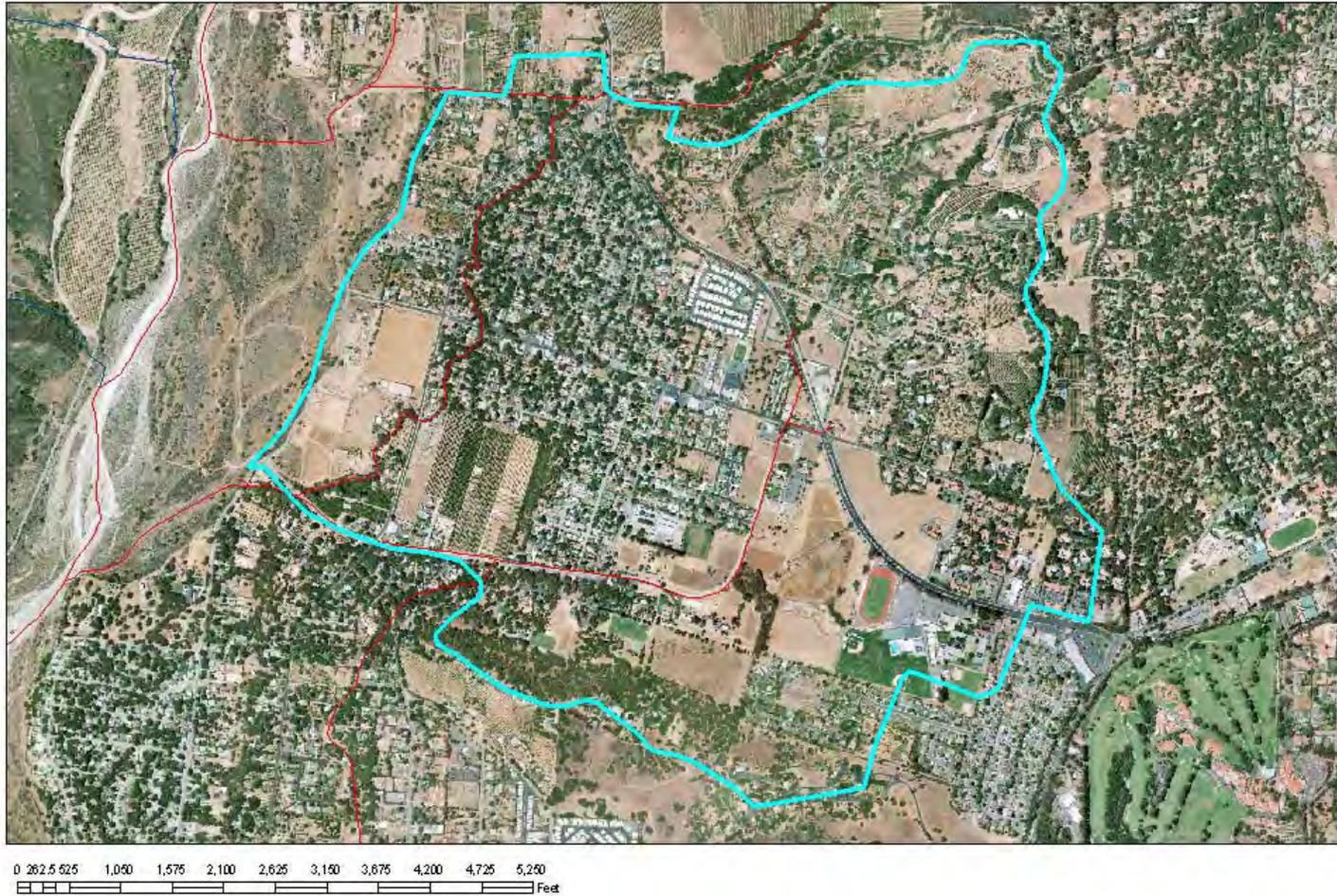


Figure 3

Ojai Fox Watershed

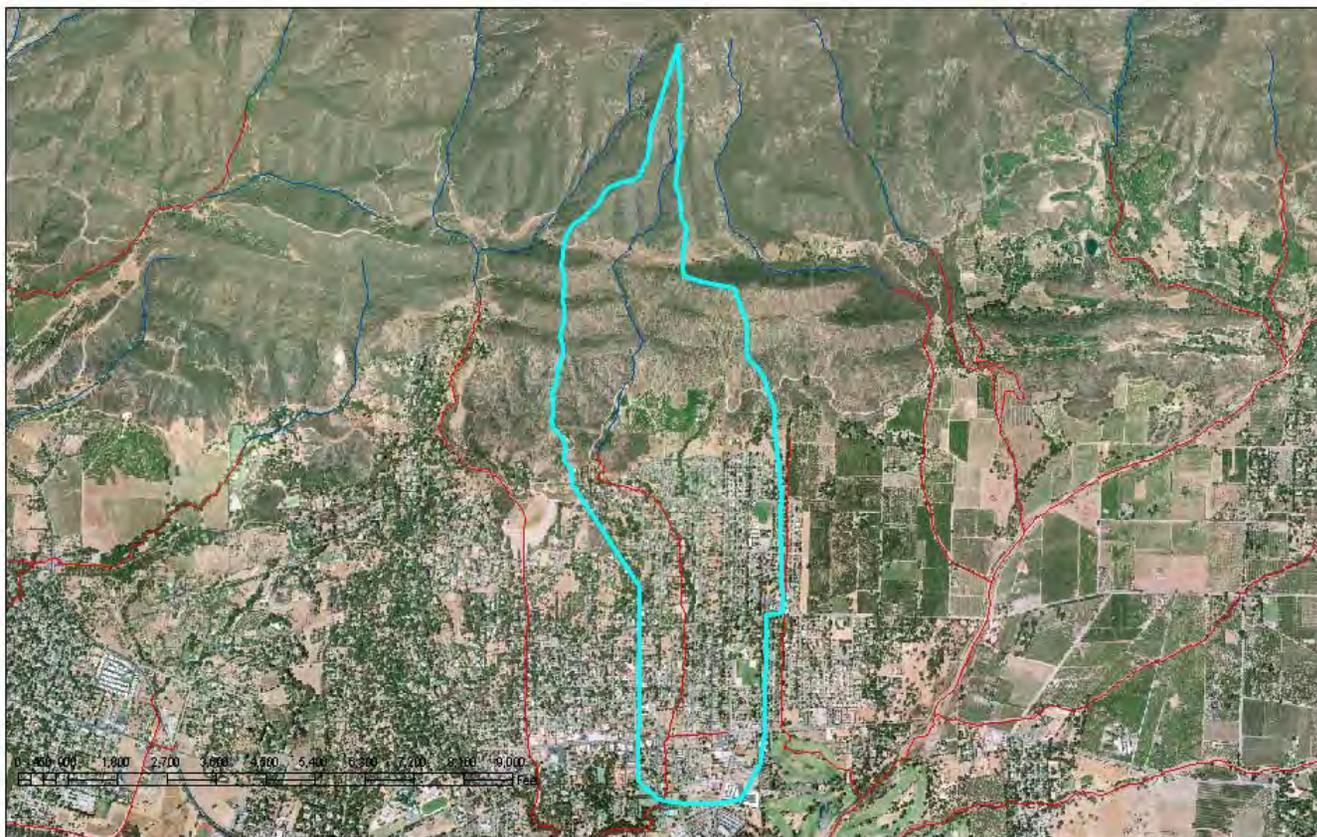


Figure 4

Camarillo Hills Drain Watershed

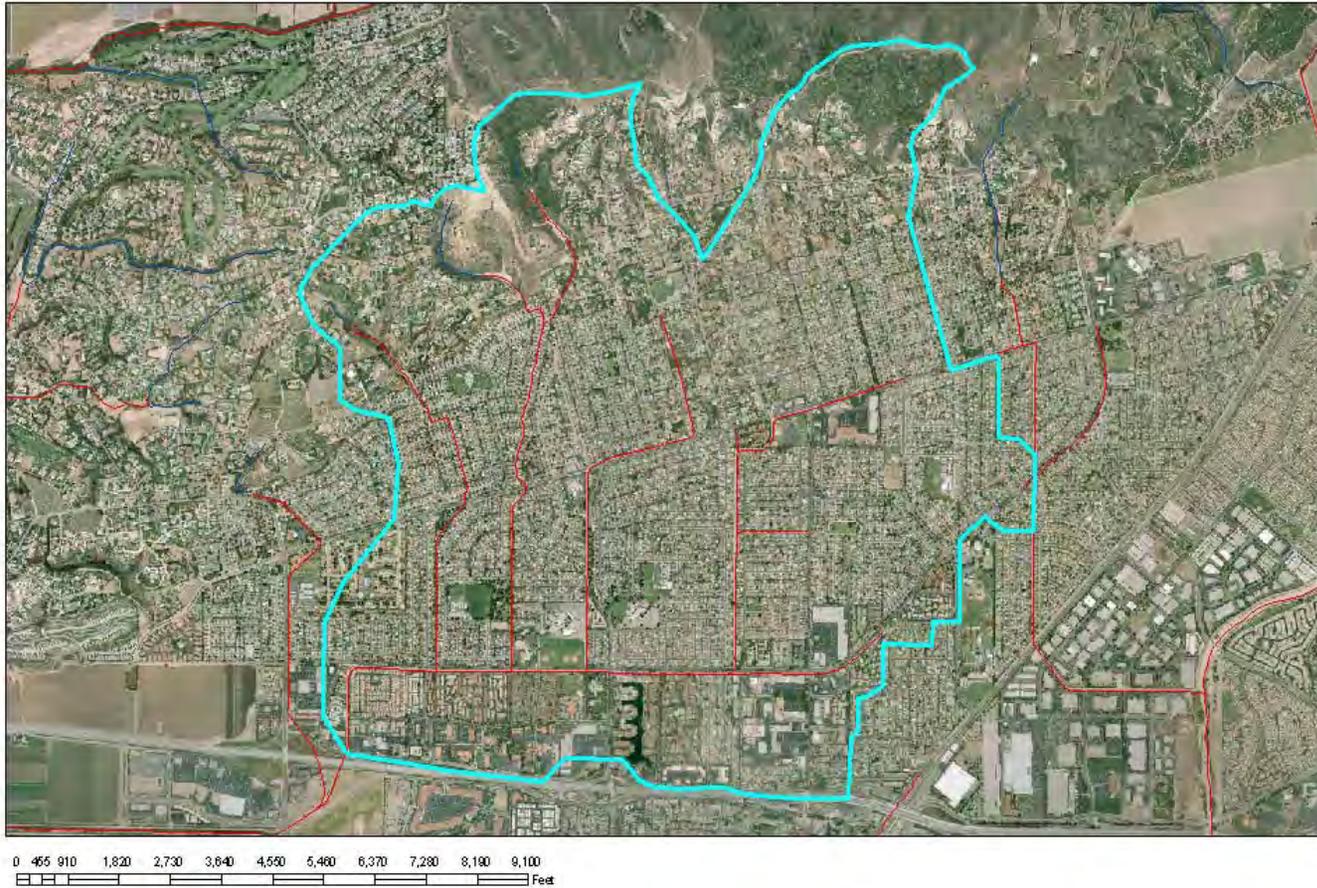
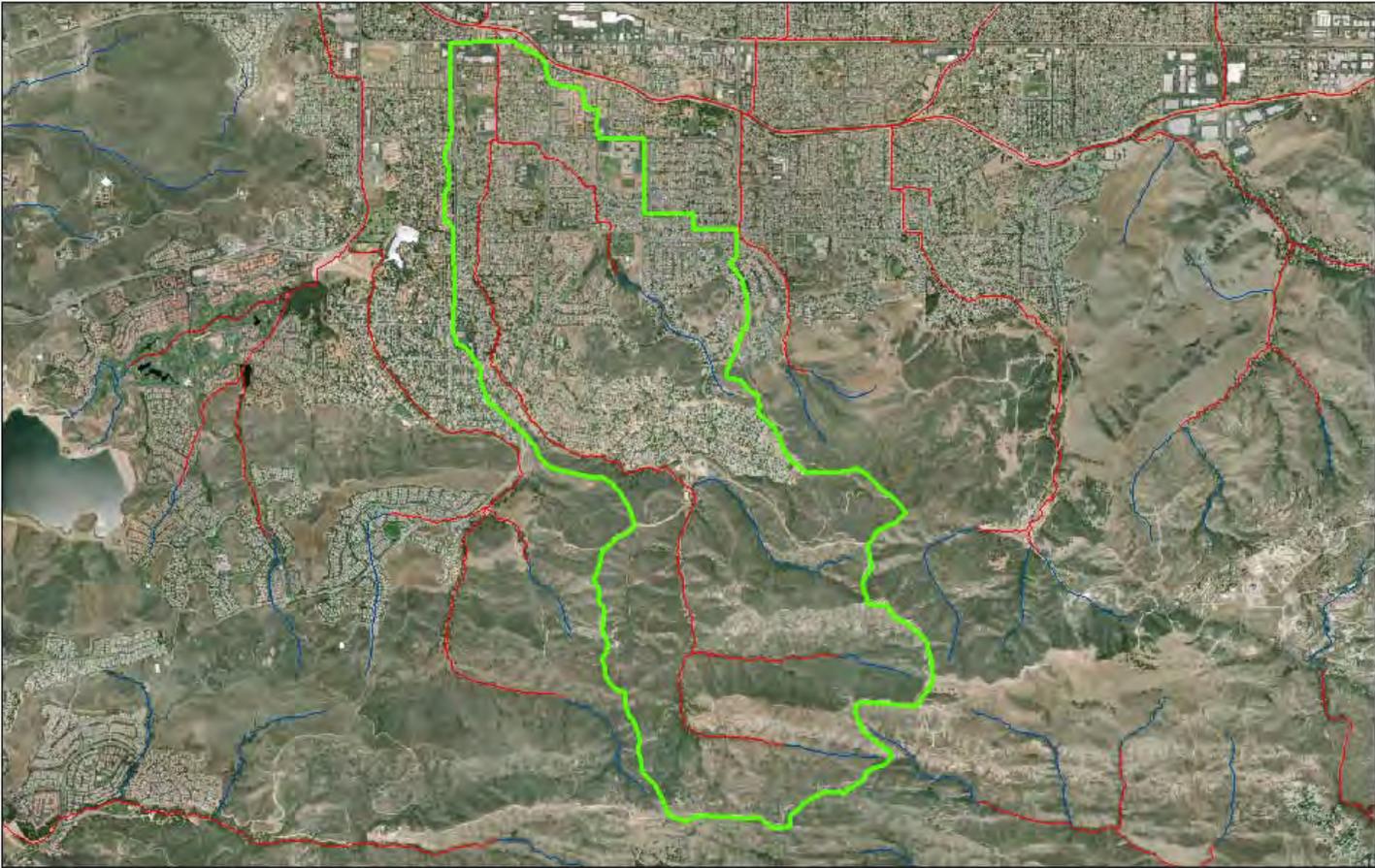


