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Division of Science and Environmental  
Policy  
California State University Monterey Bay  
<http://watershed.csUMB.edu>

100 Campus Center, Seaside, CA, 93955-8001  
831 582 4696 / 4431

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## Summary of Precipitation and Streamflow for Potrero and San Clemente Creeks in Water-Year 2009

Santa Lucia Preserve  
Monterey County, California

Emily Paddock  
Douglas Smith (Ph.D.)

Contact:  
[dosmith@csUMB.edu](mailto:dosmith@csUMB.edu)

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## Executive Summary

The purpose of this annual report is to present precipitation and streamflow summaries for the 2009 water year (October 1, 2008 to September 31, 2009). In March 2007 CSU–Monterey Bay began hydrologic monitoring of Santa Lucia Preserve for the Santa Lucia Conservancy. This project is a continuation of monitoring begun by Balance Hydrologics as part of the permit requirements for land development. Discharge, temperature, and specific conductance are reported for two creeks on the Santa Lucia Preserve, Potrero Creek and San Clemente Creek. Precipitation records are reported from two locations, the San Clemente Dam and Santa Lucia Preserve golf course.

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## 1 Introduction

This report is a hydrologic data summary for Santa Lucia Preserve for Water Year 2009 (WY-09). Balance Hydrologics installed four continuously recording streamflow gages on Santa Lucia Preserve. These gages include two on Las Garzas Creek (Moore's Lake inflow and outflow, installed in 2001), one on Potrero Creek (installed in 2002), and one on San Clemente Creek (installed in 2002). Detailed information on gage installation, operation and individual gage sites is available in Balance Hydrologics (2002).

Operation of the Potrero Creek and San Clemente Creek streamflow gages was transferred to CSUMB Watershed Institute on June 21, 2007. Data summaries are presented for streamflow on Potrero and San Clemente Creeks and for precipitation on Santa Lucia Preserve and San Clemente Dam.

## 2 Precipitation Data

Precipitation data presented from the Santa Lucia golf course is from a Rain Bird weather station operated by Santa Lucia Preserve. Precipitation data recorded by California American Water Company at nearby San Clemente Dam are included for comparison.

At San Clemente Dam the total WY-09 rainfall was 18.14 inches (Table 1 and Figure 1), which represents slightly below average precipitation at the Dam. Based on the 88-year San Clemente Dam precipitation record, the average rainfall is 21.40 inches. Using Log-Pearson Type-III analysis, rainfall at San Clemente Dam should be 18.14 (or less) once every 1.7 years on average (Figure 2).

The recorded rainfall at the Santa Lucia Preserve Golf Course in WY-09 was 28.91 inches (Table 2 and Figure 3), which is above the 8 year average, 25.92 inches. The short duration of the record at the golf course may not be representative of actual long term precipitation patterns. The Preserve golf course received approximately 10 and a half more inches of rain than the nearby San Clemente Dam.

### **3 Streamflow, Temperature, and Conductance Data**

The streamflow gaging stations on Potrero and San Clemente each consist of a Campbell CR10X data logger (powered by 10 or 20 watt solar panels), two Druck pressure transducers to measure water depth, Campbell specific conductance and water temperature probe, as well as staff plates for manual readings (Balance Hydrologics 2002). Data loggers record measurements of pressure, temperature, and conductance at 15-minute intervals.

In WY-09, streamflow gage data was downloaded to a laptop computer during monthly visits, at which time manual discharge measurements were also taken using standard hydrologic practices. A Swoffer (model 3000) current velocity meter was used to measure discharge. A portable Parshall flume was used during the latter part of the dry season when flows became too low to use the Swoffer meter.

#### **3.1 Potrero Creek**

The current gage station on Potrero Creek was installed April 29, 2002 and is located upstream of the T-11 well. In WY-09, Potrero Creek had a mean daily flow of 0.52 cfs, a maximum daily flow of 25 cfs, and a minimum daily flow of 0.01 cfs; the 7-day low flow was 0.03 cfs (Table 3). Mean daily streamflow and manual discharge measurements are plotted in Figure 4. Temperature and conductance data are presented in Tables 4 through 7, and in Figure 5.

#### **3.2 San Clemente Creek**

The current gage station on San Clemente Creek was installed April 30, 2002 and is located near the Santa Lucia Preserve property boundary. In WY-09, San Clemente Creek had a mean daily flow of 1.92 cfs, a maximum daily flow of 50 cfs, and a minimum daily flow of 0.03 cfs; the 7-day low flow was 0.04 cfs (Table 8). Mean daily streamflow and manual discharge measurements are plotted in Figure 6. Temperature and conductance data are presented in Tables 9 through 12, and in Figure 7.

### **4 Limitations**

Streamflow gage data are based on the stage-discharge relationship unique to each stream and gage location. This stage-discharge relationship (rating curve) for each gage has been developed over time by making manual discharge measurements at various ranges of flow and noting the water level (stage) at



which a particular flow occurs. The rating curve for Potrero Creek was adjusted this year to reflect changes in the channel.

As more discharge measurements are made (particularly in the higher range of flows) the rating curves may change and it will be necessary to update the streamflow data to reflect these changes. For this reason, the streamflow data contained in this report should be considered provisional and caution should be exercised when using these data.

## 5 References

[Balance Hydrologics 2002]. Brown S, Porter S, Woyshner M, Hecht B. 2002. Hydrologic record for water year 2002: Las Garzas, Potrero, and San Clemente Creeks, Santa Lucia Preserve, Monterey County, California. 53 pp.

## 6 Tables

Table 1: Daily precipitation record and monthly totals, water year 2009

San Clemente Dam, Monterey County, California

Record obtained from: California-American Water Company, Monterey District

Values are inches

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1		0.04										
2						0.74		0.42				
3		0.76		0.06		1.00						
4	0.07	0.17				1.41		T				
5				0.01	0.40	0.08						
6				0.01	0.28				T			
7					0.53							
8							0.41					
9		0.40			0.39							
10		0.12					0.02					
11					0.03							
12					0.28							
13			0.15		0.57				0.02			
14					0.20							0.06
15			0.52		0.41							
16			0.56		2.02							
17			0.01		1.35							
18					0.10							
19			0.01									
20												
21												
22			0.31	0.89		0.63						
23			0.14	0.21	0.41							
24			0.02		0.10							
25			0.43	0.26								
26		0.11	0.13	0.32								
27		0.53										
28												
29												
30												
31	0.04											
<b>Total</b>	0.11	2.13	2.28	1.76	7.07	3.86	0.43	0.42	0.02	0	0	0.06

**Annual**

**Total 18.14**

Note: Rainfall recorded on day of measuring. T = trace, which is rainfall of less than 0.01 inches

Table 2: Daily precipitation record and monthly totals, water year 2009  
 Santa Lucia Preserve Golf Course, Monterey County, California

Record obtained from: Santa Lucia Preserve

Value are inches

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1		1.15				0.30		0.38				
2		0.52		0.16		1.98		0.02				
3		0.39				1.59						
4	0.32	0.05				0.69						
5				0.02	0.60	0.37						
6					0.73	0.01						
7					0.02		0.63					
8		0.34			0.61		0.29					
9		0.58			0.34							
10							0.01					
11					0.37		0.01					
12					0.29							
13			0.19		1.15							
14			0.50		0.19							
15			0.55		2.31							
16			0.36		2.43							
17			0.01		1.44							
18			0.03		0.01							
19			0.04									
20												
21			0.67	0.20	0.12	0.28						
22			0.40	1.13	0.28	0.66						
23			0.15	0.18	0.55							
24			0.01	0.06								
25		0.04	0.47	0.05								
26		0.79	0.10	0.09	0.04							
27			0.16	0.43								
28												
29												
30	0.02											
31	0.05											
<b>Total</b>	0.39	3.86	3.64	2.32	11.48	5.88	0.94	0.40	0.00	0.00	0.00	0.00

**Annual**

**Total 28.91**

Note: Rainfall recorded on day of measuring. T = trace, which is rainfall of less than 0.01 inches

Table 3: Mean daily flow, Potrero Creek, water year 2009  
 Santa Lucia Preserve, Monterey County, California

Values are cfs (unless otherwise noted)

