

Appendix A

Data Summary

Tables A-1 through A-27 summarize the water quality results obtained for *E. coli*, Enterococcus, TSS, and field measurements from Priority 1, Priority 2, and Priority 3 sites during 2023 dry weather sampling activities and storm event. Data from Priority 4 sites are included in Section 4.4 and are not reproduced in this appendix. Tables A-28 through A-30 summarize the daily mean flow measured at key USGS gages in the SAR watershed.

Table A-1. *E. coli* (MPN/100 mL) Concentrations Observed at Priority 1 Lake Sites during the 2023 Dry Season (geometric mean based on previous five weekly samples; if reported value has a < or > qualifier, the actual value was used to calculate the geomean; BDL = below detection limit)

Week Beginning Date	Canyon Lake		Lake Elsinore		Lake Perris		Big Bear Lake	
	(P1-1)		(P1-2)		(P1-3)		(P1-4)	
	Result	Geomean	Result	Geomean	Result	Geomean	Result	Geomeans
5/7/2023	1	--	52	--	37	--	1	--
5/14/2023	BDL	--	10	--	13	--	BDL	--
5/21/2023	2	--	15	--	22	--	18	--
5/28/2023	3.1	--	2	--	12	--	7.5	--
6/4/2023	BDL	1.8	41	14.5	1	10.5	2	4.1
6/11/2023	3.1	3.0	15	11.0	BDL	7.7	3.1	3.8
6/18/2023	4.1	2.4	9.7	13.8	BDL	10.5	1	3.1
6/25/2023	4.1	3.2	20	12.0	BDL	7.7	BDL	3.8
7/2/2023	5.2	3.4	17	12.9	2	4.8	BDL	3.8
7/9/2023	BDL	3.8	20	13.5	2	2.6	1	3.1
7/16/2023	3	3.8	8.5	16.6	1	1.4	BDL	1.6
7/23/2023	BDL	4.0	24	16.9	81	4.2	1	1.3
7/30/2023	2	3.5	17	15.6	BDL	4.2	BDL	1.0
8/6/2023	3.1	2.7	27	17.8	2	2.9	BDL	1.0
8/13/2023	1	2.8	16	19.9	1	3.5	BDL	1.0
8/20/2023	5.2	2.1	49	20.3	9.6	3.5	BDL	1.0
8/27/2023	1	2.3	20	20.8	2	3.2	BDL	1.0
9/3/2023	3.1	2.1	24	24.2	1	3.5	BDL	N/A
9/10/2023	2	2.1	28	22.6	2	1.9	BDL	N/A
9/17/2023	BDL	2.1	14	22.1	1	2.2	BDL	N/A
10/15/2023	2	--	23	--	BDL	--	BDL	--
10/22/2023	3.1	--	17	--	6.3	--	1	--
10/29/2023	3.1	--	2	--	5.2	--	2	--
11/5/2023	5.2	--	100	--	21	--	5.2	--
11/12/2023	1	2.5	2400	78	47	17	1	2

Table A-2. *E. coli* (MPN/100 mL) Concentrations Observed at Priority 1 Stream Sites during the 2023 Dry Season (geometric mean based on previous five weekly samples; if reported value has a < or > qualifier, the actual value was used to calculate the geomean; BDL = below detection limit)

Week Beginning Date	Mill Creek Reach 2		Lytle Creek		SAR @ MWD Crossing		SAR @ Pedley Avenue	
	(P1-5)		(P1-6)		(WW-S1)		(WW-S4)	
	Result	Geomean	Result	Geomean	Result	Geomean	Result	Geomean
5/7/2023	2	--	BDL	--	330	--	130	--
5/14/2023	2	--	3.1	--	1300	--	310	--
5/21/2023	5.1	--	1	--	320	--	930	--
5/28/2023	BDL	--	BDL	--	690	--	160	--
6/4/2023	3	2.8	1	1.5	140	421.2	130	239.0
6/11/2023	4.1	3.0	1	1.3	230	380.8	75	197.0
6/18/2023	17	4.0	2	1.4	180	342.2	250	203.8
6/25/2023	BDL	4.6	3	1.6	300	337.5	120	201.5
7/2/2023	7.3	6.0	2	1.5	56	215.4	19	135.2
7/9/2023	4.1	5.6	1	1.4	380	231.2	390	154.4
7/16/2023	2	4.8	4.1	1.7	230	198.3	340	133.5
7/23/2023	2	4.5	5.2	2.2	250	201.1	270	165.3
7/30/2023	6.2	4.8	8.6	3.0	290	217.7	160	153.5
8/6/2023	3	3.6	4.1	3.3	360	224.4	300	178.8
8/13/2023	5.2	3.8	5.2	3.6	590	663.1	5800	894.2
8/20/2023	16	4.3	11	4.6	24000	663.1	20000	894.2
8/27/2023	1	3.5	2	5.1	93	570.2	67	682.1
9/3/2023	4.1	3.9	1	4.1	650	581.0	1200	739.4
9/10/2023	2	3.9	6.3	4.3	460	633.9	580	824.8
9/17/2023	8.4	4.0	6.3	4.1	200	601.1	220	863.2
10/15/2023	1	--	59	--	200	--	230	--
10/22/2023	3.1	--	1	--	20	--	24	--
10/29/2023	2	--	3.1	--	61	--	1500	--
11/5/2023	BDL	--	2	--	86	--	74	--
11/12/2023	3.1	2	5.1	5	85	71	75	136

Table A-3. *E. coli* (MPN/100 mL) Concentrations Observed at Priority 2 Sites during the 2023 Dry Season (geometric mean based on previous five weekly samples; if reported value has a < or > qualifier, the actual value was used to calculate the geomean)

Week Beginning Date	Prado Park Lake Outlet		Chino Creek @ Central Avenue		Mill-Cucamonga Creek Below Wetlands		SAR @ MWD Crossing		SAR @ Pedley Avenue		SAR @ Mission Avenue	
	(WW-C3)		(WW-C7)		(WW-M6)		(WW-S1)		(WW-S4)		(MISSION)	
	Result	Geomean	Result	Geomean	Result	Geomean	Result	Geomean	Result	Geomean	Result	Geomean
5/7/2023	20	--	230	--	140	--	330	--	130	--	220	--
5/14/2023	20	--	220	--	250	--	1300	--	310	--	390	--
5/21/2023	52	--	540	--	310	--	320	--	930	--	260	--
5/28/2023	31	--	170	--	260	--	690	--	160	--	210	--
6/4/2023	86	35.4	840	329.8	260	236.1	140	421.2	130	239.0	140	230.9
6/11/2023	150	45.0	320	328.1	350	252.1	230	380.8	75	197.0	170	219.4
6/18/2023	52	46.0	190	303.5	340	263.1	180	342.2	250	203.8	190	214.9
6/25/2023	250	65.9	380	326.1	130	260.3	300	337.5	120	201.5	180	208.9
7/2/2023	1400	120.9	960	402.5	3.1	139.0	56	215.4	19	135.2	36	148.6
7/9/2023	ND	120.9	370	398.3	52	123.0	380	231.2	390	154.4	460	171.1
7/16/2023	ND	228.6	220	349.0	530	104.8	230	198.3	340	133.5	110	148.2
7/23/2023	280	267.2	310	347.1	180	93.8	250	201.1	270	165.3	700	187.6
7/30/2023	2400	696.4	400	393.0	140	80.9	290	217.7	160	153.5	140	178.3
8/6/2023	600	513.1	170	320.3	160	83.7	360	224.4	300	178.8	310	195.2
8/13/2023	63	270.2	210	389.8	63	205.5	590	663.1	5800	894.2	540	592.6
8/20/2023	210	270.2	610	389.8	560	205.5	24000	663.1	20000	894.2	24000	592.6
8/27/2023	73	157.6	2300	280.5	8.6	103.4	93	570.2	67	682.1	140	616.9
9/3/2023	6.2	128.6	22	280.4	230	115.9	650	581.0	1200	739.4	730	631.9
9/10/2023	31	121.8	280	269.1	31	90.2	460	633.9	580	824.8	410	585.4
9/17/2023	350	70.6	200	259.7	180	93.5	200	601.1	220	863.2	120	572.7
10/15/2023	63	--	300	--	140	--	200	--	230	--	97	--
10/22/2023	150	--	190	--	12	--	20	--	24	--	20	--
10/29/2023	41	--	380	--	250	--	61	--	1500	--	29	--
11/5/2023	20	--	75	--	200	--	86	--	74	--	110	--
11/12/2023	10	20.2	31	96.0	110	98.4	85	70.8	75	135.7	820	87.3

Table A-4. *E. coli* (MPN/100 mL) Concentrations Observed at Priority 3 Sites during the 2023 Dry Season (geometric mean based on previous five weekly samples; if reported value has a < or > qualifier, the actual value was used to calculate the geomean ["GM"])

Week Beginning Date	Goldenstar Creek		San Timoteo Creek Reach 3		Santa Ana River Reach 3		San Timoteo Creek Reach 1A		San Timoteo Creek Reach 2		Warm Creek		Bolsa Chica Channel		Serrano Creek	
	(P3-RC1)		(P3-RC3)		(P3-SBC1)		(P3-SBC2)		(P3-SBC3)		(P3-SBC4)		(P3-OC1)		(P3-OC11)	
	Result	GM	Result	GM	Result	GM	Result	GM	Result	GM	Result	GM	Result	GM	Result	GM
5/7/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5/14/2023	--	--	840	--	--	--	1400	--	1900	--	24000	--	--	--	--	--
5/21/2023	--	--	120	--	--	--	2000	--	320	--	7300	--	--	--	--	--
5/28/2023	--	--	110	--	--	--	910	--	2100	--	1100	--	--	--	--	--
6/4/2023	--	--	91	--	--	--	86	--	58	--	2400	--	--	--	--	--
6/11/2023	--	--	140	--	--	--	24000	--	340	--	4900	--	--	--	--	--
6/18/2023	--	--	--	170	--	--	--	1394	--	339	--	2681	--	--	--	--
6/25/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/2/2023	57	--	--	--	270	--	--	--	--	--	--	--	--	--	--	--
7/9/2023	2400	--	--	--	280	--	--	--	--	--	--	--	120	--	--	--
7/16/2023	340	--	--	--	98	--	--	--	--	--	--	--	41	--	--	--
7/23/2023	170	--	--	--	260	--	--	--	--	--	--	--	63	--	52	--
7/30/2023	190	--	--	--	31	--	--	--	--	--	--	--	10	--	10	--
8/6/2023	--	272	--	--	--	143	--	--	--	--	--	--	20	36	1470	--
8/13/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1670	--
8/20/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9804	416
8/27/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9/3/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9/10/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9/17/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10/15/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10/22/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10/29/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/5/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/12/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table A-5. *Enterococcus* (MPN/100 mL) Concentrations Observed at Priority 1 Sites during the 2023 Dry Season

Week Beginning Date	Lake Elsinore at Elm Grove Beach (P1-2-ELM)	
	Result	Geomean
5/7/2023	160	--
5/14/2023	BDL (10)	--
5/21/2023	2400	--
5/28/2023	5	--
6/4/2023	28	49
6/11/2023	86	54
6/18/2023	34	41
6/25/2023	31	56
7/2/2023	21	25
7/9/2023	6	26
7/16/2023	12	23
7/23/2023	84	23
7/30/2023	10	18
8/6/2023	11	15
8/13/2023	6	13
8/20/2023	32	17
8/27/2023	19	18
9/3/2023	10	13
9/10/2023	14	13
9/17/2023	12	14
10/15/2023	6	--
10/22/2023	11	--
10/29/2023	2	--
11/5/2023	62	--
11/12/2023	870	24

Table A-6. Total Suspended Solids (mg/L) Concentrations Observed at Priority 1 Sites during the 2023 Dry Season (BDL = below detection limit)