Figure 5

Simi Valley Watershed



0 750 1,500 3,000 4,500 6,000 7,500 9,000 10,500 12,000 13,500 15,000 Feet

Figure 6

Oxnard Watershed



Figure 7

Moorpark Watershed

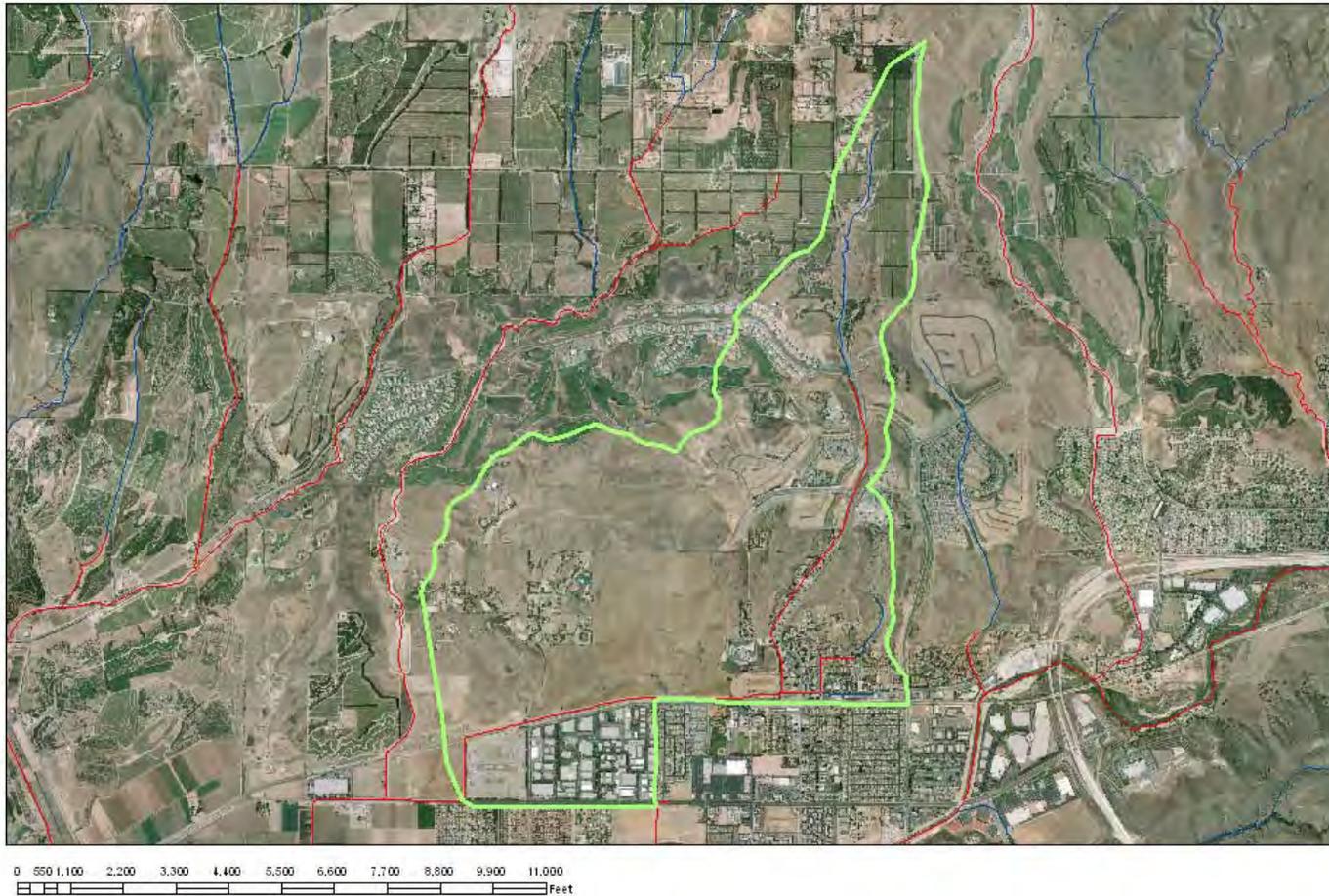


Figure 8

Port Hueneme Watershed

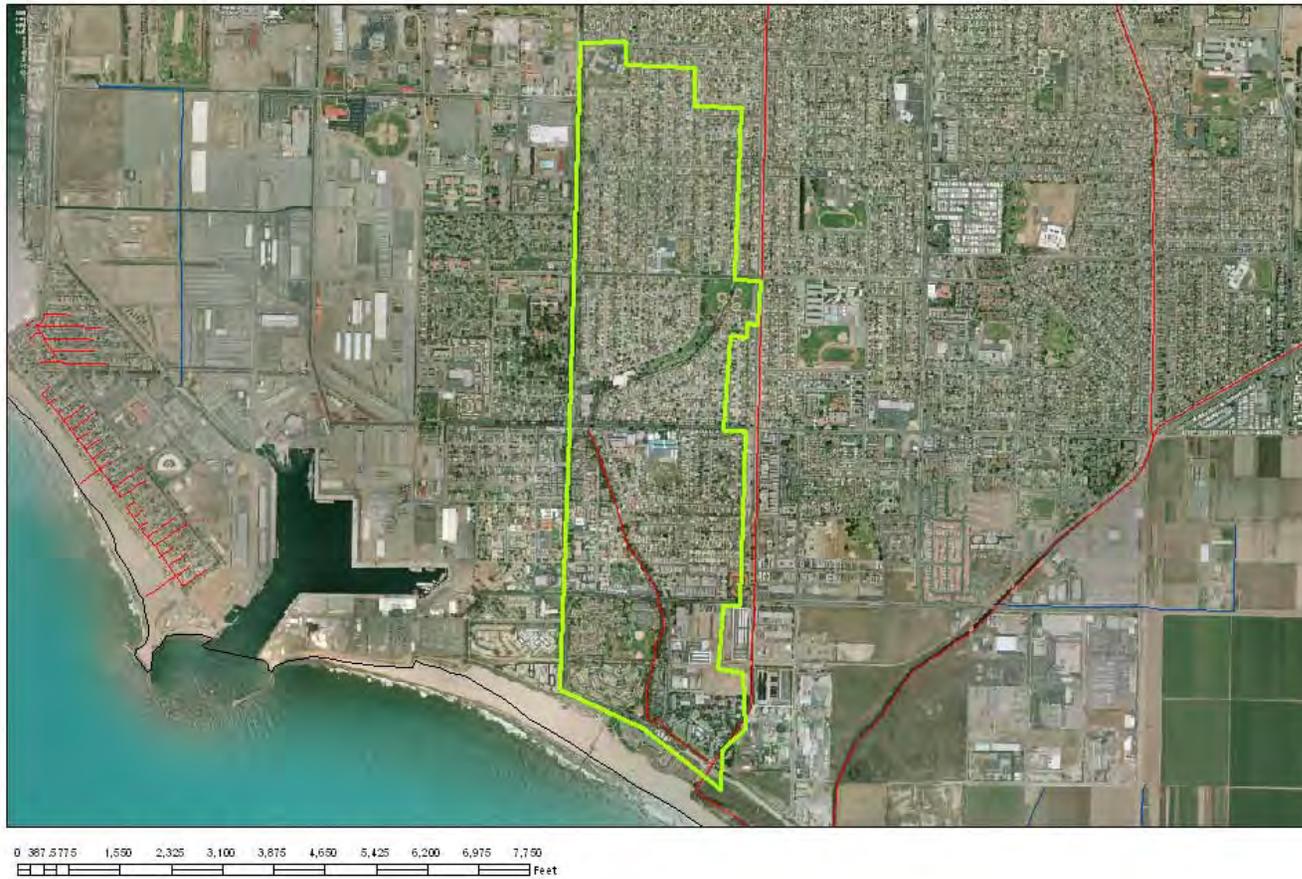


Figure 9

Fillmore Watershed



Figure 10

Thousand Oaks Watershed

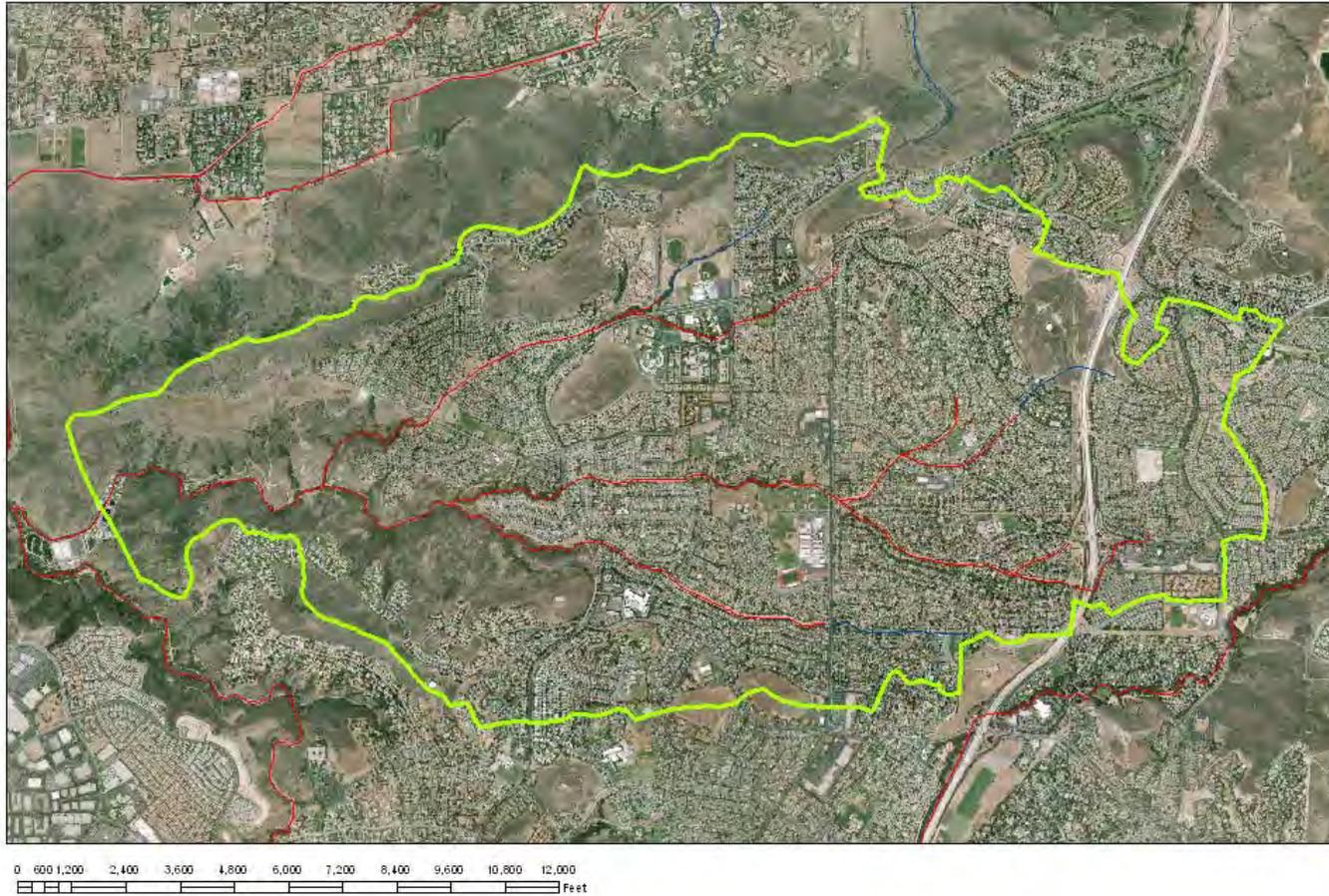


Figure 11

Santa Paula Watershed

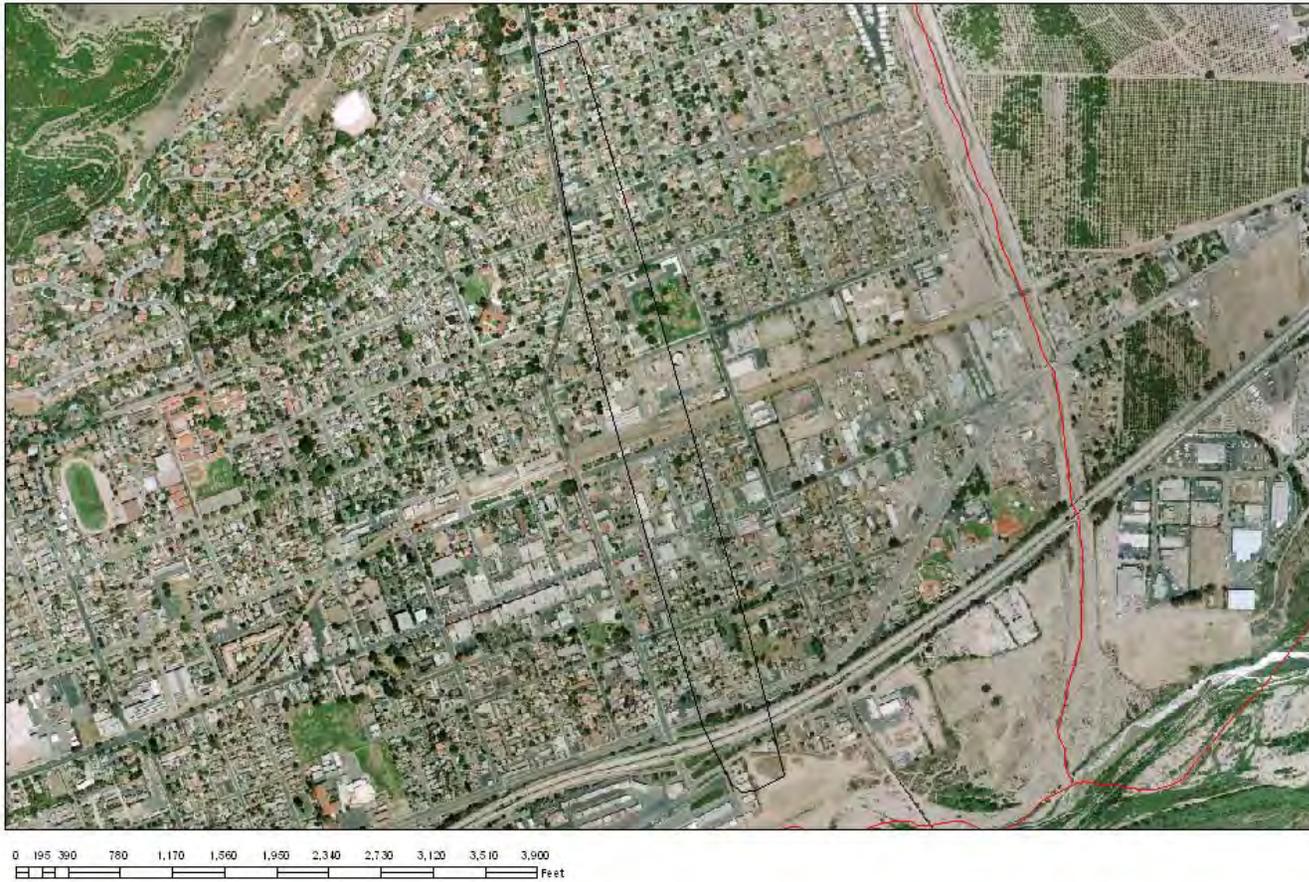


Figure 12

Appendix D. Event Summaries

Forecasted Rainfall Amounts: 0.5" across the county

Actual Rainfall Amounts: ~ 0.5" to ~ 1.5" across the county

Sampling Durations (to nearest 0.5 hours):

ME-CC = 13.0 hrs.	ME-SCR = 23.0 hrs.	ME-VR2 = 25.0 hrs.
MO-CAM = 5.5 hrs.	MO-FIL = 23.0 hrs.	MO-HUE = 12.5 hrs.
MO-MEI = 5.5 hrs.	MO-MPK = 6.5 hrs.	MO-OJA = 2.0 hrs.
MO-OXN = 4.5 hrs.	MO-SIM = 7.0 hrs.	MO-SPA = 5.5 hrs.
MO-THO = 3.0 hrs.	MO-VEN = 4.0 hrs.	

Storm Control: Bill Carey

Sampling Crew (during storm):

Team One (VR2/OJA/MEI/VEN(&MD-1)): Kelly Hahs & Chris Stephens

Team Two (CC/SCR/CAM/HUE/OXN): Arne Anselm & Pete Chartier (VRSD)

Team Three (FIL/SPA/MPK/SIM/THO): David Thomas (VRSD) & Jason Siegert (VRSD)

Sampling Crew (post-storm sample pickup):

10/05/2011 (CAM/OXN/SPA/VEN): Kelly Hahs & Chris Stephens (VRSD)

10/06/2011 (VR2/FIL/MEI/OJA/OXN): Kelly Hahs & Jason Siegert (VRSD)

10/06/2011 (CC/SCR/MPK/SIM/THO): Bill Carey & David Thomas (VRSD)

NPDES ~ MASS EMISSION

ME-CC Calleguas Creek (CSUCI Bridge)

❖ **10/04/11 @ 11:10 a.m. PDT. [KH]**

Forecast 0.5" rainfall → 2105 set remotely to 600,000 cf pacing.

4230: 10:07 PST, 1.123', 1 cfs. Outside staff ~1.10'

6712: Fridge at 6° C, turned cooler. Flushed line with 2L distilled water. Pump tubing count 43,961. Program flow paced; pacing every 1 pulse, 24 hour max run time. Run program: "Program disabled". Installed one 18.5 L labeled bottle, lid off. Left grab bottles onsite.

❖ **10/05/11 @ 10:25 a.m. PDT. [AEA,PC]**

4230: 09:26 PST, 1.291', 11 cfs

6712: "Sample 6 after 1 pulse." Bottle 2-3" full. Fridge at 4° C.

Grab samples: Taken at check structure @ 10:30 a.m. PDT.

Field Measurements:	Temperature = 18.4° C	pH = 7.60
DO (%) = 71.0	Conductivity = 1170 uS	Salinity = 0.7 ppt
DO(mg/L) = 6.80	Specific Conductance = 1320 uS	

❖ **10/06/11 @ 09:55 a.m. PDT. [WBC,DT]**

4230: 08:55 PST, 1.311', 13 cfs. Outside staff ~ 1.30'.

6712: "Program: Flow paced is done." Bottle full. Flushed line with 2 L distilled water. Pump tubing count 411,949. Turned fridge off, disconnected fuse, and left lid open. Viewed 6712 report, first 2 samples 4 minutes apart with no errors. [Later determined that 4230 level fluctuated around the enable threshold causing the sampler to repeatedly enable and disable and consequently pulled samples each time it was enabled. Changed the hysteresis to 0.03' to prevent future occurrences.]

NPDES 2011/2012 Event #1 (Wet)

Composite samples: Pulled at 09:55 a.m. PDT.

ME-SCR Santa Clara River (Freeman Diversion)

❖ 10/04/11 @ 16:05 p.m. PDT. [KH]

Forecast 0.5" rainfall.

4210: 14:58 p.m. PST, -0.002', 0 cfs

6712: Warning message: "Replace internal battery before 21-Sept-11" will not affect sampling. Refrigerator at 2° C. Flushed line with 2L distilled water. Pump tubing count 41,346. Program time paced 24 hours. Run program: "Program disabled". Installed one 18.5 L labeled bottle, lid off. Left grab bottles onsite.

❖ 10/05/11 @ 12:10 p.m. PDT. [AEA,PC]

Grab samples: Bacteria samples taken at @ 12:10 p.m. PDT and delivered to the lab to meet the hold time for the earliest collected sample. The sampling crew then returned to the site to collect the toxicity and chemistry grab samples.

❖ 10/05/11 @ 13:15 p.m. PDT. [AEA,PC]

6712: "Sample 14 in 00:35:20. Errors have occurred during program." Bottle 5" full. Fridge at 0° C.

Grab samples: Toxicity and chemistry grabs taken at @ 13:00 p.m. PDT.

Field Measurements:

Temperature = 16.6° C	pH = 7.50
DO (%) = 65.0	Conductivity = 829 uS
DO(mg/L) = 6.40	Salinity = 0.5 ppt
	Specific Conductance = 984 uS

❖ 10/06/11 @ 11:00 a.m. PDT. [WBC,DT]

4210: 0.051'

6712: "Program: time paced is done. Errors have occurred during program." Bottle ¼ full due to UWCD turning out water away from diversion canal. Flush line with 2L distilled water. Pump tubing count 173,138.

Composite samples: Pulled at 11:00 a.m. PDT.

Notes: Priority list was initiated after discussion with Arne Anselm (WPD) and Hai Van Nguyen (Weck Laboratories, Inc.) due to limited composite volume.

ME-VR2 Ventura River (Ojai Valley Sanitary District)

❖ 10/04/11 @ 08:47 a.m. PDT. [DT]

Forecast 0.5" rainfall → 40,000 cf pacing (2105 set remotely to 1,000 cf pacing).

4230: 07:48 PST, 2.208', 2 cfs. Outside staff 2.208'.

6712: Fridge at 1° C. Flushed line with 2L distilled water. Pump tubing count 40,921. Program flow paced; pacing every 40 pulses. Run program: "Program disabled". Installed one labeled 18.5 L bottle, lid off. Left grab bottles onsite.

❖ 10/04/11 @ 17:02 p.m. PDT. [WBC-remote]

2105: Set enable trigger to 2.35'.

❖ 10/05/11 @ 08:30 a.m. PDT. [WBC-remote]

2105: Set enable trigger to 2.25'.

❖ 10/05/11 @ 09:45 a.m. PDT. [KH,CS]

4230: 08:51 PST, 2.358', 4 cfs

6712: "Program: Flow paced is done" but only one sample was taken. Reran program but sampler went to "Sample 1 after 40 pulses" without taking a sample. Storm control remotely disabled and re-enabled sampler and set pacing to 20,000 cf by setting 2105 pacing to 500 cf. Sampler took first sample.

Grab samples: Taken in river near composite inlet at 10:05 a.m. PDT.

Field Measurements: Temperature = 16.5° C pH = 7.25
DO (%) = 60.3 Conductivity = 957 uS Salinity = 0.6 ppt
DO(mg/L) = 5.82 Specific Conductance = 1164 uS

❖ **10/06/11 @ 10:05 a.m. PDT. [KH,JS]**

4230: 09:03 PST, 2.355', 4 cfs. Outside staff ~ 2.32'

6712: Fridge at 4° C. "Program: Flow paced is done". Bottle full ~ 16L. Flushed line with 2 L distilled water. Pump tubing count 247,991. Turned 6712 off.

Composite samples: Pulled at 10:05 a.m. PDT.

NPDES ~ MAJOR OUTFALLS

MO-CAM Camarillo (Camarillo Hills Drain)

❖ **10/04/11 @ 12:07 p.m. PDT. [KH]**

Forecast 0.5" rainfall → 2105 set remotely to 10,000 cf pacing (should have been 1,000 cf).

4230: 11:08 PST, 0.031', 10 cfs

6712: Fridge at 2° C. Flushed line with 2L distilled water. Pump tubing count 18,335. Program flow paced; pacing every 30 pulses. Run program: "Program disabled". Installed one labeled 18.5 L bottle, lid off. Left grab bottles onsite.

❖ **10/05/11 @ 06:51 a.m. PDT. [WBC]**

2105: Pacing was not functioning properly, determined that 2105 was set to 10,000 cf rather than 1,000 cf, repaired.

❖ **10/05/11 @ 7:45 a.m. PDT. [AEA,PC]**

4230: 0.354', 53 cfs. Outside staff ~ 0.25'

6712: "Sample 6 after 8 pulses." Bottle ~ 3" full. Fridge at 2.5° C.

Grab samples: Taken at 07:45 a.m. PDT.

Field Measurements: Temperature = 17.1° C pH = 7.42
DO (%) = Not Recorded Conductivity = 76.8 uS Salinity = Not Recorded
DO(mg/L) = 9.10 Specific Conductance = 90.4 uS

❖ **10/05/11 @ 12:20 p.m. PDT. [KH,CS]**

4230: 11:20 PST, 0.417', 65 cfs

6712: "Program: Flow paced is done". Bottle full. Flushed line with 2 L distilled water. Pump tubing count 106,471. Turned 6712 off.

Composite samples: Pulled 12:20 p.m. PDT.

MO-FIL Fillmore (North Fillmore Drain)

❖ **10/04/11 @ 12:05 p.m. PDT. [DT]**

Forecast 0.5" rainfall

4250: 11:03:35 PST, 2.910', 9.60 cfs, 0.22 ft/sec (velocity sensor is in error)

6712: Fridge at 7° C. Flushed line with 2L distilled water. Run 24 hour time-paced program: "Program disabled". Installed one labeled 18.5 L bottle, lid off. Left grab bottles onsite.

❖ **10/05/11 @ 07:06 a.m. PDT. [DT,JS]**

4250: 06:04 PST, 3.487', 0.19 ft/sec, 9.94 cfs (rating is in error)

6712: "Sample 2 in 00:16:13". Bottle 500 ml. Fridge at 3° C.

Grab samples: Taken at 07:15 a.m. PDT.

Field Measurements: Temperature = 18.9° C pH = 7.2
DO (%) = 66.1 Conductivity = 783 uS Salinity = 0.4 ppt
DO(mg/L) = 6.26 Specific Conductance = 888 uS

Notes: Sheen observed, fuel odor.

❖ **10/06/11 @ 08:00 a.m. PDT. [KH,JS]**

4250: 06:51 PST, 3.015', 7.24 cfs (rating is in error)

6712: "Program: time paced is done". Fridge at 4° C. Bottle full. Flushed line with 2 L distilled water. Pump tubing count 180,063.

Composite samples: Pulled at 08:00 a.m. PST.

MO-MEI Meiners Oaks (Happy Valley Drain)

❖ **10/04/11 @ 09:45 a.m. PDT. [DT]**

Forecast 0.5" rainfall → 3,000 cf pacing (2105 set remotely to 1,000 cf pacing).

4230: 08:41, 0.081', 1 cfs (no flow in channel)

6712: Fridge at 5° C. Flushed line with 2L distilled water. Pump tubing count 26,872. Program flow paced; pacing every 3 pulses. Run program: "Program disabled". Installed one labeled 18.5 L bottle, lid off. Left grab bottles onsite.

❖ **10/05/11 @ 07:40 a.m. PDT. [KH,CS]**

4230: 06:38 PST, 0.191', 7 cfs. Outside staff ~ 0.19'

6712: Watched Sample 10, volume good. "Sample 11 after 3 pulses. Errors have occurred during program." Bottle ~ 2-3L.

Notes: Removed leaves from around intake strainer and ~ 10 meters upstream.

Grab samples: Taken at 08:00 a.m. PDT.

Field Measurements: Temperature = 16.0° C pH = 8.03
DO (%) = 109.0 Conductivity = 174.5 uS Salinity = 0.1 ppt
DO(mg/L) = 10.57 Specific Conductance = 209.0 uS

❖ **10/05/11 @ 10:50 a.m. PDT. [KH,CS]**

4230: 09:49 PST, 0.161', 5 cfs.

6712: Program done but only took 32 samples. Several samples had no liquid detected so bottle ~ 11 L. Took manual 6712 grab sample and then reprogrammed for 6 more samples "Sample 1 after 3 pulses."

❖ **10/06/11 @ 09:30 a.m. PDT. [KH,JS]**

4230: 08:21 PST, 0.081', 1 cfs

6712: "Program: Flow paced is done." Fridge at 4° C. Flushed line with 2 L distilled water. Pump tubing count 106,362. Raised fridge temp for non-sampling period.

Composite samples: Pulled at 09:30 a.m. PDT.

Notes: Measured high water mark in stilling well, not easily measured but estimated at 0.4', later determined to have been insufficient flow to create a high water mark in the stilling well. Stilling well door was freshly painted – paint still tacky.

MO-MPK Moorpark (Gabbert Canyon Drain)

❖ 10/04/11 @ 09:20 a.m. PDT. [KH]

Forecast 0.5" rainfall → 3,000 cf pacing (2105 set remotely to 1,000 cf pacing).

4230: 08:21 PST, 0.075', 0.2 cfs

6712: Fridge at 3° C. Flushed line with 2L distilled water. Pump tubing count 21,832.

Program flow paced; pacing every 3 pulses. Run program: "Program disabled". Installed one labeled 18.5 L bottle, lid off. Left grab bottles onsite.

Notes: Marked chalk line inside reinforced concrete pipe (RCP) upstream and on both sides of channel near sampling house.

❖ 10/05/11 @ 08:15 a.m. PDT. [DT,JS]

4230: 07:13 PST, 0.168', 2.2 cfs

6712: "Sample 5 after 1 pulse". Bottle volume good.

Grab samples: Taken at 08:30 a.m. PDT.

Field Measurements:

Temperature = 17.0° C	pH = 7.60
DO (%) = 70.6	Conductivity = 306.8 uS
DO(mg/L) = 6.76	Salinity = 0.2 ppt
	Specific Conductance = 352.3 uS

Notes: No flow from upper or lower RCP from Edison property to have analyzed for pentachlorophenol (EPA 515.3).

❖ 10/05/11 @ 13:00 p.m. PDT. [DT,JS]

Edison grab samples (for pentachlorophenol analysis):

Edison RC Pipe at MPK – Lower = 13:15 p.m. PDT

Edison RC Pipe at MPK – Upper = 13:25 p.m. PDT

MO-MPK Upstream at RR = 13:20 p.m. PDT

❖ 10/06/11 @ 07:50 a.m. PDT. [WBC,DT]

4230: 0.073', 0.2 cfs

6712: Fridge at 4° C. "Program disabled". Bottle is full. Flushed line with 2 L distilled water. Pump tubing count 123,129.

Composite samples: Pulled at 7:50 a.m. PDT.

MO-OJA Ojai (Fox Canyon Barranca)

❖ 10/04/11 @ 10:25 a.m. PDT. [DFT]

Forecast 0.5" rainfall → 3,000 cf pacing (2105 set remotely to 1,000 cf pacing).

4230: 09:22 PST, -0.009', 0 cfs

6712: Fridge at 1° C. Flushed line with 2L distilled water. Pump tubing count 19,867.

Program flow paced; pacing every 3 pulses. Run program: "Program disabled". Installed one labeled 18.5 L bottle, lid off. Left grab bottles onsite.

Notes: Prepared mud line under bridge for high water mark.

❖ 10/05/11 @ 08:30 a.m. PDT. [KH,CS]

4230: 07:30 PST, 0.069' → 07:31 PST, 0.115', 6 cfs (removed palm fronds from channel that were preventing flow from reaching bubbler and intake).

6712: "Program disabled". One sample in bottle. Watched sample 2, volume good. "Sample 3 after 1 pulses."

Grab samples: Taken at 09:00 a.m. PDT.

Field Measurements: Temperature = 16.0° C pH = 7.48
DO (%) = 98.4 Conductivity = 84.3 uS Salinity = 0.1 ppt
DO(mg/L) = 10.60 Specific Conductance = 102.9 uS

❖ **10/06/11 @ 08:55 a.m. PDT. [KH,JS]**

4230: 07:51 PST, -0.008', 0 cfs

6712: Fridge at 3° C. "Program: Flow paced is done". Bottle ~ 12L. Flushed line with 2 L distilled water. Pump tubing count 70,982. Turned 6712 off.

Composite samples: Pulled at 08:55 a.m. PDT.

Notes: High water mark ~0.25' inside curve and 0.3' outside curve.

MO-OXN Oxnard (El Rio Drain)

❖ **10/04/11 @ 13:04 p.m. PDT. [DT]**

Forecast 0.5" rainfall → 14,000 cf pacing (2105 set remotely to 1,000 cf pacing).

4230: 12:03 PDT, 0.108', 0.2 cfs

6712: Fridge at 7° C. Flushed line with 2L distilled water. Program flow paced; pacing every 14 pulses. Run program: "Program disabled". Installed one labeled 18.5 L bottle, lid off. Left grab bottles onsite.

❖ **10/05/11 @ 06:55 a.m. PDT. [AEA,PC]**

4230: 05:55 PST, 0.736' [o/s 0.8'], 13.2 cfs

6712: Fridge at 3° C. Bottle 2-3" full. "Sample 5 after 8 pulses."

Grab samples: Taken at 06:55 a.m. PDT.

Field Measurements: Temperature = 17.8° C pH = 7.13
DO (%) = 72.0 Conductivity = 242 uS Salinity = Not recorded
DO(mg/L) = 6.98 Specific Conductance = Not recorded

❖ **10/05/11 @ 14:05 p.m. PDT. [KH,JS]**

4230: 13:05 PST, 0.573', 8.4 cfs

6712: "Program: Flow paced is done". Bottle full. Flushed line with 2 L distilled water. Pump tubing count 110,376.

Composite samples: Pulled at 14:05 p.m. PDT.

MO-HUE Port Hueneme (Hueneme Drain)

❖ **10/04/11 @ 13:53 a.m. PDT. [DT]**

Forecast 0.5" rainfall

6712: Fridge at 7° C. Flushed line with 2L distilled water. Pump tubing count 27,614. Run 24 hour time-paced program: "Program disabled". Installed one labeled 18.5 L bottle, lid off. Left grab bottles onsite.

❖ **10/05/11 @ 09:15 a.m. PDT. [AEA,PC]**

6712: Fridge at 4° C. "Sample 8 in 12:09:00". Bottle 3" full.

Grab samples: Taken at 09:15 a.m. PDT.

Field Measurements: Temperature = 17.2° C pH = 7.50
DO (%) = 58.1 Conductivity = 1410 uS Salinity = Not recorded
DO(mg/L) = 5.30 Specific Conductance = 1678 uS

Notes: Pumps on.

❖ **10/06/11 @ 11:05 a.m. PDT. [KH,JS]**

6712: Fridge at 2° C. "Program disabled." Stopped program. Bottle ~9L full. Flushed line with 2 L distilled water. Pump tubing count 113,466. Turned 6712 off.

Composite samples: Pulled at 11:05 a.m. PDT.

MO-SIM Simi Valley (Bus Canyon Drain)

❖ **10/04/11 @ 08:40 a.m. PDT. [KH]**

Forecast 0.5" rainfall → 16,000 cf pacing (2105 set remotely to 1,000 cf pacing).

4230: 07:37 PST, 0.138', 2 cfs [outside staff is out of communication with water]

6712: Fridge at 6° C, turned colder. Flushed line with 2L distilled water. Program flow paced; pacing every 16 pulses. Run program: "Program disabled". Installed one labeled 18.5 L bottle, lid off. Left grab bottles onsite.

Notes: Marked east wall under bridge with chalk for high water line.

❖ **10/05/11 @ 09:11 a.m. PDT. [DT,JS]**

4230: 08:12 PST, 0.208', 5 cfs

6712: "Program: Flow paced is done." Bottle only 1.5-2". Reprogram 6712 per WBC instructions at 09:40 am PDT. Liquid detector error so stopped program, reset pump tube, and restarted program at 09:42 PDT. "Program disabled".

Grab samples: Taken at 09:15 a.m. PDT

Field Measurements: Temperature = 16.7° C pH = 6.90
DO (%) = 53.4 Conductivity = 800 uS Salinity = 0.5 ppt
DO(mg/L) = 4.93 Specific Conductance = 939 uS

❖ **10/06/11 @ 08:30 a.m. PDT. [WBC,DT]**

4230: 0.139', 2 cfs

6712: Fridge at 4° C. "Program disabled. Errors have occurred during this program". No liquid detected at sample 1 and 28. Bottle full. Flushed line with 2 L distilled water.

Pump tubing count 88,705.

Composite samples: Pulled at 08:30 a.m. PDT.

MO-SPA Santa Paula (11th Street Drain)

❖ **10/04/11 @ 11:24 a.m. PDT. [DT]**

Forecast 0.5" rainfall → 4,000 cf pacing (2105 set remotely to 1,000 cf pacing).

4250: 10:22, 0.018', 0 cfs

6712: Fridge at -2° C, turned one click warmer. Flushed line with 2L distilled water. Pump tubing count 41,265. Program flow paced; pacing every 4 pulses. Run program: "Program disabled". Installed one labeled 18.5 L bottle, lid off. Left grab bottles onsite.

❖ **10/05/11 @ 06:14 a.m. PDT. [DT,JS]**

4250: 0.400', 4.09 cfs, 6.38 ft/sec

6712: "Sample 4 after 1 pulse." Bottle ~ 1" full.

Grab samples: Taken at 06:15 a.m. PDT.

Field Measurements: Temperature = 17.6° C pH = 7.30
DO (%) = 76.3 Conductivity = 288.5 uS Salinity = 0.1 ppt
DO(mg/L) = 7.42 Specific Conductance = 332.5 uS

Notes: Water is coke color with no odor. Foam at outfall.

4250: 05:39 PST, 0.508', 5.59 cfs, 6.02 ft/sec

6712: "Sample 6 after 1 pulse." Bottle ~ 1" full.