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.03	0.07	0.10	0.18	0.25	0.27	0.26	0.18	0.14	0.12	0.10	0.07
2	0.03	0.10	0.11	0.19	0.25	8.02	0.25	0.18	0.14	0.11	0.10	0.06
3	0.03	0.08	0.10	0.18	0.24	13.94	0.25	0.17	0.14	0.11	0.10	0.04
4	0.03	0.09	0.10	0.17	0.24	24.89	0.24	0.17	0.13	0.11	0.09	0.04
5	0.02	0.08	0.10	0.18	0.40	11.93	0.24	0.17	0.13	0.11	0.09	0.05
6	0.01	0.08	0.10	0.19	0.42	7.82	0.24	0.16	0.13	0.11	0.09	0.06
7	0.03	0.08	0.11	0.19	0.56	3.37	0.25	0.15	0.13	0.11	0.09	0.05
8	0.03	0.09	0.11	0.19	0.40	2.15	0.24	0.15	0.13	0.11	0.09	0.06
9	0.03	0.12	0.10	0.18	0.58	1.49	0.23	0.15	0.13	0.12	0.08	0.07
10	0.03	0.10	0.11	0.17	0.38	1.13	0.23	0.15	0.13	0.11	0.08	0.07
11	0.03	0.10	0.11	0.18	0.46	0.89	0.22	0.15	0.13	0.11	0.08	0.06
12	0.03	0.10	0.11	0.19	0.67	0.69	0.21	0.15	0.13	0.11	0.08	0.08
13	0.03	0.10	0.12	0.18	1.15	0.98	0.21	0.15	0.13	0.10	0.08	0.08
14	0.03	0.09	0.13	0.18	1.75	0.81	0.20	0.15	0.12	0.10	0.07	0.08
15	0.03	0.09	0.20	0.18	7.65	0.69	0.21	0.15	0.13	0.11	0.08	0.08
16	0.03	0.09	0.18	0.18	18.17	0.58	0.21	0.15	0.13	0.11	0.07	0.08
17	0.03	0.09	0.14	0.18	16.60	0.51	0.22	0.15	0.13	0.10	0.08	0.08
18	0.03	0.09	0.15	0.18	8.04	0.46	0.22	0.15	0.12	0.10	0.09	0.08
19	0.03	0.10	0.15	0.18	2.14	0.41	0.21	0.15	0.12	0.10	0.09	0.08
20	0.03	0.10	0.14	0.18	0.96	0.38	0.20	0.15	0.13	0.11	0.09	0.09
21	0.02	0.09	0.16	0.20	0.88	0.36	0.19	0.15	0.13	0.11	0.08	0.09
22	0.03	0.09	0.35	1.12	0.59	0.45	0.17	0.15	0.12	0.11	0.08	0.09
23	0.03	0.09	0.24	0.53	0.75	0.35	0.17	0.15	0.12	0.11	0.09	0.09
24	0.03	0.10	0.20	0.43	0.97	0.34	0.17	0.15	0.13	0.11	0.09	0.08
25	0.03	0.10	0.24	0.36	0.64	0.32	0.17	0.15	0.12	0.11	0.08	0.08
26	0.03	0.14	0.20	0.34	0.49	0.31	0.17	0.15	0.12	0.11	0.08	0.08
27	0.03	0.12	0.18	0.28	0.37	0.29	0.17	0.15	0.12	0.10	0.08	0.08
28	0.03	0.11	0.18	0.27	0.31	0.28	0.17	0.15	0.12	0.11	0.07	0.09
29	0.03	0.10	0.18	0.26		0.26	0.17	0.15	0.12	0.11	0.05	0.09
30	0.04	0.10	0.18	0.27		0.25	0.17	0.15	0.12	0.11	0.05	0.08
31	0.04		0.18	0.26		0.25		0.15		0.10	0.07	
<b>Mean</b>	0.03	0.10	0.15	0.26	2.37	2.74	0.21	0.15	0.13	0.11	0.08	0.07
<b>Max Day</b>	0.04	0.14	0.35	1.12	18.17	24.89	0.26	0.18	0.14	0.12	0.10	0.09
<b>Min Day</b>	0.01	0.07	0.10	0.17	0.24	0.25	0.17	0.15	0.12	0.10	0.05	0.04
<b>Yield (ac-ft)</b>	1.89	5.66	9.43	15.71	131.56	168.35	12.40	9.51	7.60	6.69	5.09	4.36

Water Year 2009 Annual Summary			yr	day	cfs
<b>Mean Daily Flow</b>	0.52	cfs	1992	7/10	0.02
<b>Max. Daily Flow</b>	24.90	cfs	1993	7/21	0.04
<b>Min. Daily Flow</b>	0.01	cfs	1994	8/14	0.02
<b>7-Day Low Flow</b>	0.03	cfs	1995	9/19	0.02
<b>Total Yield</b>	378	ac-ft	2002	8/8	0.01
<b>Normalized Yield</b>	0.11	ac-ft/ac	2003	8/23	0.01
			2004	8/27	0.00
			2005	9/30	0.05
			2006	9/17	0.06
			2007	9/6	<.01
			2008	9/2	0.02
			2009	9/3	0.13

Approximate date and value of first minimum daily mean flow near the end of each water year.

Table 4: Mean Daily Water Temperature (°C)

Potrero Creek, water year 2009

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
1	13.06	11.91	9.94	7.37	7.09	10.99	10.10	9.89	12.57	13.40	13.60	13.62
2	13.33	12.49	10.25	7.44	7.17	11.95	10.52	11.19	12.77	13.58	13.64	13.74
3	13.39	11.96	9.93	7.59	7.20	11.09	10.42	11.98	12.95	13.62	13.79	13.99
4	13.69	11.87	9.48	6.66	7.23	10.42	9.34	12.61	12.85	13.69	13.79	13.84
5	13.54	11.05	8.88	6.29	7.89	9.54	8.85	13.31	12.82	13.64	13.69	13.56
6	13.20	10.66	8.58	6.93	8.39	9.88	9.16	13.72	12.70	13.66	14.08	13.73
7	13.16	10.81	8.79	6.93	8.60	9.78	9.70	13.88	12.48	13.22	13.93	13.45
8	13.11	10.82	9.40	7.06	8.27	9.49	10.23	12.91	12.38	12.89	13.74	13.00
9	13.07	11.26	8.82	6.99	8.23	9.53	10.28	11.99	12.59	12.81	13.48	13.16
10	12.35	11.50	8.09	6.62	7.98	8.19	10.45	11.62	13.09	12.85	13.50	13.04
11	11.64	10.97	7.75	6.42	7.97	8.05	10.41	11.52	13.44	12.80	13.74	12.95
12	10.97	10.95	8.21	6.79	8.10	8.63	10.77	11.44	13.30	12.75	13.75	13.18
13	10.55	11.24	8.88	7.04	8.28	8.74	10.98	11.00	13.38	12.67	13.65	13.48
14	10.56	11.39	8.38	7.01	7.98	9.73	10.48	10.87	13.54	12.81	13.52	13.85
15	10.79	11.49	8.35	6.90	8.40	10.00	9.77	11.78	13.22	12.82	13.63	13.63
16	11.07	11.31	7.76	6.79	9.27	10.80	9.83	12.23	13.21	12.96	13.48	13.42
17	11.22	11.10	6.87	6.71	9.30	10.84	9.55	12.71	13.49	13.07	13.49	13.47
18	11.25	10.75	6.74	6.71	8.79	10.78	10.68	12.77	13.80	13.13	13.58	13.49
19	11.56	10.80	7.50	6.73	8.60	11.18	11.59	12.65	13.68	13.10	13.58	13.29
20	11.70	10.75	7.22	6.80	8.37	11.42	12.52	12.10	13.53	13.10	13.69	13.36
21	11.33	10.56	6.98	7.24	8.50	11.62	13.32	11.60	13.26	13.21	13.78	13.00
22	11.28	9.99	7.83	8.07	9.90	11.10	13.28	11.66	12.73	13.25	13.75	12.79
23	11.25	9.59	7.88	8.78	11.21	9.36	12.74	11.60	12.33	13.24	13.87	12.69
24	11.23	9.95	8.13	9.39	11.35	8.81	11.93	11.33	12.43	13.23	13.63	12.63
25	10.99	10.24	8.86	9.40	10.63	9.51	11.09	11.16	12.71	13.30	13.53	12.48
26	10.72	10.59	8.44	9.00	10.47	10.76	10.73	11.22	12.89	13.14	13.32	12.21
27	10.72	10.94	7.48	7.98	10.42	10.52	10.55	11.34	12.62	13.09	12.83	12.26
28	10.61	11.12	7.04	7.19	10.21	10.62	10.24	11.76	12.57	13.19	13.18	12.58
29	10.46	10.77	7.12	6.99		10.97	9.57	12.34	12.75	13.37	13.67	12.67
30	10.52	10.33	7.31	7.05		9.82	9.11	12.72	13.07	13.59	13.92	12.33
31	11.28		7.20	7.08		9.26		12.69		13.70	13.85	
<b>Mean Day</b>	11.73	10.97	8.20	7.29	8.78	10.11	10.61	11.99	12.97	13.19	13.63	13.16
<b>Max Day</b>	13.69	12.49	10.25	9.40	11.35	11.95	13.32	13.88	13.80	13.70	14.08	13.99
<b>Min Day</b>	10.46	9.59	6.74	6.29	7.09	8.05	8.85	9.89	12.33	12.67	12.83	12.21

