

Southern Field Division - West Branch																																
Date	Pyramid Lake PY001 (1m) Angeles Tunnel Inlet				Pyramid Lake PY001 (surface) Angeles Tunnel Inlet				Pyramid Lake Emigrant Landing Swim Beach (surface)				Pyramid Lake Vaquero Swim Beach (surface)				Castaic Lake CA002 (1m) Castaic Outlet				Castaic Lake CA002 (surface) Castaic Outlet				Castaic Lake Boat Launch (surface)				Castaic Lagoon Swim Beach (surface)			
	MC	CYN	STX	ANT	MC	CYN	STX	ANT	MC	CYN	STX	ANT	MC	CYN	STX	ANT	MC	CYN	STX	ANT	MC	CYN	STX	ANT	MC	CYN	STX	ANT	MC	CYN	STX	ANT
	04/25/17	npt	npt	npt	npt																											
05/22/17																																
05/23/17																																
05/24/17	ND	ND	ND	ND	ND	nr	nr	nr	ND	nr	nr	nr	ND	nr	nr	nr																
05/30/17					ND	nr	nr	nr	ND	nr	nr	nr	ND	npt	npt	npt					ND	nr	nr	nr	0.27	nr	nr	nr	nr	nr	nr	
06/06/17																					0.18	nr	nr	nr	0.18	nr	nr	nr	nr	nr	nr	
06/07/17					0.23	npt	npt	npt	npt	npt	npt	npt	0.30	npt	npt	npt																
06/13/17	0.59	nr	nr	nr	0.64	nr	nr	nr	ND	npt	npt	npt	0.19	npt	npt	npt	0.18	nr	nr	nr	0.23	npt	npt	npt	0.21	nr	nr	nr	npt	nr	nr	
06/19/17																	0.57	nr	nr	nr	0.43	nr	nr	nr	0.41	npt	npt	npt	ND	ND	ND	
06/20/17	2.64	npt	npt	npt	3.93	npt	npt	npt	ND	ND	ND	ND	1.03	npt	npt	npt																
06/26/17																	0.73	npt	npt	npt	0.74	npt	npt	npt	0.65	npt	npt	npt	nr	nr	nr	
06/27/17	1.68	npt	npt	npt	1.87	nr	nr	nr	nr	nr	nr	nr	1.17	npt	npt	npt																
07/05/17																	0.41	npt	npt	npt	0.37	npt	npt	npt	0.29	nr	nr	nr	ND	nr	nr	
07/06/17	1.58	nr	nr	nr	2.01	nr	nr	nr	npt	npt	npt	npt	1.14	npt	npt	npt																
07/10/17																	0.16	npt	npt	npt	0.66	nr	nr	nr	0.31	npt	npt	npt	ND	nr	nr	
07/11/17	0.76	nr	nr	nr	0.69	npt	npt	npt	0.56	npt	npt	npt	1.13	npt	npt	npt																
07/17/17																	ND	npt	npt	npt	ND	npt	npt	npt	ND	nr	nr	nr	nr	nr	nr	
07/18/17	0.47	npt	npt	npt	0.54	nr	nr	nr	1.08	npt	npt	npt	1.06	npt	npt	npt																
07/24/17																	ND	npt	npt	npt	ND	npt	npt	npt	ND	nr	nr	nr	ND	npt	npt	
07/25/17	0.47	npt	npt	npt	0.21	npt	npt	npt	0.51	npt	npt	npt	0.63	npt	npt	npt																
07/31/17																	npt	npt	npt	npt	ND	npt	npt	npt	nr	npt	npt	npt	npt	npt	npt	
08/01/17	2.25	npt	npt	npt	1.46	npt	npt	npt	0.87	nr	nr	nr	2.61	npt	npt	npt																
08/07/17																	npt	ND	ND	ND	npt	ND	ND	ND	ND	npt	npt	npt	npt	npt	npt	
08/09/17	1.14	ND	ND	ND	0.92	npt	npt	npt	2.71	nr	nr	nr	1.01	npt	npt	npt																
08/14/17																	nr	nr	nr	nr	nr	nr	nr	nr	npt	npt	npt	npt	npt	npt	npt	
08/15/17	0.82	npt	npt	npt	0.83	npt	npt	npt	0.58	npt	npt	npt	0.91	npt	npt	npt																
08/21/17																	npt	nr	nr	nr	npt	nr	nr	nr	npt	npt	npt	npt	npt	ND	ND	
08/22/17	1.00	npt	npt	npt	1.18	npt	npt	npt	2.30	nr	nr	nr	0.52	npt	npt	npt																
08/28/17																	npt	npt	npt	npt	npt	npt	npt	npt	npt	npt	npt	npt	nr	nr	nr	
08/29/17	0.73	npt	npt	npt	0.80	nr	nr	nr	0.39	npt	npt	npt	1.84	npt	npt	npt																
09/05/17	0.97	nr	nr	nr	0.69	nr	nr	nr	1.47	nr	nr	nr	0.70	nr	nr	nr	npt	npt	npt	npt	npt	npt	npt	npt	npt	npt	npt	npt	npt	npt		
09/11/17																	npt	npt	npt	npt												
09/12/17	1.24	nr	nr	nr	2.27	nr	nr	nr	1.45	nr	nr	nr	2.13	nr	nr	nr																
09/19/17	0.29	nr	nr	nr	0.16	nr	nr	nr	0.60	npt	npt	npt	ND	npt	npt	npt																
09/25/17																	ND	ND	ND	ND												
09/26/17	ND	npt	npt	npt	ND	npt	npt	npt	ND	npt	npt	npt	npt	npt	npt	npt																
10/03/17	ND*	npt	npt	npt	npt	npt	npt	npt	ND*	npt	npt	npt	npt	npt	npt	npt																
10/10/17	npt	npt	npt	npt	npt	npt	npt	npt	ND	npt	npt	npt	ND	npt	npt	npt																
10/16/17																	nr	npt	npt	nr												
10/17/17	npt	npt	npt	npt	npt	npt	npt	npt	ND	npt	npt	npt	npt	npt	npt	npt																
10/23/17																	nr	npt	npt	nr												
10/24/17	npt	npt	npt	npt																												

Units = ug/L

Toxins – Microcystins (MC), cylindrospermopsin (CYN), saxitoxin (STX), anatoxin-A (ANT)

ND = Not detected above the LOD;

"npt" = No potential toxin producers observed by microscopy and ELISA analysis not conducted

"nr" = potential toxin producers present but toxin analysis not recommended by the lab due to low abundance or previous toxin analyses

LOD = 0.05 ug/L (ANT & STX), 0.1 ug/L CYN, 0.15 ug/L MC

** Indicates LC/MS conducted to determine concentration of microcystin variants (see MC-variant worksheet)

GreenWater Laboratories

Sample Preparation

Water Sample Ultrasonication

Samples were received and inverted for 60 seconds to mix. A subset was removed prior to dismembration for algal identification purposes. The remaining sample was sonicated to release toxins and prepared for analyses.

Quality Control

Lab Fortified Sample Matrix/Lab Fortified Sample Matrix Duplicate and SUR/IS QC samples prepared for analyses pre-extraction

Potentially Toxicogenic (PTOX) Cyanobacteria Screen

One mL aliquots of the samples were prepared using Sedgewick Rafter cells. Each sample was scanned at 100X for the presence of potentially toxicogenic (PTOX) cyanobacteria using a Nikon Eclipse TS100 Inverted Microscope equipped with phase contrast optics. Higher magnification was used as necessary for identification and micrographs.

Analytical Techniques

Enzyme-Linked Immunosorbent Assay (ELISA)

MCs/NODs

A microcystins/nodularins Adda ELISA (Abraxis) was utilized for the quantitative and sensitive congener-independent detection of MCs/NODs (US EPA Method 546 & Ohio EPA DES 701.0). The current method reporting limit is 0.15 ng/mL (ppb) based on kit sensitivity, dilution factors and initial demonstration of capability.

STX

A saxitoxin specific ELISA (Abraxis PN 52255B) was utilized for the detection and quantification of saxitoxin and related analogs (paralytic shellfish toxins – PSTs). The current method reporting limit is 0.05 ng/mL (ppb) based on kit sensitivity and dilution factors. Based on manufacture instructions, the STX ELISA is less cross-reactive to other PSTs and will likely underestimate total PSTs/Saxitoxins. Reported cross-reactivities are as follows: NEO (1.3%), dcSTX (29%), GTX2/3 (23%), GTX5 (23%), dcGTX2/3 (1.4%), dcNEO (0.6%) & GTX1/4 (<0.2%).

Liquid chromatography mass spectrometry/mass spectrometry (LC-MS/MS)

ANTX-a (Method 545)

The [M+H]⁺ ion for ANTX-A (166 m/z) was fragmented and the product ions (91, 131 & 149 m/z) were monitored. The quantification ion, 91 m/z, was extracted and responses compared to the internal standard L-phenylalanine-d5 (171 to 125 m/z).

CYN (Method 545)

The [M+H]⁺ ion for CYN (416 m/z) was fragmented and the product ions (194, 274, 336 m/z) were monitored. The quantification ion, 274 m/z, was extracted and responses compared to the internal standard uracil-d4 (115 to 98 m/z).

PTOX species, detectable toxin levels and variant concentration determined by LC/MS and external standard.

Toxins – Anatoxin-a (ANT) cylindrospermopsin (CYN), microcystin (MC), saxitoxin (STX)

