



*Ventura Countywide
Stormwater Quality
Management Program*

2019-2020
Permit Year

Ventura Countywide Stormwater Quality
Management Program Annual Report

Attachment D Monitoring Appendices A - E



December 15, 2020

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

Appendix A: Major Outfall Station Fact Sheets (Updated 2019)

Camarillo

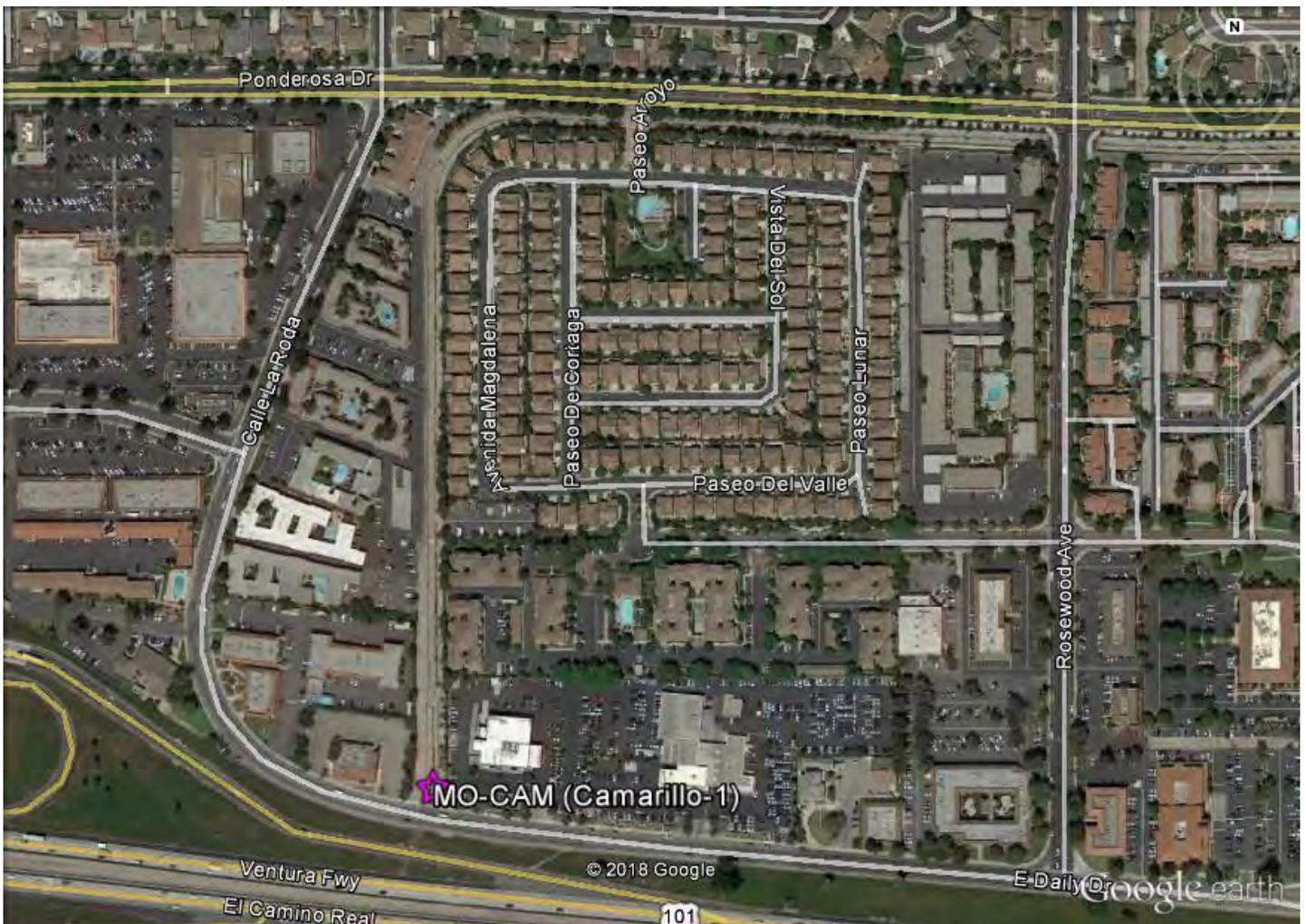
Station: MO-CAM (Camarillo-1)

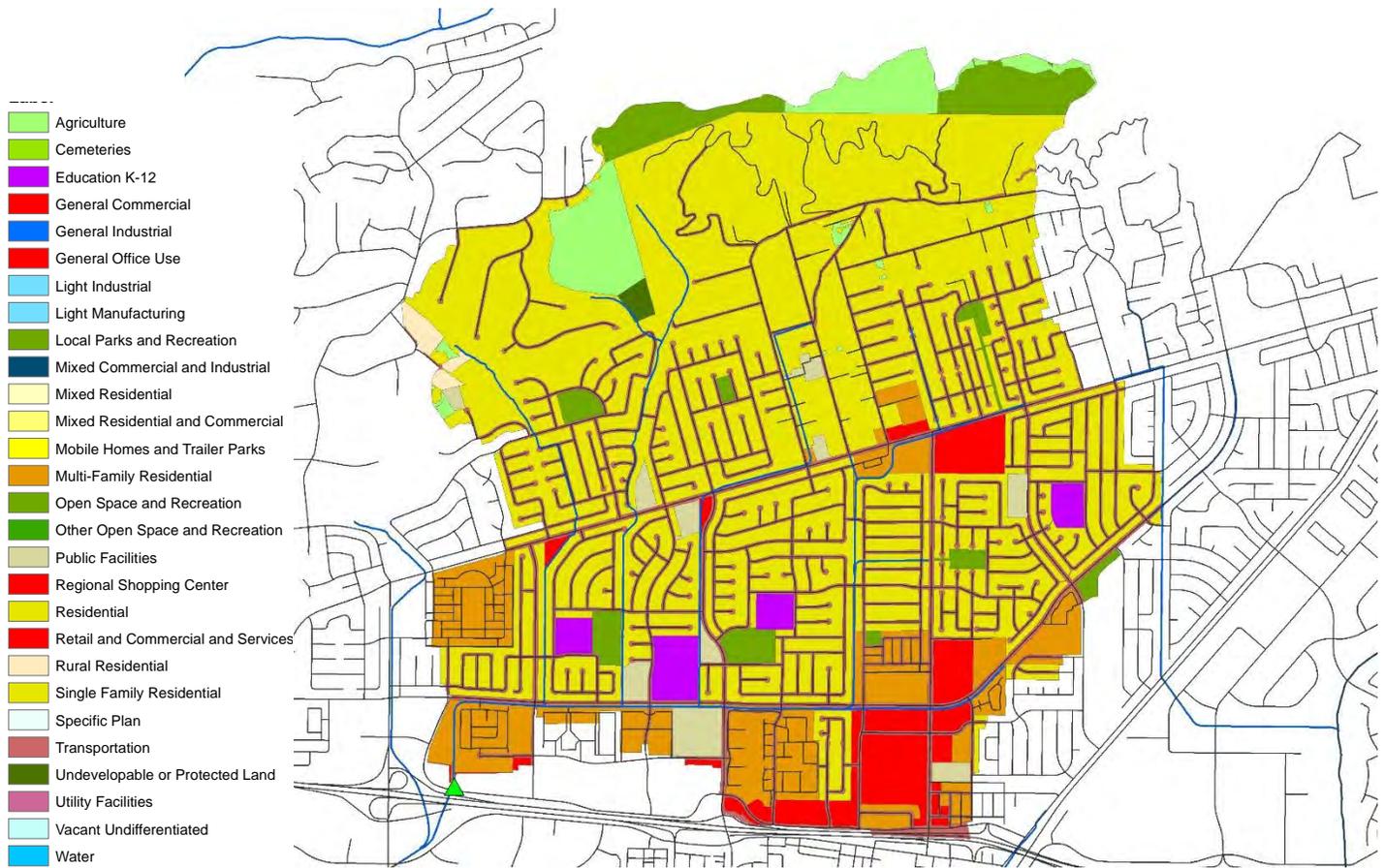
Waterbody: Camarillo Hills Drain (tributary to Revolon Slough)

Location: Daily Rd. overcrossing (34°13'10.40"N, 119° 3'58.00"W)

Known Issues: None

Dry Season Flow: Low flow typically present year-round in dry weather due to urban runoff.





Entire City

Land Use	Acres	% of Total Watershed
Agriculture	1358.6	10.7%
Education K-12	202.0	1.6%
General Office Use	73.8	0.6%
Light Industrial	950.1	7.5%
Local Parks and Recreation	230.4	1.8%
Mixed Commercial and Industrial	7.2	0.1%
Mobile Homes and Trailer Parks	137.4	1.1%
Multi-Family Residential	1521.5	12.0%
Open Space and Recreation	3.0	0.02%
Public Facilities	454.7	3.6%
Retail and Commercial and Services	479.4	3.8%
Rural Residential	18.9	0.1%
Single Family Residential	3814.3	30.2%
Transportation	2581.6	20.4%
Undevelopable or Protected Land	461.8	3.7%
Utility Facilities	353.5	2.8%
Totals	12648.2	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Agriculture	109.8	3.9%
Education K-12	47.6	1.7%
General Office Use	9.4	0.3%
Local Parks and Recreation	48.9	1.7%
Multi-Family Residential	272.9	9.6%
Open Space and Recreation	74.5	2.6%
Public Facilities	58.2	2.1%
Retail and Commercial and Services	118.3	4.2%
Rural Residential	12.1	0.4%
Single Family Residential	1598.2	56.5%
Transportation	468.4	16.5%
Undevelopable or Protected Land	6.4	0.2%
Utility Facilities	6.0	0.2%
Totals	2830.7	100.0%

Fillmore

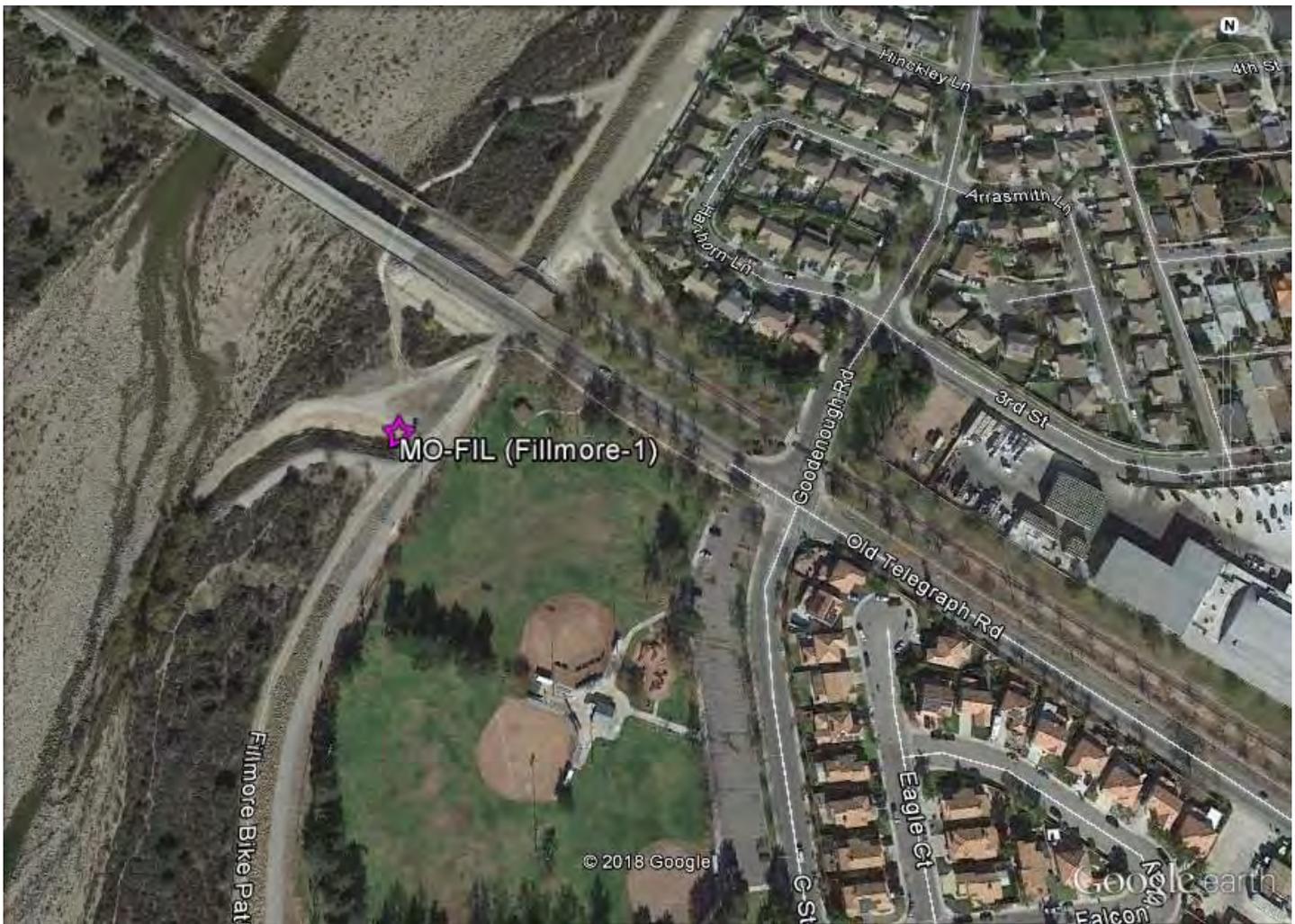
Station: MO-FIL (Fillmore-1)

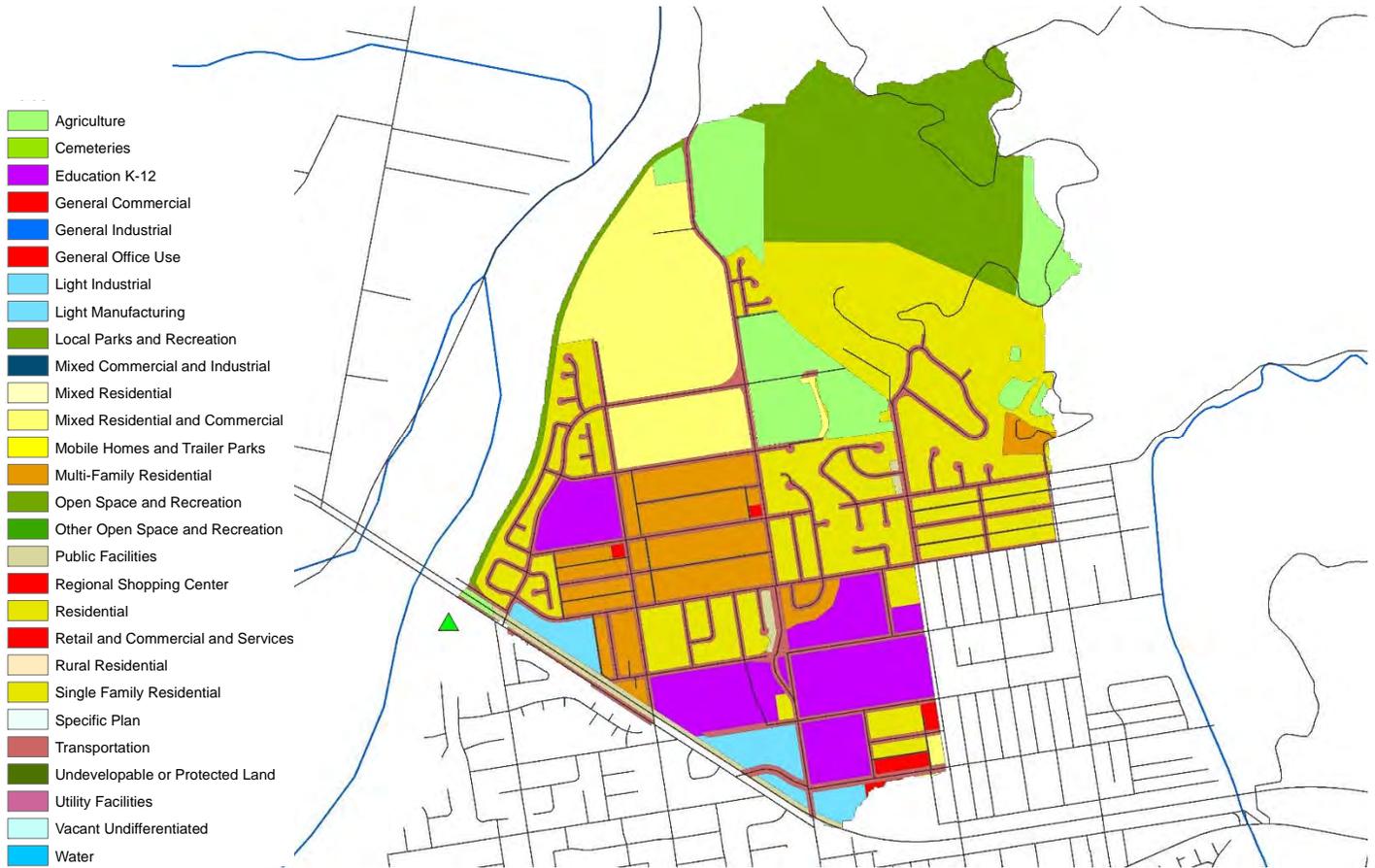
Waterbody: North Fillmore Drain (tributary to Sespe Creek)

Location: 75 yds. southwest of Old Telegraph Rd.
(34°24'16.70"N, 118°55'50.80"W)

Known Issues: Sediment build up around intake

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





Entire City

Land Use	Acres	% of Total Watershed
Agriculture	140.9	6.7%
Education K-12	81.9	3.9%
General Commercial	108.2	5.1%
General Industrial	2.1	0.1%
Light Industrial	132.5	6.3%
Local Parks and Recreation	70.7	3.3%
Mixed Residential and Commercial	120.6	5.7%
Multi-Family Residential	175.7	8.3%
Open Space and Recreation	0.2	0.01%
Transportation	311.5	14.8%
Public Facilities	53.6	2.5%
Single Family Residential	528.4	25.0%
Specific Plan	282.7	13.4%
Undevelopable or Protected Land	102.2	4.8%
Totals	2111.1	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Agriculture	66.6	9.4%
Education K-12	69.7	9.8%
General Commercial	3.8	0.5%
Light Industrial	17.7	2.5%
Mixed Residential and Commercial	84.2	11.9%
Multi-Family Residential	58.9	8.3%
Open Space and Recreation	111.7	15.7%
Public Facilities	8.7	1.2%
Single Family Residential	197.6	27.8%
Transportation	90.6	12.8%
Totals	709.5	100.0%

Meiners Oaks (Unincorporated)

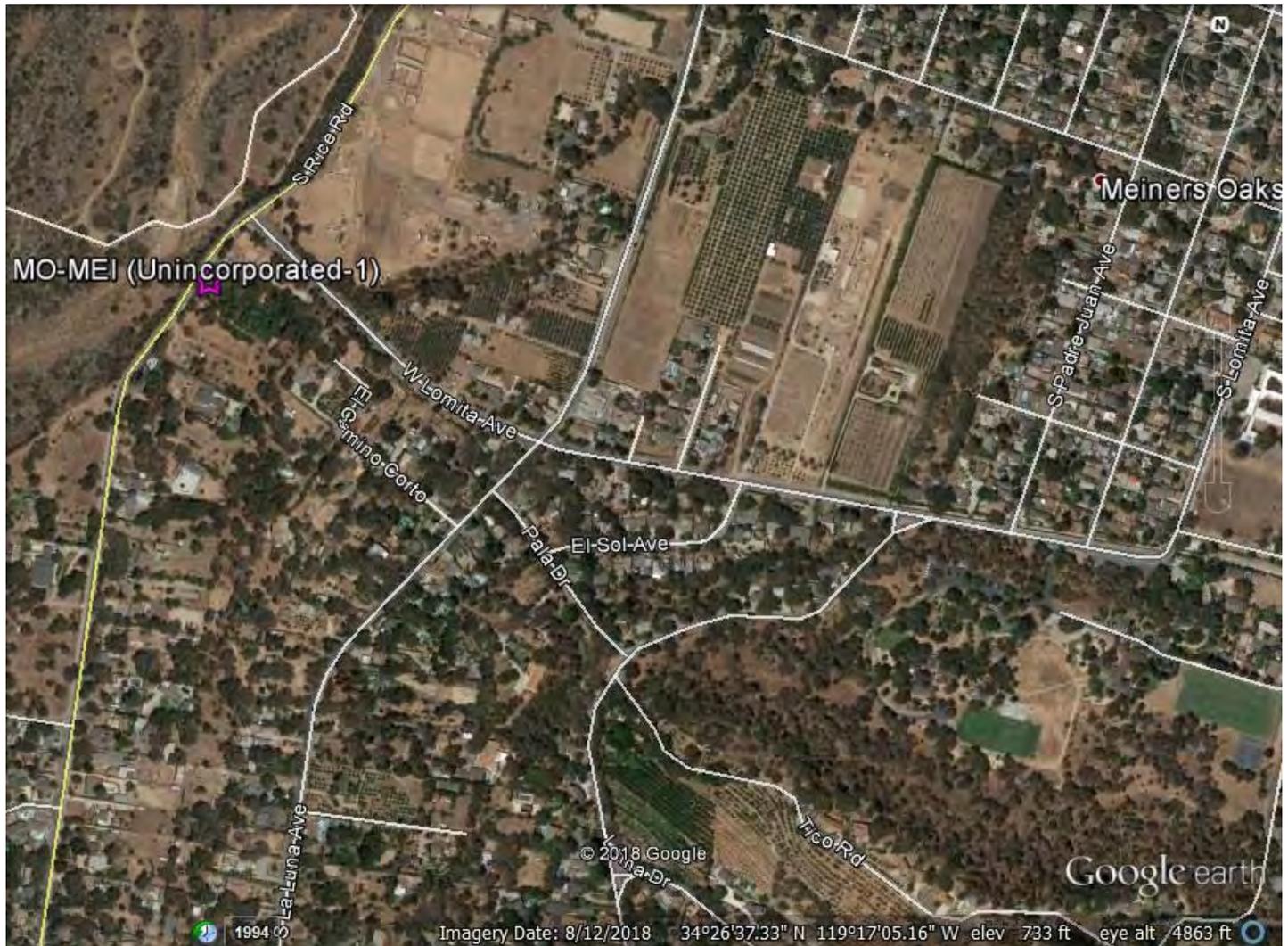
Station: MO-MEI (Unincorporated-1)

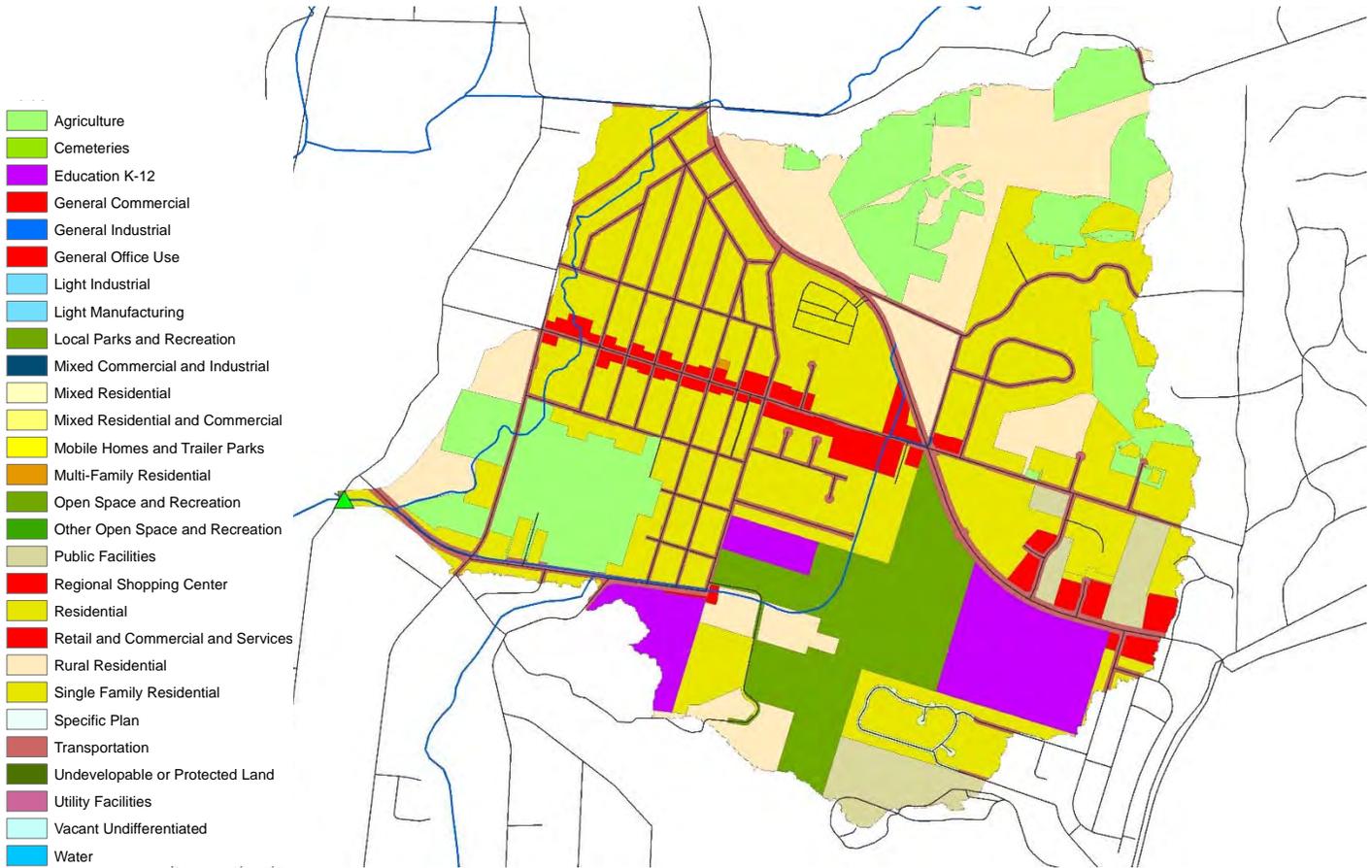
Waterbody: Happy Valley Drain (tributary to Ventura River)

Location: Southwest of Lomita Rd. and Rice Rd. intersection (34°26'43.94"N, 119°17'25.15"W)

Known Issues: Homeless occasionally present under bridge at site.

Dry Season Flow Potential: Dries up quickly after storms. Typically dry during dry weather events.





Entire City

Land Use	Acres	% of Total Watershed
Agriculture	69.2	2.1%
Education K-12	7.4	0.2%
General Commercial	94.2	2.8%
General Industrial	323.3	9.6%
Heavy Industrial	113.1	3.4%
Multi-Family Residential	35.0	1.0%
Open Space and Recreation	118.2	3.5%
Transportation	498.4	14.9%
Rural Residential	26.8	0.8%
Single Family Residential	2063.7	61.6%
Undevelopable or Protected Land	2.4	0.1%
Totals	3351.6	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Agriculture	140.3	14.8%
Education K-12	60.0	6.3%
General Commercial	34.6	3.7%
Multi-Family Residential	0.2	0.0%
Open Space and Recreation	80.2	8.5%
Public Facilities	33.0	3.5%
Residential	0.9	0.1%
Rural Residential	139.6	14.8%
Single Family Residential	367.9	38.9%
Transportation	88.4	9.4%
Totals	945.2	100.0%

Moorpark

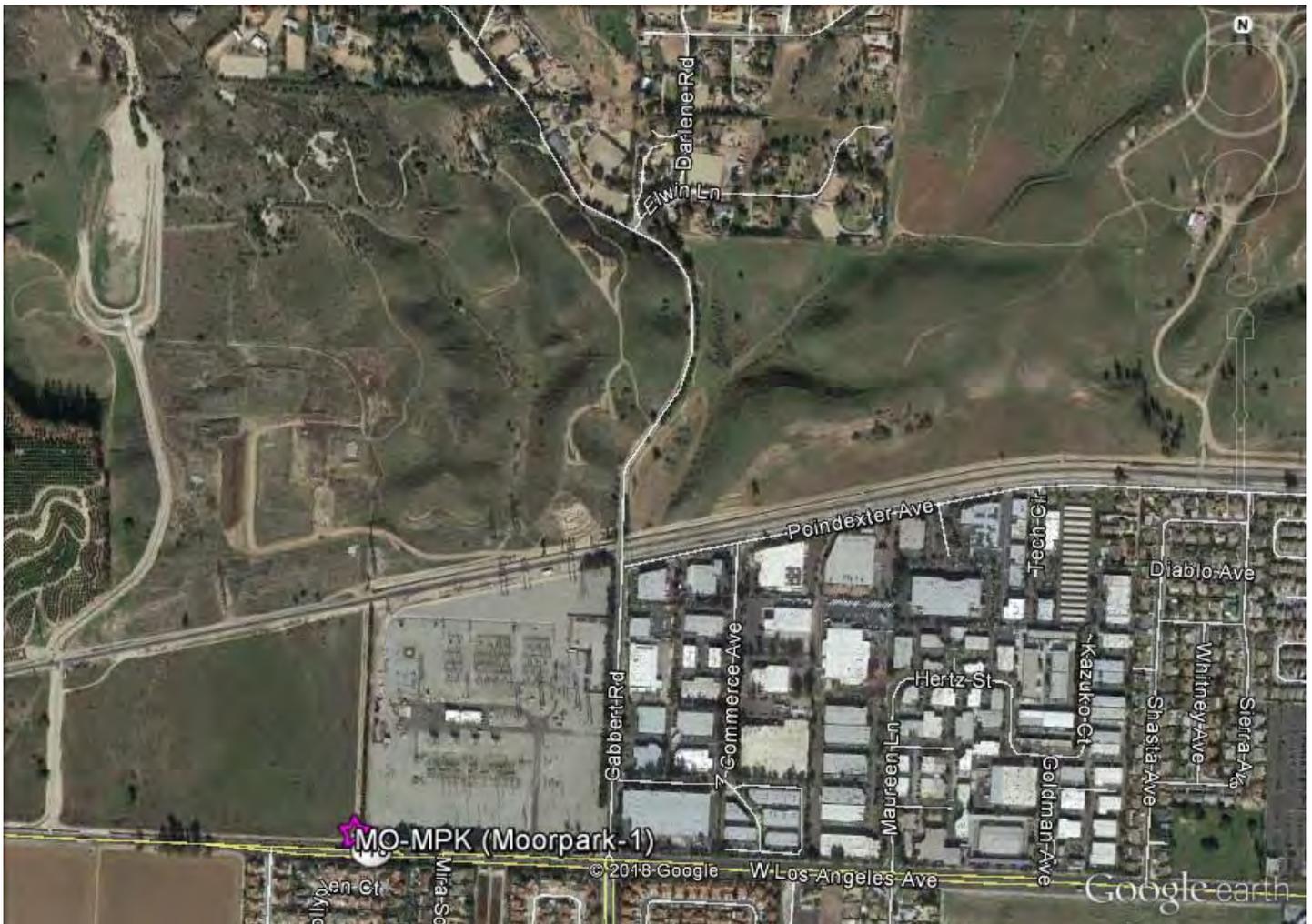
Station: MO-MPK (Moorpark-1)

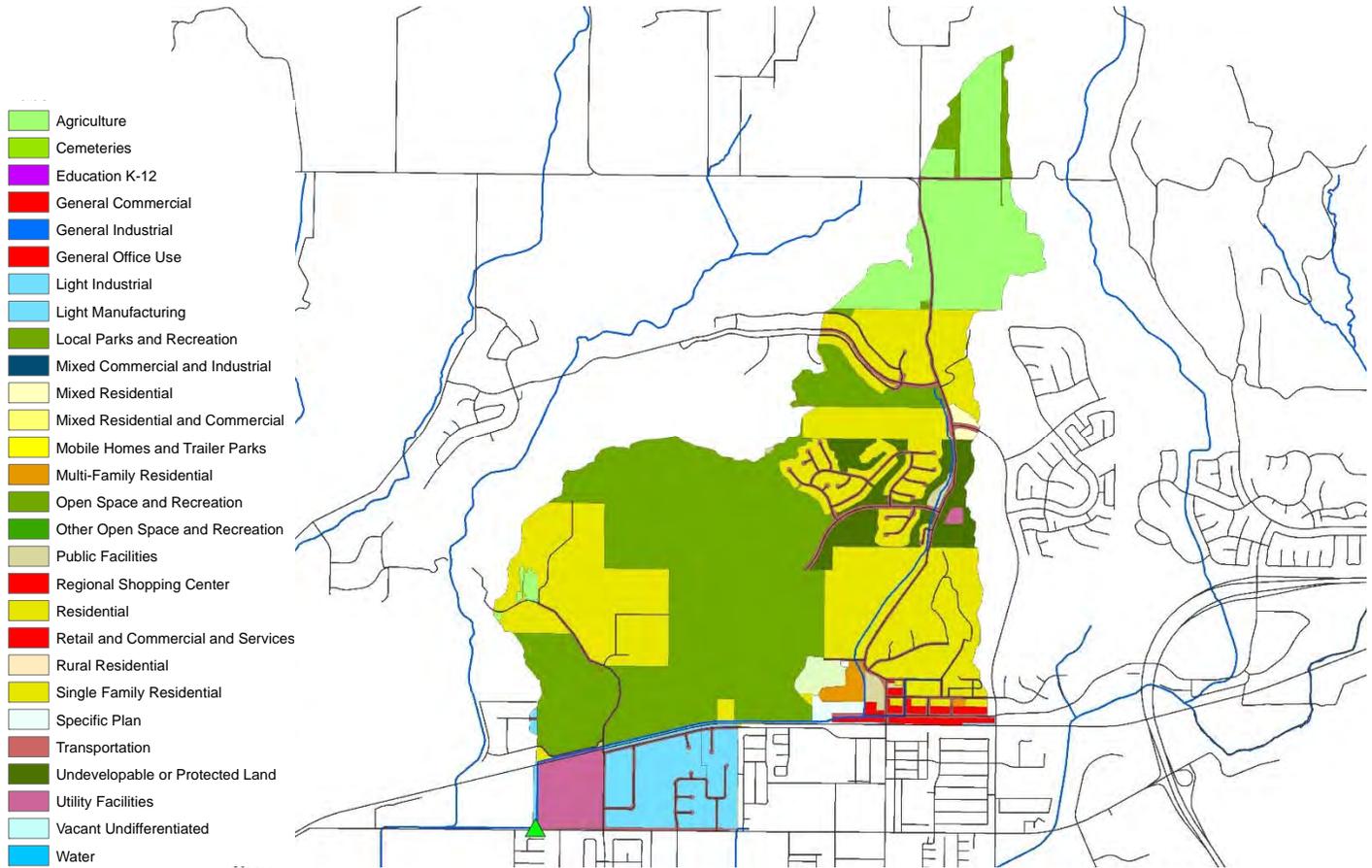
Waterbody: Walnut Canyon (tributary to Arroyo Simi)

Location: North side of SR 118 near southwest corner of So. Cal. Edison property (34°16'44.14"N, 118°54'19.21"W)

Known Issues: None

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





Entire City

Land Use	Acres	% of Total Watershed
Agriculture	81.1	1.0%
Education K-12	263.1	3.3%
General Commercial	158.1	2.0%
General Office Use	3.6	0.05%
Light Industrial	250.4	3.1%
Light Manufacturing	205.3	2.6%
Local Parks and Recreation	128.9	1.6%
Mixed Residential	396.0	5.0%
Mixed Residential and Commercial	450.1	5.6%
Multi-Family Residential	197.0	2.5%
Open Space and Recreation	1836.6	23.0%
Public Facilities	18.3	0.2%
Retail and Commercial and Services	7.3	0.1%
Single Family Residential	2405.6	30.1%
Specific Plan	10.0	0.1%
Transportation	1125.1	14.1%
Undevelopable or Protected Land	219.4	2.7%
Utility Facilities	47.1	0.6%
Water	178.4	2.2%
Totals	7981.6	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Agriculture	206.2	11.53%
Education K-12	13.1	0.73%
General Commercial	17.8	0.99%
General Office Use	0.5	0.03%
Light Industrial	27.9	1.56%
Light Manufacturing	82.9	4.63%
Mixed Residential	5.4	0.30%
Multi-Family Residential	11.4	0.64%
Open Space and Recreation	629.6	35.20%
Public Facilities	9.3	0.52%
Single Family Residential	561.7	31.40%
Specific Plan	8.0	0.45%
Transportation	96.4	5.39%
Undevelopable or Protected Land	71.4	3.99%
Utility Facilities	47.1	2.64%
Totals	1788.7	100.0%

Ojai

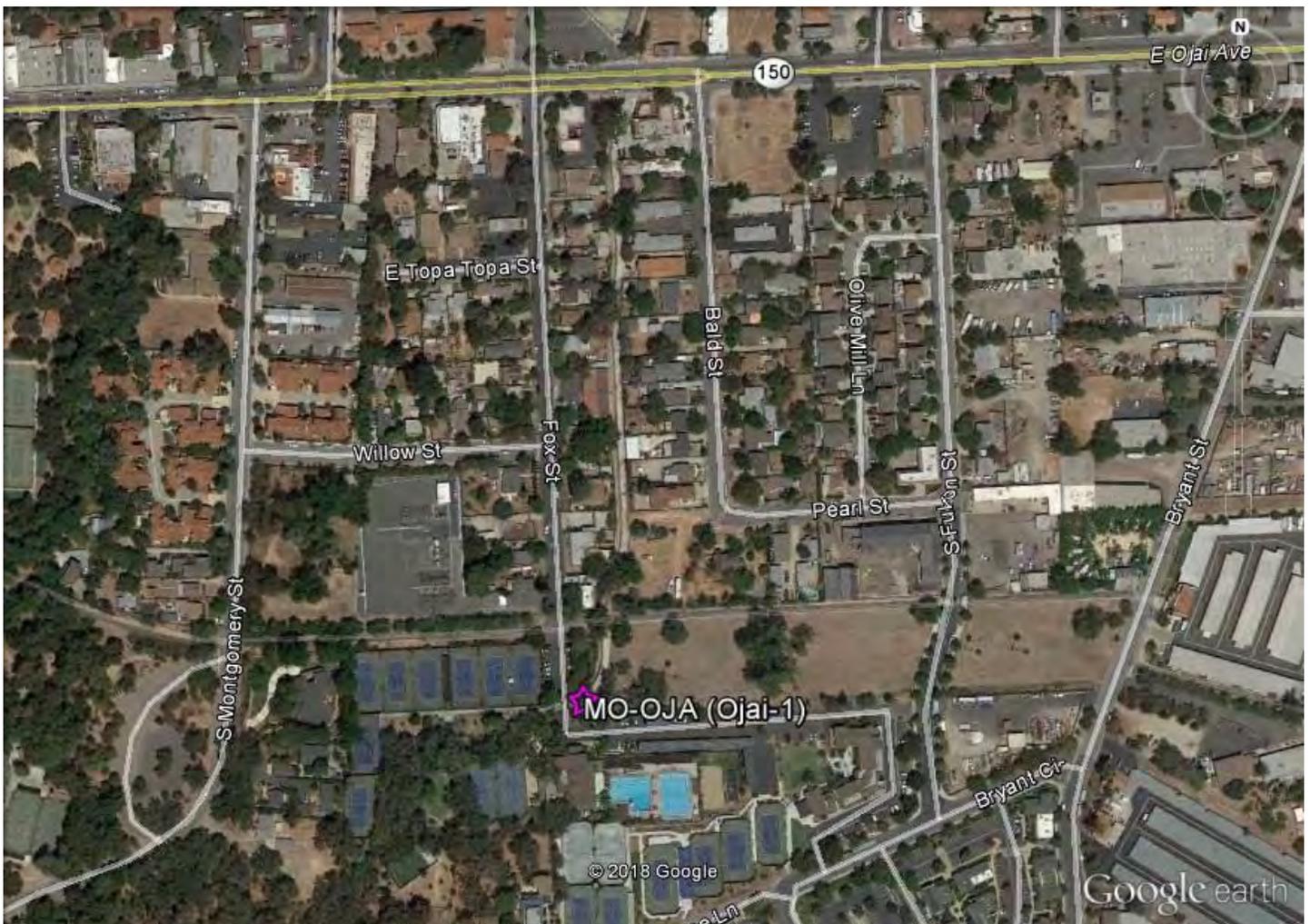
Station: MO-OJA (Ojai-1)

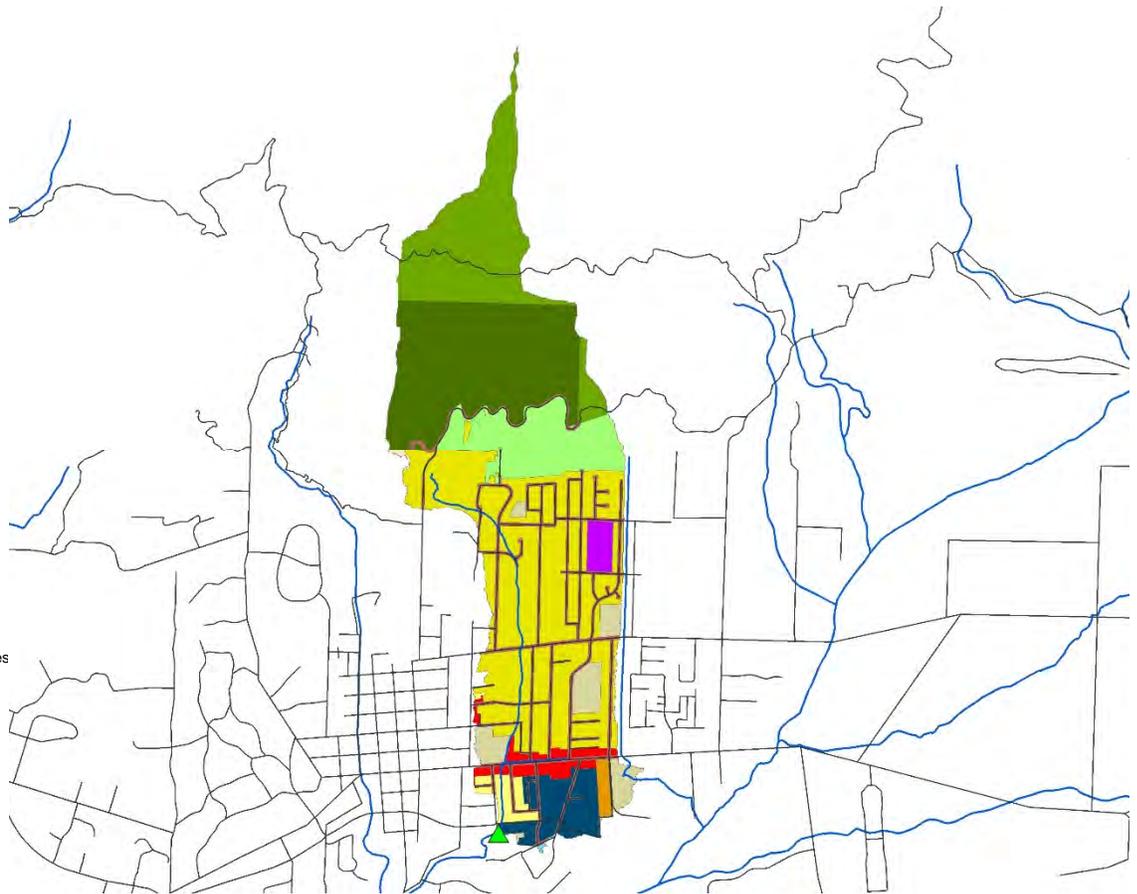
Waterbody: Fox Canyon Barranca (tributary to San Antonio Creek)

Location: Concrete box channel upstream Ojai Valley Athletic Club and downstream pedestrian walkway (34°26'41.26"N, 119°14'28.32"W)

Known Issues: Repeated discharges directly upstream of station from Ojai Valley Athletic Club swimming pool.

Dry Season Flow Potential: Frequently dry outside of wet season storms.





Entire Watershed

Land Use	Acres	% of Total Watershed
Agriculture	100.0	3.6%
Education K-12	48.5	1.7%
General Commercial	98.0	3.5%
Light Manufacturing	18.6	0.7%
Mixed Commercial and Industrial	39.7	1.4%
Mixed Residential and Commercial	64.0	2.3%
Multi-Family Residential	9.8	0.4%
Open Space and Recreation	244.9	8.8%
Public Facilities	530.2	19.0%
Rural Residential	0.1	0.0018%
Single Family Residential	1158.3	41.4%
Transportation	273.9	9.8%
Undevelopable or Protected Land	208.6	7.5%
Totals	2794.8	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Agriculture	69.4	9.38%
Education K-12	9.2	1.25%
General Commercial	15.9	2.15%
Light Manufacturing	0.3	0.04%
Mixed Commercial and Industrial	32.4	4.38%
Mixed Residential and Commercial	11.2	1.52%
Multi-Family Residential	5.1	0.69%
Open Space and Recreation	115	15.54%
Public Facilities	31.7	4.28%
Rural Residential	0.9	0.12%
Single Family Residential	228.1	30.83%
Transportation	65.2	8.81%
Undevelopable or Protected Land	155.4	21.00%
Totals	739.7	100.00%

Oxnard

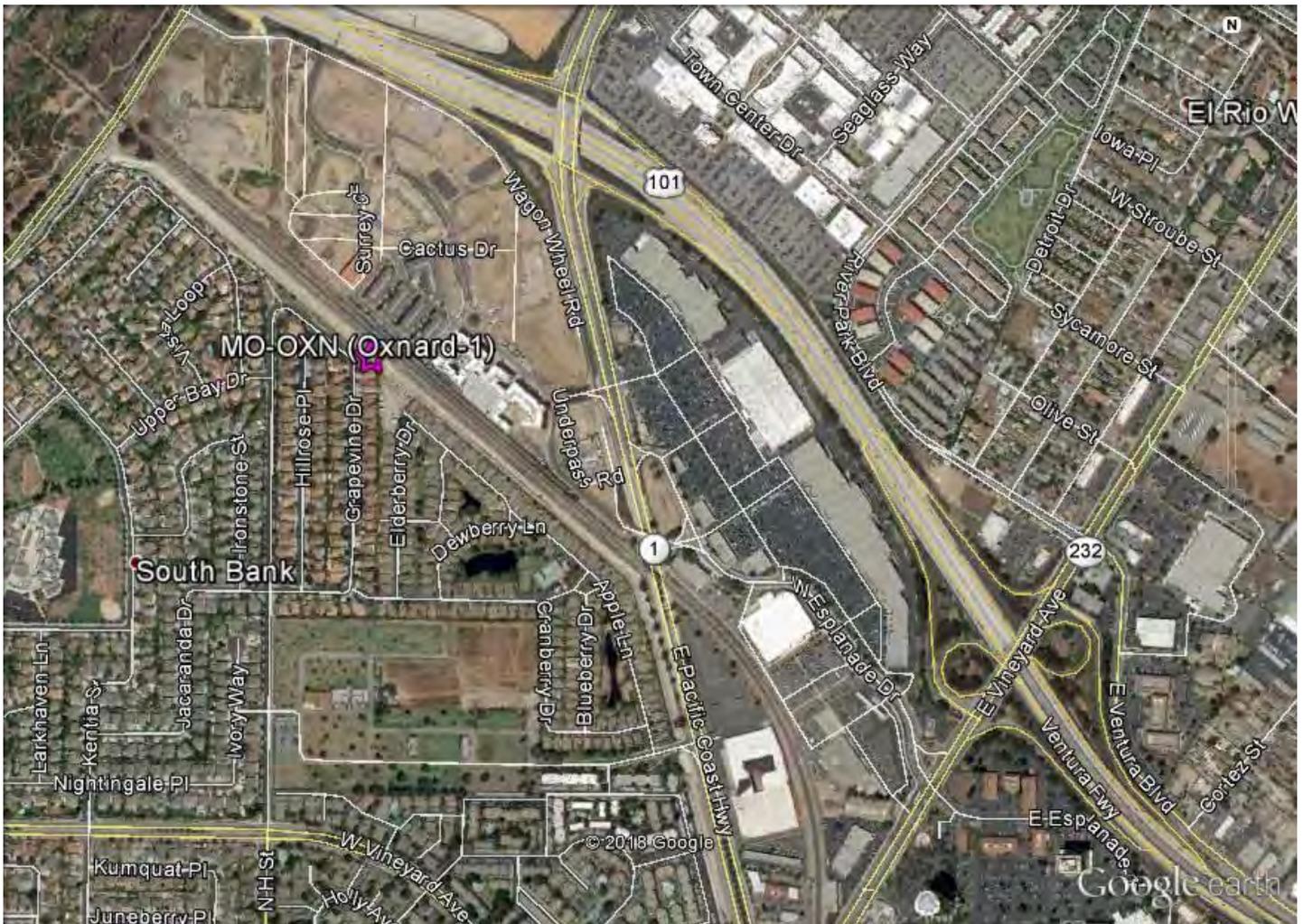
Station: MO-OXN (Oxnard-1)

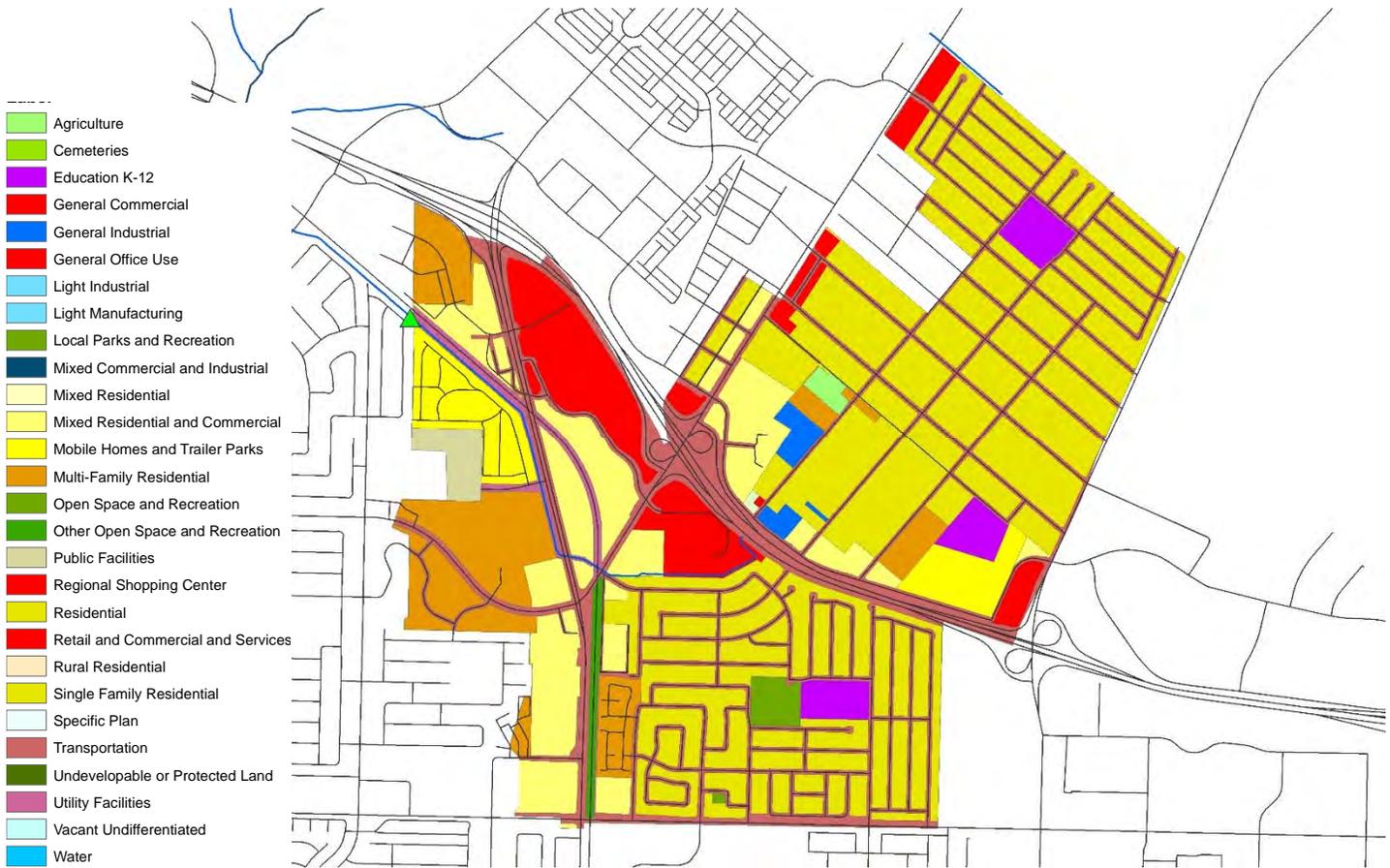
Waterbody: El Rio Drain (tributary to Santa Clara River)

Location: Pedestrian bridge 50 yds. southwest bend of Winchester Dr. (34°14'10.13"N, 119°11'3.88"W)

Known Issues: Frequent presence of homeless and vandals in area.