❖ **10/05/11 @ 13:20 p.m. PDT. [KH,CS]**

4250: 12:14 PST, 0.672', 10.57 cfs

6712: Program is done. Bottle full. Flushed line with 2 L distilled water. Pump tubing count 197,391. Turned 6712 off.

Composite samples: Pulled at 13:20 p.m. PDT.

MO-THO Thousand Oaks (Hill Canyon WWTP)

❖ **10/04/11 @ 10:15 a.m. PDT. [KH]**

Forecast 0.5" rainfall → 30,000 cf pacing through the 4230.

4230: 09:16 PST, 2.115', 1 cfs. No tape measure in truck to measure outside staff.

Pacing set at 30,000 cf. Threshold for enable set to 2.50'.

6712: Fridge at 4° C. Flushed line with 2L distilled water. Pump tubing count 24,352.

Program flow paced; pacing every 1 pulse. Run program: "Program disabled. Installed one labeled 18.5 L bottle, lid off. Left grab bottles onsite.

❖ **10/05/11 @ 10:25 a.m. PDT. [DT,JS]**

4230: 09:23 PST, 2.329' [outside staff is 2.5'], 3 cfs

6712: "Program disabled." No samples in bottle. Called WBC. Enabled 4230, Sample 1 500 ml. Adjusted pacing to 15,000 cf at 09:32.

Grab samples: Taken at 10:30 a.m. PDT.

Field Measurements: Temperature = 16.0° C pH = 8.10
DO (%) = 73.6 Conductivity = 1573 uS Salinity = 1.0 ppt
DO(mg/L) = 7.18 Specific Conductance = 1902 uS

❖ **10/06/11 @ 09:22 a.m. PDT. [WBC,DT]**

4230: 2.125', 1 cfs

6712: Fridge at 4° C. "Program: Flow paced is done". Bottle full. Flushed line with 2 L distilled water. Pump tubing count 183,169.

Composite samples: Pulled at 09:22 a.m. PDT.

Notes: High water mark at ~ 4.0'.

MO-VEN Ventura (Moon Ditch)

❖ **10/04/11 @ 08:45 a.m. PDT. [WBC]**

Forecast 0.5" rainfall → 20,000 cf pacing (2105 set remotely to 1,000 cf pacing).

4230: 08:46 PST, 0.039', 0 cfs [no contact with outside staff]

6712: Fridge at 1° C. Flushed line with 2L distilled water. Pump tubing count 23,953.

Program flow paced; pacing every 20 pulses. Run program: "Program disabled."

Installed one labeled 18.5 L bottle, lid off. Left grab bottles onsite.

Notes: Installed fine mesh stainless steel screen on ISCO 674 rain gauge.

❖ **10/05/11 @ 06:10 a.m. PDT. [KH,CS]**

4230: 05:10 PST, 0.290' [o/s ~0.28' at 05:25 a.m. PST], 12 cfs

6712: Fridge at 3° C. "Sample 4 after 11 pulses". Bottle ~2L full.

Grab samples: Taken at 06:30 a.m. PST. Field duplicates (MD-1) taken at 06:30 a.m. PST.

Field Measurements: Temperature = 17.2° C pH = 7.84
DO (%) = 88.2 Conductivity = 320.4 uS Salinity = 0.2 ppt
DO(mg/L) = 8.50 Specific Conductance = 376.0 uS

❖ **10/05/11 @ 13:50 p.m. PDT. [KH,CS]**

4230: 12:49 PST, 0.218', 7 cfs

6712: "Program: Flow paced is done". Bottle full. Flushed line with 2 L distilled water. Pump tubing count 118,355. Turned 6712 off.

Composite samples: Pulled at 13:50 p.m. PDT.

Sample Tracking

❖ Bacteria samples to VCHCA (Salvador Barragan):

10/05/11 @ 11:55 PDT (VR2/OJA/MEI/VEN(&MD-1)): Kelly Hahs & Chris Stephens

10/05/11 @ 12:40 PDT (CC/SCR/CAM/HUE/OXN): Arne Anselm & Pete Chartier

10/05/11 @ 11:30 PDT (FIL/SPA/MPK/SIM/THO): David Thomas & Jason Siegert

❖ Toxicity samples to Aquatic Bioassay & Consulting Laboratories, Inc.(Karin Patrick, Elizabeth Maturino):

10/05/11 @ 11:25 PDT (VR2/OJA/MEI/VEN(&MD-1)): Kelly Hahs & Chris Stephens

10/05/11 @ 14:29 PDT (CC/SCR/CAM/HUE/OXN): Arne Anselm & Pete Chartier

10/05/11 @ 12:25 PDT (FIL/SPA/MPK/SIM/THO): David Thomas & Jason Siegert

❖ Grab and composite samples to Weck Laboratories, Inc. by Weck courier (Allan Goldberg) from Saticoy Operations Yard:

10/05/11 @ 15:55 PDT: All grab samples and composites from CAM/SPA/OXN/VEN by Kelly Hahs

❖ Remaining composite samples to Weck Laboratories, Inc. by Weck-provided courier (Ruben Sarabia from an unspecified courier service) from VC Government Center:

10/06/11 @ 15:13 PDT: CC/SCR/VR2/MEI/OJA/FIL/SIM/MPK/THO/HUE by Bill Carey

Forecasted Rainfall Amounts: 0.25”

Actual Rainfall Amounts: ~ 0.1” across the county

Sampling Durations (to nearest 0.5 hours):

ME-CC = 13.0 hrs.	ME-SCR = 11.5 hrs.	ME-VR2 = 8.0 hrs.
MO-CAM = 2.5 hrs.	MO-FIL = 7.5 hrs.	MO-HUE = 8.5 hrs.
MO-MEI = 0.5 hrs.	MO-MPK = 1.5 hrs.	MO-OJA = 0.5 hrs.
MO-OXN = 4.0 hrs.	MO-SIM = 3.0 hrs.	MO-SPA = 2.5 hrs.
MO-THO = 3.0 hrs.	MO-VEN = 3.5 hrs.	

Storm Control: Bill Carey

Sampling Crew (during storm):

Team One (VR2/OJA/MEI/VEN(&MD-1)): Kelly Hahs [KH] & Bram Sercu [BS]

Team Two (CC/SCR/CAM/HUE/OXN): Arne Anselm [AA] & Chris Stephens [CS]
(VRSD)

Team Three (FIL/SPA/MPK/SIM/THO): David Thomas [DT] (VRSD) & Pete Chartier [PC] (VRSD)

Sampling Crew (post-storm sample pickup):

10/05/2011 (MEI/OJA): Kelly Hahs & Bram Sercu

10/06/2011 (CC/SCR/VR2/FIL/MPK/SIM/THO/CAM/HUE): Kelly Hahs & David Thomas
(VRSD)

10/06/2011 (SPA/OXN/VEN): Arne Anselm & Bram Sercu

NPDES ~ MASS EMISSION

ME-CC Calleguas Creek (CSUCI Bridge)

❖ **01/20/2012 @ 12:38 PST [KH]**

Forecast 0.25” rainfall → 2105 set remotely to 1,000 cf pacing.

4230: 12:34 PST, 1.147’, 2 cfs.

6712: Fridge at 12° C, turned on to ¾ coldest setting. Flushed line with 2L distilled water. Pump tubing count 44,029. Program flow paced; pacing every 250 pulse, 96 hour max run time. Run program: “Program disabled”. Composite lid off. Grab bottles onsite.

❖ **01/21/2012 @ 04:20 a.m. PST [AA,CS]**

4230: 04:20 PST, 1.363’, 17 cfs

6712: “Sample 4 after 228 pulses.” Bottle 2” full. Fridge at 2° C.

Grab samples: Taken at check structure @ 04:30 a.m. PST.

Field Measurements:	Temperature = 14.9° C	pH = 7.90
DO (%) = 86.4	Conductivity = 1001 uS	Salinity = 0.6 ppt
DO(mg/L) = 8.75	Specific Conductance = 1235 uS	

❖ **01/21/2012 @ 12:00 p.m. PST [KH,DT]**

4230: 12:00 PST, 2.252’, 180 cfs. Outside staff ~ 2.5’.

6712: “Sample 34 after 49 pulses.” Stopped program at 12:04 PST. Bottle full. Flushed line with 2 L distilled water. Pump tubing count 338,258. Fridge at 0° C Turned fridge off. Turned 6712 off.

Composite samples: Pulled at 12:10 p.m. PST.

ME-SCR Santa Clara River (Freeman Diversion)

❖ 01/20/2012 @ 11:45 a.m. PST [KH]

Forecast 0.25" rainfall.

4210: 11:40 PST

6712: Refrigerator at -1° C, turned slightly warmer. Flushed line with 2L distilled water. Pump tubing count 223,987. Program time paced 12 hours, sample every 20 minutes. Run program: "Program disabled". Composite bottle lid off. Grab bottles onsite.

❖ 01/21/2012 @ 05:23 a.m. PST [AA,CS]

6712: Bottle 5" full. Fridge at 2° C.

Grab samples: Taken from diversion canal @ 05:30 PST.

Field Measurements: Temperature = 13.4° C pH = 8.20
DO (%) = 69.1 Conductivity = 1116 uS Salinity = 0.7 ppt
DO(mg/L) = 7.19 Specific Conductance = 1431 uS

❖ 01/21/2012 @ 14:00 PST [KH,DT]

4210: 0.013'

6712: "Program: time paced is done." Bottle full. Flush line with 2L distilled water. Pump tubing count 349,945. Fridge temp 0° C, turned warmer and turned 6712 off.

Composite samples: Pulled at 14:00 p.m. PST.

ME-VR2 Ventura River (Ojai Valley Sanitary District)

❖ 01/20/2012 @ 06:55 a.m. PST [KH]

Forecast 0.25" rainfall → 20,000 cf pacing (2105 set remotely to 1,000 cf pacing).

4230: 06:55 PST, 2.084', 2 cfs. Not in contact with water.

6712: Fridge at 4° C. Flushed line with 2L distilled water. Pump tubing count 262,778. Program flow paced; pacing every 20 pulses. Run program: "Program disabled". Composite bottle lid off. Grab bottles onsite.

❖ 01/21/2012 @ 05:27 a.m. PST [WBC-remote]

2105: Changed pacing to 5,000 cf by changing pacing in 2105 to 250 cf.

❖ 01/21/2012 @ 05:45 a.m. PST [KH,BS]

4230: 05:45 PST, 2.227', 2 cfs

6712: Pumping sample when arrived at site, sample volume good but sampler continued to collect samples without counting pulses (immediate succession) after receiving first pacing pulse. Stopped program, restarted for 26 samples. "Sample 1 after 20 pulses." Fridge at 2° C. Collected grabs and then watched sample 1, volume good "Sample 2 after 20 pulses

Grab samples: Taken in river near composite inlet at 06:00 a.m. PST.

Field Measurements: Temperature = 11.3° C pH = 7.14
DO (%) = 44.1 Conductivity = 952 uS Salinity = 0.6 ppt
DO(mg/L) = 4.95 Specific Conductance = 1272 uS

❖ 01/21/2012 @ 13:00 p.m. PST [KH,DT]

4230: 2.194', 2 cfs.

6712: Fridge at 4° C, turned warmer. "Sample 13 after 5 pulses". Bottle half full ~ 10L. Collected composite sample 13. Flushed line with 2 L distilled water. Pump tubing count 461,925. Turned 6712 off.

Composite samples: Pulled at 13:00 p.m. PST.

NPDES ~ MAJOR OUTFALLS

MO-CAM Camarillo (Camarillo Hills Drain)

❖ 01/20/2012 @ 13:18 p.m. PST [KH]

Forecast 0.25" rainfall → 2105 set remotely to 1,000 cf pacing.

4230: 13:15 PST, 0.029', 10 cfs

6712: Fridge at 2° C. Flushed line with 2L distilled water. Pump tubing count 114,862. Program flow paced; pacing every 10 pulses. Run program: "Program disabled". Composite bottle lid off. Grab bottles onsite.

❖ 01/21/2012 @ 01:21 a.m. PST [WBC-remote]

2105: Forecast increased to 0.30". Changed pacing to 15,000 cf by changing pacing in 2105 to 1,500 cf.

❖ 01/21/2012 @ 02:40 a.m. PST [AA,CS]

4230: 02:39 PST, 0.255', 38 cfs. Outside staff ~ 0.2'

6712: "Sample 5 after 4 pulses." Bottle ~ 2.5" full. Fridge at 4° C.

Grab samples: Taken at 02:45 a.m. PST.

Field Measurements: Temperature = 13.7° C pH = 7.70
DO (%) = 81.8 Conductivity = 55.5 uS Salinity = 0.0 ppt
DO(mg/L) = 8.44 Specific Conductance = 72.7 uS

❖ 01/21/2012 @ 12:28 p.m. PST [KH,DT]

4230: 0.031', 10 cfs

6712: "Program: Flow paced is done". Bottle full. Fridge at 4° C. Flushed line with 2 L distilled water. Pump tubing count 203,133. Turned 6712 off.

Composite samples: Pulled 12:30 p.m. PST.

MO-FIL Fillmore (North Fillmore Drain)

❖ 01/20/2012 @ 09:31 a.m. PST [KH]

Forecast 0.25" rainfall

4250: 09:31 PST, 2.940', 2.21 cfs

6712: Fridge at 2° C. Flushed line with 2L distilled water. Pump count 191,173. Program 8 hour time-paced program, sample every 15 minutes, no delay to start. Run program "Program disabled". Composite bottle lid off. Grab bottles onsite.

❖ 01/21/2012 @ 02:32 a.m. PST [DT,PC]

4250: 02:32 PST, 3.525'

6712: "Sample 4 in 00:01:20". Bottle 1.5L. Fridge at 2° C.

Grab samples: Taken at 02:45 a.m. PST.

Field Measurements: Temperature = 16.2° C pH = 7.54
DO (%) = 73.4 Conductivity = 1150 uS Salinity = 0.7 ppt
DO(mg/L) = 7.20 Specific Conductance = 1314 uS

❖ **01/21/2012 @ 09:45 a.m. PST [KH,DT]**

4250: 3.529', 7.94 cfs (rating is in error), 0.15 ft/s

6712: "Sample 33 in 00:06:00". Bottle full to shoulder. Stopped program. Flushed line with 2 L distilled water. Pump tubing count 359,291. Turned fridge warmer and 6712 off.

Composite samples: Pulled at 09:45 a.m. PST.

MO-MEI Meiners Oaks (Happy Valley Drain)

❖ **01/20/2012 @ 07:28 a.m. PST [KH]**

Forecast 0.25" rainfall → 1,000 cf pacing (2105 set remotely to 1,000 cf pacing).

4230: 07:21 PST, 0.081', 1 cfs (out of contact with low flow water)

6712: Fridge at 2° C. Flushed line with 2L distilled water. Pump tubing count 114,307. Program flow paced; pacing every 1 pulses. Run program: "Program disabled".

Composite bottle lid off. Grab bottles onsite. Raked leaves from channel from ~ 15 meters upstream (near outside staff).

❖ **01/21/2012 @ 02:59 a.m. PST [WBC-remote]**

2105: Changed pacing to 500 cf due to lack of response to rain amounts of around 0.20".

❖ **01/21/2012 @ 03:20 a.m. PST [KH,BS]**

4230: 03:16 PST, 0.125', 3 cfs. Outside staff ~ 0.19'

6712: Program disabled 03:19:13. Fridge at 7° C, turned colder. Sampler enabled to "Sample 5 after 1 pulse" at 03:33 PST. Composite volume ~2L.

Notes: Removed leaves from around intake strainer and ~ 15 meters upstream. Field blanks were intended to be collected but the blank water did not make it to the site. Field duplicates were collected instead and field blanks will be collected in Event 3.

Grab samples: Taken at 03:50 a.m. PST. Field duplicates taken at 03:50 a.m. PST.

Field Measurements:

Temperature = 11.4° C	pH = 7.69
DO (%) = 90.0	Conductivity = 83.3 uS
DO(mg/L) = 9.77	Salinity = 0.1 ppt
	Specific Conductance = 112.4 uS

4230: 04:18 PST, 0.184', Outside staff ~ 0.15'

6712: "Program: Flow paced is done." Program finished while crew still on site. Bottle full to neck. Flushed line with 2 L distilled water. Pump tubing count 181,543. Raised fridge temp and turned 6712 off.

Composite samples: Pulled at 04:10 a.m. PST.

MO-MPK Moorpark (Gabbert Canyon Drain)

❖ **01/19/2012 @ 10:26 a.m. PST [WBC]**

Forecast 0.25" rainfall → 1,000 cf pacing (2105 set remotely to 1,000 cf pacing).

4230: 0.078', 0.2 cfs

6712: Fridge at 3° C. Flushed line with 2L distilled water. Program flow paced; pacing every 1 pulses. Run program: "Program disabled". Composite bottle lid off. Grab bottles onsite.

Notes: Marked chalk line inside reinforced concrete pipe (RCP) upstream.

❖ **01/21/2012 @ 03:34 a.m. PST [DT,PC]**

4230: 03:34 PST, 0.159', 2.0 cfs

6712: Fridge at 2° C. Flushed line with 2L distilled water. Program flow paced; pacing every 5 pulses. Run program: "Program disabled". Composite bottle lid off. Grab bottles onsite.

Notes: Chalked under bridge for high water mark.

❖ **01/21/2012 @ 02:58 a.m. PST [WBC-remote]**

2105: Forecast increased to 0.40". Changed pacing to 7,500 cf by changing pacing in 2105 to 1,500 cf

❖ **1/21/2012 @ 01:40 a.m. PST [AA,CS]**

4230: 01:40 PST, 0.482' [o/s 0.6'], 6.1 cfs

6712: Fridge at 4° C. "Sample 3 after 1 pulses. Error occurred during program". Bottle 1.5" full.

Grab samples: Taken at 01:50 a.m. PST.

Field Measurements: Temperature = 13.5° C pH = 7.30
DO (%) = 68.0 Conductivity = 223 uS Salinity = 0.1 ppt
DO(mg/L) = 7.05 Specific Conductance = 281.5 uS

❖ **01/21/2012 @ 08:30 a.m. PST [AA,BS]**

6712: "Program: Flow paced is done. Errors have occurred." Sample 1 error at 00:03 "no more liquid." Bottle full. Flushed line with 2 L distilled water. Pump tubing count 210,995.

Composite samples: Pulled at 08:30 a.m. PST.

❖ **01/25/2012 @ 11:15 a.m. PST [WBC]**

Notes: High water mark +/- 1.85'. Unknown whether it was due to the storm on the 21st or the storm on the 22-23rd.

MO-HUE Port Hueneme (Hueneme Drain)

❖ **01/19/2012 @ 13:41 p.m. PST [WBC]**

Forecast 0.25" rainfall. 2105c set to enable (latched) with 0.06" rain.

6712: Fridge at 2° C. Flushed line with 2L distilled water. Run 8 hour time-paced (15 minute pacing) program: "Program disabled". Composite bottle lid off. Grab bottles onsite.

❖ **01/20/2012 @ 23:54 p.m. PST [WBC-remote]**

2105: Site did not enable after 0.06" rain, manually enabled via remote access.

❖ **01/21/2012 @ 03:25 a.m. PST [AA,CS]**

6712: Fridge at 4° C. "Sample 16 in 00:10:12". Bottle 7" full.

Grab samples: Taken at 03:30 a.m. PST.

Field Measurements: Pumps Off Temperature = 15.4° C pH = 7.60
DO (%) = 47.4 Conductivity = 5630 uS Salinity = 3.8 ppt
DO(mg/L) = 4.47 Specific Conductance = 6790 uS

Notes: Pumps on.

Field Measurements: Pumps On – Stairs

DO (%) = 49.1 DO(mg/L) = 4.84

Field Measurements: Pumps On – Pump Outfall

DO (%) = 89.8 DO(mg/L) = 8.75

❖ **01/21/2012 @ 08:45 a.m. PST [KH,DT]**

6712: Fridge at 4° C, turned temp warmer. "Program time paced is done." Bottle full to shoulder. Flushed line with 2 L distilled water. Pump tubing count 274,917. Turned 6712 off.

Composite samples: Pulled at 08:45 a.m. PST.

MO-SIM Simi Valley (Bus Canyon Drain)

❖ **01/19/2012 @ 11:12 a.m. PST [WBC]**

Forecast 0.25" rainfall → 10,000 cf pacing (2105 set remotely to 1,000 cf pacing).

4230: 0.139', 2 cfs

6712: Fridge at -6° C, turned warmer. Flushed line with 2L distilled water. Program flow paced; pacing every 10 pulses. Run program: "Program disabled". Installed one labeled 18.5 L bottle, lid off. Grab bottles onsite.

Notes: Re-chalked for high water mark.

❖ **01/21/2012 @ 04:17 a.m. PST [DT,PC]**

4230: 04:18 PST, 0.646', 51 cfs

6712: "Sample 7 after 10 pulses." Bottle ~ 5L. Fridge at 3° C.

Grab samples: Taken at 04:30 a.m. PST.

Field Measurements: Temperature = 12.9° C pH = 7.10
DO (%) = 83.5 Conductivity = 322.5 uS Salinity = 0.2 ppt
DO(mg/L) = 8.69 Specific Conductance = 419.7 uS

❖ **01/21/2012 @ 11:00 a.m. PST [KH,DT]**

4230: 11:00 PST, 0.191', 4 cfs

6712: Fridge at 4° C, turned warmer. "Program flow paced is done." Bottle full to brim. Flushed line with 2 L distilled water. Pump tubing count 174,138. Turned 6712 off.

Composite samples: Pulled at 11:00 a.m. PST.

MO-SPA Santa Paula (11th Street Drain)

❖ **01/20/2012 @ 09:55 a.m. PST [KH]**

Forecast 0.25" rainfall → 1,000 cf pacing (2105 set remotely to 1,000 cf pacing).

4250: 09:50 PST, -0.009', 0.00 cfs, 0.00 ft/s

6712: Fridge at 3° C. Flushed line with 2L distilled water. Pump tubing count 224,729. Program flow paced; pacing every 1 pulses. Run program: "Program disabled". Composite bottle lid off. Grab bottles onsite.

❖ **01/21/2012 @ 01:37 a.m. PST [DT,PC]**

4250: 01:37 PST, 0.180', 0.35 cfs, 1.75 ft/sec

6712: "Sample 2 after 1 pulse." Bottle ~ 500 ml. Fridge at 3° C.

Grab samples: Taken at 01:45 a.m. PST.

Field Measurements: Temperature = 14.1° C pH = 7.38
DO (%) = 109.0 Conductivity = 378.6 uS Salinity = 0.2 ppt
DO(mg/L) = 11.20 Specific Conductance = 478.6 uS

❖ **01/21/2012 @ 08:58 a.m. PST [AA,BS]**

6712: "Program is done." Bottle full. Flushed line with 2 L distilled water. Pump tubing count not recorded. Turned 6712 off.

Composite samples: Pulled at 08:58 a.m. PST.

MO-THO Thousand Oaks (Hill Canyon WWTP)

❖ 01/19/2012 @ 11:52 a.m. PST [WBC]

Forecast 0.25" rainfall → 20,000 cf pacing through the 4230.

4230: 11:52 PST, 2.189', 1 cfs. Pacing set at 20,000 cf. Threshold for enable set to 2.35'.

6712: Fridge at 2° C. Flushed line with 2L distilled water. Program flow paced; pacing every 1 pulse. Run program: "Program disabled". Composite bottle lid off. Grab bottles onsite.

❖ 01/21/2012 @ 05:00 a.m. PST [DT,PC]

4230: 05:01 PST, 3.862' [outside staff is ~4'], 87 cfs

6712: "Sample 6 after 1 pulse." Bottle ~ 3L. Fridge at 6° C.

Grab samples: Taken at 05:00 a.m. PST.

Field Measurements: Temperature = 12.4° C pH = 8.22
DO (%) = 104.7 Conductivity = 848 uS Salinity = 0.6 ppt
DO(mg/L) = 11.3 Specific Conductance = 1114 uS

❖ 01/21/2012 @ 11:30 a.m. PST [KH,DT]

4230: 2.385', 5 cfs

6712: Fridge at 4° C, turned warmer. "Program: Flow paced is done". Bottle full. Flushed line with 2 L distilled water. Pump tubing count 359,953.

Composite samples: Pulled at 11:30 a.m. PST.

MO-VEN Ventura (Moon Ditch)

❖ 01/19/2012 @ 14:33 p.m. PST [WBC]

Forecast 0.25" rainfall → 5,000 cf pacing (2105 set remotely to 1,000 cf pacing).

4230: 0.040', 1 cfs

6712: Fridge at 4° C. Flushed line with 2L distilled water. Program flow paced; pacing every 5 pulses. Run program: "Program disabled." Removed composite bottle lid. Grab bottles onsite.

❖ 01/21/2012 @ 02:58 a.m. PST [WBC-remote]

2105: Forecast increased to 0.40". Changed pacing to 10,000 cf by changing pacing in 2105 to 2,000 cf.

❖ 01/21/2012 @ 01:42 a.m. PST [KH,BS]

4230: 01:41 PST, 0.195, 6 cfs

6712: Fridge at 4° C, turned slightly colder."Sample 2 after 3 pulses. Errors have occurred." Bottle volume good.

Grab samples: Taken at 02:10 a.m. PST.

Field Measurements: Temperature = 13.4° C pH = 7.68
DO (%) = 92.6 Conductivity = 64.8 uS Salinity = 0.1 ppt
DO(mg/L) = 9.47 Specific Conductance = 107.7 uS

4230: 02:34 PST, 0.293 [o/s ~0.28], 12 cfs

6712: "Sample 7 after 4 pulses. Errors have occurred." Bottle volume good.

❖ **01/21/2012 @ 08:15 a.m. PST [AA,BS]**

6712: "Program: Flow paced is done. Errors have occurred." Sample 1 at 01:32 "no more liquid". Bottle full. Flushed line with 2 L distilled water. Pump tubing count 218,607. Turned 6712 off.

Composite samples: Pulled at 08:15 a.m. PST.