Date	Station (drop list)	Sample depth	Toxin (Drop list)	Conc. (ug/L)	PTOX Species (Drop list)	(Drop list)	(Drop list)	(Drop list)	Congener concentration determined by LC/MS	Notes
4/18/2017	NBA Barker SI PP	10-15 ft approx	MC	ND	<i>Planktothrix</i>		Pseudanabaena			
4/18/2017	NBA Barker SI PP	10-15 ft approx	ANTX-A	ND	<i>Planktothrix</i>		Pseudanabaena			
4/25/2017	Lake Del Valle	1m	CYN	ND	<i>Aphanizomenon klebahnii/flos-aquae</i>					
4/25/2017	Lake Del Valle	1m	STX	ND	<i>Aphanizomenon klebahnii/flos-aquae</i>					
4/25/2017	Lake Del Valle	1m	ANTX-A	ND	<i>Aphanizomenon klebahnii/flos-aquae</i>					
4/24/2017	Dyer Res	1m	MC	ND	<i>Dolichospermum</i>		Aphanizomenon		Pseudanabaena	
4/24/2017	Dyer Res	1m	STX	ND	<i>Dolichospermum</i>		Aphanizomenon		Pseudanabaena	
4/24/2017	Dyer Res	1m	CYN	ND	<i>Dolichospermum</i>		Aphanizomenon		Pseudanabaena	
4/24/2017	Dyer Res	1m	ANTX-A	ND	<i>Dolichospermum</i>		Aphanizomenon		Pseudanabaena	
4/25/2017	Perris	1m	MC-CYN-STX-ANTX	ND	<i>Aphanizomenon klebahnii/flos-aquae</i>		Woronichinia naegeliana			
4/25/2017	Castaic	1m	ANTX-A	ND	<i>Dolichospermum</i>					
4/25/2017	Castaic	1m	MC	ND	<i>Dolichospermum</i>					
4/25/2017	Castaic	1m	STX	0.05	<i>Dolichospermum</i>					
4/25/2017	Castaic	1m	CYN	ND	<i>Dolichospermum</i>					
5/16/2017	NBA Barker SI PP	10-15 ft approx	MC	0.29	<i>Dolichospermum</i>		Pseudanabaena			
5/16/2017	NBA Barker SI PP	10-15 ft approx	STX	ND	<i>Dolichospermum</i>		Pseudanabaena			
5/16/2017	NBA Barker SI PP	10-15 ft approx	ANTX-A	ND	<i>Dolichospermum</i>		Pseudanabaena			
5/16/2017	NBA Barker SI PP	10-15 ft approx	CYN	ND	<i>Dolichospermum</i>		Pseudanabaena			
5/22/2017	Lake Del Valle	1m	MC-CYN-STX-ANTX	ND	<i>Dolichospermum</i>					
5/22/2017	Dyer Res	1m		nr	<i>Dolichospermum</i>					
5/23/2017	SLR Basalt Boat Launch	surface	MC	1.09	<i>Dolichospermum</i>		Aphanizomenon		Microcystis	Pseudanabaena
5/23/2017	SLR Basalt Boat Launch	surface	CYN	ND	<i>Dolichospermum</i>		Aphanizomenon		Microcystis	Pseudanabaena
5/23/2017	SLR Basalt Boat Launch	surface	STX	ND	<i>Dolichospermum</i>		Aphanizomenon		Microcystis	Pseudanabaena
5/23/2017	SLR Basalt Boat Launch	surface	ANTX-A	ND	<i>Dolichospermum</i>		Aphanizomenon		Microcystis	Pseudanabaena
5/22/2017	Castaic Lake Boat Launch	surface	MC	0.15	<i>Dolichospermum</i>		Aphanocapsa		Microcystis	
5/22/2017	Castaic Lake Boat Launch	surface	CYN	ND	<i>Dolichospermum</i>		Aphanocapsa		Microcystis	
5/22/2017	Castaic Lake Boat Launch	surface	STX	ND	<i>Dolichospermum</i>		Aphanocapsa		Microcystis	
5/22/2017	Castaic Lake Boat Launch	surface	ANTX-A	ND	<i>Dolichospermum</i>		Aphanocapsa		Microcystis	
5/22/2017	Castaic Outlet	1m	MC-CYN-STX-ANTX	ND	Aphanocapsa		Aphanizomenon		<i>Dolichospermum</i>	
5/22/2017	Castaic Outlet	surface	MC-CYN-STX-ANTX	ND	<i>Dolichospermum</i>		Microcystis		<i>Aphanocapsa</i>	
5/22/2017	Castaic Lagoon Swim Beach	surface	MC-CYN-STX-ANTX	ND	<i>Dolichospermum</i>					Aphanizomenon
5/24/2017	Pyramid-Angeles Tunnel Inlet	1m	MC-CYN-STX-ANTX	ND	<i>Dolichospermum</i>		Aphanizomenon			
5/24/2017	Pyramid-Angeles Tunnel Inlet	surface	MC-CYN-STX-ANTX	ND	<i>Dolichospermum</i>		Gloeotrichia echinulata			
5/23/2017	Pyramid-Emigrant Landing Swim Beach	surface	MC-CYN-STX-ANTX	ND	<i>Dolichospermum</i>		Aphanizomenon			
5/24/2017	Pyramid-Vaquero Swim Beach	surface	MC-CYN-STX-ANTX	ND	<i>Dolichospermum</i>		Aphanizomenon		<i>Gloeotrichia echinulata</i>	
5/22/2017	Perris Outlet	1m	MC	0.16	Aphanocapsa		Aphanizomenon		<i>Dolichospermum</i>	
5/22/2017	Perris Outlet	1m	CYN	ND	Aphanocapsa		Aphanizomenon		<i>Dolichospermum</i>	
5/22/2017	Perris Outlet	1m	STX	ND	Aphanocapsa		Aphanizomenon		<i>Dolichospermum</i>	
5/22/2017	Perris Outlet	1m	ANTX-A	ND	Aphanocapsa		Aphanizomenon		<i>Dolichospermum</i>	
5/22/2017	Perris Outlet	surface	MC	0.22	Aphanizomenon		Aphanocapsa		<i>Dolichospermum</i>	Microcystis
5/22/2017	Perris Outlet	surface	CYN	ND	Aphanizomenon		Aphanocapsa		<i>Dolichospermum</i>	Microcystis
5/22/2017	Perris Outlet	surface	STX	ND	Aphanizomenon		Aphanocapsa		<i>Dolichospermum</i>	Microcystis
5/22/2017	Perris Outlet	surface	ANTX-A	ND	Aphanizomenon		Aphanocapsa		<i>Dolichospermum</i>	Microcystis
5/22/2017	Lake Perris Swim Beach	surface	MC	0.18	<i>Dolichospermum</i>		Aphanocapsa		<i>Microcystis</i>	
5/22/2017	Lake Perris Swim Beach	surface	CYN	ND	<i>Dolichospermum</i>		Aphanocapsa		<i>Microcystis</i>	
5/22/2017	Lake Perris Swim Beach	surface	STX	ND	<i>Dolichospermum</i>		Aphanocapsa		<i>Microcystis</i>	
5/22/2017	Lake Perris Swim Beach	surface	ANTX-A	ND	<i>Dolichospermum</i>		Aphanocapsa		<i>Microcystis</i>	
5/22/2017	Lake Oroville near Dam	surface	MC-CYN-STX-ANTX	ND	Aphanizomenon		<i>Dolichospermum</i>			
5/22/2017	Lake Oroville Swim Beach	surface	MC-CYN-STX-ANTX	ND	Aphanizomenon		<i>Dolichospermum</i>			
5/22/2017	Thermalito Forebay Swim Beach	surface	MC-CYN-STX-ANTX	ND	Anabaena		Aphanizomenon		<i>Dolichospermum</i>	
5/22/2017	Thermalito Afterbay Swim Beach	surface	MC-CYN-STX-ANTX	ND	Anabaena		Phormidium		<i>Dolichospermum</i>	Oscillatoria
5/30/2017	SLR Basalt Boat Launch	surface	MC	0.46	Aphanizomenon		<i>Dolichospermum</i>		Microcystis	Aphanizomenon
5/30/2017	O'Neill Forebay North Beach	surface		nr	Aphanizomenon					
5/30/2017	Lake Oroville Swim Beach	surface	MC-CYN-STX-ANTX	ND	<i>Dolichospermum</i>		Aphanizomenon			
5/30/2017	Thermalito Forebay Swim Beach	surface		nr	<i>Dolichospermum</i>		Aphanizomenon			
5/30/2017	Thermalito Afterbay Swim Beach	surface		nr	Aphanizomenon					
5/30/2017	Castaic Outlet	surface	MC	ND	Aphanocapsa		Aphanizomenon		<i>Dolichospermum</i>	<i>Microcystis</i>
5/30/2017	Castaic Lake Boat Launch	surface	MC	0.27	Aphanocapsa		Microcystis		Aphanizomenon	<i>Dolichospermum</i>
5/30/2017	Castaic Lagoon Swim Beach	surface		nr	Aphanizomenon		<i>Dolichospermum</i>			
5/30/2017	Pyramid-Emigrant Landing Swim Beach	surface	MC	ND	<i>Dolichospermum</i>		Aphanizomenon		Microcystis	
5/30/2017	Pyramid-Angeles Tunnel Inlet	surface	MC	ND	Microcystis		<i>Dolichospermum</i>			
5/30/2017	Pyramid-Vaquero Swim Beach	surface	MC	ND	Microcystis					

Analytical result is estimated. Values Achieved were outside calibration range. Analyte was positively identified; the associated numerical value is estimated.