Dry Season Flow Potential: Intermittent year-round flow due to urban runoff but is typically dry in the dry season.





Entire City

Land Use	Acres	% of Total Watershed
Agriculture	864.4	5.0%
Education K-12	644.7	3.7%
General Commercial	19.1	0.1%
General Industrial	73.3	0.4%
General Office Use	54.9	0.3%
Heavy Industrial	231.7	1.3%
Light Manufacturing	1555.7	9.0%
Military Installations	0.4	0.0%
Mixed Commercial and Industrial	346.5	2.0%
Mixed Residential and Commercial	814.3	4.7%
Mobile Homes and Trailer Parks	242.7	1.4%
Multi-Family Residential	1446.2	8.3%
Open Space and Recreation	807.3	4.7%
Other Open Space and Recreation	441.7	2.5%
Public Facilities	99.9	0.6%
Regional Shopping Center	339.3	2.0%
Residential	524.3	3.0%
Single Family Residential	3706.4	21.4%
Transportation	3718.5	21.4%
Undevelopable or Protected Land	1000.7	5.8%
Utility Facilities	413.9	2.4%
Totals	17346.1	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Agriculture	3.9	0.3%
Education K-12	28.8	2.3%
General Commercial	14.7	1.2%
General Industrial	9.5	0.8%
General Office Use	23.7	1.9%
Mixed Residential and Commercial	141.3	11.3%
Mobile Homes and Trailer Parks	53.1	4.3%
Multi-Family Residential	103.7	8.3%
Open Space and Recreation	9.0	0.7%
Other Open Space and Recreation	7.2	0.6%
Public Facilities	11.9	1.0%
Regional Shopping Center	52.8	4.2%
Single Family Residential	503.9	40.5%
Transportation	264.7	21.3%
Utility Facilities	17.4	1.4%
Totals	1245.6	100.0%

Port Hueneme

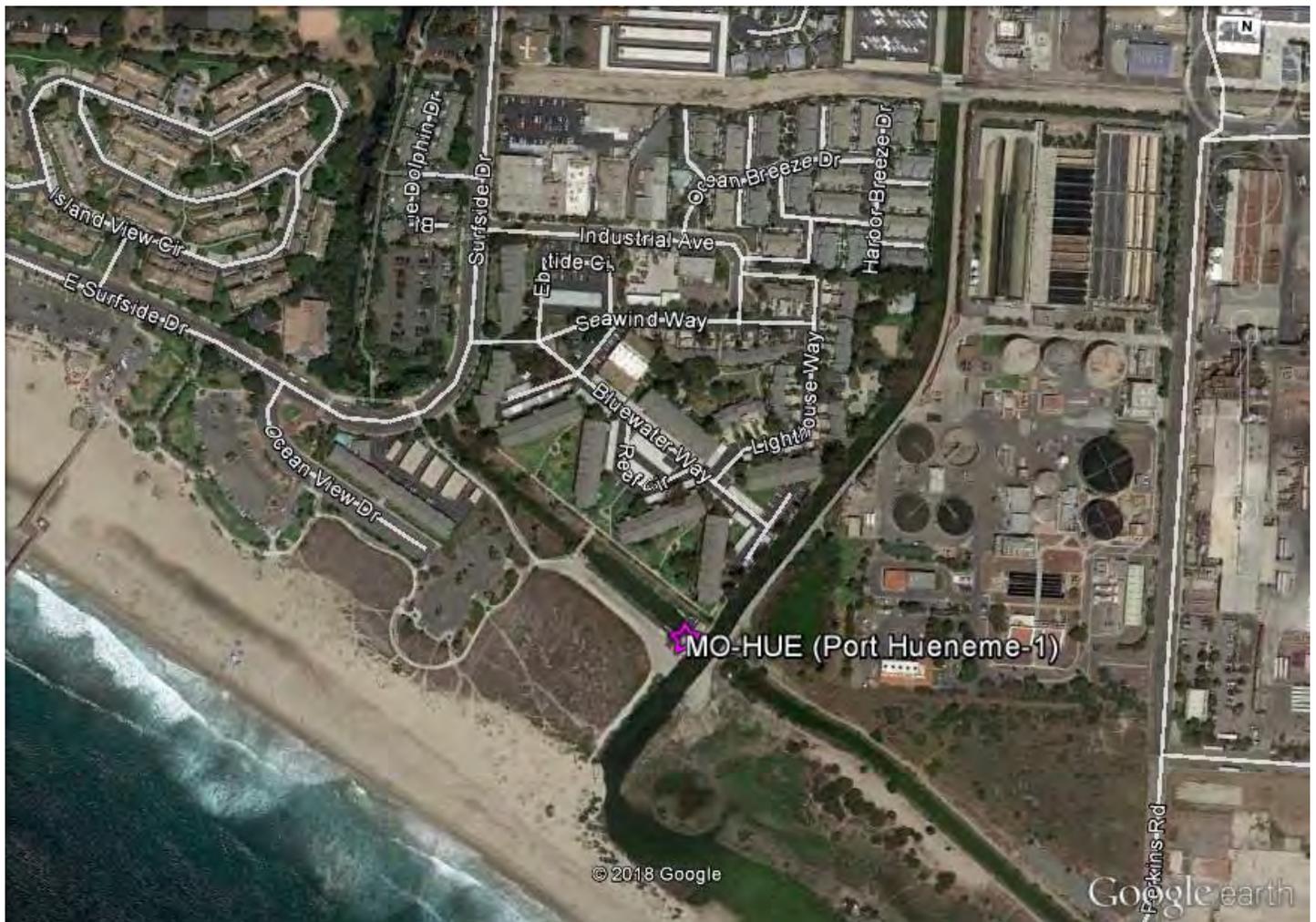
Station: MO-HUE (Port Hueneme-1)

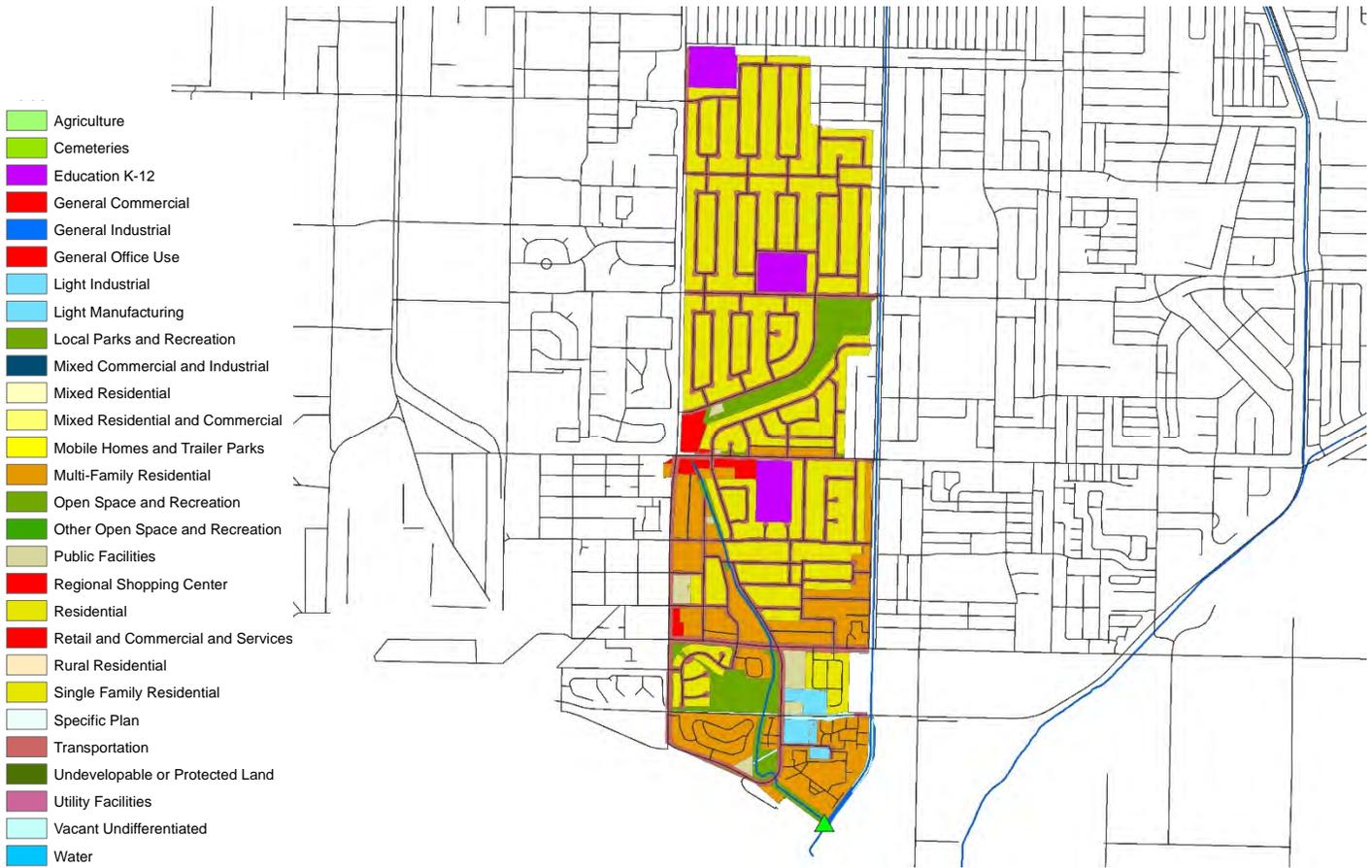
Waterbody: Hueneme Drain (tributary to Pacific Ocean)

Location: Pump Station 300 yds. downstream Surfside Dr. (34°8'27.06"N, 119°11'17.72"W)

Known Issues: Water tends to back up at pump station when pumps are off. Salinity varies due to ocean influence.

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





Entire City

Land Use	Acres	% of Total Watershed
Education K-12	33.4	1.2%
General Commercial	71.6	2.5%
Light Manufacturing	13.4	0.5%
Military Installations	1574.1	54.6%
Mixed Residential and Commercial	11.7	0.4%
Multi-Family Residential	330.1	11.4%
Open Space and Recreation	122.6	4.3%
Other Commercial	1.5	0.1%
Public Facilities	9.5	0.3%
Single Family Residential	317.0	11.0%
Transportation	386.4	13.4%
Undevelopable or Protected Land	12.4	0.4%
Utility Facilities	0.3	0.01%
Totals	2884.1	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Education K-12	27.1	4.5%
General Commercial	9.7	1.6%
General Industrial	1.3	0.2%
Light Manufacturing	8.1	1.3%
Multi-Family Residential	97.1	16.2%
Open Space and Recreation	44.6	7.4%
Public Facilities	8.9	1.5%
Single Family Residential	265.3	44.2%
Transportation	132.6	22.1%
Undevelopable or Protected Land	0.0	0.0%
Utility Facilities	0.3	0.1%
Vacant Undifferentiated	5.1	0.8%
Totals	599.9	100.0%

Santa Paula

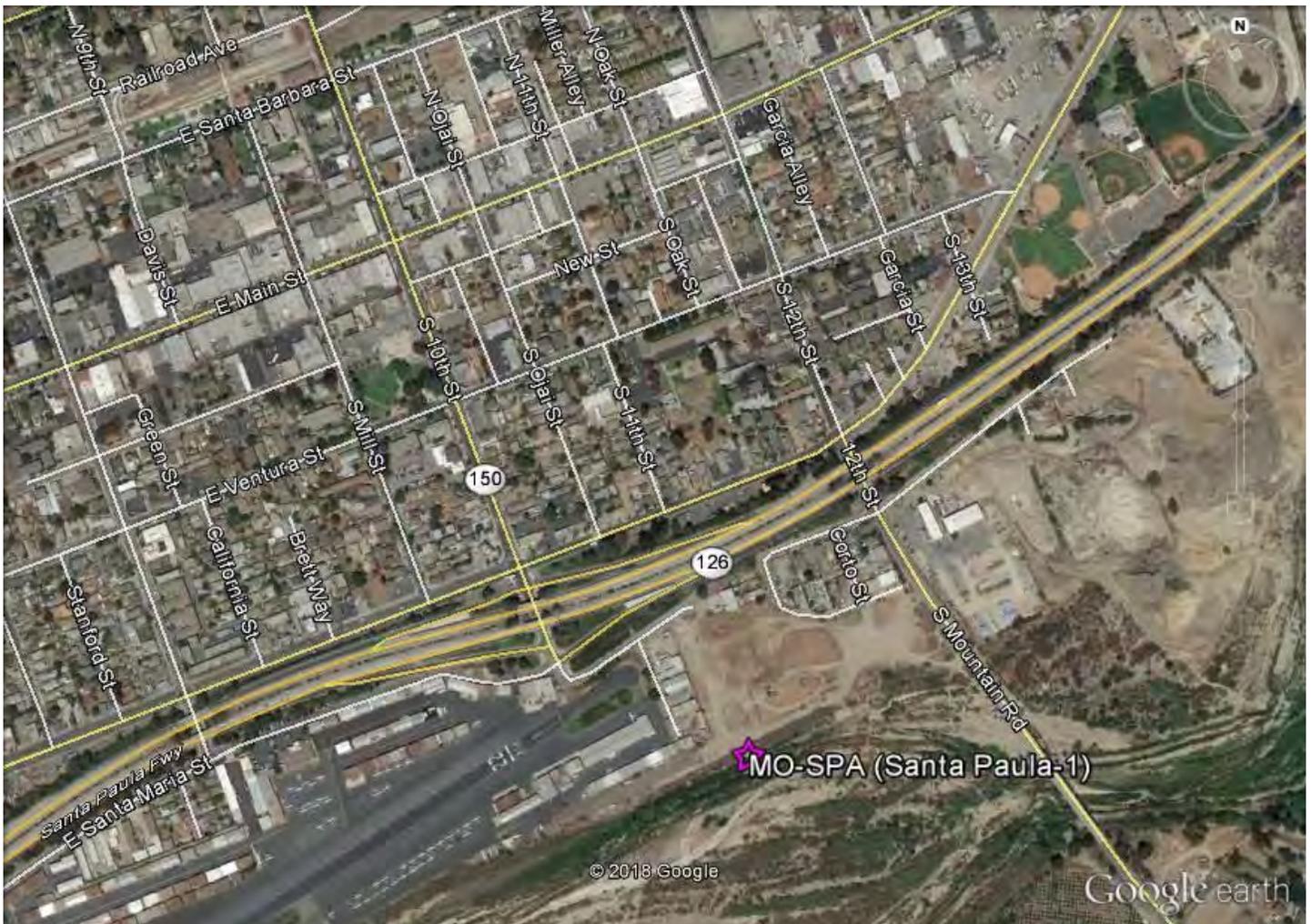
Station: MO-SPA (Santa Paula-1)

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

Location: Upstream Santa Paula Airport
(34°20'54.98"N, 119° 3'20.10"W)

Known Issues: Homeless presence and vandalism frequent in area.

Dry Season Flow Potential: Typically dry between storms. Very infrequent dry weather flow.





Entire City

Land Use	Acres	% of Total Watershed
Agriculture	454.6	12.4%
Education K-12	8.3	0.2%
General Office Use	24.2	0.7%
Light Industrial	145.6	4.0%
Light Manufacturing	80.6	2.2%
Local Parks and Recreation	68.8	1.9%
Mixed Commercial and Industrial	200.1	5.5%
Mixed Residential and Commercial	20.3	0.6%
Mobile Homes and Trailer Parks	82.1	2.2%
Multi-Family Residential	330.6	9.0%
Open Space and Recreation	298.4	8.2%
Public Facilities	159.2	4.4%
Retail and Commercial and Services	144.3	4.0%
Single Family Residential	828.0	22.7%
Specific Plan	211.0	5.8%
Transportation	597.3	16.3%
Totals	3653.5	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Agriculture	8.0	2.2%
Education K-12	8.3	2.2%
General Office Use	0.8	0.2%
Light Industrial	1.5	0.4%
Local Parks and Recreation	11.0	3.0%
Mixed Commercial and Industrial	18.6	5.0%
Mixed Residential and Commercial	0.9	0.2%
Mobile Homes and Trailer Parks	12.8	3.5%
Multi-Family Residential	71.2	19.3%
Open Space and Recreation	0.6	0.2%
Public Facilities	11.3	3.1%
Retail and Commercial and Services	9.7	2.6%
Single Family Residential	141.9	38.4%
Transportation	72.7	19.7%
Totals	369.2	100.0%

Simi Valley

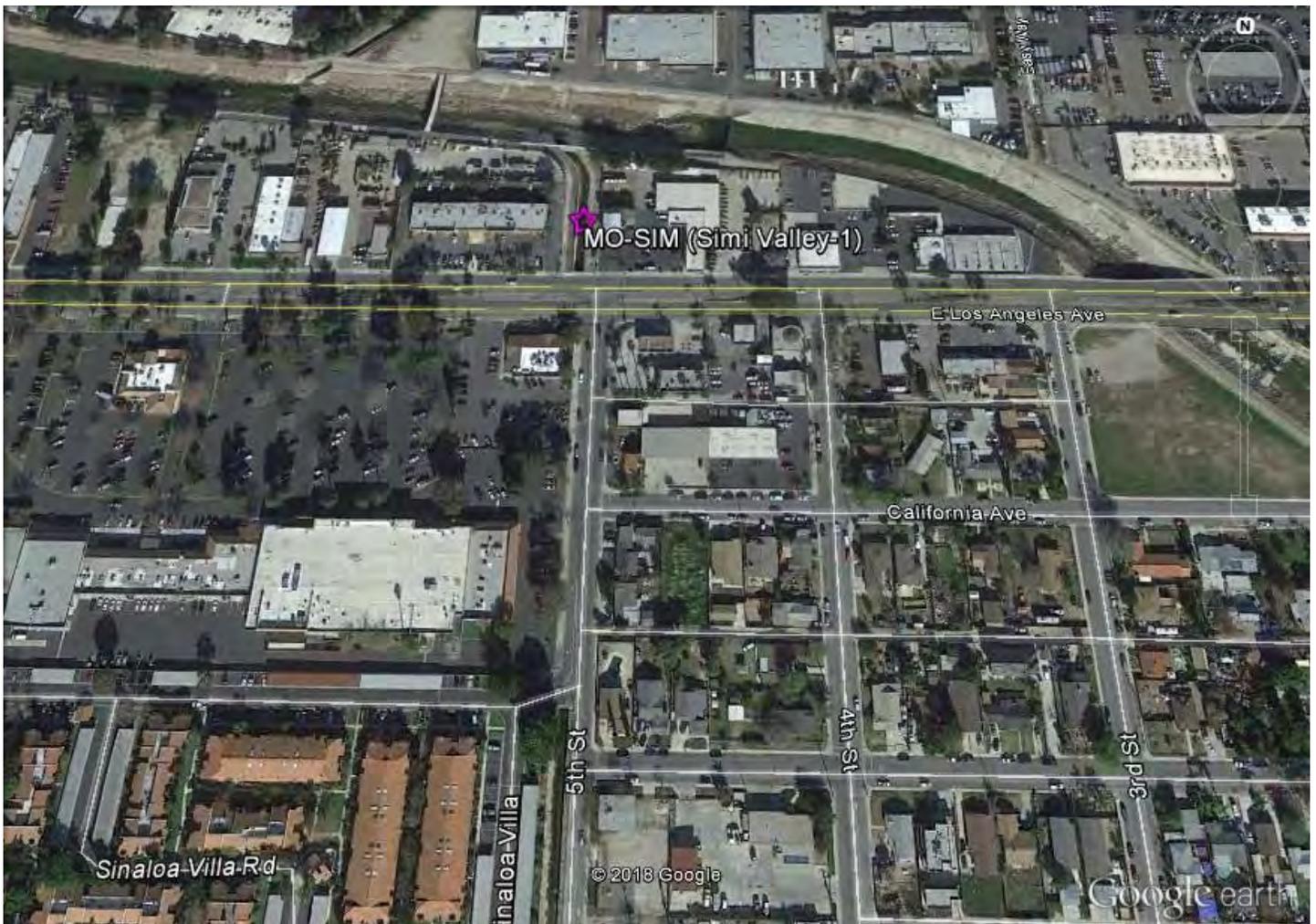
Station: MO-SIM (Simi Valley-1)

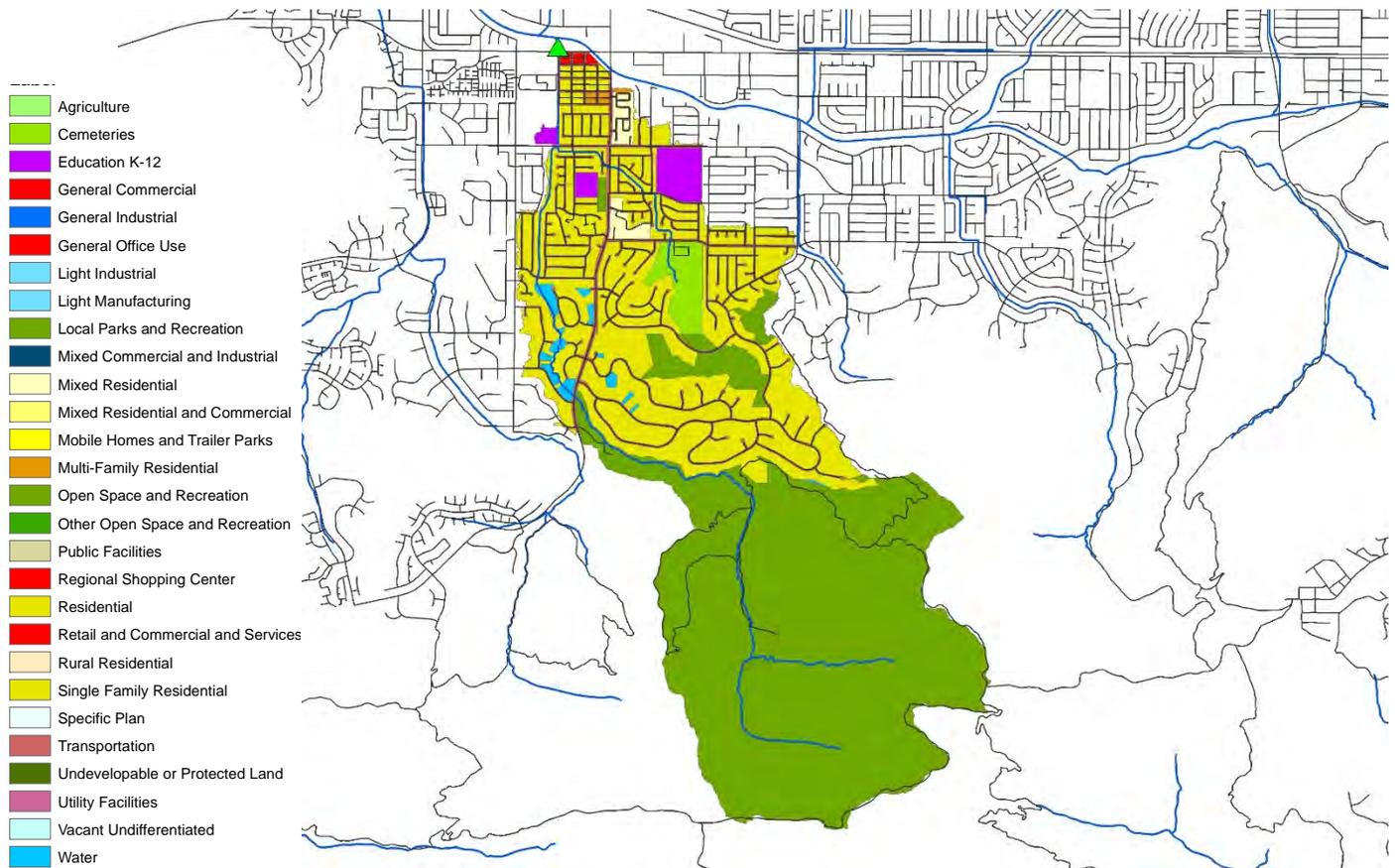
Waterbody: Bus Canyon Drain (tributary to Arroyo Simi)

Location: North of intersection at 5th St. and Los Angeles Ave. (34°16'19.55"N, 118°47'1.41"W)

Known Issues: Homeless have been known to camp in area. High salinity due to groundwater discharge

Dry Season Flow Potential: Year-round flow due to urban runoff and/or groundwater discharge upstream





Entire City

Land Use	Acres	% of Total Watershed
Agriculture	134.2	0.5%
Cemeteries	234.0	0.9%
Education College	84.9	0.3%
Education K-12	75.8	0.3%
General Office Use	97.4	0.4%
Golf Courses	856.8	3.2%
Light Industrial	1173.7	4.3%
Local Parks and Recreation	555.2	2.1%
Mixed Residential	987.4	3.6%
Mixed Residential and Commercial	143.6	0.5%
Mobile Homes and Trailer Parks	68.1	0.3%
Multi-Family Residential	550.7	2.0%
Open Space and Recreation	9693.6	35.8%
Other Commercial	39.5	0.1%
Public Facilities	87.9	0.3%
Retail and Commercial and Services	653.6	2.4%
Single Family Residential	7712.5	28.5%
State and National Parks and Recreation	54.5	0.2%
Transportation	3536.0	13.1%
Water	313.2	1.2%
Totals	27052.5	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Cemeteries	62.3	2.0%
Education K-12	59.4	1.9%
Local Parks and Recreation	5.5	0.2%
Mixed Residential	32.7	1.0%
Multi-Family Residential	5.7	0.2%
Open Space and Recreation	1747.4	55.3%
Retail and Commercial and Services	5.6	0.2%
Single Family Residential	967.4	30.6%
Transportation	239.7	7.6%
Water	34.6	1.1%
Totals	3160.2	100.0%

Thousand Oaks

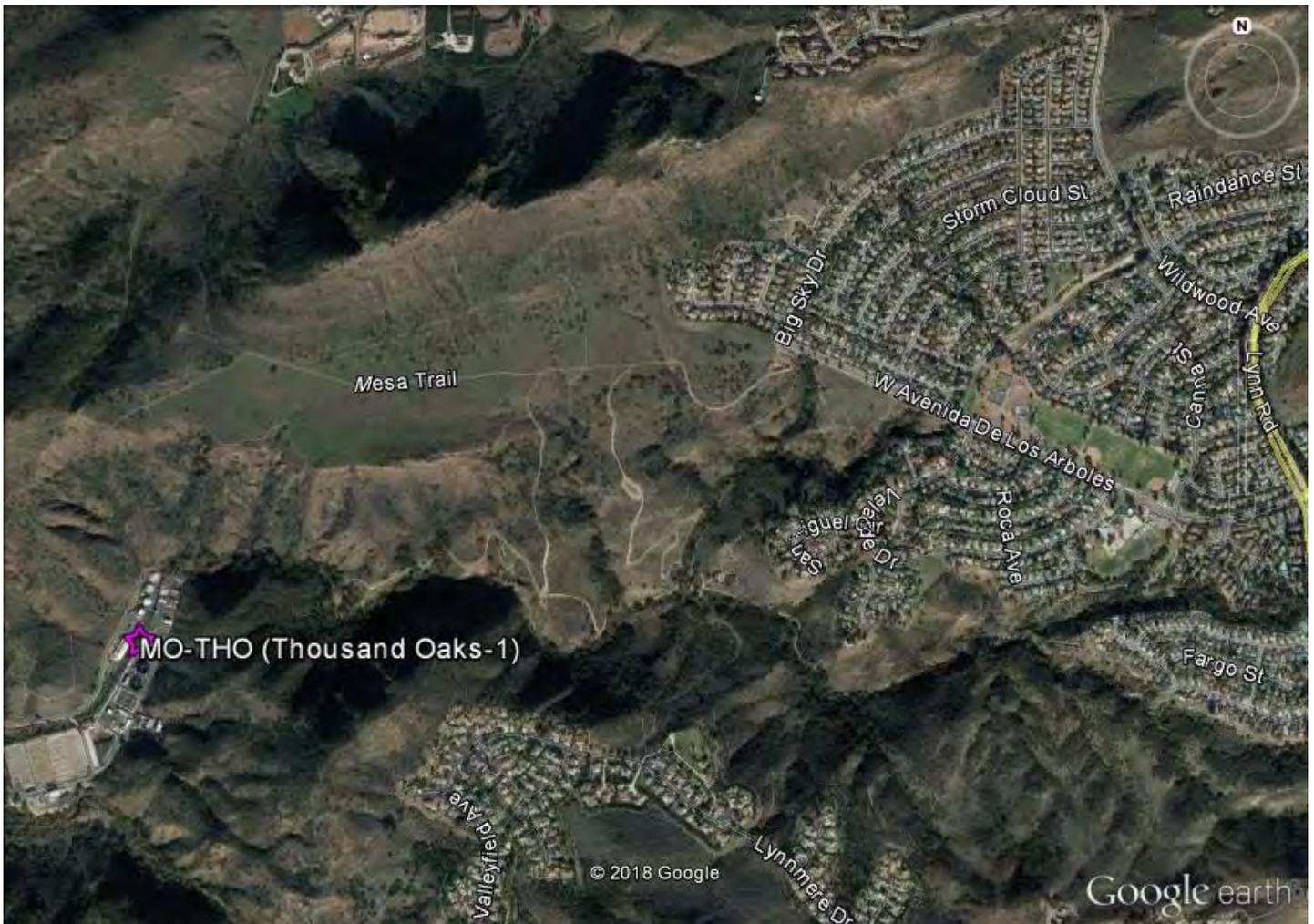
Station: MO-THO (Thousand Oaks-1)

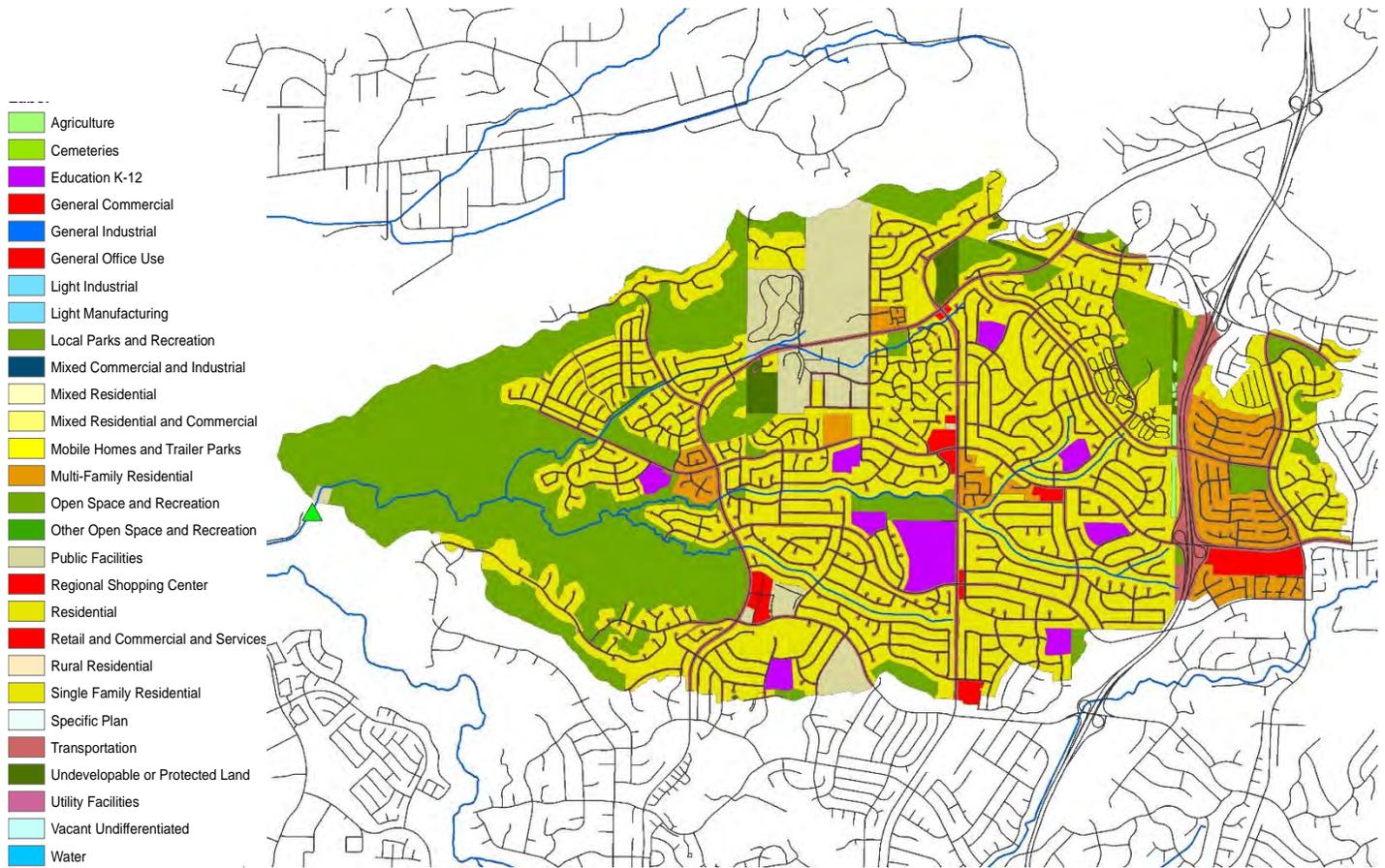
Waterbody: North Fork Arroyo Conejo (tributary to Conejo Creek)

Location: Hill Canyon WWTP sampling location R-1 (34°12'48.03"N, 118°55'17.09"W)

Known Issues: Rare access issues due to locked gates.

Dry Season Flow Potential: Year-round flow due to urban runoff however site does experience backwater effects from WWTP discharge in very dry weather.





Entire City

Land Use	Acres	% of Total Watershed
Agriculture	61.1	0.2%
Education K-12	423.0	1.2%
General Commercial	1049.4	3.0%
General Industrial	945.2	2.7%
Local Parks and Recreation	11.3	0.03%
Mixed Residential and Commercial	254.0	0.7%
Mobile Homes and Trailer Parks	144.2	0.4%
Multi-Family Residential	2068.3	5.8%
Open Space and Recreation	15007.8	42.3%
Other Open Space and Recreation	40.6	0.1%
Public Facilities	518.2	1.5%
Residential	633.8	1.8%
Single Family Residential	9531.2	26.9%
Transportation	4041.7	11.4%
Undevelopable or Protected Land	725.4	2.0%
Water	30.7	0.1%
Totals	35485.7	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Agriculture	7.9	0.2%
Education K-12	123.6	2.4%
General Commercial	73.7	1.4%
Local Parks and Recreation	3.5	0.1%
Multi-Family Residential	221.0	4.3%
Open Space and Recreation	1329.0	26.0%
Public Facilities	300.1	5.9%
Residential	8.4	0.2%
Single Family Residential	2175.4	42.6%
Transportation	818.1	16.0%
Undevelopable or Protected Land	50.6	1.0%
Totals	5111.4	100.0%

Ventura

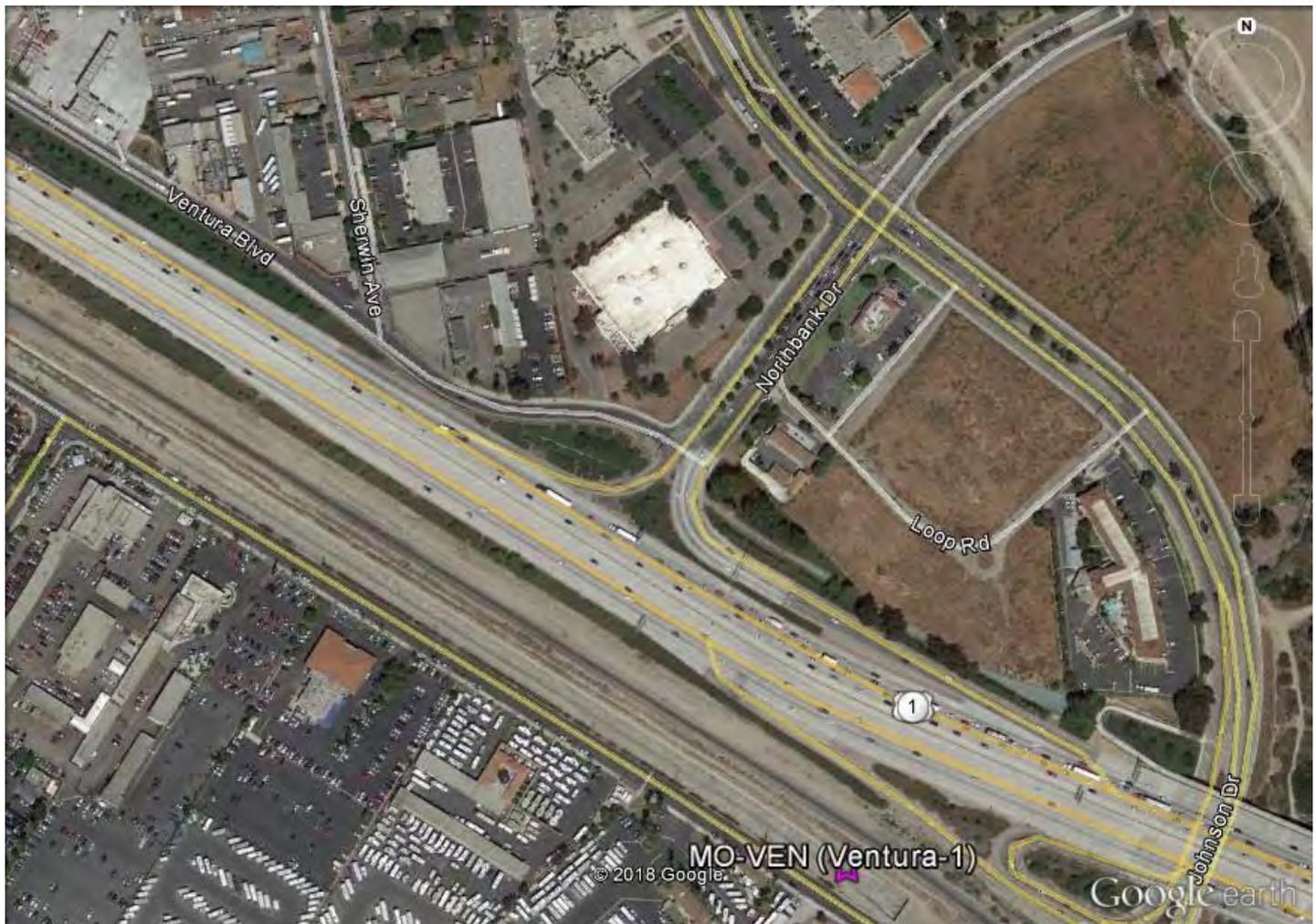
Station: MO-VEN (Ventura-1)

Waterbody: Moon Ditch (tributary to Santa Clara River)

Location: Between Leland St. and US 101, north of Johnson Dr. (34°14'36.69"N, 119°11'42.06"W)

Known Issues: Wide concrete bottom spreads out low flows.

Dry Season Flow Potential: Intermittent year-round flow due to urban runoff and/or groundwater discharge





Entire City

Land Use	Acres	% of Total Watershed
Agriculture	482.9	3.4%
Education K-12	6.8	0.05%
General Industrial	937.7	6.6%
Mixed Residential and Commercial	1447.0	10.2%
Multi-Family Residential	994.7	7.0%
Open Space and Recreation	1432.5	10.1%
Public Facilities/Schools	561.1	3.9%
Rural Residential	0.4	0.0%
Single Family Residential	4806.2	33.8%
Specific Plan	548.9	3.9%
Transportation	2989.6	21.0%
Totals	14207.8	100.0%

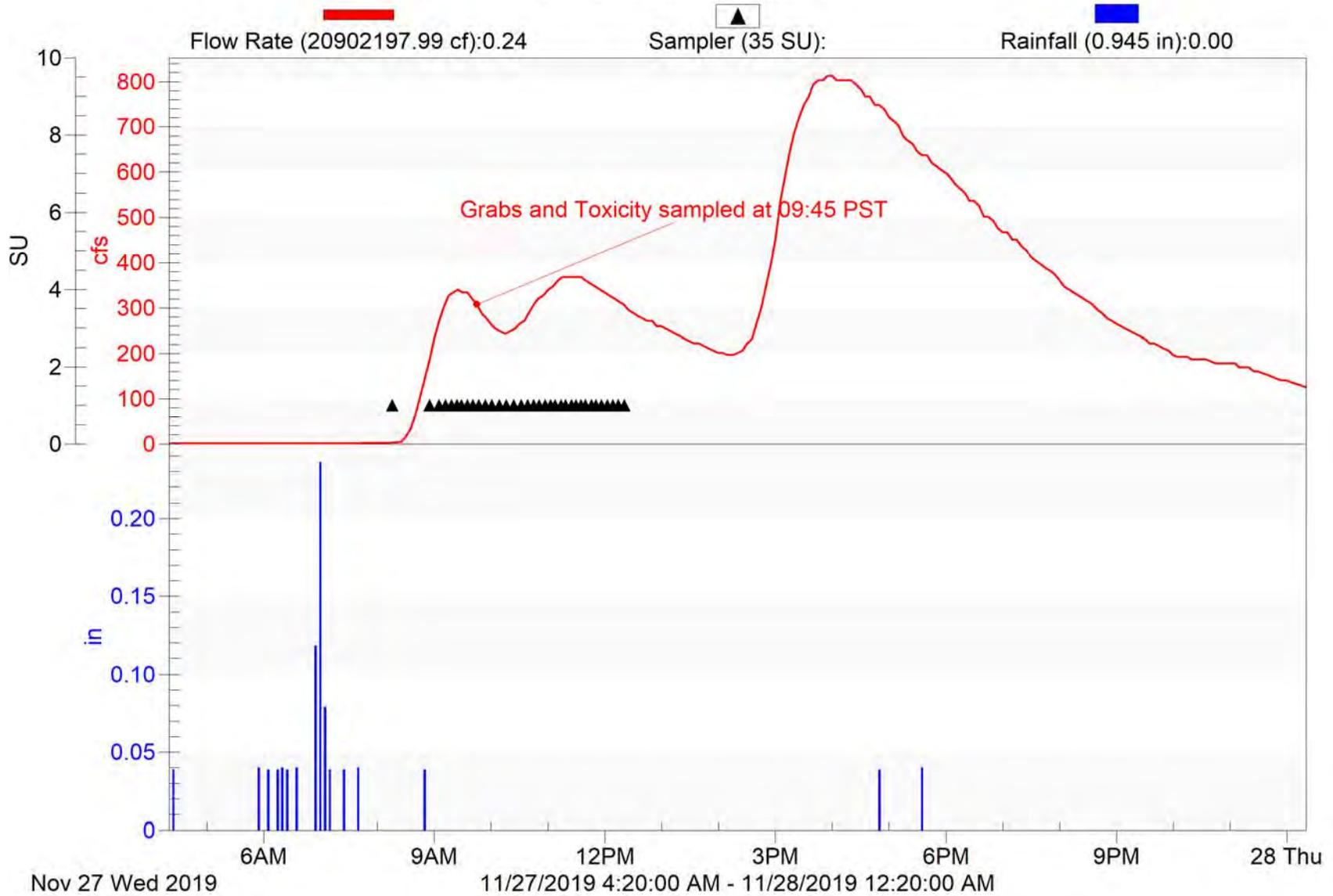
Selected Subwatershed

Land Use	Acres	% of Total Watershed
Agriculture	6.3	0.8%
Education K-12	6.8	0.9%
General Industrial	94.4	12.5%
Mixed Residential and Commercial	158.2	20.9%
Multi-Family Residential	161.0	21.3%
Open Space and Recreation	1.8	0.2%
Single Family Residential	123.7	16.4%
Transportation	203.1	26.9%
Totals	755.3	100.0%

Appendix B. Event Hydrographs

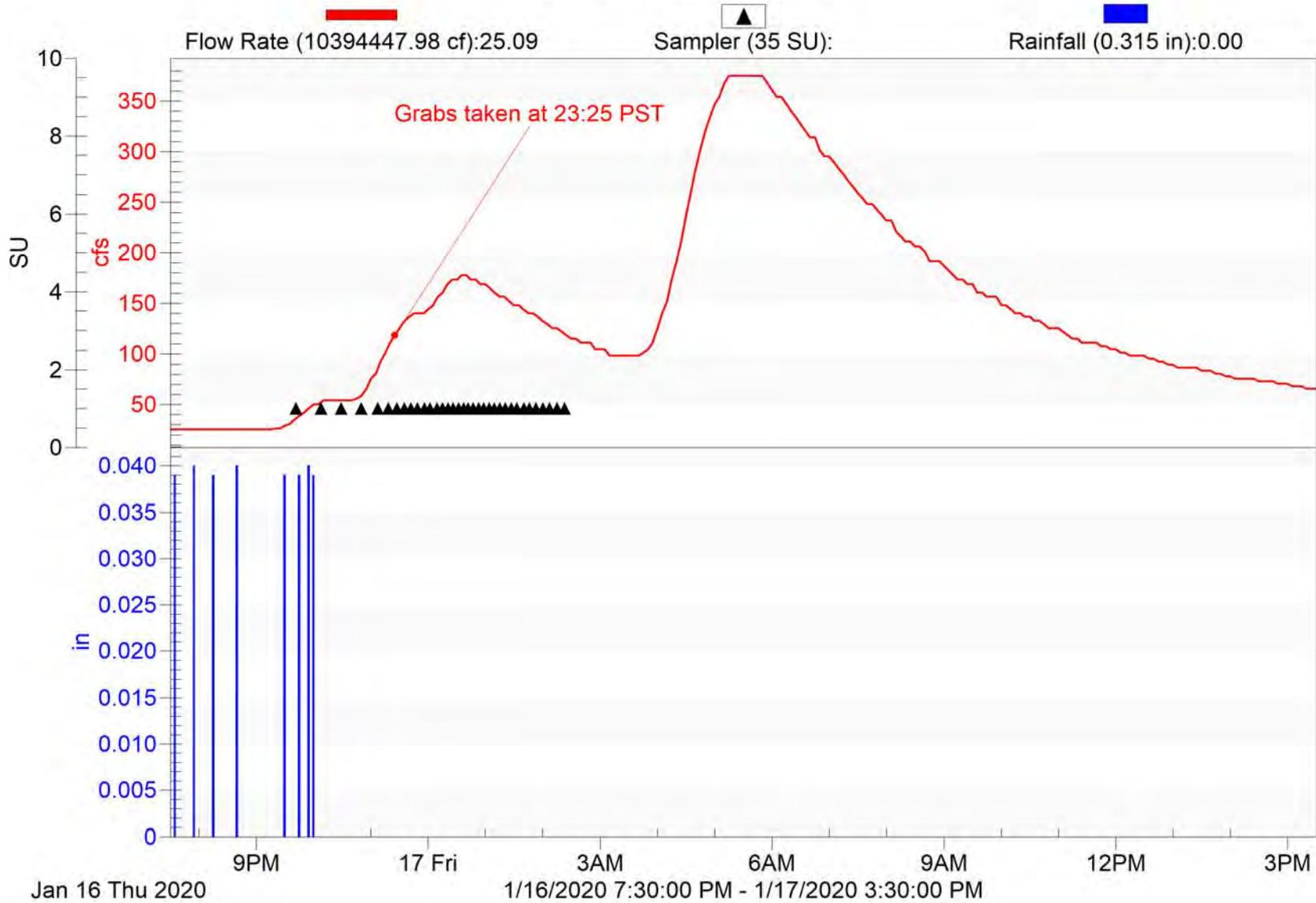
ME-CC

2019/20 NPDES Event 1 (Wet)