Table 5: Maximum Daily Water Temperature (°C)  
Potrero Creek, water year 2009

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
1	13.26	12.29	10.33	7.49	7.40	11.51	10.64	10.64	12.74	13.61	13.79	13.97
2	13.55	12.61	10.48	7.81	7.46	12.58	10.76	11.77	13.00	13.72	13.81	14.07
3	13.55	12.49	10.41	7.83	7.48	11.54	10.70	12.34	13.04	13.73	13.95	14.23
4	13.85	12.03	9.91	7.38	7.63	10.91	10.32	12.95	13.03	13.80	14.00	14.22
5	13.81	11.66	9.37	6.69	8.31	10.30	9.58	13.65	13.00	13.76	14.00	13.81
6	13.48	10.91	8.88	7.21	8.67	10.37	9.82	13.80	12.99	13.74	14.31	13.89
7	13.37	11.05	9.12	7.20	8.73	10.36	10.17	13.93	12.79	13.66	14.29	13.78
8	13.34	11.08	9.65	7.37	8.68	10.22	10.71	13.74	12.57	13.26	14.03	13.49
9	13.19	11.44	9.54	7.36	8.39	9.96	10.68	12.44	12.90	12.95	13.80	13.34
10	13.01	11.59	8.60	7.04	8.24	9.27	10.58	11.83	13.37	12.99	13.71	13.33
11	12.16	11.46	8.04	6.76	8.26	8.73	10.55	11.70	13.55	12.98	13.90	13.19
12	11.56	11.22	8.67	7.23	8.33	9.51	11.23	11.52	13.52	12.96	13.91	13.37
13	10.95	11.45	8.97	7.28	8.39	9.61	11.23	11.44	13.64	12.97	13.90	13.79
14	10.91	11.71	8.84	7.27	8.28	10.03	11.05	11.20	13.66	13.00	13.82	13.97
15	11.14	11.70	8.41	7.21	9.15	10.82	10.10	12.25	13.62	13.00	13.79	13.97
16	11.40	11.63	8.31	7.06	9.67	11.29	10.12	12.47	13.37	13.09	13.78	13.67
17	11.42	11.39	7.48	6.97	9.78	11.45	10.23	12.99	13.70	13.27	13.61	13.63
18	11.49	11.17	7.20	6.95	9.49	11.45	11.66	12.98	14.00	13.27	13.66	13.63
19	11.70	10.93	7.83	7.01	9.29	11.76	12.45	12.77	13.97	13.25	13.69	13.63
20	11.81	10.95	7.79	7.07	9.11	12.01	13.16	12.73	13.69	13.26	13.85	13.45
21	11.68	10.92	7.39	7.69	9.09	12.16	13.74	11.93	13.42	13.32	13.88	13.43
22	11.52	10.47	8.07	8.47	10.75	12.04	13.76	11.76	13.16	13.35	13.89	13.04
23	11.48	9.97	8.02	9.22	11.80	10.38	13.00	11.75	12.70	13.34	13.91	12.93
24	11.45	10.28	8.63	9.52	11.74	9.75	12.69	11.53	12.68	13.35	13.88	12.86
25	11.33	10.43	8.97	9.52	11.03	10.45	11.47	11.29	12.89	13.37	13.66	12.77
26	11.07	10.79	8.75	9.30	10.90	11.50	10.97	11.49	12.99	13.36	13.58	12.52
27	10.87	11.13	8.12	8.80	10.79	11.39	10.71	11.61	12.96	13.20	13.35	12.47
28	10.84	11.18	7.35	7.64	10.95	11.29	10.50	12.17	12.75	13.34	13.66	12.75
29	10.71	11.17	7.43	7.27		11.29	10.24	12.65	12.94	13.54	14.06	12.76
30	10.87	10.69	7.50	7.31		11.02	9.44	12.83	13.35	13.75	14.10	12.66
31	11.71		7.50	7.35		9.98		12.82		13.79	13.98	
<b>Mean Day</b>	12.02	11.26	8.57	7.62	9.21	10.80	11.08	12.29	13.20	13.35	13.86	13.42
<b>Max Day</b>	13.85	12.61	10.48	9.52	11.80	12.58	13.76	13.93	14.00	13.80	14.31	14.23
<b>Min Day</b>	10.71	9.97	7.20	6.69	7.40	8.73	9.44	10.64	12.57	12.95	13.35	12.47

Table 6: Minimum Daily Water Temperature (°C)  
 Potrero Creek, water year 2009

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
1	12.84	11.71	9.69	7.19	6.76	10.63	9.71	9.35	12.44	13.30	13.47	13.34
2	13.19	12.29	10.02	7.23	6.84	11.52	10.34	10.66	12.65	13.49	13.54	13.54
3	13.20	11.66	9.64	7.39	6.87	10.79	10.11	11.78	12.83	13.51	13.69	13.77
4	13.51	11.67	9.24	6.37	6.85	9.78	8.57	12.35	12.69	13.60	13.63	13.61
5	13.33	10.77	8.58	6.09	7.64	9.00	8.10	12.96	12.67	13.54	13.46	13.34
6	12.93	10.39	8.31	6.70	8.27	9.48	8.53	13.66	12.48	13.57	13.87	13.54
7	12.88	10.59	8.64	6.68	8.42	9.21	9.38	13.76	12.26	13.00	13.72	13.23
8	12.87	10.58	9.13	6.85	8.00	8.89	9.91	12.45	12.22	12.68	13.48	12.69
9	12.95	11.09	8.50	6.71	8.09	9.22	10.03	11.80	12.46	12.71	13.22	13.05
10	12.04	11.44	7.80	6.33	7.76	7.39	10.37	11.46	12.91	12.70	13.28	12.79
11	11.32	10.70	7.47	6.12	7.82	7.33	10.29	11.38	13.38	12.64	13.64	12.72
12	10.61	10.76	7.97	6.55	7.90	7.95	10.55	11.36	13.17	12.57	13.54	13.09
13	10.17	11.07	8.69	6.77	8.17	7.88	10.79	10.76	13.25	12.38	13.41	13.37
14	10.22	11.14	8.14	6.72	7.70	9.54	10.10	10.65	13.44	12.59	13.28	13.77
15	10.48	11.26	8.28	6.59	8.13	9.56	9.60	11.21	13.02	12.64	13.52	13.36
16	10.77	11.06	7.49	6.50	9.08	10.44	9.70	12.06	13.12	12.84	13.29	13.19
17	10.97	10.86	6.62	6.41	8.77	10.16	8.94	12.46	13.37	12.93	13.37	13.29
18	11.03	10.50	6.55	6.42	8.12	9.99	10.24	12.60	13.70	12.97	13.49	13.33
19	11.46	10.72	7.21	6.43	7.83	10.56	11.07	12.53	13.54	12.95	13.46	13.06
20	11.61	10.54	6.94	6.50	7.53	10.86	12.17	11.82	13.43	12.99	13.61	13.24
21	11.01	10.35	6.80	7.03	7.89	11.12	13.05	11.38	13.16	13.12	13.65	12.71
22	11.00	9.71	7.40	7.70	9.11	10.42	12.99	11.53	12.47	13.15	13.60	12.56
23	10.97	9.32	7.76	8.47	10.75	8.56	12.58	11.52	12.13	13.17	13.83	12.44
24	10.96	9.71	7.92	9.22	11.01	7.80	11.48	11.24	12.32	13.16	13.46	12.40
25	10.71	10.14	8.64	9.31	10.10	8.69	10.96	11.05	12.62	13.23	13.41	12.21
26	10.44	10.43	8.13	8.82	10.05	10.30	10.60	11.04	12.83	13.00	13.11	11.93
27	10.51	10.79	7.19	7.63	9.96	9.57	10.47	11.13	12.42	12.96	12.43	12.05
28	10.36	11.07	6.79	6.88	9.57	9.84	10.09	11.62	12.39	13.12	12.97	12.46
29	10.24	10.51	6.88	6.69		10.68	9.22	12.17	12.64	13.28	13.43	12.59
30	10.35	10.10	7.09	6.75		9.04	8.83	12.65	12.93	13.52	13.77	12.09
31	10.88		6.94	6.77		8.47		12.60		13.60	13.74	
<b>Mean Day</b>	11.48	10.76	7.95	7.03	8.39	9.51	10.29	11.77	12.83	13.06	13.46	12.96
<b>Max Day</b>	13.51	12.29	10.02	9.31	11.01	11.52	13.05	13.76	13.70	13.60	13.87	13.77
<b>Min Day</b>	10.17	9.32	6.55	6.09	6.76	7.33	8.10	9.35	12.13	12.38	12.43	11.93



Table 7: Mean Daily Specific Conductance (umhos/cm @ 25 C)  
 Potrero Creek, water year 2009

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
1	927	947	974	969	992	445	615	858	867	889	976	1003
2	928	947	975	974	1002	457	630	855	873	886	978	1005
3	928	946	974	979	1011	315	645	850	878	882	978	1008
4	929	946	974	984	1018	203	662	844	882	880	978	1015
5	929	946	973	991	1025	192	679	833	884	879	978	1025
6	930	947	971	997	1029	221	694	833	885	878	979	1032
7	934	947	970	1002	1025	246	707	833	886	879	978	1034
8	936	948	969	1007	1011	268	718	839	887	884	978	1035
9	936	949	967	1010	996	292	726	845	889	895	980	1038
10	934	949	968	1014	984	316	734	842	892	907	982	1039
11	935	949	970	1018	971	337	741	837	895	920	985	1042
12	937	951	972	1020	962	356	746	834	898	931	987	1051
13	940	952	973	1022	962	375	749	832	903	943	987	1060
14	943	954	975	1024	959	391	752	831	906	951	988	1069
15	944	956	979	1025	901	405	759	831	906	954	989	1081
16	944	957	982	1027	606	419	769	834	906	955	989	1096
17	942	959	985	1028	292	433	788	840	908	955	989	1110
18	941	960	986	1029	198	448	808	844	909	957	989	1124
19	942	961	982	1029	223	463	828	848	909	957	989	1137
20	943	962	973	1030	256	479	844	851	911	958	989	1150
21	944	962	966	1030	284	496	844	857	911	959	989	1159
22	945	961	962	1030	310	511	842	863	911	960	989	1162
23	945	962	961	1028	339	521	848	866	911	962	989	1160
24	944	964	964	1019	368	528	855	861	911	963	989	1155
25	942	964	966	1010	388	537	861	854	910	966	989	1148
26	942	966	966	998	404	545	862	848	906	970	989	1142
27	943	970	966	987	419	556	861	844	900	973	988	1139
28	944	972	965	980	432	566	861	842	894	975	991	1139
29	945	973	964	975		576	861	844	893	976	993	1142
30	945	974	963	975		586	860	850	892	976	996	1146
31	947		965	983		600		858		976	1000	
<b>Mean Day</b>	939	957	971	1006	692	422	772	845	897	935	986	1088
<b>Max Day</b>	947	974	986	1030	1029	600	862	866	911	976	1000	1162
<b>Min Day</b>	927	946	961	969	198	192	615	831	867	878	976	1003

Table 8: Mean daily flow, San Clemente Creek, water year 2009

Santa Lucia Preserve, Monterey County, California

Values are cfs (unless otherwise noted)