5/30/2017	Perris Outlet	surface	MC	0.15	Aphanocapsa	Dolichospermum			Analytical result is estimated. Values achieved were outside calibration range.
5/30/2017	Lake Perris Swim Beach	surface	MC	0.15	Dolichospermum	Aphanocapsa	Aphanizomenon		
5/30/2017	Lake Perris Swim Beach	surface	CYN	ND	Dolichospermum	Aphanocapsa	Aphanizomenon		
5/30/2017	Lake Perris Swim Beach	surface	ANTX-A	ND	Dolichospermum	Aphanocapsa	Aphanizomenon		
5/30/2017	Lake Perris Swim Beach	surface	STX	ND	Dolichospermum	Aphanocapsa	Aphanizomenon		
5/31/2017	Silverwood Outlet	surface		nr	Aphanizomenon				
6/5/2017	SLR Basalt Boat Launch	surface	MC	3.10	Aphanizomenon	Dolichospermum	Microcystis	Woronichinia naegeliana	
6/5/2017	Thermalito Forebay Swim Beach	surface	MC-CYN-STX-ANTX	ND	Nostoclean filament				
6/6/2017	Perris Outlet	1m	MC	0.15	Aphanocapsa	Dolichospermum	Aphanizomenon		Analytical result is estimated. Values achieved were outside calibration range.
6/6/2017	Perris Outlet	surface	MC	ND	Dolichospermum	Aphanocapsa	Microcystis	Aphanizomenon	Analytical result is estimated. Values achieved were outside calibration range.
6/6/2017	Lake Perris Swim Beach	surface	MC	0.15	Dolichospermum	Aphanocapsa	Woronichinia naegeliana		Analytical result is estimated.
6/7/2017	Silverwood Outlet	1m		nr	Aphanizomenon				Analytical result is estimated.
6/7/2017	Silverwood Outlet	surface		nr	Aphanizomenon	Cyanophyte filaments			
6/7/2017	Silverwood-Sawpit Swim Beach	surface		nr	Aphanizomenon				
6/7/2017	Silverwood-Cleghorn	surface		nr	Aphanizomenon				
6/8/2017	Castaic Outlet	surface	MC	0.18	Aphanocapsa	Dolichospermum	Aphanizomenon	Microcystis	
6/6/2017	Castaic Lake Boat Launch	surface	MC	0.18	Aphanocapsa	Microcystis	Dolichospermum	Aphanizomenon	
6/6/2017	Castaic Lagoon Swim Beach	surface		nr	Aphanizomenon	Dolichospermum			
6/7/2017	Pyramid-Angeles Tunnel Inlet	surface	MC	0.23	Microcystis				
6/7/2017	Pyramid-Vaquero Swim Beach	surface	MC	0.30	Microcystis	Gloeotrichia echinulata			
6/12/2017	Thermalito Forebay Swim Beach	surface		nr	Dolichospermum	Oscillatoria	Nostoclean filament		
6/12/2017	Thermalito Afterbay Swim Beach	surface		nr	Anabaena	Oscillatoria			
6/12/2017	Clifton Court FB	10-15 ft approx	MC-CYN-STX-ANTX	ND	Dolichospermum				
6/12/2017	Dyer Res	1m	MC-CYN-STX-ANTX	ND	Dolichospermum	Aphanizomenon	Microcystis		
6/12/2017	Banks	10-15 ft approx	MC	ND	Oscillatoria				
6/12/2017	Banks	10-15 ft approx	CYN	ND	Oscillatoria				
6/12/2017	Banks	10-15 ft approx	ANTX-A	ND	Oscillatoria				
6/12/2017	SLR Pacheco PP	170-230 ft approx		nr	Aphanizomenon	Cyanophyte filaments			
6/12/2017	O'Neill Forebay North Beach	surface	MC-CYN-STX-ANTX	ND	Dolichospermum				
6/12/2017	SLR Basalt Boat Launch	surface	MC	1.18	Aphanizomenon	Microcystis	Dolichospermum	Cyanophyte filaments	
6/12/2017	SLR Gianelli	5-10 ft approx	MC-CYN-STX-ANTX	ND	Dolichospermum				
6/13/2017	Castaic Lagoon Swim Beach			nr	Aphanizomenon				
6/13/2017	Castaic Outlet	1m	MC	0.18	Aphanocapsa	Microcystis	Aphanizomenon	Dolichospermum	
6/13/2017	Castaic Outlet	surface	MC	0.23	Aphanocapsa	Microcystis			
6/13/2017	Castaic Lake Boat Launch	surface	MC	0.21	Aphanocapsa	Microcystis	Dolichospermum		
6/13/2017	Pyramid-Angeles Tunnel Inlet	1m	MC	0.59	Microcystis	Aphanizomenon	Gloeotrichia echinulata		
6/13/2017	Pyramid-Angeles Tunnel Inlet	surface	MC	0.64	Microcystis	Gloeotrichia echinulata	Aphanizomenon		
6/13/2017	Pyramid-Emigrant Landing Swim Beach	surface	MC	ND	Gloeotrichia echinulata				
6/13/2017	Pyramid-Vaquero Swim Beach	surface	MC	0.19	Microcystis	Gloeotrichia echinulata			
6/13/2017	Perris Outlet	1m	MC	0.15*	Aphanocapsa	Microcystis	Aphanizomenon	Dolichospermum	Analytical result is estimated. Values achieved were outside calibration range.
6/13/2017	Perris Outlet	surface	MC	0.17	Aphanizomenon				
6/13/2017	Lake Perris Swim Beach	surface	MC	0.16	Microcystis	Woronichinia naegeliana	Aphanizomenon		
6/14/2017	Silverwood Outlet	surface	MC	ND	Phormidium	Aphanizomenon			
6/14/2017	Silverwood Outlet	surface	ANTX-A	ND	Phormidium	Aphanizomenon			
6/14/2017	Silverwood-Cleghorn	surface	MC-CYN-STX-ANTX	ND	Dolichospermum				
6/14/2017	Silverwood-Sawpit Swim Beach	surface		nr	Aphanizomenon	Cyanophyte filaments			
6/19/2017	SLR Basalt Boat Launch	surface	MC	1.63	Microcystis	Woronichinia naegeliana	Aphanizomenon	Dolichospermum	Cyanophyte filaments
6/20/2017	Thermalito Forebay Swim Beach	surface		nr	Dolichospermum				
6/19/2017	Antelope Lake near spillway	surface	MC-CYN-STX-ANTX	ND	Dolichospermum	Aphanizomenon			
6/19/2017	Perris Outlet	surface	MC	0.19	Microcystis				
6/19/2017	Lake Perris Swim Beach	surface	MC	0.18*	Aphanizomenon	Dolichospermum			Analytical result is estimated. Values achieved were outside calibration range.
6/20/2017	Silverwood Outlet	surface		nr	Aphanizomenon				
6/20/2017	Silverwood-Sawpit Swim Beach	surface		nr	Aphanizomenon				
6/20/2017	NBA Barker SI PP	10-15 ft approx	MC-CYN-STX-ANTX	ND	Aphanizomenon	Cuspidothrix	Dolichospermum		
6/19/2017	Castaic Lake Boat Launch	surface	MC	0.41	Aphanocapsa	Microcystis			
6/19/2017	Castaic Lagoon Swim Beach	surface	MC-CYN-STX-ANTX	ND	Aphanizomenon	Microcystis	Dolichospermum		
6/20/2017	Pyramid-Angeles Tunnel Inlet	1m	MC	2.64	Microcystis	Gloeotrichia echinulata			
6/20/2017	Pyramid-Angeles Tunnel Inlet	surface	MC	3.93	Microcystis	Gloeotrichia echinulata			
6/20/2017	Pyramid-Emigrant Landing Swim Beach	surface	MC-CYN-STX-ANTX	ND	Dolichospermum	Aphanizomenon			
6/20/2017	Pyramid-Vaquero Swim Beach	surface	MC	1.03	Microcystis	Gloeotrichia echinulata			
6/19/2017	Castaic Outlet	1m	MC	0.57	Aphanocapsa	Microcystis	Aphanizomenon		
6/19/2017	Castaic Outlet	surface	MC	0.43	Aphanocapsa	Microcystis	Aphanizomenon		
6/26/2017	Check 13	15 ft approx	MC-CYN-STX-ANTX	ND	Dolichospermum				
6/26/2017	SLR Basalt Boat Launch	surface	MC	25.80	Microcystis	Aphanizomenon	Dolichospermum	Woronichinia naegeliana	

6/26/2017	SLR Pacheco PP	170-230 ft approx		nr	Aphanizomenon	Cyanophyte filaments			
6/26/2017	SLR Gianelli	5-10 ft approx		nr	Dolichospermum				
6/26/2017	Lake Del Valle	1m		nr	Dolichospermum	Aphanizomenon			
6/26/2017	Castaic Outlet	1m	MC	0.73	Microcystis				
6/26/2017	Castaic Outlet	surface	MC	0.74	Microcystis				
6/26/2017	Castaic Lake Boat Launch	surface	MC	0.65	Microcystis				
6/27/2017	Pyramid-Angeles Tunnel Inlet	1m	MC	1.68	Microcystis	Gloeotrichia echinulata			
6/27/2017	Pyramid-Angeles Tunnel Inlet	surface	MC	1.87	Microcystis	Aphanizomenon	Gloeotrichia echinulata		
6/27/2017	Pyramid-Vaquero Swim Beach	surface	MC	1.17	Microcystis	Gloeotrichia echinulata			
6/26/2017	Castaic Lagoon Swim Beach	surface		nr	Dolichospermum				
6/27/2017	Pyramid-Emigrant Landing Swim Beach	surface		nr	Dolichospermum				
6/26/2017	Perris Outlet	1m	MC	ND	none observed				
6/26/2017	Perris Outlet	surface	MC	ND	Dolichospermum				
6/26/2017	Lake Perris Swim Beach	surface	MC	ND	Microcystis				
6/27/2017	Silverwood Outlet	surface		nr	Aphanizomenon				
6/27/2017	Silverwood-Sawpit Swim Beach	surface		nr	Aphanizomenon				
6/26/2017	Clifton Court FB	10-15 ft approx	MC-CYN-STX-ANTX	ND	Cuspidothrix	Aphanizomenon	Planktothrix		
6/26/2017	Dyer Res	1m	MC-CYN-STX-ANTX	ND*	Dolichospermum				Analytical result is estimated. Values achieved were outside calibration range.
6/26/2017	Lake Oroville near Dam	surface	MC-CYN-STX-ANTX	ND	Dolichospermum				
6/28/2017	Antelope Lake near spillway	surface		nr	Dolichospermum				
7/5/2017	O'Neill Forebay North Beach	surface	MC	ND	Microcystis				
7/5/2017	SLR Basalt Boat Launch	surface	MC	30.50	Microcystis	Woronichinia naegeliana	Dolichospermum		
7/3/2017	Perris Outlet	surface	MC	ND	Dolichospermum	Woronichinia naegeliana			
7/3/2017	Lake Perris Swim Beach	surface	MC	ND	Dolichospermum	Woronichinia naegeliana	Aphanizomenon		
7/5/2017	Silverwood-Sawpit Swim Beach	surface	MC	1.55	Microcystis				
7/5/2017	Castaic Outlet	1m	MC	0.41	Microcystis	Aphanizomenon			
7/5/2017	Castaic Outlet	surface	MC	0.37	Microcystis				
7/5/2017	Castaic Lake Boat Launch	surface	MC	0.29	Microcystis	Dolichospermum			
7/5/2017	Castaic Lagoon Swim Beach	surface	MC	ND	Dolichospermum	Aphanizomenon	Microcystis		
7/6/2017	Pyramid-Angeles Tunnel Inlet	1m	MC	1.58	Gloeotrichia echinulata	Microcystis	Aphanizomenon		
7/6/2017	Pyramid-Angeles Tunnel Inlet	surface	MC	2.01	Gloeotrichia echinulata	Microcystis	Aphanizomenon		
7/6/2017	Pyramid-Vaquero Swim Beach	surface	MC	1.14	Gloeotrichia echinulata	Microcystis			
7/10/2017	O'Neill Forebay North Beach	surface	MC-CYN-STX-ANTX	ND	Microcystis	Planktothrix	Aphanizomenon		
7/10/2017	Check 13	15 ft approx	MC-CYN-STX-ANTX	ND	Dolichospermum	Phormidium			
7/10/2017	SLR Basalt Boat Launch	surface	MC	32.40	Microcystis	Woronichinia naegeliana	Dolichospermum	Aphanizomenon	
7/10/2017	SLR Basalt Boat Launch	surface	CYN-STX-ANTX	ND	Microcystis	Woronichinia naegeliana	Dolichospermum	Aphanizomenon	
7/10/2017	SLR Gianelli	5-10 ft approx	MC-CYN-STX-ANTX	ND	Dolichospermum	Planktothrix	Nostoclean filament		
7/10/2017	Thermalito Afterbay Swim Beach	surface	MC-CYN-STX-ANTX	ND	Dolichospermum				
7/11/2017	Clifton Court FB	10-15 ft approx	MC	ND	Planktothrix	Cuspidothrix	Arthrospira	Microcystis	Dolichospermum
7/11/2017	Clifton Court FB	10-15 ft approx	ANTX-A	ND	Planktothrix	Cuspidothrix	Arthrospira	Microcystis	Dolichospermum
7/11/2017	Banks	10-15 ft approx	MC	ND	Geitlerinema	Phormidium/Microcoleus			
7/11/2017	Banks	10-15 ft approx	ANTX-A	ND	Geitlerinema	Phormidium/Microcoleus			
7/11/2017	Dyer Res	1m	MC	ND	Microcystis				
7/10/2017	Perris Outlet	1m	MC-CYN-STX-ANTX	ND	Dolichospermum	Woronichinia naegeliana			
7/10/2017	Perris Outlet	surface	MC-CYN-STX-ANTX	ND	Dolichospermum	Microcystis	Woronichinia naegeliana		
7/10/2017	Lake Perris Swim Beach	surface	MC-CYN-STX-ANTX	ND	Dolichospermum				
7/11/2017	Silverwood Outlet	1m	MC	0.27	Microcystis				
7/11/2017	Silverwood Outlet	surface	MC	0.17	Microcystis				
7/11/2017	Silverwood-Sawpit Swim Beach	surface	MC	6.10	Microcystis	Aphanizomenon			
7/11/2017	Silverwood-Cleghorn	surface	MC	1.02	Microcystis				
7/10/2017	Castaic Outlet	1m	MC	0.16	Microcystis				
7/10/2017	Castaic Outlet	surface	MC	0.66	Microcystis	Dolichospermum	Aphanizomenon		
7/10/2017	Castaic Lake Boat Launch	surface	MC	0.31	Microcystis				
7/10/2017	Castaic Lagoon Swim Beach	surface	MC	ND	Dolichospermum				
7/11/2017	Pyramid-Angeles Tunnel Inlet	1m	MC	0.76	Gloeotrichia echinulata	Microcystis	Aphanizomenon		
7/11/2017	Pyramid-Angeles Tunnel Inlet	surface	MC	0.69	Microcystis	Gloeotrichia echinulata			
7/11/2017	Pyramid-Emigrant Landing Swim Beach	surface	MC	0.56	Gloeotrichia echinulata	Microcystis			
7/11/2017	Pyramid-Vaquero Swim Beach	surface	MC	1.13	Gloeotrichia echinulata	Microcystis			
7/17/2017	Perris Outlet	surface	MC-CYN-STX-ANTX	ND	Dolichospermum	Woronichinia naegeliana	Limnorphis		
7/17/2017	Lake Perris Swim Beach	surface	MC-CYN-STX-ANTX	ND	Dolichospermum	Microcystis	Limnorphis		
7/18/2017	Silverwood Outlet	surface	MC	1.50	Microcystis	Aphanizomenon			
7/18/2017	Silverwood-Sawpit Swim Beach	surface	MC	7.03	Microcystis	Aphanizomenon			
7/18/2017	Silverwood-Cleghorn	surface	MC	8.36	Microcystis				
7/17/2017	Castaic Outlet	1m	MC	ND	Microcystis				
7/17/2017	Castaic Outlet	surface	MC	ND	Microcystis				
7/17/2017	Castaic Lake Boat Launch	surface	MC	ND	Microcystis	Dolichospermum			
7/18/2017	Pyramid-Angeles Tunnel Inlet	1m	MC	0.47	Gloeotrichia echinulata	Microcystis			
7/18/2017	Pyramid-Angeles Tunnel Inlet	surface	MC	0.54	Gloeotrichia echinulata	Microcystis	Aphanizomenon		
7/18/2017	Pyramid-Emigrant Landing Swim Beach	surface	MC	1.08	Gloeotrichia echinulata	Microcystis			
7/18/2017	Pyramid-Vaquero Swim Beach	surface	MC	1.06	Gloeotrichia echinulata	Microcystis			
7/17/2017	Castaic Lagoon Swim Beach	surface		nr	Dolichospermum				
7/17/2017	Thermalito Afterbay Swim Beach	surface		nr	Dolichospermum				