Week Beginning Date	Canyon Lake	Lake Elsinore	Lake Perris	Big Bear Lake	Mill Creek Reach 2	Lytle Creek	SAR @ MWD Crossing	SAR @ Pedley Avenue
	(P1-1)	(P1-2)	(P1-3)	(P1-4)	(P1-5)	(P1-6)	(WW-S1)	(WW-S4)
5/7/2023	2	28	1	2	3	2	130	82
5/14/2023	3	26	22	4	BDL (2)	2	100	74
5/21/2023	2	31	200	22	32	2	240	140
5/28/2023	2	22	5	17	7	1	120	110
6/4/2023	3	30	86	96	7	1	47	62
6/11/2023	2	25	4	16	3	0.6	36	43
6/18/2023	3	29	20	6	4	0.8	51	55
6/25/2023	3	24	4	9	2	0.6	67	29
7/2/2023	3	46	13	100	2	0.6	190	85
7/9/2023	3	32	22	69	0.9	0.7	160	72
7/16/2023	3	38	21	90	0.9	BDL (0.5)	49	38
7/23/2023	5	33	12	10	0.8	BDL (0.5)	33	24
7/30/2023	5	30	4	8	0.5	0.5	33	18
8/6/2023	3	23	55	58	0.5	BDL (0.5)	27	22
8/13/2023	2	27	8	11	0.7	1	15	10
8/20/2023	3	24	63	12	330	98	710	440
8/27/2023	3	30	10	10	17	2	430	340
9/3/2023	3	26	11	15	6	3	640	660
9/10/2023	3	23	5	18	7	0.8	19	68
9/17/2023	3	20	6	15	2	1	20	37
10/15/2023	3	22	17	11	BDL (0.5)	0.7	20	30
10/22/2023	3	28	3	11	1	1	16	31
10/29/2023	3	27	2	4	BDL (0.5)	0.8	17	24
11/5/2023	2	29	29	260	0.5	1	14	24
11/12/2023	4	60	19	16	0.5	0.8	17	15

Table A-7. Total Suspended Solids (mg/L) Concentrations Observed at Priority 2 Sites during the 2023 Dry Season (BDL = below detection limit)

Week Beginning Date	Prado Park Lake Outlet	Chino Creek @ Central Avenue	Mill-Cucamonga Creek Below Wetlands	SAR @ MWD Crossing	SAR @ Pedley Avenue	SAR @ Mission
	(WW-C3)	(WW-C7)	(WW-M6)	(WW-S1)	(WW-S4)	(WW-MISSION)
5/7/2023	25	3	2	130	82	150
5/14/2023	19	BDL (2)	2	100	74	200
5/21/2023	22	7	2	240	140	350
5/28/2023	23	2	5	120	110	140
6/4/2023	17	1	3	47	62	78
6/11/2023	24	5	5	36	43	38
6/18/2023	13	3	5	51	55	120
6/25/2023	11	3	5	67	29	100
7/2/2023	19	2	3	190	85	240
7/9/2023	23	2	5	160	72	130
7/16/2023	17	4	3	49	38	82
7/23/2023	20	5	4	33	24	46
7/30/2023	20	3	3	33	18	43
8/6/2023	18	4	5	27	22	20
8/13/2023	14	6	5	15	10	15
8/20/2023	13	2	5	710	440	840
8/27/2023	11	2	4	430	340	420
9/3/2023	20	3	5	640	660	560
9/10/2023	17	2	2	19	68	51
9/17/2023	37	2	4	20	37	25
10/15/2023	18	2	5	20	30	21
10/22/2023	28	2	3	16	31	26
10/29/2023	30	3	2	17	24	16
11/5/2023	23	2	2	14	24	21
11/12/2023	26	3	4	17	15	16

Table A-8. Total Suspended Solids (mg/L) Concentrations Observed at Priority 3 Sites during the 2023 Dry Season

Week Beginning Date	Goldenstar Creek	San Timoteo Creek Reach 3	Santa Ana River Reach 3	San Timoteo Creek Reach 1A	San Timoteo Creek Reach 2	Warm Creek	Bolsa Chica Channel	Borrego Creek	Serrano Creek
	(P3-RC1)	(P3-RC3)	(P3-SBC1)	(P3-SBC2)	(P3-SBC3)	(P3-SBC4)	(P3-OC1)	(P3-OC2)	(P3-OC11)
5/7/2023	--	--	--	--	--	--	--	--	--
5/14/2023	--	240	--	590	570	1100	--	--	--
5/21/2023	--	120	--	5300	230	3700	--	--	--
5/28/2023	--	81	--	270	1200	530	--	--	--
6/4/2023	--	260	--	320	300	2100	--	--	--
6/11/2023	--	170	--	960	340	2200	--	--	--
6/18/2023	--	--	--	--	--	--	--	--	--
6/25/2023	--	--	--	--	--	--	--	--	--
7/2/2023	0.7	--	220	--	--	--	--	--	--
7/9/2023	2	--	92	--	--	--	2.1	--	--
7/16/2023	5	--	57	--	--	--	2.5	--	--
7/23/2023	0.9	--	20	--	--	--	1.9	2.1	6.3
7/30/2023	0.8	--	22	--	--	--	1.8	--	8.8
8/6/2023	--	--	--	--	--	--	1.5	--	6.6
8/13/2023	--	--	--	--	--	--	--	--	4.3
8/20/2023	--	--	--	--	--	--	--	160	3.8
8/27/2023	--	--	--	--	--	--	--	--	--
9/3/2023	--	--	--	--	--	--	--	--	--
9/10/2023	--	--	--	--	--	--	--	--	--
9/17/2023	--	--	--	--	--	--	--	--	--
10/15/2023	--	--	--	--	--	--	--	--	--
10/22/2023	--	--	--	--	--	--	--	--	--
10/29/2023	--	--	--	--	--	--	--	--	--
11/5/2023	--	--	--	--	--	--	--	--	--
11/12/2023	--	--	--	--	--	--	--	--	--

Table A-9. Dissolved Oxygen (mg/L) Concentrations Observed at Priority 1 Sites during the 2023 Dry Season

Week Beginning Date	Canyon Lake	Lake Elsinore	Lake Perris	Big Bear Lake	Mill Creek Reach 2	Lytle Creek	SAR @ MWD Crossing	SAR @ Pedley Avenue
	(P1-1)	(P1-2)	(P1-3)	(P1-4)	(P1-5)	(P1-6)	(WW-S1)	(WW-S4)
5/7/2023	10.0	9.3	9.4	7.9	9.8	10.0	9.0	8.8
5/14/2023	12.2	12.1	9.9	8.3	9.3	9.8	8.6	8.6
5/21/2023	11.7	6.9	11.0	7.0	9.0	10.0	8.6	8.4
5/28/2023	7.6	6.0	10.2	6.4	9.1	9.7	8.6	8.4
6/4/2023	9.8	8.5	11.9	6.7	9.4	9.8	8.7	8.6
6/11/2023	8.9	8.1	10.0	6.4	8.9	9.7	8.6	8.3
6/18/2023	8.7	10.3	10.0	8.8	9.0	9.7	8.7	8.5
6/25/2023	9.0	9.3	9.2	9.0	9.2	9.8	8.8	8.4
7/2/2023	8.7	8.3	8.5	7.7	8.6	9.5	8.5	8.2
7/9/2023	9.7	7.7	8.6	7.0	8.6	9.5	8.2	8.0
7/16/2023	9.7	8.8	8.1	6.5	8.5	9.4	8.2	8.0
7/23/2023	9.7	8.2	8.1	7.8	8.5	9.5	8.3	8.0
7/30/2023	9.0	6.3	7.9	8.5	8.6	9.4	8.6	8.3
8/6/2023	7.9	5.0	7.5	7.1	8.8	9.4	8.3	7.9
8/13/2023	8.9	8.3	7.7	7.7	8.7	9.3	8.4	7.9
8/20/2023	10.5	8.4	8.1	6.7	8.8	9.6	7.5	7.4
8/27/2023	11.3	11.0	8.4	7.3	8.3	9.3	7.8	7.6
9/3/2023	8.9	7.6	9.1	8.2	8.5	9.4	8.0	7.8
9/10/2023	7.2	5.9	8.5	8.0	8.6	9.7	8.4	8.0
9/17/2023	7.7	9.7	8.1	7.3	8.8	9.6	8.7	8.3
10/15/2023	7.9	6.9	8.6	6.7	8.9	9.6	8.7	8.4
10/22/2023	7.0	6.9	7.8	6.9	8.7	9.5	8.6	8.1
10/29/2023	5.5	8.3	8.0	7.8	9.3	9.7	9.3	8.9
11/5/2023	5.4	9.2	8.7	8.4	9.3	9.6	9.2	9.1
11/12/2023	3.4	10.5	10.9	8.4	9.6	9.8	9.2	9.0

Table A-10. Dissolved Oxygen (mg/L) Concentrations Observed at Priority 2 Sites during the 2023 Dry Season

Week Beginning Date	Prado Park Lake Outlet	Chino Creek @ Central Avenue	Mill-Cucamonga Creek Below Wetlands	SAR @ MWD Crossing	SAR @ Pedley Avenue	SAR @ Mission
	(WW-C3)	(WW-C7)	(WW-M6)	(WW-S1)	(WW-S4)	(WW-MISSION)
5/7/2023	9.0	6.9	7.4	9.0	8.8	9.0
5/14/2023	9.1	5.0	6.2	8.6	8.6	8.4
5/21/2023	8.0	7.9	6.2	8.6	8.4	8.8
5/28/2023	8.5	6.9	6.8	8.6	8.4	8.7
6/4/2023	9.0	7.4	6.7	8.7	8.6	8.6
6/11/2023	8.3	7.3	5.9	8.6	8.3	8.6
6/18/2023	8.4	7.5	5.8	8.7	8.5	8.5
6/25/2023	6.8	7.1	4.9	8.8	8.4	8.5
7/2/2023	6.4	7.1	6.0	8.5	8.2	8.2
7/9/2023	11.6	6.7	5.1	8.2	8.0	8.0
7/16/2023	10.2	6.4	5.1	8.2	8.0	8.0
7/23/2023	7.9	6.7	5.0	8.3	8.0	7.9
7/30/2023	6.1	6.1	4.9	8.6	8.3	8.4
8/6/2023	6.5	5.2	5.7	8.3	7.9	7.8
8/13/2023	8.5	5.0	4.6	8.4	7.9	8.1
8/20/2023	8.4	7.0	6.2	7.5	7.4	7.5
8/27/2023	7.6	6.0	5.8	7.8	7.6	7.6
9/3/2023	8.5	5.1	6.1	8.0	7.8	8.1
9/10/2023	8.2	5.6	6.2	8.4	8.0	8.1
9/17/2023	7.5	6.1	6.5	8.7	8.3	8.5
10/15/2023	8.2	6.8	7.0	8.7	8.4	8.4
10/22/2023	8.2	5.9	7.2	8.6	8.1	8.3
10/29/2023	8.9	8.7	7.7	9.3	8.9	9.1
11/5/2023	10.5	7.9	8.1	9.2	9.1	9.1
11/12/2023	749.4	8.4	8.2	9.2	9.0	8.7

Table A-11. Dissolved Oxygen (mg/L) Concentrations Observed at Priority 3 Sites during the 2023 Dry Season

Week Beginning Date	Goldenstar Creek	San Timoteo Creek Reach 3	Santa Ana River Reach 3	San Timoteo Creek Reach 1A	San Timoteo Creek Reach 2	Warm Creek	Bolsa Chica Channel	Borrogo Creek	Serrano Creek
	(P3-RC1)	(P3-RC3)	(P3-SBC1)	(P3-SBC2)	(P3-SBC3)	(P3-SBC4)	(P3-OC1)	(P3-OC2)	(P3-OC11)
5/7/2023	--	--	--	--	--	--	--	--	--
5/14/2023	--	8.44	--	9.84	9.07	8.92	--	--	--
5/21/2023	--	8.50	--	9.11	9.24	9.25	--	--	--
5/28/2023	--	8.40	--	9.22	9.20	9.25	--	--	--
6/4/2023	--	8.50	--	10.29	9.15	8.69	--	--	--
6/11/2023	--	8.37	--	9.74	9.02	9.33	--	--	--
6/18/2023	--	--	--	--	--	--	--	--	--
6/25/2023	--	--	--	--	--	--	--	--	--
7/2/2023	8.77	--	8.61	--	--	--	--	--	--
7/9/2023	8.69	--	9.12	--	--	--	15.53	--	--
7/16/2023	8.50	--	9.50	--	--	--	5.08	--	--
7/23/2023	8.41	--	9.84	--	--	--	13.48	9.34	9.87
7/30/2023	8.59	--	8.81	--	--	--	12.28	--	12.16
8/6/2023	--	--	--	--	--	--	4.26	--	10.52
8/13/2023	--	--	--	--	--	--	--	--	10.57
8/20/2023	--	--	--	--	--	--	--	8.2	10.07
8/27/2023	--	--	--	--	--	--	--	--	--
9/3/2023	--	--	--	--	--	--	--	--	--
9/10/2023	--	--	--	--	--	--	--	--	--
9/17/2023	--	--	--	--	--	--	--	--	--
10/15/2023	--	--	--	--	--	--	--	--	--
10/22/2023	--	--	--	--	--	--	--	--	--
10/29/2023	--	--	--	--	--	--	--	--	--
11/5/2023	--	--	--	--	--	--	--	--	--
11/12/2023	--	--	--	--	--	--	--	--	--

Table A-12. pH (standard units) Observed at Priority 1 Sites during the 2023 Dry Season