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.37	0.40	0.23	0.39	0.35	4.98	2.31	1.50	0.59	0.39	0.12	0.04
2	0.39	0.37	0.23	0.42	0.35	34.90	2.26	1.54	0.57	0.38	0.12	0.04
3	0.38	0.26	0.23	0.41	0.35	45.99	2.20	1.37	0.55	0.36	0.12	0.04
4	0.43	0.26	0.22	0.37	0.35	51.37	2.10	1.33	0.51	0.36	0.12	0.03
5	0.40	0.23	0.22	0.40	0.52	31.14	2.04	1.29	0.53	0.35	0.11	0.07
6	0.39	0.23	0.22	0.43	0.98	21.30	1.98	1.22	0.53	0.34	0.12	0.12
7	0.34	0.23	0.23	0.42	1.25	14.83	2.55	1.15	0.51	0.32	0.12	0.12
8	0.30	0.24	0.24	0.42	1.04	11.58	2.86	1.13	0.53	0.32	0.11	0.12
9	0.31	0.33	0.22	0.40	2.26	9.38	2.38	1.09	0.53	0.32	0.10	0.11
10	0.34	0.29	0.22	0.38	1.72	7.80	2.23	1.05	0.54	0.31	0.10	0.11
11	0.35	0.24	0.22	0.39	1.66	6.87	2.12	0.99	0.52	0.30	0.09	0.10
12	0.37	0.23	0.24	0.40	2.06	6.14	2.05	0.97	0.52	0.29	0.09	0.11
13	0.37	0.23	0.30	0.39	3.65	5.58	2.01	0.95	0.52	0.29	0.09	0.13
14	0.37	0.22	0.32	0.38	3.10	5.19	1.95	0.94	0.52	0.30	0.08	0.14
15	0.32	0.21	0.44	0.37	15.06	4.82	1.88	0.94	0.50	0.29	0.09	0.14
16	0.30	0.20	0.44	0.38	46.85	4.52	1.85	0.89	0.52	0.29	0.08	0.15
17	0.28	0.20	0.32	0.37	52.64	4.24	1.81	0.83	0.48	0.28	0.08	0.16
18	0.29	0.20	0.31	0.36	21.36	3.99	1.76	0.75	0.48	0.27	0.07	0.17
19	0.30	0.20	0.32	0.37	11.18	3.75	1.68	0.76	0.43	0.26	0.07	0.17
20	0.32	0.21	0.30	0.36	7.80	3.50	1.60	0.73	0.43	0.25	0.07	0.18
21	0.31	0.20	0.37	0.41	6.28	3.33	1.54	0.74	0.47	0.23	0.07	0.18
22	0.29	0.19	0.49	0.63	5.91	4.79	1.45	0.73	0.47	0.23	0.06	0.17
23	0.28	0.19	0.40	0.53	11.87	3.53	1.43	0.74	0.44	0.22	0.07	0.18
24	0.28	0.21	0.38	0.49	7.73	3.27	1.45	0.78	0.43	0.22	0.06	0.18
25	0.29	0.23	0.59	0.46	6.55	3.11	1.44	0.80	0.43	0.19	0.06	0.18
26	0.29	0.36	0.45	0.46	6.02	3.00	1.46	0.74	0.42	0.17	0.06	0.19
27	0.30	0.28	0.38	0.38	5.47	2.81	1.45	0.65	0.43	0.17	0.06	0.20
28	0.30	0.26	0.38	0.37	4.91	2.68	1.43	0.60	0.43	0.16	0.05	0.21
29	0.30	0.24	0.38	0.37		2.58	1.40	0.59	0.41	0.16	0.05	0.24
30	0.30	0.24	0.38	0.36		2.42	1.38	0.60	0.40	0.14	0.05	0.25
31	0.31		0.37	0.36		2.34		0.61		0.13	0.04	
<b>Mean</b>	0.33	0.25	0.32	0.41	8.19	10.18	1.87	0.94	0.49	0.27	0.08	0.14
<b>Max Day</b>	0.43	0.40	0.59	0.63	52.64	51.37	2.86	1.54	0.59	0.39	0.12	0.25
<b>Min Day</b>	0.28	0.19	0.22	0.36	0.35	2.34	1.38	0.59	0.40	0.13	0.04	0.03
<b>Yield (a-f)</b>	20.16	14.68	19.92	25.09	454.83	626.20	111.17	57.55	29.04	16.42	5.13	8.40

Water Year 2009 Annual Summary		yr	day	cfs	
<b>Mean Daily Flow</b>	1.92	cfs	1991	9/17	0.03
<b>Max. Daily Flow</b>	53	cfs	1992	8/27	0.06
<b>Min. Daily Flow</b>	0.03	cfs	1993	8/27	0.10
<b>7-Day Low Flow</b>	0.04	cfs	1994	7/16	0.04
<b>Total Yield</b>	1388	ac-ft	1995	9/29	0.14
			2003	9/14	0.03
			2004	8/27	0.02
			2005	9/30	0.11
			2006	9/23	0.17
			2007	8/4	0.03
			2008	8/26	0.07
			2009	9/4	0.03

Approximate date and value of first minimum daily mean flow near the end of each water year.

Table 9: Mean Daily Water Temperature (°C)  
San Clemente Creek, water year 2009

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
1	13.51	13.09	9.01	5.80	6.36	10.88	10.05	10.82	12.99	15.21	14.61	14.79
2	13.91	12.62	8.89	6.59	6.50	11.37	9.99	11.62	13.57	14.84	14.48	15.39
3	13.39	11.13	8.45	6.34	6.66	10.25	9.52	11.93	13.45	14.58	14.41	15.61
4	13.83	11.18	7.77	4.61	6.77	9.62	8.36	12.53	12.95	14.47	14.27	14.87
5	12.80	9.73	7.39	5.22	7.94	8.95	8.82	13.23	12.85	14.10	14.05	13.98
6	12.49	9.70	7.46	6.59	8.45	9.20	9.52	13.49	12.43	13.53	14.84	14.13
7	12.67	10.21	8.22	6.31	8.02	9.45	9.36	13.01	12.43	12.87	14.25	13.35
8	12.81	10.33	8.62	6.69	7.16	8.93	9.78	12.23	12.61	13.07	14.05	12.86
9	12.07	10.79	7.12	5.89	6.73	8.56	9.35	12.18	12.85	13.17	14.36	13.28
10	10.53	10.66	6.59	5.25	6.67	7.57	9.83	12.10	13.37	13.02	15.07	13.94
11	9.56	9.59	6.71	5.65	6.93	7.84	9.58	12.17	13.16	13.56	15.33	14.42
12	8.66	10.26	7.50	6.26	7.16	8.21	9.95	11.43	12.82	13.65	15.08	14.60
13	8.63	10.42	7.91	6.41	7.13	8.48	9.92	11.31	13.45	13.91	15.26	14.40
14	9.33	10.79	6.96	6.46	6.88	9.12	9.16	11.96	13.54	14.87	14.36	14.60
15	10.12	10.79	7.17	6.31	7.74	9.68	8.79	12.98	12.79	15.18	13.76	13.90
16	10.72	10.61	5.99	6.31	8.15	10.07	9.30	13.80	13.40	15.32	13.87	13.95
17	10.99	10.53	4.99	6.23	7.95	10.03	9.12	14.68	13.64	15.62	13.98	14.18
18	11.43	10.09	5.63	6.30	7.90	10.03	10.47	14.38	14.13	15.81	13.95	14.49
19	10.81	9.52	6.76	6.32	7.68	10.72	11.78	13.70	13.98	15.89	14.05	14.43
20	10.33	9.97	5.80	6.43	7.49	10.16	12.72	12.12	13.31	15.63	14.32	14.08
21	9.96	9.46	6.13	7.52	7.91	10.37	13.35	11.54	13.00	15.26	14.41	14.16
22	10.39	8.58	7.13	8.44	10.03	9.29	13.23	11.49	12.70	15.16	14.78	14.45
23	10.74	8.45	7.01	9.14	10.83	8.22	12.51	11.81	13.31	14.62	14.74	14.77
24	10.76	9.10	7.56	9.42	10.26	8.24	10.78	11.52	13.82	14.34	13.01	14.67
25	10.74	9.67	7.72	8.58	9.76	9.13	10.37	11.66	13.89	14.41	12.82	14.00
26	10.60	10.27	6.69	7.81	9.70	10.42	10.25	12.01	13.47	14.58	13.08	14.18
27	10.35	10.57	5.47	5.91	9.14	10.35	9.83	13.21	13.91	15.05	13.48	14.65
28	10.62	10.01	5.56	5.59	9.50	10.54	9.50	13.39	15.25	14.80	14.45	14.29
29	10.71	9.23	5.99	5.92		10.28	8.73	13.65	15.45	14.78	15.08	13.45
30	11.29	9.25	6.06	6.16		8.82	9.24	13.63	15.15	15.05	15.38	12.62
31	12.42		5.74	6.30		9.02		13.22		14.86	14.76	
<b>Mean Day</b>	11.20	10.22	6.97	6.54	7.98	9.48	10.11	12.54	13.46	14.55	14.33	14.22
<b>Max Day</b>	13.91	13.09	9.01	9.42	10.83	11.37	13.35	14.68	15.45	15.89	15.38	15.61
<b>Min Day</b>	8.63	8.45	4.99	4.61	6.36	7.57	8.36	10.82	12.43	12.87	12.82	12.62

Table 10: Maximum Daily Water Temperature (°C)  
 San Clemente Creek, water year 2009