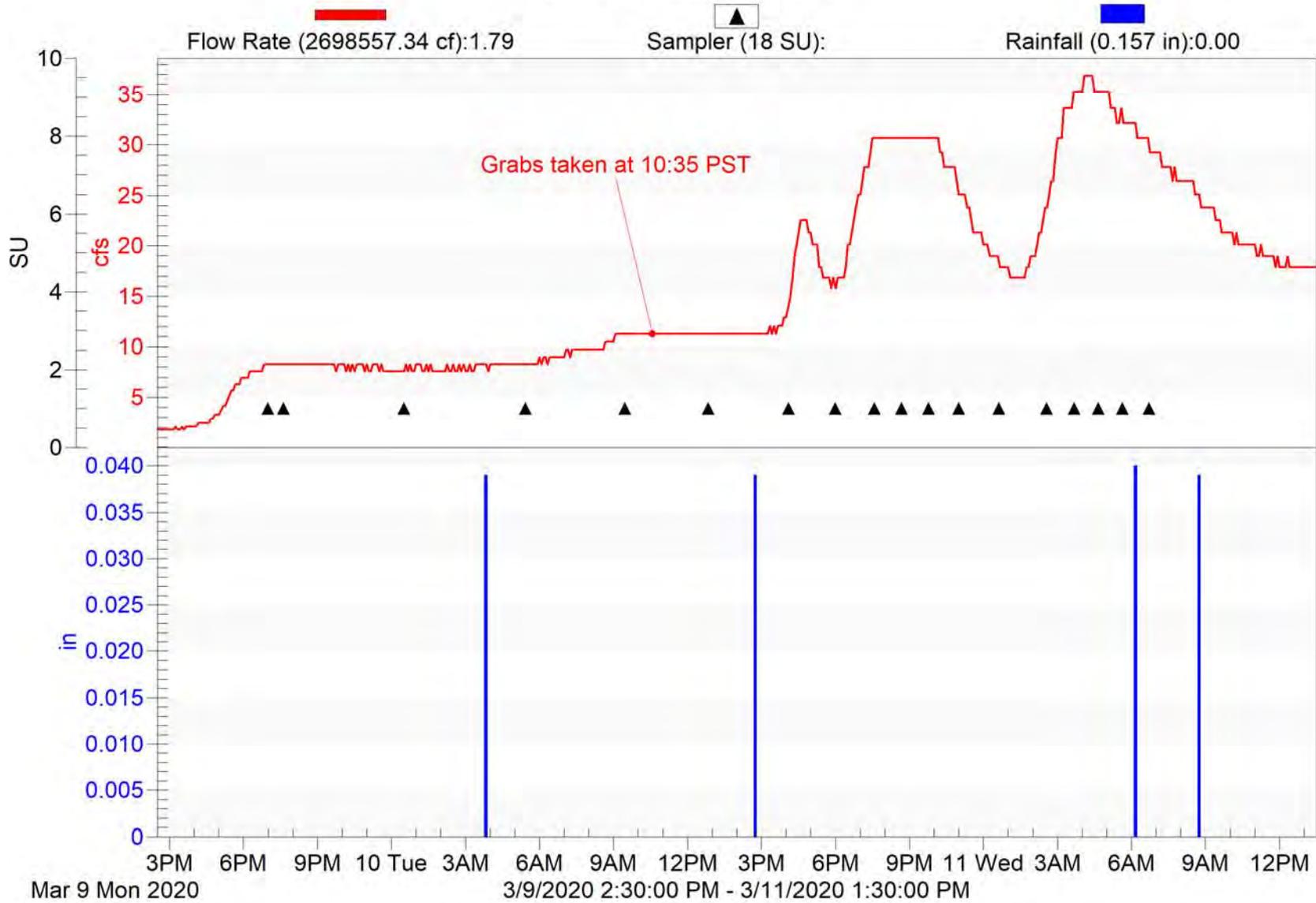
ME-CC

2019/20 NPDES Event 2 (Wet)



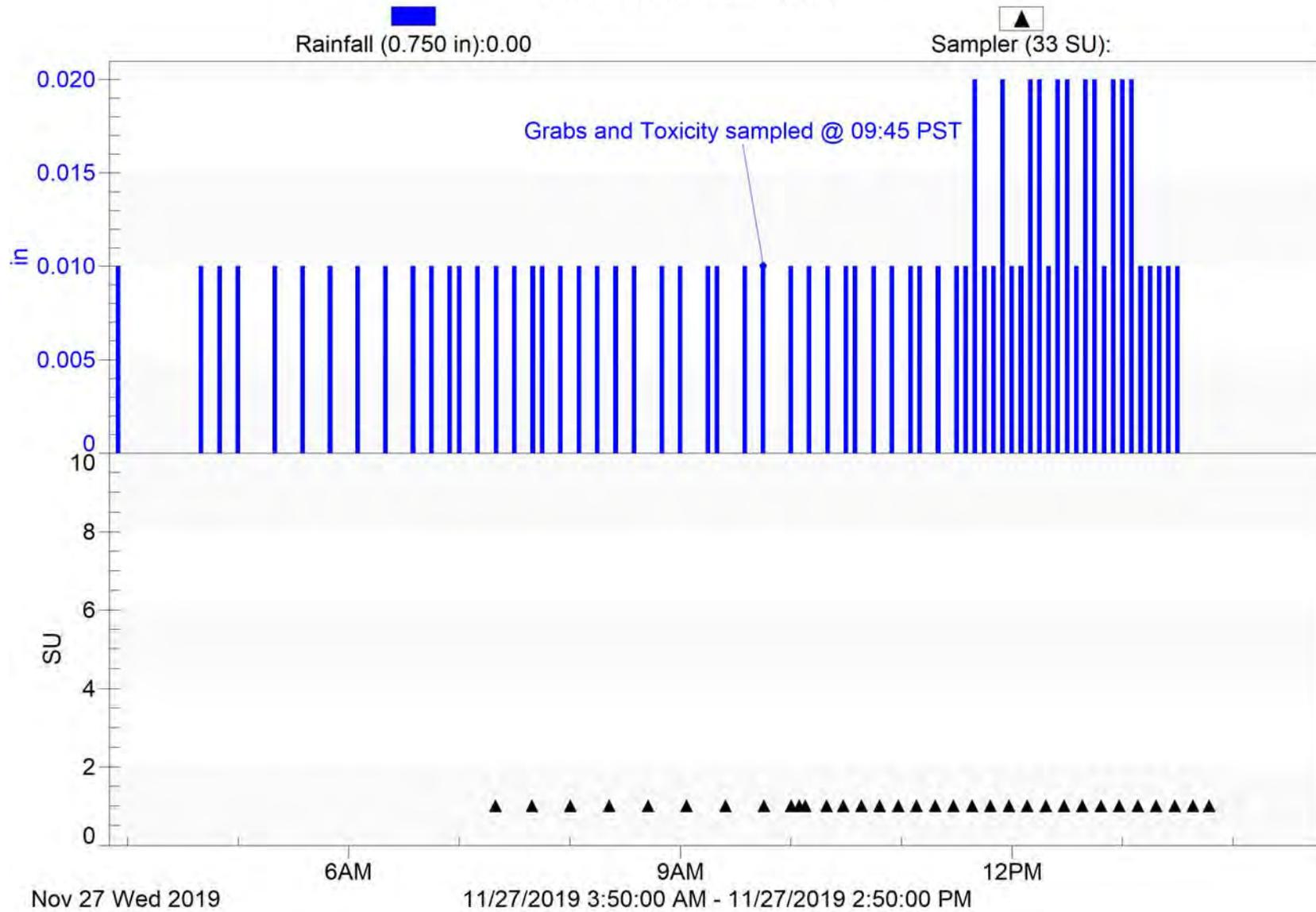
ME-CC

2019/20 NPDES Event 3 (Wet)



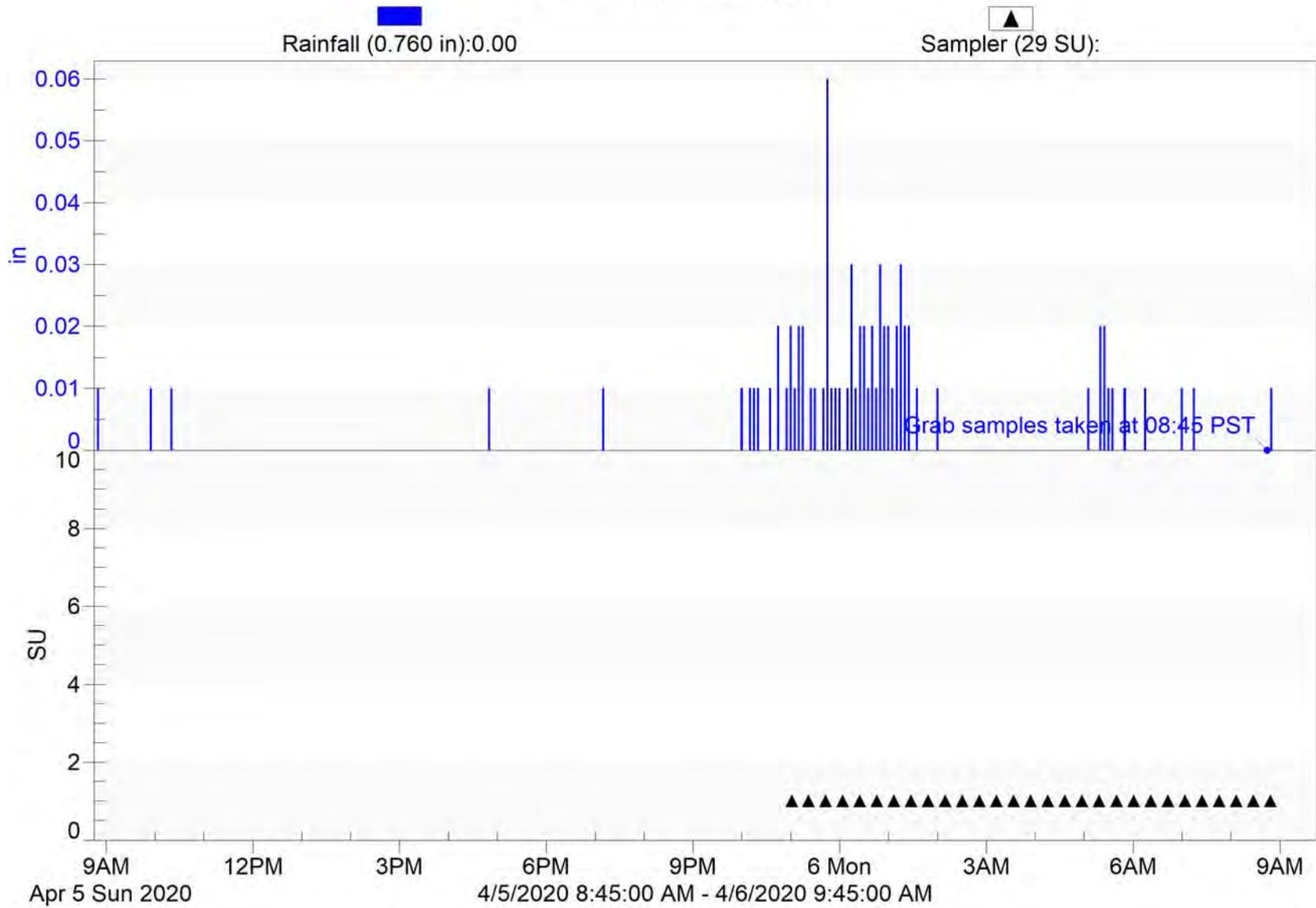
ME-SCR

2019/20 NPDES Event #1 (Wet)



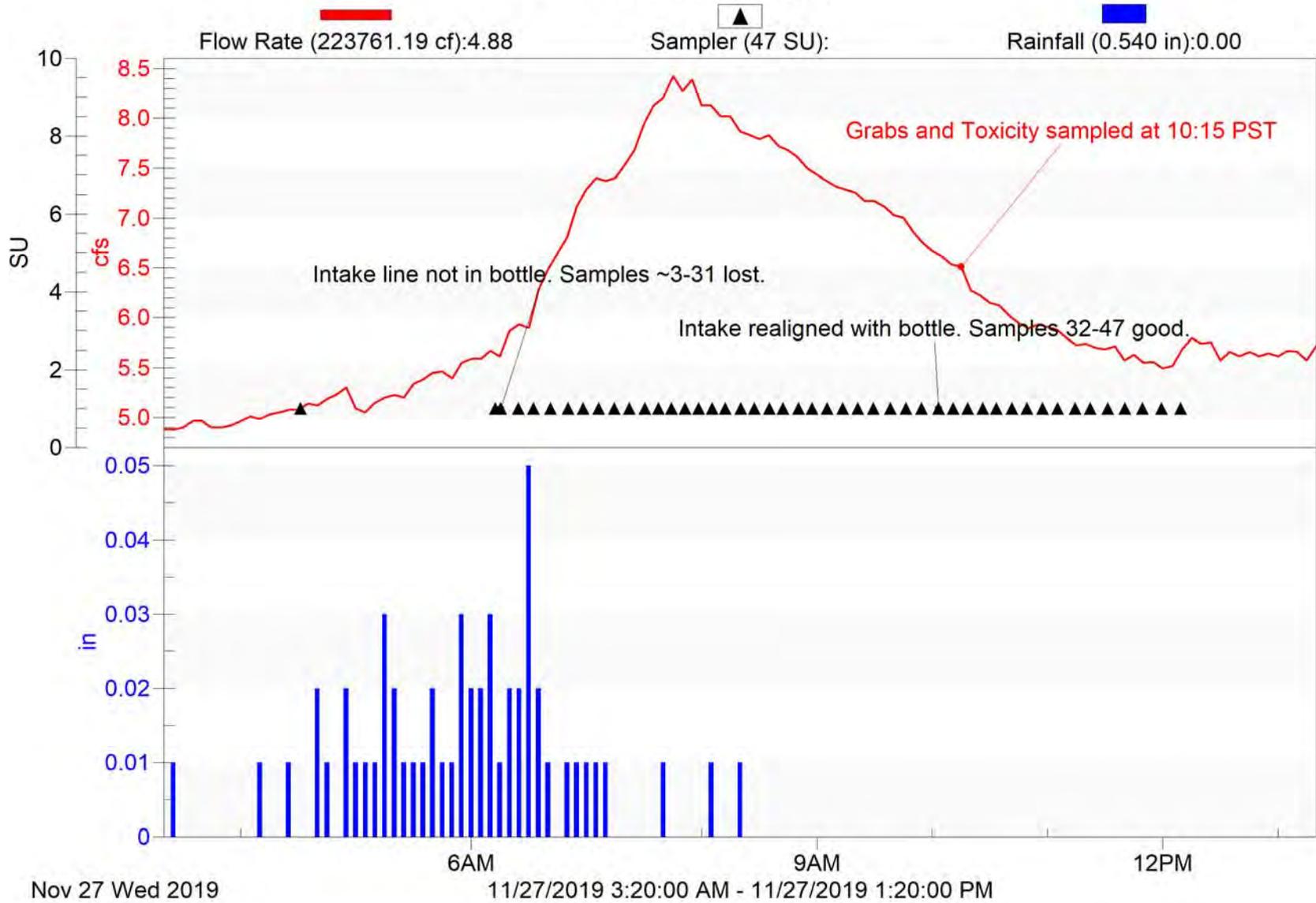
ME-SCR

2019/20 NPDES Event #4 (Wet)



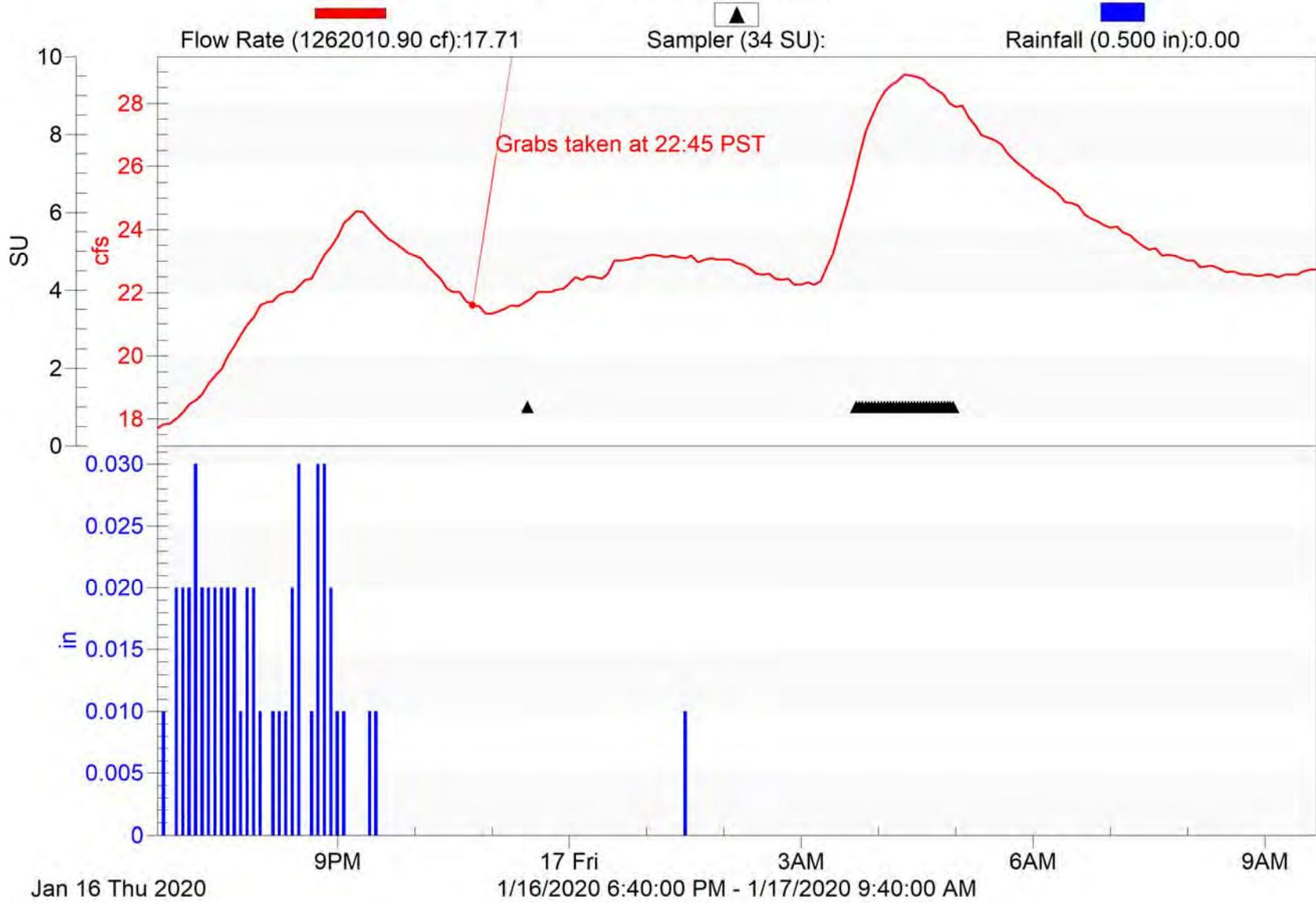
ME-VR2

2019/20 NPDES Event #1 (Wet)



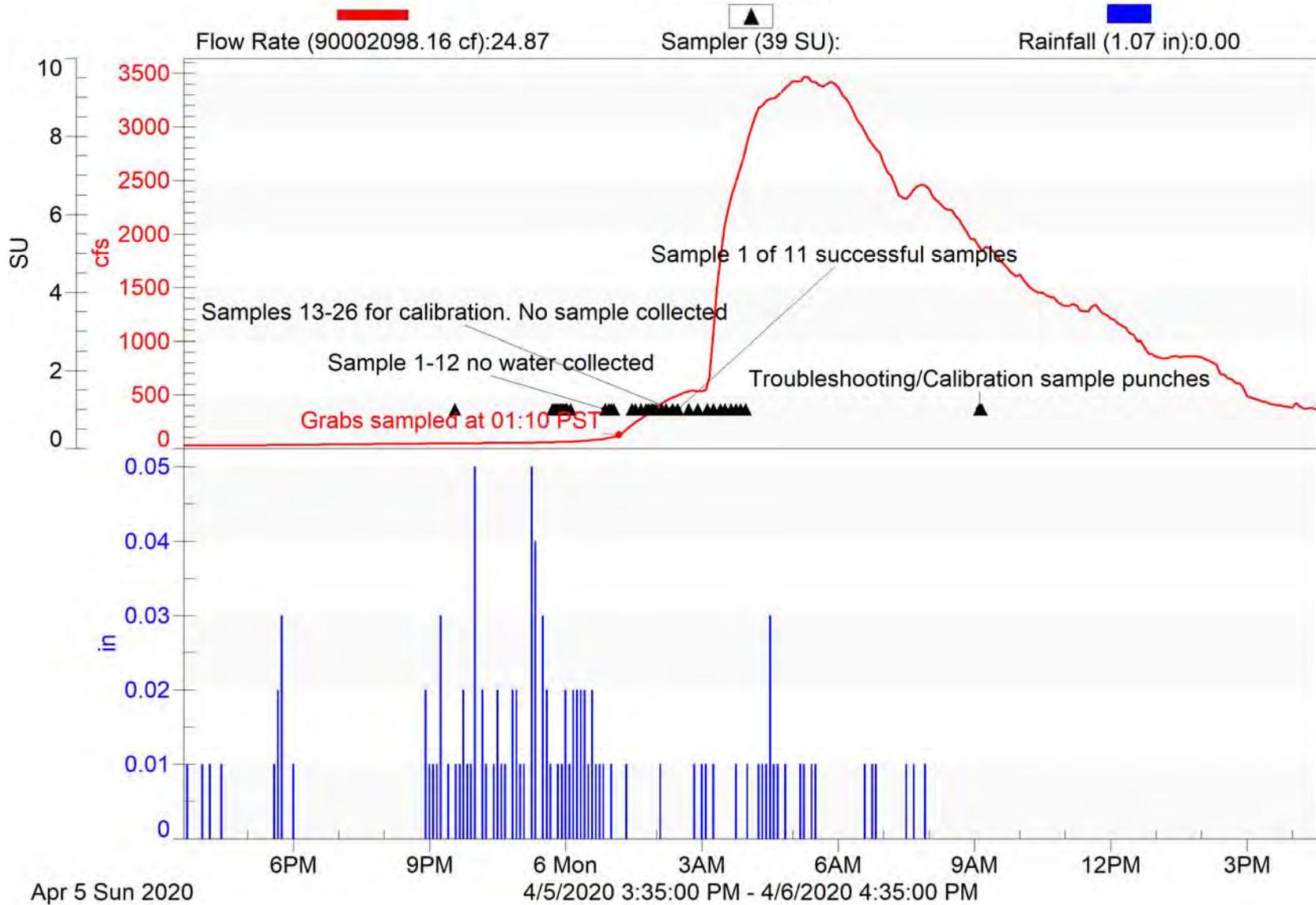
ME-VR2

2019/20 NPDES Event #2 (Wet)



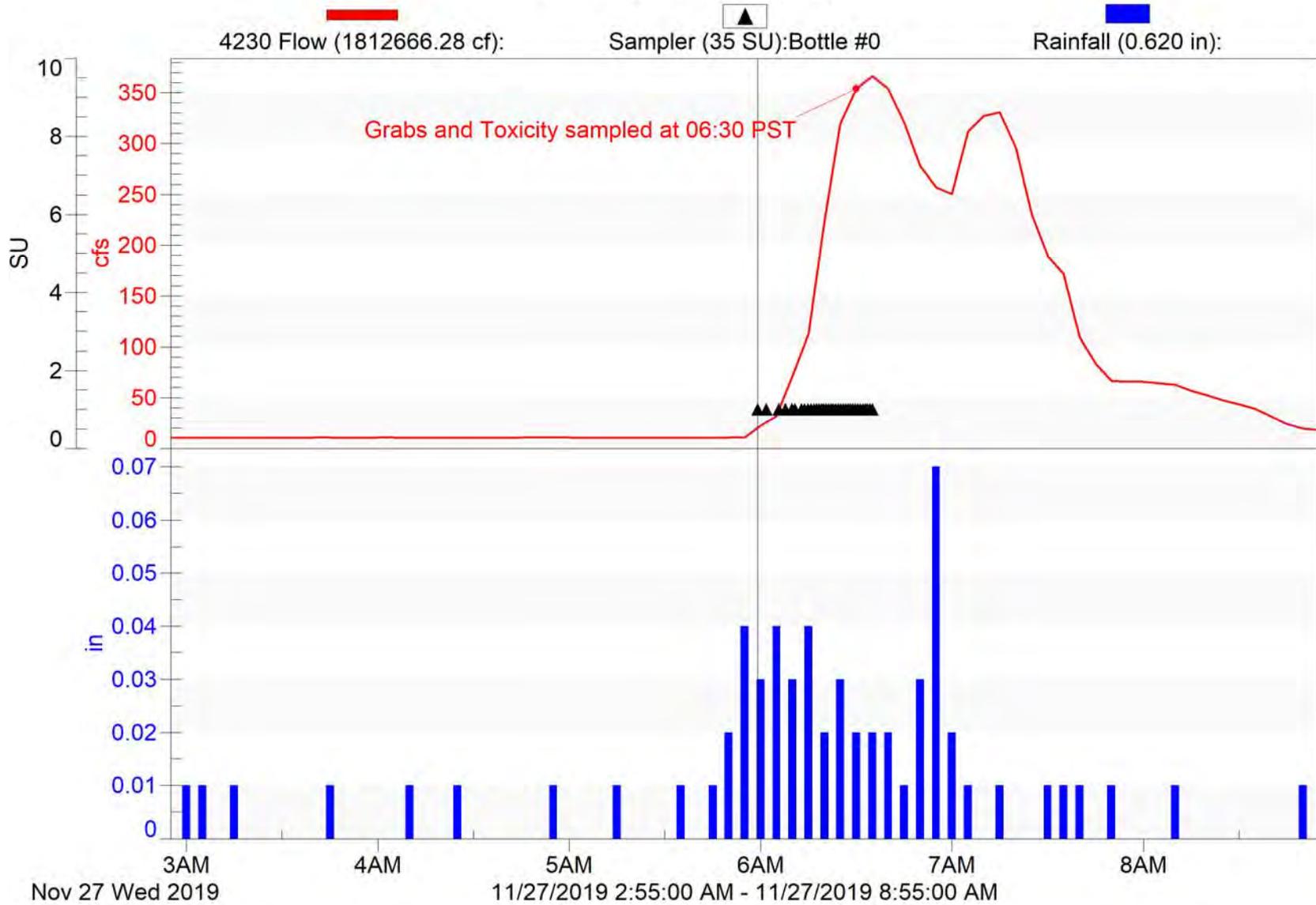
ME-VR2

2019/20 NPDES Event #4 (Wet)



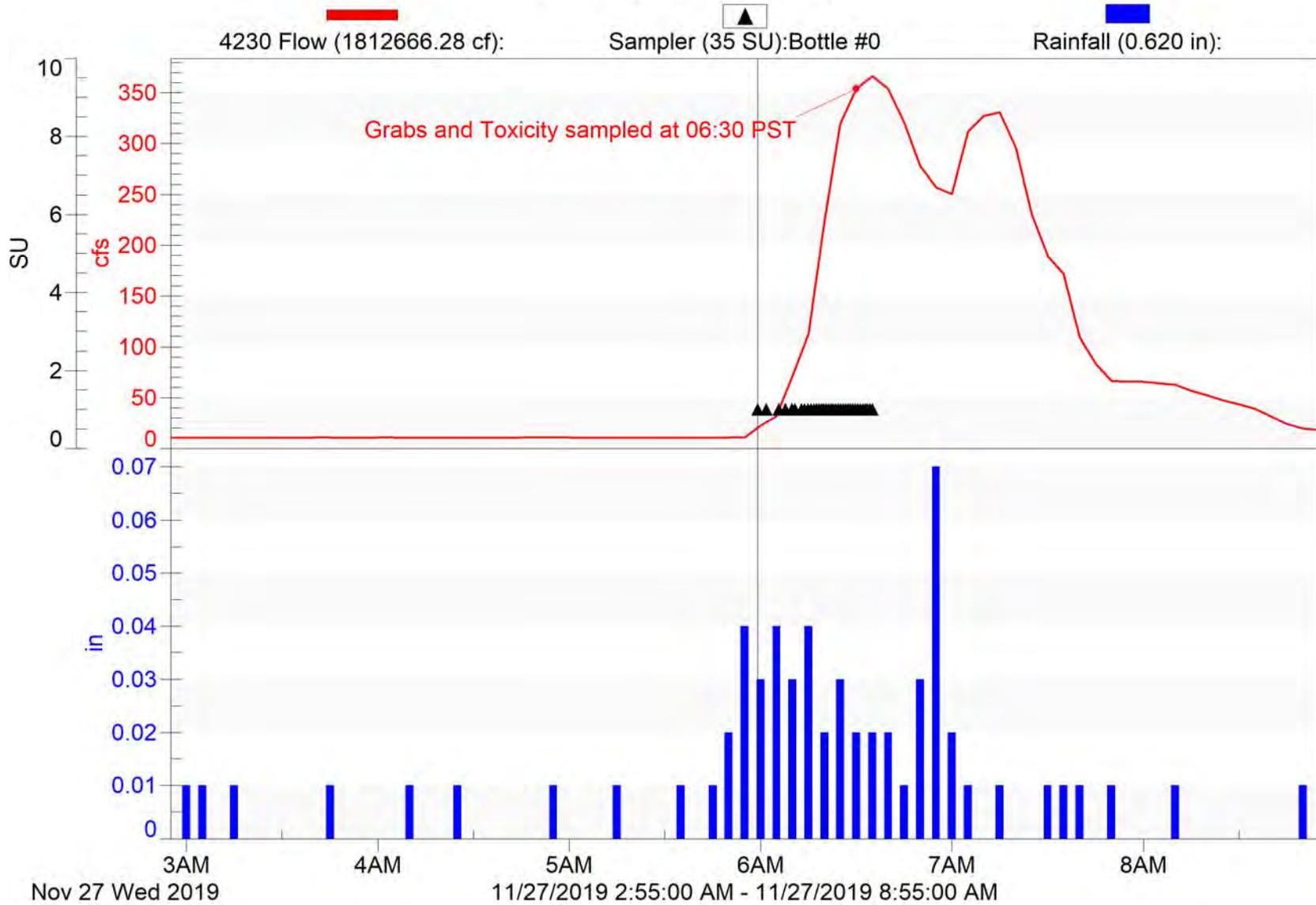
Camarillo-1

2019/20 NPDES Event #1 (Wet)



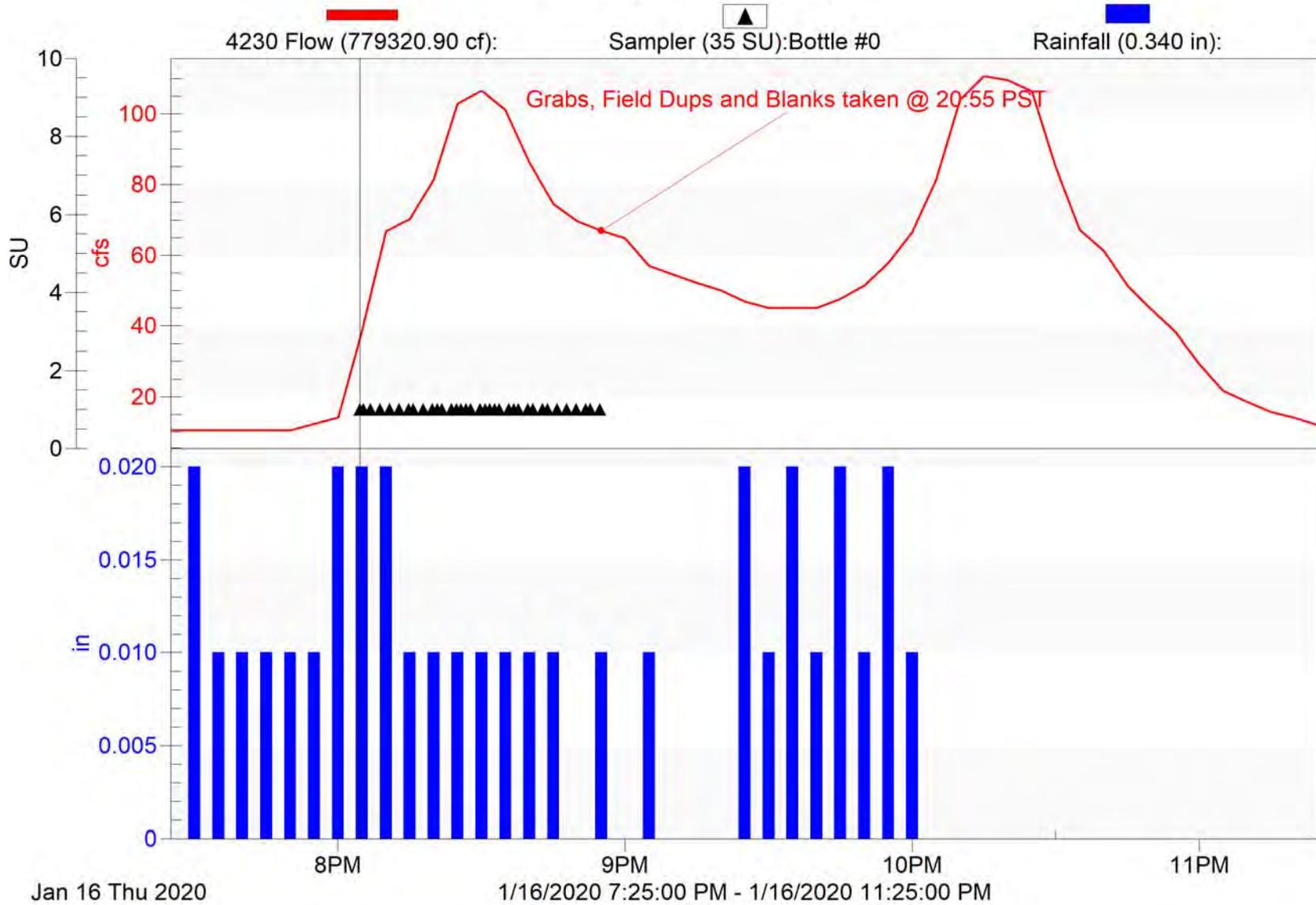
Camarillo-1

2019/20 NPDES Event #1 (Wet)



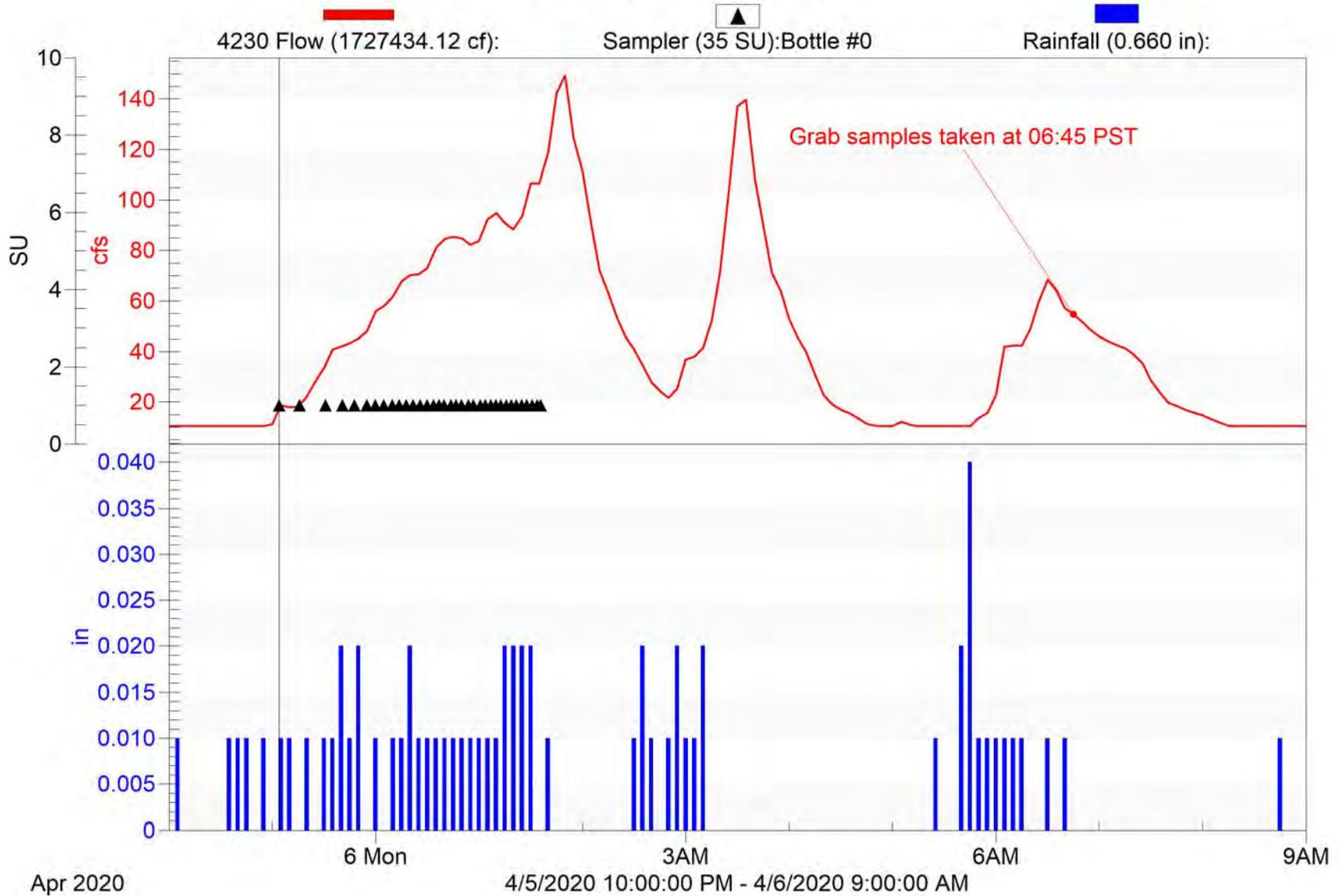
Camarillo-1

2019/20 NPDES Event #2 (Wet)



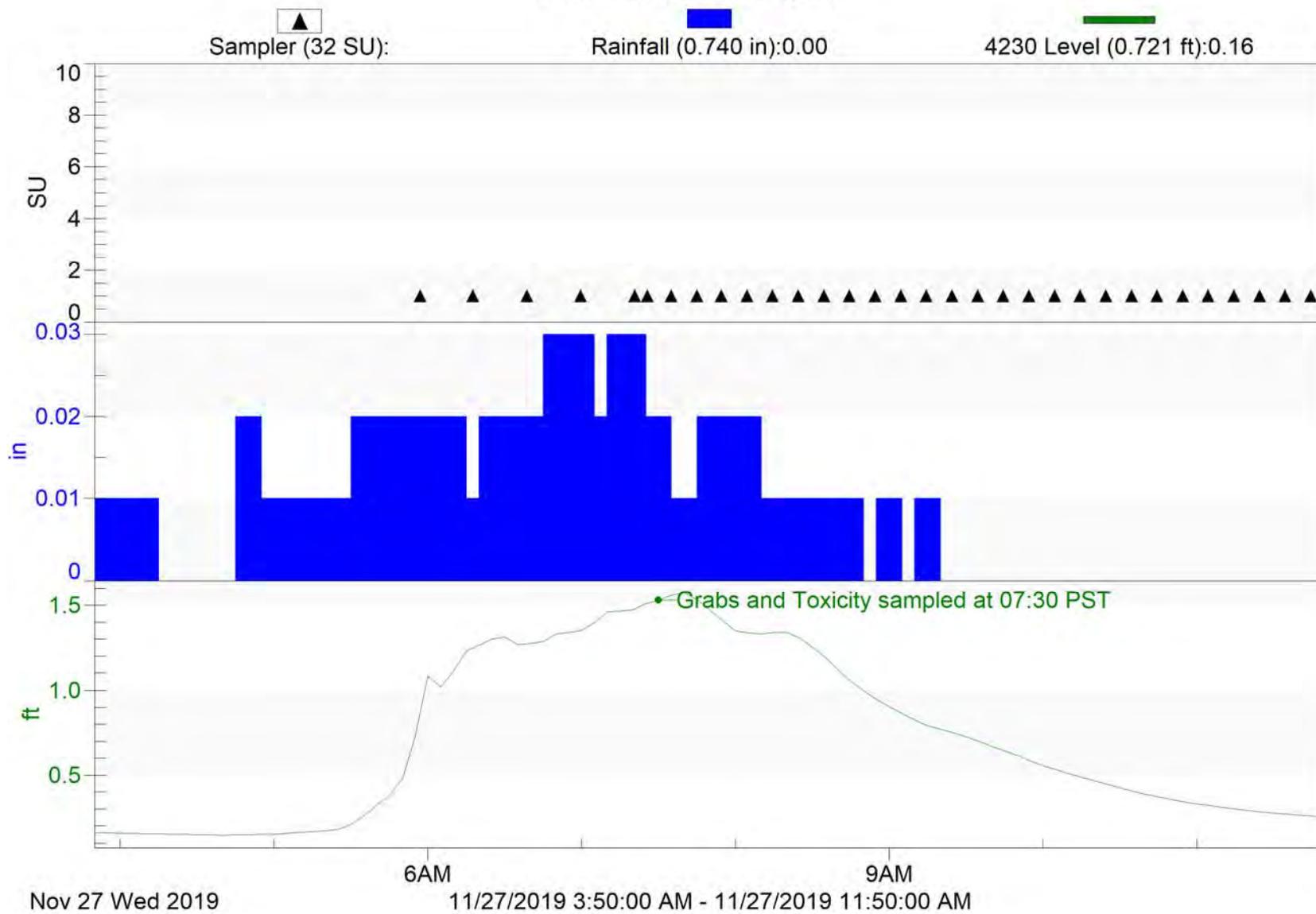
Camarillo-1

2019/20 NPDES Event #4 (Wet)



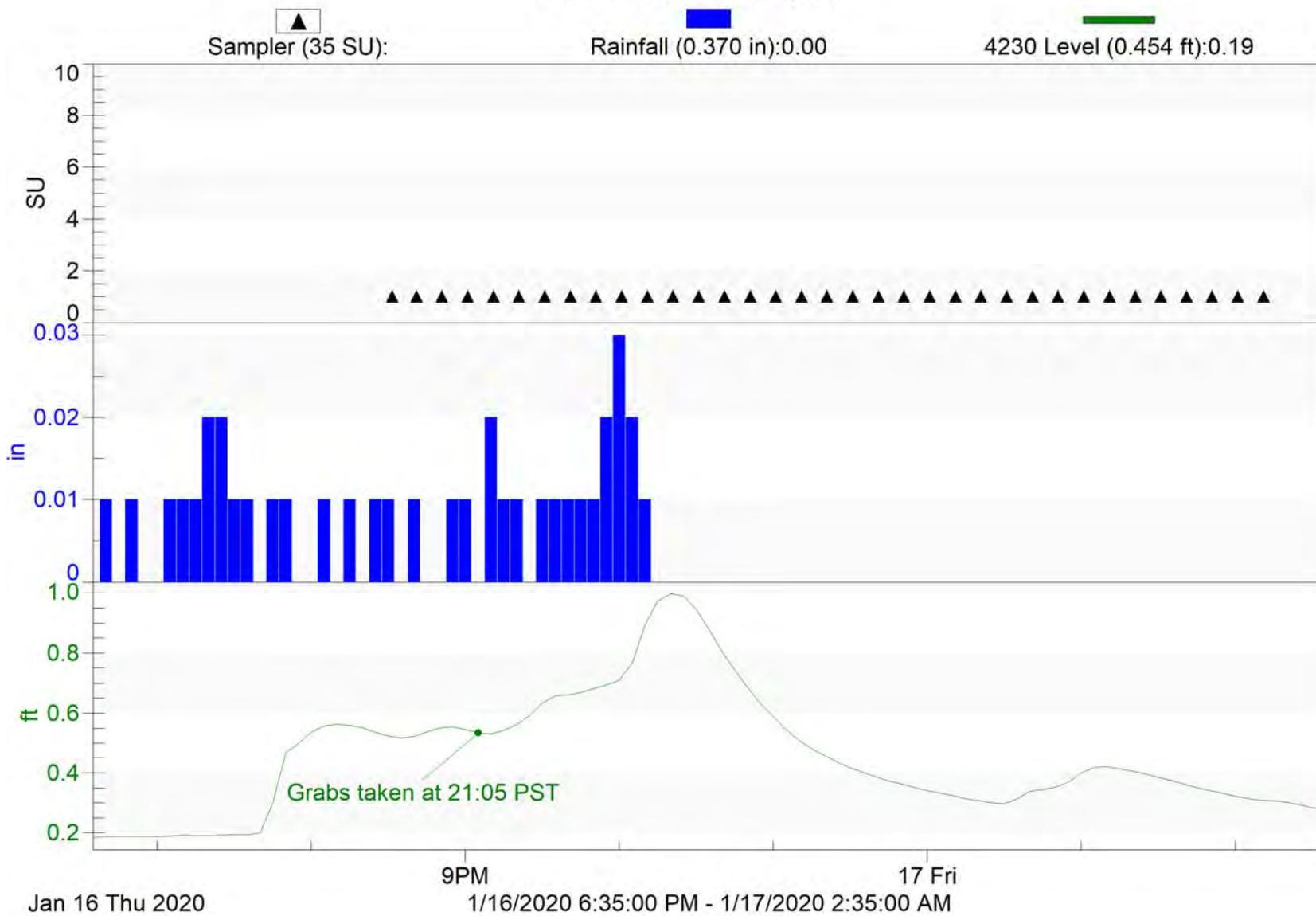
Fillmore-1

2019/20 NPDES Event #1 (Wet)



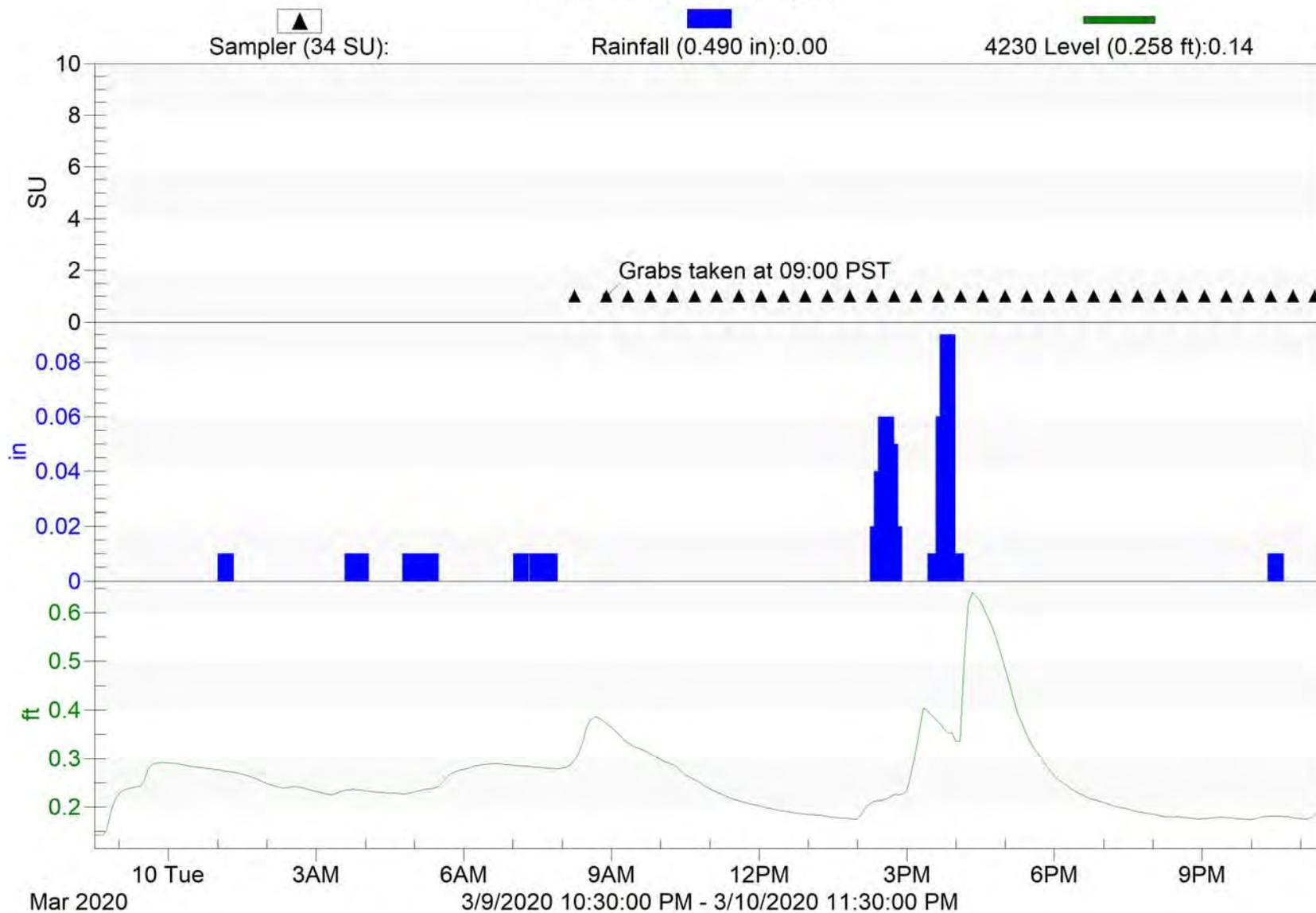
Fillmore-1

2019/20 NPDES Event #2 (Wet)