Sample Tracking

❖ Bacteria samples to VCHCA (Susan Benavides):

1/21/12 @ 06:00 PST (CC/SCR/CAM/HUE/OXN): Arne Anselm & Chris Stephens

1/21/12 @ 06:00 PST (FIL/SPA/MPK/SIM/THO): David Thomas & Pete Chartier

1/21/12 @ 07:05 PST (VR2/OJA/MEI(&MD-1)/VEN): Kelly Hahs & Bram Sercu

❖ Grab and composite samples to Weck Laboratories, Inc. by Weck-provided courier:

1/21/12 @ 11:54 PST: Saticoy Operations Yard. All grab samples and composites from MEI/OJA/SPA/OXN/VEN/HUE relinquished by Bill Carey and received by Hector Sanchez from an unspecified courier service.

1/21/12 @ 15:00 PST: Saticoy Operations Yard. Remaining composite samples (CC/SCR/VR2/FIL/SIM/MPK/THO/CAM) relinquished by Bill Carey and received by Antonio (last name and courier service not recorded).

Forecasted Rainfall Amounts: 1" to 1.25"

Actual Rainfall Amounts: ~ ¾" plains to > 2" mountains

Sampling Durations (to nearest 0.5 hours):

ME-CC = 21.5 hrs.	ME-SCR = 24.0 hrs.	ME-VR2 = 24.5 hrs.
MO-CAM = 16.5 hrs.	MO-FIL = 12.0 hrs.	MO-HUE = 24.0 hrs.
MO-MEI = 5.0 hrs.	MO-MPK = 5.0 hrs.	MO-OJA = 4.0 hrs.
MO-OXN = 19.5 hrs.	MO-SIM = 17.5 hrs.	MO-SPA = 17.5 hrs.
MO-THO = 11.5 hrs.	MO-VEN = 18.0 hrs.	

Storm Control: Bill Carey

Sampling Crew (during storm):

Team One (VR2/OJA/MEI/VEN(&MB-1)): Kelly Hahs [KH] & Bram Sercu [BS]
Team Two (CC/SCR/CAM/HUE/OXN): Arne Anselm [AA] & Nathan M [NM] (VRSD)
Team Three (FIL/SPA/MPK/SIM/THO): David Thomas [DT] (VRSD) & Jason Siegert [JS] (VRSD)

Sampling Crew (post-storm sample pickup):

Team One (VR2/OJA/MEI/VEN): Kelly Hahs [KH] & Bram Sercu [BS]
Team Two (CC/SCR/CAM/HUE/OXN): Arne Anselm [AA] & Nathan M [NM] (VRSD)
Team Three (FIL/SPA/MPK/SIM/THO): Bill Carey [WBC] & Jason Siegert [JS] (VRSD)

NPDES ~ MASS EMISSION

ME-CC Calleguas Creek (CSUCI Bridge)

❖ **3/15/2012 @ 14:45 PDT [KH]**

Forecast 1.0" rainfall → 2105 set directly to 1,000 cf pacing, 1.25' trigger.

4230: 13:49 PST, 1.163', 3 cfs.

6712: Fridge turned on (at 18° C). Flushed line with 2L distilled water. Program flow paced; pacing every 1100 pulses. Run program: "Program disabled 13:51 TH 15-MAR". Composite lid off. Grab bottles onsite.

❖ **3/17/2012 @ 08:25 a.m. PDT [AA,NM]**

4230: 7:25 a.m. PST, 1.177', 4 cfs

6712: "Program disabled 7:21:45." Bottle empty. Fridge at 7° C, turned thermostat down.

Grab samples: Taken at check structure @ 08:30 a.m. PDT.

Field Measurements: Temperature = 15.7° C pH = 7.90
DO (%) = 69.7 Conductivity = 1223 uS Salinity = 0.8 ppt
DO(mg/L) = 6.83 Specific Conductance = 1484 uS

❖ **3/18/2012 @ 08:43 a.m. PDT [AA,NM]**

4230: 07:42 PST, 1.515', 34 cfs. Outside staff ~ 1.5'.

6712: "Sample 29 after 160 pulses." Stopped program. Bottle 4/5 full. Flushed line with 2 L distilled water. Pump tubing count 313,886. Fridge at 4.5° C Turned fridge off.

Composite samples: Pulled at 08:43 a.m. PDT.

ME-SCR Santa Clara River (Freeman Diversion)

❖ **3/16/2012 @ 13:50 p.m. PDT [KH,BS]**

Forecast 1.0" rainfall.

4210: 12:43 PST

6712: Refrigerator at 0° C. Flushed line with 2L distilled water (Replace Internal Battery warning message). Program time paced 24 hours, sample every 42 minutes. Run program: "Program disabled 12:54 FR 16-MAR". Composite bottle lid off. Grab bottles onsite.

❖ **3/17/2012 @ 9:43 a.m. PDT [AA,NM]**

4210: 08:37 PST, 0.092', 3.11 E-06 cfs

6712: Bottle 3" full. "Sample 6 in 00:30:34." Fridge at 0.5° C.

Grab samples: Taken from diversion canal @ 09:30 PDT.

Field Measurements: Temperature = 13.8° C pH = 8.10
DO (%) = 75.3 Conductivity = 1364 uS Salinity = 0.9 ppt
DO(mg/L) = 7.69 Specific Conductance = 1749 uS

❖ **3/17/2012 @ 09:53 PDT [AA,NM]**

4210: 08:48 PST

6712: "Program: time paced is done. Errors have occurred during program." Warning message to replace internal battery by September 21, 2011. Bottle 6". Flush line with 2L distilled water. Pump tubing count 492,844. Fridge temp 3° C.

Composite samples: Pulled at 09:53 a.m. PDT.

ME-VR2 Ventura River (Ojai Valley Sanitary District)

❖ **3/15/2012 @ 08:30 a.m. PDT [KH]**

Forecast 1.0" rainfall → 75,000 cf pacing (2105 set directly to 1,000 cf pacing, enable at 2.25').

4230: 07:44 PST, 2.060', 2 cfs.

6712: Fridge at 4° C. Flushed line with 2L distilled water. Program flow paced; pacing every 75 pulses. Run program: "Program disabled 07:50 TG 15-MAR". Composite bottle lid off. Grab bottles onsite.

❖ **3/17/2012 @ 08:42 a.m. PDT [KH,BS]**

4230: 07:39 PST, 2.568' [OSS 2.54'], 25 cfs

6712: "Sample 4 after 54 pulses. Errors have occurred during program." Fridge at 4° C. Bottle almost half full. Stopped program. Trouble shooting: removed tubing from liquid detector and repositioned with connections as tight as possible. Disconnected 6712 from 2105 so that calibration marks wouldn't be recorded by Flowlink. Took 500 ml grab sample, received 860 ml. Tried to calibrate three times with more volume delivered each time (>1 gallon during third attempt). Turned off liquid detector and calibrated based on line length, changed programming from 61' to 71' to 67' to deliver an appropriate volume. Swirled jar to mix sample and discarded all but approximately 1.5 L (500 ml for each of the three samples it had collected). Restarted program for 32 samples. "Sample 1 after 75 pulses."

Grab samples: Taken in river near composite inlet at 08:50 a.m. PDT.

Field Measurements: Temperature = 14.0° C pH = 7.60

DO (%) = 73.1 Conductivity = 801 uS Salinity = 0.5 ppt
DO(mg/L) = 7.52 Specific Conductance = 1008 uS

❖ **3/17/2012 @ 14:30 p.m. PDT [KH,BS]**

4230: 13:33 PST, 2.829' [OSS 2.54'], 47 cfs

6712: "Sample 7 after 7 pulses." Bottle volume good ~5L.

❖ **3/18/2012 @ 08:30 a.m. PDT [KH,BS]**

4230: 07:30 PST, 2.35' [OSS 2.36'], 13 cfs.

6712: "Sample 25 after 24 pulses". Stopped program. Bottle ~ ¾ full. Flushed line with 2 L distilled water. Fridge at 4° C. Pump tubing count 504,376. Turned 6712 off.

Composite samples: Pulled at 08:30 am PDT.

NPDES ~ MAJOR OUTFALLS

MO-CAM Camarillo (Camarillo Hills Drain)

❖ **3/15/2012 @ 14:45 p.m. PDT [KH]**

Forecast 1.0" rainfall → 2105 direct connection to 1,000 cf pacing and enable at 0.08'.

4230: 13:19 PST, 0.031', 10 cfs

6712: Fridge at 3° C. Flushed line with 2L distilled water. Program flow paced; pacing every 60 pulses. Run program: "Program disabled 13:30 TH 15-MAR". Composite bottle lid off. Grab bottles onsite.

❖ **3/15/2012 @ 05:49 a.m. PDT [AA,NM]**

4230: 04:47 PST, 0.033', 10 cfs. Outside staff ~ 0.1'

6712: Program disabled. Bottle empty. Fridge at 0.5° C.

Grab samples: Taken at 02:45 a.m. PST.

Field Measurements: Temperature = 14.1° C pH = 7.5
DO (%) = 77.6 Conductivity = 265.6 uS Salinity = 0.2 ppt

DO(mg/L) = 7.74 Specific Conductance = 340.4 uS

4230: 06:50 PST, 0.98', 12 cfs.

6712: "Sample 2 after 25 pulses." Bottle ~ 0.4" full.

❖ **3/18/2012 @ 08:20 a.m. PDT [AA,NM]**

4230: 07:19 PST, 0.032', 10 cfs

6712: "Program disabled 07:24:58 18-MAR. Errors occurred during program". Bottle ¾ full. Fridge at 5° C. Flushed line with 2 L distilled water. Pump tubing count 270,845.

Composite samples: Pulled 12:30 p.m. PST.

MO-FIL Fillmore (North Fillmore Drain)

❖ **3/15/2012 @ 11:40 a.m. PDT [KH]**

Forecast 1.25" rainfall

4250: 10:35 PST, 2.792', 6.28 cfs

2105: Direct connect to set enable to trigger at 3.30', latch set to always.

6712: Fridge at 3° C. Flushed line with 2L distilled water. Program 12 hour time-paced program, sample every 21 minutes, no delay to start. Run program "Program disabled 10:52 TH 15-MAR". Composite bottle lid off. Grab bottles onsite.

❖ **3/17/2012 @ 06:18 a.m. PDT [DT,JS]**

4250: 3.472', 7.29 cfs, 0.14 ft/s

6712: "Sample 3 in 00:13:20". Bottle volume good. Poor odor, hydrocarbon/diesel.

Grab samples: Taken at 06:30 a.m. PDT.

Field Measurements: Temperature = 16.3° C pH = 7.6
DO (%) = 46.0 Conductivity = 965 uS Salinity = 0.6 ppt
DO(mg/L) = 4.50 Specific Conductance = 1160 uS

❖ **3/18/2012 @ 08:10 a.m. PDT [WBC,JS]**

4250: 3.00'

6712: "Program is done." Bottle full. Flushed line with 2 L distilled water. Pump tubing count 485,783. Fridge at 0° C.

Composite samples: Pulled at 08:10 a.m. PDT.

MO-MEI Meiners Oaks (Happy Valley Drain)

❖ **3/15/2012 @ 09:25 a.m. PDT [KH]**

Forecast 1.25" rainfall → 8,000 cf pacing (2105 connected direct 500 cf pacing).

4230: 08:16 PST, 0.082', 1 cfs (out of contact with low flow water)

2105: Direct connect to set enable at 0.11', 500 cf pacing.

6712: Fridge at 7° C, turned colder. Flushed line with 2L distilled water. Program flow paced; pacing every 16 pulses. Run program: "Program disabled 8:25 TH 15-MAR". Composite bottle lid off. Grab bottles onsite.

❖ **3/17/2012 @ 06:05 a.m. PDT [KH,BS]**

4230: 04:57 PST, 0.165', 5 cfs. [Outside staff checked at 06:10 PDT = ~ 0.26' but no meter read at same time]

6712: Fridge at 8° C, turned colder. "Sample 4 after 5 pulses". Composite volume ~1.5L.

Grab samples: Taken at 06:20 a.m. PDT. Field blanks at 06:20 a.m. PDT.

Notes: Dissolved oxygen meter would not calibrate and pH meter was reading temperatures that were far too high for the conditions, despite both meters having been calibrated and checked the previous day.

Field Measurements: Temperature = 12.9° C pH = 7.70 (temp 20.2°C)
DO (%) = Error Conductivity = 110.3 uS Salinity = 0.1 ppt
DO(mg/L) = Error Specific Conductance = 143.2 uS

❖ **3/17/2012 @ 10:21 a.m. PDT [KH,BS]**

4230: 09:21 PST, 0.216', 9 cfs.

6712: "Program is done." Composite bottle is full.

Notes: Meters were taken back to the shop for maintenance after the 06:20 PDT read. Dissolved oxygen probe was cleaned and membrane was replaced. pH meter probe was replaced. Both meters were recalibrated and checked.

Field Measurements: Temperature = 12.7° C pH = 7.69 (temp 12.6°C)
DO (%) = 89.3 Conductivity = 214.1 uS Salinity = 0.1 ppt
DO(mg/L) = 9.49 Specific Conductance = 280.8 uS

❖ **3/18/2012 @ 07:43 a.m. PDT [KH,BS]**

4230: 06:48 PST, 0.081', 1cfs

6712: "Program: Flow paced is done." Bottle full. Fridge at 4° C. Flushed line with 2 L distilled water. Pump tubing count 286,139. Raised fridge temp and turned 6712 off. High water mark in stilling well hard to read, estimated at 0.65' (confirmed by WBC on a follow up visit).

Composite samples: Pulled at 07:55 a.m. PDT.

MO-MPK Moorpark (Gabbert Canyon Drain)

❖ 3/15/2012 @ 12:30 p.m. PDT [KH]

Forecast 1.0" rainfall → 8,000 cf pacing

4230: 0.078', 0.2 cfs

2105: Direct connect to set enable at 0.15', 1,000 cf pacing.

6712: Fridge at 5° C, turned colder. Flushed line with 2L distilled water. Program flow paced; pacing every 8 pulses. Run program: "Program disabled. 11:30 TH 15-MAR". Composite bottle lid off. Grab bottles onsite.

❖ 3/17/2012 @ 07:16 a.m. PDT [DT,JS]

4230: 0.107', 0.7 cfs

6712: "Program Disabled 06:15 SA 17-MAR". Slight flow mid channel, no communication at channel walls.

Notes: No flow from upper or lower RCP from Edison property to have analyzed for pentachlorophenol (EPA 515.3).

❖ 3/17/2012 @ 08:17 a.m. PDT [DT,JS]

4230: 0.455', 16.3 cfs

6712: "Sample 3 after 5 pulses. Errors have occurred during program". Bottle volume good.

Grab samples: Taken at 08:25 a.m. PDT.

Field Measurements: Temperature = 13.0° C pH = 8.20
DO (%) = 87.0 Conductivity = 133.7 uS Salinity = 0.1 ppt
DO(mg/L) = 9.13 Specific Conductance = 171.9 uS

Notes: No flow from upper or lower RCP from Edison property to have analyzed for pentachlorophenol (EPA 515.3).

❖ 3/18/2012 @ 08:30 a.m. PDT [WBC,DT]

4230: 0.071', 0.1 cfs

6712: "Program: Flow paced is done". Bottle full. Fridge at 4° C. Flushed line with 2 L distilled water. Pump tubing count 314,282. High water mark ~0.8'.

Composite samples: Pulled at 08:30 a.m. PDT.

MO-OJA Ojai (Fox Canyon Barranca)

❖ 3/15/2012 @ 010:06 a.m. PDT [KH]

Forecast 1.25" rainfall → 10,000 cf pacing (2105 set remotely to 1,000 cf pacing).

4230: 09:01 PST, -0.009', 0 cfs

2105: Direct connect set enable at 0.02', 500 cf pacing.

6712: Fridge at 4° C. Flushed line with 2L distilled water. Program flow paced; pacing every 20 pulses. Run program: "Program disabled 09:09 TH 15-MAR". Composite bottle lid off. Grab bottles onsite.

❖ **3/17/2012 @ 05:25 a.m. PDT [KH,BS]**

4230: 04:18 PST, 0.13', 7 cfs

6712: Watched sample 3, volume good. "Sample 4 after 18 pulses". Fridge at 2° C. Bottle ~ 1 liter. Outside staff 0.11'.

Grab samples: Taken at 05:30 a.m. PDT.

Field Measurements: Temperature = 13.2° C pH = 7.72 (temp 29°C)
DO (%) = Error Conductivity = 110 uS Salinity = 0.1 ppt
DO(mg/L) = Error Specific Conductance = 164 uS

Notes: Dissolved oxygen meter would not calibrate and pH meter was reading temperatures that were far too high for the conditions, despite both meters having been calibrated and checked the previous day. Meters were taken back to the shop for maintenance after the 05:25 PDT read. Dissolved oxygen probe was cleaned and membrane was replaced. pH meter probe was replaced. Both meters were recalibrated and checked.

❖ **3/17/2012 @ 10:48 a.m. PDT [KH,BS]**

4230: 09:42 PST, -0.009', 0 cfs

6712: "Program Flow Paced is done". Bottle full.

Field Measurements: Temperature = 12.9° C pH = 7.96 (temp 12.9°C)
DO (%) = 96.5 Conductivity = 157.2 uS Salinity = 0.1 ppt
DO(mg/L) = 10.19 Specific Conductance = 221.4 uS

❖ **3/18/2012 @ 07:25 a.m. PDT [KH,BS]**

4230: 06:23 PST, -0.009', 0 cfs.

6712: "Program is done." Composite bottle is full. Fridge at 2° C. Flushed line with 2 L distilled water. Pump counts 264,634.

Composite samples: Pulled at 07:35 a.m. PDT. Turned off 6712.

Notes: High water mark outer curve ~0.6', inner wall ~0.55' from channel toe.

MO-OXN Oxnard (El Rio Drain)

❖ **3/16/2012 @ 13:10 p.m. PDT [KH,BS]**

Forecast 1.0" rainfall → 25,000 cf pacing.

4230: 12:10 PST, 0.109', 0.2 cfs

2105: Direct connect set enable at 0.17', 1,000 cf pacing.

6712: Fridge at -5° C, turned warmer. Flushed line with 2L distilled water. Program flow paced; pacing every 25 pulses. Run program: "Program disabled. 12:22 FR 16-MAR". Composite bottle lid off. Grab bottles onsite..

❖ **3/17/2012 @ 04:50 a.m. PDT [AA,NM]**

4230: (03:50 PST, 0.108, 0.2 cfs) (04:03 PST, [OSS 0.2'], 1.3 cfs)

6712: Fridge at 0° C. Bottle empty. (Enabled while on site) "Sample 2 after 25 pulses". Bottle 1 cm full.

Grab samples: Taken at 05:00 a.m. PDT.

Field Measurements: Temperature = 14.2° C pH = 7.36
DO (%) = 73.5 Conductivity = 540 uS Salinity = 0.3 ppt
DO(mg/L) = 6.85 Specific Conductance = 641 uS

❖ **3/18/2012 @ 07:45 a.m. PDT [AA,NM]**

4230: 06:45 PST, 0.110', 0.3 cfs

6712: "Program: Flow paced is done. Errors have occurred." Bottle full. Fridge at 4° C. High water mark 19 inches up wall. Flushed line with 2 L distilled water. Pump tubing count 307,893.

Composite samples: Pulled at 07:45 a.m. PDT.

MO-HUE Port Hueneme (Hueneme Drain)

❖ 3/15/2012 @ 15:25 p.m. PDT [KH]

Forecast 1.0" rainfall.

2105: Direct connect set enable to always (pacing = none).

6712: Fridge at 3° C. Flushed line with 2L distilled water. Run 24 hour time-paced (42 minute pacing) program starting at 03:00 PDT. "Start Time-Paced at 02:00 SA 17-MAR. 14:37 TH 15-MAR)". Composite bottle lid off. Grab bottles onsite.

❖ 3/17/2012 @ 7:25 a.m. PDT [AA,NM]

6712: Fridge at 2° C. Bottle full but "Sample 8 in 00:26:25. Errors have occurred during program". Paused program. Report shows no liquid detected. Adjusted tubing, pulled 500 ml sample into graduated cylinder. Dumped bottle (retained about 3" in bottom) and restarted program. "Sample 8 in 00:13:10"

Grab samples: Taken at 07:30 a.m. PDT.

Field Measurements: Pumps Off Temperature = 15.7° C pH = 7.7

DO (%) = 50.3 Conductivity = 3439 uS Salinity = 2.2 ppt

DO(mg/L) = 4.86 Specific Conductance = 4185 uS

❖ 3/18/2012 @ 09:12 a.m. PDT [AA,NM]

6712: Fridge at 2° C. "Program time paced is done. Errors have occurred during program" Bottle full. Flushed line with 2 L distilled water. Pump tubing count 196,436.

Composite samples: Pulled at 07:30 a.m. PDT.

MO-SIM Simi Valley (Bus Canyon Drain)

❖ 3/15/2012 @ 13:00 p.m. PDT [KH]

Forecast 1.0" rainfall → 40,000 cf pacing

4230: 11:57 PST, 0.139', 2 cfs

2105: Direct connect set enable at 0.22', 1,000 cf pacing.

6712: Fridge at 0° C. Flushed line with 2L distilled water. Program flow paced; pacing every 40 pulses. Run program: "Program disabled". Bottle lid off. Grab bottles onsite. "Program disabled 12:00 TH 15-MAR".

❖ 3/17/2012 @ 07:50 a.m. PDT [DT,JS]

4230: 0.260', 8 cfs

6712: "Sample 2 after 26 pulses." Bottle volume good.

Grab samples: Taken at 07:50 a.m. PDT.

Field Measurements: Temperature = 14.2° C pH = 7.6

DO (%) = 84.0 Conductivity = 154 uS Salinity = 0.1 ppt

DO(mg/L) = 8.19 Specific Conductance = 200.6 uS

❖ 3/18/2012 @ 09:16 a.m. PDT [WBC,JS]

4230: 0.139', 2 cfs

6712: Program disabled. Stopped program. Bottle full. Fridge at 4° C. Flushed line with 2 L distilled water. Pump tubing count 251,524. High water mark ~0.8’.

Composite samples: Pulled at 09:16 a.m. PDT.

MO-SPA Santa Paula (11th Street Drain)

❖ 3/15/2012 @ 11:00 a.m. PDT [KH]

Forecast 1.25” rainfall → 10,000 cf pacing.

4250: 09:53 PST, 0.027’, 0 cfs

2105: Direct connect set enable at 0.10’, 1,000 cf pacing.

6712: Fridge at 0° C, turned warmer. Flushed line with 2L distilled water. Program flow paced; pacing every 10 pulses. Run program: “Program disabled. 10:13 TH 15-MAR”. Composite bottle lid off. Grab bottles onsite.

❖ 3/17/2012 @ 04:45 a.m. PDT [DT,JS]

4250: 03:48 PST, 0.025’, 0 cfs,

6712: “Program disabled.” Bottle empty. Fridge at 4° C.

Notes: No flow. Gate was locked without a WPD padlock. Walked in from K rails.

❖ 3/17/2012 @ 05:37 a.m. PDT [DT,JS]

4250: 04:37 PST, 0.305’, 2.04 cfs, 4.63 ft/s

6712: “Sample 2 after 9 pulses”. Volume good. Poor odor, organic/septic.

Notes: Poor odor. White foam at outfall.

Grab samples: Taken at 05:50 a.m. PDT.

Field Measurements: Temperature = 14.6° C pH = 7.4
DO (%) = 92.6 Conductivity = 245.7 uS Salinity = 0.1 ppt
DO(mg/L) = 9.45 Specific Conductance = 318.0 uS

❖ 3/18/2012 @ 07:42 a.m. PDT [WBC,JS]

6712: “Program disabled. Errors have occurred.” Bottle full. Flushed line with 2 L distilled water. Pump tubing count 544,159.

Composite samples: Pulled at 07:42 a.m. PDT.

MO-THO Thousand Oaks (Hill Canyon WWTP)

❖ 3/15/2012 @ 13:35 p.m. PDT [KH]

Forecast 1.0” rainfall → 60,000 cf pacing (set remotely through the 4230 by WBC with enable trigger set to 2.30’).

4230: 12:35 PST, 2.142’, 1 cfs.

6712: Fridge at 0° C. Flushed line with 2L distilled water. “Program flow paced; pacing every 1 pulse.” Run program: “Program disabled 12:41 TH 15-MAR”. Composite bottle lid off. Grab bottles onsite.

Notes: Warning flashing: Replace internal battery NOV 2011.

❖ 3/17/2012 @ 08:56 a.m. PDT [DT,JS]

4230: 07:56 PST, 3.889’ [OSS 3.9’], 88 cfs

6712: “Sample 4 after 1 pulse.” Bottle volume good. Fridge at 2° C.

Grab samples: Taken at 09:00 a.m. PDT.

Field Measurements: Temperature = 13.7° C pH = 8.3

DO (%) = 91.3 Conductivity = 1003 uS Salinity = 0.6 ppt
DO(mg/L) = 9.51 Specific Conductance = 1260 uS

❖ **3/18/2012 @ 09:52 a.m. PDT [WBC,JS]**

4230: 2.148', 1 cfs

6712: Fridge at 4° C. "Program: Flow paced is done". Bottle full. Flushed line with 2 L distilled water. Pump tubing count 528,138.

Composite samples: Pulled at 9:52 a.m. PDT.

MO-VEN Ventura (Moon Ditch)

❖ **3/16/2012 @ 12:50 p.m. PDT [KH,BS]**

Forecast 1.0" rainfall → 30,000 cf pacing (trigger set remotely by WBC on 3/15/2012 to enable at 0.19' with 1,000 cf pacing)

4230: 11:49 PST, 0.042', 1 cfs

6712: Fridge at 3° C. Flushed line with 2L distilled water. Program flow paced; pacing every 30 pulses. Run program: "Program disabled. 11:59 FR 16-MAR." Removed composite bottle lid. Grab bottles onsite.