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
1	14.28	13.46	9.52	6.40	7.16	11.41	10.80	11.65	14.10	16.50	16.16	15.90
2	14.46	13.09	9.35	7.29	7.40	12.04	10.56	12.28	14.52	16.17	16.05	16.39
3	13.87	11.71	9.04	7.09	7.49	10.62	9.99	12.41	14.28	15.97	15.89	16.52
4	14.11	11.56	8.37	5.37	7.65	10.43	9.52	13.38	13.73	15.77	15.83	15.62
5	13.29	10.46	8.07	6.31	8.34	9.80	10.30	13.97	13.35	15.51	15.52	15.01
6	13.35	10.59	8.27	6.99	8.80	10.03	10.87	14.33	13.53	14.99	15.98	14.76
7	13.49	10.91	8.75	6.99	8.51	10.39	10.05	13.84	13.67	14.38	15.64	14.19
8	13.55	11.05	8.96	7.24	7.75	10.08	10.58	13.60	13.77	14.66	15.66	13.89
9	12.72	10.91	7.89	6.64	7.16	9.21	10.00	13.49	13.88	14.66	16.13	14.25
10	11.32	11.02	7.22	6.01	6.95	9.04	10.23	13.57	14.20	14.50	16.70	15.01
11	10.17	10.34	7.66	6.43	7.37	9.41	9.87	13.47	14.03	14.39	16.82	15.43
12	9.53	10.95	8.06	7.11	7.55	9.73	10.90	12.57	13.85	14.88	16.71	15.18
13	9.72	10.99	8.11	7.21	7.34	10.10	10.75	12.70	14.33	15.51	16.79	15.00
14	10.41	11.40	7.42	7.33	7.31	9.53	9.78	13.02	14.52	16.52	15.75	14.92
15	11.14	11.48	7.47	7.13	8.27	10.76	9.14	14.28	13.63	16.71	15.42	14.64
16	11.60	11.36	6.54	7.09	8.64	11.00	10.14	15.41	14.62	16.89	15.51	14.73
17	11.83	11.22	5.52	7.06	8.73	11.32	10.54	16.06	14.87	17.23	15.67	15.01
18	12.02	10.68	6.41	7.13	9.04	11.51	11.85	15.38	15.64	17.15	15.59	15.38
19	11.43	10.05	7.32	7.11	8.83	11.81	13.16	14.92	15.35	17.71	15.52	15.01
20	10.93	10.59	6.41	7.26	8.83	11.28	14.02	13.33	14.27	17.34	15.78	14.81
21	10.96	10.22	7.00	8.15	9.03	11.26	14.63	12.94	14.13	17.09	15.99	14.97
22	11.34	9.21	7.33	8.72	10.57	10.52	14.13	12.80	14.21	16.90	15.68	15.29
23	11.62	9.20	7.23	9.52	11.56	9.00	13.28	12.86	14.79	16.21	15.94	15.55
24	11.61	9.73	8.22	9.53	10.74	9.79	11.61	12.38	15.06	16.04	14.33	15.35
25	11.60	10.07	8.54	9.14	10.32	10.55	11.05	12.86	15.17	16.13	14.15	14.90
26	11.37	10.44	7.04	8.13	10.39	11.31	10.99	13.64	14.83	16.41	14.35	15.11
27	11.21	10.75	5.92	6.63	9.91	11.47	10.17	14.45	15.66	16.90	14.85	15.48
28	11.36	10.58	6.23	6.41	10.62	11.70	10.04	14.55	16.96	16.55	15.64	15.14
29	11.46	9.80	6.62	6.86		10.97	9.86	14.68	16.84	16.40	16.38	13.95
30	12.05	9.85	6.64	7.07		9.85	10.85	14.57	16.41	16.66	16.35	13.10
31	12.72		6.27	7.11		10.32		14.24		16.46	15.58	
<b>Mean Day</b>	11.95	10.79	7.53	7.24	8.65	10.52	10.99	13.67	14.61	16.10	15.75	15.02
<b>Max Day</b>	14.46	13.46	9.52	9.53	11.56	12.04	14.63	16.06	16.96	17.71	16.82	16.52
<b>Min Day</b>	9.53	9.20	5.52	5.37	6.95	9.00	9.14	11.65	13.35	14.38	14.15	13.10

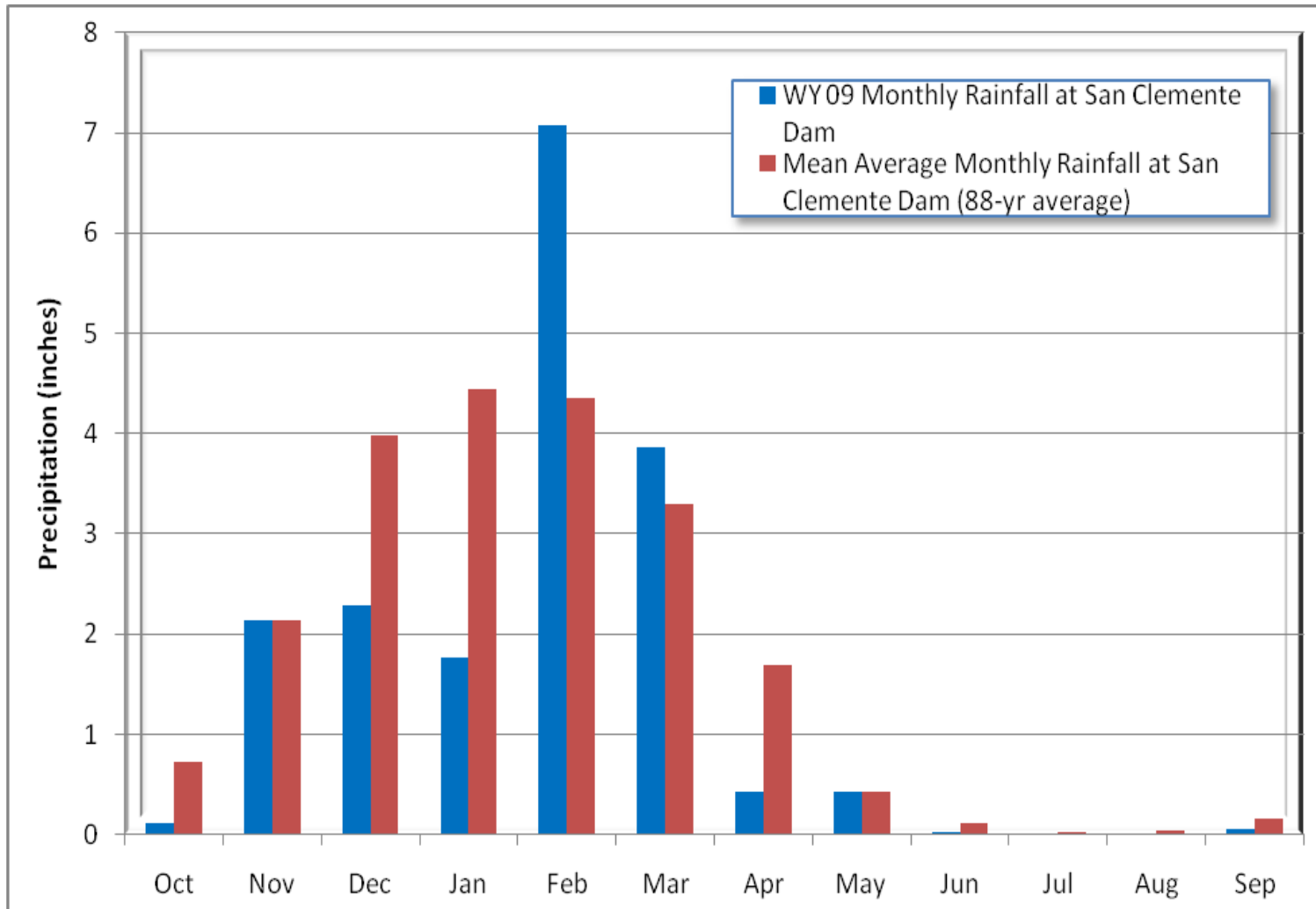
Table 11: Minimum Daily Water Temperature (°C)  
San Clemente Creek, water year 2009

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
1	12.69	12.62	8.36	5.17	5.48	10.31	9.22	9.85	11.70	14.10	13.35	13.54
2	13.46	11.59	8.29	5.88	5.55	10.58	9.40	10.79	12.71	13.46	13.43	14.36
3	12.65	10.29	7.72	5.41	5.76	9.91	8.59	11.41	12.47	13.20	13.32	14.65
4	13.29	10.50	7.08	4.06	5.67	8.78	6.94	11.53	11.97	13.26	12.97	14.04
5	12.11	9.13	6.67	4.39	7.54	8.19	7.12	12.57	12.32	13.03	12.63	12.81
6	11.59	8.86	6.63	6.26	8.13	8.35	7.86	12.48	11.21	12.04	14.32	13.28
7	11.78	9.50	7.65	5.60	7.52	8.71	8.52	12.00	10.96	11.05	13.40	12.31
8	12.07	9.55	7.93	6.23	6.33	7.69	9.08	10.73	11.54	11.54	12.58	11.56
9	11.37	10.60	6.53	5.28	6.41	7.57	8.50	10.74	11.97	11.72	12.77	12.22
10	9.88	9.69	5.87	4.50	6.41	6.18	9.42	10.28	12.70	11.27	13.68	12.91
11	8.80	8.82	5.82	4.86	6.44	6.35	9.18	11.00	12.21	12.58	14.22	13.41
12	7.70	9.61	6.98	5.55	6.74	6.77	8.68	10.22	11.73	12.35	13.58	13.97
13	7.50	9.77	7.23	5.57	6.92	6.85	8.95	9.58	12.78	12.18	14.16	13.80
14	8.23	10.24	6.35	5.59	6.27	8.64	8.83	10.47	12.77	13.32	13.22	14.23
15	9.11	10.13	6.56	5.40	7.29	8.79	8.32	11.42	11.62	13.73	12.06	12.89
16	9.81	9.82	5.50	5.48	7.64	9.19	8.61	11.98	12.19	13.79	12.28	13.09
17	10.11	9.81	4.65	5.41	7.12	8.74	7.30	12.93	12.46	14.19	12.67	13.26
18	10.99	9.42	4.86	5.44	6.92	8.43	8.77	13.34	12.49	14.44	12.51	13.55
19	10.07	8.79	6.36	5.48	6.59	9.69	10.15	12.66	12.50	14.47	12.93	13.67
20	9.73	9.28	5.45	5.59	6.24	8.88	11.21	10.43	12.80	14.12	13.34	13.24
21	8.92	8.90	5.43	6.78	6.82	9.42	11.87	9.62	12.24	13.82	12.98	13.28
22	9.42	7.86	7.00	8.13	9.04	8.79	12.18	9.78	10.93	13.81	13.85	13.56
23	9.85	7.65	6.81	8.71	10.40	7.21	11.69	10.81	11.56	13.34	14.06	13.92
24	9.90	8.48	6.99	9.15	9.61	6.68	10.11	10.74	12.45	13.18	11.37	13.89
25	9.86	9.26	7.04	8.03	9.13	7.59	9.86	10.51	12.74	13.15	11.30	12.94
26	9.74	10.07	5.78	6.68	9.02	9.53	9.61	10.03	11.99	13.01	11.58	13.21
27	9.40	10.39	5.01	5.41	8.27	9.17	9.53	11.85	11.88	13.75	11.86	13.80
28	9.83	9.55	4.93	4.82	8.40	9.19	8.61	12.04	13.65	13.59	13.32	13.58
29	9.93	8.57	5.38	5.03		9.40	7.37	12.59	13.97	13.67	13.75	13.09
30	10.64	8.60	5.46	5.18		7.52	7.41	12.75	13.73	13.84	14.46	11.93
31	11.96		5.11	5.40		7.47		12.25		13.47	13.73	
<b>Mean Day</b>	10.40	9.58	6.37	5.82	7.27	8.41	9.10	11.27	12.27	13.18	13.09	13.33
<b>Max Day</b>	13.46	12.62	8.36	9.15	10.40	10.58	12.18	13.34	13.97	14.47	14.46	14.65
<b>Min Day</b>	7.50	7.65	4.65	4.06	5.48	6.18	6.94	9.58	10.93	11.05	11.30	11.56