Week Beginning Date	Canyon Lake	Lake Elsinore	Lake Perris	Big Bear Lake	Mill Creek Reach 2	Lytle Creek	SAR @ MWD Crossing	SAR @ Pedley Avenue
	(P1-1)	(P1-2)	(P1-3)	(P1-4)	(P1-5)	(P1-6)	(WW-S1)	(WW-S4)
5/7/2023	8.8	9.1	8.5	8.3	8.2	8.2	8.0	8.1
5/14/2023	8.1	9.1	8.6	8.5	8.1	8.2	8.1	8.2
5/21/2023	8.8	8.8	9.0	8.2	8.0	8.2	8.1	8.2
5/28/2023	8.4	8.8	9.2	8.2	8.3	8.3	8.1	8.2
6/4/2023	8.7	8.8	9.3	8.2	8.1	8.1	8.0	8.1
6/11/2023	8.7	8.8	9.3	8.2	8.0	8.2	8.1	8.2
6/18/2023	8.6	8.9	9.3	8.7	8.1	8.3	8.1	8.1
6/25/2023	8.6	8.9	9.2	8.8	8.2	8.2	8.1	8.2
7/2/2023	8.6	8.9	9.2	8.7	8.2	8.3	8.2	8.3
7/9/2023	8.8	8.9	9.1	8.6	8.2	8.2	8.2	8.3
7/16/2023	8.9	9.0	9.1	8.6	8.0	8.3	8.2	8.3
7/23/2023	8.9	8.9	9.0	8.9	8.2	8.3	8.1	8.2
7/30/2023	8.7	8.7	8.7	9.1	8.1	8.3	8.2	8.3
8/6/2023	8.7	8.6	8.8	8.9	8.1	8.3	8.2	8.3
8/13/2023	8.8	8.8	8.8	8.8	8.0	8.1	8.2	8.3
8/20/2023	8.9	8.7	8.6	8.8	8.1	8.2	7.7	7.8
8/27/2023	9.1	8.9	8.7	8.8	8.2	8.3	8.1	8.2
9/3/2023	8.8	8.7	8.8	8.8	8.2	8.4	8.0	8.2
9/10/2023	8.5	8.5	8.7	8.8	8.0	8.1	8.1	8.1
9/17/2023	8.6	8.9	8.5	8.7	8.0	8.1	8.1	8.2
10/15/2023	7.8	8.6	8.3	8.5	8.0	8.3	8.0	8.1
10/22/2023	7.7	8.7	8.1	8.5	8.0	8.4	8.1	8.1
10/29/2023	7.5	8.6	8.0	8.5	8.0	8.3	8.1	8.1
11/5/2023	7.6	8.8	8.2	8.4	8.0	8.2	8.0	8.2
11/12/2023	7.7	8.8	8.7	8.4	7.8	8.0	8.0	8.1

Table A-13. pH (standard units) Observed at Priority 2 Sites during the 2023 Dry Season

Week Beginning Date	Prado Park Lake Outlet	Chino Creek @ Central Avenue	Mill-Cucamonga Creek Below Wetlands	SAR @ MWD Crossing	SAR @ Pedley Avenue	SAR @ MISSION
	(WW-C3)	(WW-C7)	(WW-M6)	(WW-S1)	(WW-S4)	(WW-MISSION)
5/7/2023	9.1	7.8	7.6	8.0	8.1	8.1
5/14/2023	9.1	7.7	7.5	8.1	8.2	8.2
5/21/2023	9.1	8.2	7.7	8.1	8.2	8.1
5/28/2023	9.0	8.0	7.7	8.1	8.2	8.2
6/4/2023	8.9	8.1	7.7	8.0	8.1	8.2
6/11/2023	8.7	8.2	7.6	8.1	8.2	8.2
6/18/2023	8.9	8.3	7.6	8.1	8.1	8.2
6/25/2023	8.2	8.1	7.5	8.1	8.2	8.3
7/2/2023	7.9	8.1	7.6	8.2	8.3	8.4
7/9/2023	9.8	8.2	7.5	8.2	8.3	8.4
7/16/2023	9.8	8.2	7.5	8.2	8.3	8.4
7/23/2023	9.0	8.1	7.7	8.1	8.2	8.4
7/30/2023	8.0	8.1	7.6	8.2	8.3	8.4
8/6/2023	8.3	7.9	7.7	8.2	8.3	8.4
8/13/2023	9.3	8.1	7.6	8.2	8.3	8.4
8/20/2023	8.7	8.0	7.4	7.7	7.8	7.9
8/27/2023	8.7	8.0	7.7	8.1	8.2	8.1
9/3/2023	9.0	8.0	7.6	8.0	8.2	8.1
9/10/2023	9.0	7.8	7.6	8.1	8.1	8.2
9/17/2023	8.7	7.8	7.8	8.1	8.2	8.3
10/15/2023	8.9	7.9	7.6	8.0	8.1	8.3
10/22/2023	9.3	7.9	7.6	8.1	8.1	8.3
10/29/2023	9.1	8.0	7.6	8.1	8.1	8.2
11/5/2023	9.4	8.0	7.6	8.0	8.2	8.4
11/12/2023	9.4	8.2	7.6	8.0	8.1	8.3

Table A-14. pH (standard units) Observed at Priority 3 Sites during the 2023 Dry Season

Week Beginning Date	Goldenstar Creek	San Timoteo Creek Reach 3	Santa Ana River Reach 3	San Timoteo Creek Reach 1A	San Timoteo Creek Reach 2	Warm Creek	Bolsa Chica Channel	Borrogo Creek	Serrano Creek
	(P3-RC1)	(P3-RC3)	(P3-SBC1)	(P3-SBC2)	(P3-SBC3)	(P3-SBC4)	(P3-OC1)	(P3-OC2)	(P3-OC11)
5/7/2023	--	--	--	--	--	--	--	--	--
5/14/2023	--	8.3	--	8.7	8.5	8.4	--	--	--
5/21/2023	--	8.4	--	8.3	8.5	8.5	--	--	--
5/28/2023	--	8.4	--	8.6	8.5	8.5	--	--	--
6/4/2023	--	8.3	--	8.7	8.4	8.2	--	--	--
6/11/2023	--	8.3	--	8.7	8.5	8.6	--	--	--
6/18/2023	--	--	--	--	--	--	--	--	--
6/25/2023	--	--	--	--	--	--	--	--	--
7/2/2023	8.6	--	8.0	--	--	--	--	--	--
7/9/2023	8.5	--	8.3	--	--	--	8.35	--	--
7/16/2023	8.6	--	8.1	--	--	--	9.21	--	--
7/23/2023	8.6	--	8.1	--	--	--	8	8.82	10.1
7/30/2023	8.4	--	8.0	--	--	--	8.1	--	10.63
8/6/2023	--	--	--	--	--	--	7.73	--	9.54
8/13/2023	--	--	--	--	--	--	--	--	9
8/20/2023	--	--	--	--	--	--	--	8.28	9.15
8/27/2023	--	--	--	--	--	--	--	--	--
9/3/2023	--	--	--	--	--	--	--	--	--
9/10/2023	--	--	--	--	--	--	--	--	--
9/17/2023	--	--	--	--	--	--	--	--	--
10/15/2023	--	--	--	--	--	--	--	--	--
10/22/2023	--	--	--	--	--	--	--	--	--
10/29/2023	--	--	--	--	--	--	--	--	--
11/5/2023	--	--	--	--	--	--	--	--	--
11/12/2023	--	--	--	--	--	--	--	--	--

Table A-15. Turbidity (NTU) Observed at Priority 1 Sites during the 2023 Dry Season

Week Beginning Date	Canyon Lake	Lake Elsinore	Lake Perris	Big Bear Lake	Mill Creek Reach 2	Lytle Creek	SAR @ MWD Crossing	SAR @ Pedley Avenue
	(P1-1)	(P1-2)	(P1-3)	(P1-4)	(P1-5)	(P1-6)	(WW-S1)	(WW-S4)
5/7/2023	0.2	24.7	0.3	1.7	8.0	0.6	68.5	51.7
5/14/2023	0.2	26.6	1.6	1.1	3.9	0.5	40.0	31.8
5/21/2023	0.6	20.2	5.4	4.6	3.1	0.1	93.4	61.0
5/28/2023	0.7	20.2	3.0	5.9	1.9	0.2	56.2	42.7
6/4/2023	1.2	24.6	9.6	22.8	1.2	0.1	31.4	24.9
6/11/2023	0.6	26.7	1.4	6.1	2.0	0.6	18.0	20.1
6/18/2023	0.8	25.6	3.3	4.0	0.4	0.2	24.4	16.7
6/25/2023	1.1	25.4	0.6	4.4	0.6	0.2	39.1	14.9
7/2/2023	1.7	47.3	1.4	13.6	8.3	0.4	106.7	45.7
7/9/2023	2.3	29.0	1.2	14.3	1.5	0.5	25.0	15.2
7/16/2023	1.7	26.7	5.5	40.4	0.4	2.8	25.0	15.2
7/23/2023	1.5	23.9	3.8	14.5	0.3	0.0	16.3	8.7
7/30/2023	2.6	20.6	1.6	9.7	0.2	0.6	19.1	9.0
8/6/2023	1.3	12.0	6.8	26.9	0.3	0.1	8.1	11.0
8/13/2023	0.9	19.2	0.8	9.6	0.0	0.1	5.8	5.7
8/20/2023	0.7	14.2	4.7	8.5	55.5	40.8	305.0	254.6
8/27/2023	1.0	13.1	1.2	7.2	7.9	0.0	177.2	109.3
9/3/2023	2.0	13.4	6.3	11.1	2.3	2.1	263.6	304.6
9/10/2023	0.7	13.2	5.1	6.4	0.4	0.2	10.4	20.6
9/17/2023	1.1	15.2	1.6	7.0	0.5	0.3	7.1	13.7
10/15/2023	0.2	18.8	0.2	6.3	1.0	1.1	4.9	6.4
10/22/2023	0.5	15.9	0.6	4.7	0.4	0.0	6.6	8.4
10/29/2023	0.2	19.7	0.5	0.9	0.5	0.4	5.6	3.0
11/5/2023	0.2	18.8	0.7	22.5	0.7	0.8	2.4	4.8
11/12/2023	1.1	37.7	18.5	2.3	1.2	0.2	8.2	4.2

Table A-16. Turbidity (NTU) Observed at Priority 2 Sites during the 2023 Dry Season

Week Beginning Date	Prado Park Lake Outlet	Chino Creek @ Central Avenue	Mill-Cucamonga Creek Below Wetlands	SAR @ MWD Crossing	SAR @ Pedley Avenue	SAR @ Mission Ave
	(WW-C3)	(WW-C7)	(WW-M6)	(WW-S1)	(WW-S4)	(MISSION)
5/7/2023	12.3	0.6	0.9	68.5	51.7	66.3
5/14/2023	6.3	0.4	0.8	40.0	31.8	86.4
5/21/2023	5.9	0.2	0.8	93.4	61.0	167.1
5/28/2023	7.4	0.4	0.9	56.2	42.7	59.8
6/4/2023	6.6	0.5	4.4	31.4	24.9	38.1
6/11/2023	9.9	1.7	5.7	18.0	20.1	18.7
6/18/2023	5.4	0.8	2.0	24.4	16.7	74.6
6/25/2023	4.5	1.0	2.4	39.1	14.9	65.0
7/2/2023	5.2	1.2	1.1	106.7	45.7	132.5
7/9/2023	9.8	1.3	1.4	25.0	15.2	51.2
7/16/2023	6.9	1.5	1.4	25.0	15.2	51.2
7/23/2023	10.3	1.7	1.3	16.3	8.7	21.1
7/30/2023	7.3	1.3	1.2	19.1	9.0	23.5
8/6/2023	5.7	1.9	2.3	8.1	11.0	8.0
8/13/2023	6.2	2.4	1.7	5.8	5.7	6.0
8/20/2023	6.7	0.0	2.6	305.0	254.6	420.1
8/27/2023	5.8	0.1	2.3	177.2	109.3	222.4
9/3/2023	12.4	2.7	1.4	263.6	304.6	230.3
9/10/2023	14.8	0.6	1.0	10.4	20.6	11.9
9/17/2023	39.4	1.1	1.7	7.1	13.7	6.4
10/15/2023	23.1	0.4	1.2	4.9	6.4	6.4
10/22/2023	36.4	1.2	0.5	6.6	8.4	6.3
10/29/2023	36.3	0.2	0.5	5.6	3.0	4.4
11/5/2023	24.6	0.7	0.1	2.4	4.8	2.1
11/12/2023	34.2	0.9	0.2	8.2	4.2	2.8

Table A-17. Turbidity (NTU) Observed at Priority 3 Sites during the 2023 Dry Season