❖ **3/17/2012 @ 08:00 a.m. PDT [KH,BS]**

4230: 06:57 PST, 0.397 [OSS 0.4'], 20 cfs

6712: Fridge at 4° C. "Sample 11 after 5 pulses." Bottle volume good.

Notes: Meters were taken back to the shop for maintenance prior to use at MO-VEN. Dissolved oxygen probe was cleaned and membrane was replaced. pH meter probe was replaced. Both meters were recalibrated and checked.

Grab samples: Taken at 08:10 a.m. PDT.

Field Measurements: Temperature = 13.8° C pH = 7.70 (temp 13.7° C)
DO (%) = 91.1 Conductivity = 89.9 uS Salinity = 0.1 ppt
DO(mg/L) = 9.46 Specific Conductance = 114.6 uS

❖ **3/18/2012 @ 09:00 a.m. PDT [KH,BS]**

4230: 08:02 PST, 0.041', 1 cfs

6712: "Program disabled (collected 24 samples)." Stopped program. Bottle ¾ full. Flushed line with 2 L distilled water. Pump tubing count 294,651. Turned 6712 off.

Composite samples: Pulled at 09:05 a.m. PDT.

Sample Tracking

❖ Bacteria samples to VCHCA (Susan Benavides):

3/17/12 @ 10:30 PDT (CC/SCR/CAM/HUE/OXN): AA & NM

3/17/12 @ 10:44 PDT (VR2/VEN/OJA/MEI(&MD-1)/FIL/SPA/MPK/SIM/THO): DT & JSKelly Hahs & Bram Sercu

❖ Grab and composite samples to Weck Laboratories, Inc. by Weck-provided courier:

3/18/12 @ 13:30 PDT: Saticoy Operations Yard. All grab and composite samples from all sites relinquished by Bill Carey and received by Rafael Acosta from Reliable Messenger Service. (note incorrect date of 10/18/12 was written on all COCs)

Sampling Durations (to nearest 0.5 hours):

ME-CC = 23.0 hrs.	ME-SCR = 23.0 hrs.	ME-VR2 = 23.0 hrs.
MO-CAM = 23.0 hrs.	MO-FIL = 23.0 hrs.	MO-HUE = 23.0 hrs.
MO-MEI = 23.0 hrs.	MO-MPK = DRY.	MO-OJA = 23.0 hrs.
MO-OXN = 23.0 hrs.	MO-SIM = 23.0 hrs.	MO-SPA = DRY.
MO-THO = 23.0 hrs.	MO-VEN = 23.0 hrs.	

Sampling Crew (April 23-24):

23rd: Kelly Hahs, Bill Carey, Bram Sercu. 24th: Kelly Hahs, Bram Sercu

Sampling Crew (May 21-22): Bill Carey, Bram Sercu.

Sampling Crew (May 23-24): Bill Carey, Bram Sercu.

EVENT 4.1 Ventura River Watershed, April 23-24, 2012

Last rainfall > 0.1" occurred on April 13th, 2012.

NPDES ~ MASS EMISSION**ME-VR2 Ventura River (Ojai Valley Sanitary District)****❖ 04/23/12 @ 10:40 am PDT [KH,WBC,BS]**

4230: 09:36 PST, 2.200' [OSS = 2.2'], 9 cfs

6712: Fridge at 4° C. Checked 6712 calibration for 500 ml sample (1) 400 ml, (2) 380 ml. Sufficient quantity for analyses so did not adjust calibration. Flushed line with 2 L distilled water. Installed labeled composite bottle, lid off. Program time-paced for 35 x 500ml samples, taken every 41 minutes (24 hour program). Run program "Program Disabled." Stopped program, unplugged communication line to 2105c. Restarted program @ 10:55 PDT, volume good. "Sample 2 in 00:37". Left grab bottles onsite. Will need to download information on-site. [Remote connection to 2105c when changing sampler enable to "Always" on 3/19/2012 was probably terminated prematurely.]

❖ 04/24/12 @ 10:50 am PDT [KH,BS]

4230: 09:48 PST, 2.196', 7 cfs

6712: "Program: Flow paced is done" (note: program was time paced but name of program was not changed). Bottle full. Fridge at 3° C. Flushed line with 2L distilled water. Pump count 752,095. Attempted to download 6712 event mark data to laptop, but laptop was recently serviced and was not connecting.

Grab samples: Taken in river at composite inlet at 10:55 am PDT.

Field Measurements:	Temperature = 17.5° C	pH = 7.55
DO (%) = 86.3	Conductivity = 968 uS	Salinity = 0.6 ppt
DO(mg/L) = 8.23	Specific Conductance = 1128 uS	

Composite samples: Pulled at 10:55 am PDT.

❖ 04/24/2012 @ 12:00 pm PDT [WBC]

Notes: Downloaded 6712 event mark data to working laptop.

NPDES ~ MAJOR OUTFALLS

MO-MEI Meiners Oaks (Happy Valley Drain)

❖ 04/23/12 @ 09:40 am PDT [KH,WBC,BS]

Notes: Very little flow in channel. Laid weighted silicone line dam across channel and secured in place with sand bags (sand bags were downstream of silicone line and out of contact with water). Time taken for water to pond enough to cover intake line by ~ 1 inch = 20 minutes.

4230: 08:35, 0.081', 1 cfs (out of contact with water)

6712: Fridge @ 5° C, turned colder. Flushed line with 2L distilled water (prior to installing dam). Installed one labeled 18.5 L bottle, lid off. Checked calibration to ensure adequate volume of water available behind dam, delivered 450 ml. Program time-paced for 35 x 500ml samples, taken every 41 minutes (24 hour program). Run program. Sample 1 @ 10:15 am PDT, volume good. "Sample 2 in 00:39." Left grab bottles onsite.

❖ 04/24/12 @ 09:55 am PDT [KH,BS]

4230: 08:49 PST, 0.084', 1 cfs

6712: "Program: Flow paced is done" (note: program was time paced but name of program was not changed). Fridge at 1° C. Bottle full. Flushed line with 2L distilled water. Pump count 375,768.

Grab samples: Taken at 10:05 am PDT.

Field Measurements: Temperature = 19.0° C pH = 9.86
DO (%) = 190.5 Conductivity = 1188 uS Salinity = 0.7 ppt
DO(mg/L) = 17.72 Specific Conductance = 1342 uS

Composite samples: Pulled at 10:05 am PDT.

Notes: Thin white scum/foam layer on pooled water near intake, brown scum layer near dam at channel edge. Unable to fill 40ml VOAs without air bubbles. Noticeable difference in pH reading in deepest (~2") water near dam (pH=9.73) and and shallower (~1") water 6 inches upstream above the intake line (pH= 9.99). Average pH is reported.

MO-OJA Ojai (Fox Canyon Barranca)

❖ 04/23/12 @ 09:00 am PDT [KH,WBC,BS]

Notes: Scraped debris away from intake to allow representative collection, laid weighted silicone line dam across channel and secured in place with sand bags (sand bags were downstream of silicone line and out of contact with water). Water level pooled in channel but insufficient to be in contact with bubbler flow meter.

4230: 07:57 PST, -0.006', 0 cfs

6712: Fridge @ 4° C. Calibrated line (1) 500 ml → 500 ml. Flushed line with 2L distilled water. Installed one labeled 18.5 L bottle, lid off. Program time-paced for 35 x 500ml samples, taken every 41 minutes (24 hour program). Run program. Sample 1 @ 09:15 am PDT, volume good. "Sample 2 in 00:39." Left grab bottles onsite.

❖ 04/24/12 @ 09:00 am PDT [KH,BS]

4230: 07:53 PST, -0.009', 0 cfs

6712: "Program: Flow paced is done" (note: program was time paced but name of program was not changed). Fridge @ 2° C. Bottle full. Flushed line with 2L distilled water.

Grab samples: Taken at 09:10 am PDT.

Field Measurements: Temperature = 17.3° C pH = 8.00

DO (%) = 146.0 Conductivity = 1565 uS Salinity = 0.9 ppt
DO(mg/L) = 14.05 Specific Conductance = 1833 uS

Composite samples: Pulled at 09:00 am PDT.

Notes: During sample collection on the 24th, it was learned that a VCWPD O&M (Operations and Maintenance) crew was working around and in the channel upstream of the site on the 23rd (above Ojai Avenue) and the 24th (below Ojai Avenue). They were clearing vegetation from around the channel, collecting it in the channel, and then removing it from the channel using a loader. The water in the composite bottle was very clear, but the water in the channel was very turbid when the grab samples were being taken. Future events will be coordinated with the O&M department to ensure that dry weather sampling is not conducted during channel maintenance activities. There was discharge from the Ojai Valley Athletic Club pipe directly upstream of the sample site during sampling.

EVENT 4.2 Santa Clara River Watershed, May 21-22, 2012

Last rainfall > 0.1" occurred on April 13th, 2012.

NPDES ~ MASS EMISSION

ME-SCR Santa Clara River (Freeman Diversion)

❖ 05/21/2012 @ 09:34 am PDT

6712: Calibrated sampler, delivering consistently >1L for 500 ml aliquot even when "Volume Delivered" program updated correctly so reprogrammed suction head as 8 feet. Calibration 1) 470 ml → 470 ml, 2) 490 ml (good). Flushed line with 2L distilled water. Refrigerator temp good. Installed one 18.5 L labeled bottle, lid off. Program time-paced for 35 x 500ml samples, taken every 41 minutes, once enabled stay enabled, sample at enable, no delay to start. Run program. Sample 2 in 00:39:15.

❖ 05/22/2012 @ 09:35 am PDT

6712: "Program time-paced is done". Bottle full. Flushed line with 2L distilled water. Pump counts 166,228. Turned 6712 off.

Grab samples: Taken in diversion canal at @ 09:35 am PDT.

Field Measurements: Temperature = 17.2° C pH = 8.19
DO (%) = 111.2 Conductivity = 1314 uS Salinity = 0.8 ppt
DO(mg/L) = 10.12 Specific Conductance = 1550 uS

Composite samples: Pulled at 09:35 am PDT.

NPDES ~ MAJOR OUTFALLS

MO-FIL Fillmore (North Fillmore Drain)

❖ 05/21/2012 @ 08:26 am PDT

4250: 2.849'

6712: Fridge at 4° C. Flushed line with 2L distilled water. Installed one 18.5 L labeled bottle, lid off. Program time-paced for 35 x 500ml samples, taken every 41 minutes. Run program. "Sample 2 in 00:37:47." Left grab bottles onsite.

❖ 05/22/2012 @ 08:22 am PDT

4250: 2.89'

6712: "Program: time paced is done". Fridge at 4° C. Bottle full. Flushed line with 2 L distilled water. Pump counts 643,037.

Grab samples: Taken at 08:28 am PDT.

Field Measurements: Temperature = 18.8° C pH = 8.04
DO (%) = 61.1 Conductivity = 1310 uS Salinity = 0.8 ppt
DO(mg/L) = 6.21 Specific Conductance = 1559 uS

Composite samples: Pulled at 08:28 am PDT.

MO-OXN Oxnard (El Rio Drain)

❖ 05/21/2012 @ 11:04 am PDT

4230: 0.109', 0.2 cfs

6712: Refrigerator at 2° C. Flushed line with 2L distilled water. Installed one labeled 18.5 L bottle, lid off. Lay weighted silicone tubing dam in channel. Program time paced, every 41 minutes, 35 samples at 500 ml/sample. Run program. Sample 1 volume good. "Sample 2 in 00:38". Left grab bottles onsite. Solar panel covered with paint.

❖ 05/22/2012 @ 11:05 am PDT

4230: 0.110'

6712: Refrigerator at 2° C. "Program is done: Errors have occurred." Bottle ~ 7L. Flushed line 2L distilled water. Pump count = 426,606.

Grab samples: Taken at 11:05 am PDT.

Field Measurements: Temperature = 32.9° C pH = 8.87
DO (%) = 193.2 Conductivity = 1328 uS Salinity = 0.6 ppt
DO(mg/L) = 13.77 Specific Conductance = 1150 uS

Composite samples: Pulled at 11:05 am PDT.

Notes: Sample volume was inadequate due to the position of the existing intake strainer and the poor seal between the silicon dam and the channel bottom. Future dry weather sampling events should use a separate intake line with the strainer directly on the bottom of the channel.

MO-SPA Santa Paula (11th Street Drain)

❖ 05/21/2012 @ 08:52 am PDT

4250: 0.076', 0 cfs

6712: Refrigerator at 0° C. Positioned clean silicone dam and sandbags in pipe. Flushed line with 2L distilled water. Installed one labeled 18.5 L bottle, lid off. Flow data was reviewed prior to programming to see if there was a pattern in flow. Unfortunately, this site had been mostly dry for several weeks, including the previous four days, so it was programmed based on time for a 24 hour composite, sampling every 41 minutes, in case there was flow. Run program. No liquid detected. "Sample 2 in 38:00:00 minutes. Errors have occurred during program". Left grab bottles onsite.

❖ 05/22/2012 @ 08:57 am PDT

4250: 0.086', 0 cfs

6712: "Program is done. Errors have occurred." Bottle is empty and dry. Pump count = 792,001.

Grab samples: Not taken.
Field Measurements: Not taken.
Composite samples: Bottle empty and dry.

MO-VEN Ventura (Moon Ditch)

❖ 05/21/2012 @ 10:38 am PDT

4230: 0.043', 1 cfs

6712: Refrigerator at 0° C. Switched to calibration line, flushed line with 2L distilled water. Placed silicone dam in channel. Installed one labeled 18.5 L bottle, lid off. Program time-paced for 35 x 500ml samples, taken every 41 minutes. Run program. Sample 2 in 00:39:00". Left grab bottles onsite.

❖ 05/22/2012 @ 10:25 am PDT

4230: 0.127'

6712: Refrigerator at 2° C. "Program: time-paced is done." Bottle full. Flushed line 2L distilled water, reconnected stainless steel line and communication line. Pump count 392,931.

Grab samples: Taken at 10:25 am PDT.

Field Measurements: Temperature = 28.6° C pH = 8.69
DO (%) = 180.4 Conductivity = 8.55 mS Salinity = 4.4 ppt
DO(mg/L) = 13.47 Specific Conductance = 7.99 mS

Composite samples: Pulled at 10:25 am PDT.

EVENT 4.3 Calleguas Creek and Coastal Watersheds, May 23-24, 2012

Last rainfall > 0.1" occurred on April 13th, 2012.

NPDES ~ MASS EMISSION

ME-CC Calleguas Creek (CSUCI Bridge)

❖ 05/23/2012 @ 11:25 am PDT

4230: 1.141', 2cfs

6712: Turned on fridge. Flushed line with 2L distilled water. Installed one 18.5 L labeled bottle, lid off. Program time-paced for 35 x 500ml samples, taken every 41 minutes. Run program. "Sample 2 in 00:36:00." Left grab bottles onsite.

❖ 05/24/2012 @ 11:40 am PDT

4230: 1.141', 2cfs

6712: Refrigerator at 4° C. "Program is done." Bottle overfilled and fridge full of water (below bottle opening). Flushed line with 2L distilled water. Turned fridge off to dry.

Grab samples: Taken at check structure @ 11:45 am PDT.

Field Measurements: Temperature = 26.3° C pH = 8.24
DO (%) = 115.8 Conductivity = 1613 uS Salinity = 0.8 ppt
DO(mg/L) = 9.27 Specific Conductance = 1573 uS

Composite samples: Pulled at 11:45 am PDT.

NPDES ~ MAJOR OUTFALLS

MO-CAM Camarillo (Camarillo Hills Drain)

❖ 05/23/2012 @ 10:23 am PDT

4230: 0.032', 10 cfs

6712: Refrigerator at 5° C, turned colder. Connected calibration line and flushed line with 2L distilled water. Lay weighted silicone line in channel to dam flow. Installed one 18.5 L labeled bottle, lid off. Program time-paced for 35 x 500ml samples, taken every 41 minutes. Run program. "Sample 2 in 00:40:00."

❖ 05/24/2012 @ 10:57 am PDT

4230: 0.031', 10 cfs

6712: "Program is done. Errors have occurred." Bottle full. Flushed line with 2 L distilled water.

Grab samples: Taken at 11:00 am PDT.

Field Measurements:

Temperature = 29.1° C	pH = 9.85
DO (%) = 226.5	Conductivity = 2624 uS
DO(mg/L) = 17.21	Specific Conductance = 2425 uS
Salinity = 1.2 ppt	

Composite samples: Pulled at 11:00 am PDT.

MO-HUE Port Hueneme (Hueneme Drain)

❖ 05/23/2012 @ 12:56 pm PDT

6712: Fridge at 2° C. Flushed line with 2L distilled water. Installed one labeled 18.5 L bottle, lid off. Program time-paced for 35 x 500ml samples, taken every 41 minutes. Run program. "Sample 2 in 00:39:00". Left grab bottles onsite.

❖ 05/24/2012 @ 12:25 pm PDT

6712: Fridge at 3° C. "Program: Time paced is done". Bottle full. Flushed line 2L distilled water.

Grab samples: Taken at 12:30 pm PDT.

Field Measurements:

Temperature = 23.8° C	pH = 7.80
DO (%) = 86.3	Conductivity = 5.14 mS
DO(mg/L) = 7.31	Specific Conductance = 5.96 mS
Salinity = 3.2 ppt	

Composite samples: Pulled at 12:30 pm PDT.

MO-MPK Moorpark (Gabbert Canyon Drain)

❖ 05/23/2012 @ 08:50 am PDT

Notes: No flow at site, concrete dry. Set up for event, including damming channel with weighted silicone line. Cannot trigger based on flow because dam will not hold enough water to back pool to bubbler.

4230: 0.072', 0.2 cfs

6712: Switched to calibration line and flushed line with 2L distilled water. Installed one 18.5 L labeled bottle, lid off. Program time-paced for 35 x 500ml samples, taken every 41 minutes. Run program (channel still dry). Left grab bottles onsite.

❖ 05/24/2012 @ 08:45 am PDT

Notes: Channel dry, no samples taken. Removed tubing and line from channel.

MO-SIM Simi Valley (Bus Canyon Drain)

❖ 05/23/2012 @ 09:20 am PDT

4230: 0.139', 2 cfs

6712: Refrigerator at 2° C. Flushed line with 2 L distilled water. Set up weighted silicone tubing dam in channel. Installed one labeled 18.5 L bottle, lid off. Program time-paced, 41 mins, 35 samples, 500ml samples. Run program. "Sample 2 in 00:39:00." Left grab bottles onsite.

❖ 05/24/2012 @ 09:03 am PDT

4230: 0.139', 2 cfs

6712: "Program is done. Errors have occurred." Composite bottle is full to 1-2" below shoulder (~14L). Flushed line 2 L distilled water, collected equipment from channel.

Grab samples: Taken at 09:10 am PDT.

Field Measurements: Temperature = 19.6° C pH = 8.01
DO (%) = 92.5 Conductivity = 2607 uS Salinity = 1.5 ppt
DO(mg/L) = 8.39 Specific Conductance = 2911 uS

Composite samples: Pulled at 09:10 am PDT.

MO-THO Thousand Oaks (Hill Canyon WWTP)

❖ 05/23/2012 @ 10:05 am PDT

4230: 2.118', 1 cfs.

6712: Refrigerator at 2° C. Flushed line 2 L distilled water. Installed one labeled 18.5 L bottle, lid off. Program time-paced, 35 samples, 41 min/sample, 500 ml. Run program. "Sample 2 in 00:39:00." Left grab bottles onsite.

❖ 05/24/2012 @ 10:05 am PDT

4230: 2.118', 1 cfs

6712: Refrigerator at 4° C. "Program is done. Errors have occurred." Bottle overflowed. Flushed line 2 L distilled water.

Grab samples: Taken at 10:05 am PDT.

Field Measurements: Temperature = 17.5° C pH = 8.24
DO (%) = 96.4 Conductivity = 1660 uS Salinity = 1.0 ppt
DO(mg/L) = 9.2 Specific Conductance = 1935 uS

Composite samples: Pulled at 10:05 am PDT.

Sample Tracking

Event 4.1 (ME-VR2, MO-OJA, MO-MEI)

❖ Bacteria samples to VCHCA (Salvador Barragan):

4/24/12 @ 11:50 PDT by Kelly Hahs & Bram Sercu

❖ Grab and composite samples to Weck Laboratories, Inc. courier (Allan Goldberg):

4/24/12 @ 14:50 PDT by Bram Sercu.

Event 4.2 (ME-SCR, MO-FIL, MO-OXN, MO-VEN)

❖ Bacteria samples to VCHCA (Susan Benavides):

5/22/12 @ 11:40 PDT by WB Carey & Bram Sercu

❖ Grab and composite samples to Weck Laboratories, Inc. courier (Allan Goldberg):

5/22/12 @ 14:10 PDT by Bram Sercu.

Event 4.3 (ME-CC, MO-CAM, MO-SIM, MO-THO, MO-HUE)

❖ Bacteria samples to VCHCA (Salvador Barragan):

5/24/12 @ 13:06 PDT by WB Carey & Bram Sercu

❖ Grab and composite samples to Weck Laboratories, Inc. courier (Allan Goldberg):

5/24/12 @ 14:20 PDT by Bram Sercu.

Appendix E. Chain-of Custody Forms



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Pre-season - Weck Laboratories

1H25042

Sampling Date: 8/25/11 Project Number: PRESEASON 2011/12
 Sampling Team: K. HAHS + W.B. CAREY

SAMPLE ID	DATE/TIME COLLECTED	625-CTR*	NO3+NO2 (353.2)	Metals, total	Please dispose of contents	Number of Bottles	Metals by 200.8, Total: Sb, Ag, Al, As, Be, Cd, Cr, Cu, Fe, Ni, Pb, Se, Tl, Zn, Hg
							NOTES
EB lines	8/25/11/07:10	X	X	X		4	
EB composite	8/25/11/12:00	X	X	X		1	

Relinquished Printed Name KELLY HAHS
 Signature [Signature]
 Affiliation VCWPD Date/Time 8/25/11/1445

Received Printed Name ALLAN GOLDBERG
 Signature [Signature]
 Affiliation WECK LABS Date/Time 8/25/11 1445 19°C

Other Notes: Please use for MS/MSD analysis when sample volume permits.
[Signature] 8/25/11 1710

1420



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Bacteriological - VCHCA Lab (SIDE 1 of 2)

Sampling Date: _____ Project Number: 2010/11-1 (Wet)
 Sampling Team: _____

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (25 Tube Method - MPNX)				Fecal Coliform (25 Tube Method - MPNX)				Enterococcus (Tray Method - WQ IDEXX)				E. coli (Tray Method - WQ IDEXX)	Total Coliform (Tray Method - WQ IDEXX)	Number of Bottles	NOTES
			X	X	X	X	X	X	X	X	X	X	X	X				
11 W0001895R PWA ME-CC () 1 A 11 W0001896R PWA ME-SCR () 1 A MPN EXP (WASTE) ENVRMNT\OTHER 11 W0001897R PWA MO-CAM () 1 A MPN EXP (WASTE) ENVRMNT\OTHER MO-OJA MO-MEI MO-VEN MO-T	ME-CC	10/5/11 10:30	X	X	X	X	X	X	X	X	X	X	X	1	6.4			
	ME-SCR	10/5/11 12:10	X	X	X	X	X	X	X	X	X	X	X	1	6.6			
	ME-VR2		X	X	X	X	X	X	X	X	X	X	X	1				
	MO-CAM MO-CAM	10/5/11 07:45	X	X		X	X							1	5.9			
	MO-OJA		X	X		X	X							1				
	MO-MEI		X	X		X	X							1				
	MO-VEN		X	X		X	X							1				
	MO-T		X	X		X	X							1				

Relinquished Printed Name _____
 Signature _____
 Affiliation _____ Date/Time _____

Received Printed Name _____
 Signature _____
 Affiliation _____ Date/Time _____

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time

Raid
12/10



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Bacteriological - VCHCA Lab (SIDE 2 of 2)

Sampling Date: 10/5/11

Project Number: 2010/11-1 (Wet)

Sampling Team: AEA & PC

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (25 Tube Method - MPNX)	Fecal Coliform (25 Tube Method - MPNX)	Enterococcus (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)	Total Coliform (Tray Method - WQ IDEXX)			Number of Bottles	NOTES
	MO-SPA		X	X		X	X			1	
	MO-PIL		X	X		X	X			1	
	MO-SIM		X	X		X	X			1	
	MO-MPK		X	X		X	X			1	
	MO-THO		X	X		X	X			1	
	MO-OXN	10/5/11 06:55	X	X		X	X			1	
	MO-HUE	10/5/11 09:15	X	X		X	X			1	

Relinquished Printed Name ARNE ANSELMY
 Signature [Signature]
 Affiliation VCWPD Date/Time 10/5/11 12:30

Received Printed Name SALVADOR K. BARRAGAN
 Signature [Signature]
 Affiliation P.H. LAB Date/Time 10/5/11 12:40

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Bacteriological - VCHCA Lab (SIDE 1 of 2)

Sampling Date: 10-5-11 Project Number: 2010/11-1 (Wet)

Sampling Team: K. HAHS, S. STEPHENS

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (25 Tube Method - MPNX)	Fecal Coliform (25 Tube Method - MPNX)	Enterococcus (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)	Total Coliform (Tray Method - WQ IDEXX)			Number of Bottles	NOTES
	ME-CC	—	X	X	X	X	X			1	
	ME-SCR	—	X	X	X	X	X			1	
	ME-VR2	10-5-11 10:05 AM	X	X	X	X	X			1	
	MO-CAM	—	X	X		X	X			1	
	MO-OJA	10-5-11 9 AM	X	X		X	X			1	
	MO-MEI	10-5-11 8 AM	X	X		X	X			1	
	MO-VEN	10-5-11 6:30 AM	X	X		X	X			1	
	MD-1	10-5-11 6:30 AM	X	X		X	X			1	

Relinquished Printed Name KELLY HAHS
 Signature [Signature]
 Affiliation VCLWPD Date/Time 10/5/11 / 1155

Received Printed Name SALVADOR Y. BARRAGAN
 Signature [Signature]
 Affiliation PCH Lab Date/Time 10-5-11 11:55

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Bacteriological - VCHCA Lab (SIDE 2 of 2)

Sampling Date: 10-05-11 Project Number: 2010/11-1 (Wet)

Sampling Team: D. THOMAS J. SIEGENT

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (25 Tube Method - MPNX)	Fecal Coliform (25 Tube Method - MPNX)	Enterococcus (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)	Total Coliform (Tray Method - WQ IDEXX)			Number of Bottles	NOTES
	MO-SPA	10-05-11 06:15	X	X		X	X			1	
	MO-FIL	10-05-11 07:15	X	X		X	X			1	
	MO-SIM	10-05-11 09:15	X	X		X	X			1	
	MO-MPK	10-05-11 08:30	X	X		X	X			1	
	MO-THO	10-05-11 10:30	X	X		X	X			1	
	MO-OXN		X	X		X	X			1	
	MO-HUE		X	X		X	X			1	

Relinquished Printed Name DAVID THOMAS
 Signature *David J Thomas*
 Affiliation VRSD/VCWPD Date/Time 10-05-11 11:25

Received Printed Name SALVADOR Y. BARRAGAN
 Signature *S Barragan*
 Affiliation P.H. Lab Date/Time 10-5-11 11:30

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Toxicity - ABC Laboratories

Sampling Date: 10-05-11 Project Number: 2010/11-1 (Wet)
 Sampling Team: D. THOMAS J. SIEBERT

SAMPLE ID	DATE/TIME COLLECTED	Chronic toxicity - topsmelt (<i>Atherinops affinis</i>)	Chronic toxicity - inland silverside (<i>Menidia beryllina</i>)	Chronic toxicity - giant kelp (<i>Macrocystis pyrifera</i>)	Chronic toxicity - purple sea urchin (<i>Strongylocentrotus purpuratus</i>)	Chronic toxicity - fathead minnow (<i>Pimephales promelas</i>)	Chronic toxicity - daphnid (<i>Ceriodaphnia dubia</i>)	Chronic toxicity - green alga (<i>Raphidocelis subcapitata</i>)	Number of 5-Gallon Buckets	NOTES
MO-OXN						X			2	Note 1, Note 2, Note 3
MO-HUE							X		2	Note 1, Note 2, Note 3
MO-THO	10-05-11 10:30						X		2	Note 1, Note 2, Note 3
MO-MPK	10-05-11 08:30							X	2	Note 1, Note 2, Note 3
MO-SIM	10-05-11 09:15						X		2	Note 1, Note 2, Note 3
MO-FIL	10-05-11 07:15						X		2	Note 1, Note 2, Note 3
MO-SPA	10-05-11 06:15					X			2	Note 1, Note 2, Note 3

Relinquished Printed Name DAVID THOMAS
 Signature [Signature]
 Affiliation WCSB/VC WPD Date/Time 10-05-11 12:15

Received Printed Name ELIZABETH MATHEWSON
 Signature [Signature]
 Affiliation AQUATIC BIOLASSAY Date/Time 10-5-11 12:25

Other Notes: Note 1: Dilutions - 6.25%, 12.5%, 25%, 50%, 100%
Note 2: Please execute TIE if mortality > 50%
Note 3: Notify District within 24 hours if significant toxicity is observed.