Table 12: Mean Daily Specific Conductance (umhos/cm @ 25 C)  
San Clemente Creek, water year 2009

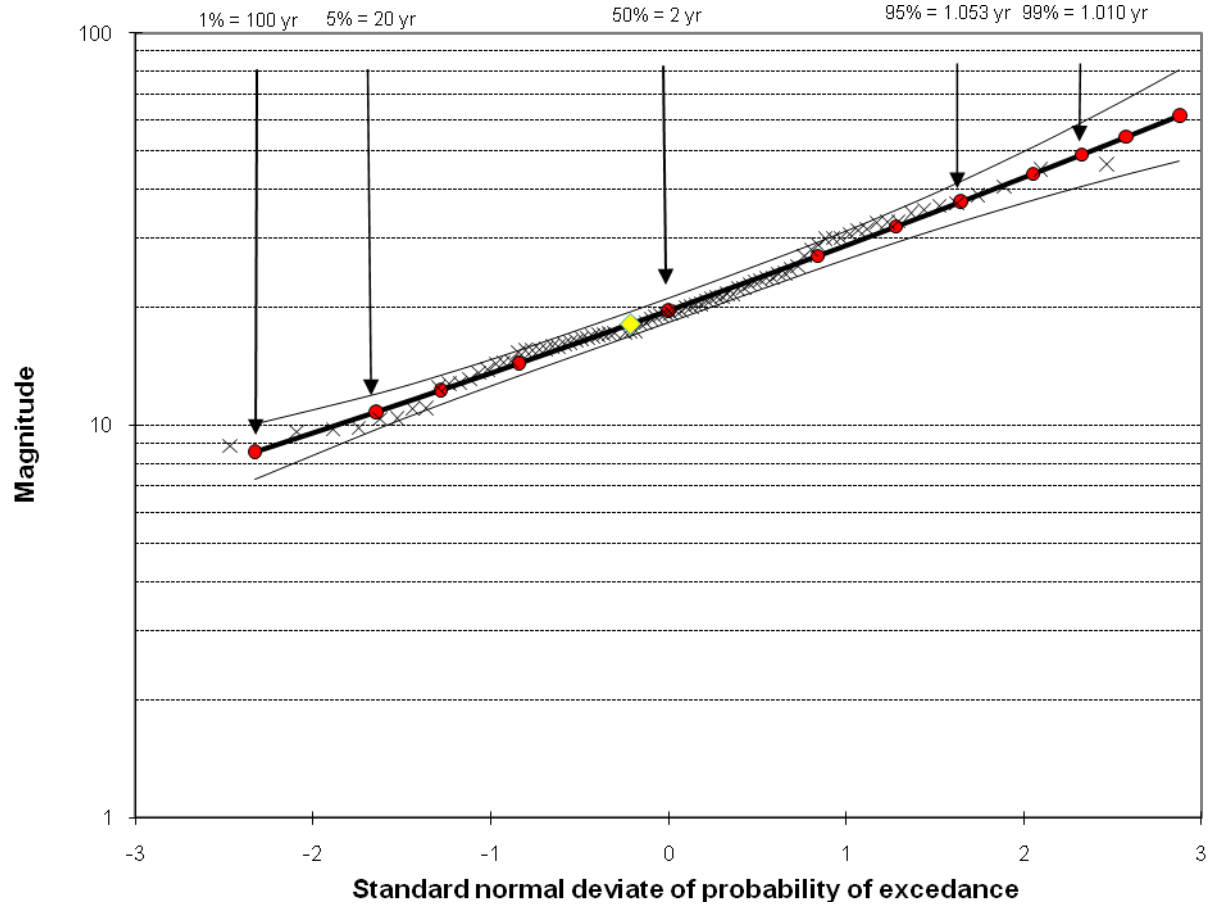
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
1	397	382	372	350	345	278	202	232	262	329	397	414
2	397	382	372	349	345	184	206	229	265	332	399	415
3	397	383	372	349	345	140	209	235	269	335	400	416
4	397	383	371	350	346	123	212	237	272	338	402	416
5	397	383	370	349	345	143	215	239	274	340	403	415
6	396	383	369	347	346	152	218	240	272	342	404	415
7	396	382	367	347	347	161	218	240	272	343	404	415
8	395	382	366	346	348	167	215	240	275	344	404	414
9	395	381	366	346	330	175	216	241	278	346	405	413
10	395	381	365	346	304	186	217	243	282	347	406	413
11	394	381	364	346	304	197	218	245	285	349	407	413
12	394	381	363	345	305	208	219	245	287	352	408	413
13	393	380	362	345	305	217	220	245	286	354	409	413
14	391	380	362	344	280	224	221	247	286	357	410	413
15	390	380	361	344	225	231	222	247	287	360	410	413
16	389	379	361	343	145	238	223	249	290	363	410	413
17	388	379	362	343	131	240	223	253	292	366	411	412
18	387	379	360	342	159	245	225	256	296	368	411	412
19	387	379	358	342	184	224	227	257	300	371	412	412
20	387	378	358	341	203	213	231	256	303	373	412	412
21	387	378	357	340	219	212	232	256	305	375	413	412
22	386	377	355	340	236	218	233	256	307	378	413	412
23	385	377	354	340	247	213	233	256	308	380	414	412
24	384	375	353	341	244	206	232	256	309	383	413	412
25	384	375	352	342	248	206	231	254	311	384	413	411
26	383	374	353	342	264	211	231	254	313	386	412	411
27	383	373	353	344	274	216	230	257	314	387	412	411
28	383	373	352	345	276	218	231	259	318	389	412	411
29	382	373	351	344		218	231	262	322	391	412	411
30	382	373	351	344		208	232	264	325	393	413	410
31	382		350	345		200		262		395	413	
<b>Mean Day</b>	390	379	361	345	273	202	222	249	292	363	408	413
<b>Max Day</b>	397	383	372	350	348	278	233	264	325	395	414	416
<b>Min Day</b>	382	373	350	340	131	123	202	229	262	329	397	410