7/17/2017	O'Neill Forebay North Beach	surface		nr	Planktothrix					
7/17/2017	SLR Basalt Boat Launch	surface	MC	47.2	Microcystis	Woronichinia naegeliana	Dolichospermum			
7/24/2017	Lake Oroville near Dam	surface	MC-CYN-STX-ANTX	ND	Dolichospermum					
7/24/2017	Thermalito Forebay Swim Beach	surface		nr	Dolichospermum					
7/24/2017	Thermalito Afterbay Swim Beach	surface		nr	Cyanophyte filaments					
7/24/2017	O'Neill Forebay North Beach	surface	MC-CYN-STX-ANTX	ND	Microcystis	Dolichospermum				
7/24/2017	Check 13	15 ft approx		nr	Dolichospermum	Aphanizomenon				
7/24/2017	SLR Basalt Boat Launch	surface	MC	32.0	Microcystis	Woronichinia naegeliana	Dolichospermum	Aphanizomenon		
7/24/2017	SLR Basalt Boat Launch	surface	CYN	ND	Microcystis	Woronichinia naegeliana	Dolichospermum	Aphanizomenon		
7/24/2017	SLR Basalt Boat Launch	surface	STX	ND	Microcystis	Woronichinia naegeliana	Dolichospermum	Aphanizomenon		
7/24/2017	SLR Basalt Boat Launch	surface	ANTX-A	ND	Microcystis	Woronichinia naegeliana	Dolichospermum	Aphanizomenon		
7/24/2017	Clifton Court FB	10-15 ft approx	MC-CYN-STX-ANTX	ND	Dolichospermum	Planktothrix	Dolichospermum	Cuspidothrix	Arthrospira	Microcystis
7/24/2017	Banks	10-15 ft approx		nr	Phormidium/Microcoleus					Also observed: Limnothrix sp., Anabaenopsis sp.
7/24/2017	Dyer Res	1m		nr	Dolichospermum	Nostoclean filament				Nostoclean filament resembled Aphanizomenon
7/24/2017	Lake Del Valle	1m		nr	Aphanizomenon					
7/24/2017	Castaic Outlet	1m	MC	ND	none observed					
7/24/2017	Castaic Outlet	surface	MC	ND	Microcystis					
7/24/2017	Castaic Lake Boat Launch	surface	MC	ND	Microcystis	Dolichospermum				
7/24/2017	Castaic Lagoon Swim Beach	surface	MC	ND	Microcystis					
7/25/2017	Pyramid-Angeles Tunnel Inlet	1m	MC	0.47	Gloeotrichia echinulata	Microcystis				
7/25/2017	Pyramid-Angeles Tunnel Inlet	surface	MC	0.21	Gloeotrichia echinulata					
7/25/2017	Pyramid-Emigrant Landing Swim Beach	surface	MC	0.51	Gloeotrichia echinulata	Microcystis				
7/25/2017	Pyramid-Vaquero Swim Beach	surface	MC	0.63	Gloeotrichia echinulata	Microcystis				
7/24/2017	Lake Perris Swim Beach	surface	MC	ND	Woronichinia naegeliana	Limnographis				
7/25/2017	Silverwood Outlet	1m	MC	0.21	none observed					
7/25/2017	Silverwood Outlet	surface	MC	0.27	none observed					
7/25/2017	Silverwood-Sawpit Swim Beach	surface	MC	ND*	Microcystis					Analytical result is estimated. Values achieved were outside calibration range.
7/25/2017	Silverwood-Cleghorn	surface	MC	2.55	Microcystis					
7/25/2017	Silverwood Lake Willows Swim Beach	surface	MC	0.26	Microcystis					
7/24/2017	Perris Outlet	1m		nr	Dolichospermum					
7/31/2017	O'Neill Forebay North Beach	surface	MC	ND*	Microcystis					Analytical result is estimated. Values achieved were outside calibration range.
7/31/2017	SLR Basalt Boat Launch	surface	MC	57.3	Microcystis	Woronichinia naegeliana	Dolichospermum			
7/31/2017	Perris Outlet	surface	MC-CYN-ANTX	ND	Anabaena					
7/31/2017	Lake Perris Swim Beach	surface	MC-CYN-ANTX	ND	Anabaena					
8/1/2017	Silverwood Outlet	surface	MC	ND	none observed					
8/1/2017	Silverwood-Sawpit Swim Beach	surface	MC	0.15*	Microcystis	Aphanizomenon				Analytical result is estimated. Values achieved were outside calibration range.
8/1/2017	Silverwood-Cleghorn	surface	MC	ND	none observed					
8/1/2017	Silverwood Lake Willows Swim Beach	surface	MC	5.00	Microcystis	Aphanizomenon	Dolichospermum			
8/1/2017	Silverwood Lake Willows Swim Beach	surface	CYN-STX-ANTX	ND	Microcystis	Aphanizomenon	Dolichospermum			
7/31/2017	Castaic Outlet	surface	MC	ND	Microcystis					
8/1/2017	Pyramid-Angeles Tunnel Inlet	surface	MC	1.46	Gloeotrichia echinulata	Microcystis				
8/1/2017	Pyramid-Angeles Tunnel Inlet	1m	MC	2.25	Gloeotrichia echinulata	Microcystis				
8/1/2017	Pyramid-Emigrant Landing Swim Beach	surface	MC	0.87	Gloeotrichia echinulata	Microcystis	Aphanizomenon			
8/1/2017	Pyramid-Vaquero Swim Beach	surface	MC	2.61	Gloeotrichia echinulata	Microcystis				
7/31/2017	Castaic Lake Boat Launch	surface		nr	Microcystis					
8/7/2017	O'Neill Forebay North Beach	surface	MC	ND	Microcystis	Dolichospermum				
8/7/2017	Check 13	15 ft approx	MC	ND	Microcystis					
8/7/2017	SLR Basalt Boat Launch	surface	MC	25.9	Microcystis	Woronichinia naegeliana	Dolichospermum			
8/7/2017	Thermalito Forebay Swim Beach	surface	MC-CYN-STX-ANTX	ND	Cyanophyte filaments					
8/7/2017	Clifton Court FB	10-15 ft approx	CYN-STX-ANTX	ND	Cuspidothrix/Cylindrospermopsis	Planktothrix	Aphanizomenon	Dolichospermum	Arthrospira	
8/7/2017	Dyer Res	1m	MC	ND	Microcystis	Dolichospermum				
8/7/2017	Banks	10-15 ft approx		nr	Phormidium/Microcoleus					
8/7/2017	Perris Outlet	1m	MC-CYN-STX-ANTX	ND	Nostoclean filament(s)	Aphanizomenon	Dolichospermum			
8/7/2017	Perris Outlet	surface	MC-CYN-STX-ANTX	ND	Nostoclean filament(s)	Aphanizomenon gracile	Dolichospermum			
8/7/2017	Lake Perris Swim Beach	surface	MC-CYN-STX-ANTX	ND	Nostoclean filament(s)	Aphanizomenon gracile	Dolichospermum	Phormidium/Microcoleus		
8/8/2017	Silverwood Outlet	1m	MC	ND	none observed					
8/8/2017	Silverwood Outlet	surface	MC	ND	none observed					
8/8/2017	Silverwood-Sawpit Swim Beach	surface	MC	ND	none observed					
8/8/2017	Silverwood-Cleghorn	surface	MC	0.20	Microcystis					
8/8/2017	Silverwood Lake Willows Swim Beach	surface	MC	ND	none observed					
8/7/2017	Castaic Outlet	surface	CYN-STX-ANTX	ND	Nostoclean filament(s)					Nostoclean filaments resembled Aphanizomenon Nostoclean filaments resembled Aphanizomenon
8/7/2017	Castaic Outlet	1m	CYN-STX-ANTX	ND	Nostoclean filament(s)					
8/7/2017	Castaic Lake Boat Launch	surface	MC	ND	Microcystis					
8/9/2017	Pyramid-Angeles Tunnel Inlet	surface	MC	0.92	Gloeotrichia echinulata	Microcystis				