Fillmore-1

2019/20 NPDES Event #3 (Wet)

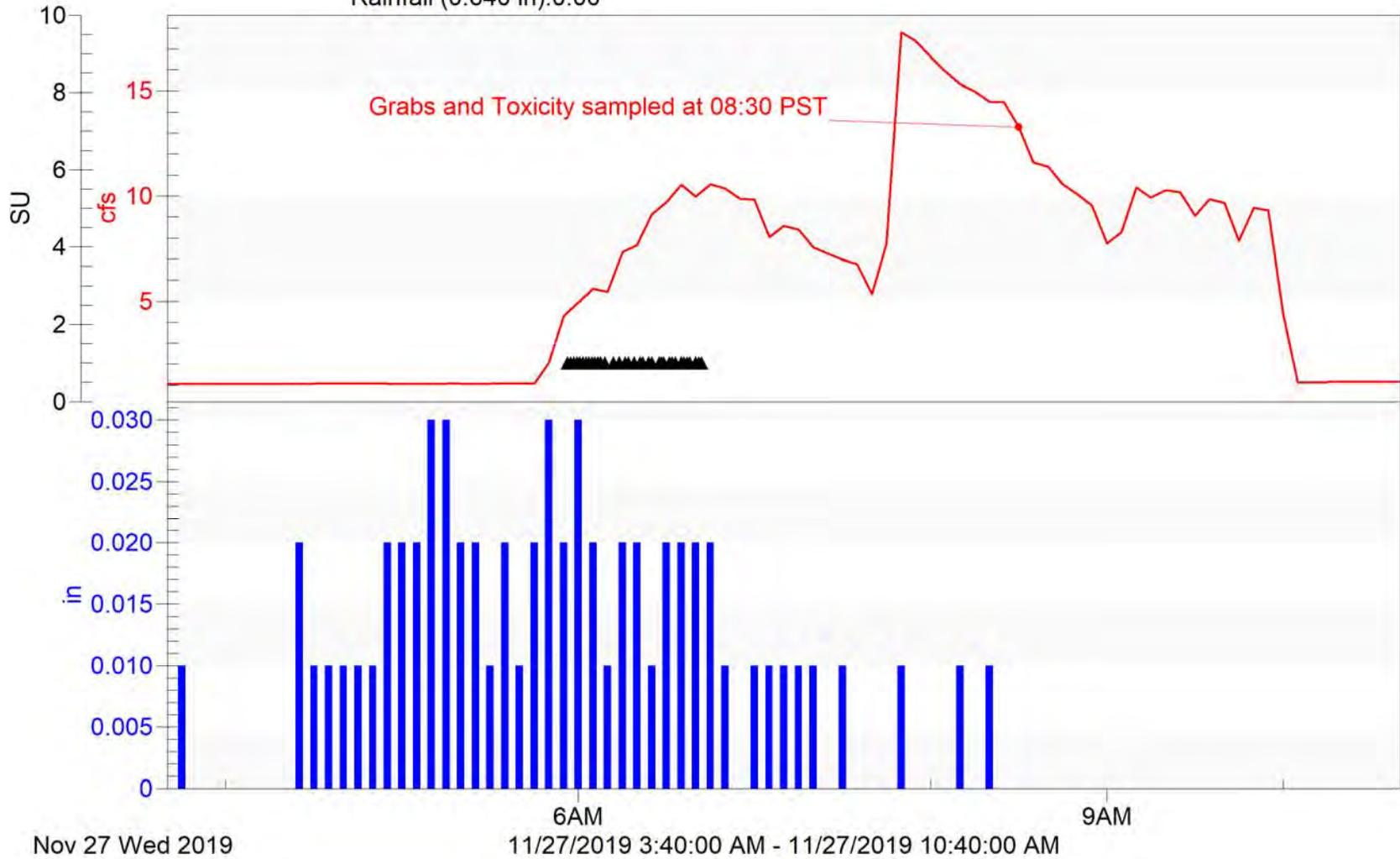


Meiners Oaks-1

2019/20 NPDES Event #1 (Wet)

█
 4230 Flow Rate (158815.25 cf):1.05
█
 Rainfall (0.640 in):0.00

▲
 Sampler (35 SU):



Meiners Oaks-1

2019/20 NPDES Event #2 (Wet)

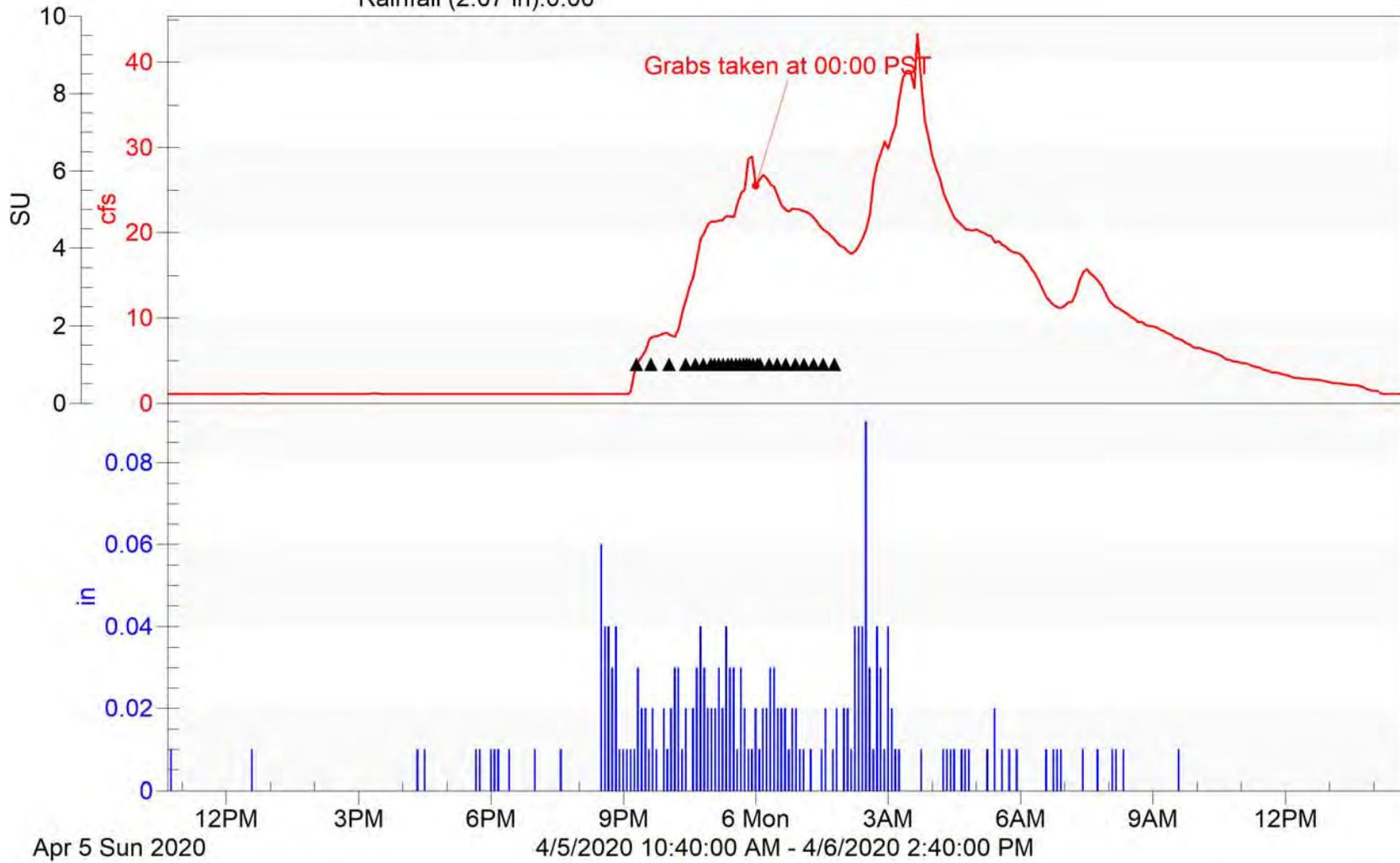


Meiners Oaks-1

2019/20 NPDES Event #4 (Wet)

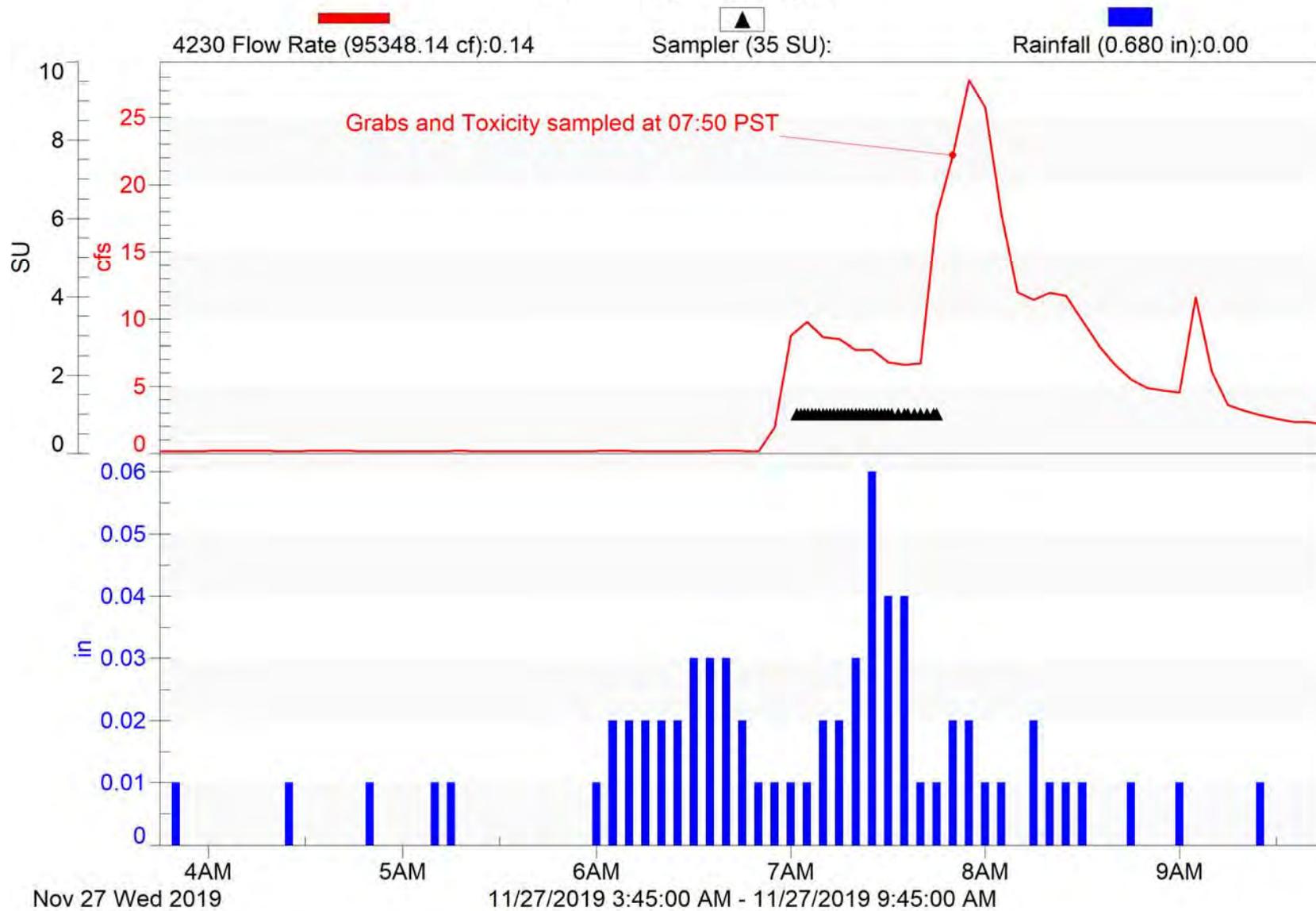
4230 Flow Rate (936327.03 cf):1.05
Rainfall (2.07 in):0.00

Sampler (28 SU):



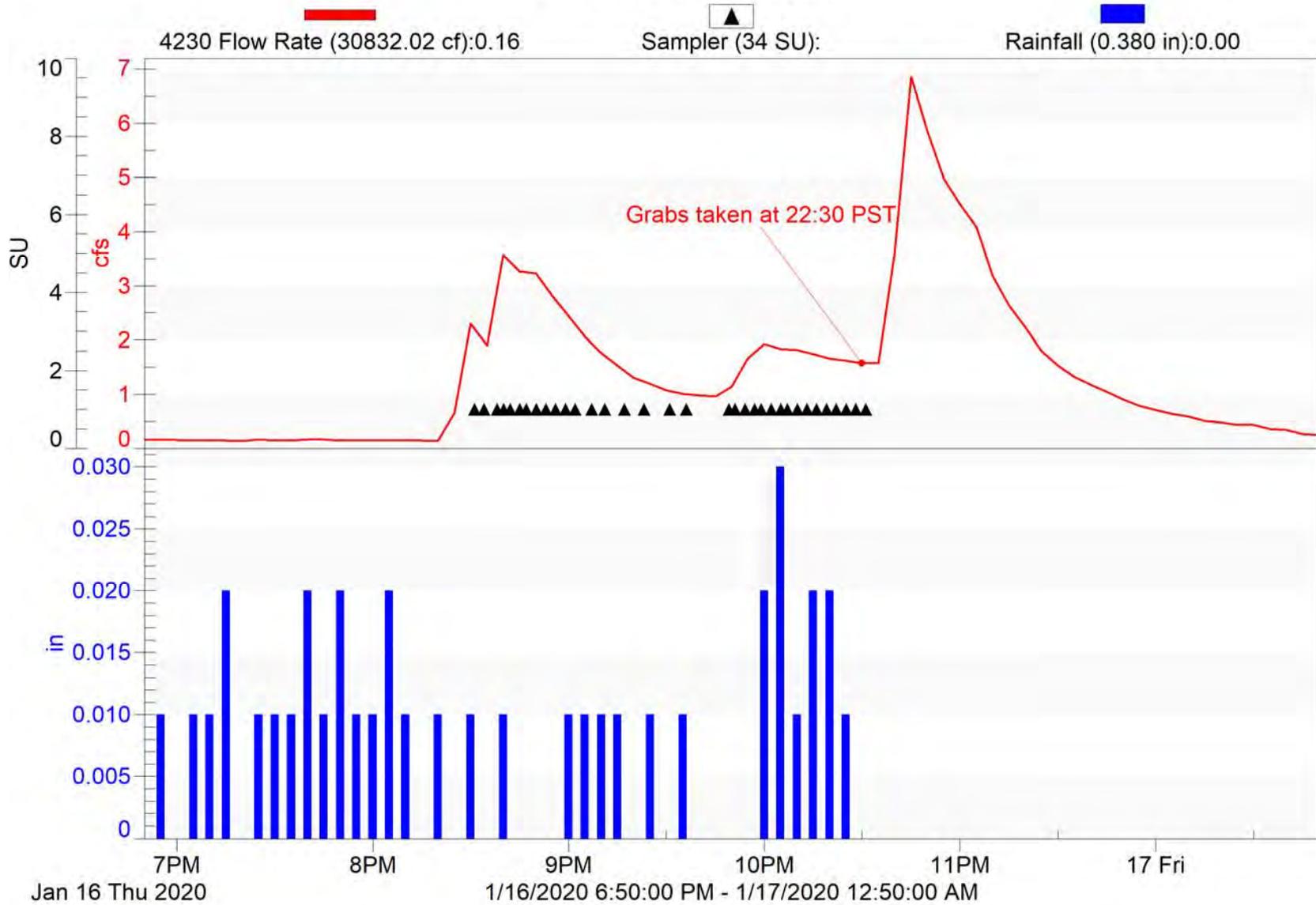
Moorpark-1

2019/20 NPDES Event #1 (Wet)



Moorpark-1

2019/20 NPDES Event #2 (Wet)

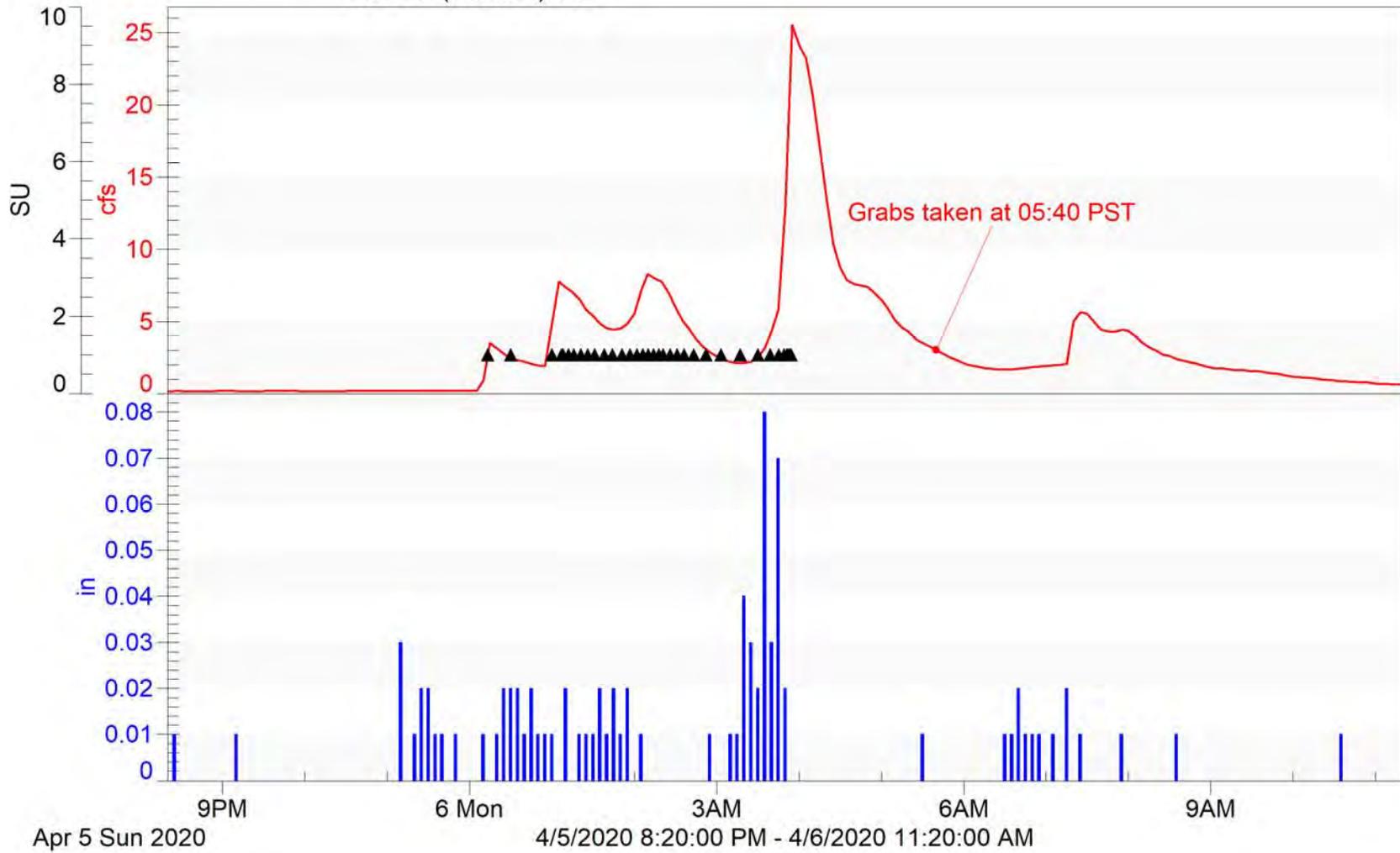


Moorpark-1

2019/20 NPDES Event #4 (Wet)

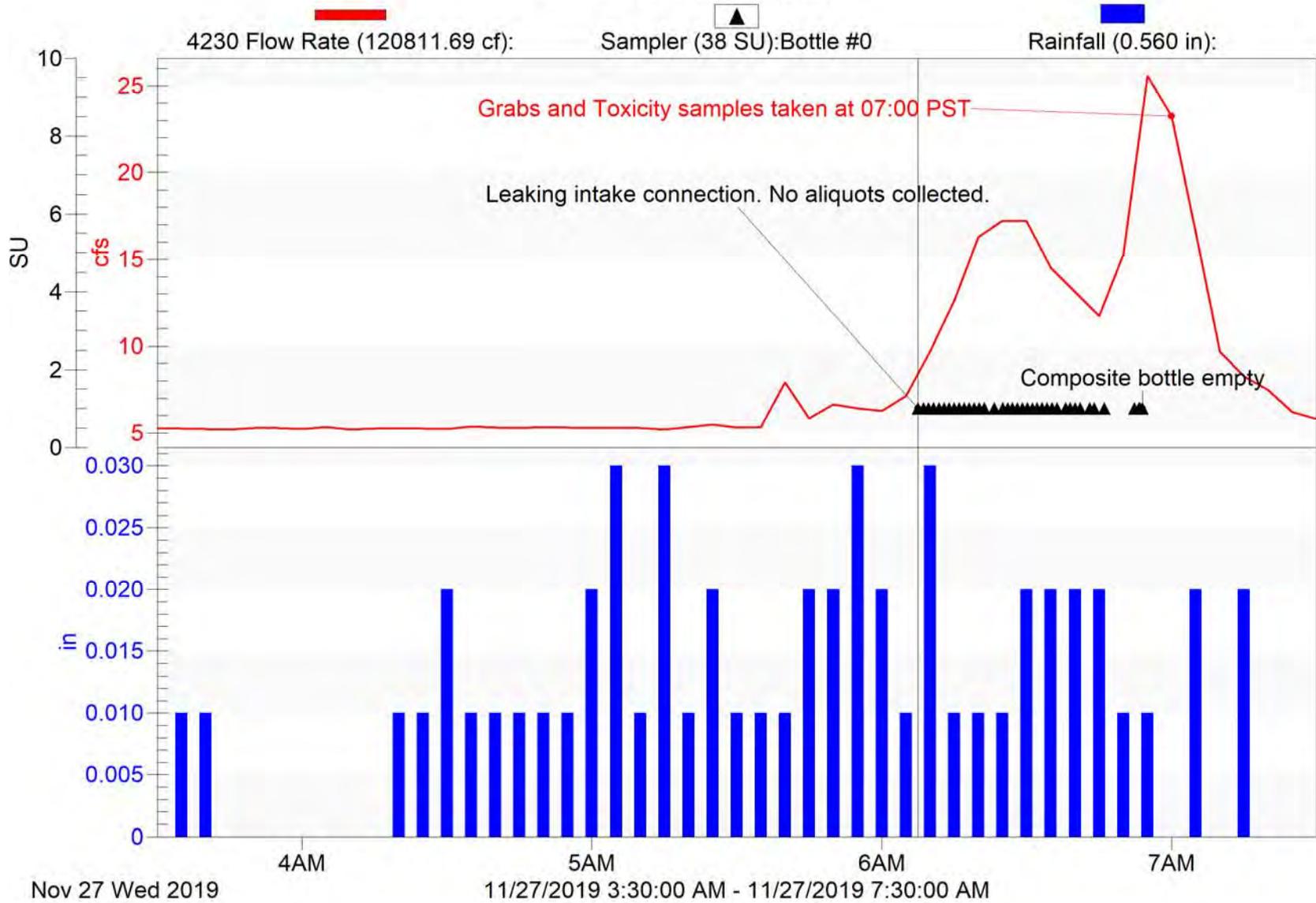
4230 Flow Rate (171850.63 cf):0.14
Rainfall (0.880 in):0.00

Sampler (35 SU):



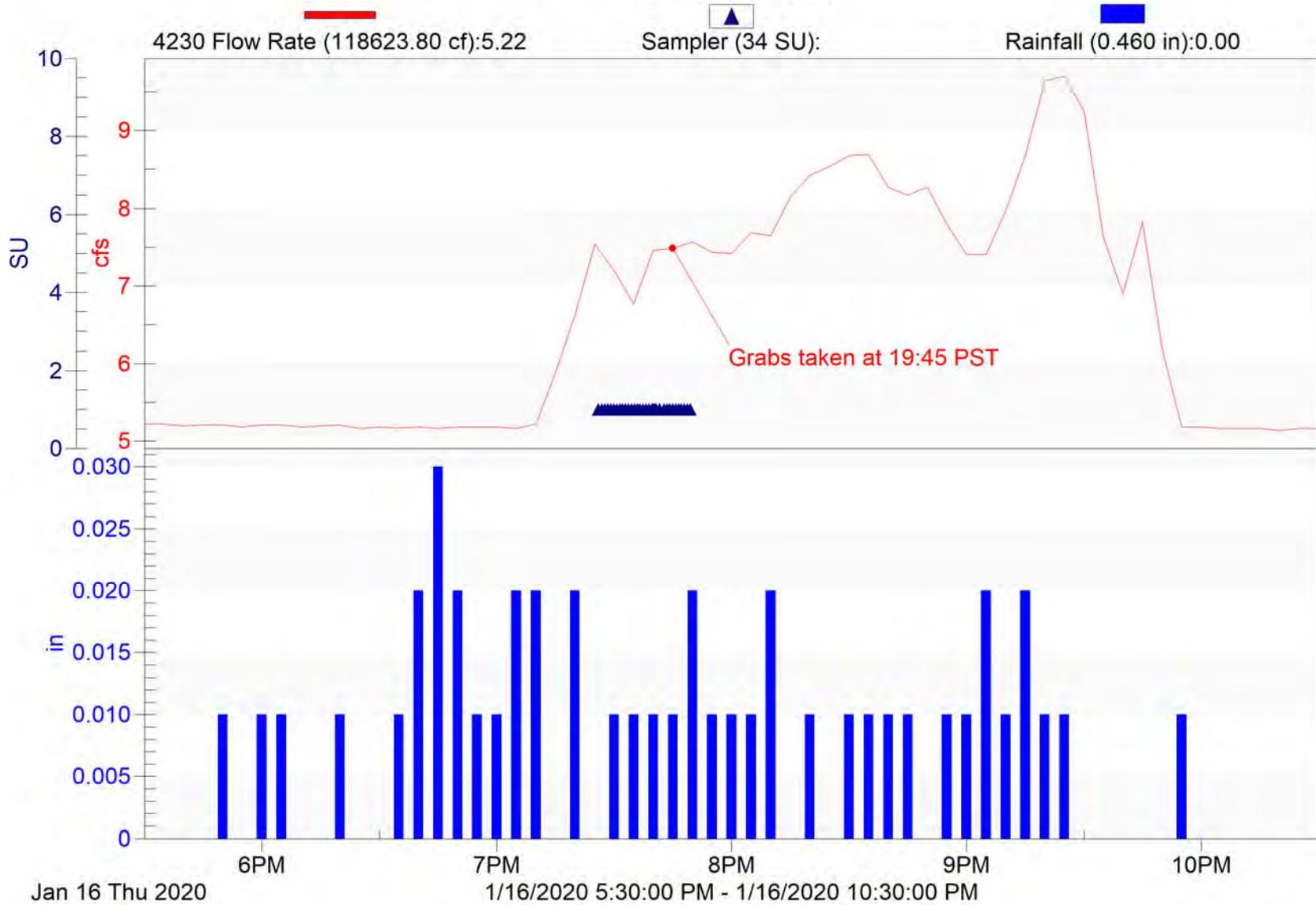
Ojai-1

2019/20 NPDES Event #1 (Wet)



Ojai-1

2019/20 NPDES Event #2 (Wet)

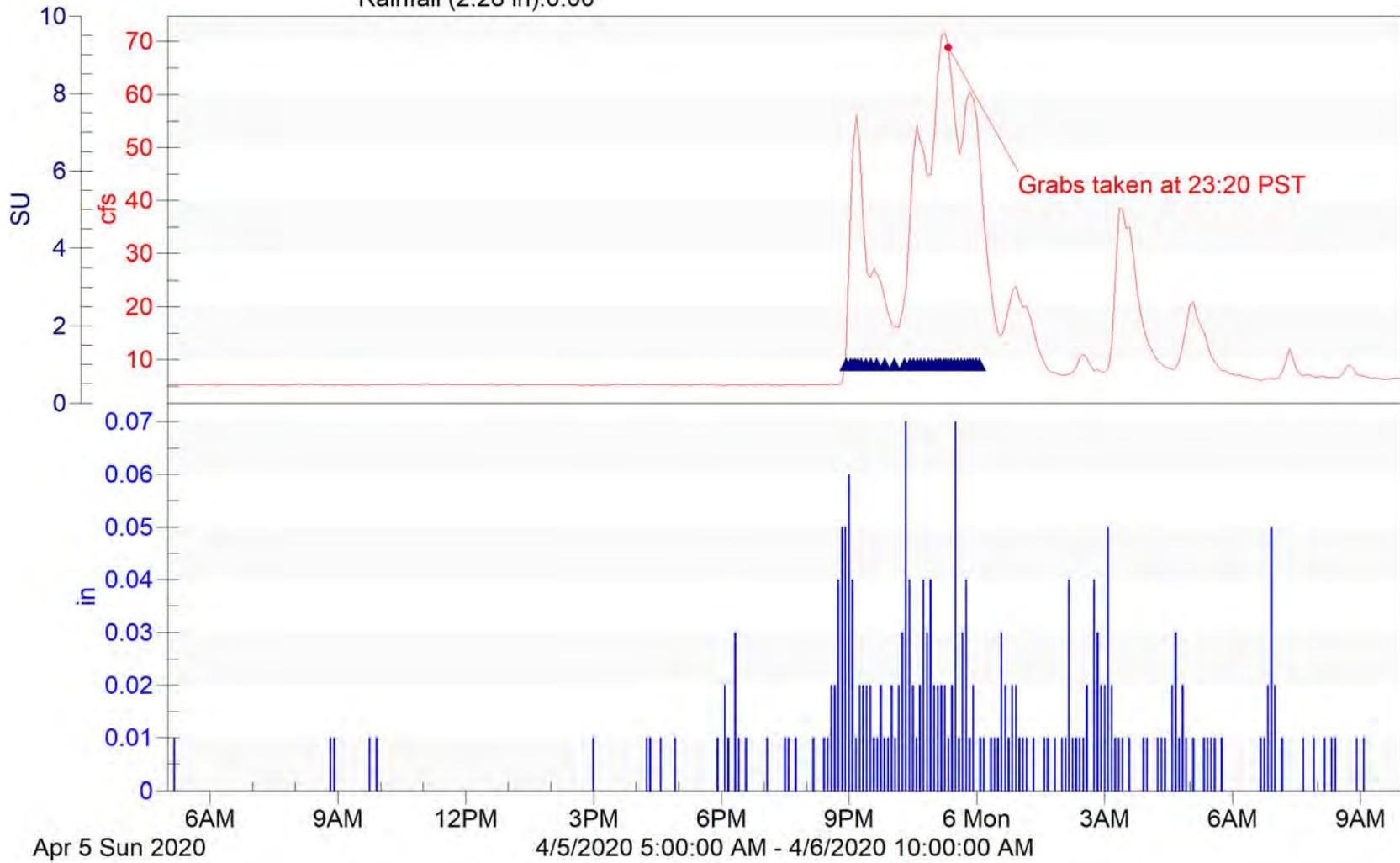


Ojai-1

2019/20 NPDES Event #4 (Wet)

4230 Flow Rate (1215042.08 cf):5.31
Rainfall (2.28 in):0.00

Sampler (35 SU):



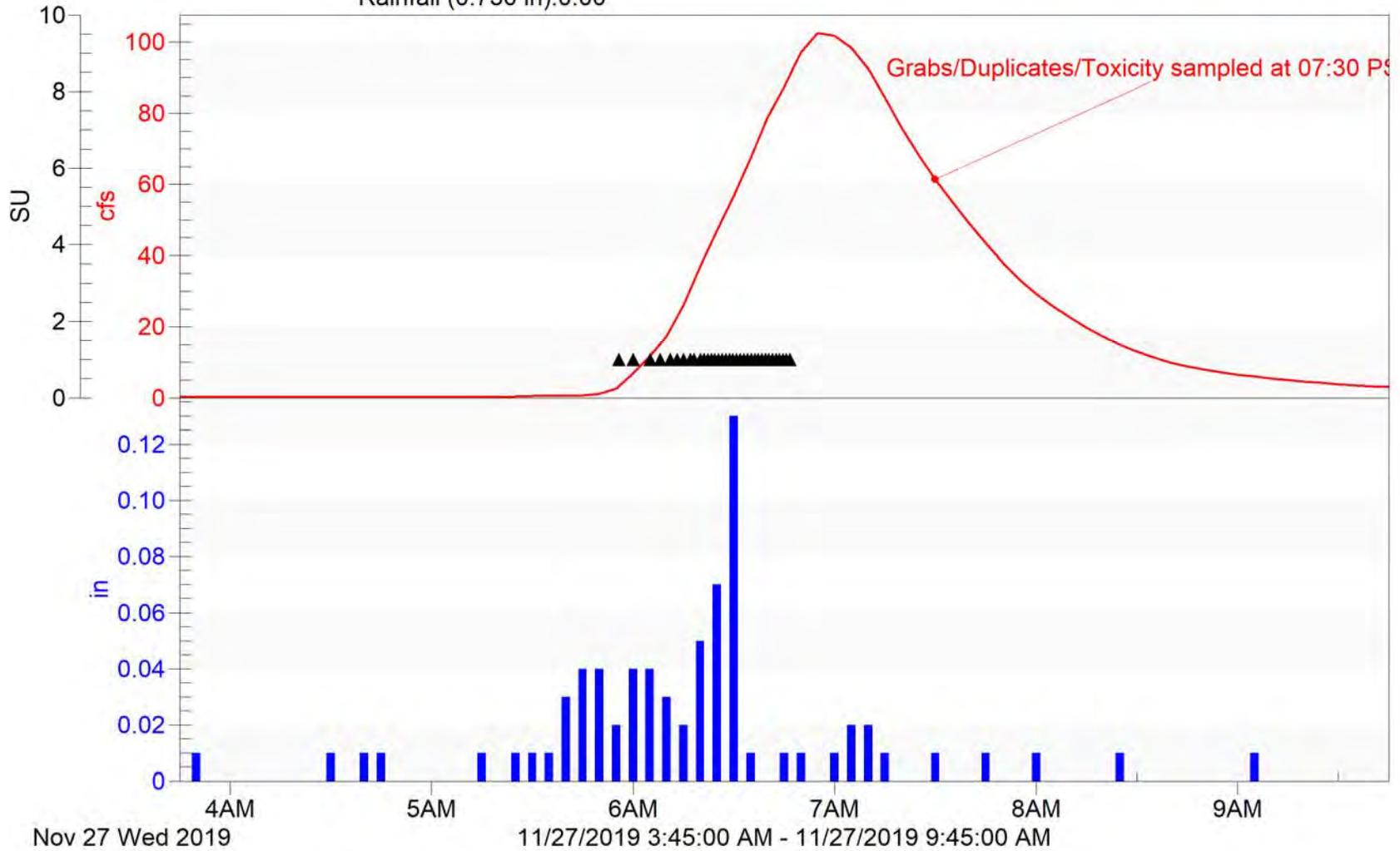
Oxnard-1

2019/20 NPDES Event #1 (Wet)

4230 Flow Rate (504635.68 cf):0.24

Rainfall (0.730 in):0.00

Sampler (35 SU):

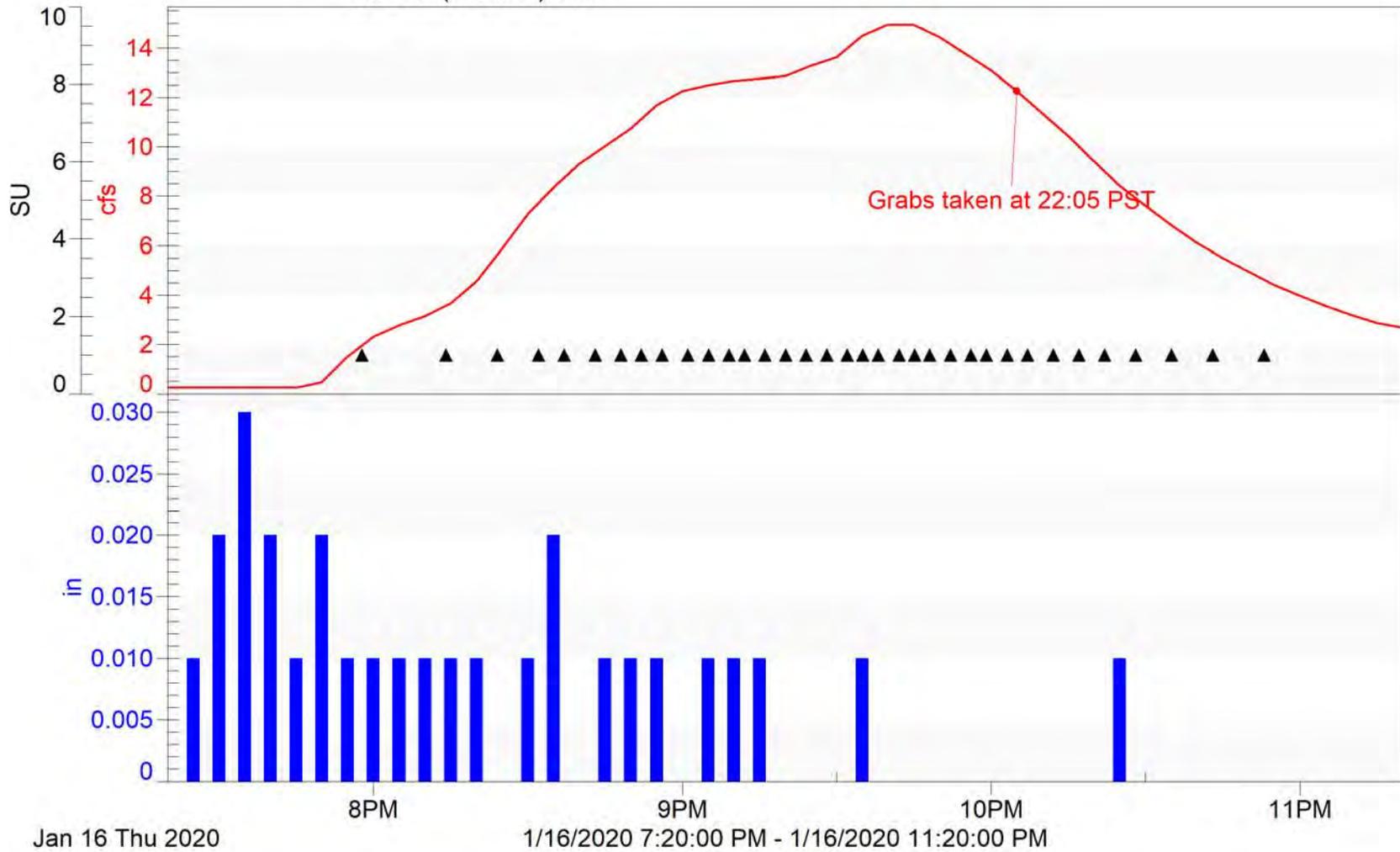


Oxnard-1

2019/20 NPDES Event #2 (Wet)

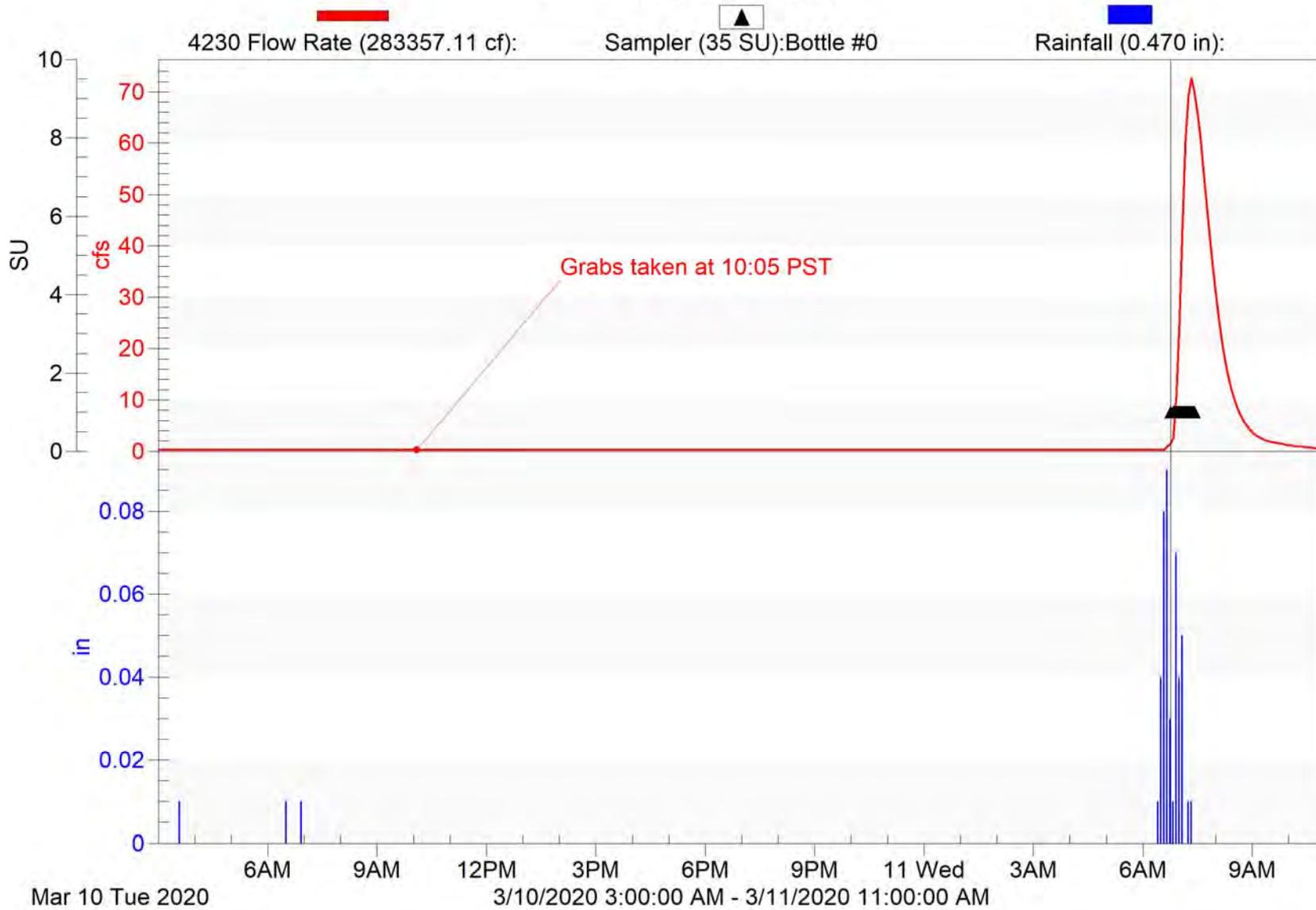
4230 Flow Rate (108608.67 cf):0.24
Rainfall (0.280 in):0.00

Sampler (35 SU):



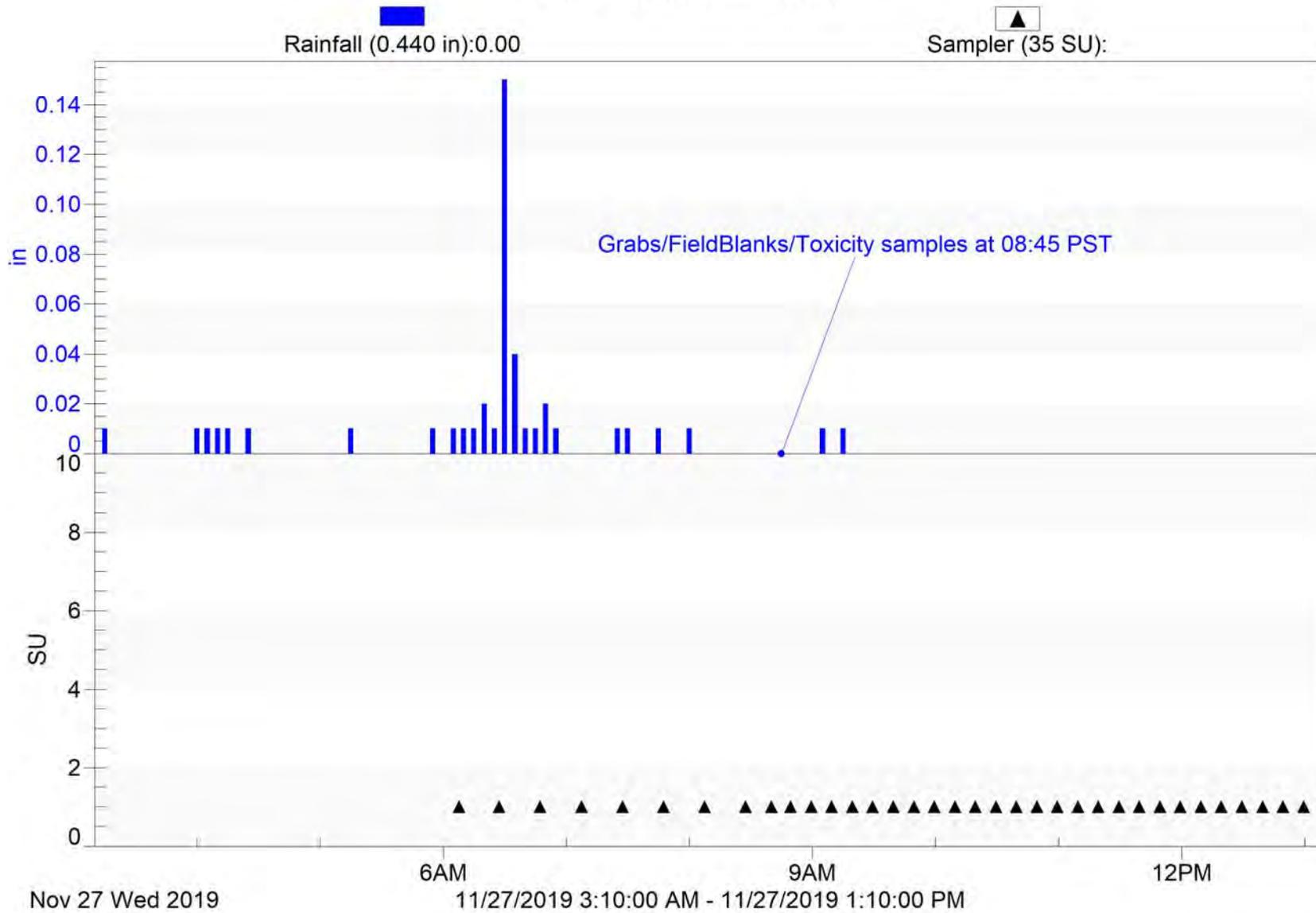
Oxnard-1

2019/20 NPDES Event #3 (Wet)



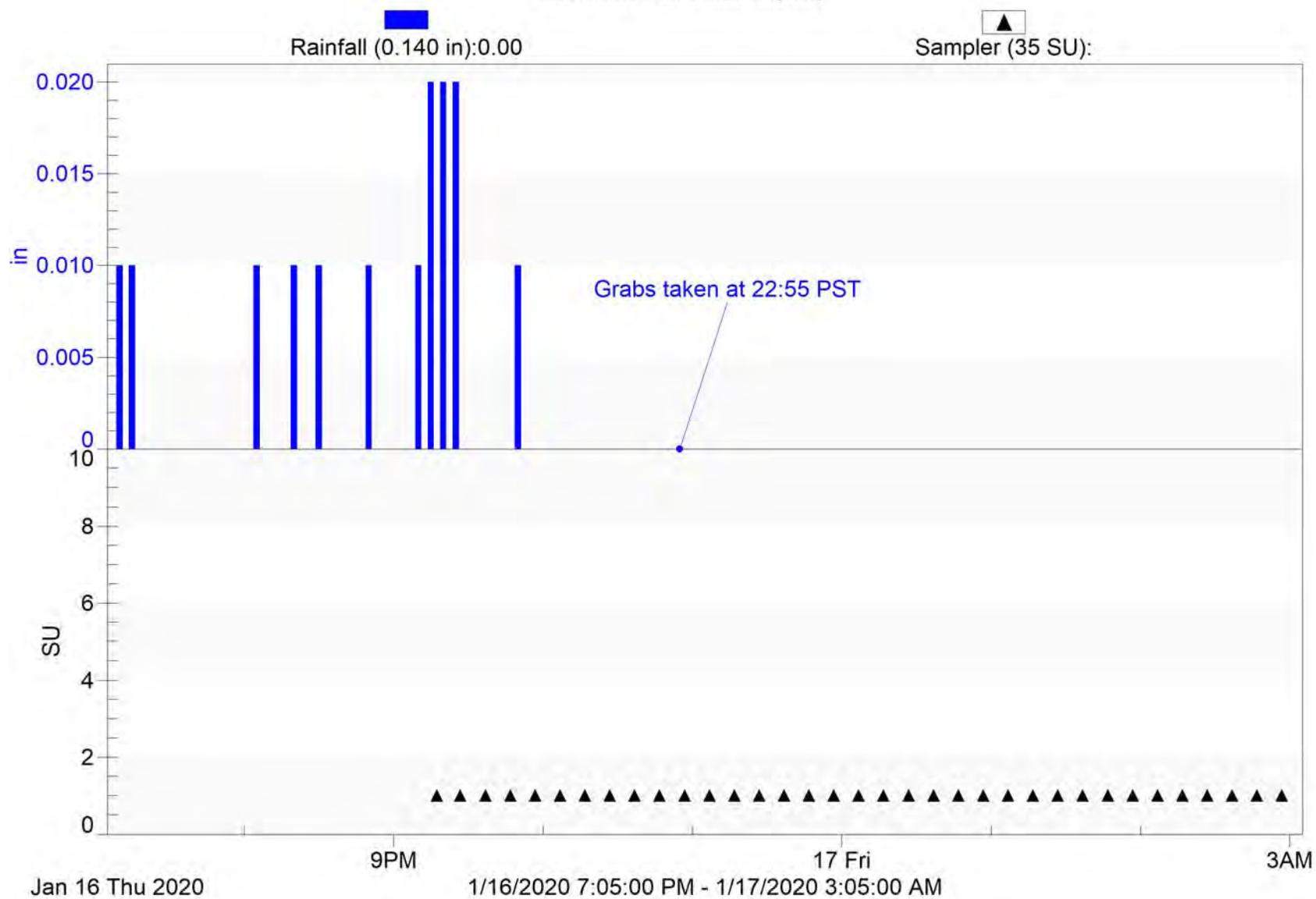
Port Hueneme-1

2019/20 NPDES Event #1 (Wet)