## 7 Figures

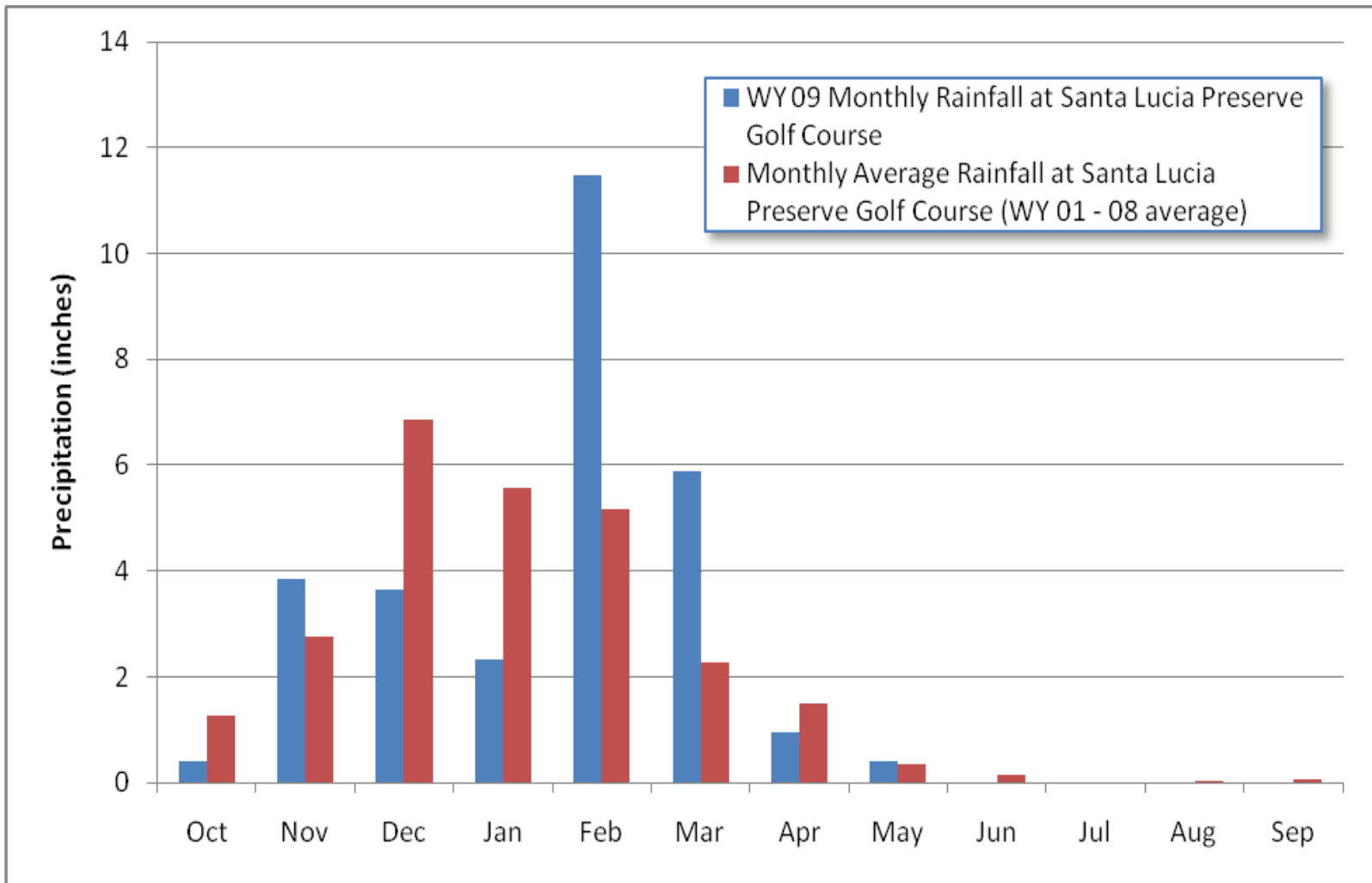


**Figure 1. Monthly precipitation at San Clemente Dam for Water Year 2009.** WY 2009 precipitation was slightly below average. Total precipitation in WY 2009 at the dam was 18.14 inches compared to the average total precipitation at the dam, 21.40 inches. Mean monthly data is based on Water Years 1922 - 2008. October, January and April received less than half of average precipitation. Precipitation in February was well above average and contributed a large portion of the precipitation for WY 2009. Precipitation data is from the Monterey Peninsula Water Management District (2009).

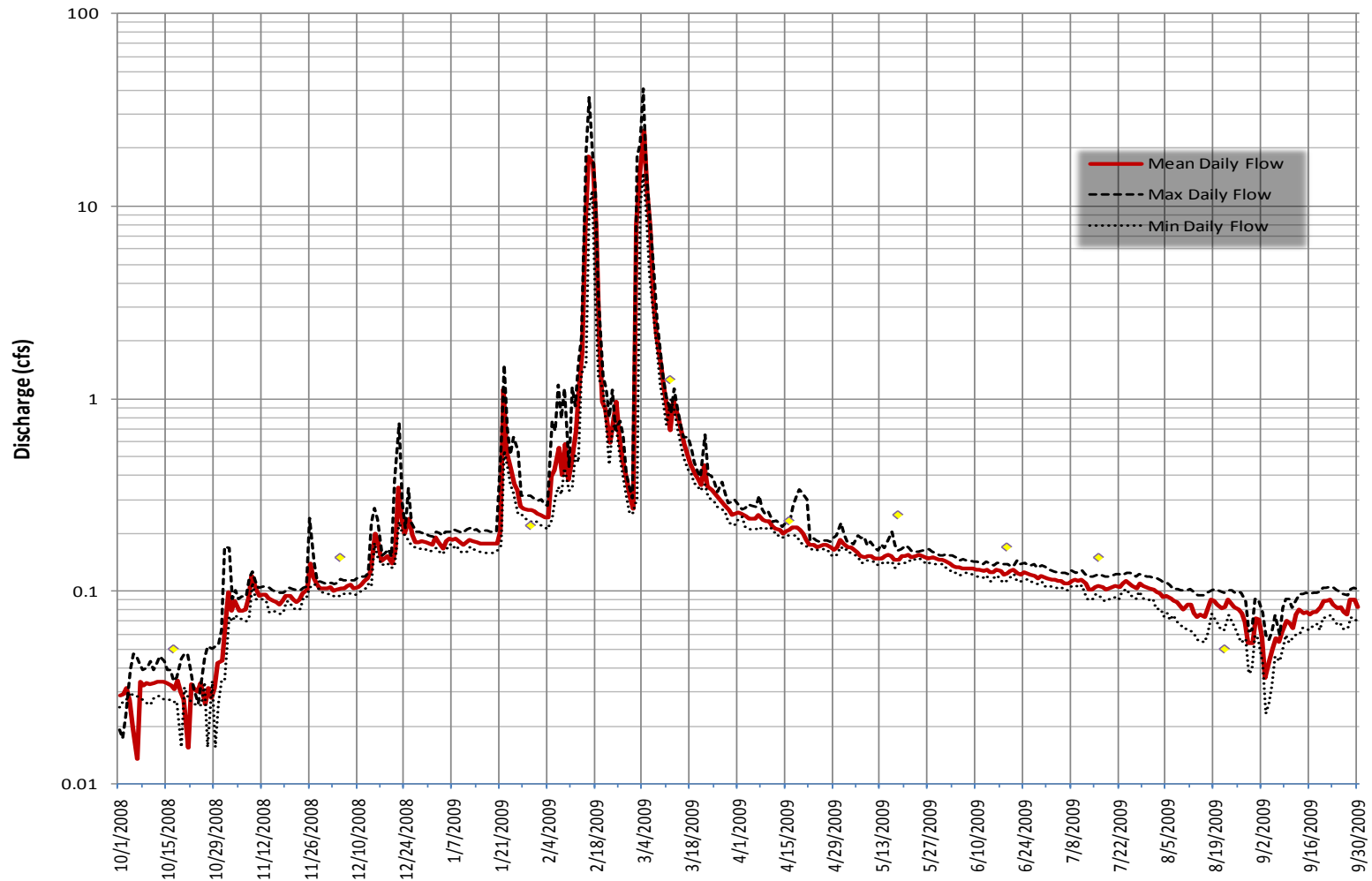




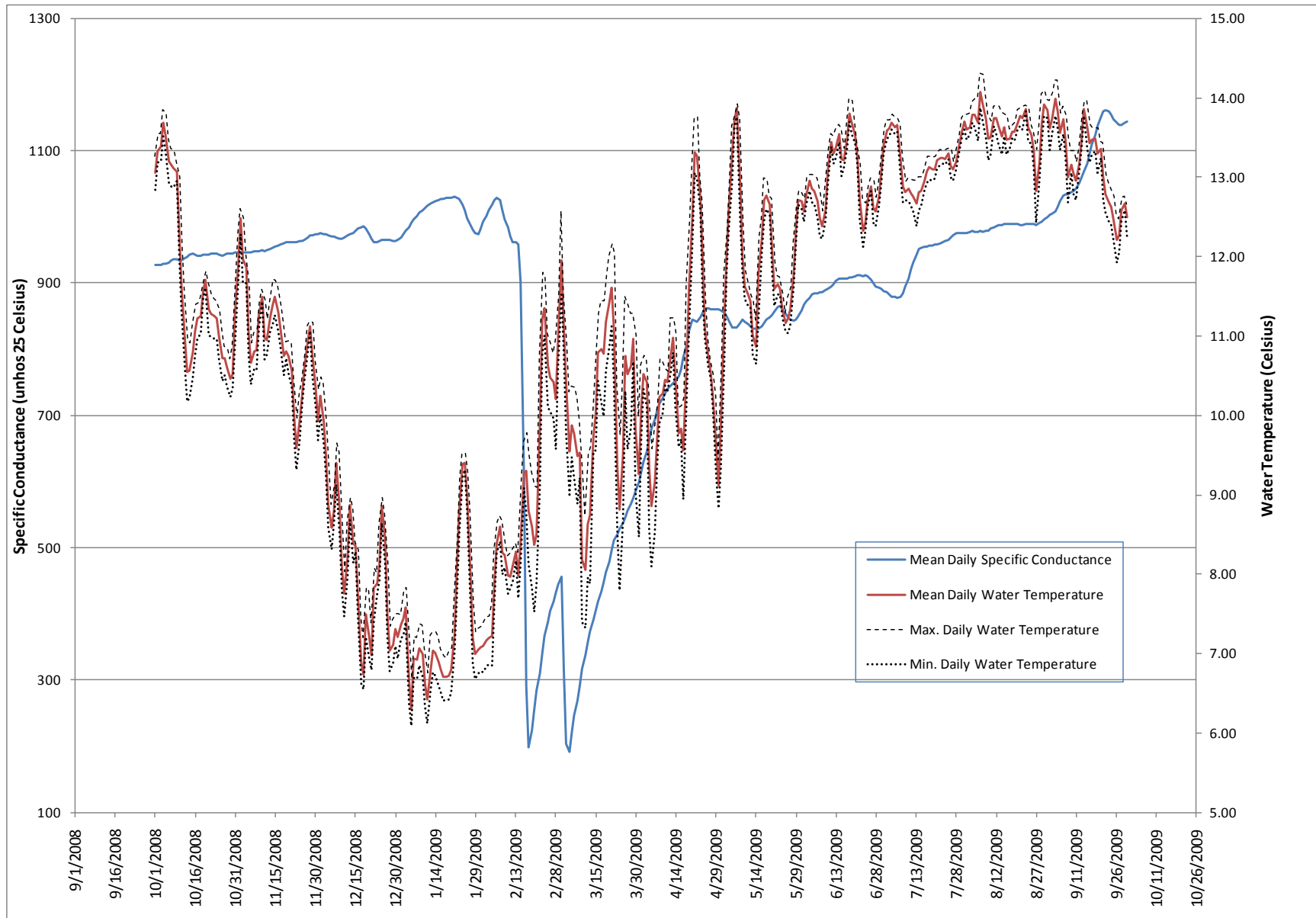
**Figure 2. Log-Pearson Type-III statistical analysis of historic precipitation data from San Clemente Dam.** Thin curved lines represent upper and lower 95% confidence bounds for precipitation and non-exceedance probability. The yellow diamond symbol marks the 18.14 inch precipitation of the 2009 water year.