Week Beginning Date	Goldenstar Creek	San Timoteo Creek Reach 3	Santa Ana River Reach 3	San Timoteo Creek Reach 1A	San Timoteo Creek Reach 2	Warm Creek	Bolsa Chica Channel	Borrego Creek	Serrano Creek
	(P3-RC1)	(P3-RC3)	(P3-SBC1)	(P3-SBC2)	(P3-SBC3)	(P3-SBC4)	(P3-OC1)	(P3-OC2)	(P3-OC11)
5/7/2023	--	--	--	--	--	--	--	--	--
5/14/2023	--	138.6	--	213.4	213.4	746.3	--	--	--
5/21/2023	--	53.7	--	1204.2	120.7	1076.7	--	--	--
5/28/2023	--	45.8	--	372.2	135.2	166.5	--	--	--
6/4/2023	--	128.2	--	133.4	132.4	690.8	--	--	--
6/11/2023	--	60.2	--	147.3	103.2	809.2	--	--	--
6/18/2023	--	--	--	--	--	--	--	--	--
6/25/2023	--	--	--	--	--	--	--	--	--
7/2/2023	0.3	--	108.2	--	--	--	--	--	--
7/9/2023	1.2	--	39.0	--	--	--	2.01	--	--
7/16/2023	1.9	--	28.7	--	--	--	1.6	--	--
7/23/2023	0.3	--	10.6	--	--	--	2.47	2.46	7.06
7/30/2023	0.6	--	9.8	--	--	--	1.51	--	6.33
8/6/2023	--	--	--	--	--	--	1.6	--	3.39
8/13/2023	--	--	--	--	--	--	--	--	2.39
8/20/2023	--	--	--	--	--	--	--	185.0	4.89
8/27/2023	--	--	--	--	--	--	--	--	--
9/3/2023	--	--	--	--	--	--	--	--	--
9/10/2023	--	--	--	--	--	--	--	--	--
9/17/2023	--	--	--	--	--	--	--	--	--
10/15/2023	--	--	--	--	--	--	--	--	--
10/22/2023	--	--	--	--	--	--	--	--	--
10/29/2023	--	--	--	--	--	--	--	--	--
11/5/2023	--	--	--	--	--	--	--	--	--
11/12/2023	--	--	--	--	--	--	--	--	--

Table A-18. Water Temperature (°C) Concentrations Observed at Priority 1 Sites during the 2023 Dry Season

Week Beginning Date	Canyon Lake	Lake Elsinore	Lake Perris	Big Bear Lake	Mill Creek Reach 2	Lytle Creek	SAR @ MWD Crossing	SAR @ Pedley Avenue
	(P1-1)	(P1-2)	(P1-3)	(P1-4)	(P1-5)	(P1-6)	(WW-S1)	(WW-S4)
5/7/2023	19.6	19.0	17.9	13.0	8.1	10.4	16.6	17.9
5/14/2023	23.7	23.5	22.8	15.9	10.8	11.2	19.6	20.0
5/21/2023	24.9	24.1	23.8	16.6	13.6	11.3	18.6	20.3
5/28/2023	22.4	21.1	20.2	18.4	10.7	10.8	18.4	19.7
6/4/2023	22.4	21.9	21.7	17.7	9.5	10.7	18.7	19.3
6/11/2023	23.1	22.7	22.2	19.0	11.9	11.4	18.8	20.7
6/18/2023	24.7	24.5	24.5	18.2	11.0	11.5	19.5	20.1
6/25/2023	25.0	24.3	24.8	18.4	10.9	11.3	19.5	20.8
7/2/2023	27.5	27.1	27.4	20.4	15.1	12.1	21.5	21.5
7/9/2023	27.2	26.1	26.6	21.5	13.6	12.2	22.8	23.6
7/16/2023	29.2	28.6	28.1	23.7	13.9	12.8	22.8	23.6
7/23/2023	30.0	30.3	29.9	24.3	15.0	13.2	23.2	23.8
7/30/2023	28.4	27.7	27.5	21.6	13.1	12.4	19.3	20.6
8/6/2023	27.5	26.8	27.2	19.6	12.4	12.2	22.0	23.6
8/13/2023	28.9	28.2	28.2	20.2	12.9	12.7	20.9	22.8
8/20/2023	26.4	25.7	26.6	20.5	13.9	12.1	21.4	22.2
8/27/2023	27.9	28.7	28.0	21.2	13.9	12.4	22.8	23.8
9/3/2023	26.6	26.3	27.4	19.9	12.7	12.2	21.2	22.5
9/10/2023	26.0	25.3	26.0	19.7	12.9	11.5	20.8	22.7
9/17/2023	24.0	23.4	23.5	19.3	12.1	12.1	18.6	20.3
10/15/2023	22.3	21.5	23.4	15.0	11.1	11.8	19.4	20.1
10/22/2023	21.7	21.1	20.4	13.5	11.3	11.6	19.5	21.1
10/29/2023	19.5	17.0	18.6	10.6	13.3	13.4	14.5	15.7
11/5/2023	18.6	17.5	18.1	11.3	9.8	11.7	15.5	15.5
11/12/2023	17.3	17.0	19.4	12.2	8.8	11.1	15.6	16.3

Table A-19. Water Temperature (°C) Concentrations Observed at Priority 2 Sites during the 2023 Dry Season

Week Beginning Date	Prado Park Lake Outlet	Chino Creek @ Central Avenue	Mill-Cucamonga Creek Below Wetlands	SAR @ MWD Crossing	SAR @ Pedley Avenue	SAR @ Mission Ave
	(WW-C3)	(WW-C7)	(WW-M6)	(WW-S1)	(WW-S4)	(MISSION)
5/7/2023	19.2	18.1	16.9	16.6	17.9	17.4
5/14/2023	21.4	16.6	19.7	19.6	20.0	21.8
5/21/2023	21.7	18.1	19.3	18.6	20.3	18.4
5/28/2023	20.0	17.0	18.0	18.4	19.7	19.0
6/4/2023	20.7	16.3	18.6	18.7	19.3	21.3
6/11/2023	20.6	17.5	21.1	18.8	20.7	19.9
6/18/2023	21.5	15.8	19.8	19.5	20.1	23.3
6/25/2023	20.3	17.2	21.1	19.5	20.8	0.0
7/2/2023	19.6	17.1	20.2	21.5	21.5	25.2
7/9/2023	26.2	21.7	22.5	22.8	23.6	27.5
7/16/2023	27.4	22.3	22.5	22.8	23.6	27.5
7/23/2023	26.6	22.4	23.3	23.2	23.8	28.3
7/30/2023	21.5	18.8	20.8	19.3	20.6	22.8
8/6/2023	23.2	20.9	22.4	22.0	23.6	26.9
8/13/2023	26.4	21.5	22.5	20.9	22.8	23.2
8/20/2023	24.2	20.2	22.4	21.4	22.2	23.7
8/27/2023	23.8	22.2	21.6	22.8	23.8	23.6
9/3/2023	23.8	19.0	20.5	21.2	22.5	23.4
9/10/2023	25.0	19.4	19.8	20.8	22.7	23.3
9/17/2023	21.3	17.3	19.3	18.6	20.3	21.9
10/15/2023	19.4	17.0	19.5	19.4	20.1	22.6
10/22/2023	20.6	18.1	18.8	19.5	21.1	22.7
10/29/2023	15.8	12.6	13.4	14.5	15.7	16.2
11/5/2023	17.3	16.6	14.2	15.5	15.5	18.5
11/12/2023	15.6	16.5	14.7	15.6	16.3	20.8

Table A-20. Water Temperature (°C) Concentrations Observed at Priority 3 Sites during the 2023 Dry Season

Week Beginning Date	Goldenstar Creek	San Timoteo Creek Reach 3	Santa Ana River Reach 3	San Timoteo Creek Reach 1A	San Timoteo Creek Reach 2	Warm Creek	Bolsa Chica Channel	Borrogo Creek	Serrano Creek
	(P3-RC1)	(P3-RC3)	(P3-SBC1)	(P3-SBC2)	(P3-SBC3)	(P3-SBC4)	(P3-OC1)	(P3-OC2)	(P3-OC11)
5/7/2023	--	--	--	--	--	--	--	--	--
5/14/2023	--	19.0	--	17.4	17.8	17.6	--	--	--
5/21/2023	--	18.0	--	15.8	16.5	16.3	--	--	--
5/28/2023	--	18.6	--	17.4	16.5	17.3	--	--	--
6/4/2023	--	18.5	--	17.1	17.3	15.9	--	--	--
6/11/2023	--	19.1	--	17.6	18.0	16.6	--	--	--
6/18/2023	--	--	--	--	--	--	--	--	--
6/25/2023	--	--	--	--	--	--	--	--	--
7/2/2023	18.3	--	26.8	--	--	--	--	--	--
7/9/2023	18.5	--	26.1	--	--	--	27.13	--	--
7/16/2023	20.6	--	27.9	--	--	--	22.46	--	--
7/23/2023	21.5	--	28.2	--	--	--	26.3	30.07	33.09
7/30/2023	19.1	--	25.9	--	--	--	24.73	--	30.07
8/6/2023	--	--	--	--	--	--	24.2	--	25.43
8/13/2023	--	--	--	--	--	--	--	--	25.03
8/20/2023	--	--	--	--	--	--	--	24.01	27.54
8/27/2023	--	--	--	--	--	--	--	--	--
9/3/2023	--	--	--	--	--	--	--	--	--
9/10/2023	--	--	--	--	--	--	--	--	--
9/17/2023	--	--	--	--	--	--	--	--	--
10/15/2023	--	--	--	--	--	--	--	--	--
10/22/2023	--	--	--	--	--	--	--	--	--
10/29/2023	--	--	--	--	--	--	--	--	--
11/5/2023	--	--	--	--	--	--	--	--	--
11/12/2023	--	--	--	--	--	--	--	--	--
5/7/2023	--	--	--	--	--	--	--	--	--

Table A-21. Conductivity (µS/cm) Observed at Priority 1 Sites during the 2023 Dry Season

Week Beginning Date	Canyon Lake	Lake Elsinore	Lake Perris	Big Bear Lake	Mill Creek Reach 2	Lytle Creek	SAR @ MWD Crossing	SAR @ Pedley Avenue
	(P1-1)	(P1-2)	(P1-3)	(P1-4)	(P1-5)	(P1-6)	(WW-S1)	(WW-S4)
5/7/2023	611.0	2945.0	551.7	338.3	173.2	226.0	727.0	822.3
5/14/2023	623.0	2908.7	549.0	331.3	147.9	218.0	756.7	838.0
5/21/2023	653.7	2838.0	556.0	336.4	146.3	218.1	647.0	779.0
5/28/2023	669.3	3045.3	547.7	346.2	150.9	227.6	796.0	842.3
6/4/2023	670.3	2918.0	541.0	342.6	15.1	227.4	895.0	986.7
6/11/2023	652.0	2853.0	514.0	346.0	157.4	226.2	823.0	975.0
6/18/2023	662.0	2794.0	518.3	327.9	152.3	219.9	915.0	939.3
6/25/2023	709.3	2911.7	549.0	345.9	162.2	231.4	964.0	993.7
7/2/2023	733.0	2961.7	558.3	353.2	167.0	234.2	902.7	966.7
7/9/2023	736.3	3073.7	559.7	359.8	166.3	235.0	963.7	983.3
7/16/2023	744.3	3124.7	563.0	362.2	169.2	235.3	963.7	983.3
7/23/2023	756.0	3152.3	567.7	359.6	169.6	236.0	1017.0	996.7
7/30/2023	767.0	3046.0	563.0	356.7	167.8	236.4	9.6	467.5
8/6/2023	775.3	3022.0	569.0	359.3	167.9	237.0	1031.7	1014.0
8/13/2023	780.7	3200.7	577.3	362.0	169.5	237.7	990.3	1020.3
8/20/2023	757.0	3001.0	565.7	358.9	177.6	229.5	668.0	746.0
8/27/2023	718.0	3119.7	571.3	357.9	172.7	235.2	677.0	756.0
9/3/2023	721.0	3187.0	572.0	358.3	176.6	233.6	560.0	710.0
9/10/2023	730.0	3058.0	570.0	358.5	175.3	235.2	988.0	980.0
9/17/2023	735.0	3086.0	566.0	349.0	186.7	261.1	972.0	950.0
10/15/2023	773.0	3208.0	571.0	373.4	170.5	240.0	944.0	991.0
10/22/2023	745.0	3111.0	573.0	701.0	363.4	515.3	999.0	900.0
10/29/2023	786.3	3300.3	544.0	379.5	174.3	249.8	988.0	975.3
11/5/2023	790.0	3252.0	537.0	387.9	169.1	241.7	967.0	977.0
11/12/2023	794.0	3259.0	545.0	396.7	169.8	244.2	960.0	977.0