8/9/2017	Pyramid-Angeles Tunnel Inlet	1m	MC	1.14	Microcystis	Dolichospermum			
8/9/2017	Pyramid-Emigrant Landing Swim Beach	surface	MC	2.71	Microcystis	Aphanizomenon klebahnii/flos-aquae			
8/9/2017	Pyramid-Vaquero Swim Beach	surface	MC	1.01	Gloeotrichia echinulata	Microcystis			
8/9/2017	Pyramid-Angeles Tunnel Inlet	1m	CYN-STX-ANTX	ND	Microcystis	Dolichospermum			
8/14/2017	Thermalito Forebay Swim Beach	surface		nr	Cyanophyte filaments				
8/14/2017	O'Neill Forebay North Beach	surface	MC	ND	Microcystis				
8/14/2017	SLR Basalt Boat Launch	surface	MC	28.1	Microcystis	Aphanizomenon	Woronichinia naegeliana	Dolichospermum	
8/15/2017	Pyramid-Angeles Tunnel Inlet	surface	MC	0.83	Microcystis				
8/15/2017	Pyramid-Angeles Tunnel Inlet	1m	MC	0.82	Microcystis	Gloeotrichia echinulata			
8/15/2017	Pyramid-Emigrant Landing Swim Beach	surface	MC	0.58	Microcystis	Gloeotrichia echinulata			
8/15/2017	Pyramid-Vaquero Swim Beach	surface	MC	0.91	Microcystis				
8/14/2017	Castaic Outlet	surface		nr	Nostoclean filament(s)				Nostoclean filaments resembled Aphanizomenon
8/14/2017	Castaic Outlet	1m		nr	Nostoclean filament(s)				Nostoclean filaments resembled Aphanizomenon
8/14/2017	Perris Outlet	surface		nr	Nostoclean filament(s)	Aphanizomenon gracile	Dolichospermum		Nostoclean filaments shared morphological characteristics with Sphaerospermopsis aphanizomenoides
8/14/2017	Lake Perris Swim Beach	surface	MC	ND	Nostoclean filament(s)	Aphanizomenon	Dolichospermum	Woronichinia naegeliana	Nostoclean filaments shared morphological characteristics with Sphaerospermopsis aphanizomenoides
8/15/2017	Silverwood-Cleghorn	surface	MC	ND	Microcystis				
8/15/2017	NBA Barker SI PP	10-15 ft approx	MC-CYN-STX-ANTX	ND	Aphanizomenon	Dolichospermum			
8/21/2017	Lake Del Valle	1m	MC-CYN-STX-ANTX	ND	Aphanizomenon	Nostoclean filament(s)			Nostoclean filament resembled Dolichospermum
8/21/2017	Banks	10-15 ft approx	MC-CYN-STX-ANTX	ND	Microcystis	Dolichospermum			
8/21/2017	Dyer Res	1m	MC	ND	Microcystis	Dolichospermum			
8/21/2017	Clifton Court FB	10-15 ft approx		nr	Aphanizomenon	Planktothrix			
8/22/2017	O'Neill Forebay North Beach	surface	MC	ND	Microcystis				
8/22/2017	SLR Basalt Boat Launch	surface	MC	14.4	Microcystis				
8/22/2017	SLR Gianelli	5-10 ft approx	MC-CYN-STX-ANTX	ND	Dolichospermum				
8/21/2017	Castaic Outlet	surface		nr	Nostoclean filament(s)				Nostoclean filaments resembled Aphanizomenon
8/21/2017	Castaic Outlet	1m		nr	Nostoclean filament(s)				Nostoclean filaments resembled Aphanizomenon
8/21/2017	Castaic Lagoon Swim Beach	surface	CYN-STX-ANTX	ND	Aphanizomenon				
8/22/2017	Pyramid-Angeles Tunnel Inlet	surface	MC	1.18	Microcystis				
8/22/2017	Pyramid-Angeles Tunnel Inlet	1m	MC	1.00	Microcystis				
8/22/2017	Pyramid-Emigrant Landing Swim Beach	surface	MC	2.30	Microcystis	Aphanizomenon flos-aquae	Gloeotrichia echinulata		
8/22/2017	Pyramid-Vaquero Swim Beach	surface	MC	0.52	Microcystis	Gloeotrichia echinulata			
8/21/2017	Perris Outlet	1m	MC-CYN-STX-ANTX	ND	Nostoclean filament(s)	Aphanizomenon	Woronichinia naegeliana	Dolichospermum	Nostoclean filaments shared morphological characteristics with Sphaerospermopsis and Aphanizomenon.
8/21/2017	Perris Outlet	surface	MC-CYN-STX-ANTX	ND	Dolichospermum	Nostoclean filament(s)	Aphanizomenon	Woronichinia naegeliana	Nostoclean filaments shared morphological characteristics with Sphaerospermopsis and Aphanizomenon.
8/21/2017	Lake Perris Swim Beach	surface		nr	Nostoclean filament(s)	Aphanizomenon	Woronichinia naegeliana		Nostoclean filaments shared morphological characteristics with Sphaerospermopsis aphanizomenoides
8/22/2017	Silverwood Outlet	1m		nr	Planktothrix	Aphanizomenon			
8/22/2017	Silverwood Outlet	surface		nr	Dolichospermum				
8/22/2017	Silverwood-Sawpit Swim Beach	surface	MC	ND	Microcystis				
8/22/2017	Silverwood-Cleghorn	surface	MC	0.50	Microcystis				
8/22/2017	Silverwood Lake Willows Swim Beach	surface	MC	ND	Microcystis	Aphanizomenon			
8/21/2017	Thermalito Forebay Swim Beach	surface		nr	Cyanophyte filament(s)				
8/22/2017	Lake Oroville near Dam	surface	MC-CYN-STX-ANTX	ND	Dolichospermum				
8/28/2017	O'Neill Forebay North Beach	surface	MC	ND	Microcystis				
8/28/2017	SLR Basalt Boat Launch	surface	MC	48.0	Microcystis	Woronichinia naegeliana	Aphanizomenon		
8/28/2017	Castaic Lagoon Swim Beach	surface		nr	Nostoclean filament(s)				
8/29/2017	Pyramid-Angeles Tunnel Inlet	1m	MC	0.73	Microcystis				
8/29/2017	Pyramid-Angeles Tunnel Inlet	surface	MC	0.80	Microcystis	Dolichospermum			
8/29/2017	Pyramid-Emigrant Landing Swim Beach	surface	MC	0.39	Microcystis				
8/29/2017	Pyramid-Vaquero Swim Beach	surface	MC	1.84	Microcystis				
8/28/2017	Perris Outlet	surface	MC-CYN-STX-ANTX	ND	Dolichospermum	Woronichinia naegeliana			
8/28/2017	Lake Perris Swim Beach	surface	MC-CYN-STX-ANTX	ND	Dolichospermum	Woronichinia naegeliana			
8/29/2017	Silverwood Outlet	surface	MC	ND	Microcystis				
8/29/2017	Silverwood-Cleghorn	surface	MC	ND	Microcystis				
8/29/2017	Silverwood Lake Willows Swim Beach	surface	MC	ND	Microcystis				
9/5/2017	SLR Basalt Boat Launch	surface	MC	8.49	Microcystis				

9/5/2017	Pyramid-Angeles Tunnel Inlet	surface	MC	0.69	Microcystis	Dolichospermum	Aphanizomenon	
9/5/2017	Pyramid-Angeles Tunnel Inlet	1m	MC	0.97	Microcystis	Dolichospermum	Aphanizomenon	
9/5/2017	Pyramid-Emigrant Landing Swim Beach	surface	MC	1.47	Microcystis	Dolichospermum		
9/5/2017	Pyramid-Vaquero Swim Beach	surface	MC	0.70	Microcystis	Dolichospermum		
9/6/2017	Silverwood Outlet	1m	MC	ND	Microcystis			
9/6/2017	Silverwood Outlet	surface	MC	ND	Microcystis			
9/6/2017	Silverwood-Sawpit Swim Beach	surface	MC	ND	Microcystis			
9/6/2017	Silverwood-Cleghorn	surface	MC	ND	Microcystis			
9/12/2017	Pyramid-Angeles Tunnel Inlet	surface	MC	2.27	Microcystis	Dolichospermum	Aphanizomenon	
9/12/2017	Pyramid-Angeles Tunnel Inlet	1m	MC	1.24	Microcystis	Dolichospermum		
9/12/2017	Pyramid-Emigrant Landing Swim Beach	surface	MC	1.45	Microcystis	Dolichospermum	Aphanizomenon	
9/12/2017	Pyramid-Vaquero Swim Beach	surface	MC	2.13	Microcystis	Dolichospermum		
9/12/2017	SLR Basalt Boat Launch	surface	MC	11.1	Microcystis			
9/12/2017	Perris Outlet	1m	CYN	0.15	Dolichospermum	Aphanizomenon	Dolichospermum	2 species of Dolichospermum present
9/12/2017	Perris Outlet	1m	MC-ANTX-STX	ND	Dolichospermum	Aphanizomenon	Dolichospermum	2 species of Dolichospermum present
9/13/2017	Silverwood Outlet	1m	MC	ND	Microcystis			
9/18/2017	Clifton Court FB	10-15 ft approx	MC	ND	Microcystis	Aphanizomenon		
9/18/2017	Dyer Res	1m	MC	0.15*	Microcystis			Analytical result is estimated. Values achieved were outside calibration range.
9/18/2017	SLR Basalt Boat Launch	surface	MC	5.61	Microcystis	Aphanizomenon klebahnii/flos-aquae		
9/18/2017	Perris Outlet	1m	CYN	0.08	Dolichospermum	Nostoclean filament(s)		Nostoclean filament resembled Aphanizomenon/Sphaerospermopsis sp.
9/19/2017	Silverwood Outlet	1m		nr	Oscillatorialean filament(s)			Oscillatorialean filament resembled Limnothrix sp.
9/19/2017	Pyramid-Angeles Tunnel Inlet	surface	MC	0.16	Microcystis	Dolichospermum		
9/19/2017	Pyramid-Angeles Tunnel Inlet	1m	MC	0.29	Microcystis	Dolichospermum		
9/19/2017	Pyramid-Emigrant Landing Swim Beach	surface	MC	0.60	Microcystis			
9/19/2017	Pyramid-Vaquero Swim Beach	surface	MC	ND	none observed			
9/20/2017	NBA Barker SI PP	10-15 ft approx	MC-CYN-STX-ANTX	ND	Cuspidothrix	Pseudanabaena	Nostoclean filament(s)	Nostoclean filament shared morphological characteristics with Sphaerospermopsis and Aphanizomenon
9/25/2017	SLR Basalt Boat Launch	surface	MC	18.1	Microcystis	Aphanizomenon klebahnii/flos-aquae		
9/25/2017	SLR Gianelli	5-10 ft approx		nr	Aphanizomenon			
9/25/2017	Lake Del Valle	1m	MC	ND	Anabaenopsis			
9/25/2017	Clifton Court FB	10-15 ft approx	MC	ND	Microcystis			
9/25/2017	Banks	10-15 ft approx	MC	ND	Microcystis			
9/25/2017	Dyer Res	1m	MC	ND	Microcystis			
9/25/2017	Perris Outlet	1m	CYN	0.12	Dolichospermum			
9/25/2017	Castaic Outlet	1m	MC-CYN-STX-ANTX	ND	Pseudanabaena	Cylindrospermopsis	cf. Chrysochlorum	
9/26/2017	Pyramid-Angeles Tunnel Inlet	surface	MC	ND	none observed			
9/26/2017	Pyramid-Angeles Tunnel Inlet	1m	MC	ND	Microcystis	Woronichinia naegeliana		
9/26/2017	Pyramid-Emigrant Landing Swim Beach	surface	MC	ND	none observed			
10/2/2017	SLR Pacheco PP	170-230 ft approx	MC	0.31	Microcystis			
10/2/2017	Check 13	15 ft approx		nr	Aphanizomenon			
10/2/2017	SLR Basalt Boat Launch	surface	MC	9.53	Microcystis	Aphanizomenon klebahnii/flos-aquae		
10/2/2017	SLR Gianelli	5-10 ft approx		nr	Aphanizomenon			
10/3/2017	Pyramid-Angeles Tunnel Inlet	1m	MC	ND*	Microcystis			The reported result is estimated because the sample exceeded temperature threshold when received.
10/3/2017	Pyramid-Emigrant Landing Swim Beach	surface	MC	ND*	Microcystis			The reported result is estimated because the sample exceeded temperature threshold when received.
10/9/2017	Banks	10-15 ft approx	MC	ND	Microcystis			
10/9/2017	Dyer Res	1m		nr	Phormidium			
10/9/2017	SLR Basalt Boat Launch	surface	MC	3.65	Microcystis	Planktothrix	Aphanizomenon	
10/9/2017	SLR Basalt Boat Launch	surface	ANTX-A	ND	Microcystis	Planktothrix	Aphanizomenon	
10/11/2017	Silverwood Outlet	1m	MC	ND	Microcystis			
10/10/2017	Pyramid-Vaquero Swim Beach	surface	MC	ND	Microcystis			
10/10/2017	Pyramid-Emigrant Landing Swim Beach	surface	MC	ND	Microcystis			
10/17/2017	NBA Barker SI PP	10-15 ft approx		nr	Aphanizomenon klebahnii/flos-aquae			
10/17/2017	SLR Basalt Boat Launch	surface	MC	12.5*	Microcystis	Aphanizomenon klebahnii/flos-aquae	Dolichospermum	The reported result is estimated because the sample exceeded temperature threshold when received.
10/17/2017	Pyramid-Emigrant Landing Swim Beach	surface	MC	ND	Microcystis			
10/16/2017	Castaic Outlet	1m		nr	Pseudanabaena			