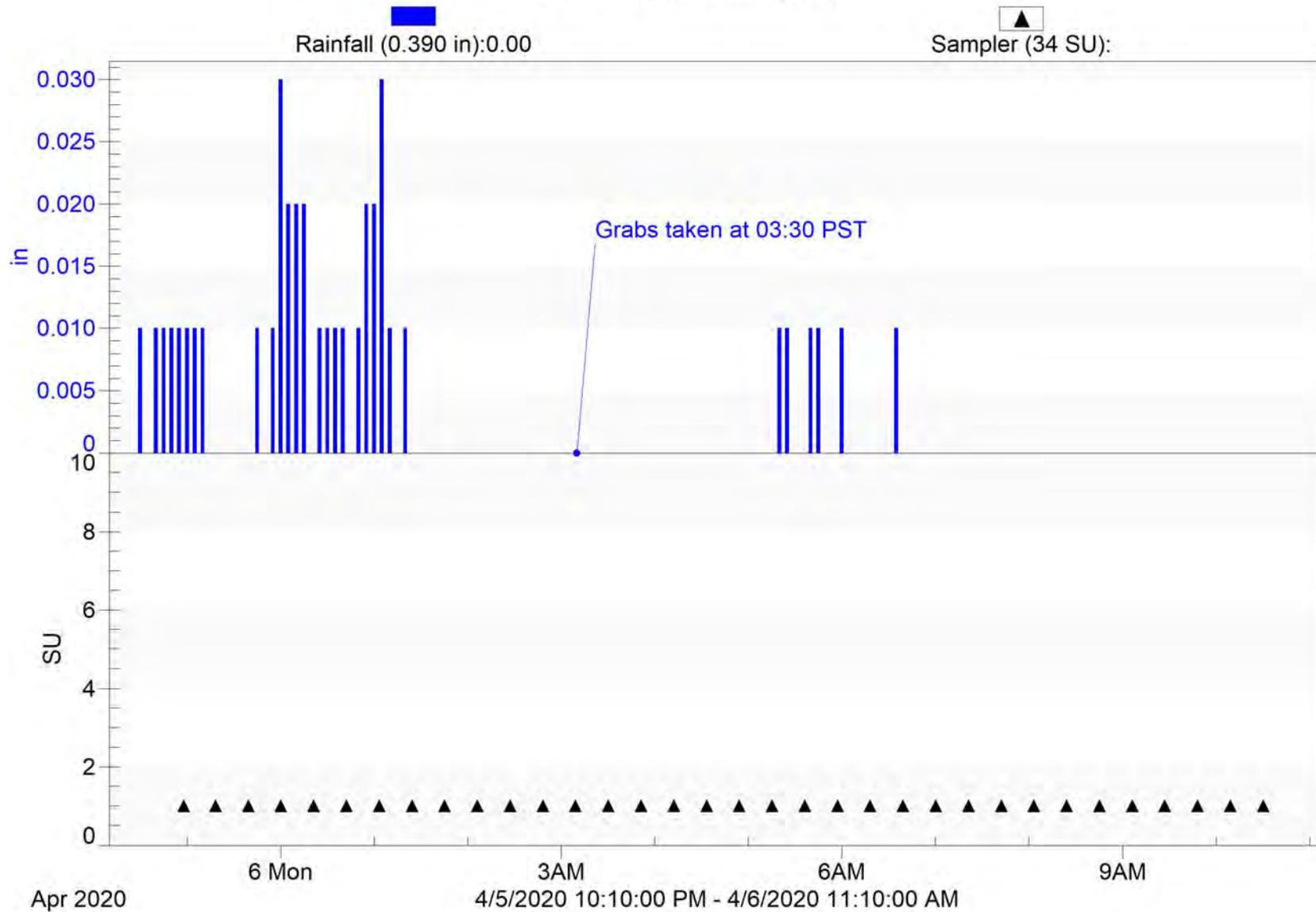
Port Hueneme-1

2019/20 NPDES Event #2 (Wet)



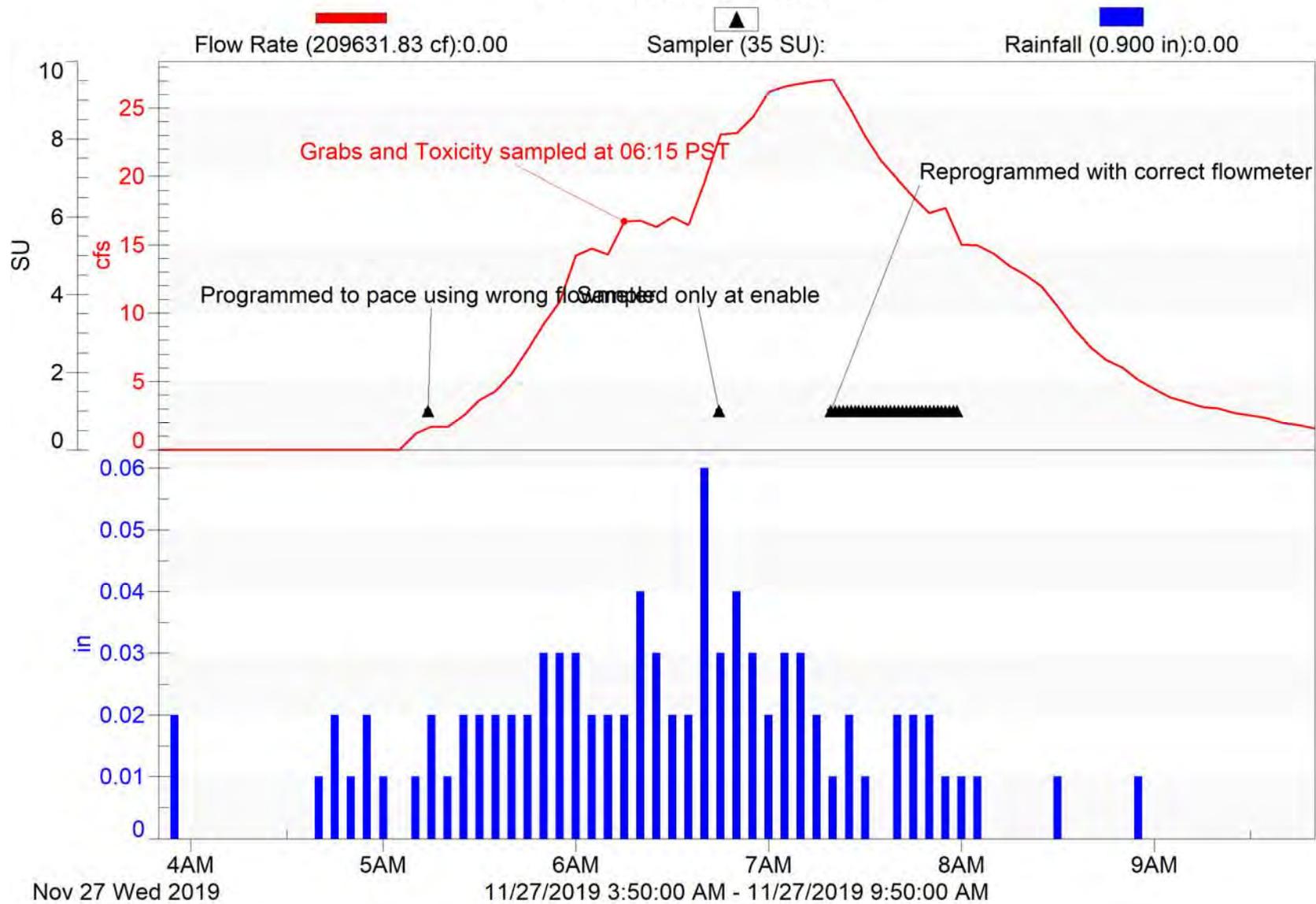
Port Hueneme-1

2019/20 NPDES Event #4 (Wet)



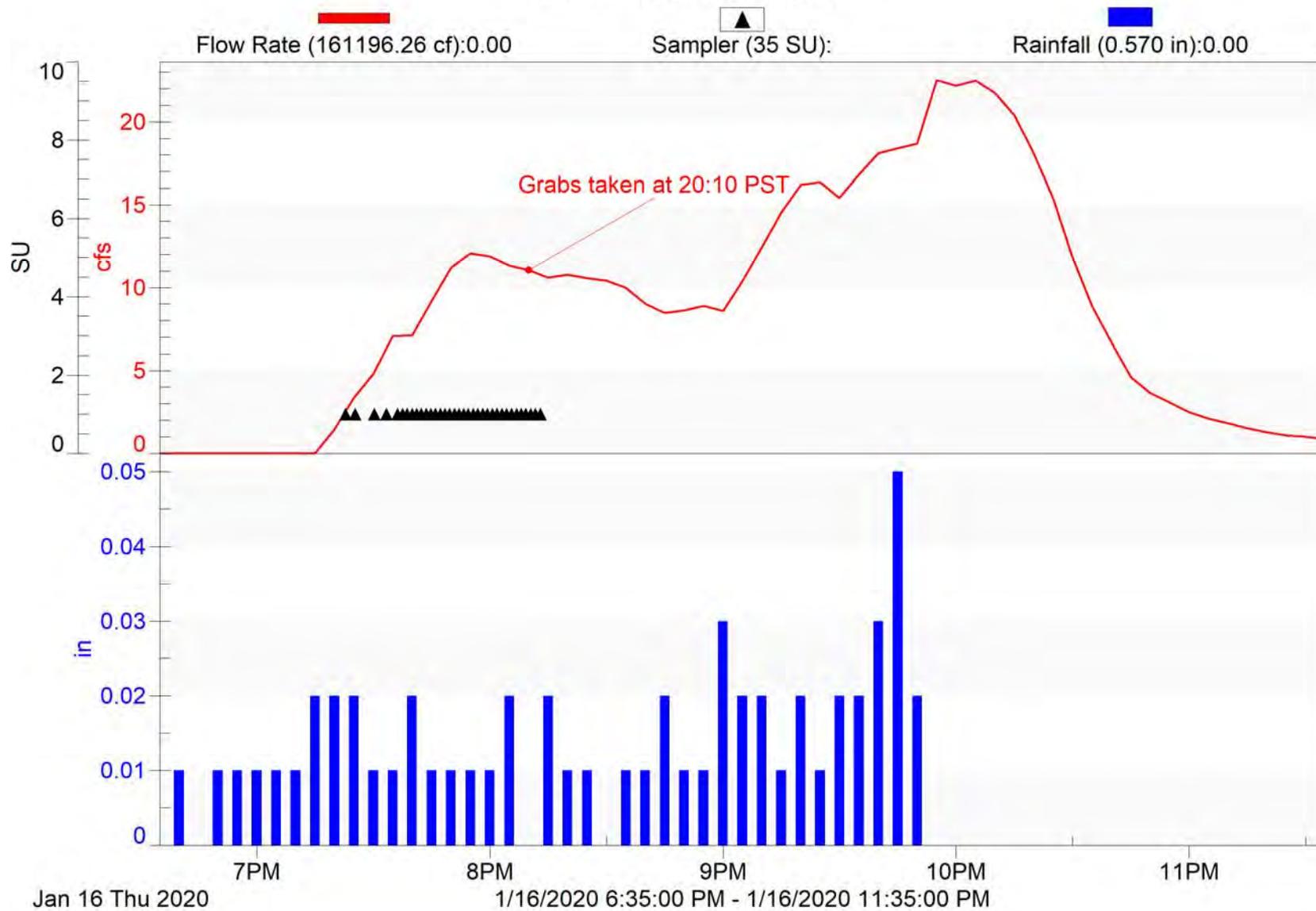
Santa Paula-1

2019/20 NPDES Event #1 (Wet)



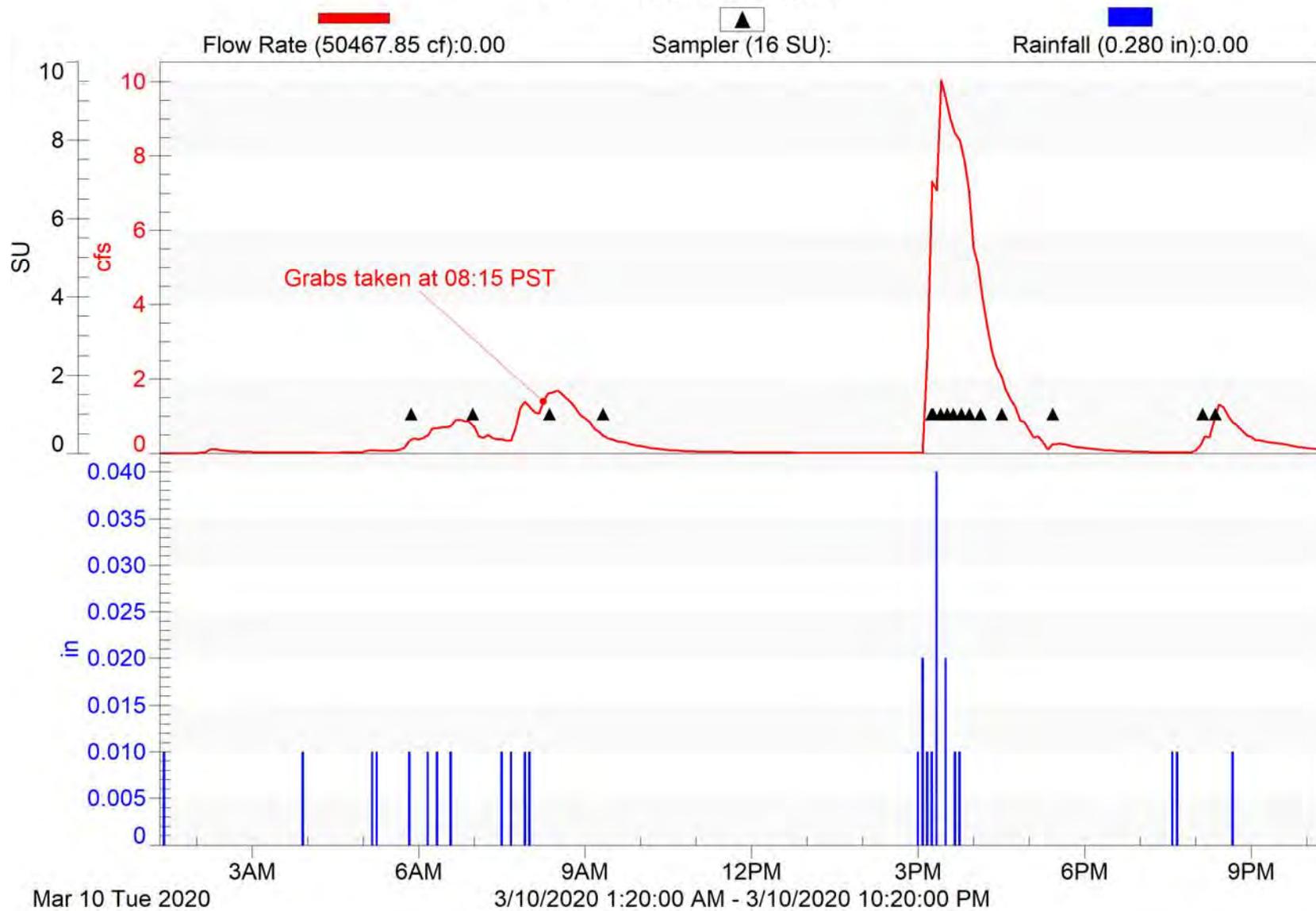
Santa Paula-1

2019/20 NPDES Event #2 (Wet)



Santa Paula-1

2019/20 NPDES Event #3 (Wet)



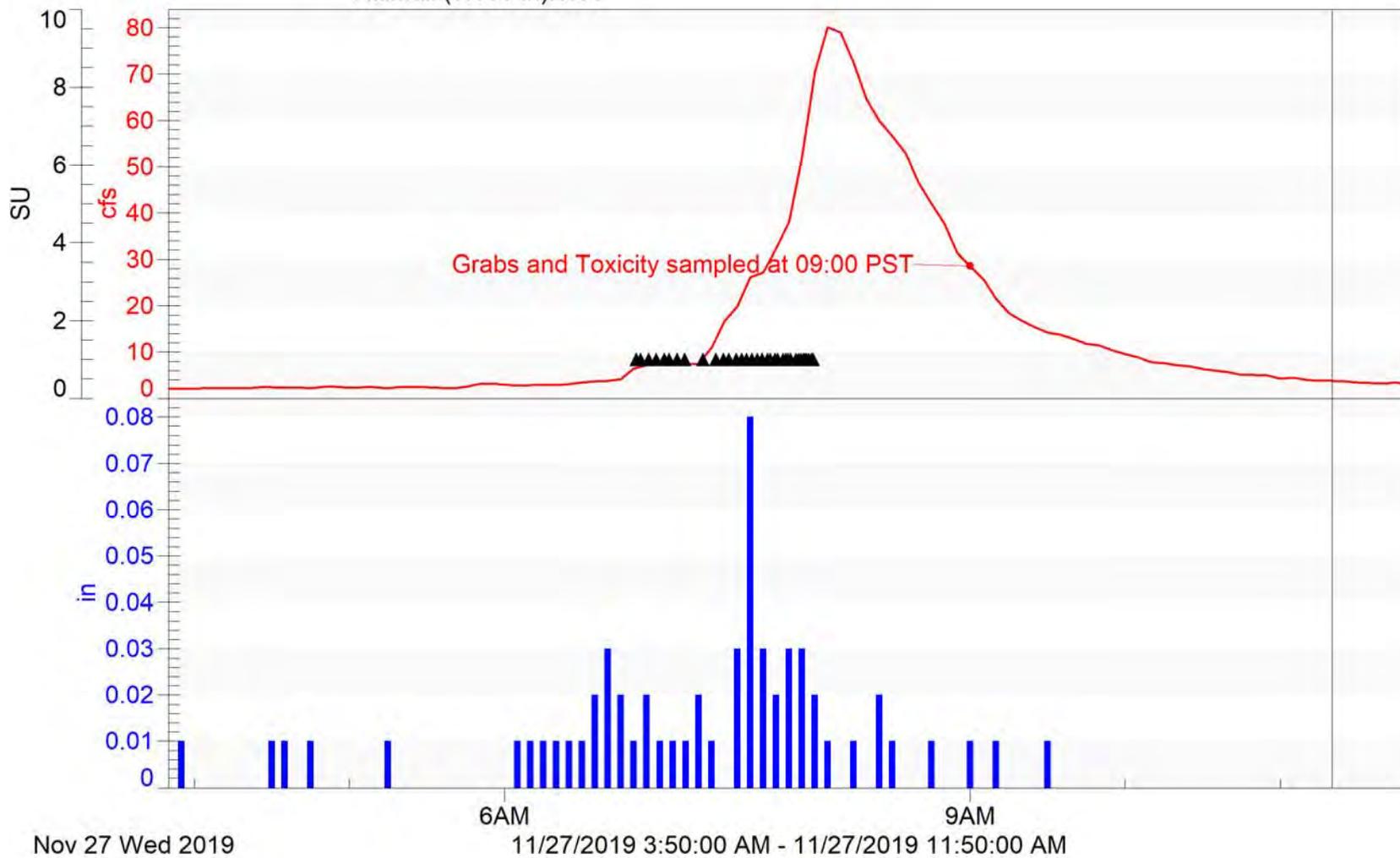
Simi Valley-1

2019/20 NPDES Event #1 (Wet)

4230 Flow Rate (412037.33 cf):3.72

Sampler (35 SU):

Rainfall (0.600 in):0.00

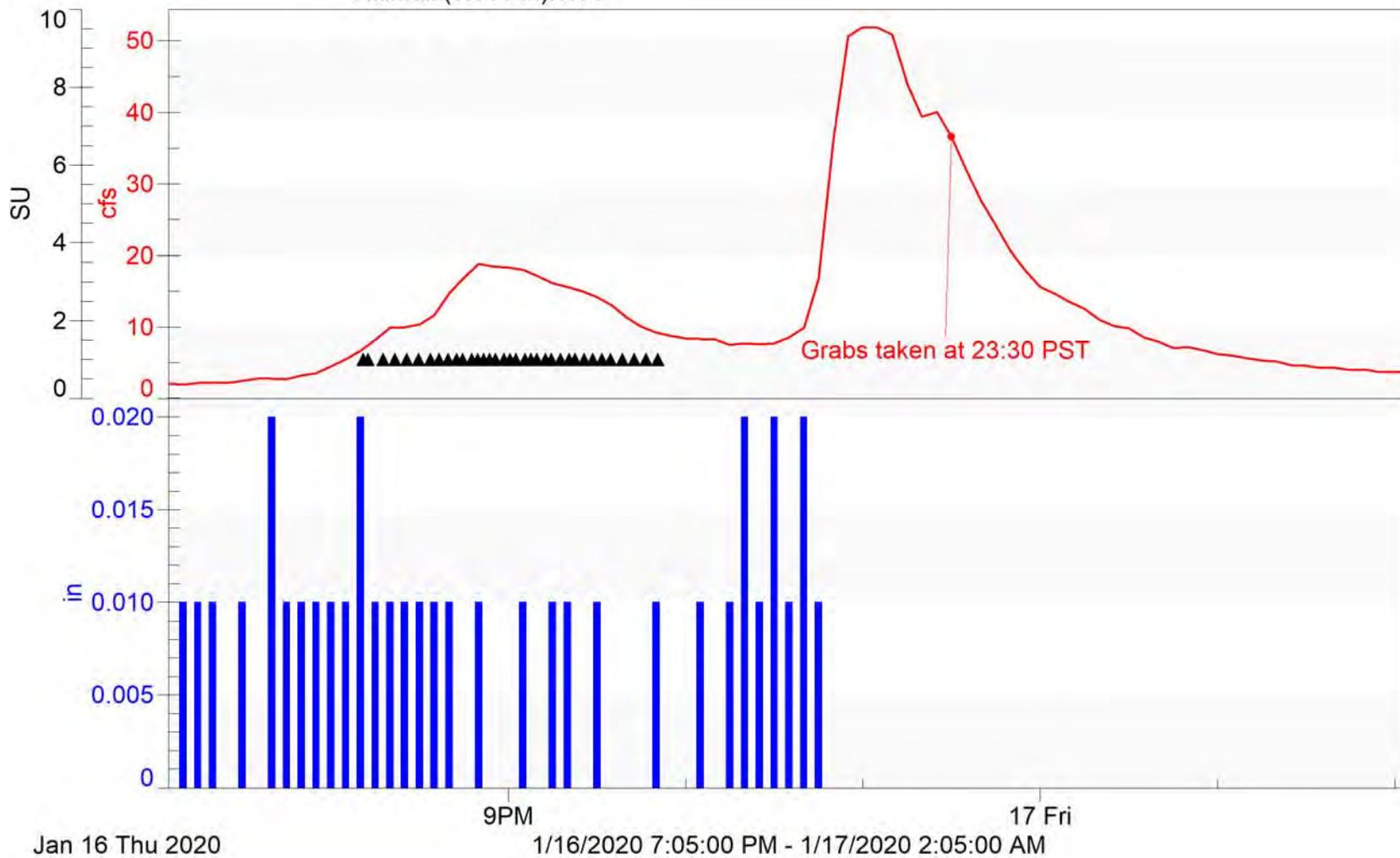


Simi Valley-1

2019/20 NPDES Event #2 (Wet)

█
 4230 Flow Rate (339824.68 cf):2.10
█
 Rainfall (0.360 in):0.00

▲
 Sampler (35 SU):

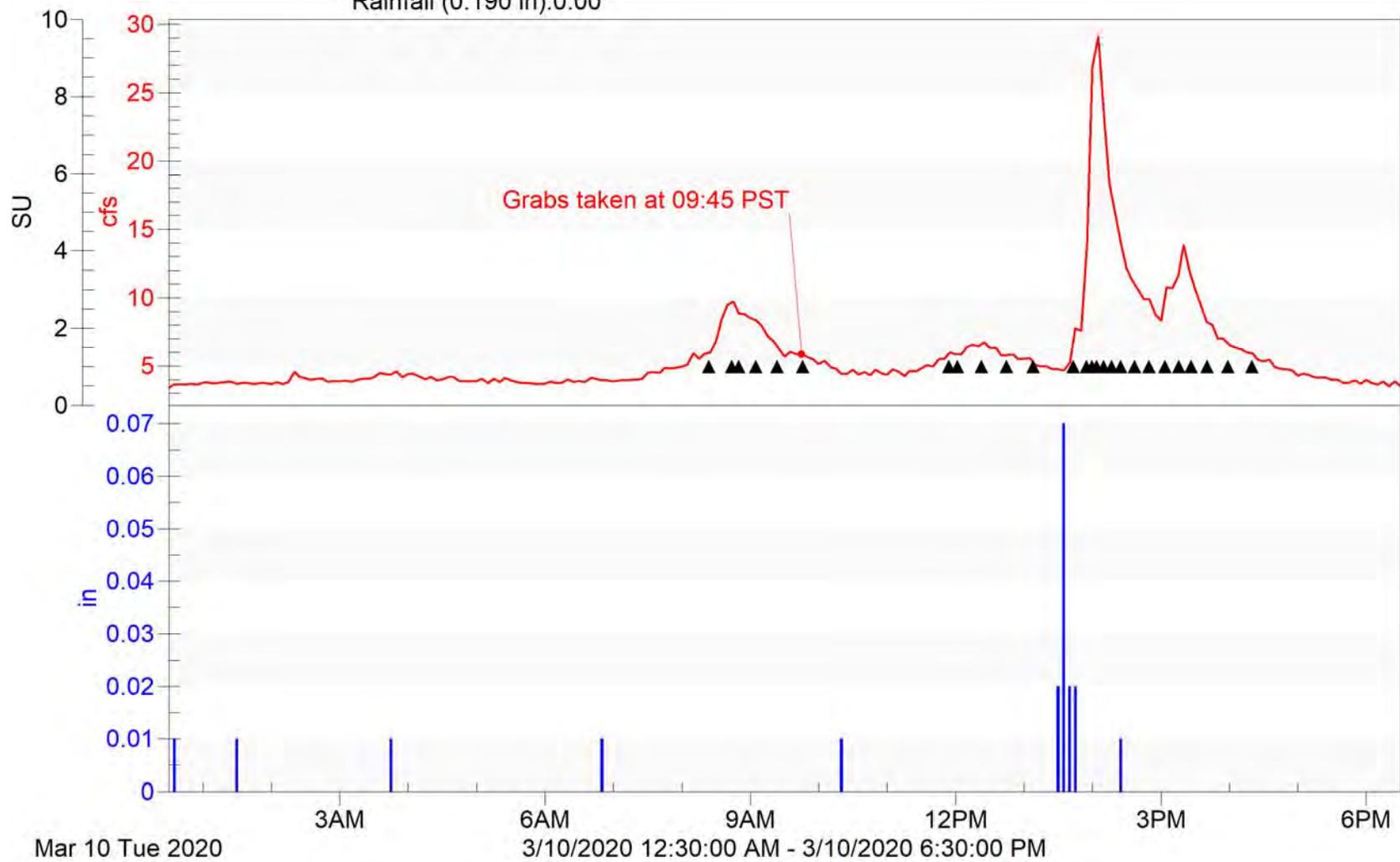


Simi Valley-1

2019/20 NPDES Event #3 (Wet)

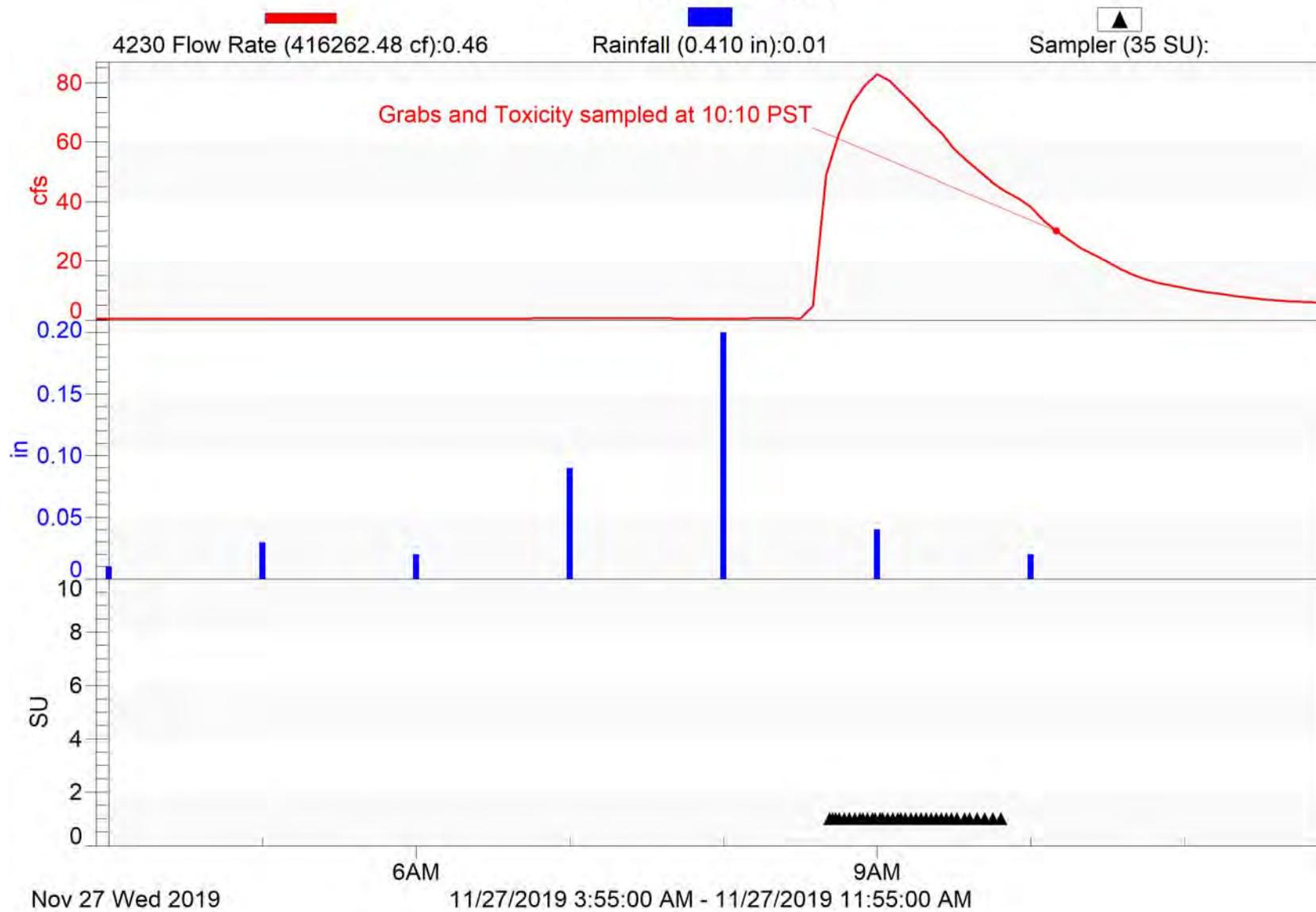
4230 Flow Rate (370367.28 cf):3.41
Rainfall (0.190 in):0.00

Sampler (26 SU):



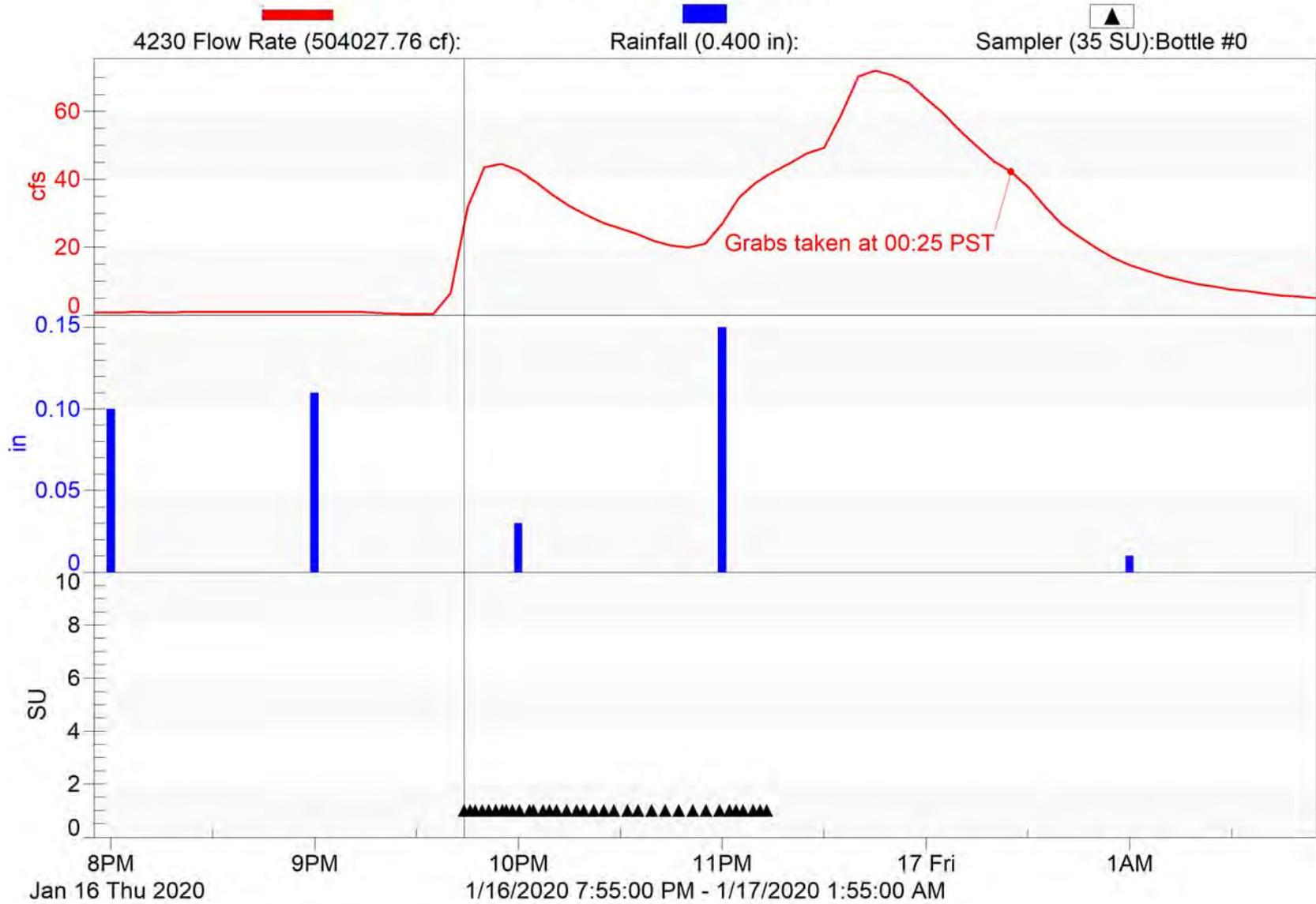
Thousand Oaks-1

2019/20 NPDES Event #1 (Wet)



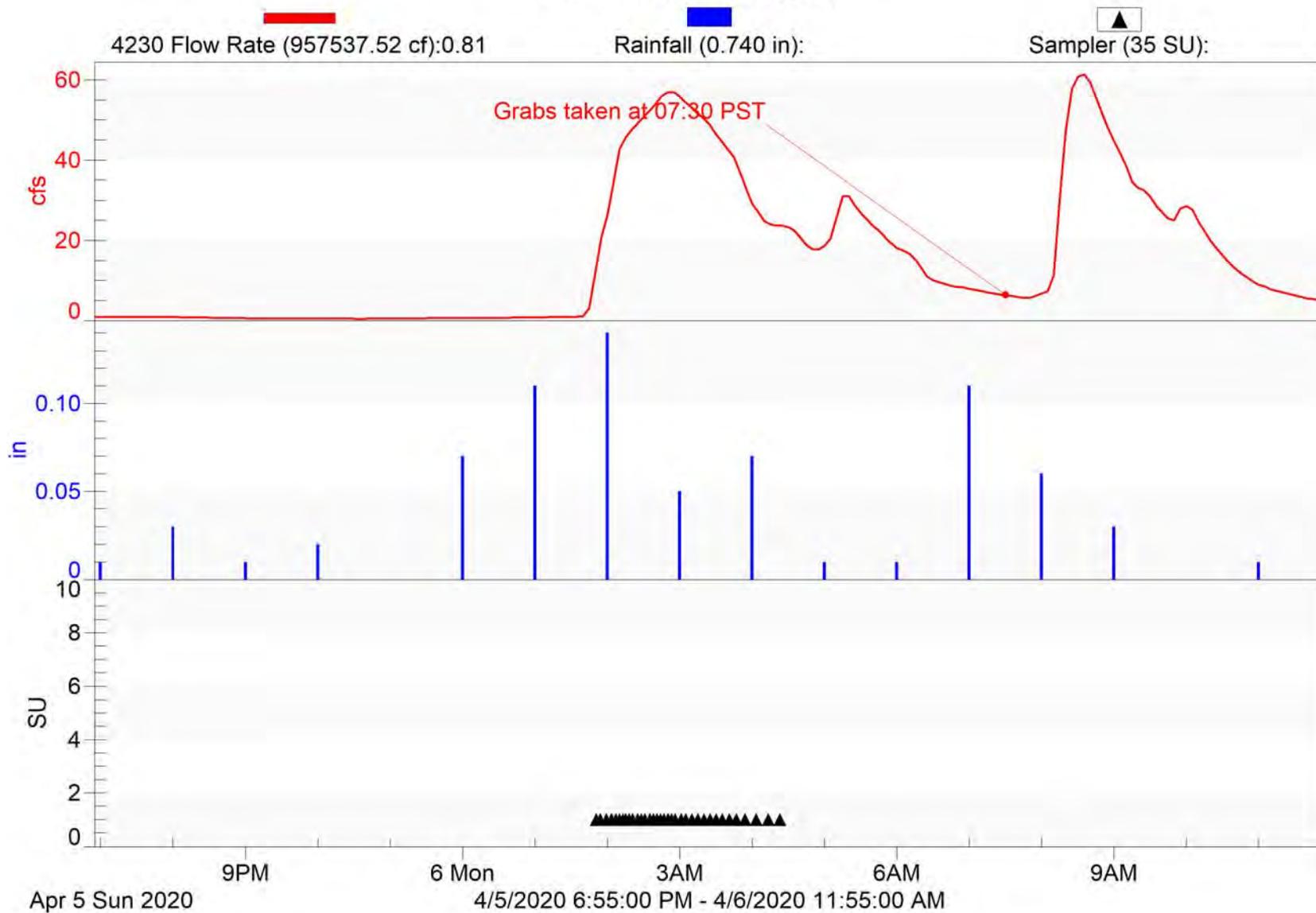
Thousand Oaks-1

2019/20 NPDES Event #2 (Wet)



Thousand Oaks-1

2019/20 NPDES Event #4 (Wet)



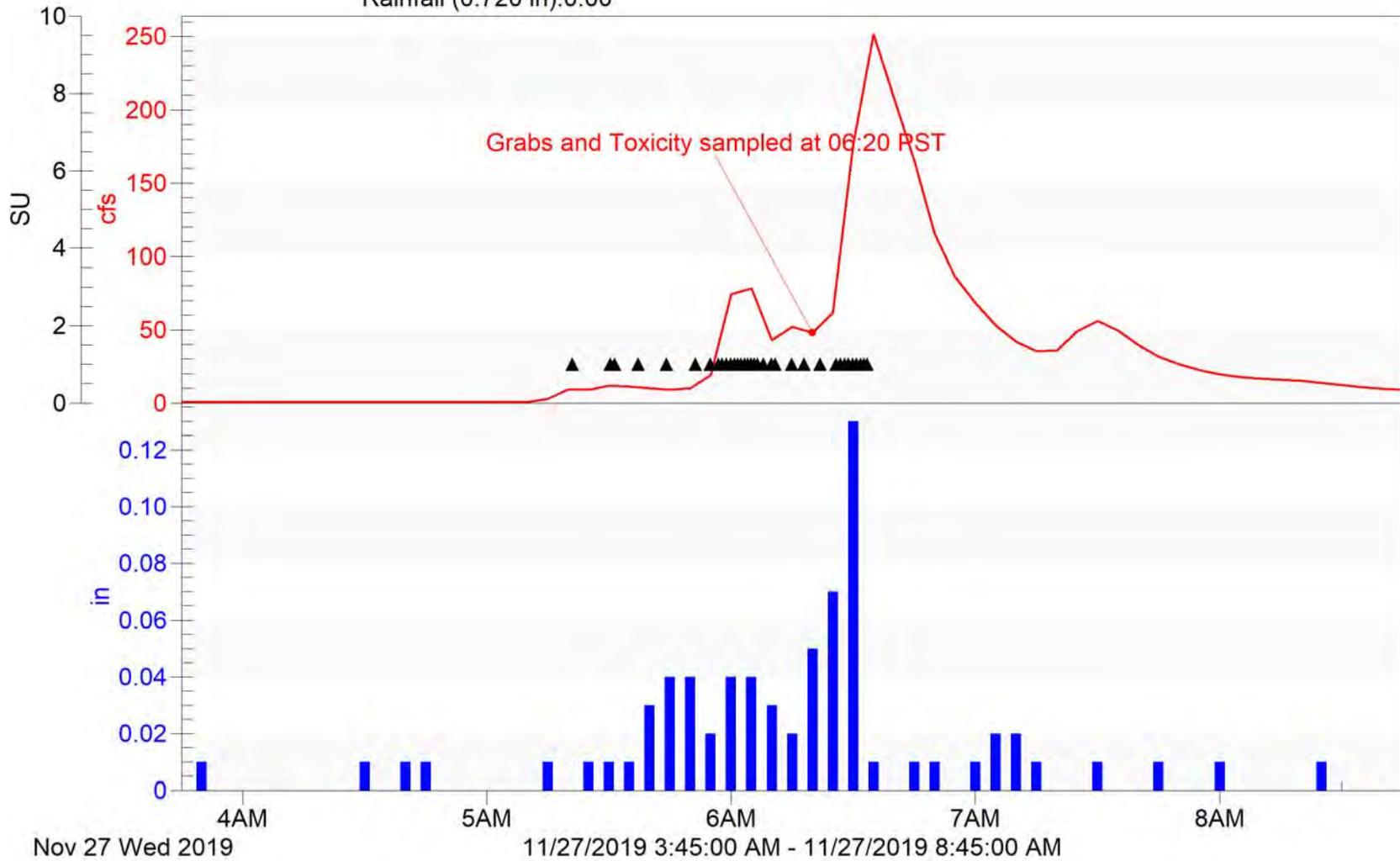
Ventura-1

2019/20 NPDES Event #1 (Wet)

4230 Flow Rate (633376.98 cf):0.52

Rainfall (0.720 in):0.00

Sampler (34 SU):



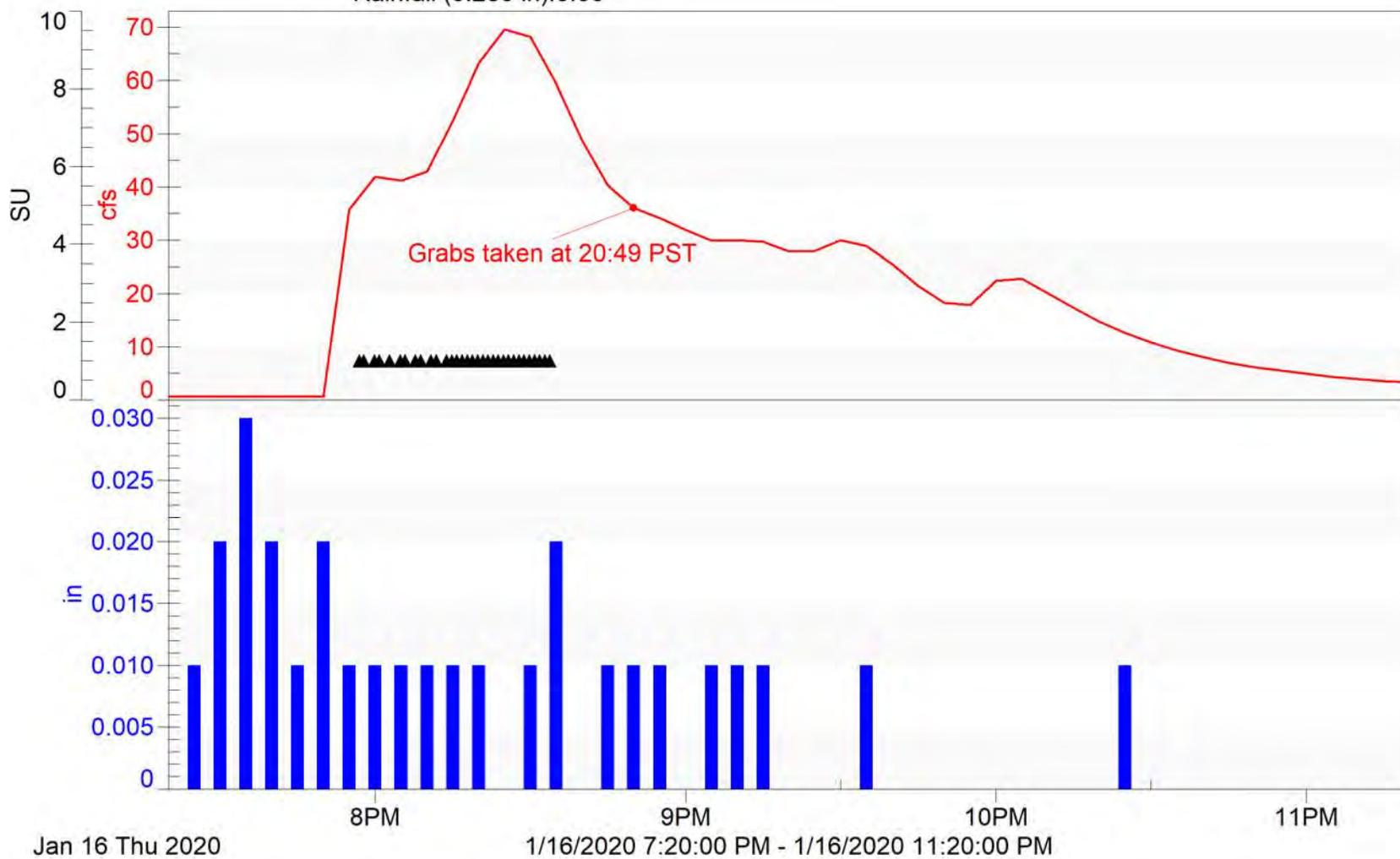
Ventura-1

2019/20 NPDES Event #2 (Wet)

4230 Flow Rate (339539.38 cf):0.52

Rainfall (0.280 in):0.00

Sampler (32 SU):



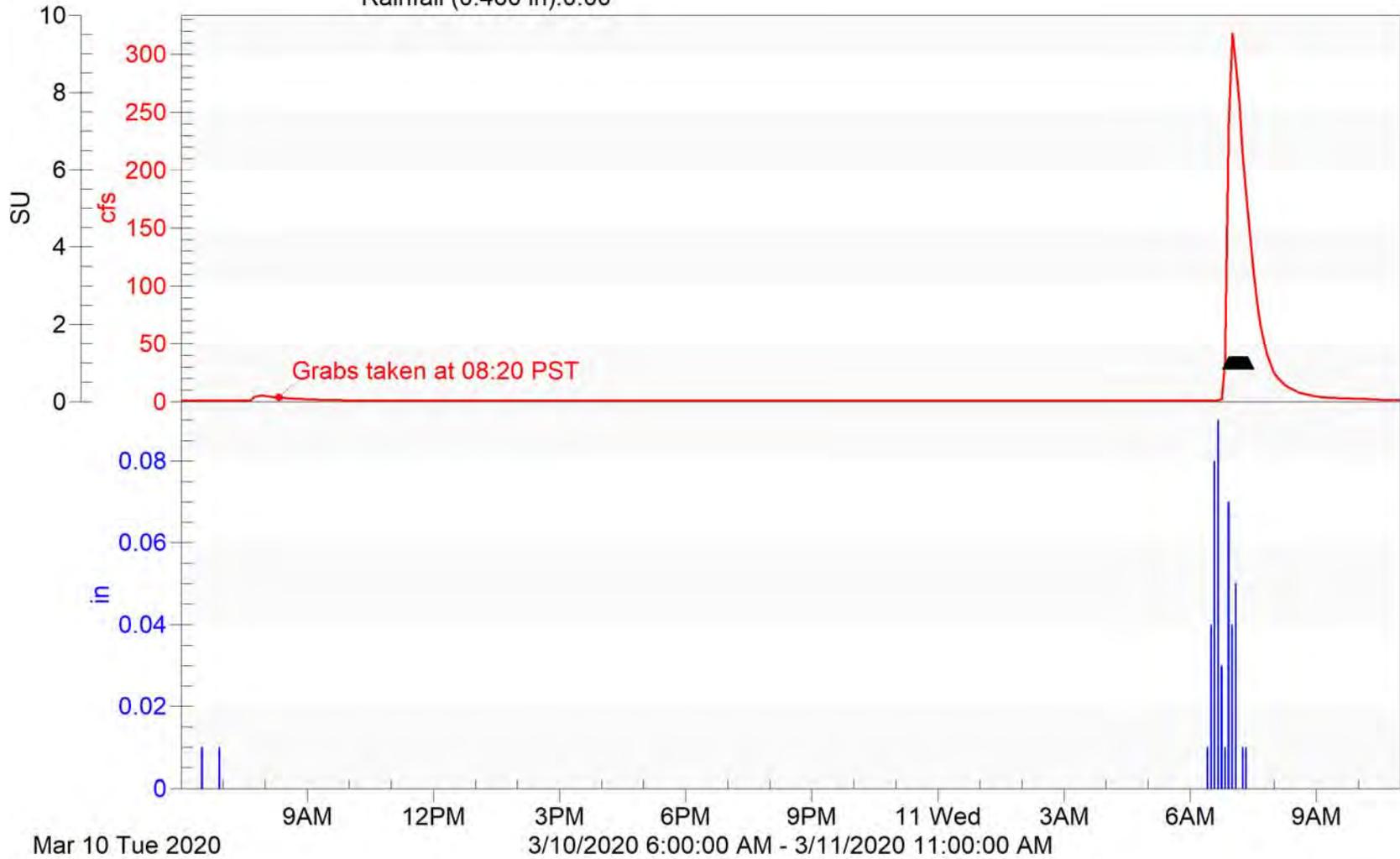
Ventura-1

2019/20 NPDES Event #3 (Wet)

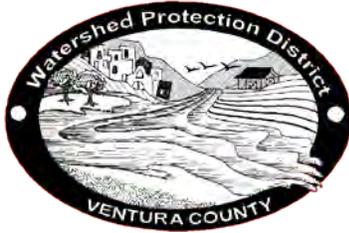
4230 Flow Rate (747079.96 cf):0.52

Rainfall (0.460 in):0.00

Sampler (35 SU):



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.