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Toxicity - ABC Laboratories

Sampling Date: 10-5-11 Project Number: 2010/11-1 (Wet)
 Sampling Team: K. HAHS, C. STEPHENS

SAMPLE ID	DATE/TIME COLLECTED	Chronic toxicity - topsmelt (<i>Atherinops affinis</i>)	Chronic toxicity - inland silverside (<i>Menidia beryllina</i>)	Chronic toxicity - giant kelp (<i>Macrocystis pyrifera</i>)	Chronic toxicity - purple sea urchin (<i>Strongylocentrotus purpuratus</i>)	Chronic toxicity - fathead minnow (<i>Pimephales promelas</i>)	Chronic toxicity - daphnid (<i>Ceriodaphnia dubia</i>)	Chronic toxicity - green alga (<i>Raphidocelis subcapitata</i>)	Number of 5-Gallon Buckets	NOTES
ME-CC		X							2	Note 1, Note 2, Note 3
ME-SCR					X				1	Note 1, Note 2, Note 3
ME-VR2	10-5-11 10:05 AM	X							2	Note 1, Note 2, Note 3
MO-CAM						X			2	Note 1, Note 2, Note 3
MO-OJA	10-5-11 9 AM					X			2	Note 1, Note 2, Note 3
MO-MEI MO-MEI	10-5-11 8 AM					X			2	Note 1, Note 2, Note 3
MO-VEN MO-VEN	10-5-11 6:30 AM						X		2	Note 1, Note 2, Note 3

Relinquished Printed Name KELLY HAHS
 Signature [Signature]
 Affiliation Ventura County Watershed Protection District Date/Time 10/5/11 11:25 am

Received Printed Name ELIZABETH MATUWANI
 Signature [Signature]
 Affiliation AQUATIC BIOASSAY Date/Time 10-5-11 / 11:25

Other Notes: Note 1: Dilutions - 6.25%, 12.5%, 25%, 50%, 100% Note 2: Please execute TIE if mortality > 50%
Note 3: Notify District within 24 hours if significant toxicity is observed.



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Toxicity - ABC Laboratories

Sampling Date: 10-5-11 Project Number: 2010/11-1 (Wet)
 Sampling Team: AEA & PC

SAMPLE ID	DATE/TIME COLLECTED	Chronic toxicity - topsmelt (<i>Atherinops affinis</i>)	Chronic toxicity - inland silverside (<i>Menidia beryllina</i>)	Chronic toxicity - giant kelp (<i>Macrocystis pyrifera</i>)	Chronic toxicity - purple sea urchin (<i>Strongylocentrotus purpuratus</i>)	Chronic toxicity - fathead minnow (<i>Pimephales promelas</i>)	Chronic toxicity - daphnid (<i>Ceriodaphnia dubia</i>)	Chronic toxicity - green alga (<i>Raphidocelis subcapitata</i>)	Number of 5-Gallon Buckets	NOTES
ME-CC	10-5-11 10:30	X							2	Note 1, Note 2, Note 3
ME-SCR	10-5-11 1300				X				1	Note 1, Note 2, Note 3
ME-VR2		X							2	Note 1, Note 2, Note 3
MO-CAM	10-5-11 07:45					X			2	Note 1, Note 2, Note 3
MO-OJA						X			2	Note 1, Note 2, Note 3
MO-MET						X			2	Note 1, Note 2, Note 3
MO-VEN							X		2	Note 1, Note 2, Note 3

Relinquished Printed Name ARNE ANGELO
 Signature [Signature]
 Affiliation VCWPD Date/Time 10-5-11

Received Printed Name Jan J. Patrick
 Signature [Signature]
 Affiliation VCWPD Date/Time 10-5-11 14:29

Other Notes: Note 1: Dilutions - 6.25%, 12.5%, 25%, 50%, 100% Note 2: Please execute TIE if mortality > 50%
Note 3: Notify District within 24 hours if significant toxicity is observed.



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Toxicity - ABC Laboratories

Sampling Date: _____ Project Number: 2010/11-1 (Wet) _____

Sampling Team: _____

SAMPLE ID	DATE/TIME COLLECTED	Chronic toxicity - topsmelt (<i>Atherinops affinis</i>)	Chronic toxicity - inland silverside (<i>Menidia beryllina</i>)	Chronic toxicity - giant kelp (<i>Macrocystis pyrifera</i>)	Chronic toxicity - purple sea urchin (<i>Strongylocentrotus purpuratus</i>)	Chronic toxicity - fathead minnow (<i>Pimephales promelas</i>)	Chronic toxicity - daphnid (<i>Ceriodaphnia dubia</i>)	Chronic toxicity - green alga (<i>Raphidocelis subcapitata</i>)	Number of 5-Gallon Buckets	NOTES
MO-OXN	10-5-11 06:55					X			2	Note 1, Note 2, Note 3
MO-HUE	10-5-11 09:15						X		2	Note 1, Note 2, Note 3
MO-THO							X		2	Note 1, Note 2, Note 3
MO-MPK								X	2	Note 1, Note 2, Note 3
MO-SIM							X		2	Note 1, Note 2, Note 3
MO-FIL							X		2	Note 1, Note 2, Note 3
MO-SPA						X			2	Note 1, Note 2, Note 3

Relinquished Printed Name _____
 Signature _____
 Affiliation _____ Date/Time _____

Received Printed Name _____
 Signature _____
 Affiliation _____ Date/Time _____

Other Notes: Note 1: Dilutions - 6.25%, 12.5%, 25%, 50%, 100%
 Note 2: Please execute TIE if mortality > 50%
 Note 3: Notify District within 24 hours if significant toxicity is observed.



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Grabs - Weck Laboratories (SIDE 1 of 2)

1105137

Sampling Date: 10/5/11 Project Number: 2010/11-1 (Wet) Grabs
 Sampling Team: KW (SEE NOTES)

SAMPLE ID	DATE/TIME COLLECTED	Oil & Grease; O&G-NP (EPA 1664A)				Cyanide (EPA 335.4)	MTBE & 2CLEVE (EPA 524.2)		Travel Blanks (EPA 524.2)-only analyze if hits	EPA 515.3	Number of Bottles	NOTES
		3	1	3	1		3	1				
ME-CC	10/5/11 1030	3	1	3	1					8	A. Anselm, P. Chartier	
ME-SCR	10/5/11 1300	2	1	3	1					7	A. Anselm, P. Chartier	
ME-VR2	10/5/11 10:05	2	1	3	1					7	K. HAHNS, C. STEPHENS	
MO-CAM	10/5/11 0745	2	1	3	1					7	A. Anselm, P. Chartier	
MO-OJA	10/5/11 9:00	2	1	3	1					7	K. HAHNS, C. STEPHENS	
MO-MEI	10/5/11 8:00	2	1	3	1					7	K. HAHNS, C. STEPHENS	
MO-VEN	10/5/11 6:30	2	1	3	1					7	K. HAHNS, C. STEPHENS	
MD-1	10/5/11 6:30	2	1	3	1					7	K. HAHNS, C. STEPHENS	
MO-MPK Upstream at RR	10/5/11 13:20							2		2	D. Thomas, J. Siegert	

Lab to select samples for MS/MSD where extra volume permits (all test methods) excluding travel blanks.

MS/MSD
 O&G-NP
 MTBE
 2CLEVE

Relinquished Printed Name KELLY HAHNS
 Signature [Signature]
 Affiliation VCWPD Date/Time 10/5/11 / 1555

Received Printed Name ALAN GOLDBERG
 Signature [Signature]
 Affiliation WECK LABS Date/Time 10/5/11 1555

Other Notes: RELINQ X all ALAN 10/5/11 1840
 Please run 524.2 on travel blanks only if constituents detected in original analysis Stephanie 2:4



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Grabs - Weck Laboratories (SIDE 2 of 2)

Sampling Date: 10/5/11 Project Number: 2010/11-1 (Wet) Grabs
 Sampling Team: (see Notes)

SAMPLE ID	DATE/TIME COLLECTED	Oil & Grease; O&G-NP (EPA 1664A)						Travel Blanks (EPA 524.2)-only analyze if hits	Number of Bottles	NOTES
		Cyanide (EPA 335.4)	MTBE & 2CLEVE (EPA 524.2)							
MO-SPA	10/5/11 0615	2	1	3	1				7	D. Thomas, J. Siegert
MO-FIL	10/5/11 0715	2	1	3	1				7	D. Thomas, J. Siegert
MO-SIM	10/5/11 0915	2	1	3	1				7	D. Thomas, J. Siegert
MO-MPK	10/5/11 0830	2	1	3	1				7	D. Thomas, J. Siegert
MO-THO	10/5/11 1030	2	1	3	1				7	D. Thomas, J. Siegert
MO-OXN	10/5/11 0655	2	1	3	1				7	A. Anselm, P. Charbet
MO-HUE	10/5/11 09 55 ¹⁵	3	1	3	1				8	A. Anselm, P. Charbet
Edison RC Pipe at MPK - Lower	10/5/11 13:15					2			2	D. Thomas, J. Siegert
Edison RC Pipe at MPK - Upper	10/5/11 13:25					2			2	D. Thomas, J. Siegert

Lab to select samples for MS/MSD where extra volume permits (all test methods) excluding travel blanks.

Relinquished Printed Name _____
 Signature _____
 Affiliation _____ Date/Time _____

Received Printed Name _____
 Signature _____
 Affiliation _____ Date/Time _____

Other Notes: Please run 524.2 on travel blanks only if constituents detected in original analysis

SEE OTHER SIDE



1505136

Chain of Custody Record

Ventura County Watershed Protection District
 NPDES Stormwater Monitoring Program
 Project: NPDES Stormwater Wet Season
 Composites - Week Laboratories (SIDE 1 of 2)

SAMPLE
PICK-UP

Sampling Date: 10/5/11 Project Number: 2010/11-1 (Wet) Comps
 Sampling Team: K. HAHS, C. STEPHENS

SAMPLE ID	DATE/TIME COLLECTED	Barium, total	Chlorine Residual	NO3-N	Metals, total & dissolved (+ Hardness)	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F (300.0), Phenolics	Phosphorus-P Total & Dissolved	625-CTR, 8270SIM-PAH, 8270SIM-Phenols *	515.3-Herb 547-Glyphosate, 608-CTR	525.2 Reg+507, 525-OPP-LL	ALK, CL04, Turb, TDS, TSS, VSS, Cond	Number of Bottles	NOTES
ME-CC	_____	X	X	X	X	X	X	X	X	X	X	X	X	1	
ME-SCR	_____	X			X	X	X	X	X	X	X	X	X	1	
ME-VR2	_____				X	X	X	X	X	X	X	X	X	1	
MO-CAM	10/5/11 12:20				X	X	X	X	X	X	X	X	X	1	
MO-OJA	_____				X	X	X	X	X	X	X	X	X	1	
MO-MEI	_____				X	X	X	X	X	X	X	X	X	1	
MO-VEN	10/5/11 13:50				X	X	X	X	X	X	X	X	X	1	

Metals by 200.8, Total & Dissolved:
 Sb, Ag, Al, As, Be, Cd, Cr, Cu, Fe, Ni, Pb, Se, Ti, Zn, Hg

Metals by 200.7, Total (only):
 Ca, Mg (for Hardness calc.)

608 include alpha- & gamma-chlordane

* Same extraction with low-level spike for 3 methods:
 625CTR, 8270SIM-PAH, & 8270SIM-PHENOLS

Lab to select samples for MS/MSD where extra volume permits (all test methods)

Relinquished Printed Name KELLY HAHS
 Signature [Signature]
 Affiliation VCWIPD Date/Time 10/6/11 / 1555

Received Printed Name ALLAN GOLDBERG
 Signature [Signature]
 Affiliation WEEK LABS Date/Time 10/5/11 1555

Other Notes: Filter for dissolved metals and perform conductivity analyses immediately. Jamelle 10/5/11 1840



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Composites - Week Laboratories (SIDE 2 of 2)

1505136

Sampling Date: SEE OTHER SIDE Project Number: 2010/11-1 (Wet) Comps

Sampling Team: _____

SAMPLE ID	DATE/TIME COLLECTED				Metals, total & dissolved (+ Hardness)	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F (300.0), Phenolics	Phosphorus-P Total & Dissolved	625-CTR, 8270SIM-PAH, 8270SIM-Phenols *	515.3-Herb 547-Glyphosate, 608-CTR	525.2 Reg+507, 525-OPP-LL	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	NOTES
MO-SPA	10/5/11 / 13:20				X	X	X	X	X	X	X	X	X	1	<p>Metals by 200.8, Total & Dissolved: Sb, Ag, Al, As, Ba, Cd, Cr, Cu, Fe, Ni, Pb, Se, Tl, Zn, Hg</p> <p>Metals by 200.7, Total (only): Ca, Mg (for Hardness calc.)</p> <p>608 include alpha- & gamma-chlordane</p> <p>* Same extraction with low-level spike for 3 methods: 625CTR, 8270SIM-PAH, & 8270SIM-PHENOLS</p> <p>Lab to select samples for MS/MSD where extra volume permits (all test methods)</p>
MO-FIL	_____				X	X	X	X	X	X	X	X	X	1	
MO-SIM	_____				X	X	X	X	X	X	X	X	X	1	
MO-MPK	_____				X	X	X	X	X	X	X	X	X	1	
MO-THO	_____				X	X	X	X	X	X	X	X	X	1	
MO-OXN	10/5/11 / 14:05				X	X	X	X	X	X	X	X	X	1	
MO-HUE	_____				X	X	X	X	X	X	X	X	X	1	

Relinquished Printed Name _____
 Signature _____
 Affiliation _____ Date/Time _____

Received Printed Name _____
 Signature _____
 Affiliation _____ Date/Time _____

Other Notes: Filter for dissolved metals and perform conductivity analyses immediately.
SEE OVER

SEE OTHER SIDE



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Composites - Weck Laboratories (SIDE 1 of 2)

Sampling Date: 10-5-11 / 10-6-11 Project Number: 2010/11-1 (Wet) Comps
 Sampling Team: WBC, DFT & KH

SAMPLE ID	DATE/TIME COLLECTED	Barium, total	Chlorine Residual	NO3-N	Metals, total & dissolved (+ Hardness)	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F (300.0), Phenolics	Phosphorus-P Total & Dissolved	625-CTR, 8270SIM-PAH, 8270SIM-Phenols *	515.3-Herb 547-Glyphosate, 608-CTR	525.2 Reg+507, 525-OPP-LL	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	NOTES
ME-CC	10/6/11 0955	X	X	X	X	X	X	X	X	X	X	X	X	1	Metals by 200.8, Total & Dissolved: Sb, Ag, Al, As, Be, Cd, Cr, Cu, Fe, Ni, Pb, Se, Tl, Zn, Hg Metals by 200.7, Total (only): Ca, Mg (for Hardness calc.) 608 include alpha- & gamma-chlordane * Same extraction with low-level spike for 3 methods: 625CTR, 8270SIM-PAH, & 8270SIM-PHENOLS Lab to select samples for MS/MSD where extra volume permits (all test methods)
ME-SCR	10/6/11 1100	X			X	X	X	X	X	X	X	X	X	1	
ME-VR2	10/6/11 10:05				X	X	X	X	X	X	X	X	X	1	
MO-CAM					X	X	X	X	X	X	X	X	X	1	
MO-OJA	10/6/11 0855				X	X	X	X	X	X	X	X	X	1	
MO-MEI	10/6/11 0930				X	X	X	X	X	X	X	X	X	1	
MO-VEN					X	X	X	X	X	X	X	X	X	1	

Relinquished Printed Name W.B. CAREY
 Signature W.B. Carey
 Affiliation UCWPD Date/Time 10/6/11 15 12

Received Printed Name ROBEN SARAZZA
 Signature [Signature]
 Affiliation _____ Date/Time 10/6/11 15 13

Other Notes: Filter for dissolved metals and perform conductivity analyses immediately.



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Composites - Weck Laboratories (SIDE 2 of 2)

Sampling Date: 10-5-11/10-6-11

Project Number: 2010/11-1 (Wet) Comps

Sampling Team: WBC, DFT, KH

SAMPLE ID	DATE/TIME COLLECTED					Metals, total & dissolved (+ Hardness)	C+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F (300.0), Phenolics	Phosphorus-P Total & Dissolved	625-CTR, 8270SIM-PAH, 8270SIM-Phenols *	515.3-Herb 547-Glyphosate, 608-CTR	525.2 Reg+507, 525-OPP-LL	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	NOTES	
MO-SPA						X	X	X	X	X	X	X	X	X	X	1	Metals by 200.8, Total & Dissolved: Sb, Ag, Al, As, Be, Cd, Cr, Cu, Fe, Ni, Pb, Se, Tl, Zn, Hg Metals by 200.7, Total (only): Ca, Mg (for Hardness calc.) 608 include alpha- & gamma-chlordane * Same extraction with low-level spike for 3 methods: 625CTR, 8270SIM-PAH, & 8270SIM-PHENOLS Lab to select samples for MS/MSD where extra volume permits (all test methods)
MO-FIL	10/6/11 0800					X	X	X	X	X	X	X	X	X	X	1	
MO-SIM	10/6/11 0830					X	X	X	X	X	X	X	X	X	X	1	
MO-MPK	10/6/11 0750					X	X	X	X	X	X	X	X	X	X	1	
MO-THO	10/6/11 0922					X	X	X	X	X	X	X	X	X	X	1	
MO-OXN						X	X	X	X	X	X	X	X	X	X	1	
MO-HUE	10/6/11 11:05					X	X	X	X	X	X	X	X	X	X	1	

Relinquished Printed Name W.B. CAREY
 Signature W.B. Carey
 Affiliation VCWPD Date/Time 10/6/11 1512

Received Printed Name Ruben Sarabia
 Signature Ruben Sarabia
 Affiliation _____ Date/Time 10/6/11 1523

Other Notes: Filter for dissolved metals and perform conductivity analyses immediately.



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Bacteriological - VCHCA Lab (SIDE 1 of 1)

Sampling Date: 1/21/12 Project Number: 2010/11-2 (Wet)
 Sampling Team: K. HAHS, B. SERCU

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (25 Tube Method - MPNX)	Fecal Coliform (25 Tube Method - MPNX)	Enterococcus (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)	Total Coliform (Tray Method - WQ IDEXX)	Number of Bottles	NOTES
	ME-CC		X	X	X	X	X	1	
	ME-SCR		X	X	X	X	X	1	
	ME-VR2	1/21/12 0600	X	X	X	X	X	1	
	MO-CAM	E'	X	X	X	X	X	1	
	MO-OJA	1/21/12 0500	X	X		X	X	1	
	MO-MEI	1/21/12 0350	X	X		X	X	1	
	MO-VEN MO-VEN	1/21/12 02:10	X	X		X	X	1	
	MD-1	1/21/12 0350	X	X		X	X	1	

Relinquished Printed Name KELLY HAHS
 Signature [Signature]
 Affiliation VCHCA Date/Time 1/21/12

Received Printed Name Susan Bell
 Signature [Signature]
 Affiliation [Signature] Date/Time 1/21/12 0705

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Bacteriological - VCHCA Lab (SIDE 1 of 2)

Sampling Date: 01-21-12 Project Number: 2010/11-2 (Wet)

Sampling Team: DAVID T. PETEC, A. ANSELM, C. STEPHENS

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (25 Tube Method - MPNX)	Fecal Coliform (25 Tube Method - MPNX)	Enterococcus (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)	Total Coliform (Tray Method - WQ IDEXX)			Number of Bottles	NOTES
	ME-CC	01-21-12 04:30	X	X	X	X	X			1	AA, CS
	ME-SCR	01-21-12 05:30	X	X	X	X	X			1	AA, CS
	ME-VR2		X	X	X	X	X			1	
	MO-CAM	01-21-12 02:45	X	X		X	X			1	AA, CS
	MO-OJA		X	X		X	X			1	
	MO-MEI		X	X		X	X			1	
	MO-VEN		X	X		X	X			1	
	MD-1		X	X		X	X			1	

Relinquished Printed Name DAVID F THOMAS
 Signature [Signature]
 Affiliation VRSD/VCWRD Date/Time 01-21-12 06:00

Received Printed Name Susan Benjamin
 Signature [Signature]
 Affiliation CH Lab Date/Time 01/21/12

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Bacteriological - VCHCA Lab (SIDE 2 of 2)

Sampling Date: 01-21-12 Project Number: 2010/11-2 (Wet)

Sampling Team: DAVID T. PETE C. ; A ANGELM, C. STEPHENS

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (25 Tube Method - MPNX)	Fecal Coliform (25 Tube Method - MPNX)	Enterococcus (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)	Total Coliform (Tray Method - WQ IDEXX)		Number of Bottles	NOTES
	MO-SPA	01-21-12 01:45	X	X		X	X		1	DT, PC
	MO-FIL	01-21-12 02:45	X	X		X	X		1	DT, PC
	MO-SIM	01-21-12 04:30	X	X		X	X		1	DT, PC
	MO-MPK	01-21-12 03:45	X	X		X	X		1	DT, PC
	MO-THO	01-21-12 05:00	X	X		X	X		1	DT, PC
	MO-OXN	01-21-12 01:50	X	X		X	X		1	AA, CS
	MO-HUE	01-21-12 03:30	X	X		X	X		1	AA, CS

Relinquished Printed Name DAVID THOMAS
 Signature [Signature]
 Affiliation VRSD/VCWPD Date/Time 01-21-12 0600

Received Printed Name Susan R
 Signature [Signature]
 Affiliation VRSD Date/Time 01/21/12 0600

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time



2A21005

Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Grabs - Weck Laboratories (SIDE 2 of 2)

TWO-SIDED

Sampling Date: 1/21/12 Project Number: 2010/11-2 (Wet) Grabs
 Sampling Team: K. HANS, B. SERCU, D. THOMAS, P. CHARTIER, A. ANSELM, C. STEPHENS

SAMPLE ID	DATE/TIME COLLECTED	Oil & Grease; O&G-NP (EPA 1664A)				Cyanide (EPA 335.4)	MTBE & 2CLEVE (EPA 524.2)	Travel Blanks (EPA 524.2)-only analyze if hits										Number of Bottles	SAMPLER BY NOTES
		2	1	3	1														
MO-SPA	1/21/12 0145	2	1	3	1													7	DT, PC
MO-FIL	1/21/12 0245	2	1	3	1													7	DT, PC
MO-SIM	1/21/12 0430	2	1	3	1													7	DT, PC
MO-MPK	1/21/12 0345	2	1	3	1													7	DT, PC
MO-THO	1/21/12 0500	2	1	3	1													7	DT, PC
MO-oxn	1/21/12 0150	2	1	3	1													7	AA, CS
MO-HUE	1/21/12 0330	3	1	3	1													8	AA, CS

Lab to select samples for MS/MSD where extra volume permits (all test methods) excluding travel blanks.