10/23/2017	Castaic Outlet	1m		nr	Pseudanabaena				
10/23/2017	SLR Basalt Boat Launch	surface	MC	2.24	Microcystis	Aphanizomenon	Dolichospermum		
10/23/2017	Clifton Court FB	10-15 ft approx	MC	ND	Microcystis				
10/23/2017	Dyer Res	1m		nr	Aphanizomenon				
10/23/2017	Lake Oroville near Dam	surface	MC-CYN-STX-ANTX	ND*	Aphanizomenon klebahnii/flos-aquae	Dolichospermum		The reported result is estimated because the sample exceeded temperature threshold when received.	
10/24/2017	Perris Outlet	1m	CYN	0.09	Pseudanabaena	Nostoclean filament(s)		Nostoclean filaments resembled <i>Aphanizomenon/Sphaerospermopsis sp.</i>	
10/24/2017	Perris Outlet	1m	ANTX-A	ND	Pseudanabaena	Nostoclean filament(s)		Nostoclean filaments resembled <i>Aphanizomenon/Sphaerospermopsis sp.</i>	
10/24/2017	Perris Outlet	1m	STX	ND	Pseudanabaena	Nostoclean filament(s)		Nostoclean filaments resembled <i>Aphanizomenon/Sphaerospermopsis sp.</i>	
10/31/2017	Perris Outlet	1m	CYN	0.09	Pseudanabaena	Nostoclean filament(s)	Sphaerospermopsis aphanizomenoides	Nostoclean filaments resembled <i>Aphanizomenon/Sphaerospermopsis sp.</i>	
10/30/2017	SLR Basalt Boat Launch	surface	MC	1.23	Microcystis				
11/6/2017	SLR Basalt Boat Launch	surface	MC	0.28	Microcystis				
11/7/2017	Perris Outlet	1m	CYN	0.13	Pseudanabaena	Aphanizomenon			
11/14/2017	Perris Outlet	1m	CYN	0.06	Pseudanabaena				
11/13/2017	SLR Basalt Boat Launch	surface	MC	0.22	Microcystis				
11/20/2017	SLR Basalt Boat Launch	surface	MC	0.30	Microcystis				
11/27/2017	SLR Basalt Boat Launch	surface	MC	0.21	Microcystis				
11/28/2017	Perris Outlet	1m	CYN	ND	Pseudanabaena				
12/4/2017	SLR Basalt Boat Launch	surface	MC	0.19	Microcystis				
12/12/2017	SLR Basalt Boat Launch	surface	MC	ND*	Microcystis			Analytical result is estimated. Values achieved were outside calibration range.	
12/11/2017	Perris Outlet	1m	CYN	0.08	Sphaerospermopsis aphanizomenoides	Aphanizomenon gracile	Pseudanabaena	Nostoclean filament(s)	Nostoclean filaments shared morphological characteristics with both <i>Sphaerospermopsis aphanizomenoides</i> and <i>Aphanizomenon gracile</i> .
12/18/2017	SLR Basalt Boat Launch	surface	MC	ND	Microcystis				
12/18/2017	Perris Outlet	1m	CYN	0.07	Pseudanabaena				
1/2/2018	Perris Outlet	1m	CYN	0.07	none observed				
1/16/2018	Perris Outlet	1m	CYN	0.09	none observed				
2/12/2018	Perris Outlet	1m	CYN	ND	none observed				

Abraxis Microcystin Field Test Strip Results

Date	Location	Depth	Result (ppb)	Notes
5/22/2017	Perris Outlet	surface	nd	
5/22/2017	Castaic Outlet	surface	nd	
5/22/2017	Castaic Outlet	1 meter	nd	
5/22/2017	Castaic Lake Boat Launch	surface	nd	
5/22/2017	Castaic Lagoon Swim Beach	surface	nd	
5/22/2017	Thermalito Afterbay Swim Beach	surface	nd	
5/22/2017	Thermalito Forebay Swim Beach	surface	nd	
5/22/2017	Lake Oroville Swim Beach	surface	nd	
5/22/2017	Perris Outlet	surface	nd	
5/22/2017	Perris Outlet	1 meter	nd	
5/22/2017	Lake Perris Swim Beach	surface	nd	
5/23/2017	Silverwood Outlet	surface	nd	
5/23/2017	Silverwood-Cleghorn	surface	nd	
5/23/2017	Silverwood-Sawpit Swim Beach	surface	nd	
5/23/2017	Silverwood Outlet	1 meter	nd	
5/23/2017	O'Neill Forebay North Beach	surface	nd	
5/23/2017	SLR Basalt Boat Launch	surface	~5	
5/24/2017	Pyramid Emigrant WTP		nd	finished water
5/24/2017	Pyramid Vista Del Lago WTP		nd	finished water
5/24/2017	Pyramid-Vaquero Swim Beach	surface	nd	
5/24/2017	Pyramid-Emigrant Landing Swim Beach		nd	
5/24/2017	Pyramid-Angeles Tunnel Inlet	surface	nd	
5/24/2017	Pyramid-Angeles Tunnel Inlet	1 meter	nd	
5/30/2017	Perris Outlet	surface	nd	
5/30/2017	Lake Perris Swim Beach	surface	nd	
5/30/2017	O'Neill Forebay North Beach	surface	nd	
5/30/2017	SLR Basalt Boat Launch	surface	nd	
5/31/2017	Silverwood Outlet	surface	~2.5	
5/31/2017	Silverwood-Cleghorn	surface	nd	
5/31/2017	Silverwood-Sawpit Swim Beach	surface	nd	
5/31/2017	Pyramid-Vaquero Swim Beach	surface	nd	
5/31/2017	Pyramid-Angeles Tunnel Inlet	surface	nd	
5/31/2017	Pyramid-Emigrant Landing Swim Beach		nd	
5/31/2017	Castaic Lagoon Swim Beach	surface	nd	
5/31/2017	Castaic Lake Boat Launch	surface	nd	
5/31/2017	Castaic Outlet	surface	nd	
6/2/2017	Pyramid Vista Del Lago WTP		nd	finished water
6/2/2017	Pyramid Emigrant WTP		nd	finished water
6/5/2017	O'Neill Forebay North Beach	surface	nd	
6/5/2017	SLR Basalt Boat Launch	surface	nd	
6/5/2017	Thermalito Afterbay Swim Beach	surface	nd	
6/5/2017	Thermalito Forebay Swim Beach	surface	nd	
6/6/2017	Perris Outlet	surface	nd	
6/6/2017	Lake Perris Swim Beach	surface	nd	
6/6/2017	Castaic Lagoon Swim Beach	surface	nd	Finished water test strip may have been used
6/6/2017	Castaic Lake Boat Launch	surface	nd	Finished water test strip may have been used
6/6/2017	Castaic Outlet	surface	nd	Finished water test strip may have been used
6/7/2017	Silverwood Outlet	surface	nd	
6/7/2017	Silverwood-Cleghorn	surface	nd	
6/7/2017	Silverwood-Sawpit Swim Beach	surface	nd	
6/7/2017	Pyramid-Vaquero Swim Beach	surface	nd	Finished water test strip may have been used
6/7/2017	Pyramid-Angeles Tunnel Inlet	surface	nd	Finished water test strip may have been used
6/7/2017	Pyramid-Emigrant Landing Swim Beach	surface	nd	Finished water test strip may have been used
6/8/2017	Pyramid Emigrant WTP		nd	finished water
6/10/2017	Pyramid Vista Del Lago WTP		nd	finished water
6/12/2017	O'Neill Forebay North Beach	surface	nd	
6/12/2017	SLR Basalt Boat Launch	surface	nd	
6/12/2017	Thermalito Afterbay Swim Beach	surface	nd	
6/12/2017	Thermalito Forebay Swim Beach	surface	nd	
6/13/2017	Perris Outlet	surface	nd	
6/13/2017	Lake Perris Swim Beach	surface	nd	
6/13/2017	Perris Outlet	1 meter	nd	
6/13/2017	Castaic Outlet	surface	nd	
6/13/2017	Castaic Outlet	1 meter	nd	
6/13/2017	Castaic Lake Boat Launch	surface	nd	
6/13/2017	Castaic Lagoon Swim Beach	surface	nd	
6/13/2017	Pyramid-Angeles Tunnel Inlet	surface	nd	