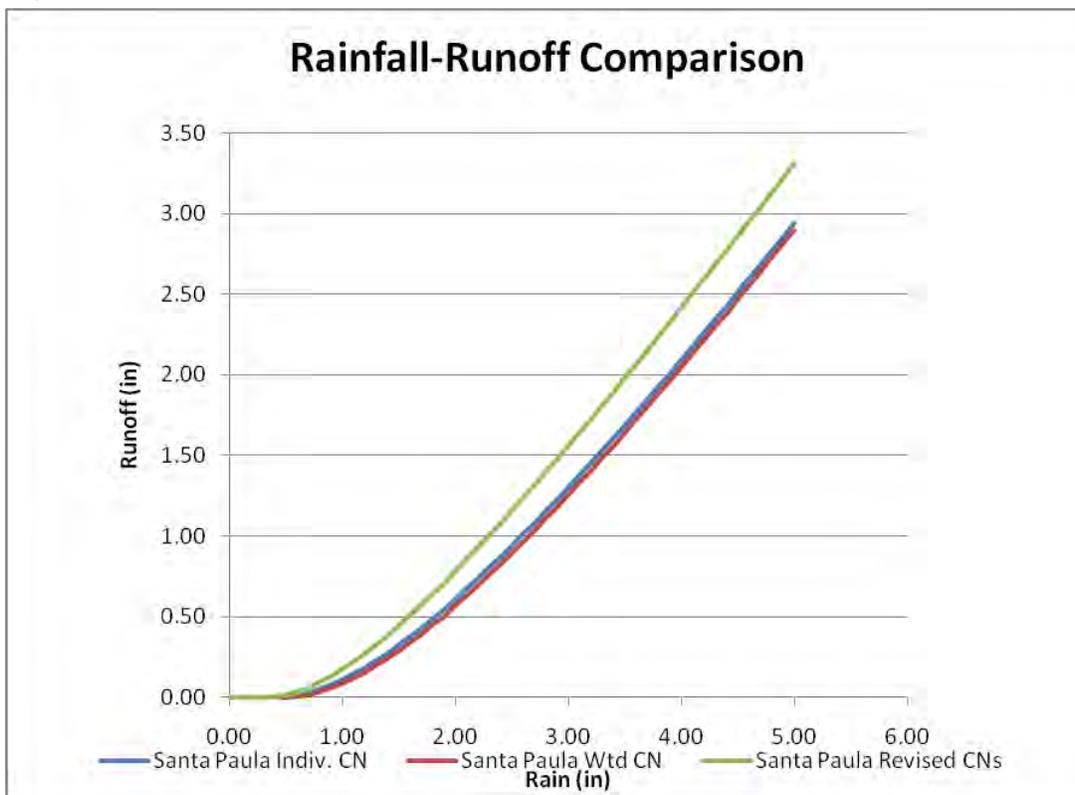
Table 3: Storm Yield Results- Weighted Average Curve Numbers with Updated CNs

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_MonitoringSitesR unoff9-09.xls	9-09 CN data
NPDES_MonitoringSitesR unoff8-10.xls	8-10 updated analysis for 11 sites total
NPDES_MonitoringSitesR unoff8-10RevCNs.xls	8-10 analysis using revised CNs
MonitoringSites9-09.mxd	ArcMap project file for analysis

Ventura Watershed

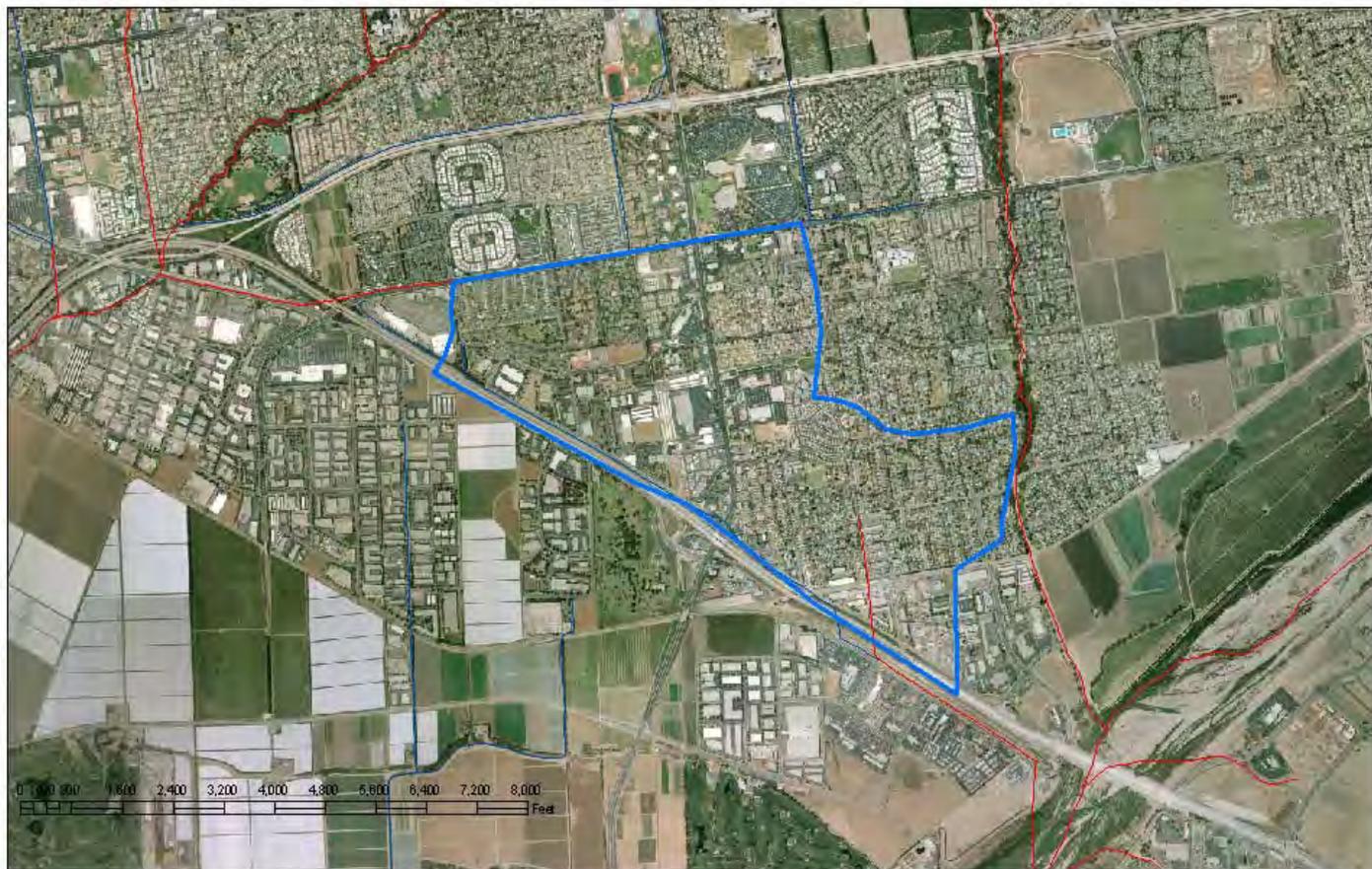


Figure 2

Meiners Oaks Happy Valley Watershed



Figure 3

Ojai Fox Watershed

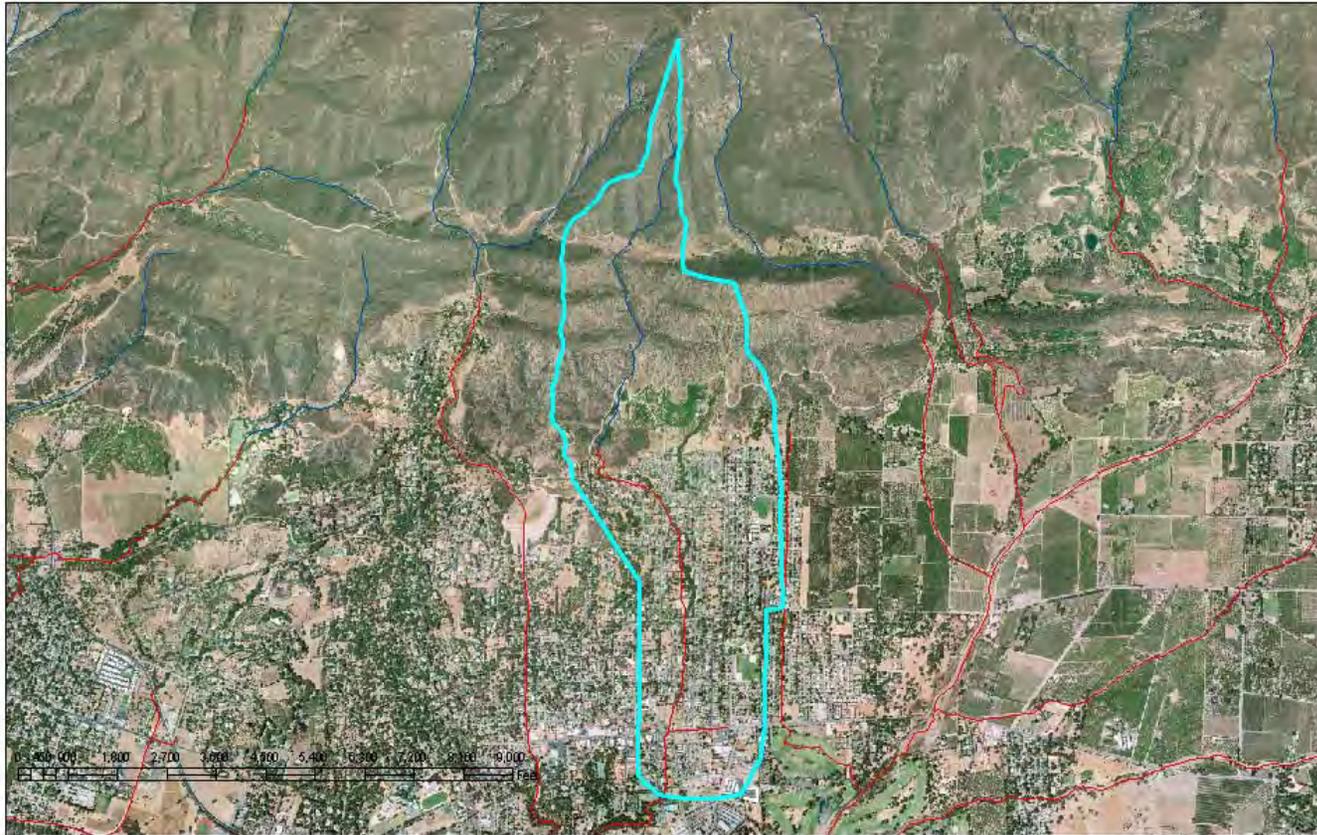


Figure 4

Camarillo Hills Drain Watershed

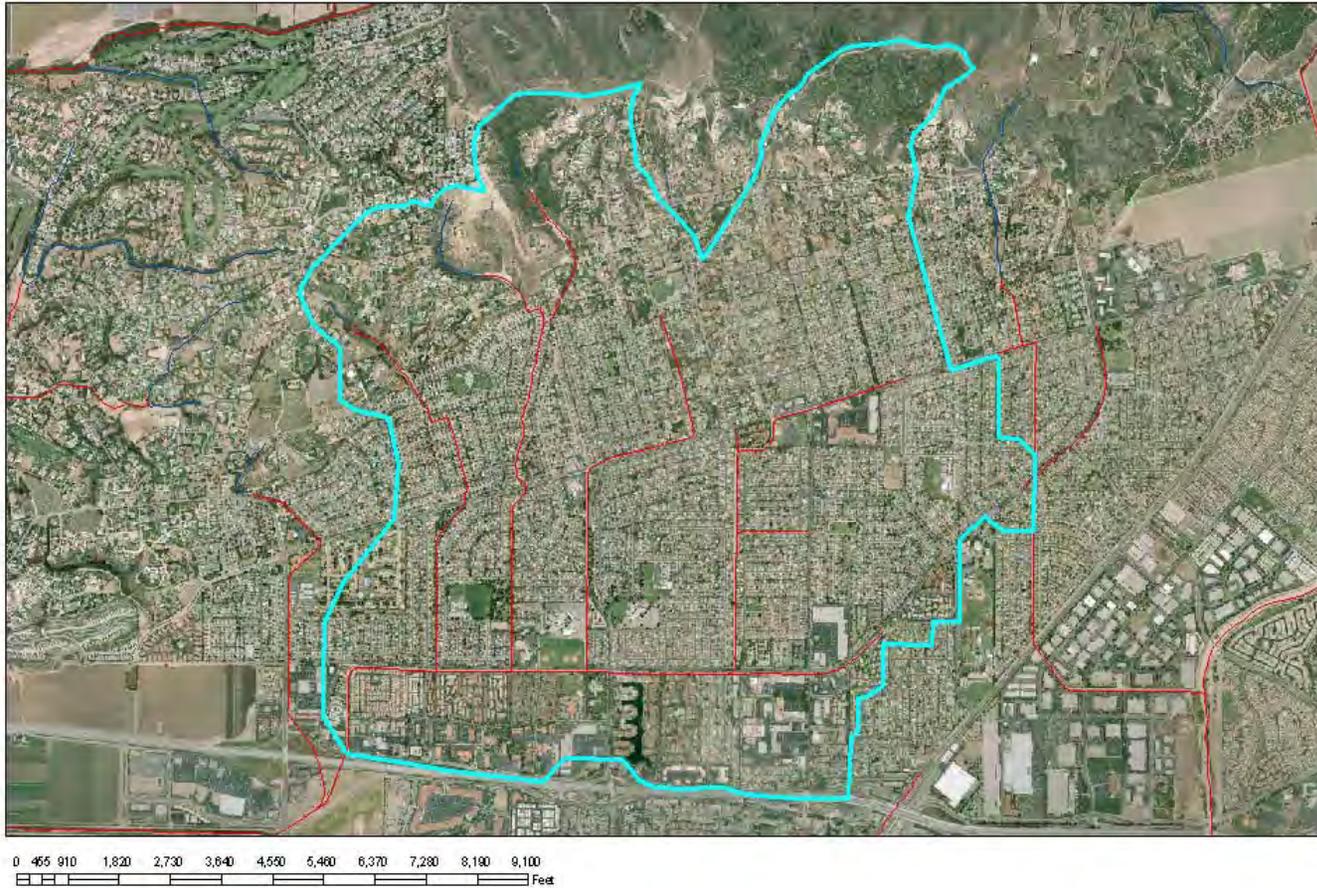


Figure 5

Simi Valley Watershed

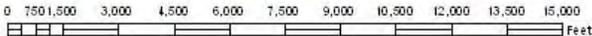
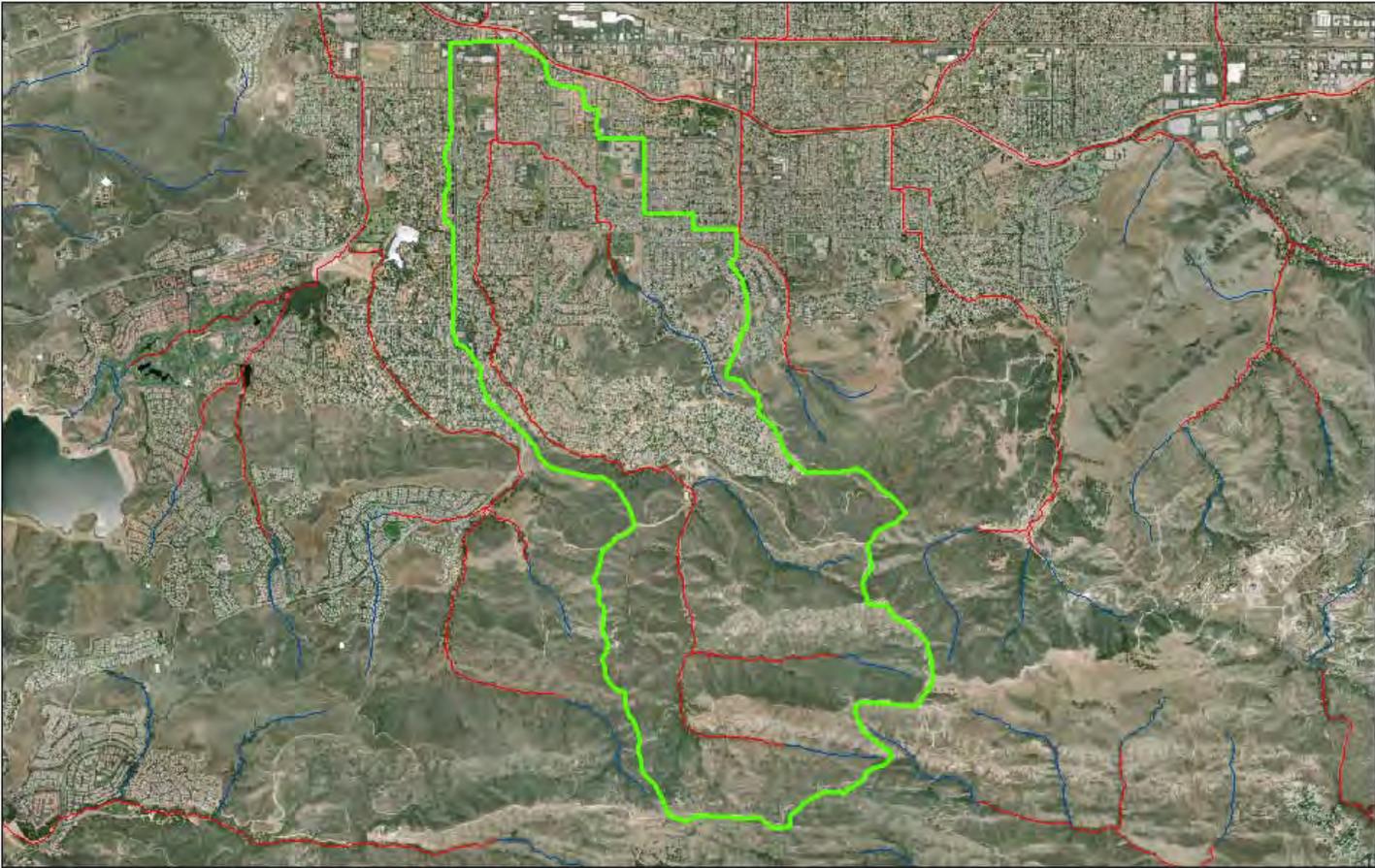


Figure 6

Oxnard Watershed



Figure 7

Moorpark Watershed

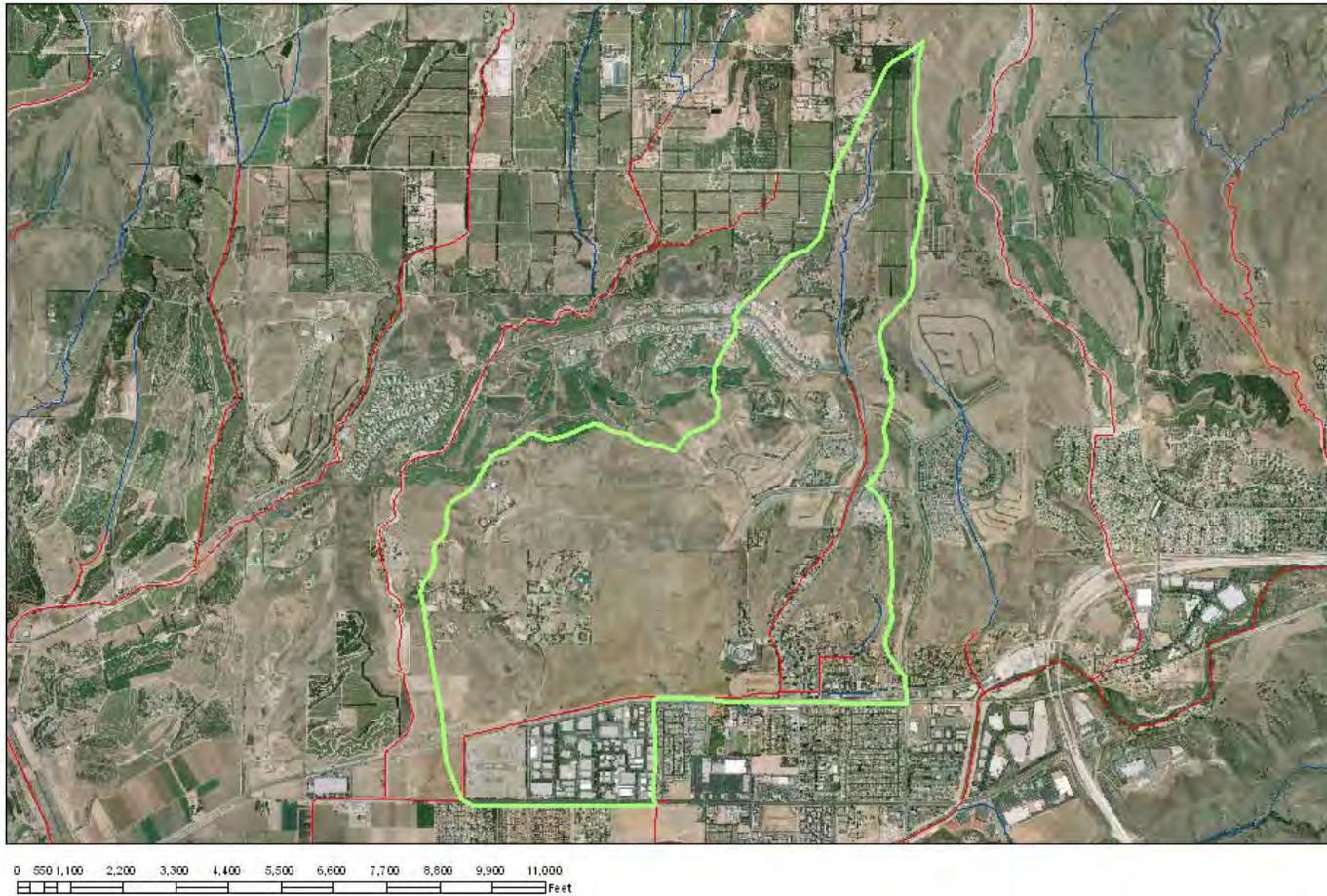


Figure 8

Port Hueneme Watershed

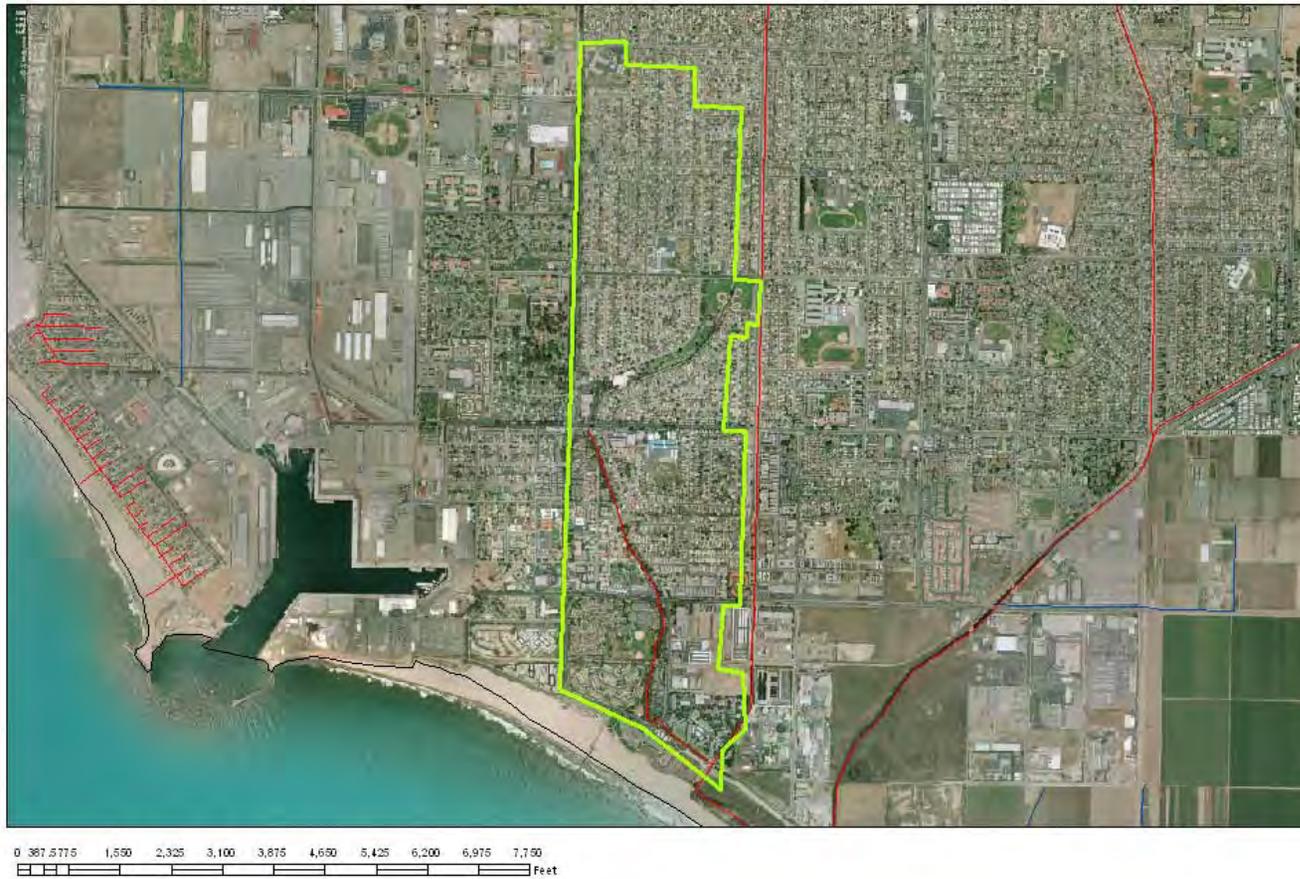


Figure 9

Fillmore Watershed



Figure 10

Thousand Oaks Watershed



Figure 11

Santa Paula Watershed

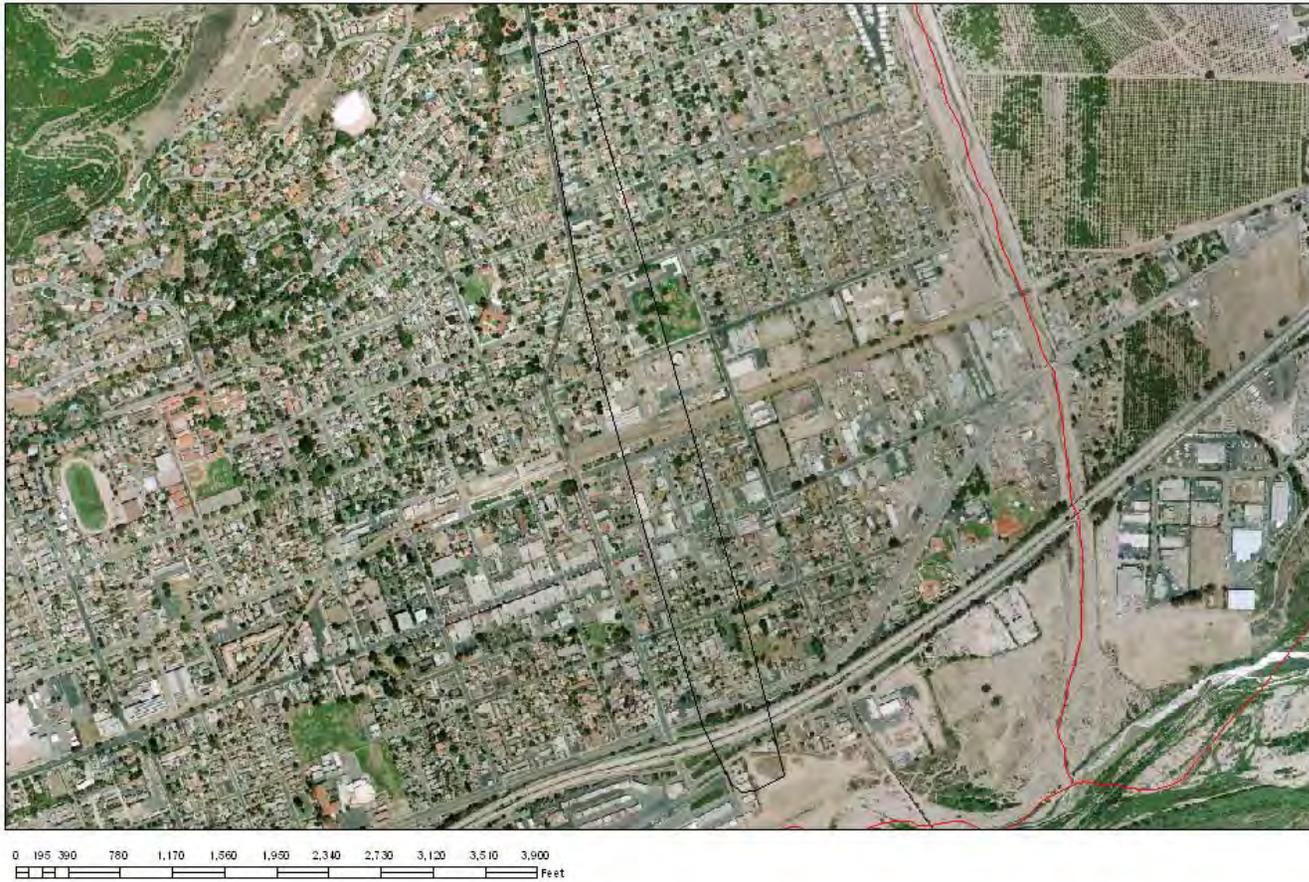


Figure 12

Appendix D. Event Summaries

Site	Event	Visit	Staff	Date	Arrival Time	PST/PDT	Flowmeter		Outside Staff (ft)	Fridge T °C	Flush (L)	Pump Count	Program/6712 Display	Comp bottle status/ Estimated Vol (L)	Comp Duration (nearest half hrs)	Comp Time	Grab Time	Toxicity Time	Notes
							Level (feet)	Flow (cfs)											
ME-CC	1	1	LM	11/26/2019	15:39	PST	1.009	NA	NR	Turned on	4L Distilled	46,177	Flow: 1 pulse/500mlx35, program disabled	Installed labeled bottle, lid off.				Desiccant bluish purple	
ME-CC	1	2	DL,MC	11/27/2019	09:30	PST	2.341	NA	2.4	1			Sample 9 after 1 pulse	7L		09:45	09:45		
ME-CC	1	3	DL	11/27/2019	14:49	PST	2.405	NA	NR	2	2L Distilled	438,654	Program done	Full		14:50		Turned 6712 and fridge off	
ME-SCR	1	1	WBC	11/26/2019	10:45	PST	NR	NA	NA	3	4L Distilled		Time: 20 min/500mlx35, program disabled	Uncapped labeled bottle				Recalibrated and restarted program for 10 min pacing, 24 samples due to shortened storm forecast and incorrect calibration volume.	
ME-SCR	1	2	WBC,DW	11/27/2019	09:45	PST	NR	NA	NA	NR			8 samples taken	8L		09:45	09:45		
ME-SCR	1	3	WBC,DW	11/27/2019	13:50	PST	NR	NA	NA	4			Sample 22 after 1 pulse	20L		13:50		Turned off 6712 Secured swing arm to railing, turned 6712 off	
ME-SCR	1	4	WBC	11/29/2019	12:50	PST	NR	NA	NA		2L Distilled	NR	NA	NA					
ME-VR2	1	1	LM	11/29/2019	13:30	PST	4.884	NA		-3	4L Distilled	21,900	Flow: 1 pulse/500mlx35, program disabled	Installed labeled bottle, lid off.				Desiccant purple/blue. Cleared vegetation/debris around intake/orifice.	
ME-VR2	1	2	LM,NN	11/27/2019	10:00	PST	4.982	NA					Sample 32 after 1 pulse. Tubing came loose and was outside the bottle. Secured tubing and reprogrammed at 10:00 PST	1L		10:15	10:15		
ME-VR2	1	3	KH,DL	11/27/2019	13:07	PST	4.912	NA		1	2L Distilled	465,542	Program disabled (water level below enable threshold).	8L		13:10		No noticeable high water mark	
MO-CAM	1	1	LM	11/26/2019	16:18	PST	0.035	<10	<toe	Turned on	4L Distilled	30,692	Flow: 1 pulse/500mlx35, program disabled	Uncapped labeled bottle				4230 desiccant pink	
MO-CAM	1	2	PD,DF	11/27/2019	06:15	PST	0.806	1.256	281	0	2L Distilled	116,493	Program done	19L		06:30	06:30	06:30	Turned 6712 and fridge off
MO-FIL	1	1	WBC	11/26/2019	12:06	PST	0.129	NA		Turned on	2L Distilled	62,667	Time: 21 min/500mlx35, program disabled	Installed labeled bottle, lid off.				Desiccant purple. Cleared strainer and tightened bracket plate nuts.	
MO-FIL	1	2	WBC,DW	11/27/2019	07:30	PST	1.516	NA		4			Sample 2 in 00:07. Changed pacing to 10 min.			07:30	07:30		
MO-FIL	1	3	WBC,DW	11/27/2019	12:50	PST	0.197	NA			2L Distilled	207,000		12L		12:50		Turned off fridge	
MO-HUE	1	1	LM	11/26/2019	NR	PST	NA	NA		2	4L Distilled	34,419	Time: 20 min/500mlx35, program disabled	Installed labeled bottle, lid off.					
MO-HUE	1	2	DL,MC	11/27/2019	08:28	PST	NA	NA		2			Sample 9 in 00:15. Reprogrammed for 10 min/27 samples.	4L		08:45	08:45	Field blanks also at 08:45 PST	
MO-HUE	1	3	KH,DL	11/27/2019	13:50	PST	NA	NA		4	2L Distilled	192,375	Program done	20L		13:50			
MO-MEI	1	1	LM	11/26/2019	12:40	PST	0.081	1	Dry	Turned on	4L Distilled	15,925	Flow: 1 pulse/500mlx35, program disabled	Installed labeled bottle, lid off.				Desiccant pinkish purple	
MO-MEI	1	2	LM,NN	11/27/2019	NR	PST	0.279	14	0.2	NR		119,109	Program done, errors have occurred	Overflowed		08:50	08:30	08:30	Turned 6712 and fridge off
MO-MEI	1	3	WBC	12/2/2019	10:30	PST							0-23, 26-35 samples "no more liquid". 24-25 samples ok.						
MO-MPK	1	1	WBC	11/26/2019	13:13	PST	0.072	<0.2	<toe	Turned on	2L Distilled	48,817	Flow: 1 pulse/500mlx35, program disabled	Installed labeled bottle, lid off.				Desiccant purple. Cleared bubbler orifice tip and purged line. Repaired intake line from O&M scrape.	
MO-MPK	1	2	PD,DF	11/27/2019	07:30	PST	0.46	16.9	0.5	5	2L Distilled	185,113	Program done	17.5L		08:00	07:50	07:50	Turned 6712 and fridge off
MO-OJA	1	1	LM	11/26/2019	11:36	PST	0.103	5		4	4L Distilled	28,501	Flow: 1 pulse/500mlx35, program disabled	Installed labeled bottle, lid off.				Desiccant pink	
MO-OJA	1	2	LM,NN	11/27/2019	06:42	PST	0.204	13	0.1	2			Errors have occurred. Leak at wing wall connection.	Empty		Error	07:00	07:00	Leak at wing wall connection sucked air and no sample. Could not be repaired in time for event
MO-OJA	1	3	WBC	12/2/2019	NR	PST					2L Distilled			Recapped bottle				Repaired intake line separation. Line was clogged and has been cleared.	
MO-OXN	1	1	WBC,DL	11/26/2019	15:25	PST	0.11	0.3	<toe	Turned on	2L Distilled	30,828	Flow: 1 pulse/500mlx35, program disabled	Installed labeled bottle, lid off.				Desiccant purple	
MO-OXN	1	2	DL,MC	11/27/2019	07:18	PST	1.89	72.6	1.9	2	2L Distilled	162,920	Program done	18.5L		07:50	07:30	07:30	Field duplicates also taken at 07:30 PST. Turned 6712 and fridge off.
MO-SIM	1	1	WBC	11/26/2019	13:45	PST	0.14	2		Turned on	4L Distilled	18,570	Flow: 1 pulse/500mlx35, program disabled	Installed labeled bottle, lid off.				Desiccant purple	
MO-SIM	1	2	PD,DF	11/27/2019	08:40	PST	0.571	41	0.4	0	2L Distilled	90,532	Program done	19L		09:00	09:00	09:00	Turned 6712 and fridge off

MO-SPA	1	1	WBC	11/26/2019	11:30	PST	NA	NA	No flow	Turned on	2L Distilled	23,300	Flow: 1 pulse/500mlx35, program disabled	Installed labeled bottle, lid off.				Inspected sensor and strainer.
MO-SPA	1	2	WBC,DW	11/27/2019	06:15	PST	NA	NA		4			Sample 2 after 1 pulse	0.5L	06:15	06:15		Cycled power 2105 06:45
MO-SPA	1	3	WBC,DW	11/27/2019	08:45	PST	NA	NA		2	2L Distilled	173,565	Program done	16L	08:45			Turned fridge off
MO-THO	1	1	WBC	11/26/2019	14:25	PST	2.06	1		4	2L Distilled	NR	Flow: 1 pulse/500mlx35, program disabled	Uncapped labeled bottle				
MO-THO	1	2	PD,DF	11/27/2019	09:50	PST	3.023	42	3	3	2L Distilled	213,307	Program done	15L	10:10	10:10	10:10	High water mark 4'
MO-VEN	1	1	LM	11/26/2019	17:17	PST	0.041	0		Turned on	4L Distilled	32,935	Flow: 1 pulse/500mlx35, program disabled	Installed labeled bottle, lid off.				Desiccant pink
MO-VEN	1	2	DL,MC	11/27/2019	06:07	PST	0.625	43	1.1	1	2L Distilled	131,948	Program done, errors have occurred	18.5	06:55	06:20	06:20	Turned 6712 and fridge off

Event Notes:

NR: Not recorded
 All times are recorded here in PST
 Forecast Rain: (NWS) 1-2", Fox mostly <0.1"
 Actual Rainfall: 0.4-1" across the county
 Storm Control: Kelly Hahs

Sample Tracking:

Bacteria samples to VCHCA:
 11/27/2019 @ 11:36 PST (VR2/MEI/OJA) by Lara Meeker
 11/27/2019 @ 11:00 PST (CAM/SIM/MPK/THO) by Peter Doran
 11/27/2019 @ 10:29 PST (OXN(+FD)/VEN/HUE(+FB)/CC) by David Laak
 11/27/2019 @ 10:50 PST (SPA/FIL/SCR) by Dean Wilkinson

Toxicity samples to Aquatic Bioassay and Consulting Laboratories, Inc.:
 11/27/2019 @ 11:04 PST (VR2/MEI/OJA) by Lara Meeker
 11/27/2019 @ 11:36 PST (CAM/SIM/MPK/THO) by Peter Doran
 11/27/2019 @ 10:57 PST (OXN(+FD)/VEN/HUE(+FB)/CC) by David Laak
 11/27/2019 @ 11:18 PST (SPA/FIL/SCR) by Dean Wilkinson

Chemistry samples to Weck Laboratories, Inc. (via Weck-provided courier (Reliable Messenger Service)):
 11/27/2019 @ 14:45 (All sampled grabs and composites) to Timothy Maestas by Kelly Hahs and Bill Carey

Meters:

CAM/MPK/SIM/THO (PD/DF): Beckman 410 # 130240875, YSI 85 #03D0379
 OJA/MEI/VR2 (LM,NN): Beckman 255 # 2554, YSI 85 # 01G0625
 OXN/VEN/HUE/CC (DL/MC): Beckman 255 # 2151, YSI 85 # 05E1126
 SPA/FIL/SCR (WBC,DW): Beckman 410 # 110341139, YSI 85 # 05E1042

Beckman 255 # 2554, YSI 85 # 01G0625
 Beckman 255 # 2151, YSI 85 # 05E1126
 Beckman 410 # 130240875, YSI 85 #03D0379
 Beckman 410 # 110341139, YSI 85 # 05E1042

Deg F	Deg C	Deg C
29	-2	-1.667
30	-1	-1.111
31	-1	-0.556
32	0	0
33	1	0.556
34	1	1.111
35	2	1.667
36	2	2.222
37	3	2.778
38	3	3.333
39	4	3.889
40	4	4.444
41	5	5.000
42	6	5.556
43	6	6.111
44	7	6.667
45	7	7.222

Site	Event	Visit	Staff	Date	Arrival Time	PST/PDT	Flowmeter		Outside Staff (ft)	Fridge T °C	Flush (L)	Pump Count	Program/6712 Display	Comp bottle status/ Estimated Vol (L)	Comp Duration		Toxicity	Notes
							Level (feet)	Flow (cfs)							(nearest half hrs)	Comp Time		
ME-CC	2	1	WBC	1/16/2020	0955	PST	1.264	NA	NR	4 deg but propped open at arrival	4L Distilled	456,910	Flow: 1 pulse/500mlx35, program disabled	Installed labeled bottle, lid off.				4230 desiccant blue. 6712 desiccant pink.
ME-CC	2	2	JM/CY	1/16/2020	2316	PST	1.74	NA	Photo	0			Pumping	3L		2325		
ME-CC	2	3	DL/LM	1/17/2020	0932	PST	1.928	NA	NR	1	2L Distilled	850,987	Program done	Full		0940		Turned off 6712.
ME-SCR	2	1	WBC	1/16/2020	1235	PST	7.289	NA	NA	4	2L Distilled	367,614	Time: 20 min/500mlx35, program disabled	Installed labeled bottle, lid off.				Enabled liquid detector, calibrated to 500 ml. 6712 desiccant ok. Swing arm deployed.
ME-SCR	2	2	JM/CL	1/16/2020	2203	PST	7.955	NA	NA	2			Sample 9 in 00:11	2L		2210		Lifted swing arm and secured to rail.
ME-SCR	2	3	DL/LM	1/17/2020	1021	PST	6.862	NA	NA	-1	4L Distilled	631,030	Program done	17.5 L		1025		Outside light off.
ME-VR2	2	1.1	WBC	1/15/2020	1333	PST	5.235	NA	NA	Faulty. Needs ice	4L Distilled	465,542	Flow: 1 pulse/500mlx35, program disabled	Installed labeled bottle, lid off.				Replaced lower pump tubing, did not reset counter. Calibrated to 500 ml. Intake and bubbler are secure.
ME-VR2	2	1.2	WBC/EL	1/16/2020	~1800	PST		NA	NA	Iced								Added ice to blue cooler inside fridge.
ME-VR2	2	2	LM/EL	1/16/2020	2230	PST	5.361	NA	NA	3			Program disabled	Empty		2245		
ME-VR2	2	3	KH/DW	1/17/2020	0915	PST	5.313	NA	NA	2	2L Distilled	813,442	Program done. Warning replace tubing.	16L		0915		Turned off 6712.
MO-CAM	2	1	KH	1/15/2020	1355	PST	0.033	<0.1	<toe	Turned on	4L Distilled	124,655	Flow: 1 pulse/500mlx35, program disabled	Installed labeled bottle, lid off.				Field blanks and field duplicate sample bottles placed onsite. 4230 desiccant pink
MO-CAM	2	2.1	PD/MC	1/16/2020	2045	PST	0.443	66	0.2	2			Sample 34			2055		Field blanks and field duplicates sampled 20:55.
MO-CAM	2	2.2	PD/MC	1/16/2020	2144	PST	0.337	50		2	2L Distilled	213,431	Program done	17L		2144		Turned off 6712 and fridge and propped open.
MO-FIL	2	1.1	LM	1/15/2020	1050	PST	0.186	NA	NA	Turned on	4L Distilled	211,348	Time: 10 min/500mlx35. Cycled power 2105 and program enabled. Stopped program.	Installed labeled bottle, lid off.				4230 desiccant pinkish purple. Removed gravel around intake. Could not remotely call site for program enabling.
MO-FIL	2	1.2	KH	1/16/2020	1122	PST	0.206	NA	NA	0			Time: 10 min/500mlx35, program disabled				Inability to call site likely due to Verizon making changes for transition from 3G to LTE. Site could be called remotely so just needed program restarted onsite.	
MO-FIL	2	2	DL/DW	1/16/2020	2052	PST	0.556	NA	NA	4			Sample 4 in 06:10			2105		Desiccant pink.
MO-FIL	2	3	KH/DW	1/17/2020	1005	PST	0.188	NA	NA	-4	2L Distilled	360,995	Program done	15.5L		1005		Turned off fridge and 6712, propped fridge open.
MO-HUE	2	1	WBC	1/16/2020	1040	PST	NA	NA		4	4L Distilled	192,375	Time: 10 min/500mlx35, program disabled	Installed labeled bottle, lid off.				Replaced 2105 desiccant. 6712 desiccant blue.
MO-HUE	2	2	DL/DW	1/16/2020	2248	PST	NA	NA		2			Sample 11 in 06:48	5L		2255		
MO-HUE	2	3	KH/DW	1/17/2020	0835	PST	NA	NA		2	2L Distilled	355,249	Program done	18.5L		0835		Turned off 6712.
MO-MEI	2	1	WBC	1/15/2020	1255	PST	0.082	1	Dry	Turned on	2L Distilled	140,197	Flow: 1 pulse/500mlx35, program disabled	Installed labeled bottle, lid off.				Desiccant blue. Replaced one of two main batteries with fully charged battery.
MO-MEI	2	2	WBC/EL	1/16/2020	1840	PST	0.08	1	<OSS	0			Program disabled. Errors have occurred.	0L		1855		
MO-MEI	2	3	LM/EL	1/16/2020	2200	PST	0.158	5		2	2L Distilled	223,462	Program done. Errors have occurred.	16L		2202		Turned off fridge and 6712, propped fridge open.
MO-MPK	2	1	KH	1/15/2020	1525	PST	0.074	0.2	<OSS <0.1 cfs	Turned on	4L Distilled		Flow: 1 pulse/500mlx35, program disabled	Installed labeled bottle, lid off.				4230 desiccant blue.
MO-MPK	2	2.1	PD/MC	1/16/2020	~2220	PST	0.148	1.7	0.3	4			Sample 33, errors have occurred.	18L		2230		4230 warning message for power failure.
MO-MPK	2	2.2	PD/MC	1/16/2020	2245	PST	0.261	5.4			2L Distilled		Program done	18L		2245		Turned off 6712 and fridge and propped open.
MO-OJA	2	1	WBC	1/15/2020	1055	PST	0.099	5		4	4L Distilled	181,570	Flow: 1 pulse/500mlx35, program disabled	Uncapped composite bottle. Placed spare composite bottle in house.				Desiccant pink, changed.
MO-OJA	2	2	WBC/EL	1/16/2020	1936	PST	0.136	8		2			Errors have occurred	10L		1945		

MO-OJA	2	3	LM/EL	1/16/2020	2125	PST	0.169	10		2	2L Distilled	266,220	Program done, errors have occurred.	17.5L	2130		Turned off 6712. Took picture of outside staff.
MO-OXN	2	1	KH/LM	1/16/2020	0957	PST	0.11	0.3	Dry	Turned on	4L Distilled	166,969	Flow: 1 pulse/500mlx35, program disabled	Installed labeled bottle, lid off.			4230 desiccant pink.
MO-OXN	2	2	DL/DW	1/16/2020	2156	PST	0.736	13.2	~0.8	-2			Sample 28 after 1 pulse	NR	2205		Turned off 6712 and fridge and propped open.
MO-OXN	2	3	DL/DW	1/16/2020	2331	PST	0.272	2.1	0.3	0	2L Distilled	298,300	Program done	18L	2335		
MO-SIM	2	1	KH	1/15/2020	1500	PST	0.15	2	< toe	Turned on	4L Distilled	98,160	Flow: 1 pulse/500mlx35, program disabled	Installed labeled bottle, lid off.			4230 desiccant pink
MO-SIM	2	2	PD/MC	1/16/2020	2315	PST	0.554	39	0.6	-2		172,190	Program done	19L	2335	2330	Turned off 6712 and fridge and propped open.
MO-SPA	2	1	KH/LM	1/16/2020	1040	PST	NA	NA	Outfall dry	Turned on	4L Distilled	182,575	Flow: 1 pulse/500mlx35, program disabled	Installed labeled bottle, lid off.			
MO-SPA	2	2.1	DL/DW	1/16/2020	2000	PST	NA	NA	Flowing	2	2L Distilled	335,292	Pumping 500 ml; Program done.	13L; 16.5L	2020	2010	Turned off 6712 and fridge, put rack in.
MO-THO	2	1	KH	1/15/2020	1425	PST	1.937	0		2	4L Distilled	222,396	Flow: 1 pulse/500mlx35, program disabled	Installed labeled bottle, lid off.			Cleared debris around intake and bubbler and access steps.
MO-THO	2	2	PD/MC	1/17/2020	0013	PST	3.19	49	>3'	4	2L Distilled	389,230	Program done	>19L	0030	0025	Turned 6712 off.
MO-VEN	2	1	LM	1/15/2020	1355	PST	0.042	1	<toe	Turned on	4L Distilled	135,993	Flow: 1 pulse/500mlx35, program disabled	Installed labeled bottle, lid off.			4230 desiccant pink.
MO-VEN	2	2	JM/CY	1/16/2020	2043	PST	0.589	39	0.5	1.5	2L Distilled	231,756	Program done, errors have occurred. [2105 power cycled prior to storm which caused 6712 to sample when channel was dry.]	18L	2101	2049	Turned off 6712 and fridge and propped open.