Relinquished Printed Name W.B. CAREY
 Signature W.B. Carey
 Affiliation VCWPD Date/Time 1/21/12 1154
 Received Printed Name Hector Sanchez
 Signature [Signature]
 Affiliation [Signature] Date/Time 1-21-12

Other Notes: Please run 524.2 on travel blanks only if constituents detected in original analysis

weck

weck AN 1/21/12 11:00 3.0°C

COURIER PICK UP
 Attachment E
 Monitoring Report Appendix E



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Grabs - Week Laboratories (SIDE 1 of 2)

2A21005

Sampling Date: 1/21/12

Project Number: 2010/11-2 (Wet) Grabs

Sampling Team: see over

SAMPLE ID	DATE/TIME COLLECTED	Oil & Grease; O&G-NP (EPA 1664A)	Cyanide (EPA 335.4)	MTBE & 2CLEVE (EPA 524.2)	Travel Blanks (EPA 524.2)-only analyze if hits								Number of Bottles	NOTES
														Lab to select samples for MS/MSD where extra volume permits (all test methods) excluding travel blanks.
ME-CC	1/21/12 0430	3	1	3	1								8	AA, CS
ME-SCR	1/21/12 0530	2	1	3	1								7	AA, CS
ME-VR2	1/21/12 0600	2	1	3	1								7	KH, BS
MO-CAM	1/21/12 0245	2	1	3	1								7	AA, CS
MO-OJA	1/21/12 0500	2	1	3	1								7	KH, BS
MO-MEI	1/21/12 0350	2	1	3	1								7	KH, BS
MO-VEN	1/21/12 0210	2	1	3	1								7	KH, BS
MD-1	1/21/12 0210	2	1	3	1								7	KH, BS

Relinquished Printed Name _____

Signature _____

Affiliation _____ Date/Time _____

Received Printed Name _____

Signature _____

Affiliation _____ Date/Time _____

Other Notes: Please run 524.2 on travel blanks only if constituents detected in original analysis

COURIER PICK UP

SEE OTHER SIDE

see 01/22/12



2A21008

Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Composites - Weck Laboratories (SIDE 2 of 2)

Sampling Date: 1-21-12 Project Number: 2010/11-2 (Wet) Composites
 Sampling Team: A. ANSELM ← STEPHENS K. HANS, B. SERCU

SAMPLE ID	DATE/TIME COLLECTED					Metals, total & dissolved (+ Hardness)	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F (300.0), Phenolics	Phosphorus-P Total & Dissolved	625-CTR, 8270SIM-PAH, 8270SIM-Phenols *	515.3-Herb 547-Glyphosate, 608-CTR	525.2 Reg+507, 525-OPP-LL	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	sampled By NOTES
MO-STA MO-SAA	1/21/12 8:58					X	X	X	X	X	X	X	X	X	1	AA, BS
MO-PH MO-VEN	1/21/12 8:15					X	X	X	X	X	X	X	X	X	1	AA, BS
MO-SIM MO-oxn	1/21/12 8:30					X	X	X	X	X	X	X	X	X	1	AA, BS
MO-MPK MO-OJA	1/21/12 04:40					X	X	X	X	X	X	X	X	X	1	KH, BS
MO-THO MO-MEY	1/21/12 04:10					X	X	X	X	X	X	X	X	X	1	KH, BS
MO-oxn MO-HUE	1-21-12 11:50 ^{1/21/12} 0845					X	X	X	X	X	X	X	X	X	1	
MO-HUE	1-21-12 3:30					X	X	X	X	X	X	X	X	X	1	

Relinquished Printed Name W.B. CAREY
 Signature W.B. Carey
 Affiliation VCWPD Date/Time 1/21/12 1154

Received Printed Name Hector Sanchez
 Signature [Signature]
 Affiliation _____ Date/Time 1-21-12

Other Notes: Filter for dissolved metals and perform conductivity analyses immediately. Splitted samples started @ 3pm 1/21/12

OC 01/25/12



2A21007

Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Composites - Weck Laboratories (SIDE 2 of 2)

Sampling Date: 1/21/12

Project Number: 2010/11-2 (Wet) Composites

Sampling Team: K. HAYS, D. THOMAS

SAMPLE ID	DATE/TIME COLLECTED					Metals, total & dissolved (+ Hardness)	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F (300.0), Phenolics	Phosphorus-P Total & Dissolved	625-CTR, 8270SIM-PAH, 8270SIM-Phenols *	515.3-Herb 547-Glyphosate, 608-CTR	525.2 Regt+507, 525-OPP-LL	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	NOTES
MO-SPA						X	X	X	X	X	X	X	X	X	1	
MO-FIL	1/21/12 0945					X	X	X	X	X	X	X	X	X	1	
MO-SIM	1/21/12 11:00					X	X	X	X	X	X	X	X	X	1	
MO-MPK	1/21/12 1030					X	X	X	X	X	X	X	X	X	1	
MO-THO	1/21/12 1130					X	X	X	X	X	X	X	X	X	1	
MO-OXN						X	X	X	X	X	X	X	X	X	1	
MO-TUE	1/21/12 0915					X	X	X	X	X	X	X	X	X	1	
																3.4°C

Relinquished

Printed Name W-B. CAREY

Signature W-B. Carey

Affiliation UCWPD

Date/Time 1/21/12 1500

Received

Printed Name Joe Chan Weck Labs

Signature Antonio NOS

Affiliation _____

Date/Time 1/21/12 17:00

Other Notes:

Filter for dissolved metals and perform conductivity analyses immediately.

**COURIER
PICK UP**

oe 01/25/12



2A21007

Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Composites - Week Laboratories (SIDE 1 of 2)

Sampling Date: 12/1/21/12

Project Number: 2010/11-2 (Wet) Composites

Sampling Team: K. HAHS, D. THOMAS

SAMPLE ID	DATE/TIME COLLECTED	Barium, total	Chlorine Residual	NO3-N	Metals, total & dissolved (+ Hardness)	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F (300.0), Phenolics	Phosphorus-P Total & Dissolved	625-CTR, 8270SIM-PAH, 8270SIM-Phenols *	515.3-Herb 547-Glyphosate, 608-CTR	525.2 Reg+507, 525-OPP-LL	ALK, CL04, Turb, TDS, TSS, VSS, Cond	Number of Bottles	NOTES
ME-CC	1/21/12 1210	X	X	X	X	X	X	X	X	X	X	X	X	1	<p>Metals by 200.8, Total & Dissolved: Sb, Ag, Al, As, Be, Cd, Cr, Cu, Fe, Ni, Pb, Se, Tl, Zn, Hg</p> <p>Metals by 200.7, Total (only): Ca, Mg (for Hardness calc.)</p> <p>608 include alpha- & gamma-chlordane</p> <p>* Same extraction with low-level spike for 3 methods: 625CTR, 8270SIM-PAH, & 8270SIM-PHENOLS</p> <p>Lab to select samples for MS/MSD where extra volume permits (all test methods)</p>
ME-SCR	1/21/12 1400	X			X	X	X	X	X	X	X	X	X	1	
ME-VR2	1/21/12 1310				X	X	X	X	X	X	X	X	X	1	
MO-CAM	1/21/12 1230				X	X	X	X	X	X	X	X	X	1	
MO-QJA					X	X	X	X	X	X	X	X	X	1	
MO-MEH					X	X	X	X	X	X	X	X	X	1	
MO-VEN					X	X	X	X	X	X	X	X	X	1	

Relinquished Printed Name W.B. CAREY
 Signature W.B. Carey
 Affiliation VCWPA Date/Time 1/21/12 1500

Received Printed Name Joe Chan Week Labs
 Signature Antonio M25
 Affiliation _____ Date/Time 1/21/12 17:00

Other Notes: Filter for dissolved metals and perform conductivity analyses immediately. Split samples started 5:30pm until 7:30pm TAC

COURIER
PICK UP



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Bacteriological - VCHCA Lab (SIDE 1 of 2)

Sampling Date: 3/17/12 Project Number: 2011/12-3
2010/11-3 (Wet)
 Sampling Team: BS, KH

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (25 Tube Method - MPNX)	Fecal Coliform (25 Tube Method - MPNX)	Enterococcus (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)	Total Coliform (Tray Method - WQ IDEXX)			Number of Bottles	NOTES
	ME-CC		X	X	X	X	X			1	
	ME-SCR		X	X	X	X	X			1	
	ME-VR2	3/17/12 0850 PDT	X	X	X	X	X			1	BS, KH
	MO-CAM		X	X		X	X			1	
	MO-OJA	3/17/12 0530 PDT	X	X		X	X			1	BS, KH
	MO-MEI	3/17/12 0810 PDT 0620 PDT	X	X		X	X			1	BS, KH
	MO-VEN	3/17/12 0810 PDT	X	X		X	X			1	BS, KH
	MB-1	3/17/12 0620 PDT	X	X		X	X			1	BS, KH

Relinquished Printed Name DAVID F THOMAS
 Signature [Signature]
 Affiliation VCWPO VNSD Date/Time 3-17-12 10:44

Received Printed Name [Signature]
 Signature S.P.
 Affiliation PH Lab Date/Time 3/17/12

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Bacteriological - VCHCA Lab (SIDE 2 of 2)

Sampling Date: 3-17-12 Project Number: 2011/12-3
2010/11-3 (Wet)
 Sampling Team: D THOMAS J. SIEGENT

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (25 Tube Method - MPNX)	Fecal Coliform (25 Tube Method - MPNX)	Enterococcus (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)	Total Coliform (Tray Method - WQ IDEXX)			Number of Bottles	NOTES
	MO-SPA	3-17-12 05:50	X	X		X	X			1	DT JS
	MO-FIL	3-17-12 06:15	X	X		X	X			1	}
	MO-SIM	3-17-12 07:50	X	X		X	X			1	
	MO-MPK	3-17-12 08:25	X	X		X	X			1	
	MO-THO	3-17-12 09:00	X	X		X	X			1	
	MO-OXN		X	X		X	X			1	
	MO-HUE		X	X		X	X			1	

Relinquished Printed Name DAVID F THOMAS
 Signature [Signature]
 Affiliation VCWPD WSO Date/Time 3-17-12 10:44

Received Printed Name Susan Benancio
 Signature [Signature]
 Affiliation PH Lab Date/Time 3/17/12

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Bacteriological - VCHCA Lab (SIDE 1 of 2)

Sampling Date: 3-17-12 Project Number: 2010/11-3 (Wet)
 Sampling Team: AA + NM

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (25 Tube Method - MPNX)	Fecal Coliform (25 Tube Method - MPNX)	Enterococcus (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)	Total Coliform (Tray Method - WQ IDEXX)			Number of Bottles	NOTES
	ME-CC	8:30 3-17-12	X	X	X	X	X			1	
	ME-SCR	9:30 3-17-12	X	X	X	X	X			1	
	ME-VR2		X	X	X	X	X			1	
	MO-CAM	6:00 3-17-12	X	X		X	X			1	
	MO-OJA		X	X		X	X			1	
	MO-MEI		X	X		X	X			1	
	MO-VEN		X	X		X	X			1	
	MB-1		X	X		X	X			1	

Relinquished Printed Name ARNE ANSELM
 Signature [Signature]
 Affiliation VCWPD Date/Time 3-17-12 10:30

Received Printed Name Susan Benandes
 Signature [Signature]
 Affiliation [Signature] Date/Time 3/17/12 1030

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Bacteriological - VCHCA Lab (SIDE 2 of 2)

Sampling Date: 3-17-12

Project Number: 2010/11-3 (Wet)

Sampling Team: AA & NM

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (25 Tube Method - MPNX)	Fecal Coliform (25 Tube Method - MPNX)	Enterococcus (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)	Total Coliform (Tray Method - WQ IDEXX)			Number of Bottles	NOTES
	MO-SPA		X	X		X	X			1	
	MO-FIL		X	X		X	X			1	
	MO-SIM		X	X		X	X			1	
	MO-MPK		X	X		X	X			1	
	MO-THO		X	X		X	X			1	
	MO-OXN	5:00 ³ 3-17-12	X	X		X	X			1	
	MO-HUE	7:30 ³ 3-17-12	X	X		X	X			1	

Relinquished Printed Name ARNE ANSELM
 Signature [Signature]
 Affiliation VCWPD Date/Time 3-17-12 10:30

Received Printed Name Susan Benavides
 Signature [Signature]
 Affiliation _____ Date/Time 3/17/12

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time



2C18001

Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Composites - Weck Laboratories (SIDE 1 of 2)

Sampling Date: 3/18/12 Project Number: 2011/12-3
~~2010/11-3~~ (Wet) Composites
 Sampling Team: ~~E. HAUS, B. SENEU~~ KH, BS, WBC, AA, JS, NM

SAMPLE ID	DATE/TIME COLLECTED	Barium, total	Chlorine Residual	NO3-N	Metals, total & dissolved (+ Hardness)	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F (300.0), Phenolics	Phosphorus-P Total & Dissolved	625-CTR, 8270SIM-PAH, 8270SIM-Phenols *	515.3-Herb 547-Glyphosate, 608-CTR	525.2 Reg+507, 525-OPP-LL	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	NOTES
ME-CC	3/18/12 08:43	X	X	X	X	X	X	X	X	X	X	X	X	1	AA, NM
ME-SCR	3/18/12 09:53	X			X	X	X	X	X	X	X	X	X	1	AA, NM LIMITED SAMPLE
ME-VR2	3/18/12 08:30				X	X	X	X	X	X	X	X	X	1	KH, BS
MO-CAM	3/18/12 08:20				X	X	X	X	X	X	X	X	X	1	AA, NM
MO-OJA	3/18/12 07:35				X	X	X	X	X	X	X	X	X	1	KH, BS
MO-MEI	3/18/12 07:55				X	X	X	X	X	X	X	X	X	1	KH, BS
MO-VEN	3/18/12 09:05				X	X	X	X	X	X	X	X	X	1	KH, BS

Metals by 200.8, Total & Dissolved:
 Sb, Ag, Al, As, Be, Cd, Cr, Cu, Fe, Ni, Pb, Se, Tl, Zn, Hg

Metals by 200.7, Total (only):
 Ca, Mg (for Hardness calc.)

608 include alpha- & gamma-chlordane

* Same extraction with low-level spike for 3 methods:
 625CTR, 8270SIM-PAH, & 8270SIM-PHENOLS

Lab to select samples for MS/MSD where extra volume permits (all test methods)

Relinquished Printed Name W.B. CAREY
 Signature W.B. Carey
 Affiliation VCWPD Date/Time 10/18/12 1330

Received Printed Name R. Bel
 Signature Randy Bel
 Affiliation Rehabiem Date/Time 10/18/12 1330

Other Notes: Filter for dissolved metals and perform conductivity analyses immediately.



2C18001

Chain of Custody Record
 Ventura County Watershed Protection District
 NPDES Stormwater Monitoring Program
 Project: NPDES Stormwater Wet Season
 Composites - Weck Laboratories (SIDE 2 of 2)

Sampling Date: 3/18/12 Project Number: 2010/11-3 (Wet) Composites

Sampling Team: KH, BS, WBC, JS, AA, NM

SAMPLE ID	DATE/TIME COLLECTED																	NOTES
																		Metals by 200.8, Total & Dissolved: Sb, Ag, Al, As, Be, Cd, Cr, Cu, Fe, Ni, Pb, Se, Tl, Zn, Hg Metals by 200.7, Total (only): Ca, Mg (for Hardness calc.) 608 include alpha- & gamma-chlordane * Same extraction with low-level spike for 3 methods: 625CTR, 8270SIM-PAH, & 8270SIM-PHENOLS Lab to select samples for MS/MSD where extra volume permits (all test methods)
MO-SPA	3/18/12 0742					X	X	X	X	X	X	X	X	X	X	X	1	WBC, JS
MO-FIL	3/18/12 0810					X	X	X	X	X	X	X	X	X	X	X	1	WBC, JS
MO-SIM	3/18/12 0916					X	X	X	X	X	X	X	X	X	X	X	1	WBC, JS
MO-MPK	3/18/12 0830					X	X	X	X	X	X	X	X	X	X	X	1	WBC, JS
MO-THO	3/18/12 0952					X	X	X	X	X	X	X	X	X	X	X	1	WBC, JS
MO-oxN	3/18/12 07145					X	X	X	X	X	X	X	X	X	X	X	1	AA, NM
MO-HUE	3/18/12 0912					X	X	X	X	X	X	X	X	X	X	X	1	AA, NM

Relinquished Printed Name W.B. CARY
 Signature W.B. CAREY
 Affiliation UCWPD Date/Time 10/18/12 1330

Received Printed Name RAPHAEL MARTIN
 Signature Raphael Martin
 Affiliation Recebre necessary Date/Time 10/18/12 1330

Other Notes: Filter for dissolved metals and perform conductivity analyses immediately.



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Equipment - Weck Laboratories

Sampling Date: 3/17-18/2012 Project Number: 2011/12-3
 Sampling Team: _____ 2010/11-3 (Wet) Equipment

EQUIPMENT	Clean with detergent and HNO3	No action required			NOTES
18.5 L carboy and lid	15				Please place tape or plastic bag over top
Blue cube cooler		14			
Black bags		14			

Relinquished Printed Name W.B. CAREY
 Signature W.B. Carey
 Affiliation VCWPD Date/Time 10/18/12 1330

Received Printed Name Rachel Acosta ara celi da salla
 Signature Rachel Acosta [Signature]
 Affiliation Perich Messinger Date/Time 10/18/12 1330 weck labs

Other Notes: * Please clean with detergent, nitric acid, and deionized water per SOP. @ 15:40



2C18001

Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Composites - Weck Laboratories (SIDE 1 of 2)

Sampling Date: 3/18/12 Project Number: 2011/12-3
~~2010/11-3~~ (Wet) Composites
 Sampling Team: ~~E. HAUS, B. SENEU~~ KH, BS, WBC, AA, JS, NM

SAMPLE ID	DATE/TIME COLLECTED	Barium, total	Chlorine Residual	NO3-N	Metals, total & dissolved (+ Hardness)	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F (300.0), Phenolics	Phosphorus-P Total & Dissolved	625-CTR, 8270SIM-PAH, 8270SIM-Phenols *	515.3-Herb 547-Glyphosate, 608-CTR	525.2 Reg+507, 525-OPP-LL	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	NOTES
ME-CC	3/18/12 08:43	X	X	X	X	X	X	X	X	X	X	X	X	1	AA, NM
ME-SCR	3/18/12 09:53	X			X	X	X	X	X	X	X	X	X	1	AA, NM LIMITED SAMPLE
ME-VR2	3/18/12 08:30				X	X	X	X	X	X	X	X	X	1	KH, BS
MO-CAM	3/18/12 08:20				X	X	X	X	X	X	X	X	X	1	AA, NM
MO-OJA	3/18/12 07:35				X	X	X	X	X	X	X	X	X	1	KH, BS
MO-MEI	3/18/12 07:55				X	X	X	X	X	X	X	X	X	1	KH, BS
MO-VEN	3/18/12 09:05				X	X	X	X	X	X	X	X	X	1	KH, BS

Metals by 200.8, Total & Dissolved:
 Sb, Ag, Al, As, Be, Cd, Cr, Cu, Fe, Ni, Pb, Se, Tl, Zn, Hg

Metals by 200.7, Total (only):
 Ca, Mg (for Hardness calc.)

608 include alpha- & gamma-chlordane

* Same extraction with low-level spike for 3 methods:
 625CTR, 8270SIM-PAH, & 8270SIM-PHENOLS

Lab to select samples for MS/MSD where extra volume permits (all test methods)

Relinquished Printed Name W.B. CAREY
 Signature W.B. Carey
 Affiliation VCWPD Date/Time 10/18/12 1330

Received Printed Name R. Bel
 Signature Randy Bel
 Affiliation Rehabiem Date/Time 10/18/12 1330

Other Notes: Filter for dissolved metals and perform conductivity analyses immediately.



2C18001

Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Composites - Weck Laboratories (SIDE 2 of 2)

Sampling Date: 3/18/12 Project Number: 2011/12-3 (Wet) Composites

Sampling Team: KH, BS, WBC, JS, AA, NM

SAMPLE ID	DATE/TIME COLLECTED															NOTES
																Metals by 200.8, Total & Dissolved: Sb, Ag, Al, As, Be, Cd, Cr, Cu, Fe, Ni, Pb, Se, Tl, Zn, Hg Metals by 200.7, Total (only): Ca, Mg (for Hardness calc.) 608 include alpha- & gamma-chlordane * Same extraction with low-level spike for 3 methods: 625CTR, 8270SIM-PAH, & 8270SIM-PHENOLS Lab to select samples for MS/MSD where extra volume permits (all test methods)
MO-SPA	3/18/12 0742					X	X	X	X	X	X	X	X	X	1	WBC, JS
MO-FIL	3/18/12 0810					X	X	X	X	X	X	X	X	1	WBC, JS	
MO-SIM	3/18/12 0916					X	X	X	X	X	X	X	X	1	WBC, JS	
MO-MPK	3/18/12 0830					X	X	X	X	X	X	X	X	1	WBC, JS	
MO-THO	3/18/12 0952					X	X	X	X	X	X	X	X	1	WBC, JS	
MO-OXN	3/18/12 07145					X	X	X	X	X	X	X	X	1	AA, NM	
MO-HUE	3/18/12 0912					X	X	X	X	X	X	X	X	1	AA, NM	

Relinquished Printed Name W.B. CARY
 Signature W.B. CAREY
 Affiliation UCWPD Date/Time 10/18/12 1330

Received Printed Name Rafael Acosta
 Signature Rafael Acosta
 Affiliation Recebre necessary Date/Time 10/18/12 1330

Other Notes: Filter for dissolved metals and perform conductivity analyses immediately.



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Equipment - Weck Laboratories

Sampling Date: 3/17-18/2012 Project Number: 2011/12-3
 Sampling Team: _____ 2010/11-3 (Wet) Equipment

EQUIPMENT	Clean with detergent and HNO3	No action required			NOTES
18.5 L carboy and lid	IF				Please place tape or plastic bag over top
Blue cube cooler		IF			
Black bags		IF			

Relinquished Printed Name W.B. CAREY
 Signature W.B. Carey
 Affiliation VCWPD Date/Time 10/18/12 1330

Received Printed Name Rachel Acosta ara celi da salla
 Signature Rachel Acosta
 Affiliation Perich Messinger Date/Time 10/18/12 1330 Weck Labs

Other Notes: * Please clean with detergent, nitric acid, and deionized water per SOP. @ 15:40



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Bacteriological - VCHCA Lab (SIDE 1 of 2)

Sampling Date: 4/24/12 Project Number: 2011/12-4 (Dry)

Sampling Team: K. Hahs, B. Sercu

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (25 Tube Method - MPNX)	Fecal Coliform (25 Tube Method - MPNX)	Enterococcus (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)	Total Coliform (Tray Method - WQ IDEXX)			Number of Bottles	NOTES
ME-VR1	ME-VR1		X	X	X	X	X			1	
ME-VR2	ME-VR2		X	X	X	X	X			1	
ME-VR2		4/24/12 1055	X	X	X	X	X			1	
MO-OJA	MO-OJA		X	X	X	X	X			1	
MO-OJA		4/24/12 0910	X	X		X	X			1	
MO-MEI		4/24/12 10:05	X	X		X	X			1	
MO-TEN	MO-TEN		X	X	X	X	X			1	
ME-1	ME-1		X	X	X	X	X			1	

Relinquished Printed Name KELLY HAHS
 Signature [Signature]
 Affiliation VEWRPD Date/Time 4/24/12 1150 PDT

Received Printed Name SALVADOR Y. BARRAGAN
 Signature [Signature]
 Affiliation P.H. LAB Date/Time 4-24-12 11:50

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Bacteriological - VCHCA Lab (SIDE 1 of 2)

Sampling Date: 5-22-12

Project Number: 2011/12-4 (Dry)
2010/11-3 (Wet)

Sampling Team: W.B. CAREY & B. SERCU

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (25 Tube Method - MPNX)	Fecal Coliform (25 Tube Method - MPNX)	Enterococcus (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)	Total Coliform (Tray Method - WQ IDEXX)			Number of Bottles	NOTES
	ME-CC		X	X	X	X	X			1	
	ME-SCR	5/22/12 9:35	X	X	X	X	X			1	
	ME-VR2		X	X	X	X	X			1	
	MO-CAM		X	X		X	X			1	
	MO-OJA		X	X		X	X			1	
	MO-MEI		X	X		X	X			1	
	MO-VEN	5/22/12 10:25	X	X		X	X			1	
	MB-1		X	X		X	X			1	

Relinquished Printed Name BRAM SERCU

Signature

Affiliation WC-WPD Date/Time 5/22/12 11:40

Received Printed Name S. Benar

Signature

Affiliation _____ Date/Time 05/22/12 11:40

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Bacteriological - VCHCA Lab (SIDE 2 of 2)

Sampling Date: 5-22-12

Project Number: 2010/11-3 (Wet) 2011/12-4 (Dry)

Sampling Team: W.B. CAREY & B. SERCU

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (25 Tube Method - MPNX)	Fecal Coliform (25 Tube Method - MPNX)	Enterococcus (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)	Total Coliform (Tray Method - WQ IDEXX)			Number of Bottles	NOTES
	MO-SPA	5/22/12	X	X		X	X			1	
	MO-FIL	5/22/12 08:28	X	X		X	X			1	
	MO-SIM		X	X		X	X			1	
	MO-MPK		X	X		X	X			1	
	MO-THO		X	X		X	X			1	
	MO-OXN	5/22/12 11:05	X	X		X	X			1	
	MO-HUE		X	X		X	X			1	

Relinquished Printed Name BRAM SERCU
 Signature [Signature]
 Affiliation UC-WPD Date/Time 5/22/12 11:40

Received Printed Name Susan Bernick
 Signature [Signature]
 Affiliation UC-WPD Date/Time 05/22/12 11:40

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Bacteriological - VCHCA Lab (SIDE 1 of 2)

Sampling Date: 5-24-12 Project Number: 2011/12-4 (Dry)

Sampling Team: WBC & BS

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (25 Tube Method - MPNX)	Fecal Coliform (25 Tube Method - MPNX)	Enterococcus (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)	Total Coliform (Tray Method - WQ IDEXX)			Number of Bottles	NOTES
	ME-CC	5/24/12 1145	X	X	X	X	X			1	
	ME-SCR		X	X	X	X	X			1	
	ME-VR2		X	X	X	X	X			1	
	MO-CAM	5/24/12 1100	X	X		X	X			1	
	MO-OJA		X	X		X	X			1	
	MO-MEI		X	X		X	X			1	
	MO-VEN		X	X		X	X			1	
	MB-1		X	X		X	X			1	

Relinquished Printed Name BRAM SERCU
 Signature [Signature]
 Affiliation VC-WPD Date/Time 5/24/12 9:06 PM

Received Printed Name SALVADOR BARRAGAN
 Signature [Signature]
 Affiliation PIH-LAB Date/Time 5.24.12 1306

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time



2D24087

Chain of Custody Record

Ventura County Watershed Protection District
 NPDES Stormwater Monitoring Program
 Project: NPDES Stormwater Wet Season
 Grabs - Weck Laboratories (SIDE 1 of 2)

Sampling Date: 4/24/2012 Project Number: 2011/12-4 (Dry) Grabs
 Sampling Team: K. Hahs, B. Sercu

SAMPLE ID	DATE/TIME COLLECTED	Oil & Grease; O&G-NP (EPA 1664A)	Cyanide (EPA 335.4)	MTBE & 2CLEVE (EPA 524.2)	Travel Blanks (EPA 524.2)-only analyze if hits									Number of Bottles	NOTES
ME-VR2	4/24/12 10:55	2	1	3	1									7	
MO-OJA	4/24/12 09:10	2	1	3	1									7	
MO-MEI	4/24/12 10:05	2	1	3	1									7	

Lab to select samples for MS/MSD where extra volume permits (all test methods) excluding travel blanks.