6/13/2017	Pyramid-Angeles Tunnel Inlet	1 meter	nd	
6/13/2017	Pyramid-Emigrant Landing Swim Beach	surface	nd	
6/13/2017	Pyramid-Vaquero Swim Beach	surface	nd	
6/14/2017	Lake Perris Swim Beach	surface	nd	
6/14/2017	Silverwood Outlet	surface	nd	
6/14/2017	Silverwood-Cleghorn	surface	nd	
6/14/2017	Silverwood-Sawpit Swim Beach	surface	nd	
6/14/2017	Pyramid Vista Del Lago WTP		nd	finished water
6/16/2017	Pyramid Emigrant WTP		nd	finished water
6/18/2017	Perris Outlet	surface	nd	
6/18/2017	Lake Perris Swim Beach	surface	nd	
6/19/2017	Castaic Outlet	surface	nd	
6/19/2017	Castaic Outlet	1 meter	nd	
6/19/2017	Castaic Lake Boat Launch	surface	nd	
6/19/2017	Castaic Lagoon Swim Beach	surface	nd	
6/19/2017	O'Neill Forebay North Beach	surface	nd	
6/19/2017	SLR Basalt Boat Launch	surface	~10	
6/20/2017	Silverwood Outlet	surface	nd	
6/20/2017	Silverwood-Cleghorn	surface	nd	
6/20/2017	Silverwood-Sawpit Swim Beach	surface	nd	
6/21/2017	San Luis WTP		nd	finished water
6/25/2017	Perris Outlet	surface	nd	
6/25/2017	Lake Perris Swim Beach	surface	nd	
6/26/2017	Silverwood Outlet	surface	nd	
6/26/2017	Silverwood-Cleghorn	surface	nd	
6/26/2017	Silverwood-Sawpit Swim Beach	surface	nd	
6/26/2017	Castaic Outlet	surface	nd	
6/26/2017	Castaic Outlet	1 meter	nd	
6/26/2017	Castaic Lake Boat Launch	surface	nd	
6/26/2017	Castaic Lagoon Swim Beach	surface	nd	
6/26/2017	Pyramid Vista Del Lago WTP		nd	finished water
6/26/2017	O'Neill Forebay North Beach	surface	nd	
6/26/2017	SLR Basalt Boat Launch	surface	~10	
6/27/2017	San Luis WTP		nd	finished water
6/27/2017	Thermalito Afterbay Swim Beach	surface	nd	
6/27/2017	Thermalito Forebay Swim Beach	surface	nd	
6/27/2017	Lake Oroville near Dam	surface	nd	
6/28/2017	Pyramid Emigrant WTP		nd	finished water
6/28/2017	Pyramid-Angeles Tunnel Inlet	surface	nd	
6/28/2017	Pyramid-Angeles Tunnel Inlet	1 meter	nd	
6/28/2017	Pyramid-Emigrant Landing Swim Beach	surface	nd	
6/28/2017	Pyramid-Vaquero Swim Beach	surface	nd	
6/28/2017	Antelope Lake near spillway	surface	nd	
7/2/2017	Perris Outlet	surface	nd	
7/2/2017	Lake Perris Swim Beach	surface	nd	
7/3/2017	Thermalito Afterbay Swim Beach	surface	nd	
7/3/2017	Thermalito Forebay Swim Beach	surface	nd	
7/4/2017	Silverwood Outlet	surface	nd	
7/4/2017	Silverwood-Cleghorn	surface	nd	
7/4/2017	Silverwood-Sawpit Swim Beach	surface	nd	
7/5/2017	Castaic Outlet	surface	nd	
7/5/2017	Castaic Outlet	1 meter	nd	
7/5/2017	Castaic Lake Boat Launch	surface	nd	
7/5/2017	Castaic Lagoon Swim Beach	surface	nd	
7/5/2017	O'Neill Forebay North Beach	surface	nd	
7/5/2017	SLR Basalt Boat Launch	surface	~10	
7/6/2017	Pyramid-Angeles Tunnel Inlet	surface	nd	
7/6/2017	Pyramid-Angeles Tunnel Inlet	1 meter	nd	
7/6/2017	Pyramid-Emigrant Landing Swim Beach	surface	nd	
7/6/2017	Pyramid-Vaquero Swim Beach	surface	~10	
7/6/2017	Pyramid Vista Del Lago WTP		nd	finished water
7/6/2017	Pyramid Emigrant WTP		nd	finished water
7/6/2017	San Luis WTP		nd	finished water
7/10/2017	Silverwood Outlet	surface	nd	
7/10/2017	Silverwood-Cleghorn	surface	~5	
7/10/2017	Silverwood-Sawpit Swim Beach	surface	nd	
7/10/2017	Perris Outlet	surface	nd	
7/10/2017	Lake Perris Swim Beach	surface	nd	
7/10/2017	O'Neill Forebay North Beach	surface	nd	

7/10/2017	SLR Basalt Boat Launch	surface	~20	sample diluted 1:1 with DI water prior to analysis
7/10/2017	Thermalito Afterbay Swim Beach	surface	nd	
7/10/2017	Thermalito Forebay Swim Beach	surface	nd	
7/11/2017	Pyramid Emigrant WTP		nd	finished water
7/11/2017	Pyramid Vista Del Lago WTP		nd	finished water
7/11/2017	Pyramid-Angeles Tunnel Inlet	surface	<2.5	
7/11/2017	Pyramid-Angeles Tunnel Inlet	1 meter	nd	
7/11/2017	Pyramid-Emigrant Landing Swim Beach	surface	nd	
7/11/2017	Pyramid-Vaquero Swim Beach	surface	nd	
7/11/2017	Castaic Outlet	surface	nd	
7/11/2017	Castaic Outlet	1 meter	<2.5	
7/11/2017	Castaic Lake Boat Launch	surface	nd	
7/11/2017	Castaic Lagoon Swim Beach	surface	nd	
7/11/2017	San Luis WTP		nd	finished water
7/13/2017	SLR Basalt Boat Launch	surface	~15	sample diluted 1:1 with DI water prior to analysis
7/17/2017	Perris Outlet	surface	nd	
7/17/2017	Lake Perris Swim Beach	surface	nd	
7/17/2017	Castaic Outlet	surface	nd	
7/17/2017	Castaic Outlet	1 meter	nd	
7/17/2017	Castaic Lake Boat Launch	surface	<2.5	
7/17/2017	Castaic Lagoon Swim Beach	surface	nd	
7/17/2017	O'Neill Forebay North Beach	surface	nd	
7/17/2017	SLR Basalt Boat Launch	surface	~20	sample diluted 1:1 with DI water prior to analysis
7/17/2017	Thermalito Afterbay Swim Beach	surface	nd	
7/17/2017	Thermalito Forebay Swim Beach	surface	nd	
7/18/2017	Silverwood Outlet	surface	nd	
7/18/2017	Silverwood-Cleghorn	surface	~5*	*Test result is suspect- Issue with test strips falling apart
7/18/2017	Silverwood-Sawpit Swim Beach	surface	nd	
7/18/2017	Pyramid Emigrant WTP		nd	finished water
7/18/2017	Pyramid Vista Del Lago WTP		nd	finished water
7/18/2017	Pyramid-Angeles Tunnel Inlet	surface	nd	
7/18/2017	Pyramid-Angeles Tunnel Inlet	1 meter	<2.5	
7/18/2017	Pyramid-Emigrant Landing Swim Beach	surface	nd	
7/18/2017	Pyramid-Vaquero Swim Beach	surface	nd	
7/19/2017	SLR Basalt Boat Launch	surface	~20	sample diluted 1:1 with DI water prior to analysis
7/19/2017	San Luis WTP		nd	finished water
7/24/2017	Perris Outlet	surface	nd	
7/24/2017	Lake Perris Swim Beach	surface	nd	
7/24/2017	Castaic Outlet	surface	nd	
7/24/2017	Castaic Outlet	1 meter	nd	
7/24/2017	Castaic Lake Boat Launch	surface	nd	
7/24/2017	Castaic Lagoon Swim Beach	surface	nd	
7/24/2017	O'Neill Forebay North Beach	surface	nd	
7/24/2017	SLR Basalt Boat Launch	surface	~20	sample diluted 1:1 with DI water prior to analysis
7/24/2017	Lake Oroville near Dam	surface	nd	
7/24/2017	Thermalito Afterbay Swim Beach	surface	nd	
7/24/2017	Thermalito Forebay Swim Beach	surface	nd	
7/25/2017	Pyramid-Angeles Tunnel Inlet	surface	nd	
7/25/2017	Pyramid-Angeles Tunnel Inlet	1 meter	nd	
7/25/2017	Pyramid-Emigrant Landing Swim Beach	surface	nd	
7/25/2017	Pyramid-Vaquero Swim Beach	surface	<2.5	
7/25/2017	San Luis WTP		nd	finished water
7/27/2017	SLR Basalt Boat Launch	surface	~20	sample diluted 1:1 with DI water prior to analysis
7/31/2017	Perris Outlet	surface	nd	
7/31/2017	Lake Perris Swim Beach	surface	nd	
7/31/2017	Castaic Outlet	surface	nd	
7/31/2017	Castaic Outlet	1 meter	nd	
7/31/2017	Castaic Lake Boat Launch	surface	nd	
7/31/2017	Castaic Lagoon Swim Beach	surface	invalid result	Reader read edge of strip instead of test line.
7/31/2017	O'Neill Forebay North Beach	surface	nd	
7/31/2017	SLR Basalt Boat Launch	surface	~20	sample diluted 1:1 with DI water prior to analysis
7/31/2017	Thermalito Afterbay Swim Beach	surface	nd	
7/31/2017	Thermalito Forebay Swim Beach	surface	nd	
8/1/2017	Silverwood Outlet	surface	nd	
8/1/2017	Silverwood-Cleghorn	surface	nd	
8/1/2017	Silverwood-Sawpit Swim Beach	surface	nd	
8/1/2017	Silverwood Lake Willows Swim Beach	surface	nd	
8/1/2017	Pyramid-Angeles Tunnel Inlet	surface	~10	