Event Notes:

NR: Not recorded

All times are recorded here in PST

Forecast Rain: (NWS) up to 0.75" coasts and valleys and up to 1.5" mountains (most rain in SLO hills and mountains south of Pt Conception), Fox 0.08"-0.38" across county (mostly <0.20")

Actual Rainfall: 0.14"-0.67" at Program site gauges

Storm Control: Kelly Hahs

Sample Tracking:

Bacteria samples to VCHCA:

01/16/2020 @ 23:45 PST (VR2/MEI/OJA) by Lara Meeker

01/17/2020 @ 01:25 PST (CAM(+FD+FB)/SIM/MPK/THO) by Michelle Carter

01/17/2020 @ 00:00 PST (SPA/FIL/OXN/HUE) by David Laak

01/17/2020 @ 00:00 PST (OXN/SCR/CC) by Jaime McClain

Chemistry samples to Weck Laboratories, Inc. (via Weck-provided courier (Unspecified)):

01/17/2020 @ 13:20 PST (All sampled grabs and composites) to Johnny Alvarez by David Laak

Meters:

CAM/MPK/SIM/THO (PD/MC): Beckman 410 # 110341139, YSI 85 #03D0379

OJA/MEI (WBC/EL): Beckman 255 # 2151, YSI 85 # 01G0625

VR2 (LM/EL): Beckman 255 # 2151, YSI 85 # 01G0625

VEN/SCR/CC (JM/CY): Beckman 255 # 2554, YSI 85 # 05E1042

SPA/FIL/OXN/HUE (DL/DW): Beckman 410 # 130240875, YSI 85 # 05E1126

Beckman 255 # 2151, YSI 85 # 05E1126

Beckman 255 # 2554, YSI 85 # 05E1042

Beckman 410 # 130240875, YSI 85 # 03D0379

Beckman 410 # 110341139, YSI 85 # 01G0625

Deg F	Deg C	Deg C
29	-2	-1.667
30	-1	-1.111
31	-1	-0.556
32	0	0
33	1	0.556
34	1	1.111
35	2	1.667
36	2	2.222
37	3	2.778
38	3	3.333
39	4	3.889
40	4	4.444
41	5	5.000
42	6	5.556
43	6	6.111
44	7	6.667
45	7	7.222

Site	Event	Visit	Staff	Date	Arrival Time	PST/PDT	Flowmeter		Outside Staff (ft)	Fridge T °C	Flush (L)	Pump Count	Program/6712 Display	Comp bottle status/ Estimated Vol (L)	Comp Duration		Toxicity	Notes
							Level (feet)	Flow (cfs)							(nearest half hrs)	Comp Time		
ME-CC	3	1	LM	3/9/2020	1400	PDT	1.067	NA	1.1	Turned on	4L Distilled	856,277	Flow: 1 pulse/500mlx35, program disabled	Installed labelled bottle, lid off.				Grab bottles placed onsite
ME-CC	3	2	PD/CW	3/10/2020	1125	PDT	1.308	NA	1.3	0			Sample 6 after 1 pulse	5L		1135		Replace pump tubing. Turned off fridge and 6712.
ME-CC	3	3	PD/CW	3/11/2020	0840	PDT	1.539	NA	1.5	-2	2L Distilled	1,057,420	Sample 19 after 1 pulse	16L		0840		
MO-FIL	3	1	KB/MC	3/9/2020	1210	PDT	0.185	NA	NA	Turned on	4L Distilled	366,115	Time: 41 min/500mlx35, program disabled	Installed labelled bottle, lid off.				Grab bottles placed onsite. Cleared sediment at bubbler/sampler intake
MO-FIL	3	2	DL/DW	3/10/2020	0948	PDT	0.374	NA	NA	0			Sample 3 in 17 minutes.	1L		1000		
MO-FIL	3	3	DL/DW	3/11/2020	0826	PDT	0.19	NA	NA	-1	2L Distilled	511,664	Reprogrammed to 33 mins, 33 samples.	14.5L		0830		Turned off fridge and 6712.
MO-OXN	3	1	KB/MC	3/9/2020	1637	PDT	0.109	0.3	Dry	Turned on	4L Distilled	303,539	Flow: 1 pulse/500mlx35, program disabled	Installed labelled bottle, lid off.				Grab bottles placed onsite.
MO-OXN	3	2	DL/DW	3/10/2020	1055	PDT	0.109	0.2	Flow to edge of channel	1			Program disabled	Empty		1105		
MO-OXN	3	3	DL/DW	3/11/2020	0945	PDT	0.46	5.6	0.5	-2	2L Distilled	434,951	Program done	18L		0955		Turned off fridge and 6712.
MO-SIM	3	1	KB/MC	3/9/2020	1450	PDT	0.185	4	0.2	Turned on	4L Distilled	177,046	Flow: 1 pulse/500mlx35, program disabled	Installed labelled bottle, lid off.				Grab bottles placed onsite.
MO-SIM	3	2	MC/CY	3/10/2020	1030	PDT	0.231	6	0.2	3			Sample 6 after 1 pulse	1L		1045		
MO-SIM	3	3	MC/JP	3/11/2020	0831	PDT	0.172	3	NR	0	2L Distilled	238,105	Program disabled. Errors have occurred.	17.5		0840		Turned off fridge and 6712.
MO-SPA	3	1	KB	3/9/2020	1130	PDT	NA	NA	NR	Turned on	4L Distilled	255	Flow: 1 pulse/500mlx35, program disabled	Installed labelled bottle, lid off.				Grab bottles placed onsite. Checked sensor and intake.
MO-SPA	3	2	DL/DW	3/10/2020	0907	PDT	NA	NA	Flowing Small trickle	0			Sample 3 after 1 pulse	1L		0915		
MO-SPA	3	3	DL/DW	3/11/2020	0753	PDT	NA	NA	trickle	-3	2L Distilled	412,771	Program disabled	7L		0800		Turned off fridge and 6712.
MO-VEN	3	1	DL/DW	3/9/2020	1435	PDT	0.041	0	Flow only in center of channel	Turned on	4L Distilled	263,304	Flow: 1 pulse/500mlx35, program disabled	Installed labelled bottle, lid off.				Grab bottles placed onsite.
MO-VEN	3	2	PD/CW	3/10/2020	0912	PDT	0.146	4	0.1	-2			Program disabled	Empty		0920		
MO-VEN	3	3	PD/CW	3/11/2020	1000	PDT	0.164	0.1	0.1	4	2L Distilled	329,668	Program done	19.5L		1000		Turned off fridge and 6712.

Event Notes:

NR: Not recorded
 All times are recorded here in PST
 Forecast Rain: (NWS) 1"
 Actual Rainfall: Much less. Eight sites did not qualify (<0.15")
 Storm Control: WB Carey

Sample Tracking:

Bacteria samples to VCHCA:
 03/10/2020 @ 12:30 PDT (SIM) by Michelle Carter
 03/10/2020 @ 12:15 PDT (CC/VEN) by Peter Doran
 03/10/2020 @ 13:15 PDT (SPA/FIL/OXN) by David Laak
 HUE was sampled but was unable to be delivered to VCPHL before they closed for the day (after hours service unavailable due to COVID-19 outbreak testing) and then HUE did not qualify for rainfall.

Chemistry samples to Weck Laboratories, Inc. (via Weck-provided courier):
 03/11/2020 @ 13:00 PDT to Jose Angulo DCS by WB Carey

Meters:

VEN/CC/HUE (PD/CW): YSI 85 #03D0379
 OXN/SPA/FIL (DL/DW): Beckman 410 # 130240875, YSI 85 # 05E1126
 SIM (MC/JP):

Beckman 255 # 2151, YSI 85 # 05E1126
 Beckman 255 # 2554, YSI 85 # 05E1042
 Beckman 410 # 130240875, YSI 85 # 03D0379

Deg F	Deg C	Deg C
29	-2	-1.667
30	-1	-1.111
31	-1	-0.556
32	0	0
33	1	0.556
34	1	1.111
35	2	1.667
36	2	2.222
37	3	2.778
38	3	3.333
39	4	3.889
40	4	4.444
41	5	5.000
42	6	5.556
43	6	6.111
44	7	6.667
45	7	7.222

Site	Event	Visit	Staff	Date	Arrival Time	PST/PDT	Flowmeter		Outside Staff (ft)	Fridge T °C	Flush (L)	Pump Count	Program/6712 Display	Comp bottle status/ Estimated Vol (L)	Comp Duration		Toxicity	Notes
							Level (feet)	Flow (cfs)							(nearest half hrs)	Comp Time		
ME-SCR	4	1	KH	4/4/2020	1300	PDT	8.641	NA	NA	0	4L Distilled	656,090	Time: 21 min/500mlx35, program disabled	Removed comp bottle lid.				Grab bottles placed onsite. Swing arm already lowered. Checked calibration - good. Turned on outside light. Raised swing arm. Turned off 6712 and outside light.
ME-SCR	4	2	PD/MD	4/6/2020	0930	PDT	10.836	NA	NA	0	2L Distilled	874,232	Sample 30 in 14:12. Stopped program.	2/3 full	10:00	09:45		
ME-VR2	4	1	WBC	4/4/2020	115	PDT	5.536 (reamed tip --> 5.428)	NA		4	4L Distilled	21,902	Flow: 1 pulse/500mlx35, program disabled	Removed comp bottle lid.				Desiccant blue. Intake line and bubbler secure. Tried calibrating, discovered auxiliary pump tubing was disconnected (box half full. Calibrated to 500ml but first sample was 1.75L. Recalibrated same issue. Reprogrammed 6712 to take 11 samples and storm control doubled pacing.
ME-VR2	4	2	DL/EL	4/6/2020	0149	PDT	5.96	NA		1			Sample 13 after 1 pulse	Empty		02:10		Limited sample volume. Priority list. Turned 6712 off. Removed water from remote pump box. Grabs giving 50-100 ml.
ME-VR2	4	3	WBC	4/6/2020	0945	PDT	10.132	NA	10.10+	5	2L Distilled	372,905	Program done	6.5L		09:45		
MO-CAM	4	1	KH	4/4/2020	1350	PDT	0.034	10	<0.1 cfs	on	4L Distilled	224,443	Flow: 1 pulse/500mlx35, program disabled	Removed comp bottle lid.				Grab bottles placed onsite. 4230 external desiccant 2/3 pink
MO-CAM	4	2	PD/MD	4/6/2020	0730	PDT	0.44	66	0.3	4	2L Distilled	312,807	Flow paced done	18L		07:35	07:45	Turned off fridge and 6712
MO-HUE	4	1	WBC	4/4/2020	1230	PDT	NA	NA	NA	2	4L Distilled	510,941	Time: 21 min/500mlx35, program disabled	Installed labelled bottle, lid off.				Grab bottles placed onsite
MO-HUE	4	2	DL/EL	4/6/2020	0400	PDT	NA	NA	NA	3			Sample 13 in 5:30	7L		04:10		
MO-HUE	4	3	WBC	4/6/2020	1130	PDT	NA	NA	NA	2	2L Distilled	663,195	Sample 35 in 00:21:00	18.5L		11:30		Turned 6712 off
MO-MEI	4	1	WBC	4/4/2020	1040	PDT	0.082	1	Dry	Turned on	2L Distilled	227,855	Flow: 1 pulse/500mlx35, program disabled	Removed comp bottle lid.				4230 external desiccant pink
MO-MEI	4	2	DL/EL	4/6/2020	0049	PDT	0.426	32	0.4	3			Sample 17 after 1 pulse. Errors have occurred.	reprogrammed 6712 to 8 samples		01:00		6712 pulling 1000ml instead of 500ml. No calibration kit in truck. Storm control changed pacing to double.
MO-MEI	4	3	WBC	4/6/2020	0900	PDT	0.249	12		4	2L Distilled	306,085	Program done	16L		09:00		Turned off fridge (left open) and 6712
MO-MPK	4	1	KH	4/4/2020	1500	PDT	0.075	0.2	<0.01 cfs	Turned on	4L Distilled	351,341	Flow: 1 pulse/500mlx35, program disabled	Removed comp bottle lid.				Grab bottles placed onsite. 4230 external desiccant pink - replaced.
MO-MPK	4	2	PD/MD	4/6/2020	0630	PDT	0.204	3.4	0.2	3	2L Distilled	487,427	Program done	18.5L		06:50	06:40	Turned off fridge and 6712
MO-OJA	4	1	WBC	4/4/2020	1015	PDT	0.103	5	Trickle	4	4L Distilled	270,384	Flow: 1 pulse/500mlx35, program disabled	Installed labelled bottle, lid off.				4230 external desiccant pink
MO-OJA	4	2	DL/EL	4/6/2020	0011	PDT	0.646	70	0.6	4			Sample 24 after 1 pulse	12L		00:20		
MO-OJA	4	3	WBC	4/6/2020	0815	PDT	0.182	11	NR	4	2L Distilled	364,751	Program done	18L		08:15		Turned 6712 off
MO-THO	4	1	KH	4/4/2020	1422	PDT	2.029	0	2.05	2	4L Distilled	400,371	Flow: 1 pulse/500mlx35, program disabled	Removed comp bottle lid.				Grab bottles placed onsite. Checked intake. 4230 external desiccant purple.
MO-THO	4	2	PD/MD	4/6/2020	0824	PDT	2.452	6	<3'	2	2L Distilled	560,848	Program done	19L		08:40	08:30	Turned 6712 off

Event Notes:

NR: Not recorded
 All times are recorded here in PDT
 Forecast Rain: 1" coasts and valleys and 2-3" south facing slopes
 Actual Rainfall: ~0.4-2" at sampled stations. Up to 5.65" in the mountains.
 Storm Control: Kelly Hahs

Sample Tracking:

Bacteria samples:
 VCPHL Laboratory testing COVID-19 samples. Unable to accept/process other samples at time of event.

Chemistry samples to Weck Laboratories, Inc. (via Weck-provided courier):
 04/06/2020 @ 14:10 PDT (All sampled grabs and composites) to Louie S. by Bill Carey

Meters:

CAM/MPK/THO/SCR (PD/MD): Beckman 410 # 130240875, YSI 85 #05E1126
 OJA/MEI/VR2/HUE (DL/EL): Beckman 410 # 110341139, YSI 85 # 03D0379

Deg F	Deg C	Deg C
29	-2	-1.667
30	-1	-1.111
31	-1	-0.556
32	0	0
33	1	0.556
34	1	1.111
35	2	1.667
36	2	2.222
37	3	2.778
38	3	3.333
39	4	3.889
40	4	4.444
41	5	5.000
42	6	5.556
43	6	6.111
44	7	6.667

Site	Event	Visit	Staff	Date	Arrival Time	PST/PDT	Flowmeter		Outside Staff (ft)	Fridge T °C	Flush (L)	Pump Count	Program/6712 Display	Comp bottle status/ Estimated Vol (L)	Comp			Toxicity Time	Notes
							Level (feet)	Flow (cfs)							Duration (nearest half hrs)	Comp Time	Grab Time		
ME-SCR	5	1	KH,WBC	4/27/2020	0800	PDT	8.591	NA	NA	2	2L Distilled	889,506	Time: 40 min/500mlx35. Unplugged communication cable from 2105ci (needs upgraded)	Installed labelled bottle, lid off.					Lowered intake line. Calibration checked and good.
ME-SCR	5	2	KH,WBC	4/28/2020	0950	PDT	8.592	NA	NA	2	2L Distilled	1,155,260	Program done	18.5L		10:05	10:00		Grabs taken at fish passage diversion. Raised and secured intake. Turned off 6712.
MO-FIL	5	1	KH,WBC	4/27/2020	0900	PDT	0.241	NA	NA	Turned on	4L Distilled	517,241	Time: 41 min/500mlx35	Installed labelled bottle, lid off.					Cleaned out area around intake, manual purge 4230 no change to depth.
MO-FIL	5	2	KH,WBC	4/28/2020	0845	PDT	0.197	NA	NA	0	2L Distilled	666,364	Program done	15	24	0850	0900		Turned off 6712. Turned fridge off/propped open.
MO-OXN	5	1	KH,WBC	4/27/2020	1030	PDT	0.111	0.3	<toe	Turned on	4L Distilled	441,671	Time: 3 min/500mlx35 Program done. Reprogrammed to flow-paced.	Installed labelled bottle, lid off.					Discharge occurring from ~300m upstream while onsite. Channel dry above and below discharge. Dammed channel. Changed 4230 external desiccant.
MO-OXN	5	2	KH,WBC	4/28/2020	1045	PDT	0.109	0.3	dry	1	2L Distilled	581,329		19		1045	DRY		Turned off 6712. Turned fridge off/propped open.
MO-SPA	5	1	KH,WBC	4/27/2020	0940	PDT	NA	NA	dry	Turned on	4L Distilled	418,997	Time: 5 min/500mlx35, program disabled (enables at 0.04')	Installed labelled bottle, lid off.					Cycled power on 2105ci. Grabs only bacteria and meters due to lack of water. Turned off 6712. Turned fridge off/propped open.
MO-SPA	5	2	KH,WBC	4/28/2020	0805	PDT	NA	NA	trickle/dam p	4	2L Distilled	573,218	Program done	15		0820	0815		
MO-VEN	5	1	KH,WBC	4/27/2020	1130	PDT	0.041	1	<toe	Turned on	2L Distilled	333,096	Time: 40 min/500mlx35 Program done. Reprogrammed to flow-paced.	Installed labelled bottle, lid off.					Connected calibration line. Cycled power 2105ci.
MO-VEN	5	2	KH,WBC	4/28/2020	1110	PDT	0.114	3	<toe	0	2L Distilled	428,166		19		1125	1120		Turned 6712 off. Reconnected main intake.
ME-VR2	5	1	KH,WBC	4/30/2020	0900	PDT	5.597	NA	NR	3710 portable sampler with ice	4L Distilled	New tube	Time: 40 min/500mlx35	Installed labelled bottle, lid off.			0930		Bacteria grab only. Auxiliary pump out for repair.
ME-VR2	5	2	KH,WBC	5/1/2020	0907	PDT	5.564	NA	NR	3710 portable sampler with ice	Flush in shop	NR	Program done	18		0920	0915		
MO-MEI	5	1	KH,WBC	4/30/2020					<toe										Site dry. Photos taken. Changed 4230 external desiccant. Checked bubbler rate - 66 bubbles per minute
MO-MEI	5	2	KH,WBC	5/1/2020															Site dry. Photos taken
MO-OJA	5	1	KH,WBC	4/30/2020	0750	PDT	0.101	5	~0.1 cfs	0	4L Distilled	373,169	Time: 40 min/500mlx35	Installed labelled bottle, lid off.			0810		Bacteria grab only. Changed 4230 external desiccant. Connected calibration line.
MO-OJA	5	2	KH,WBC	5/1/2020	0805	PDT	0.101	5	~0.2 cfs	2	2L Distilled	466,991	Program done	18.5		0810	0815		Turned 6712 off. Reconnected main intake line.
MO-HUE	5	1	KH,WBC	4/30/2020	1010	PDT	NA	NA	NA	1	4L Distilled	672,839	Time: 40 min/500mlx35. Unplugged communication cable from 2105ci (needs upgraded)	Installed labelled bottle, lid off.			1015		Bacteria grab only
MO-HUE	5	2	KH,WBC	5/1/2020	1020	PDT	NA	NA	NA	2	2L Distilled	828,995	Program done	19.5		1020	1020		Turned 6712 off. Secured dome light cover to light with zip ties.
ME-CC	5	1	KH,WBC	5/11/2020	1045	PDT	1.077	NA	NR	Turned on	4L Distilled	0	Time: 40 min/500mlx35. Unplugged communication cable from 2105ci (needs upgraded)	Installed labelled bottle, lid off.					4230 external desiccant purple. Changed tubing 6712, checked calibration (acceptable). Checked bubbler rate (0 bubbles per minute), adjusted to 62 bubbles per minute.
ME-CC	5	2	KH,WBC	5/12/2020	1025	PDT	1.065	NA	NR	4	2L Distilled	419,742	Program done	Overflowed		1030	1030		Turned off 6712. Turned fridge off/propped open. Reconnected communication cable to 6712. Switched out new 2105ci. .
MO-CAM	5	1	KH,WBC	5/11/2020	1140	PDT	0.034	10	<0.01 cfs	Turned on	4L Distilled	318,646	Time: 40 min/500mlx35. Unplugged communication cable from 2105ci (needs upgraded) Program done. Errors have occurred (no more liquid samples 9-11 (16:28-17:48 PST), other samples good). Reprogrammed to flow-paced.	Installed labelled bottle, lid off.					Changed 4230 external desiccant. Connected calibration line.
MO-CAM	5	2	KH,WBC	5/12/2020	1110	PDT	0.033	10	~0.05 cfs	2	2L Distilled	410,866		19.5		1120	1120		Turned off 6712. Turned fridge off/propped open. Reconnected main intake line. Reconnected communication cable to 6712. Switched out new 2105ci. .

MO-MPK	5	1	KH,WBC	5/11/2020	0800	PDT	0.075	0.2	<0.01 cfs	Turned on	4L Distilled	493,195	Time: 10 min/500mlx35, delayed start to 0200 PDT to target likelihood. Program done. Errors have occurred (no more liquid samples 1-35 (01:00-06:40 PST), other samples good). Reprogrammed to flow-paced.	Installed labelled bottle, lid off.				Cycled power on 2105ci. Changed 4230 external desiccant. Connected calibration line. Dammed channel with silicone tube.
MO-MPK	5	2	KH,WBC	5/12/2020	0810	PDT	0.075	0.2	<0.01 cfs	2	2L Distilled	716,778		9	0820	0815		Grabs only bacteria and pH, too dry for more. Ltd volume comp everything but 625/8270. Reconnected intake line. Turned off 6712. Turned fridge off/propped open.
MO-SIM	5	1	KH,WBC	5/11/2020	0845	PDT	0.169	3	<toe ~1 cfs	Turned on	4L Distilled	243,288	Time: 40 min/500mlx35	Installed labelled bottle, lid off.				Changed 4230 external desiccant. Connected calibration line.
MO-SIM	5	2	KH,WBC	5/12/2020	0848	PDT	0.159	3	~1 cfs	0			Program done. Errors have occurred (no more liquid samples 3-35 (09:17-06:37 PST), first two samples good). Ran program again. 1 "Sample 35 in 2 min". Stopped program.		0900		Intake line kinked 90 degrees where it enters the house. Someone outside must have pulled on it after the first two samples were taken. Removed kinked section, patched line and reran program. Turned off 6712. Turned fridge off/propped open. Reconnected main intake line.	
MO-SIM	5	3	WBC	5/13/2020	0800	PDT	0.177	3	<toe ~2 cfs	3	2L Distilled	437,207		19	0800			
MO-THO	5	1	KH,WBC	5/11/2020	0930	PDT	2.096	1	~2	2	4L Distilled	567,089	Time: 40 min/500mlx35	Installed labelled bottle, lid off.				Switched out battery.
MO-THO	5	2	KH,WBC	5/12/2020	0944	PDT	2.101	1	NR	2	2L Distilled	730,175	Program done. Reprogrammed to flow-paced.	18.5	0950	0950		Turned 6712 off.

Event Notes:

NR: Not recorded
All times are recorded here in PDT
Forecast Rain: Not applicable

Sample Tracking:

Bacteria samples to VCHCA:
04/28/2020 @ 11:57 PDT (SCR/FIL/OXN/SPA/VEN) by Kelly Hahs
04/30/2020 @10:50 PDT (VR2/MEI/OJA/HUE) by Kelly Hahs
05/12/2020 @ 12:09 PDT (CC/CAM/SIM/MPK/THO) by Kelly Hahs

Chemistry grab and composite samples to Weck Laboratories, Inc. (via Weck-provided courier):

04/28/2020 @ 13:35 PDT (SCR/FIL/OXN/SPA/VEN) by W.B. Carey (no grabs at OXN/SPA (dry), no oil and grease at VEN (missed), limited volume (9L) OXN composite)
05/01/2020 @12:20 PDT (VR2/MEI/OJA/HUE) by W.B. Carey (MEI dry)
05/12/2020 @ 13:30 PDT (CC/CAM/MPK/SIM/THO) by W.B. Carey (no grabs at MPK (dry), no composite at MO-SIM (vandalism))
05/13/2020 @ 12:25 PDT (SIM) by W.B. Carey (composite only)

Meters:

SCR/FIL/OXN/SPA/VEN (WBC,KH): Beckman 410 # 110341139, YSI 85 # 03D0379
VR2/OJA/MEI/HUE (WBC,KH): Beckman 410 # 110341139, YSI 85 # 03D0379
CC/CAM/MPK/SIM/THO (WBC/KH): Beckman 410 # 110341139, YSI 85 # 03D0379

Deg F	Deg C	Deg C
29	-2	-1.667
30	-1	-1.111
31	-1	-0.556
32	0	0
33	1	0.556
34	1	1.111
35	2	1.667
36	2	2.222
37	3	2.778
38	3	3.333
39	4	3.889
40	4	4.444
41	5	5.000
42	6	5.556
43	6	6.111
44	7	6.667
45	7	7.222

Appendix E. Chain-of Custody Forms

9421085



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

Pre-season - Weck Laboratories. Invoice Contract No. AE17-001

Sampling Date: 8/19/19 + 8/21/19

Project Number: 2019/20-PRE

Sampling Team: K. HAHS, W.B. CAREY

SAMPLE ID	DATE/TIME COLLECTED	EPA 525.2	EPA 625-CTR	EPA 353.2 (NO2+NO3-N)	EPA 200.8* (total only, see list in side bar)	EPA 245.1. Hg (total only)	No action required	Clean with detergent and HNO3 (see notes #2)	Please dispose of per Lab SOP	Bottle Quantity	NOTES
EB lines	8/19/19 1200	X	X	X	X					7	See note #1
EB composite	8/21/19 1330	X	X	X	X					1	To be split in lab. See note #1
20 L carboy and lid								X		1	Please place tape or plastic bag over top
Blue cube cooler							X			1	
Black bag							X			1	
Waste Dilute HNO3											

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

Relinquished Printed Name: KELLY HAHS

Signature: [Signature]

Affiliation: VCWPD Date/Time: 8/21/19 1335

Received Printed Name: [Signature]

Signature: [Signature]

Affiliation: Weck Labs Date/Time: 8/21/19 1340

Other Notes: 1. Please use for MS/MSD analysis when sample volume permits. 8/21/19 425
2. Please clean with detergent, nitric acid, and deionized water per SOP.

[Signature] 8/21/19 445 3.200



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: 11.27.19 Project Number: 2019/20-1 (Wet)

Sampling Team: PD, DE

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)							Number of Bottles	NOTES
	ME-CC		X	X							1	
	ME-SCR		X	X							1	
	ME-VR2		X	X							1	
	MO-CAM	11/27/19 / 0630	X	X							1	
	MO-OJA		X	X							1	
	MO-MEI		X	X							1	
	MO-VEN		X	X							1	
	FB-1		X	X							1	

Relinquished Printed Name Peter Dorn
 Signature [Signature]
 Affiliation VTA / Rincon Date/Time 11.27.19 / (10:00)

Received Printed Name SALVADOR Y BARRACAN
 Signature [Signature]
 Affiliation P.H. Lab Date/Time 11/28/19 11:00

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time
1:10 1:100, and 1:1000 dilutions for E. coli



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: _____ Project Number: 2019/20-1 (Wet)

Sampling Team: _____

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)							Number of Bottles	NOTES
	MO-SPA		X	X							1	
	MO-FIL		X	X							1	
	MO-SIM	11/27/19/0900	X	X							1	
	MO-MPK	11/27/19/0750	X	X							1	
	MO-THO	11/27/19/1010	X	X							1	
	MO-OXN		X	X							1	
	MO-HUE		X	X							1	
	FD-1		X	X							1	

Relinquished Printed Name PETER JORANI
 Signature [Signature]
 Affiliation VTA Date/Time 11/27/19/1100

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

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time
1:10 1:100, and 1:1000 dilutions for E. coli



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: 11-26-19 - 11-27-19 Project Number: 2019/20-1 (Wet)

Sampling Team: Lara Meeker, Nico N.

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)							Number of Bottles	NOTES
	ME-CC		X	X							1	
	ME-SCR		X	X							1	
	ME-VR2	11.27.19 / 1015	X	X							1	
	MO-CAM		X	X							1	
	MO-OJA	11.27.19 / 700	X	X							1	
	MO-MEI	11.27.19 / 830	X	X							1	
	MO-VEN		X	X							1	
	FB-1		X	X							1	

Relinquished Printed Name Lara Meeker
 Signature [Signature]
 Affiliation WPD Date/Time 11-27-19 11:36

Received Printed Name Cameron Chandler
 Signature [Signature]
 Affiliation AVIL Date/Time 11-27-19 11:36

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time
1:10 1:100, and 1:1000 dilutions for E. coli



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: 11/27/19 Project Number: 2019/20-1 (Wet)

Sampling Team: DAVID LARAK + MICHELLE CARTER

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)							Number of Bottles	NOTES
	MO-SPA		X	X							1	ML
	MO-FIL		X	X							1	ML
	MO-SIM		X	X							1	ML
	MO-MPK		X	X							1	ML
	MO-THO		X	X							1	ML
	MO-OXN	11/27/19 / 0730	X	X							1	
	MO-HUE	11/27/19 / 0845	X	X							1	
	FD-1	11/27/19 / 0730	X	X							1	

Relinquished Printed Name _____
 Signature _____
 Affiliation _____ Date/Time 11/27/19

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

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time
1:10 1:100, and 1:1000 dilutions for E. coli



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: 11/27/19 Project Number: 2019/20-1 (Wet)

Sampling Team: DAVID LAAK + MICHELLE CARTER

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)							Number of Bottles	NOTES
	ME-CC	11/27/19/0945	X	X							1	
	ME-SCR	_____	X	X	_____	_____	_____	_____	_____	_____	1	MC
	ME-VR2	_____	X	X	_____	_____	_____	_____	_____	_____	1	MC
	MO-CAM	_____	X	X	_____	_____	_____	_____	_____	_____	1	MC
	MO-OJA	_____	X	X	_____	_____	_____	_____	_____	_____	1	MC
	MO-MEI	_____	X	X	_____	_____	_____	_____	_____	_____	1	MC
	MO-VEN	11/27/19/0620	X	X							1	
	FB-1	11/27/19/0845	X	X							1	

Relinquished Printed Name David Laak
 Signature [Signature]
 Affiliation VCHCA Date/Time 11/27/19 10:29

Received Printed Name Nadine West
 Signature [Signature]
 Affiliation PH Lab Date/Time 11/27/19 10:29

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time
1:10 1:100, and 1:1000 dilutions for E. coli



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: 11-27-19

Project Number: 2019/20-1 (Wet)

Sampling Team: WBC & DW

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)							Number of Bottles	NOTES
	MO-SPA	11-27-19 0615	X	X							1	
	MO-FIL	11-27-19 0730	X	X							1	
	MO-SIM		X	X							1	
	MO-MPK		X	X							1	
	MO-THO		X	X							1	
	MO-oxn		X	X							1	
	MO-HUE		X	X							1	
	FD-1		X	X							1	

Relinquished Printed Name DEAN WILKINSON
 Signature *Dean Wil*
 Affiliation VCWPD Date/Time 11-27-19 1050

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

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time
1:10 1:100, and 1:1000 dilutions for E. coli



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: 11-27-19 Project Number: 2019/20-1 (Wet)

Sampling Team: WBC & DW

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (Tray Method - WQ IDEXX)		E. coli (Tray Method - WQ IDEXX)		Number of Bottles	NOTES
	ME-GG		X	X			1	
	ME-SCR	11-27-19/0945	X	X			1	
	ME-VR2		X	X			1	
	MO-CAM		X	X			1	
	MO-OJA		X	X			1	
	MO-MEI		X	X			1	
	MO-VEN		X	X			1	
	FB-1		X	X			1	

Relinquished Printed Name DEAN WILKINSON
 Signature Dean Wilk
 Affiliation VCWPD Date/Time 11-27-19 1050

Received Printed Name Made West
 Signature [Signature]
 Affiliation PH Lab Date/Time 11/27/19 1053

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time
1:10 1:100, and 1:1000 dilutions for E. coli



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE20-007)
Toxicity - ABC Laboratories

Side 1 of 2

Sampling Date: 11/27/19 Project Number: 2019/20-1 (Wet)

Sampling Team: DAVID LAAK + MICHELLE CARTER

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	11/27/19/0545	X							2	Note 1, Note 2, Note 3
ME-SCR					X				1	Note 1, Note 2, Note 3 ML
ME-VR2		X							2	Note 1, Note 2, Note 3 ML
MO-GAM						X			2	Note 1, Note 2, Note 3 ML
MO-OJA						X			2	Note 1, Note 2, Note 3 ML
MO-MEI						X			2	Note 1, Note 2, Note 3 ML
MO-VEN	11/27/19/0620						X		2	Note 1, Note 2, Note 3

Relinquished Printed Name David Laak
 Signature [Signature]
 Affiliation VCWPD Date/Time 11/27/19 10:57

Received Printed Name [Signature]
 Signature [Signature]
 Affiliation APUNTE MIRONSON Date/Time 11-27-19 1057

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 (Contract AE20-007)
Toxicity - ABC Laboratories

Side 2 of 2

Sampling Date: 11/27/19 Project Number: 2019/20-1 (Wet)
 Sampling Team: DAVID LAAK + MICHELLE CARTER

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	11/27/19/0730					X			2	Note 1, Note 2, Note 3
MO-HUE	11/27/19/0845						X		3	Note 1, Note 2, Note 3, Note 4
MO-THO							X		2	Note 1, Note 2, Note 3 MC
MO-MPK								X	2	Note 1, Note 2, Note 3 MC
MO-SIM							X		2	Note 1, Note 2, Note 3 MC
MO-FIL							X		2	Note 1, Note 2, Note 3 MC
MO-SPA						X			2	Note 1, Note 2, Note 3 MC

Relinquished Printed Name David Laak
 Signature [Signature]
 Affiliation VCU PD Date/Time 11/27/19 10:57

Received Printed Name [Signature]
 Signature [Signature]
 Affiliation AQUATIC BIOPROJECT Date/Time 11-27-19 10:57

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.
Note 4: If salinity >2 ppt then also run topsmelt for comparison. If topsmelt unavailable, use *Hyalella*



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE20-007)
Toxicity - ABC Laboratories

Side 1 of 2

Sampling Date:

11-27-19

Project Number: 2019/20-1 (Wet)

Sampling Team:

Lara Meeker, Nico N.

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	<u>11-27-19 10:15</u>	X							2	Note 1, Note 2, Note 3
MO-CAM						X			2	Note 1, Note 2, Note 3
MO-OJA	<u>11-27-19 7:00</u>					X			2	Note 1, Note 2, Note 3
MO-MEI	<u>11-27-19 8:30</u>					X			2	Note 1, Note 2, Note 3
MO-VEN							X		2	Note 1, Note 2, Note 3

Relinquished

Printed Name

Lara Meeker

Signature

[Signature]

Affiliation

WPD

Date/Time

11-27-19 11:04

Received

Printed Name

JIM MANAN

Signature

[Signature]

Affiliation

AQUATIC BIOASSAY

Date/Time

11-27-19 11:04

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 (Contract AE20-007)
Toxicity - ABC Laboratories

Side 2 of 2

Sampling Date: 11/27/19

Project Number: 2019/20-1 (Wet)

Sampling Team: PD, DF

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		3	Note 1, Note 2, Note 3, Note 4
MO-THO	<u>11/27/19 / 1010</u>						X		2	Note 1, Note 2, Note 3
MO-MPK	<u>11/27/19 / 0750</u>							X	2	Note 1, Note 2, Note 3
MO-SIM	<u>11/27/19 / 0900</u>						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 Peter Doran
 Signature [Signature]
 Affiliation VTA / Rincon Date/Time 11/27/19 / 1136

Received Printed Name ELIZABETH MARTINEZ
 Signature [Signature]
 Affiliation ARMATIC GUAYMAS Date/Time 11/27/19 / 1136

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.
Note 4: If salinity >2 ppt then also run topsmelt for comparison. If topsmelt unavailable, use *Hyaella*



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE20-007)
Toxicity - ABC Laboratories

Side 1 of 2

Sampling Date: 11/27/19 Project Number: 2019/20-1 (Wet)

Sampling Team: PD, DF

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		X							2	Note 1, Note 2, Note 3
MO-CAM	11/27/19 / 0630					X			2	Note 1, Note 2, Note 3
MO-OJA						X			2	Note 1, Note 2, Note 3
MO-MEI						X			2	Note 1, Note 2, Note 3
MO-VEN							X		2	Note 1, Note 2, Note 3

Relinquished Printed Name Peter Doran
 Signature [Signature]
 Affiliation VTA/RMeans Date/Time 11/27/19 / 1136

Received Printed Name ELIZABETH MATHIAS
 Signature [Signature]
 Affiliation AQUATIC BIOASSAY Date/Time 11-27-19 / 1134

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 (Contract AE20-007)
Toxicity - ABC Laboratories

Side 1 of 2

Sampling Date: 11-27-19 Project Number: 2019/20-1 (Wet)
 Sampling Team: WBC & DW

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	11-27-19 0945				X				1	Note 1, Note 2, Note 3
ME-VR2		X							2	Note 1, Note 2, Note 3
MO-CAM						X			2	Note 1, Note 2, Note 3
MO-OJA						X			2	Note 1, Note 2, Note 3
MO-MEI						X			2	Note 1, Note 2, Note 3
MO-VEN							X		2	Note 1, Note 2, Note 3

Relinquished Printed Name DEAN WILKINSON
 Signature *Dean Wilson*
 Affiliation WVWD Date/Time 11-27-19 1050 1118

Received Printed Name ANITA ELIZABETH MATURANO
 Signature *Anita*
 Affiliation ARUMIC BLOSSAY Date/Time 11-27-19 1118

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 (Contract AE20-007)
Toxicity - ABC Laboratories

Side 2 of 2

Sampling Date: 11-27-19 Project Number: 2019/20-1 (Wet)

Sampling Team: WBC & DW

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		3	Note 1, Note 2, Note 3, Note 4
MO-THO							X		2	Note 1, Note 2, Note 3
MO-MPK								X	2	Note 1, Note 2, Note 3
MO-SMF							X		2	Note 1, Note 2, Note 3
MO-FIL	11-27-19 0730						X		2	Note 1, Note 2, Note 3
MO-SPA	11-27-19 0615					X			2	Note 1, Note 2, Note 3

Relinquished Printed Name DEAN WILKINSON
 Signature *Dean Wilkinson*
 Affiliation VCWPD Date/Time 11-27-19 ~~1058~~ 1118

Received Printed Name ELIZABETH MARTINEZ
 Signature *Elizabeth Martinez*
 Affiliation ANANIC BARRASAN Date/Time 11-27-19 1118

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.
Note 4: If salinity >2 ppt then also run topsmelt for comparison. If topsmelt unavailable, use *Hyalella*

9K27097



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE17-001)
Grabs - Weck Laboratories (SIDE 1 of 2)

Sampling Date: 11/27/19 Project Number: 2019/20-1 (Wet) Grabs

Sampling Team: WBC, DW, PD, DF, DL, MC, LM, NN

SAMPLE ID	DATE/TIME COLLECTED	Analytes						Number of Bottles	NOTES
		Oil & Grease (EPA 1664A)	Cyanide (ASTM D7511)	GRO (EPA 8015B)	MTBE & 2CLEVE (EPA 624)	Travel Blanks (EPA 624)-only analyze if hits			
ME-CC	11/27/19/0945	2	1	2	3	1	9	DL+MC	
ME-SCR	11/27/19/0945	2	1	2	3	1	9	WBC & DW	
ME-VR2	11/27/19 1015	2	1	2	3	1	9	LM+NN	
MO-CAM	11/27/19/0630	3	1	2	3	1	10	PD+DF	
MO-OJA	11/27/19 700	2	1	2	3	1	9	LM+NN	
MO-MEI	11/27/19 830	2	1	2	3	1	9	LM+NN	
MO-VEN	11/27/19/0620	2	1	2	3	1	9	DL+MC	
MO-OXN ***	11/27/19/0730	2	1	2	3	1	9	DL+MC	
FD-1	11/27/19/0730	2	1	2	3	1	9	DL+MC	

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

***Trip Blank VOA's for EPA 624.1 not received. -CSS 11/27/19

Relinquished Printed Name WILLIAM B. CAREY
 Signature William B. Carey
 Affiliation VCWPD Date/Time 11/27/19 / 1445

Received Printed Name Timothy Maestas
 Signature Tom
 Affiliation Essential Date/Time 11-27-19

Other Notes: Travel blanks are only to be analyzed if samples have hits of MTBE or 2-CLEVE
EPA 624 has replaced EPA 524.2 for MTBE and 2-Cleve



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE17-001)
Grabs - Weck Laboratories (SIDE 2 of 2)

Sampling Date: 11-27-19 Project Number: 2019/20-1 (Wet) Grabs

Sampling Team: NBC, DW, PD, DF, DL, MC, LM, NN

SAMPLE ID	DATE/TIME COLLECTED	Oil & Grease (EPA 1664A)	Cyanide (ASTM D7511)	GRO (EPA 8015B)	MTBE & 2CLEVE (EPA 624)	Travel Blanks (EPA 624)-only analyze if bits								Number of Bottles	NOTES
MO-SPA ***	11/27/19 / 0615	2	1	2	3	1								9	WBC & DW
MO-FIL *	11/27/19 / 0730	2	1	2	3	1								9	WBC & DW
MO-SIM	11/27/19 / 0900	2	1	2	3	1								9	PD + DF
MO-HUE	11/27/19 / 0845	2	1	2	3	1								9	DL + MC
MO-THO	11/27/19 / 1010	2	1	2	3	1								9	PD + DF
MO-MPK	11/27/19 / 07:50	2	1	2	3	1								9	PD + DF
FB-1	11/27/19 / 0845	2	1	2	3	1								9	DL + MC

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

07:50 not 09:00. Recorded incorrectly on COC by sample team

***Trip Blank VOA's not received for EPA 624.1. -CSS 11/27/19

Relinquished Printed Name WILLIAM B. CAREY
 Signature William B. Carey
 Affiliation VCWPD Date/Time 11/27/19 / 1445

Received Printed Name Timothy Maestas
 Signature Tim
 Affiliation Essential Date/Time 11-27-19 3:30 p

Other Notes: Travel blanks are only to be analyzed if samples have bits of MTBE or 2-CLEVE)
EPA 624 has replaced EPA 524.2 for MTBE and 2-Cleve

*Trip Blank broken at lab. -LKA 11/27/19

Timothy Maestas 11-27-19 5:19 p.
Pete Ste... 11/27/19 17:17
 24°C T-0234

9K27094
9K27095 cas 11/27/19



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE17-001)
Composites - Weck Laboratories (SIDE 1 of 2)

Sampling Date: 11/27/19 Project Number: 2019/20-1 (Wet) Composites

Sampling Team: WBC, DW, PD, DF, DL, MC, LM, NM

SAMPLE ID	DATE/TIME COLLECTED	Subsample for Imazapyr and NID as CTAS (see V-11 COC)	Dissolved Inorganic Carbon and Dissolved Organic Carbon	NO3-N, Total Chlorine Residual	Metals, total & dissolved (+ Hardness), & Barium (total only)	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F, SO4 (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-LJ.	DRO/ORO (EPA 8015B)	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	NOTES
ME-CC	11/27/19 / 1415		X	X	X	X	X	X	X	X	X	X	X	X	1	DL+MC
ME SCR	11/27/19 / 1350		X		X	X	X	X	X	X	X	X	X	X	1	WBC & DW
ME-VR2	11/27/19 / 1310	X	X		X	X	X	X	X	X	X	X	X	X	1	KH & DL
MO-CAM	11/27/19 / 0630		X		X	X	X	X	X	X	X	X	X	X	1	PD+DF
MO-OJA			X		X	X	X	X	X	X	X	X	X	X	1	
MO-MEI	11/27/19 850		X		X	X	X	X	X	X	X	X	X	X	1	LA+NM
MO-VEN	11/27/19 / 0620		X		X	X	X	X	X	X	X	X	X	X	1	DL+MC

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.), AND Na, K
 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)

Relinquished Printed Name: KELLY HAH S
 Signature: [Signature]
 Affiliation: WVPO Date/Time: 11/27/19 / 1445

Received Printed Name: Timothy Maestas
 Signature: [Signature]
 Affiliation: Essential Date/Time: 2:35 pm / 11-27-19

Other Notes: 1) Filter for dissolved metals and perform conductivity analyses immediately.
 2) Please do not dilute limited volume samples when enacting priority list (low reporting limits are important).
 3) Imazapyr (EPA 538) and NID as CTAS (SM 5540D) are to be processed under a separate COC



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE17-001)
Composites - Week Laboratories (SIDE 2 of 2)

Sampling Date: 11/27/19 Project Number: 2019/20 1 (Wet) Composites

Sampling Team: WBC, DW, AB, DF, DL, MC, LM, MN

SAMPLE ID	DATE/TIME COLLECTED	Dissolved Inorganic Carbon and Dissolved Organic Carbon	Metals, total & dissolved (+ Hardness), & Barium (total only)	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F, SO4 (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	DRO/ORO (EPA 8015B)	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	NOTES
MO-SPA	11/27/19/0845	X	X	X	X	X	X	X	X	X	X	X	1	WBC & DW
MO-FIL	11/27/19/1250	X	X	X	X	X	X	X	X	X	X	X	1	WBC & DW
MO-SIM	11/27/19/0900	X	X	X	X	X	X	X	X	X	X	X	1	PD+DF
MO-MPK	11/27/19/0750	X	X	X	X	X	X	X	X	X	X	X	1	PD+DF
MO-THO	11/27/19/1010	X	X	X	X	X	X	X	X	X	X	X	1	PD+DF
MO-oxN	11/27/19/0730	X	X	X	X	X	X	X	X	X	X	X	1	DL+MC
MO-HUE	11/27/19/0915 1350	X	X	X	X	X	X	X	X	X	X	X	1	DL+MC KH

Metals by200.8, 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.), AND Na, K

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

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

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

SEE SIDE 1

Other Notes: 1) Filter for dissolved metals and perform conductivity analyses immediately.
 2) Please do not dilute limited volume samples when enacting priority list (low reporting limits are important).