Table A-22. Conductivity (µS/cm) Observed at Priority 2 Sites during the 2023 Dry Season

Week Beginning Date	Prado Park Lake Outlet	Chino Creek @ Central Avenue	Mill-Cucamonga Creek Below Wetlands	SAR @ MWD Crossing	SAR @ Pedley Avenue	SAR @ Mission Ave
	(WW-C3)	(WW-C7)	(WW-M6)	(WW-S1)	(WW-S4)	(MISSION)
5/7/2023	1260.7	1144.0	806.3	727.0	822.3	570.0
5/14/2023	1271.7	1369.7	904.0	756.7	838.0	562.0
5/21/2023	1238.7	1295.0	966.7	647.0	779.0	482.7
5/28/2023	1280.0	1373.3	952.3	796.0	842.3	615.0
6/4/2023	1206.0	1364.0	955.7	895.0	986.7	754.3
6/11/2023	1195.0	1293.7	963.3	823.0	975.0	769.3
6/18/2023	1393.3	1378.3	912.7	915.0	939.3	735.3
6/25/2023	1854.0	1364.0	906.7	964.0	993.7	766.0
7/2/2023	2103.3	1299.0	1517.0	902.7	966.7	721.3
7/9/2023	955.3	793.0	1395.3	963.7	983.3	766.3
7/16/2023	953.3	841.3	1395.3	963.7	983.3	766.3
7/23/2023	1252.3	849.0	1137.3	1017.0	996.7	806.0
7/30/2023	1874.7	1393.3	1305.7	9.6	467.5	792.0
8/6/2023	1627.7	1263.0	855.7	1031.7	1014.0	823.0
8/13/2023	1126.3	1244.7	1299.7	990.3	1020.3	820.0
8/20/2023	1211.7	1147.0	911.0	668.0	746.0	521.0
8/27/2023	1451.7	1005.0	1536.0	677.0	756.0	540.0
9/3/2023	1293.0	1243.0	1443.0	560.0	710.0	497.4
9/10/2023	1064.0	1067.0	1552.0	988.0	980.0	838.0
9/17/2023	1080.0	1238.0	1044.0	972.0	950.0	781.0
10/15/2023	1346.0	1257.0	866.0	944.0	991.0	815.0
10/22/2023	1065.0	1347.0	1032.0	999.0	900.0	781.0
10/29/2023	1250.3	1243.3	948.3	988.0	975.3	802.0
11/5/2023	1004.0	723.0	1000.0	967.0	977.0	829.0
11/12/2023	933.0	674.0	925.0	960.0	977.0	831.0

Table A-23. Conductivity (µS/cm) Observed at Priority 3 Sites during the 2023 Dry Season

Week Beginning Date	Goldenstar Creek	San Timoteo Creek Reach 3	Santa Ana River Reach 3	San Timoteo Creek Reach 1A	San Timoteo Creek Reach 2	Warm Creek	Bolsa Chica Channel	Borrogo Creek	Serrano Creek
	(P3-RC1)	(P3-RC3)	(P3-SBC1)	(P3-SBC2)	(P3-SBC3)	(P3-SBC4)	(P3-OC1)	(P3-OC2)	(P3-OC11)
5/7/2023	--	--	--	--	--	--	--	--	--
5/14/2023	--	692.0	--	687.0	741.3	512.0	--	--	--
5/21/2023	--	598.7	--	672.0	697.3	310.2	--	--	--
5/28/2023	--	605.3	--	578.0	681.3	379.4	--	--	--
6/4/2023	--	574.3	--	654.0	651.7	360.9	--	--	--
6/11/2023	--	533.7	--	602.3	613.3	301.1	--	--	--
6/18/2023	--	--	--	--	--	--	--	--	--
6/25/2023	--	--	--	--	--	--	--	--	--
7/2/2023	2098.3	--	709.0	--	--	--	--	--	--
7/9/2023	2123.3	--	705.3	--	--	--	3641	--	--
7/16/2023	2138.7	--	760.3	--	--	--	2740	--	--
7/23/2023	2112.3	--	789.7	--	--	--	3581	2277	2117
7/30/2023	2115.7	--	791.3	--	--	--	2682	--	1627
8/6/2023	--	--	--	--	--	--	2632	--	1660
8/13/2023	--	--	--	--	--	--	--	--	1568
8/20/2023	--	--	--	--	--	--	--	671	1366
8/27/2023	--	--	--	--	--	--	--	--	--
9/3/2023	--	--	--	--	--	--	--	--	--
9/10/2023	--	--	--	--	--	--	--	--	--
9/17/2023	--	--	--	--	--	--	--	--	--
10/15/2023	--	--	--	--	--	--	--	--	--
10/22/2023	--	--	--	--	--	--	--	--	--
10/29/2023	--	--	--	--	--	--	--	--	--
11/5/2023	--	--	--	--	--	--	--	--	--
11/12/2023	--	--	--	--	--	--	--	--	--

Table A-24. Flow (cfs) Observed at Priority 1 Sites during the 2023 Dry Season

Week Beginning Date	Canyon Lake	Lake Elsinore	Lake Perris	Big Bear Lake	Mill Creek Reach 2	Lytle Creek	SAR @ MWD Crossing	SAR @ Pedley Avenue
	(P1-1)	(P1-2)	(P1-3)	(P1-4)	(P1-5)	(P1-6)	(WW-S1)	(WW-S4)
5/7/2023	NA ¹	NA ¹	NA ¹	NA ¹	106.2	102.3	49.5	202.0
5/14/2023	NA ¹	NA ¹	NA ¹	NA ¹	88.4	98.8	74.1	131.6
5/21/2023	NA ¹	NA ¹	NA ¹	NA ¹	89.9	66.5	64.6	195.6
5/28/2023	NA ¹	NA ¹	NA ¹	NA ¹	167.4	60.2	41.9	152.0
6/4/2023	NA ¹	NA ¹	NA ¹	NA ¹	71.2	88.6	35.1	198.4
6/11/2023	NA ¹	NA ¹	NA ¹	NA ¹	106.8	49.1	22.7	77.9
6/18/2023	NA ¹	NA ¹	NA ¹	NA ¹	71.4	63.2	34.7	123.3
6/25/2023	NA ¹	NA ¹	NA ¹	NA ¹	44.9	65.2	17.7	N/A ¹
7/2/2023	NA ¹	NA ¹	NA ¹	NA ¹	65.2	N/A ¹	37.8	N/A ¹
7/9/2023	NA ¹	NA ¹	NA ¹	NA ¹	55.3	32.3	30.1	96.4
7/16/2023	NA ¹	NA ¹	NA ¹	NA ¹	58.3	57.2	33.4	106.3
7/23/2023	NA ¹	NA ¹	NA ¹	NA ¹	94.0	19.5	23.9	61.5
7/30/2023	NA ¹	NA ¹	NA ¹	NA ¹	70.6	47.6	19.5	40.8
8/6/2023	NA ¹	NA ¹	NA ¹	NA ¹	68.0	38.5	29.3	81.9
8/13/2023	NA ¹	NA ¹	NA ¹	NA ¹	29.3	29.0	19.7	81.1
8/20/2023	NA ¹	NA ¹	NA ¹	NA ¹	52.6	55.5	114.2	156.8
8/27/2023	NA ¹	NA ¹	NA ¹	NA ¹	46.9	35.4	61.9	141.5
9/3/2023	NA ¹	NA ¹	NA ¹	NA ¹	58.1	20.8	93.1	137.0
9/10/2023	NA ¹	NA ¹	NA ¹	NA ¹	44.3	21.1	40.0	151.0
9/17/2023	NA ¹	NA ¹	NA ¹	NA ¹	44.1	22.9	30.7	107.0
10/15/2023	NA ¹	NA ¹	NA ¹	NA ¹	26.1	8.5	41.3	41.1
10/22/2023	NA ¹	NA ¹	NA ¹	NA ¹	34.5	56.5	65.8	93.4
10/29/2023	NA ¹	NA ¹	NA ¹	NA ¹	12.4	10.9	38.0	109.1
11/5/2023	NA ¹	NA ¹	NA ¹	NA ¹	52.3	28.4	43.0	70.1
11/12/2023	NA ¹	NA ¹	NA ¹	NA ¹	78.4	48.0	40.1	85.6

¹Flows are recorded as NA for lake locations because lakes do not experience flow. For all other locations, flows are recorded as N/A when it was unsafe to sample take measurements due to high flows.

Table A-25. Flow (cfs) Observed at Priority 2 Sites during the 2023 Dry Season

Week Beginning Date	Prado Park Lake Outlet	Chino Creek @ Central Avenue	Mill-Cucamonga Creek Below Wetlands	SAR @ MWD Crossing	SAR @ Pedley Avenue	SAR @ Mission Ave
	(WW-C3)	(WW-C7)	(WW-M6)	(WW-S1)	(WW-S4)	(MISSION)
5/7/2023	4.6	54.5	N/A ¹	49.5	202.0	65.3
5/14/2023	4.9	33.2	N/A ¹	74.1	131.6	69.6
5/21/2023	3.9	34.6	N/A ¹	64.6	195.6	56.4
5/28/2023	4.7	28.1	N/A ¹	41.9	152.0	67.0
6/4/2023	5.5	18.2	59.2	35.1	198.4	56.5
6/11/2023	8.1	35.0	12.7	22.7	77.9	14.8
6/18/2023	3.9	15.1	16.8	34.7	123.3	31.1
6/25/2023	0.5	10.4	11.0	17.7	N/A ¹	23.1
7/2/2023	0.2	6.4	6.4	37.8	N/A ¹	40.7
7/9/2023	8.1	30.5	9.8	30.1	96.4	43.3
7/16/2023	NA	28.3	6.8	33.4	106.3	27.3
7/23/2023	4.6	18.8	9.5	23.9	61.5	12.8
7/30/2023	0.9	10.3	2.0	19.5	40.8	7.2
8/6/2023	0.6	12.0	12.4	29.3	81.9	6.2
8/13/2023	4.8	24.8	7.9	19.7	81.1	30.1
8/20/2023	6.7	37.1	5.5	114.2	156.8	78.9
8/27/2023	1.7	11.0	2.1	61.9	141.5	61.6
9/3/2023	2.3	7.8	4.6	93.1	137.0	54.1
9/10/2023	7.5	30.5	4.5	40.0	151.0	28.6
9/17/2023	7.9	17.2	7.5	30.7	107.0	21.6
10/15/2023	1.3	8.9	9.4	41.3	41.1	32.2
10/22/2023	2.9	10.0	5.2	65.8	93.4	15.8
10/29/2023	3.4	7.5	11.1	38.0	109.1	28.8
11/5/2023	6.0	16.7	5.1	43.0	70.1	14.7
11/12/2023	5.0	13.7	10.0	40.1	85.6	31.4

¹Flows are recorded as N/A when it was unsafe to sample take measurements due to high flows.

Table A-26. Flow (cfs) Observed at Priority 3 sites in Orange County during the 2023 Dry Season

Week Beginning Date	Goldenstar Creek	San Timoteo Creek Reach 3	Santa Ana River Reach 3	San Timoteo Creek Reach 1A	San Timoteo Creek Reach 2	Warm Creek	Bolsa Chica Channel	Borrego Creek	Serrano Creek
	(P3-RC1)	(P3-RC3)	(P3-SBC1)	(P3-SBC2)	(P3-SBC3)	(P3-SBC4)	(P3-OC1)	(P3-OC2)	(P3-OC11)
5/7/2023	--	--	--	--	--	--	--	--	--
5/14/2023	--	21.6	--	3.8	9.1	2.8	--	--	--
5/21/2023	--	19.9	--	13.8	15.9	13.7	--	--	--
5/28/2023	--	55.3	--	14.9	12.5	4.2	--	--	--
6/4/2023	--	69.7	--	8.6	8.6	9.7	--	--	--
6/11/2023	--	77.7	--	11.0	13.6	13.5	--	--	--
6/18/2023	--	--	--	--	--	--	--	--	--
6/25/2023	--	--	--	--	--	--	--	--	--
7/2/2023	9.9	--	12.9	--	--	--	--	--	--
7/9/2023	13.8	--	4.8	--	--	--	0.9	--	--
7/16/2023	1.5	--	15.6	--	--	--	2.9	--	--
7/23/2023	7.3	--	10.4	--	--	--	2.8	0.4	0.9
7/30/2023	32.1	--	22.7	--	--	--	4.1	--	0.4
8/6/2023	--	--	--	--	--	--	0.2	--	0.1
8/13/2023	--	--	--	--	--	--	--	--	N/A ¹
8/20/2023	--	--	--	--	--	--	--	0.98	0.2
8/27/2023	--	--	--	--	--	--	--	--	--
9/3/2023	--	--	--	--	--	--	--	--	--
9/10/2023	--	--	--	--	--	--	--	--	--
9/17/2023	--	--	--	--	--	--	--	--	--
10/15/2023	--	--	--	--	--	--	--	--	--
10/22/2023	--	--	--	--	--	--	--	--	--
10/29/2023	--	--	--	--	--	--	--	--	--
11/5/2023	--	--	--	--	--	--	--	--	--
11/12/2023	--	--	--	--	--	--	--	--	--

¹Flow was not reported due missing depth and width measurements in the field data.