**Figure 3. Monthly Precipitation at Santa Lucia Preserve Golf course for Water Year 2009.** WY 2009 precipitation was slightly above average at the golf course. Precipitation was 28.91 inches in Water Year 2009 compared to the 8 year annual average of 25.92 inches. Mean monthly average is based only on Water Years 2001 – 2008 and is probably not an accurate characterization of actual long-term patterns (mean monthly data from Forrest Arthur, Santa Lucia Preserve, 2009).

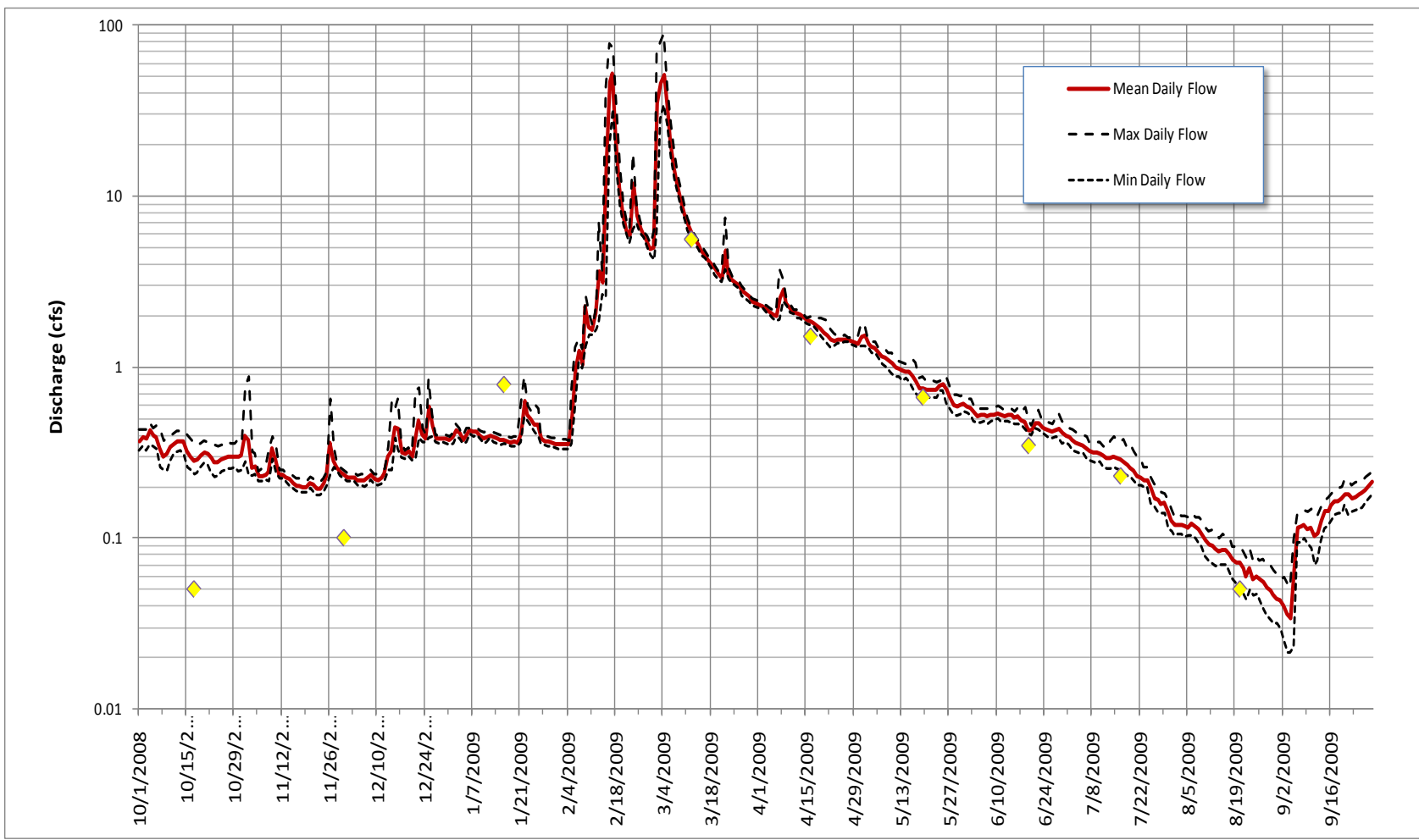


**Figure 4. Mean Daily Streamflow at Potrero Creek gage for Water Year 2009.** Red line is mean daily streamflow. Minimum and maximum daily flows are also shown. Yellow points represent manual discharge measurements.

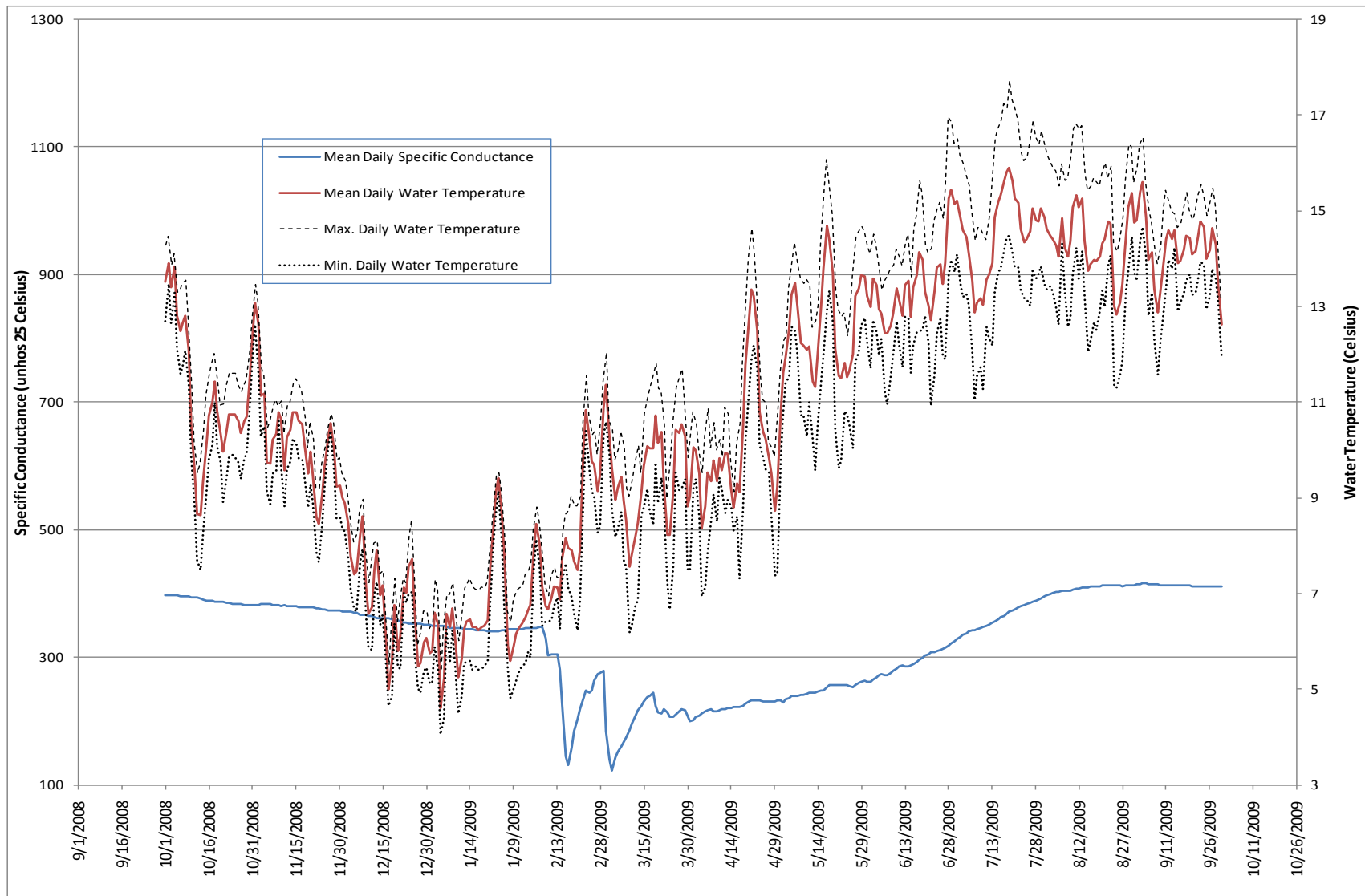


**Figure 5. Daily Specific Conductance Water Temperature data at Potrero Creek gage for Water Year 2009.**

Blue line is mean daily specific conductance; red line is mean daily water temperature; dotted lines represent minimum and maximum daily water temperature values.



**Figure 6. Mean Daily Streamflow at San Clemente Creek gage for Water Year 2009.** Red line is mean daily streamflow. Minimum and maximum daily flows are also shown. Yellow point represent manual discharge measurements.



**Figure 7. Daily Specific Conductance and Water Temperature data at San Clemente Creek gage for Water Year 2009. Blue line is mean daily specific conductance; red line is mean daily water temperature; dotted lines represent minimum and maximum daily water temperature values.**