SAMPLE
PICK-UP

Relinquished Printed Name BRAM SERCU
 Signature [Signature]
 Affiliation VC-WPD Date/Time 4/24/12 1450

Received Printed Name ALLAN GOLDBERG
 Signature [Signature]
 Affiliation WECK LABS Date/Time 4/24/12 1450

Other Notes: RELINQX ALLAN GOLDBERG 4/24/12 1700
 Please run 524.2 on travel blanks only if constituents detected in original analysis

Received Stephanie Goetz 4-24-12 17:00 1.4°C



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Composites - Weck Laboratories (SIDE 1 of 1)

2d24088

Sampling Date: 4/24/2012

Project Number: 2011/12-4 (Dry) Grabs

Sampling Team: K. Hahs, B. Sercu

SAMPLE ID	DATE/TIME COLLECTED	Barium, total	Chlorine Residual	NO3-N	Metals, total & dissolved (+ Hardness)	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F (300.0), Phenolics	Phosphorus-P Total & Dissolved	625-CTR, 8270SIM-PAH, 8270SIM-Phenols *	515.3-Herb 547-Glyphosate, 608-CTR	525.2 Reg+507, 525-OPP-LL	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	NOTES
ME-VR2	4/24/12 10:55				X	X	X	X	X	X	X	X	X	1	
MO-OJA	4/24/12 0900				X	X	X	X	X	X	X	X	X	1	
MO-MEI	4/24/12 10:05				X	X	X	X	X	X	X	X	X	1	

Metals by 200.8, Total & Dissolved:
 Sb, Ag, Al, As, Be, Cd, Cr, Cu, Fe, Ni, Pb, Se, Tl, Zn, Hg

Metals by 200.7, Total (only):
 Ca, Mg (for Hardness calc.)

608 include alpha- & gamma-chlordane

* Same extraction with low-level spike for 3 methods:
 625CTR, 8270SIM-PAH, & 8270SIM-PHENOLS

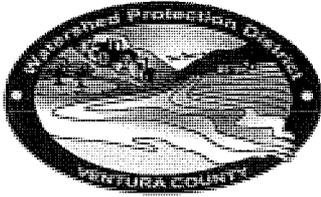
Lab to select samples for MS/MSD where extra volume permits (all test methods)

SAMPLE PICK-UP

Relinquished Printed Name BRAM SERCU
 Signature [Signature]
 Affiliation VC-WPD Date/Time 4/24/12 1450

Received Printed Name ALLAN GOLDBERG
 Signature [Signature]
 Affiliation WECK LABS Date/Time 4/24/12 1450

Other Notes: Filter for dissolved metals and perform conductivity analyses immediately.



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Equipment - Weck Laboratories

Sampling Date: _____ Project Number: 2011/12-4 (Dry) Equipment

Sampling Team: _____

EQUIPMENT	Clean with detergent and HNO3	No action required			NOTES
18.5 L carboy and lid	3				Please place tape or plastic bag over top
Blue cube cooler		3			
Black bags		3			

**SAMPLE
PICK-UP**

Relinquished Printed Name BRAN SERCO

Signature _____

Affiliation VC-WPD Date/Time 4/24/12 1450

Received Printed Name ALLAN GOLDBERG

Signature _____

Affiliation WECK LABS Date/Time 4/24/12 1450

Other Notes: RELINQX ALLAN G 4/24/12 1700
 * Please clean with detergent, nitric acid, and deionized water per SOP.



2E22066

Chain of Custody Record

Ventura County Watershed Protection District
 NPDES Stormwater Monitoring Program
 Project: NPDES Stormwater Wet Season
 Composites - Weck Laboratories (SIDE 1 of 2)

Sampling Date: 5/22/12 Project Number: 2011/12-4 (Dry) Composites
 Sampling Team: BS, WBC

SAMPLE ID	DATE/TIME COLLECTED	Barium, total	Chlorine Residual	NO3-N	Metals, total & dissolved (+ Hardness)	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F (300.0), Phenolics	Phosphorus-P Total & Dissolved	625-CTR, 8270SIM-PAH, 8270SIM-Phenols *	515.3-Herb 547-Glyphosate, 608-CTR	525.2 Reg+507, 525-OPP-LL	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	NOTES
ME-CC		X	X	X	X	X	X	X	X	X	X	X	X	1	Metals by 200.8, Total & Dissolved: Sb, Ag, Al, As, Be, Cd, Cr, Cu, Fe, Ni, Pb, Se, Tl, Zn, Hg Metals by 200.7, Total (only): Ca, Mg (for Hardness calc.) 608 include alpha- & gamma-chlordane * Same extraction with low-level spike for 3 methods: 625CTR, 8270SIM-PAH, & 8270SIM-PHENOLS Lab to select samples for MS/MSD where extra volume permits (all test methods)
ME-SCR	5/22/12 09:35	X			X	X	X	X	X	X	X	X	X	1	
ME-VR2					X	X	X	X	X	X	X	X	X	1	
MO-CAM					X	X	X	X	X	X	X	X	X	1	
MO-OJA					X	X	X	X	X	X	X	X	X	1	
MO-MEI					X	X	X	X	X	X	X	X	X	1	
MO-VEN	5/22/12 10:25				X	X	X	X	X	X	X	X	X	1	

SAMPLE
PICK-UP

Relinquished Printed Name BRAM SERCU
 Signature [Signature]
 Affiliation VC-WPD Date/Time 5/22/12 1410

Received Printed Name ALLAN GOLDBERG
 Signature [Signature]
 Affiliation WECK Date/Time 5/22/12 1410

Other Notes: Filter for dissolved metals and perform conductivity analyses immediately.
Journalmer 5/22/12 1715 200



2E22066

Chain of Custody Record
 Ventura County Watershed Protection District
 NPDES Stormwater Monitoring Program
 Project: NPDES Stormwater Wet Season
 Composites - Weck Laboratories (SIDE 2 of 2)

Sampling Date: 5/22/12 Project Number: 2011/12-4 (Dry) Composites
 Sampling Team: BS, WOC

SAMPLE ID	DATE/TIME COLLECTED					Metals, total & dissolved (+ Hardness)	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F (300.0), Phenolics	Phosphorus-P Total & Dissolved	625-CTR, 8270SIM-PAH, 8270SIM-Phenols *	515.3-Herb 547-Glyphosate, 608-CTR	525.2 Reg+507, 525-OPP-LL	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	NOTES	
																<p>Metals by 200.8, Total & Dissolved: Sb, Ag, Al, As, Be, Cd, Cr, Cu, Fe, Ni, Pb, Se, Tl, Zn, Hg</p> <p>Metals by 200.7, Total (only): Ca, Mg (for Hardness calc.)</p> <p>608 include alpha- & gamma-chlordane</p> <p>* Same extraction with low-level spike for 3 methods: 625CTR, 8270SIM-PAH, & 8270SIM-PHENOLS</p> <p>Lab to select samples for MS/MSD where extra volume permits (all test methods)</p>	
MO-SPA						X	X	X	X	X	X	X	X	X	X	1	
MO-FIL	5/22/12 8:28					X	X	X	X	X	X	X	X	X	X	1	SAMPLE PICK-UP
MO-SIM						X	X	X	X	X	X	X	X	X	X	1	
MO-MPK						X	X	X	X	X	X	X	X	X	X	1	
MO-THO						X	X	X	X	X	X	X	X	X	X	1	
MO-OXN	5/22/12 11:05					X	X	X	X	X	X	X	X	X	X	1	
MO-HUE						X	X	X	X	X	X	X	X	X	X	1	

Relinquished Printed Name BRAM SORCO
 Signature [Signature]
 Affiliation WOC Date/Time 5/22/12 1410

Received Printed Name ALLAN GOLDBERG
 Signature [Signature]
 Affiliation WECK Date/Time 5/22/12 1410

RELINQ. X Other Notes: Filter for dissolved metals and perform conductivity analyses immediately.



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Grabs - Weck Laboratories (SIDE 1 of 2)

2E22068

Sampling Date: 5/22/12 Project Number: 2011/12-4 (Dry) Grabs
 Sampling Team: BS, WBC

SAMPLE ID	DATE/TIME COLLECTED	Oil & Grease; O&G-NP (EPA 1664A)				Cyanide (EPA 335.4)	MTBE & 2CLEVE (EPA 524.2)		Travel Blanks (EPA 524.2)-only analyze if hits								Number of Bottles	NOTES
ME-CC		3	1	3	1												8	
ME-SCR	5/22/12 09:35	2	1	3	1												7	
ME-VR2		2	1	3	1												7	
MO-CAM		2	1	3	1												7	
MO-OJA		2	1	3	1												7	
MO-MEI		2	1	3	1												7	
MO-VEN	5/22/12 10:25	2	1	3	1												7	SAMPLE PICK-UP
MO-OXN	5/22/12 11:05	2	1	3	1												7	
MB-1		2	1	3	1												7	

Lab to select samples for MS/MSD where extra volume permits (all test methods) excluding travel blanks.

Relinquished Printed Name BRAM SERVO
 Signature [Signature]
 Affiliation VC - WPD Date/Time 5/22/12 1410

Received Printed Name ALLAN GORBERG
 Signature [Signature]
 Affiliation WECK Date/Time 5/22/12 1410

RELINQ X Other Notes: [Signature] ALLAN 5/22/12 1715
 Please run 524.2 on travel blanks only if constituents detected in original analysis
Stephanie [Signature] 5-22-12 17:15 1.2°C



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Grabs - Weck Laboratories (SIDE 2 of 2)

Sampling Date: 5/22/12 Project Number: 2011/12-4 (Dry) Grabs
 Sampling Team: B5, WBC

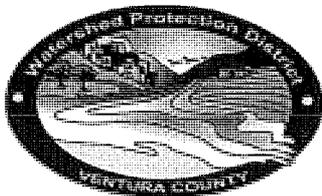
SAMPLE ID	DATE/TIME COLLECTED	Constituents						Number of Bottles	NOTES
		Oil & Grease; O&G-NP (EPA 1664A)	Cyanide (EPA 335.4)	MTBE & 2CLEVE (EPA 524.2)	Travel Blanks (EPA 524.2)-only analyze if hits	EPA 515.3			
MO-SPA	5/22/12	2	1	3	1			7	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> Lab to select samples for MS/MSD where extra volume permits (all test methods) excluding travel blanks. </div> <div style="text-align: center; font-weight: bold; font-size: 1.2em;"> SAMPLE PICKUP </div>
MO-FIL	5/22/12 8:28	2	1	3	1			7	
MO-SIM		2	1	3	1			7	
MO-HUE		2	1	3	1			7	
MO-THO		2	1	3	1			7	
MO-MPK		2	1	3	1			7	
MO-MPK Upstream at RR						2		2	
Edison RC Pipe at MPK - Lower						2		2	
Edison RC Pipe at MPK - Upper						2		2	

Relinquished Printed Name BRAM SORCU
 Signature [Signature]
 Affiliation VC-WPD Date/Time 5/22/12 1410

Received Printed Name ALLAN GOLDBERL
 Signature [Signature]
 Affiliation WECK Date/Time 5/22/12 1410

Other Notes: RELINQ. X [Signature]
Please run 524.2 on travel blanks only if constituents detected in original analysis
5/22/12 1715





Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Composites - Weck Laboratories (SIDE 1 of 2)

2E24051

Sampling Date: 5-24-12 Project Number: 2011/12-4 (Dry) Composites
 Sampling Team: W.B. CAREY & B. SERCU

SAMPLE ID	DATE/TIME COLLECTED	Barium, total	Chlorine Residual	NO3-N	Metals, total & dissolved (+ Hardness)	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F (300.0), Phenolics	Phosphorus-P Total & Dissolved	625-CTR, 8270SIM-PAH, 8270SIM-Phenols *	515.3-Herb 547-Glyphosate, 608-CTR	525.2 Reg+507, 525-OPP-LL	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	NOTES	
ME-CC	5/24/12 1145	X	X	X	X	X	X	X	X	X	X	X	X	1	Metals by 200.8, Total & Dissolved: Sb, Ag, Al, As, Be, Cd, Cr, Cu, Fe, Ni, Pb, Se, Tl, Zn, Hg Metals by 200.7, Total (only): Ca, Mg (for Hardness calc.) 608 include alpha- & gamma-chlordane * Same extraction with low-level spike for 3 methods: 625CTR, 8270SIM-PAH, & 8270SIM-PHENOLS Lab to select samples for MS/MSD where extra volume permits (all test methods)	
ME-SCR		X			X	X	X	X	X	X	X	X	X	1		
ME-VR2	5/24/12 1145				X	X	X	X	X	X	X	X	X	1		
MO-CAM	5/24/12 1100				X	X	X	X	X	X	X	X	X	1		
MO-OJA					X	X	X	X	X	X	X	X	X	1		
MO-MEI					X	X	X	X	X	X	X	X	X	1		
MO-VEN					X	X	X	X	X	X	X	X	X	1		
																SAMPLE PICK-UP

Relinquished Printed Name BRAM SERCU
 Signature [Signature]
 Affiliation VC-WPD Date/Time 5/24/12 1420

Received Printed Name ALAN GORDON
 Signature [Signature]
 Affiliation WECK LABS Date/Time 5/24/12 1420

Other Notes: Filter for dissolved metals and perform conductivity analyses immediately.
ALAN G. 5/24/12 1755



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Composites - Weck Laboratories (SIDE 2 of 2)

Sampling Date: 5-24-12 Project Number: 2011/12-4 (Dry) Composites

Sampling Team: W.B. CAREY & B. SERCU

SAMPLE ID	DATE/TIME COLLECTED													Number of Bottles	NOTES
MO-SPA						X	X	X	X	X	X	X	X	1	
MO-FIL						X	X	X	X	X	X	X	X	1	
MO-SIM	5/24/12 0910					X	X	X	X	X	X	X	X	1	
MO-MPK						X	X	X	X	X	X	X	X	1	
MO-THO	5/24/12 1005					X	X	X	X	X	X	X	X	1	
MO-OXN						X	X	X	X	X	X	X	X	1	
MO-HUE	5/24/12 1230					X	X	X	X	X	X	X	X	1	

Metals by 200.8, Total & Dissolved:
 Sb, Ag, Al, As, Be, Cd, Cr, Cu, Fe, Ni, Pb, Se, Tl, Zn, Hg

Metals by 200.7, Total (only):
 Ca, Mg (for Hardness calc.)

608 include alpha- & gamma-chlordane

* Same extraction with low-level spike for 3 methods:
 625CTR, 8270SIM-PAH, & 8270SIM-PHENOLS

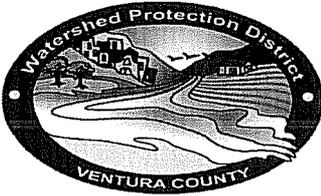
Lab to select samples for MS/MSD where extra volume permits (all test methods)

Relinquished Printed Name BRAM SERCU
 Signature [Signature]
 Affiliation VC-WPD Date/Time 5/24/12 1420

Received Printed Name ALLAN GARDNER
 Signature [Signature]
 Affiliation WECK LABS Date/Time 5/24/12 1420

Other Notes: Filter for dissolved metals and perform conductivity analyses immediately.

SAMPLE PICK



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Grabs - Weck Laboratories (SIDE 1 of 2)

ZE24052

Sampling Date: 5-24-12 Project Number: 2011/12-4 (Dry) Grabs
 Sampling Team: W.B. CAREY & B. SERCU

SAMPLE ID	DATE/TIME COLLECTED	Oil & Grease; O&G-NP (EPA 1664A)				Cyanide (EPA 335.4)	MTBE & 2CLEVE (EPA 524.2)	Travel Blanks (EPA 524.2)-only analyze if hits										Number of Bottles	NOTES
ME-CC	5/24/12 1145	3	1	3	1													8	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> Lab to select samples for MS/MSD where extra volume permits (all test methods) excluding travel blanks. </div> <p align="center">SAMPLE PICK-UP</p>
ME-SCR		2	1	3	1													7	
ME-VR2		2	1	3	1													7	
MO-CAM	5/24/12 1100	2	1	3	1													7	
MO-OJA		2	1	3	1													7	
MO-MEI		2	1	3	1													7	
MO-VEN		2	1	3	1													7	
MO-OXN		2	1	3	1													7	
MB-1		2	1	3	1													7	

Relinquished Printed Name BRAM SERCU
 Signature [Signature]
 Affiliation VC-WPD Date/Time 5/24/12 1420

Received Printed Name ALLAN GOLDBERG
 Signature [Signature]
 Affiliation WECK LAB Date/Time 5/24/12 1420

Other Notes: RAIN Q X
ALLEN ALLAN G. 5/24/12 1755
 Please run 524.2 on travel blanks only if constituents detected in original analysis
Stephanie Gray 5-24-12 17:55 1.5 C



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season
Grabs - Weck Laboratories (SIDE 2 of 2)

Sampling Date: 5-24-12 Project Number: 2011/12-4 (Dry) Grabs
 Sampling Team: W.B. CAREY & B. SERCU

SAMPLE ID	DATE/TIME COLLECTED	Constituents						Number of Bottles	NOTES
		Oil & Grease; O&G-NP (EPA 1664A)	Cyanide (EPA 335.4)	MTBE & 2CLEVE (EPA 524.2)	Travel Blanks (EPA 524.2)-only analyze if hits	EPA 515.3			
MO-SPA		2	1	3	1			7	Lab to select samples for MS/MSD where extra volume permits (all test methods) excluding travel blanks.
MO-FIL		2	1	3	1			7	
MO-SIM	5/29/12 0910	2	1	3	1			7	
MO-HUE	5/29/12 1230	2	1	3	1			7	
MO-THO	5/29/12 1005	2	1	3	1			7	
MO-MPK		2	1	3	1			7	
MO-MPK Upstream at RR						2		2	
Edison RC Pipe at MPK - Lower						2		2	
Edison RC Pipe at MPK - Upper						2		2	

SAMPLE PICKUP

Relinquished Printed Name BRAM SERCU
 Signature [Signature]
 Affiliation VC-WPD Date/Time 5/24/12 1420

Received Printed Name ALLAN GOLDBERG
 Signature [Signature]
 Affiliation WECK Date/Time 5/24/12 1420

RELINQ X Other Notes: Please run 524.2 on travel blanks only if constituents detected in original analysis 5/24/12 1755



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Major Outfall Dry Weather Monitoring
Bacteriological - VCHCA Lab

Sampling Date: 8/15/12 Sample Event: DRY 2012

Sampling Team: K. HAHS, W.B. CAREY

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)							Number of Bottles	NOTES
	Camarillo-1											MO-CAM
	Fillmore-1	8/15/12 09:15	X	X							1	MO-FIL
	Mariposa-1											MO-MPK
	Ojai-1	8/15/12 07:50	X	X							1	MO-OJA
	Oxnard-1 MO-OXN	8/15/12 1130	X	X							1	MO-OXN Oxnard - 31
	Port Hueneme-3	8/15/12 12:10	X	X							1	DRY-HUE3
	Santa Paula-2	8/15/12 09:45	X	X							1	DRY-SPA2
	Simi Valley-1											MO-SIM
	Thousand Oaks-1											MO-THO
	Unincorporated-2											DRY-UNI2
	Ventura-1	8/15/12 10:30	X	X							1	MO-VEN

Relinquished Printed Name KELLY HAHS

Signature [Signature]

Affiliation VCAWSPD Date/Time 8/15/12

Received Printed Name Susan Benardes

Signature [Signature]

Affiliation PH Lab Date/Time 8/15/12 1240

Other Notes: _____



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Major Outfall Dry Weather Monitoring
Bacteriological - VCHCA Lab

Sampling Date: 8/16/12 Sample Event: DRY 2012

Sampling Team: R. HAHS

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)							Number of Bottles	NOTES
	Camarillo-1											MO-CAM
	Fillmore-1											MO-FIL
	Moorpark-1											MO-MPK
	Ojai-1											MO-OJA
	Oxnard-1											MO-OXN
	Port Hueneume-3											DRY-HUE3
	Santa Paula-2											DRY-SPA2
	Simi Valley-1											MO-SIM
	Thousand Oaks-1											MO-THO
	Unincorporated-2	8/16/12 10:20	X	X								DRY-UNI2
	Ventura-1											MO-VEN

Relinquished Printed Name Kelly Huls
 Signature [Signature]
 Affiliation VCWPD Date/Time 8/16/12 11:15

Received Printed Name JALVADOR Y. BARRERA
 Signature [Signature]
 Affiliation P.H. LAB Date/Time 8/16/12 11:15

Other Notes: _____



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Major Outfall Dry Weather Monitoring
Bacteriological - VCHCA Lab

Sampling Date: August 16, 2012 Sample Event: DRY 2012

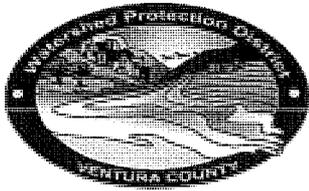
Sampling Team: BS, WBC

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)							Number of Bottles	NOTES
	Camarillo-1	8/16/12 10 ²⁰										MO-CAM
	Fillmore-1											MO-FIL
	Moorpark-1	8/16/12 8 ¹⁰										MO-MPK
	Ojai-1											MO-OJA
	Oxnard-1											MO-OXN
	Port Hueneme-3											DRY-HUE3
	Santa Paula-2											DRY-SPA2
	Simi Valley-1	8/16/12 8 ⁵⁵										MO-SIM
	Thousand Oaks-1	8/16/12 9 ⁴⁰										MO-THO
	Unincorporated-2											DRY-UNI2
	Ventura-1											MO-VEN

Relinquished Printed Name BRAM JERRE
 Signature [Signature]
 Affiliation VC-WPD Date/Time 8/16/12 10⁵⁵

Received Printed Name SALVADOR Y. BARRAGAN
 Signature [Signature]
 Affiliation P.H.-LAB Date/Time 8/16/12 11⁰⁰

Other Notes: _____



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Major Outfall Dry Weather Monitoring
Grabs - Weck Laboratories

2H16070

Sampling Date: 8/15/12 + 8/16/12 Sample Event: DRY 2012
 Sampling Team: K. HAHS, W.B. CAREY W.B. CAREY, B. SERCU

SAMPLE ID	DATE/TIME COLLECTED	Total Hardness	TOC	Dissolved Metals by 200.8 (Lead, Zinc, Copper)	Number of Bottles	NOTES
Camarillo-1	8/16/12 10 ²⁰				3	MO-CAM
Fillmore-1	8/15/12 09:15				3	MO-FIL
Moorpark-1	8/16/12 08:10				3	MO-MPK
Ojai-1	8/15/12 07:50				3	MO-OJA
Oxnard-1	8/15/12 11:30				3	MO-OXN
Port Hueneme-3	8/15/12 12:10				3	DRY-HUE3
Santa Paula-2	8/15/12 09:45				3	DRY-SPA2
Simi Valley-1	8/16/12 08:55				3	MO-SIM
Thousand Oaks-1	8/16/12 9:40				3	MO-THO
Unincorporated-2	8/16/12 10:20				3	DRY-UNI2
Ventura-1	8/15/12 10:30				3	MO-VE

Lab to select samples for MS/MSD where extra volume permits (all test methods) excluding travel blanks.
 Metals by 200.7, Total (only): Ca, Mg (for Hardness calc.)

Please take note of the number in the sample ID column. Some of the bottle labels were printed with the incorrect number (ie, 011-1")

SAMPLE PICKUP

Relinquished Printed Name KELLY HAHS
 Signature [Signature]
 Affiliation VCWPD Date/Time 8/16/12 / 13:55

Received Printed Name ALLAN GOLDBERG
 Signature [Signature]
 Affiliation WECK LABS Date/Time 8/16/12 13:55

Other Notes: Contract AED-001.
[Signature] 8/16/12 17:10