Table A-27. Water Quality Data from Priority 2 Sites during the 2023-2024 Storm Event

Date	<i>E. coli</i> (MPN/100 mL)	TSS (mg/L)	Conductivity (μ S/cm)	Dissolved Oxygen (mg/L)	Flow (cfs)	pH	Water Temperature ($^{\circ}$ C)	Turbidity (NTU)
Prado Park Lake (WW-C3)								
2/20/2024	20000	390	483	9.5	350	7.2	13.5	190
2/21/2024	>24000	310	435	8.0	61.9	7.3	13.7	225
2/22/2024	11000	26	821	7.9	171.1	7.6	14.4	25
2/23/2024	24000	21	846	8.1	10.5	7.3	14.8	17
Chino Creek at Central Avenue (WW-C7)								
2/20/2024	3200	24	81	9.9	65.0	7.2	13.3	18
2/21/2024	10000	45	184	10.0	15.5	7.6	13.5	51
2/22/2024	1300	14	995	9.9	8.7	7.8	13.3	3
2/23/2024	6700	2	1121	9.7	3.1	7.8	15.4	1
Mill-Cucamonga Creek below Treatment Wetlands (WW-M6)								
2/20/2024	12000	140	114	10.0	262.4	7.7	13.6	94
2/21/2024	3900	58	117	9.6	242.4	7.2	13.5	38
2/22/2024	750	18	401	8.7	N/A	7.7	15.1	15
2/23/2024	220	48	667	290.3	N/A	7.7	16.6	12
SAR at MWD Crossing (WW-S1)								
2/20/2024	14000	1100	113	10.0	94.1	8.0	13.1	501
2/21/2024	5800	610	205	9.8	69.6	7.8	13.5	364
2/22/2024	930	270	472	9.3	N/A	7.7	14.5	163
2/23/2024	360	90	662	8.9	N/A	7.9	15.5	56
SAR at Pedley Avenue (WW-S4)								
2/20/2024	16000	520	123	10.1	N/A	7.7	13.4	278
2/21/2024	14000	700	198	9.9	740.8	7.7	13.7	270
2/22/2024	1500	230	485	9.3	N/A	7.8	14.6	172
2/23/2024	270	98	725	9.0	N/A	8.2	16.0	52

Table A-28. 2023 Daily Mean Flow (cfs), Chino Creek at Schaeffer Avenue, as Measured by the USGS gage 11073360

Date	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	118 ^A	0.7 ^A	266 ^A	3.4 ^A	0.5 ^A	0.4 ^A	0.4 ^A	0.9 ^A	3.5 ^A	1.7 ^A	0.6 ^P	0.9 ^P
2	2.2 ^A	0.8 ^A	2.6 ^A	2.1 ^A	0.4 ^A	0.4 ^A	0.4 ^A	0.9 ^A	8.2 ^A	0.9 ^A	0.6 ^P	0.8 ^P
3	14.1 ^A	0.8 ^A	1.6 ^A	2.3 ^A	0.4 ^A	0.4 ^A	0.4 ^A	0.8 ^A	1.8 ^A	0.8 ^A	0.7 ^P	0.7 ^P
4	8.9 ^A	0.8 ^A	1.5 ^A	1.3 ^A	205 ^A	0.4 ^A	0.4 ^A	0.9 ^A	1.2 ^A	1 ^A	0.7 ^P	0.8 ^P
5	380 ^A	0.8 ^A	1.5 ^A	2.4 ^A	10.6 ^A	0.4 ^A	0.4 ^A	0.9 ^A	1.2 ^A	1.3 ^A	0.5 ^P	0.7 ^P
6	2.5 ^A	0.7 ^A	5.3 ^A	2.3 ^A	0.8 ^A	0.8 ^A	0.8 ^A	0.9 ^A	1.1 ^A	1.3 ^A	0.6 ^P	0.7 ^P
7	1.3 ^A	0.8 ^A	1.3 ^A	1.4 ^A	0.7 ^A	1.1 ^A	1.1 ^A	1 ^A	1.1 ^A	1.2 ^A	0.7 ^P	0.7 ^P
8	0.9 ^A	0.7 ^A	1.2 ^A	1.4 ^A	0.7 ^A	1.1 ^A	1.1 ^A	1.1 ^A	1 ^A	1.3 ^A	0.7 ^P	0.8 ^P
9	186 ^A	0.7 ^A	1.1 ^A	1.5 ^A	0.6 ^A	1.2 ^A	1.2 ^A	1.1 ^A	1 ^A	1.4 ^A	0.6 ^P	0.7 ^P
10	482 ^A	1.1 ^A	153 ^A	1.7 ^A	0.5 ^A	1.1 ^A	1.1 ^A	1.3 ^A	2.5 ^A	1 ^P	0.7 ^P	0.6 ^P
11	4 ^A	0.6 ^A	30.6 ^A	1.9 ^A	0.5 ^A	1 ^A	1 ^A	1.2 ^A	1.7 ^A	0.8 ^P	0.6 ^P	0.7 ^P
12	1.7 ^A	0.6 ^A	3 ^A	1.8 ^A	0.5 ^A	1.1 ^A	1.1 ^A	1 ^A	1.3 ^A	0.8 ^P	0.6 ^P	0.7 ^P
13	1.5 ^A	1.1 ^A	2.2 ^A	1.4 ^A	0.5 ^A	1 ^A	1 ^A	1.1 ^A	1.3 ^A	0.8 ^P	0.7 ^P	1.1 ^P
14	567 ^A	3.7 ^A	363 ^A	0.6 ^A	0.5 ^A	1.1 ^A	1.1 ^A	1 ^A	1.6 ^A	0.7 ^P	0.7 ^P	0.9 ^P
15	187 ^A	0.6 ^A	616 ^A	0.4 ^A	0.5 ^A	1.1 ^A	1.1 ^A	1.1 ^A	1.1 ^A	0.6 ^P	81.7 ^P	1.1 ^P
16	292 ^A	0.6 ^A	6.7 ^A	0.4 ^A	0.5 ^A	1.1 ^A	1.1 ^A	1 ^A	1.1 ^A	0.9 ^P	2.3 ^P	0.6 ^P
17	4.6 ^A	0.5 ^A	2.7 ^A	0.4 ^A	0.5 ^A	1.1 ^A	1.1 ^A	1 ^A	1 ^A	0.7 ^P	1.4 ^P	0.9 ^P
18	2.4 ^A	0.5 ^A	2.4 ^A	0.5 ^A	0.5 ^A	1.1 ^A	1.1 ^A	1.1 ^A	1 ^A	0.7 ^P	4 ^P	0.8 ^P
19	2 ^A	0.4 ^A	2.7 ^A	0.5 ^A	0.5 ^A	1.5 ^A	1.5 ^A	1.5 ^A	1 ^A	1.1 ^P	1.1 ^P	2.5 ^P
20	1.7 ^A	0.4 ^A	14.2 ^A	0.5 ^A	0.5 ^A	1 ^A	1 ^A	542 ^A	1.2 ^A	0.9 ^P	1 ^P	89 ^P
21	1.5 ^A	2.4 ^A	458 ^A	0.5 ^A	0.5 ^A	1.1 ^A	1.1 ^A	188 ^A	0.9 ^A	0.7 ^P	0.9 ^P	9.5 ^P
22	1.3 ^A	1.7 ^A	319 ^A	0.5 ^A	0.5 ^A	1.1 ^A	1.1 ^A	2.1 ^A	0.9 ^A	0.9 ^P	0.8 ^P	51.3 ^P
23	1.1 ^A	27 ^A	13.4 ^A	0.5 ^A	0.5 ^A	1.1 ^A	1.1 ^A	1.6 ^A	0.9 ^A	1.9 ^P	0.7 ^P	1.1 ^P
24	1 ^A	268 ^A	4.1 ^A	0.5 ^A	0.5 ^A	1.5 ^A	1.5 ^A	1.4 ^A	0.9 ^A	0.7 ^P	0.8 ^P	1.3 ^P
25	0.9 ^A	521 ^A	3 ^A	0.4 ^A	0.5 ^A	1.1 ^A	1.1 ^A	1.3 ^A	0.9 ^A	1 ^P	0.7 ^P	1.1 ^P
26	1.1 ^A	37.8 ^A	2.4 ^A	0.4 ^A	0.4 ^A	1 ^A	1 ^A	1.3 ^A	0.9 ^A	0.7 ^P	0.7 ^P	1.2 ^P
27	1.2 ^A	53.8 ^A	2.8 ^A	0.4 ^A	0.4 ^A	1.1 ^A	1.1 ^A	1.3 ^A	0.8 ^A	0.9 ^P	0.7 ^P	1.1 ^P
28	1.3 ^A	112 ^A	3.7 ^A	0.5 ^A	0.4 ^A	1 ^A	1 ^A	1.1 ^A	0.9 ^A	0.6 ^P	0.7 ^P	0.9 ^P
29	1.6 ^A		67.3 ^A	0.4 ^A	0.4 ^A	1 ^A	1 ^A	1.6 ^A	1 ^A	0.7 ^P	0.8 ^P	0.8 ^P
30	2.5 ^A		32.1 ^A	0.4 ^A	0.4 ^A	0.9 ^A	0.9 ^A	1.4 ^A	1.4 ^A	0.6 ^P	0.8 ^P	31 ^P
31	0.8 ^A		4.9 ^A		0.5 ^A		1.1 ^A	1.1 ^A				1 ^P
COUNT	31	28	31	30	31	30	31	31	30	31	30	31
MAX	567.0	521.0	616.0	3.4	205.0	1.5	1.5	542.0	8.2	1.9	81.7	89.0
MIN	0.8	0.4	1.1	0.4	0.4	0.4	0.4	0.8	0.8	0.6	0.5	0.6

^A Approved for publication -- Processing and review completed

^P Data are considered "Provisional data subject to revision"

^e Value has been estimated

Table A-29. 2021 Daily Mean Flow (cfs), Cucamonga Creek near Mira Loma, as Measured by the USGS gage 11073495