8/1/2017	Pyramid-Angeles Tunnel Inlet	1 meter	<2.5	
8/1/2017	Pyramid-Vaquero Swim Beach	surface	nd	
8/1/2017	Pyramid-Emigrant Landing Swim Beach	surface	nd	
8/2/2017	San Luis WTP		nd	finished water
8/3/2017	SLR Basalt Boat Launch	surface	~20	sample diluted 1:1 with DI water prior to analysis
8/7/2017	Thermalito Forebay Swim Beach	surface	nd	
8/7/2017	Thermalito Afterbay Swim Beach	surface	nd	
8/7/2017	Perris Outlet	surface	nd	
8/7/2017	Lake Perris Swim Beach	surface	nd	
8/7/2017	Castaic Outlet	surface	nd	
8/7/2017	Castaic Outlet	1 meter	nd	
8/7/2017	Castaic Lake Boat Launch	surface	nd	
8/7/2017	Castaic Lagoon Swim Beach	surface	nd	
8/7/2017	SLR Basalt Boat Launch	surface	~10	sample diluted 1:1 with DI water prior to analysis
8/7/2017	O'Neill Forebay North Beach	surface	nd	
8/8/2017	San Luis WTP		nd	finished water
8/8/2017	Silverwood Outlet	surface	nd	
8/8/2017	Silverwood-Cleghorn	surface	nd	
8/8/2017	Silverwood-Sawpit Swim Beach	surface	nd	
8/8/2017	Silverwood Lake Willows Swim Beach	surface	nd	
8/9/2017	Pyramid-Angeles Tunnel Inlet	surface	nd	
8/9/2017	Pyramid-Angeles Tunnel Inlet	1 meter	nd	
8/9/2017	Pyramid-Vaquero Swim Beach	surface	nd	
8/9/2017	Pyramid-Emigrant Landing Swim Beach	surface	nd	
8/10/2016	SLR Basalt Boat Launch	surface	~20	sample diluted 1:1 with DI water prior to analysis
8/14/2017	Thermalito Afterbay Swim Beach	surface	nd	
8/14/2017	Thermalito Forebay Swim Beach	surface	nd	
8/14/2017	Perris Outlet	surface	nd	
8/14/2017	Lake Perris Swim Beach	surface	nd	
8/15/2017	Silverwood Outlet	surface	nd	
8/15/2017	Silverwood-Cleghorn	surface	nd	
8/15/2017	Silverwood-Sawpit Swim Beach	surface	nd	
8/15/2017	Silverwood Lake Willows Swim Beach	surface	nd	
8/14/2017	Castaic Outlet	surface	nd	
8/14/2017	Castaic Outlet	1 meter	nd	
8/14/2017	Castaic Lake Boat Launch	surface	nd	
8/14/2017	Castaic Lagoon Swim Beach	surface	nd	
8/15/2017	Pyramid-Angeles Tunnel Inlet	surface	nd	
8/15/2017	Pyramid-Angeles Tunnel Inlet	1 meter	nd	
8/15/2017	Pyramid-Vaquero Swim Beach	surface	nd	
8/15/2017	Pyramid-Emigrant Landing Swim Beach	surface	nd	
8/14/2017	SLR Basalt Boat Launch	surface	~15	sample diluted 1:1 with DI water prior to analysis
8/14/2017	O'Neill Forebay North Beach	surface	nd	
8/16/2017	San Luis WTP		nd	finished water
8/16/2017	SLR Basalt Boat Launch	surface	~15	sample diluted 1:1 with DI water prior to analysis
8/22/2017	Silverwood Outlet	surface	nd	
8/22/2017	Silverwood-Cleghorn	surface	nd	
8/22/2017	Silverwood-Sawpit Swim Beach	surface	nd	
8/22/2017	Silverwood Lake Willows Swim Beach	surface	nd	
8/21/2017	Perris Outlet	surface	nd	
8/21/2017	Lake Perris Swim Beach	surface	nd	
8/21/2017	Thermalito Afterbay Swim Beach	surface	nd	
8/21/2017	Thermalito Forebay Swim Beach	surface	nd	
8/23/2017	Lake Oroville near Dam	surface	nd	
8/22/2017	O'Neill Forebay North Beach	surface	nd	
8/22/2017	SLR Basalt Boat Launch	surface	~20	sample diluted 1:1 with DI water prior to analysis
8/25/2017	SLR Basalt Boat Launch	surface	~20	sample diluted 1:1 with DI water prior to analysis
8/25/2017	San Luis WTP		nd	finished water
8/28/2017	Thermalito Afterbay Swim Beach	surface	nd	
8/28/2017	Thermalito Forebay Swim Beach	surface	nd	
8/28/2017	Perris Outlet	surface	nd	
8/28/2017	Lake Perris Swim Beach	surface	nd	
8/28/2017	SLR Basalt Boat Launch	surface	~20	sample diluted 1:1 with DI water prior to analysis
8/28/2017	O'Neill Forebay North Beach	surface	nd	
8/30/2017	San Luis WTP		nd	finished water
8/29/2017	Pyramid Vista Del Lago WTP		nd	finished water
8/29/2017	Pyramid-Angeles Tunnel Inlet	surface	~2.5	
8/29/2017	Pyramid-Angeles Tunnel Inlet	1m	<2.5	
8/29/2017	Pyramid-Vaquero Swim Beach	surface	~2.5	

8/29/2017	Pyramid-Emigrant Landing Swim Beach	surface	nd	
8/28/2017	Perris Outlet	surface	nd	
8/28/2017	Lake Perris Swim Beach	surface	nd	
8/29/2017	Silverwood Outlet	surface	invalid control	
8/29/2017	Silverwood-Cleghorn	surface	nd	
8/29/2017	Silverwood-Sawpit Swim Beach	surface	nd	
8/29/2017	Silverwood Lake Willows Swim Beach	surface	nd	
8/31/2017	SLR Basalt Boat Launch	surface	~15	sample diluted 1:1 with DI water prior to analysis
9/5/2017	SLR Basalt Boat Launch	surface	~15	sample diluted 1:1 with DI water prior to analysis
9/6/2017	Pyramid-Angeles Tunnel Inlet	surface	~5	
9/6/2017	Pyramid-Angeles Tunnel Inlet	1m	nd	
9/6/2017	Pyramid-Emigrant Landing Swim Beach	surface	nd	
9/6/2017	Pyramid-Vaquero Swim Beach	surface	nd	
9/6/2017	Castaic Outlet	surface	nd	
9/6/2017	Castaic Outlet	1m	nd	
9/6/2017	Castaic Lake Boat Launch	surface	nd	
9/6/2017	Castaic Lagoon Swim Beach	surface	nd	
9/6/2017	Silverwood Outlet	surface	nd	
9/6/2017	Silverwood-Cleghorn	surface	nd	
9/6/2017	Silverwood-Sawpit Swim Beach	surface	nd	
9/6/2017	Silverwood Lake Willows Swim Beach	surface	nd	
9/7/2017	SLR Basalt Boat Launch	surface	~15	sample diluted 1:1 with DI water prior to analysis
9/7/2017	San Luis WTP		nd	finished water
9/12/2017	SLR Basalt Boat Launch	surface	~10	sample diluted 1:1 with DI water prior to analysis
9/12/2017	Pyramid-Angeles Tunnel Inlet	surface	nd	
9/12/2017	Pyramid-Angeles Tunnel Inlet	1m	nd	
9/12/2017	Pyramid-Emigrant Landing Swim Beach	surface	nd	
9/12/2017	Pyramid-Vaquero Swim Beach	surface	~10	
9/18/2017	SLR Basalt Boat Launch	surface	~10	
9/19/2017	Pyramid-Angeles Tunnel Inlet	surface	nd	
9/19/2017	Pyramid-Angeles Tunnel Inlet	1m	~10	
9/19/2017	Pyramid-Emigrant Landing Swim Beach	surface	~10	
9/19/2017	Pyramid-Vaquero Swim Beach	surface	nd	
9/19/2017	Pyramid Vista Del Lago WTP		nd	finished water
9/20/2017	San Luis WTP		nd	finished water
9/25/2017	SLR Basalt Boat Launch	surface	~10	
9/28/2017	San Luis WTP		nd	finished water
10/2/2017	SLR Basalt Boat Launch	surface	~5	
10/3/2017	San Luis WTP		nd	finished water
10/4/2017	Pyramid-Angeles Tunnel Inlet	surface	nd	
10/4/2017	Pyramid-Angeles Tunnel Inlet	1m	nd	
10/4/2017	Pyramid-Emigrant Landing Swim Beach	surface	nd	
10/4/2017	Pyramid-Vaquero Swim Beach	surface	nd	
10/4/2017	Pyramid Vista Del Lago WTP		nd	finished water
10/9/2017	SLR Basalt Boat Launch	surface	nd	
10/11/2017	San Luis WTP		nd	finished water
10/11/2017	Pyramid-Angeles Tunnel Inlet	surface	nd	
10/11/2017	Pyramid-Angeles Tunnel Inlet	1m	nd	
10/11/2017	Pyramid-Emigrant Landing Swim Beach	surface	nd	
10/11/2017	Pyramid-Vaquero Swim Beach	surface	nd	
10/16/2017	SLR Basalt Boat Launch	surface	~7.5	
10/18/2017	San Luis WTP		nd	finished water
10/23/2017	SLR Basalt Boat Launch		nd	
10/26/2017	San Luis WTP		nd	finished water
10/30/2017	SLR Basalt Boat Launch	surface	nd	
11/2/2017	San Luis WTP		nd	finished water
11/6/2017	SLR Basalt Boat Launch	surface	nd	
11/9/2017	San Luis WTP		nd	finished water
11/13/2017	SLR Basalt Boat Launch	surface	nd	
11/15/2017	San Luis WTP		nd	finished water
11/20/2017	SLR Basalt Boat Launch	surface	nd	
11/21/2017	San Luis WTP		nd	finished water
11/27/2017	SLR Basalt Boat Launch	surface	nd	
11/30/2017	San Luis WTP		nd	finished water
12/4/2017	SLR Basalt Boat Launch	surface	nd	
12/6/2017	San Luis WTP		nd	finished water
12/12/2017	SLR Basalt Boat Launch	surface	nd	
12/18/2017	SLR Basalt Boat Launch	surface	nd	

Name	Sample Location	Sample depth	Sample collection method
Clifton Court Forebay Inlet	Water Quality Station	Approx 10-15 ft (depends on Clifton Court Forebay elevation)	raw water tap
Dyer Reservoir Outlet	outlet	1 meter	grab sample
Banks Pumping Plant	Water Quality Station	Approx 10-15 ft (depends on CCF elevation)	raw water tap
Lake Del Valle	Boat ramp near dam	1 meter	grab sample
Barker Slough Pumping Plant	Water Quality Station	Approx 10-15 ft (depends on water depth)	raw water tap
Pacheco Pumping Plant	Water Quality Station	Approx 170-230 feet (depends on elevation of San Luis Res. and if SCVWD is drawing from upper or lower intake.	raw water tap
O'Neill Forebay Outlet/Check 13	Water Quality Station	Approx 15 ft	raw water tap
Gianelli Pumping Plant	Water Quality Station	Approx 5-10 feet (depends on O'Neill Forebay elevation)	raw water tap
Pyramid Lake	PY001 Angeles Tunnel Inlet WQ Station	1 meter	
Castaic Lake	CA002 Castaic Lake Outlet tower Water Quality Station	1 meter	
Silverwood Lake	SI002 Silverwood Lake at San Bernardino Tunnel	1 meter	
Lake Perris	PE002 Lake Perris Outlet	1 meter	