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE17-001)
Equipment - Weck Laboratories

Sampling Date: 11/27/19 Project Number: 2019/20-1 (Wet) Cleaning

Sampling Team: WBC, DW, PD, DF, DL, MC, LM, NN

EQUIPMENT	Clean with detergent and HNO3	Clean with detergent, HNO3, and methanol*	No action required	NOTES
18.5 L. wide neck carboy and lid	12			Please place tape or plastic bag over top and note on wrap if bottle was cleaned with methanol.
20 L. narrow neck carboy and lid (1 assembly) or silicone stopper	12			
Blue cube cooler	1			
Grey bucket	1			Please place tape or plastic bag over top and note on wrap if bottle was cleaned with methanol.
Black bottle bag	10	11		
Bottle harness	1			

Relinquished Printed Name WILLIAM B. CAREY
 Signature William B. Carey
 Affiliation VCWPD Date/Time 11/27/19 1:45

Received Printed Name Timothy Maestas
 Signature [Signature]
 Affiliation Essential Date/Time 11-27-19 2:30p

Other Notes: _____



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: 1/16/20 - 1/17/20 Project Number: 2019/20-2 (Wet)

Sampling Team: MICHELLE CARTER + PETER DORAN

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)								Number of Bottles	NOTES
	ME-CC		X	X								1	
	ME-SCR		X	X								1	
	ME-VR2		X	X								1	
	MO-CAM	1/16/20 2055	X	X								1	
	MO-OJA		X	X								1	
	MO-MEI		X	X								1	
	MO-VEN		X	X								1	
	FB-1	1/16/20 2055	X	X								1	(MO-CAM)

Relinquished Printed Name Michelle Carter

Signature [Signature]

Affiliation PINCON CONSULTANTS Date/Time 1/17/20 1:25

Received Printed Name Cameron Chamberlain

Signature [Signature]

Affiliation PHL Date/Time 1/17/20 1:25

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time
1:10 1:100, and 1:1000 dilutions for E. coli



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: 1/16/20 - 1/17/20 Project Number: 2019/20-2 (Wet)

Sampling Team: MICHELLE CARTER + PETER DORAN

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)							Number of Bottles	NOTES
	MO-SPA		X	X							1	
	MO-FIL		X	X							1	
	MO-SIM	1/16/20 2330	X	X							1	
	MO-MPK	1/16/20 2230	X	X							1	
	MO-THO	1/17/20 0025	X	X							1	
	MO-OXN		X	X							1	
	MO-HUE		X	X							1	
	FD-1	1/16/20 2055	X	X							1	(MO-CAM)

Relinquished Printed Name MICHELLE CARTER
 Signature [Signature]
 Affiliation RINCON CONSULTANTS Date/Time 1/17/20 1:25

Received Printed Name Cameron Chapman
 Signature [Signature]
 Affiliation PHL Date/Time 1:25 1/17/20

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time
1:10 1:100, and 1:1000 dilutions for E. coli



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: 1/16/20

Project Number: 2019/20-2 (Wet)

Sampling Team: JM, CY

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)							Number of Bottles	NOTES
	ME-CC	1/16/20 / 23:25	X	X							1	
	ME-SCR	1/16/20 / 22:10	X	X							1	
	ME-VR2		X	X							1	
	MO-CAM		X	X							1	
	MO-OJA		X	X							1	
	MO-MEI		X	X							1	
	MO-VEN	1/16/20 / 17:49 20:49	X	X							1	
	FB-1		X	X							1	

Relinquished Printed Name Jaime McClain
 Signature [Signature]
 Affiliation Rincon Date/Time 1/16/20 / 23:59

Received Printed Name Cameron Chandler
 Signature [Signature]
 Affiliation PHI Date/Time 1200 1/17/20

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time
1:10 1:100, and 1:1000 dilutions for E. coli



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: 1/16/20 Project Number: 2019/20-2 (Wet)

Sampling Team: Dave Laack & Dean W. Hansen

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)												Number of Bottles	NOTES
	MO-SPA	1/16/20 20:10	X	X												1	
	MO-FIL	1/16/20 21:05	X	X												1	
	MO-SIM		X	X												1	
	MO-MPK		X	X												1	
	MO-THO		X	X												1	
	MO-OXN	1/16/20 22:05	X	X												1	
	MO-HUE	1/16/20 22:55	X	X												1	
	FD-1		X	X												1	

Relinquished Printed Name David Laack
 Signature [Signature]
 Affiliation VCWPD Date/Time 1/17/20 00:00

Received Printed Name Cameron Chynoweth
 Signature [Signature]
 Affiliation PHL Date/Time 1/17/20 12:00

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time
1:10 1:100, and 1:1000 dilutions for E. coli

0A17065



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE17-001)
Grabs - Weck Laboratories (SIDE 1 of 2)

Sampling Date: 1-16-2020

Project Number: 2019/20-2 (Wet) Grabs

Sampling Team: _____

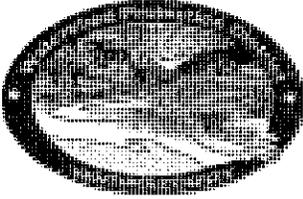
SAMPLE ID	DATE/TIME COLLECTED	Oil & Grease (EPA 1664A)	Cyanide (ASTM D7511)	GRO (EPA 8015B)	MTBE & 2CLEVE (EPA 624)	Travel Blanks (EPA 624)-only analyze if hits							Number of Bottles	NOTES
ME-CC	1-16-2020 23:25	2	1	2	3	1							9	JM & CY
ME-SCR	1-16-2020 22:10	2	1	2	3	1							9	JM & CY
ME-VR2	1-16-2020 22:45	2	1	2	3	1							9	LM & EL
MO-CAM	1-16-2020 20:55	3	1	2	3	1							10	MC & PD
MO-OJA	1-16-2020 19:45	2	1	2	3	1							9	WBC & EL
MO-MEI	1-16-2020 18:55	2	1	2	3	1							9	WBC & EL
MO-VEN	1-16-2020 17:49 20:49	2	1	2	3	1							9	JM & CY *Sample time change per
MO-OXN	1/16/20 22:05	2	1	2	3	1							9	DL & DLW K. Hahs. BG
FD-1	1-16-20 20:55 20:55	2	1	2	3	1							9	MC + PD 1/22/2020

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

Relinquished Printed Name David Look
 Signature [Signature]
 Affiliation WVWPD Date/Time 1/17/20 13:20

Received Printed Name Johnny Alvarez
 Signature [Signature]
 Affiliation WECK Date/Time 1/17/20 13:20

Other Notes: Travel blanks are only to be analyzed if samples have hits of MTBE or 2-CLEVE)
EPA 624 has replaced EPA 524.2 for MTBE and 2-Cleve
Jamy/man 1/17/20 16:10
2-2c 70222



0A17005

Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE17-001)
Grabs - Weck Laboratories (SIDE 2 of 2)

Sampling Date: 1-16-2020 Project Number: 2019/20-2 (Wet) Grabs
 Sampling Team: _____

SAMPLE ID	DATE/TIME COLLECTED	Number of Bottles						Number of Bottles	NOTES
		Oil & Grease (EPA 1664A)	Cyanide (ASTM D7511)	GRO (EPA 8015B)	MTBE & 2-CLEVE (EPA 624)	Travel Blanks (EPA 624)-only analyze if hits			
MO-SPA	1/16/20 20:10	2	1	2	3	1	9	DL+DW	
MO-FIL	1/16/20 21:05	2	1	2	3	1	9	DL+DW	
MO-SIM	1-16-2020 2330	2	1	2	3	1	9	MC+PD	
MO-HUE	1/16/20 22:55	2	1	2	3	1	9	DL+DW	
MO-THO	1-17-2020 0025	2	1	2	3	1	9	MC+PD	
MO-MPK	1-16-2020 2230	2	1	2	3	1	9	MC+PD	
FB-1	1/16/2020 20:55	2	1	2	3	1	9	MC+PD	

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

Relinquished Printed Name David Laak
 Signature [Signature]
 Affiliation VCWPD Date/Time 1/17/20 13:20

Received Printed Name Johnny Alvarez
 Signature [Signature]
 Affiliation Weck Date/Time 1/17/20 13:20

Other Notes: Travel blanks are only to be analyzed if samples have hits of MTBE or 2-CLEVE)
EPA 624 has replaced EPA 524.2 for MTBE and 2-Cleve
[Signature] 1/17/20 10:10
2-20 20222

0A17061



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE17-001)
Composites - Weck Laboratories (SIDE 1 of 2)

Sampling Date: 1-16-2020

Project Number: 2019/20-2 (Wet) Composites

Sampling Team: _____

SAMPLE ID	DATE/TIME COLLECTED	Subsample for Imazapyr and NID as CTAS (see V-11 COC)	Dissolved Inorganic Carbon and Dissolved Organic Carbon	NO3-N, Total Chlorine Residual	Metals, total & dissolved (+ Hardness), & Barium (total only)	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F, SO4 (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	DRO/ORO (EPA 8015B)	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	NOTES
ME-CC	1/17/20 09:40	X	X	X	X	X	X	X	X	X	X	X	X	X	1	DL+LM
ME-SCR	1/17/20 10:25	X		X	X	X	X	X	X	X	X	X	X	X	1	DL+LM
ME-VR2	1/17/20 09:15	X	X	X	X	X	X	X	X	X	X	X	X	X	1	KH+DW
MO-CAM	21:44 1-16-2020 20:50	X		X	X	X	X	X	X	X	X	X	X	X	1	MC+PD
MO-OJA	1-16-2020 21:30	X		X	X	X	X	X	X	X	X	X	X	X	1	LM&EL
MO-MEI	1-16-2020 22:02	X		X	X	X	X	X	X	X	X	X	X	X	1	LM&EL
MO-VEN	1-16-2020 21:01	BGX		X	X	X	X	X	X	X	X	X	X	X	1	JM&CY
	21:01	*Sample time change per Kelly Hahs. BG 1/22/2020														

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.), AND Na, K
 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

Relinquished

Printed Name David Laak

Signature _____

Affiliation VCWPD Date/Time 1/17/20 13:20

Received

Printed Name Johnny Alvarez

Signature _____

Affiliation Weck Date/Time 1/17/20 13:20

Other Notes:

- 1) Filter for dissolved metals and perform conductivity analyses immediately.
- 2) Please do not dilute limited volume samples when enacting priority list (low reporting limits are important).
- 3) Imazapyr (EPA 538) and NID as CTAS (SM 5540D) are to be processed under a separate COC

Janeen 1/17/20 16:10
2-2-C 70222



0A17001

Chain of Custody Record

Ventura County Watershed Protection District
 NPDES Stormwater Monitoring Program
 Project: NPDES Stormwater Wet Season (Contract AE17-001)
 Composites - Weck Laboratories (SIDE 2 of 2)

Sampling Date: 1-16-2020

Project Number: 2019/20-2 (Wet) Composites

Sampling Team: _____

SAMPLE ID	DATE/TIME COLLECTED				Dissolved Inorganic Carbon and Dissolved Organic Carbon	Metals, total & dissolved (+ Hardness), & Barium (total only)	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353-2), Cl, F, SO4 (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	DRO/ORO (EPA 8015B)	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	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.), AND Na, K 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
MO-SPA	1/16/20 20:20				X	X	X	X	X	X	X	X	X	X	X	1	DL+DW
MO-FIL	1/17/20 10:05				X	X	X	X	X	X	X	X	X	X	X	1	KH+DW
MO-SIM	1/16/20 2335				X	X	X	X	X	X	X	X	X	X	X	1	MC+PD
MO-MPK	1/16/20 2235 ^{HS}				X	X	X	X	X	X	X	X	X	X	X	1	MC+PD
MO-THO	1/17/20 0030				X	X	X	X	X	X	X	X	X	X	X	1	MC+PD
MO-OXN	1/16/20 23:35				X	X	X	X	X	X	X	X	X	X	X	1	DL+DW
MO-HUE	1/17/20 08:35				X	X	X	X	X	X	X	X	X	X	X	1	KH+DW

Relinquished Printed Name David Laak
 Signature [Signature]
 Affiliation VCWPD Date/Time 1/17/20 13:20

Received Printed Name Johnny Alvarez
 Signature [Signature]
 Affiliation Weck Date/Time 1/17/20 13:20

Other Notes: 1) Filter for dissolved metals and perform conductivity analyses immediately.
 2) Please do not dilute limited volume samples when enacting priority list (low reporting limits are important).



0A7001

Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE17-001)
Equipment - Weck Laboratories

Sampling Date: 1-16-2020 Project Number: 2019/20-2 (Wet) Cleaning

Sampling Team: _____

EQUIPMENT	Clean with detergent and HNO3	Clean with detergent, HNO3, and methanol*	No action required	NOTES
18.5 L wide neck carboy and lid	1			Please place tape or plastic bag over top and note on wrap if bottle was cleaned with methanol.
20 L narrow neck carboy and lid (+assembly) or silicone stopper	13			
Blue cube cooler	1		13	
Grey bucket	1		1	Please place tape or plastic bag over top and note on wrap if bottle was cleaned with methanol.
Black bottle bag	1		11	
Bottle harness	1		3	

Relinquished Printed Name: David Look
 Signature: [Signature]
 Affiliation: VCWPD Date/Time: 1/17/20 13:20

Received Printed Name: Johnny Alvarez
 Signature: [Signature]
 Affiliation: weck Date/Time: 1/17/20 13:20

Other Notes: _____



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: 3/10/2020 Project Number: 2019/203 (Wet)

Sampling Team: Dave L. Dean W.

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)							Number of Bottles	NOTES
	ME-CC		X	X							1	
	ME-SCR	3/10/20 12:20	X	X							1	
	ME-VR2		Y	Y							1	
	MO-CAM		X	X							1	
	MO-OJA		X	X							1	
	MO-MEI		X	X							1	
	MO-VEN		Y	Y							1	
	TBT		X	X							1	

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

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

SEE OTHER SIDE

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time
1:10 1:100, and 1:1000 dilutions for E. coli



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: 3/10/2020 Project Number: 2019/20-3 (Wet)

Sampling Team: Dave Laak & Dean Wilkin^{son}

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)							Number of Bottles	NOTES
	MO-SPA	3/10/20 09:15	X	X							1	
	MO-FIL	3/10/20 10:00	X	X							1	
	MO-SIM		X	X							1	
	MO-MPK		X	X							1	
	MO-THO		X	X							1	
	MO-OXN	3/10/20 11:05	X	X							1	
	MO-HUE		X	X							1	
	MO-XXX		X	X							1	

Relinquished Printed Name David Laak
 Signature [Signature]
 Affiliation VCWPD Date/Time 3/10/2020 13:13

Received Printed Name SALVADOR Y. BERRAGAN
 Signature [Signature]
 Affiliation P.H. Lab Date/Time 3/10/20 13:15

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time
1:10 1:100, and 1:1000 dilutions for E. coli



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: 3.10.2020 Project Number: 2019/20-3 (Wet)

Sampling Team: PD, CW

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)							Number of Bottles	NOTES
	ME-CC	3.10.20/1135	X	X							1	PD/CW
	ME-SCR		X	X							1	
	ME-VR2		X	X							1	
	MO-CAM		X	X							1	
	MO-OJA		X	X							1	
	MO-MEI		X	X							1	
	MO-VEN	3.10.20/0920	X	X							1	PD/CW
	MO-XXX		X	X							1	

Relinquished Printed Name Peter Duran

Signature [Signature]

Affiliation VCPW Date/Time 3.10.20 12:20

Received Printed Name SALVADOR Y. BARRAGAN

Signature [Signature]

Affiliation Ref. Lab Date/Time 3/10/20 12:15

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time
1:10 1:100, and 1:1000 dilutions for E. coli



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: 3/10/20 Project Number: 2019/20-3 (Wet)

Sampling Team: MICHELLE CARTER + CALEB YAKEL

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)						Number of Bottles	NOTES
MO-SPA	MO-SPA		X	X						1	MC
MO-FIL	MO-FIL		X	X						1	MC
MO-SIM		3/10/20 / 1045	X	X						1	
MO-MPK		3/10/20 / 0930	X	X						1	
MO-THO		3/10/20 / 1140	X	X						1	
MO-OXN	MO-OXN		X	X						1	MC
MO-HUE	MO-HUE		X	X						1	MC
			X	X						1	

Relinquished Printed Name MICHELLE CARTER
 Signature [Signature]
 Affiliation RINCON Date/Time 3/10/20 / 1232

Received Printed Name SALVADOR Y. BARRAGAN
 Signature [Signature]
 Affiliation P.P. Lab Date/Time 3/10/20 12:30

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time
1:10 1:100, and 1:1000 dilutions for E. coli



0011074

Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE17-001)
Grabs - Weck Laboratories (SIDE 1 of 2)

Sampling Date: 3/10/2020 Project Number: 2019/20-3 (Wet) Grabs
 Sampling Team: PD+CW, DL+DW, MC+CF

SAMPLE ID	DATE/TIME COLLECTED	Analytes						Number of Bottles	NOTES
		Oil & Grease (EPA 1664A)	Cyanide (ASTM D7511)	GRO (EPA 8015B)	MTBE & 2CLEVE (EPA 624)	Travel Blanks (EPA 624)-only analyze if hits			
ME-CC	3/10/20 1135	2	1	2	3	1	9	PD + CW	
ME-SCR	3/10/20 12:20	2	1	2	3	1	9	DL	
ME-VR2		2	1	2	3	1	9	OL	
MO-CAM	3/10/20 16:05	3	1	2	3	1	10	PD + CW PD	
MO-OJA		2	1	2	3	1	9	DL	
MO-MEI		2	1	2	3	1	9	DL	
MO-VEN	3/10/20 0920	2	1	2	3	1	9	PD + CW	
MO-OXN	3/10/20 11:05	2	1	2	3	1	9	DL+DW	
FD-1		2	1	2	3	1	9		

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 VCWAD Date/Time 3-11-20/1300

Received Printed Name JOSE MIGUEL DCS
 Signature [Signature]
 Affiliation Weck Date/Time 3-11-20/1300

Other Notes: Travel blanks are only to be analyzed if samples have hits of MTBE or 2-CLEVE)
EPA 624 has replaced EPA 524.2 for MTBE and 2-Cleve
Jonathan 3/10/20 14:52
1.9°C TOXW

0011074



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE17-001)
Grabs - Weck Laboratories (SIDE 2 of 2)

Sampling Date: 3/10/20 Project Number: 2019/20-3 (Wet) Grabs
 Sampling Team: PD & CW, DL & DW, MC & CY

SAMPLE ID	DATE/TIME COLLECTED	Oil & Grease (EPA 1664A)	Cyanide (ASTM D7511)	GRO (EPA 8015B)	MTBE & 2CLEVE (EPA 624)	Travel Blanks (EPA 624)-only analyze if hits								Number of Bottles	NOTES
MO-SPA	3/10/20 09:15	2	1	2	3	1								9	DL & DW
MO-FIL	3/10/20 10:00	2	1	2	3	1								9	DL & DW
MO-SIM	3/10/20 / 1045	2	1	2	3	1								9	MC & CY
MO-HUE	3/10/20 1440	2	1	2	3	1								9	PD & CW
MO-THO	3/10/20 / 1440	2	1	2	3	1								9	MC & CY MC
MO-MBK	3/10/20 / 0950	2	1	2	3	1								9	MC & CY MC
FB-1		2	1	2	3	1								9	

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 NCWPO Date/Time 3-11-20 / 1300

Received Printed Name Jose Angulo DCS
 Signature [Signature]
 Affiliation WECK Date/Time 3-11-20 / 1300

Other Notes: Travel blanks are only to be analyzed if samples have hits of MTBE or 2-CLEVE)
EPA 624 has replaced EPA 524.2 for MTBE and 2-Cleve
Joseph 3/11/20 14:52
1.9°C TOZU



0011071

Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE17-001)
Composites - Weck Laboratories (SIDE 1 of 2)

Sampling Date: 3/11/2020
 Sampling Team: PO+CW, DL+DW, MC+JB

Project Number: 2019/20-3 (Wet) Composites

SAMPLE ID	DATE/TIME COLLECTED				Dissolved Inorganic Carbon and Dissolved Organic Carbon	NO3-N, Total Chlorine Residual	Metals, total & dissolved (+ Hardness), & Barium (total only)	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F, SO4 (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	DRO/ORO (EPA 8015B)	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	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.), AND Na, K 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)	
ME-CC	3/11/20 0840				X	X	X	X	X	X	X	X	X	X	X	X	X	1	PO + CW
ME-SCR					X		X	X	X	X	X	X	X	X	X	X	X	1	
ME-VR2					X		X	X	X	X	X	X	X	X	X	X	X	1	
MO-CAM					X		X	X	X	X	X	X	X	X	X	X	X	1	
MO-OJA					X		X	X	X	X	X	X	X	X	X	X	X	1	
MO-MEI					X		X	X	X	X	X	X	X	X	X	X	X	1	
MO-VEN	3/11/20 1000				X		X	X	X	X	X	X	X	X	X	X	X	1	PO + CW

Relinquished Printed Name W.B. CAREY
 Signature W.B. Carey
 Affiliation VCWPD Date/Time 3-11-20/1300

Received Printed Name JOSE ANGLIO DCS
 Signature [Signature]
 Affiliation Weck Date/Time 3-11-20/1300

Other Notes: 1) Filter for dissolved metals and perform conductivity analyses immediately.
 2) Please do not dilute limited volume samples when enacting priority list (low reporting limits are important).

Joseph 3/11/20 14:52



0011071

Chain of Custody Record

Ventura County Watershed Protection District
 NPDES Stormwater Monitoring Program
 Project: NPDES Stormwater Wet Season (Contract AE17-001)
 Composites - Weck Laboratories (SIDE 2 of 2)

Sampling Date: 3/11/2020 Project Number: 2019/20-3 (Wet) Composites
 Sampling Team: PD & CW, DL & DW, MC & JB

SAMPLE ID	DATE/TIME COLLECTED	Dissolved Inorganic Carbon and Dissolved Organic Carbon Metals, total & dissolved (+ Hardness), & Barium (total only)	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F, SO4 (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	DRO/ORO (EPA 8015B)	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	NOTES
MO-SPA	3/11/20 08:00	X	X	X	X	X	X	X	X	X	X	1	DL+DW
MO-FIL	3/11/20 08:30	X	X	X	X	X	X	X	X	X	X	1	DL+DW
MO-SIM	3/11/20 /0840	X	X	X	X	X	X	X	X	X	X	1	MC + JB.
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	3/11/20 09:55	X	X	X	X	X	X	X	X	X	X	1	DL+DW
MO-HUE	3/11/20 09:20	X	X	X	X	X	X	X	X	X	X	1	PD + CW

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.), AND Na, K

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

Relinquished Printed Name W.B. Carey
 Signature W.B. CAREY
 Affiliation SCWPD Date/Time 3-11-20/1300

Received Printed Name JOSE ANGULO DCS
 Signature [Signature]
 Affiliation weck Date/Time 3-11-20/1300

Other Notes: 1) Filter for dissolved metals and perform conductivity analyses immediately.
 2) Please do not dilute limited volume samples when enacting priority list (low reporting limits are important).



0C11071

Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE17-001)
Equipment - Weck Laboratories

Sampling Date: 3/11/2020 Project Number: 2019/20-3 (Wet) Cleaning

Sampling Team: WBC

EQUIPMENT	Clean with detergent and HNO ₃	Clean with detergent, HNO ₃ , and methanol*	No action required	NOTES
18.5 L wide neck carboy and lid				Please place tape or plastic bag over top and note on wrap if bottle was cleaned with methanol.
20 L narrow neck carboy and lid (+assembly) or silicone stopper	7			
Blue cube cooler			7	
Grey bucket				Please place tape or plastic bag over top and note on wrap if bottle was cleaned with methanol.
Black bottle bag			6	
Bottle harness			1	

Relinquished Printed Name W.B. CAREY

Signature W.B. Carey

Affiliation VCWPD Date/Time 3-11-20/1300

Received Printed Name JOSE ANGUILO DCS

Signature [Signature]

Affiliation WECK Date/Time 3-11-20/1300

Other Notes: Joseph 3/11/20 14:52

0006057



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE17-001)
Grabs - Weck Laboratories (SIDE 1 of 1)

2019/20-4 (Wet) Grabs (KH 4/21/2020)

Sampling Date: 4-6-2020

Project Number: 2019/20-3 (Wet) Grabs

Sampling Team: PD, MD, EL & DL

Table with columns: SAMPLE ID, DATE/TIME COLLECTED, Oil & Grease (EPA 1664A), Cyanide (ASTM D7511), Number of Bottles, NOTES. Rows include samples like MO-HUE, ME-SCR, ME-VR2, MO-CAM, MO-OJA, MO-MEI, MO-MRK, and FD-1.

MO-MRK

Relinquished Printed Name: W.B. CAREY
Signature: W.B. Carey
Affiliation: VCWPD Date/Time: 4-6-20 / 1410

Received Printed Name: Louise S
Signature: Louise S
Affiliation: JLS Date/Time: 4-6-20 / 1410

Other Notes: EPA 821 has replaced EPA 8212 for VTRP and 8-Cl...

0006053



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE17-001)
Composites - Weck Laboratories (SIDE 1 of 2)

2019/20-4 (Wet) cleaning (KH 4/21/2020)

Sampling Date: 4-6-2020

Project Number: 2019/20-3 (Wet) Composites

Sampling Team: PD, MD & WBC

Table with columns: SAMPLE ID, DATE/TIME COLLECTED, Dissolved Inorganic Carbon and Dissolved Organic Carbon, Metals, total & dissolved (+ Hardness), & Barium (total only), Cr+6, BOD, COD, MBAS, TKN, Ammonia, TOC, NO3+NO2 (353.2), Cl, F, SO4 (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, DRO/ORO (EPA 8015B), ALK, CLO4, Turb, TDS, TSS, VSS, Cond, Number of Bottles, NOTES.

Relinquished Printed Name: W.B. CAREY
Signature: W.B. Carey
Affiliation: JCWPD Date/Time: 4/6/20/1410

Received Printed Name: Louie S
Signature: Louie S
Affiliation: DCS Date/Time: 4-6-20/1410

Other Notes: 1) Filter for dissolved metals and perform conductivity analyses immediately.
2) Please do not dilute limited volume samples when enacting priority list (low reporting limits are important).



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE17-001)
Equipment - Weck Laboratories

2019/20-4 (Wet) cleaning (KH 4/21/2020)

Sampling Date: 4-6-2020 Project Number: 2019/20-3 (Wet) Cleaning
 Sampling Team: DL, EL, PD, MD & WBC

EQUIPMENT	Clean with detergent and HNO3	Clean with detergent, HNO3, and methanol*	No action required	NOTES
18.5 L wide neck carboy and lid	1	1	1	Please place tape or plastic bag over top and note on wrap if bottle was cleaned with methanol.
20 L narrow neck carboy and lid (+assembly) or silicone stopper	0			
Blue cube cooler			7	
Grey bucket			1	Please place tape or plastic bag over top and note on wrap if bottle was cleaned with methanol.
Black bottle bag			6	
Bottle harness			2	

Relinquished Printed Name W.B. CAREY
 Signature W.B. Carey
 Affiliation VCWPD Date/Time 4/6/20 - 1410

Received Printed Name Louie S
 Signature Louie S
 Affiliation DCS Date/Time 4/6/20 - 1410

Other Notes: _____



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: 4/28/2020 Project Number: [REDACTED] 2019/20-5(DRY) SC04
 Sampling Team: W.B. CAREY, K. HANS

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	Total Coliform (Tray Method - WQ IDEXX)	E. coli (Tray Method - WQ IDEXX)						Number of Bottles	NOTES
	[REDACTED]	[REDACTED]									
	ME-SCR	4/28/2020 10:00	X	X						1	
	[REDACTED] MO-FIL	↓ 09:00	X	X						1	
	[REDACTED] MO-SA	↓ 08:15	X	X						1	
	[REDACTED]	[REDACTED]	X	X						1	
	[REDACTED] MO-DXN	[REDACTED]	X	X						1	DRY
	MO-VEN	4/28/2020 11:20	X	X						1	
	[REDACTED]	[REDACTED]									

Relinquished Printed Name KELLY HANS
 Signature [Signature]
 Affiliation VCWPD Date/Time 4/28/2020 / 12:00 PDT

Received Printed Name SALVADOR Y. BARRAGAN
 Signature [Signature]
 Affiliation P.H. Lab / F Date/Time 4/28/20 11:57

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time
1:10 1:100, and 1:1000 dilutions for E. coli All times PDT.



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: 4/30/2020

Project Number: [REDACTED] 2019/20-5 (dry) VRW +HVE

Sampling Team: W. B. CAREY, K. 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
	[REDACTED]	[REDACTED]									
	[REDACTED]	[REDACTED]									
	ME-VR2	4/30/20 09:30	X	X						1	
	[REDACTED]	[REDACTED]									
	MO-OJA	4/30/20 08:10	X	X						1	
	MO-MEI		X	X						1	DRY
	[REDACTED]	[REDACTED]									
	MO-HVE	4/30/20 10:15	X	X						1	

Relinquished Printed Name KELLY HAHS
 Signature [Signature]
 Affiliation VCSWD Date/Time 4/30/2020/10:47

Received Printed Name SALVADOR Y BARRAGAN
 Signature [Signature]
 Affiliation P.H. LAB Date/Time 4/30/20 10:50

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time
1:10 1:100, and 1:1000 dilutions for E. coli



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

Sampling Date: 5/12/2020
 Sampling Team: W.B. CAREY, K. HAHS

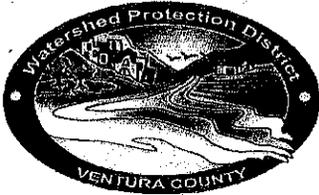
Project Number: 2019/20-5 (Dry) CCW

LAB USE ONLY	SAMPLE ID	DATE/TIME COLLECTED	E. coli (Tray Method - WQ IDEXX)	Total Coliform (Tray Method - WQ IDEXX)									Number of Bottles	NOTES
	ME-CC	05/12/2020 10:30	X	X									1	
	MO-CAM	11:20	X	X									1	
	MO-MPK	08:15	X	X									1	
	MO-SIM	09:00	X	X									1	
	MO-THO	09:50	X	X									1	

Relinquished Printed Name KELLY HAHS
 Signature [Signature]
 Affiliation VCLWPD Date/Time 5/12/2020 / 12:06

Received Printed Name SALVADOR N. BARRAGAN
 Signature [Signature]
 Affiliation PH Lab Date/Time 5/12/20 12:09

Other Notes: Perform bacteriological analyses within 6 hours of sample collection time
1:10 1:100, and 1:1000 dilutions for E. coli



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE17-001)
Grabs - Weck Laboratories (SIDE 1 of 1)

0d28071

Sampling Date: 4/28/2020
 Sampling Team: W.B. CAREY, K. HATS

Project Number: [REDACTED] 2019/20-5 (dry) SCRWN

SAMPLE ID	DATE/TIME COLLECTED	Oil & Grease (EPA 1664A)	Cyanide (ASTM D7511)	GRO (EPA 8015B)	Number of Bottles	NOTES
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
ME-SCR	4/28/2020 10:00	2	1	2	5	
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
MO- SCR FIL	4/28/2020 09:00	1	1	2	4	
MO- SCR SPA		1	1	2	4	DRY
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
MO- SCR OXN		1	1	2	4	DRY
MO- SCR VEN	4/28/2020 11:20	1	1	2	4	3 (no oil + grease)

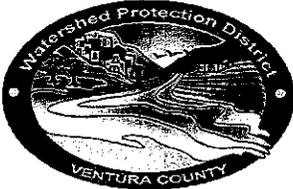
Lab to select samples for MS/MSD where extra volume permits (all test methods) excluding travel blanks.

Relinquished Printed Name WILLIAM B. CAREY
 Signature William B. Carey
 Affiliation VCWPD Date/Time 4-28-20/1335

Received Printed Name Abisue Velasquez
 Signature [Signature]
 Affiliation Weck Labs Date/Time 4-28-20/1335

Other Notes: [REDACTED]

Joseph 4/28/20 15:11
 2019/20-5



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program

0d28069

Project: NPDES Stormwater Wet Season (Contract AE17-001)
 Composites - Weck Laboratories (SIDE 1 of 2)

-5 (0/1)

Sampling Date: 4/28/20
 Sampling Team: W.B. CAREY & K. HAYS

Project Number: 2019/20 Composites SCRW

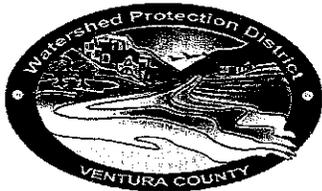
SAMPLE ID	DATE/TIME COLLECTED	Dissolved Inorganic Carbon and Dissolved Organic Carbon	Metals, total & dissolved (+ Hardness), & Barium (total only)	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F, SO4 (300.0), Phenolics	Phosphorus-P Total & Dissolved	625-CTR, 8270SIM-PAH, 8270SIM-Phenols *	515.3-Herb 547-Glyphosate, 608-CTR	525.2 Reg+507, 525-OPP-LL	DRO/ORO (EPA 8015B)	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	NOTES
MO-SPA	4/28/2020 08:20	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, Ti, Zn, Hg Metals by 200.7, Total (only): Ca, Mg (for Hardness calc.), AND Na, K 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)
MO-FIL	↓ 08:50	X	X	X	X	X	X	X	X	X	X	1		
MO-SCR	4/28/2020 10:05	X	X	X	X	X	X	X	X	X	X	1		
MO- VEN	↓ 11:25	X	X	X	X	X	X	X	X	X	X	1		
MO-OXN	↓ 10:45	X	X	X	X	X	X	X	X	X	X	1		
MO-SCR	4/28/2020 10:05	X	X	X	X	X	X	X	X	X	X	1		
MO-VEN	11:25	X	X	X	X	X	X	X	X	X	X	1		

Relinquished Printed Name WILLIAM B. CAREY
 Signature William B. Carey
 Affiliation VCWPD Date/Time 4-28-20/1335

Received Printed Name Josue Velasquez
 Signature Josue Velasquez
 Affiliation Weck Labs Date/Time 4-28-20/1335

Other Notes: 1) Filter for dissolved metals and perform conductivity analyses immediately.
 2) Please do not dilute limited volume samples when enacting priority list (low reporting limits are important).

Tamara 4/28/20 15:11
 3:70 10259



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Wet Season (Contract AE17-001)
Equipment - Weck Laboratories

2019/20 - 5 (dry) cleaning SCRUM

Sampling Date: 4-28-20

Project Number: [REDACTED]

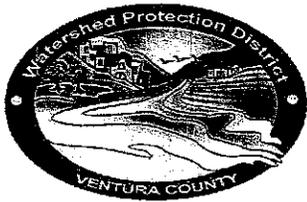
Sampling Team: W.B. CAREY & K. HARRIS

EQUIPMENT	Clean with detergent and HNO ₃	Clean with detergent, HNO ₃ , and methanol*	No action required	NOTES
18.5 L wide neck carboy and lid				Please place tape or plastic bag over top and note on wrap if bottle was cleaned with methanol.
20 L narrow neck carboy and lid (+assembly) or silicone stopper	5			
Blue cube cooler	5			
Grey bucket				Please place tape or plastic bag over top and note on wrap if bottle was cleaned with methanol.
Black bottle bag	5			
Bottle harness				

Relinquished Printed Name WILLIAM B. CAREY
 Signature William B. Carey
 Affiliation VCWPD Date/Time 4-28-20/1335

Received Printed Name Jesus Velasquez
 Signature [Signature]
 Affiliation Weck Labs Date/Time 4-28-20/1335

Other Notes: _____



0E01045

Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Dry Weather (Contract AE17-001)
Grabs - Weck Laboratories (SIDE 1 of 1)

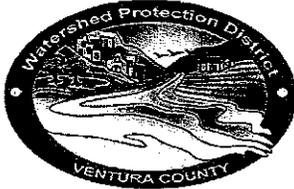
Sampling Date: 5/1/2020 Project Number: 2019/20-5 (Dry) Grabs VRW + HUE
 Sampling Team: W.B. CAREY, K. NAHS

SAMPLE ID	DATE/TIME COLLECTED	Oil & Grease (EPA 1664A)	Cyanide (ASTM D7511)	GRO (EPA 8015B)										Number of Bottles	Lab to select samples for MS/MSD where extra volume permits (all test methods) excluding travel blanks.
															NOTES
ME-VR2	5/1/20 09:15	2	1	2										5	
MO-MEI		1	1	2										4	DRY
MO-OJA	5/1/20 08:15	1	1	2										4	
MO-HUE	↓ 10:20	1	1	2										4	

Relinquished Printed Name W.B. CAREY
 Signature W.B. Carey
 Affiliation VCWPD Date/Time 5-1-20/1220

Received Printed Name Hector Sanchez
 Signature [Signature]
 Affiliation WACK LABS Date/Time 5-1-20/1220

Other Notes: _____



Chain of Custody Record
 Ventura County Watershed Protection District 0E01044
 NPDES Stormwater Monitoring Program
 Project: NPDES Stormwater Dry Weather (Contract AE17-001)
 Composites - Weck Laboratories (SIDE 1 of 1)

Sampling Date: 5/1/2020 Project Number: 2019/20-5 (Dry) Composites VRW+HUE
 Sampling Team: W.B. CAREY K. HAHS

SAMPLE ID	DATE/TIME COLLECTED	Dissolved Inorganic Carbon and Dissolved Organic Carbon only	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F, SO4 (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	DRO/ORO (EPA 8015B)	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	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.), AND Na, K 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
ME-VR2	5/1/20 09:20	X	X	X	X	X	X	X	X	X	X	1	
MO-MEX		X	X	X	X	X	X	X	X	X	X	1	DRY
MO-OJA	5/1/20 08:10	X	X	X	X	X	X	X	X	X	X	1	
MO-HUE	↓ 10:20	X	X	X	X	X	X	X	X	X	X	1	

Relinquished Printed Name W.B. CAREY
 Signature W.B. Carey
 Affiliation _____ Date/Time 5-1-20/1320

Received Printed Name Hack Sanchez
 Signature [Signature]
 Affiliation Weck Labs Date/Time 5-1-20/1320

Other Notes: 1) Filter for dissolved metals and perform conductivity analyses immediately.
 2) Please do not dilute limited volume samples when enacting priority list (low reporting limits are important).

Hack Sanchez 5-1-20/13:55 Jamaina 5/1/20 1355 2.6L 7022



0E01044

Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Dry Weather (Contract AE17-001)
Equipment - Weck Laboratories

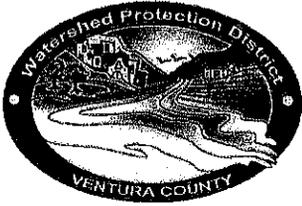
Sampling Date: 5/1/2020 Project Number: 2019/20-5 (Dry) Cleaning VRW+HUE
 Sampling Team: W.B. CAREY, K. HAHS

EQUIPMENT	Clean with detergent and HNO3	Clean with detergent, HNO3, and methanol*	No action required	NOTES
18.5 L wide neck carboy and lid				Please place tape or plastic bag over top and note on wrap if bottle was cleaned with methanol.
20 L narrow neck carboy and lid (+assembly) or silicone stopper	3			Please place tape or plastic bag over top and note on wrap if bottle was cleaned with methanol.
Silicone stoppers				
Blue cube cooler	3			
Grey bucket				
Black bottle bag	3			
Bottle harness				

Relinquished Printed Name W.B. CAREY
 Signature W.B. Carey
 Affiliation Ventura Date/Time 5-1-20/1220

Received Printed Name Heck Sanchez
 Signature [Signature]
 Affiliation Wec Labs Date/Time 5-1-20/1220

Other Notes: * Allow to air dry (don't rinse) after methanol step to avoid organics contamination).
Record the bottles cleaned with methanol.



Chain of Custody Record
Ventura County Watershed Protection District OE12052
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Dry Weather (Contract AE17-001)
Grabs - Weck Laboratories (SIDE 1 of 1)

Sampling Date: 5/12/2020 Project Number: 2019/20-5 (Dry) Grabs CCW
 Sampling Team: W.B. CAREY, K. HAHS

SAMPLE ID	DATE/TIME COLLECTED	Oil & Grease (EPA 1664A)	Cyanide (ASTM D7511)	GRO (EPA 8015B)												Number of Bottles	NOTES
ME-CC	5/12/2020 10:30	2	1	2												5	
MO-CAM	11:20	1	1	2												4	
MO-MRK		1	1	2												4	DRY
MO-SIM	09:00	1	1	2												4	
MO-THO	↓ 09:50	1	1	2												4	

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 VCWPA Date/Time 5-12-20 / 1330

Received Printed Name Josue Velasquez
 Signature Josue Velasquez
 Affiliation Weck Labs Date/Time 5-12-20 / 1330

Other Notes: JAH 5-12-20 / 15:30 2.1 F0222



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Dry Weather (Contract AE17-001)
Composites - Weck Laboratories (SIDE 1 of 1)

OE12051

Sampling Date: 5/12/2020

Project Number: 2019/20-5 (Dry) Composites CCW

Sampling Team: W.B. CAREY K.HAHS

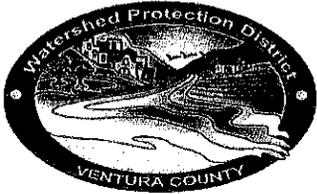
SAMPLE ID	DATE/TIME COLLECTED	Dissolved Inorganic Carbon and Dissolved Organic Carbon	NO3-N, Total Chlorine Residual	only	Cr+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F, SO4 (300.0), Phenolics	Phosphorus-P Total & Dissolved	625-CTR, 8270SIM-PAH, 8270SIM-Phenols *	515.3-Herb 547-Glyphosate, 608-CTR	525.2 Reg+507, 525-OPP-LL	DRO/ORO (EPA 8015B)	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	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.), AND Na, K 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
ME-CC	5/12/2020 10:30	X	X	X	X	X	X	X	X	X	X	X	X	1	
MO-CAM	11:20	X	X	X	X	X	X	X	X	X	X	X	X	1	
MO-MPK	08:20	X	X	X	X	X	X	X	X	X	X	X	X	1	9L volume - Priority list if needed.
MO-SIM		X	X	X	X	X	X	X	X	X	X	X	X	1	
MO-THO	5/12/2020 09:50	X	X	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 5-12-20 / 1330

Received Printed Name Josue Velasquez
 Signature Josue Velasquez
 Affiliation Weck Labs Date/Time 5-12-20 / 1330

Other Notes: 1) Filter for dissolved metals and perform conductivity analyses immediately.
 2) Please do not dilute limited volume samples when enacting priority list (low reporting limits are important).

Josue Velasquez 5/12/20 15:30
 3.7°C TOZZZ



OE12051

Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Project: NPDES Stormwater Dry Weather (Contract AE17-001)
Equipment - Weck Laboratories

Sampling Date: 5/12/2020 Project Number: 2019/20-5 (Dry) Cleaning CCW
 Sampling Team: _____

EQUIPMENT	Clean with detergent and HNO3	Clean with detergent, HNO3, and methanol*	No action required		NOTES
18.5 L wide neck carboy and lid					Please place tape or plastic bag over top and note on wrap if bottle was cleaned with methanol.
20 L narrow neck carboy and lid (+assembly) or silicone stopper	4				Please place tape or plastic bag over top and note on wrap if bottle was cleaned with methanol.
Silicone stoppers					
Blue cube cooler	2		4		
Grey bucket					
Black bottle bag	2		2		
Bottle harness	2		2		

Relinquished Printed Name W.B. CAREY
 Signature WB Carey
 Affiliation VCWPD Date/Time 5-12-20 / 1330

Received Printed Name Jane Velasquez
 Signature [Signature]
 Affiliation Weck Labs Date/Time 5-12-20 / 1330

Other Notes: * Allow to air dry (don't rinse) after methanol step to avoid organics contamination).
Record the bottles cleaned with methanol. Jane Velasquez 5/12/20 15:30
3.7C 10222

Sample Receiving Check List

Date received: LFA 062052 5-12-20 Time: 13:30 Kit ID#: _____
 Work Order #: 062052 # of Samples: 4 Initials: LFA

	Answer	Status			Comments
		Yes	No	N/A	
Number of Bottles in COC:	17				Verify that the number of containers and ID match COC and Bottles
Number of Bottles Received:	17				
ID COC and Bottles Matching		<input checked="" type="checkbox"/>	<input type="checkbox"/>		
COC Present:		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
COC properly completed?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Samples received on Ice		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Type of Ice (Blue/Wet)	Wet			<input type="checkbox"/>	
Sample Volume sufficient?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Temperature (Below 6°C)	2.1°			<input type="checkbox"/>	
Free Chlorine Tested?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
pH verification		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Preservation verification		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VOC Sample Headspace?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Enough holding time for all tests?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Discrepancies and Notifications

Description of problem: _____

Person Notified: _____ Phone #: _____ Date/time: _____

Instructions from client/resolution: _____

Description of problem: _____

Person Notified: _____ Phone #: _____ Date/time: _____

Instructions from client/resolution: _____

Sample receipt verification completed by (initials): LFA



0E13047

Chain of Custody Record
 Ventura County Watershed Protection District
 NPDES Stormwater Monitoring Program
 Project: NPDES Stormwater Dry Weather (Contract AE17-001)
 Composites - Weck Laboratories (SIDE 1 of 1)

Sampling Date: 5-13-20 Project Number: 2019/20-5 (Dry) Composites CCW Part 2
 Sampling Team: W-B-CAREY

SAMPLE ID	DATE/TIME COLLECTED	Dissolved Inorganic Carbon and Dissolved Organic Carbon	Dissolved Inorganic Carbon and Dissolved Organic Carbon	Metals, total & dissolved (+ Hardness), & Barium (total only)	C+6	BOD, COD, MBAS, TKN, Ammonia, TOC	NO3+NO2 (353.2), Cl, F, SO4 (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	DRO/ORO (EPA 801BB)	ALK, CLO4, Turb, TDS, TSS, VSS, Cond	Number of Bottles	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.), AND Na, K 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-SIM	5-13-20/0800	X	X	X	X	X	X	X	X	X	X	X	X	1	

Relinquished Printed Name W-B-CAREY
 Signature W.B. Carey
 Affiliation JCWPA Date/Time 5-13-20/1225

Received Printed Name Heidi Seaman
 Signature [Signature]
 Affiliation WECKLABS Date/Time 5-13-20/12:35

Other Notes: 1) Filter for dissolved metals and perform conductivity analyses immediately.
2) Please do not dilute limited volume samples when enacting priority list (low reporting limits are important).

Heidi Seaman

[Signature]

5-13-20

5/13/20



OE13047

Chain of Custody Record
 Ventura County Watershed Protection District
 NPDES Stormwater Monitoring Program
 Project: NPDES Stormwater Dry Weather (Contract AE17-001)
 Equipment - Weck Laboratories

Sampling Date: 5-13-20 Project Number: 2019/20-5 (Dry) Cleaning CCW Part 2
 Sampling Team: W.B. CAREY

EQUIPMENT	Clean with detergent and HNO3	Clean with detergent, HNO3, and methanol*	No action required	NOTES
18.5 L wide neck carboy and lid				Please place tape or plastic bag over top and note on wrap if bottle was cleaned with methanol.
20 L narrow neck carboy and lid (+assembly) or silicone stopper	1			Please place tape or plastic bag over top and note on wrap if bottle was cleaned with methanol.
Silicone stoppers				
Blue cube cooler	2		1	
Grey bucket				
Black bottle bag	2		1	
Bottle harness				

Relinquished Printed Name W.B. CAREY
 Signature W.B. Carey
 Affiliation VCWPD Date/Time 5-13-20/1225

Received Printed Name Heath Sauch
 Signature [Signature]
 Affiliation WeckLABS Date/Time 5-13-20/1225

Other Notes: * Allow to air dry (don't rinse) after methanol step to avoid organics contamination).
Record the bottles cleaned with methanol.

Heath Sauch
5-13-20



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Major Outfall Dry Weather Monitoring
Bacteriological - VCHCA Lab

Sampling Date: 8/10/2020

Sample Event: DRY 2020

Sampling Team: K. 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
	Ganville-1											MO-GAM
	Fillmore-1	8/10/2020 11:00	X	X								MO-FIL
	Moerpark-1											MO-MPK
	Ojai-6	8/10/2020 12:15	X	X							1	MO-OJA DRY-OJAG
	Oxnard-2	8/10/2020 0900	X	X							1	MO-ONL DRY-OXN2
	Port Hueneme-3	8/10/2020 1410	X	X							1	DRY-HUE3
	Santa Paula-2											DRY-SPA2
	Simi Valley-1											MO-SIM
	Thousand Oaks-1											MO-THO
	Utincooperated-4											DRY-UNI4
	Ventura-5	8/10/2020 1320	X	X							1	MO-VEN DRY-VEUS

Relinquished Printed Name KELLY HAHS
 Signature [Signature]
 Affiliation VCSPO Date/Time 8/10/2020 14:52

Received Printed Name SALVADOR G. BARRAGAN
 Signature [Signature]
 Affiliation VCH-LAB Date/Time 8/10/20 @ 14:52

Other Notes: 1:10, 1:100, and 1:1000 dilutions



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Major Outfall Dry Weather Monitoring
Bacteriological - VCHCA Lab

Sampling Date: 8/11/2020

Sample Event: DRY 2020

Sampling Team: K. 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	8/11/2020 0800	X	X							1	MO-CAM
	Fillmore-1											MO-FIL
	Moorpark-2	8/11/2020 0845	X	X							1	MO-MPK DRY-MPK2
	Ojai-1											MO-OJA
	Oxnard-1											MO-oxn
	Port Huene-3											DRY HUE3
	Santa Paula-2											DRY SPA2
	Simi Valley-1	8/11/2020 0920	X	X							1	MO-SIM
	Thousand Oaks-1	10:35	X	X							1	MO-THO
	Unincorporated-4	10:00	X	X							1	DRY-UNI4
	Ventura-1											MO-ven

Relinquished Printed Name KELLY HAHS
 Signature [Signature]
 Affiliation VCHCA Date/Time 8/11/2020 / 11:41

Received Printed Name Salvador Y. BARRAGAN
 Signature [Signature]
 Affiliation [Signature] Date/Time [Signature]

Other Notes: 1:10, 1:100, and 1:1000 dilutions



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Major Outfall Dry Weather Monitoring
Bacteriological - VCHCA Lab

Sampling Date: 8/18/2020 Sample Event: DRY 2020
 Sampling Team: W.B. CAREY, K. 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
	Santa Paula-4	8/18/2020 0805	X	X						1	DRY-SPA4

Relinquished Printed Name KELLY HAHS
 Signature [Signature]
 Affiliation VEWPD Date/Time 8/18/2020 10:06

Received Printed Name SALVADOR V. BARRAGAN
 Signature [Signature]
 Affiliation P.H. Lab Date/Time 8/18/20 @ 10:06

0419058



Chain of Custody Record
Ventura County Watershed Protection District
NPDES Stormwater Monitoring Program
Major Outfall Dry Weather Monitoring
Grabs - Weck Laboratories

Invoice Contract No. AE17-001 Mod. No. 4

Sampling Date: 8/18/2020 Sample Event: DRY 2020
Sampling Team: K. HAYS, W.B. CAREY

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.)

SAMPLE ID	DATE/TIME COLLECTED	Total Hardness	TOC	Dissolved Metals by 200.8 (Lead, Zinc, Copper)	Number of Bottles	NOTES
Cornville-1		X	X	X		
Fillmore-1		X	X	X		
Mossburn-1		X	X	X		
Opia-1		X	X	X		
Quinn-1		X	X	X		
San Francisco-5		X	X	X		
Santa Paula-4	8/18/2020 0805	X	X	X	4	
Simi Valley-1		X	X	X		
Thousand Oaks-1		X	X	X		
Union Gap-1		X	X	X		
Ventura-1		X	X	X		

Relinquished Printed Name W.B. CAREY
Signature W.B. Carey
Affiliation VCWPD Date/Time 8-19-20/ 148

Received Printed Name Carlos Navarro
Signature [Signature]
Affiliation WECK Date/Time 8-19-20/ 148

Other Notes: [Signature] 8/19/20 353
[Signature]

23

8/19/20
T0239

16:53
Attachment D Appendix E