Date	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	277 ^A	25.1 ^A	936 ^A	77.6 ^A	59 ^A	8.8 ^A	8.8 ^A	0 ^A	40.8 ^A	32.5 ^A	12 ^P	41.8 ^P
2	13.8 ^A	25.7 ^A	40.8 ^A	87.8 ^A	59.9 ^A	5.5 ^A	5.5 ^A	0.5 ^A	6.8 ^A	13.5 ^A	3.6 ^P	40.3 ^P
3	12.2 ^A	21.3 ^A	32.8 ^A	84.1 ^A	74.3 ^A	8.6 ^A	8.6 ^A	0 ^A	8.2 ^A	3.1 ^P	6.3 ^P	38.5 ^P
4	7.7 ^A	15 ^A	24.1 ^A	90.7 ^A	365 ^A	13.8 ^A	13.8 ^A	0.1 ^A	5.2 ^A	2.1 ^P	9.9 ^P	31.8 ^P
5	907 ^A	19.3 ^A	28.6 ^A	64.3 ^A	77.8 ^A	10.5 ^A	10.5 ^A	1 ^A	3.5 ^A	0.5 ^P	14.6 ^P	20.9 ^P
6	165 ^A	20.5 ^A	39.8 ^A	61.6 ^A	83 ^A	14.9 ^A	14.9 ^A	2.3 ^A	2.4 ^A	0.1 ^P	3.7 ^P	23.7 ^P
7	130 ^A	29.2 ^A	35.9 ^A	76.9 ^A	80.5 ^A	11.1 ^A	11.1 ^A	0.5 ^A	3.2 ^A	0.3 ^P	8.7 ^P	19 ^P
8	92.4 ^A	32.3 ^A	32.1 ^A	85.2 ^A	65.9 ^A	9.6 ^A	9.6 ^A	0.3 ^A	3.1 ^A	2.3 ^P	14.8 ^P	23.4 ^P
9	238 ^A	25.8 ^A	33.6 ^A	82.9 ^A	66 ^A	8.9 ^A	8.9 ^A	0.7 ^A	6.6 ^A	7.3 ^P	6.9 ^P	25.2 ^P
10	1230 ^A	8.7 ^A	334 ^A	88.1 ^A	47.4 ^A	19.1 ^A	19.1 ^A	1.6 ^A	10.9 ^A	9.3 ^P	10.3 ^P	26.5 ^P
11	91.4 ^A	19.8 ^A	205 ^A	92.1 ^A	48.6 ^A	23.6 ^A	23.6 ^A	6.6 ^A	6.3 ^A	15.1 ^P	12.5 ^P	25.3 ^P
12	117 ^A	28 ^A	105 ^A	83.8 ^A	33.1 ^A	21 ^A	21 ^A	10.7 ^A	3 ^A	18 ^P	13.8 ^P	23.6 ^P
13	81.2 ^A	24.9 ^A	108 ^A	68.6 ^A	32.4 ^A	25.2 ^A	25.2 ^A	20.6 ^A	1.9 ^A	11.3 ^P	9.7 ^P	21.4 ^P
14	1420 ^A	46.6 ^A	759 ^A	77.3 ^A	62 ^A	14.2 ^A	14.2 ^A	18 ^A	2.8 ^A	15.2 ^P	26.6 ^P	27.6 ^P
15	548 ^A	31.5 ^A	1540 ^A	87.1 ^A	38 ^A	8 ^A	8 ^A	15 ^A	2.8 ^A	18.1 ^P	112 ^P	24.5 ^P
16	602 ^A	23.7 ^A	246 ^A	106 ^A	10 ^A	8.7 ^A	8.7 ^A	4.4 ^A	5.5 ^A	25 ^P	43.7 ^P	28.5 ^P
17	16.2 ^A	16.3 ^A	186 ^A	124 ^A	14.7 ^A	7.1 ^A	7.1 ^A	4.9 ^A	9.2 ^A	23.5 ^P	48.2 ^P	27.2 ^P
18	4.6 ^A	12.9 ^A	156 ^A	134 ^A	14.3 ^A	13.2 ^A	13.2 ^A	2.6 ^A	6.6 ^A	18.5 ^P	48 ^P	31.7 ^P
19	0 ^A	21.4 ^A	172 ^A	69.8 ^A	12.8 ^A	18.8 ^A	18.8 ^A	44.5 ^A	1.7 ^A	11.4 ^P	38.2 ^P	38.8 ^P
20	0.1 ^A	17 ^A	147 ^A	44.2 ^A	17.3 ^A	22.6 ^A	22.6 ^A	735 ^A	5.4 ^A	15.3 ^P	35.5 ^P	87.6 ^P
21	7.4 ^A	29.4 ^A	729 ^A	41.1 ^A	15.8 ^A	13.1 ^A	13.1 ^A	435 ^A	10.7 ^A	9.7 ^P	23.6 ^P	166 ^P
22	53.9 ^A	41.8 ^A	663 ^A	39.2 ^A	13.5 ^A	6.6 ^A	6.6 ^A	23.3 ^A	11.2 ^A	11.8 ^P	26 ^P	238 ^P
23	85.8 ^A	114 ^A	675 ^A	38.2 ^A	8.6 ^A	9.2 ^A	9.2 ^A	18.1 ^A	15.4 ^A	20 ^P	24.5 ^P	80.4 ^P
24	78.8 ^A	484 ^A	440 ^A	35.6 ^A	7.7 ^A	9 ^A	9 ^A	19.8 ^A	15 ^A	13.4 ^P	19.3 ^P	72.3 ^P
25	116 ^A	1180 ^A	372 ^A	33.8 ^A	10.7 ^A	10.4 ^A	10.4 ^A	8 ^A	9.1 ^A	12.8 ^P	26.4 ^P	72 ^P
26	130 ^A	328 ^A	367 ^A	25.1 ^A	9 ^A	7.9 ^A	7.9 ^A	2.3 ^A	4.1 ^A	14.1 ^P	30.4 ^P	63.1 ^P
27	128 ^A	157 ^A	342 ^A	35.3 ^A	10.1 ^A	4.2 ^A	4.2 ^A	15.7 ^A	3.7 ^A	14.4 ^P	32.3 ^P	50.5 ^P
28	89.9 ^A	148 ^A	244 ^A	32.7 ^A	15.7 ^A	2.1 ^A	2.1 ^A	79.4 ^A	5 ^A	7.2 ^P	27.5 ^P	27 ^P
29	179 ^A		235 ^A	39.6 ^A	10.7 ^A	1.2 ^A	1.2 ^A	47 ^A	5.4 ^A	16.4 ^P	11.8 ^P	29.1 ^P
30	17.8 ^A		172 ^A	42 ^A	10.6 ^A	0.4 ^A	0.4 ^A	181 ^A	51.9 ^A	24.6 ^P	39.7 ^P	49.4 ^P
31	11.1 ^A		78.2 ^A		7.8 ^A		7.2 ^A	44.6 ^A				32.6 ^P
COUNT	31	28	31	30	31	30	31	31	30	31	30	31
MAX	1420.0	1180.0	1540.0	134.0	365.0	25.2	25.2	735.0	51.9	32.5	112.0	238.0
MIN	0.0	8.7	24.1	25.1	7.7	0.4	0.4	0.0	1.7	0.1	3.6	19.0

^A Approved for publication -- Processing and review completed

^P Data are considered "Provisional data subject to revision"

Table A-30. 2021 Daily Gage Height, Santa Ana River at MWD Crossing, as Measured by the USGS gage 11066460

Date	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	7.38 ^A	3.62 ^A	7.15 ^A	4.16 ^A	4.68 ^A	4.44 ^A	4.44 ^A	4.2 ^A	4.11 ^A	4.04 ^A	3.95 ^P	4.03 ^P
2	4.58 ^A	3.62 ^A	4.54 ^A	4.17 ^A	4.72 ^A	4.4 ^A	4.4 ^A	4.19 ^A	4.19 ^A	4.03 ^A	3.95 ^P	3.99 ^P
3	4.01 ^A	3.62 ^A	3.88 ^A	4.18 ^A	4.72 ^A	4.34 ^A	4.34 ^A	4.19 ^A	4.06 ^A	4.03 ^A	3.97 ^P	3.99 ^P
4	3.66 ^A	3.62 ^A	3.7 ^A	4.11 ^A	5.1 ^A	4.3 ^A	4.3 ^A	4.2 ^A	4.02 ^A	3.95 ^A	3.98 ^P	4 ^P
5	5.18 ^A	3.62 ^A	3.68 ^A	4.1 ^A	4.64 ^A	4.28 ^A	4.28 ^A	4.17 ^A	4.04 ^A	4.07 ^P	3.98 ^P	3.99 ^P
6	4.76 ^A	3.63 ^A	3.67 ^A	4.09 ^A	4.57 ^A	4.29 ^A	4.29 ^A	4.14 ^A	4.19 ^A	4.01 ^P	3.99 ^P	3.99 ^P
7	3.76 ^A	3.62 ^A	3.63 ^A	4.1 ^A	4.57 ^A	4.29 ^A	4.29 ^A	4.15 ^A	4.14 ^A	3.94 ^P	4 ^P	4 ^P
8	3.49 ^A	3.62 ^A	3.59 ^A	4.11 ^A	4.59 ^A	4.29 ^A	4.29 ^A	4.16 ^A	4.24 ^A	3.93 ^P	4 ^P	3.99 ^P
9	3.46 ^A	3.62 ^A	3.58 ^A	4.14 ^A	4.57 ^A	4.28 ^A	4.28 ^A	4.17 ^A	4.09 ^A	3.92 ^P	3.99 ^P	3.98 ^P
10	6.24 ^A	3.62 ^A	4.25 ^A	4.13 ^A	4.44 ^A	4.29 ^A	4.29 ^A	4.19 ^A	4 ^A	3.91 ^P	3.99 ^P	3.99 ^P
11	4.95 ^A	3.63 ^A	4.61 ^A	4.03 ^A	4.4 ^A	4.3 ^A	4.3 ^A	4.18 ^A	4 ^A	3.92 ^P	3.99 ^P	4 ^P
12	3.93 ^A	3.63 ^A	4.22 ^A	4.04 ^A	4.46 ^A	4.3 ^A	4.3 ^A	4.19 ^A	4.08 ^A	3.91 ^P	4 ^P	4 ^P
13	3.73 ^A	3.64 ^A	4.05 ^A	4.18 ^A	4.45 ^A	4.33 ^A	4.33 ^A	4.16 ^A	3.94 ^A	3.91 ^P	4.01 ^P	3.99 ^P
14	5.07 ^A	3.76 ^A	4.56 ^A	4.13 ^A	4.43 ^A	4.28 ^A	4.28 ^A	4.14 ^A	3.93 ^A	3.9 ^P	4.01 ^P	4 ^P
15	7.58 ^A	3.72 ^A	8.92 ^A	4.02 ^A	4.43 ^A	4.24 ^A	4.24 ^A	4.14 ^A	3.93 ^A	3.9 ^P	4.17 ^P	4 ^P
16	8.07 ^A	3.66 ^A	5.73 ^A	3.97 ^A	4.45 ^A	4.22 ^A	4.22 ^A	4.13 ^A	3.93 ^A	3.91 ^P	4.5 ^P	3.99 ^P
17	5.16 ^A	3.65 ^A	4.64 ^A	3.98 ^A	4.46 ^A	4.22 ^A	4.22 ^A	4.13 ^A	3.92 ^A	3.92 ^P	4.04 ^P	4 ^P
18	4.11 ^A	3.65 ^A	4.36 ^A	4 ^A	4.41 ^A	4.21 ^A	4.21 ^A	4.14 ^A	3.9 ^A	3.9 ^P	3.96 ^P	4.01 ^P
19	3.85 ^A	3.65 ^A	4.19 ^A	4 ^A	4.41 ^A	4.22 ^A	4.22 ^A	4.13 ^A	3.89 ^A	3.91 ^P	3.95 ^P	4.04 ^P
20	3.74 ^A	3.65 ^A	4.24 ^A	4.28 ^A	4.44 ^A	4.21 ^A	4.21 ^A	5.84 ^A	3.88 ^A	3.92 ^P	3.93 ^P	4.07 ^P
21	3.69 ^A	3.66 ^A	6.24 ^A	4.32 ^A	4.5 ^A	4.22 ^A	4.22 ^A	7.96 ^A	3.89 ^A	3.92 ^P	3.94 ^P	4.58 ^P
22	3.68 ^A	3.66 ^A	7.6 ^A	4.32 ^A	4.65 ^A	4.23 ^A	4.23 ^A	4.66 ^A	3.89 ^A	3.94 ^P	3.97 ^P	4.91 ^P
23	3.66 ^A	4.07 ^A	5.32 ^A	4.34 ^A	4.56 ^A	4.23 ^A	4.23 ^A	4.67 ^A	3.9 ^A	3.94 ^P	3.95 ^P	4.39 ^P
24	3.64 ^A	4.42 ^A	4.56 ^A	4.41 ^A	4.52 ^A	4.24 ^A	4.24 ^A	4.38 ^A	3.9 ^A	3.95 ^P	3.97 ^P	4.18 ^P
25	3.63 ^A	8.13 ^A	4.36 ^A	4.45 ^A	4.52 ^A	4.25 ^A	4.25 ^A	4.11 ^A	3.89 ^A	3.97 ^P	3.95 ^P	4.12 ^P
26	3.61 ^A	5 ^A	4.27 ^A	4.48 ^A	4.52 ^A	4.23 ^A	4.23 ^A	4.13 ^A	3.88 ^A	3.97 ^P	3.96 ^P	4.12 ^P
27	3.62 ^A	3.92 ^A	4.22 ^A	4.53 ^A	4.53 ^A	4.22 ^A	4.22 ^A	4.3 ^A	3.86 ^A	3.98 ^P	3.96 ^P	4.1 ^P
28	3.62 ^A	4.37 ^A	4.18 ^A	4.55 ^A	4.5 ^A	4.22 ^A	4.22 ^A	4.51 ^A	3.88 ^A	3.98 ^P	3.96 ^P	4.11 ^P
29	3.62 ^A		4.59 ^A	4.62 ^A	4.51 ^A	4.22 ^A	4.22 ^A	4.42 ^A	3.86 ^A	3.96 ^P	3.97 ^P	4.1 ^P
30	3.67 ^A		4.88 ^A	4.63 ^A	4.52 ^A	4.22 ^A	4.22 ^A	4.28 ^A	3.9 ^A	3.96 ^P	3.98 ^P	4.15 ^P
31	3.62 ^A		4.32 ^A		4.54 ^A		4.24 ^A	4.16 ^A				4.11 ^P
COUNT	31	28	31	30	31	30	31	31	30	31	30	31
MAX	8.1	8.1	8.9	4.6	5.1	4.4	4.4	8.0	4.2	4.1	4.5	4.9
MIN	3.5	3.6	3.6	4.0	4.4	4.2	4.2	4.1	3.9	3.9	3.9	4.0

Appendix B

QA/QC Summary

Introduction

This section provides the Quality Assurance/Quality Control (QA/QC) evaluation for samples and data collected during the period covered by this report, which includes the 2023 dry weather monitoring and 2023-2024 storm monitoring. The basis for this evaluation is the approved QAPP.⁴³

Field measurements were made for the following constituents: conductivity, dissolved oxygen, pH, turbidity, water temperature, and flow. Field data were checked to ensure that all required data were gathered and recorded. This check included a data review to ensure correct units of measurements were reported and that reported values were within expected ranges.

Laboratory analyses were conducted for three constituents: *E. coli*, Enterococcus, and TSS. Data validation included a check to ensure that samples were delivered to laboratories within required holding times and that all sample handling and custody protocols were followed.

Field/equipment blank and duplicate results were evaluated against various reporting requirements and data were checked to ensure correct units of measurement were reported.

The following sections summarize the results of the QA/QC evaluation for the period covered by this report.

Field Measured Parameters

Completeness

Table B-1 shows number of the dry weather field measurements collected during 2023. Completeness is summarized as follows:

- As four Priority 1 sites are in lakes and two Priority 4 sites are in the tidal zone, there are 258 planned flow measurements (102 fewer than other field parameters).
- Additional samples were collected at Santa Ana-Delhi Channel in Tidal Prism (P4-OC2) and Cucamonga Creek at Hellman Avenue (P4-SB1) due to antidegradation exceedances.

⁴³ <https://sawpa.org/wp-content/uploads/2022/06/FINAL-2022-Revised-SAR-QAPP-w-Apps-6-6-2022.pdf>

Table B-1. Dry Weather Field Parameter Completeness Summary

Parameter	Planned ¹	Collected	% Complete
Conductivity	360	376	104%
Dissolved Oxygen	360	376	104%
Flow ²	258	258	100%
pH	360	376	104%
Temperature	360	376	104%
Turbidity	360	376	104%

¹ Planned represents the number of samples planned based on SAR RBMP Monitoring Plan and does not include special investigations that arise based on results of the routine monitoring program.

² Flow is not measured at lake sites and sites located in tidal waters. Flow was not taken during unsafe conditions.

Accuracy and Precision

Field staff used a Horiba multi-parameter probe (or equivalent) to collect in situ field measurements for conductivity, dissolved oxygen, pH, and water temperature at all sample locations during each sample event. Turbidity and flow were measured with a Hach Turbidity meter and Marsh-McBirney Flo-Mate meter with top-setting rod, respectively. Field staff calibrated each of the water quality meters prior to each sample event. Table B-2 summarizes the accuracy and repeatability associated with the use of each meter. All field measurement accuracy expectations met the requirements as listed in the QAPP.

Table B-2. Summary of Accuracy and Repeatability Expectations for Field Measurement Meters

Water Quality Constituent	Accuracy	Repeatability
Dissolved Oxygen	± 0.2 mg/L	± 0.1 mg/L
pH	± 0.1 units	± 0.05 units
Conductivity	± 1%	± 0.05%
Water Temperature	± 0.3 °C	± 0.1 °C
Turbidity	± 2%	± 1%
Flow	± 2%	N/A

Laboratory Constituents

Table B-3 describes the number of grab water samples planned versus actual samples collected. During the 2023 dry weather season, 25 weeks of sampling at eight Priority 1 sites and five Priority 2 sites were planned from the week of May 7, 2023, through the week of November 12, 2023. During the same period, 5 weeks of sampling at seven Priority 3 sites, and one week of sampling at five Priority 4 sites are also planned. This results in 350 dry weather samples. This Annual Report also includes results from monitoring of wet weather storm events at the five Priority 2 sites. This results in 20 wet weather samples (5 sites/event and 4 samples per site) for a total of 370 samples during the entire monitoring period covered in this 2023-2024 Annual Report.

Holding time requirements for TSS (7 days), *E. coli* (6 hours), and Enterococcus (6 hours) were met for all samples collected during the 2023-2024 sampling year.

Table B-3. Summary of Grab Sample Collection Activity for Dry and Wet Weather Sample Events and Regularly Sampled Sites

Sample ID	Sample Location	Planned	Collected	Not Collected
P1-1	Canyon Lake at Holiday Harbor	25	25	0
P1-2	Lake Elsinore	25	25	0
P1-3	Lake Perris	25	25	0
P1-4	Big Bear Lake at Swim Beach	25	25	0
P1-5	Mill Creek Reach 2	25	25	0
P1-6	Lytle Creek (Middle Fork)	25	25	0
WW-M6	Mil-Cucamonga Creek below Wetlands	29	29	0
WW-C7	Chino Creek at Central Avenue	29	29	0
WW-C3	Prado Park Lake	29	29	0
WW-S1	Santa Ana River Reach 3 at MWD Crossing	29	29	0
WW-S4	Santa Ana River Reach 3 at Pedley Avenue	29	29	0
MISSION	Santa Ana River at Mission Avenue	25	25	0
P3-OC1	Bolsa Chica Channel	5	5	0
P3-RC1	Goldenstar Creek	5	5	0
P3-RC3	San Timoteo Creek Reach 3	5	5	0
P3-SBC1	Santa Ana River Reach 4	5	5	0
P3-SBC2	San Timoteo Creek Reach 1A	5	5	0
Sample ID	Sample Location	Planned	Collected	Not Collected
P3-SBC4	Warm Creek	5	5	0
P3-OC11	Serrano Creek	0	5	0
P4-RC2	Temescal Creek at Lincoln Avenue	1	1	0
P4-OC1	Santa Ana-Delhi Channel Upstream of Irvine Avenue	1	1	0
P4-OC2	Santa Ana-Delhi Channel in Tidal Prism	1	1	0
P4-OC3	Greenville-Banning Channel in Tidal Prism	1	1	0
P4-SBC1 ¹	Cucamonga Creek at Hellman Avenue	1	12	0
Total		355	371	0

¹ Additional samples were collected at Priority 4 site SBC1 after the initial sample did not fall under the target value.

Field/Equipment Blanks

The QAPP calls for a field/equipment blank to be collected at a 5% frequency program wide. Field/equipment blanks were collected at one site for 18 weeks of the RBMP program, resulting in the 5% frequency required. Per the QAPP, the reporting target limits for TSS and bacterial indicators were 2.0 mg/L and 10 MPN/100 mL, respectively. These method sensitivity guidelines were met. All field/equipment blank results were below detectable counts (< 10 MPN/100 mL) for *E. coli*. For TSS, 2 field blanks were reported at or above the detectable limit. Of those 2, none were above the reporting limit at 4 mg/L.

Field Duplicates

Field staff collected at least one field duplicate during 18 pre-scheduled weeks of the program for a total of 18 TSS field duplicates and 18 indicator bacteria field duplicates. As a result, the frequency of field duplicate collection was 5 percent, which matches the required frequency.

Each duplicate sample was analyzed for the same parameters as its paired field sample. Results of the field duplicate analyses can be used to assess adherence to field sampling collection protocols and laboratory precision. Table B-4 summarizes the field duplicate analysis results for TSS. Three duplicate pairs exceeded the QAPP's relative percent difference (RPD) goal of ± 25 percent. The three pairs with RPD exceeding ± 25 percent are due to low TSS values; maximum TSS concentration in those pairs is 11 mg/L and the maximum difference in the three pairs is 4 mg/L. Dividing by the low TSS values artificially results in high RPD values.

To determine the precision of the duplicate analysis for each bacterial indicator the following method was used:⁴⁴

Calculate the logarithm of each sample and associated duplicate (“laboratory pair”).

Determine the range for each laboratory pair (R_{\log}).

Calculate the mean of the ranges (Mean R_{\log}).

Calculate the precision criterion, where the precision criteria = $3.27 * \text{Mean } R_{\log}$.

Compare R_{\log} for each duplicate pair with the calculated precision criterion for the data set to determine if R_{\log} is less than the precision criterion.

Tables B-5 summarizes the field duplicate analysis results for *E. coli*, respectively. Two samples exceeded precision criterion.

⁴⁴ Standard Methods, Section 9020B, 18th, 19th, or 20th Editions

Table B-4. Results of Field Duplicate Analysis for TSS

Week Beginning Date	Site ID	Site Location	Duplicate Result (mg/L)	Sample Result (mg/L)	RPD (%)
5/10/2023	P1-1	Canyon Lake	2	2	0%
5/16/2023	P1-4	Big Bear Lake at Swim Beach	8	4	67%
5/24/2023	WW-C3	Prado Park Lake	20	22	10%
6/2/2023	P3-SBC4	Warm Creek	550	530	4%
6/9/2023	P3-SBC2	Sant Timoteo Creek Reach 1A	320	320	0%
6/15/2023	P3-RC3	Sant Timoteo Creek Reach 2	160	170	6%
6/21/2023	P1-2-ELM	Lake Elsinore at Elm Grove Beach	24	24	0%
6/28/2023	WW-C7	Chino Creek at Central Avenue	2	3	40%
7/13/2023	WW-M6	Mil-Cucamonga Creek below Wetlands	4	5	22%
7/19/2023	P1-3	Lake Perris	19	21	10%
7/28/2023	WW-S4	Santa Ana River Reach 3 at Pedley Avenue	24	24	0%
8/4/2023	P1-4	Big Bear Lake at Swim Beach	11	8	32%
8/8/2023	P1-6	Lytle Creek (Middle Fork)	<0.5	<0.5	0%
8/17/2023	WW-MISSION	SAR at Mission Ave	14	15	7%
8/25/2023	WW-S1	SAR at MWD Crossing	670	710	6%
9/7/2023	WW-C7	Chino Creek at Central Avenue	3	3	0%
9/15/2023	WW-S4	Santa Ana River Reach 3 at Pedley Avenue	60	68	13%

Note: Values with a "<" qualifier reflect results that are below detection limits. For calculation purposes, the value was represented by the detection limit.

Table B-5. Results of Field Duplicate Analysis for *E. coli*

Week Beginning Date	Site ID	Site Location	Duplicate Result (MPN/100 mL)	Sample Result (MPN/100 mL)	Log of Duplicate Result (L_1)	Log of Sample Result (L_2)	Range of Logs ($L_1 - L_2$) or (R_{log})
5/10/2023	P1-1	Canyon Lake	<1	1	0	0	0
5/16/2023	P1-4	Big Bear Lake at Swim Beach	5.2	<1	0.72	0	0.72
5/24/2023	WW-C3	Prado Park Lake	65	52	1.81	1.72	0.10
6/2/2023	P3-SBC4	Warm Creek	260	1100	2.41	3.04	0.63
6/9/2023	P3-SBC2	Sant Timoteo Creek Reach 1A	86	86	1.93	1.93	0
6/15/2023	P3-RC3	Sant Timoteo Creek Reach 2	200	140	2.30	2.15	0.15
6/21/2023	P1-2-ELM	Lake Elsinore at Elm Grove Beach	9.8	9.7	0.99	0.99	0.00
6/28/2023	WW-C7	Chino Creek at Central Avenue	650	380	2.81	2.58	0.23
7/13/2023	WW-M6	Mil-Cucamonga Creek below Wetlands	93	52	1.97	1.72	0.25
7/19/2023	P1-3	Lake Perris	1	1	0	0	0
7/28/2023	WW-S4	Santa Ana River Reach 3 at Pedley Avenue	250	270	2.40	2.43	0.03
8/4/2023	P1-4	Big Bear Lake at Swim Beach	<1	<1	0	0	0
8/8/2023	P1-6	Lytle Creek (Middle Fork)	2	4.1	0.30	0.61	0.31
8/17/2023	WW-MISSION	SAR at Mission Ave	510	540	2.71	2.73	0.02
8/25/2023	WW-S1	SAR at MWD Crossing	>24000	>24000	4.38	4.38	0

Week Beginning Date	Site ID	Site Location	Duplicate Result (MPN/100 mL)	Sample Result (MPN/100 mL)	Log of Duplicate Result (L_1)	Log of Sample Result (L_2)	Range of Logs ($L_1 - L_2$) or (R_{log})
9/7/2023	WW-C7	Chino Creek at Central Avenue	170	22	2.23	1.34	0.89
9/15/2023	WW-S4	Santa Ana River Reach 3 at Pedley Avenue	580	31	2.76	1.49	1.27
						Sum of R_{log}	4.61
						Mean R_{log}	0.27
						Precision Criterion (3.27*Mean R_{log})	0.89

Note: Values with a “<” qualifier reflect results that are below detection limits. For calculation purposes, the value was represented by the detection limit.

Appendix C

Laboratory QA/QC Reports

Laboratory QC reports will be included in the final report