



*Ventura Countywide
Stormwater Quality
Management Program*

2020-2021
Permit Year

Ventura Countywide Stormwater Quality
Management Program Annual Report

Attachment E – TMDL Reports Part 2



December 15, 2021

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

Central Services
Joan Araujo, Director

Engineering Services
Christopher Cooper, Director

Roads & Transportation
David Fleisch, Director

Water & Sanitation
Joseph Pope, Director

Watershed Protection
Glenn Shephard, Director

July 27, 2020

VIA EMAIL

Kangshi Wang, Ph.D.
California Regional Water Quality Control Board
Los Angeles Region
Standards & TMDL Unit
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Subject: Malibu Creek and Lagoon Bacteria TMDL Compliance Monitoring for County of Ventura, Ventura County Watershed Protection District, and City of Thousand Oaks

Dear Dr. Wang:

Please find attached the report for the results of the weekly monitoring effort required by the Malibu Creek and Lagoon Bacteria Total Maximum Daily Load (TMDL) Compliance Monitoring Plan (CMP) for the month of June 2020. Sites were sampled weekly on Tuesday (June 2, 9, 16, and 23, 2020), with the exception of one weekly sampling event conducted on Monday (June 29, 2020) due to the observed Independence Day holiday and laboratory scheduling conflicts. Beginning on and following July 23, 2019, Rincon Consultants Inc. has been retained to conduct compliance monitoring activities.

Table 1 presents the weekly sampling results, while Table 2 presents the rolling 30-day geometric means for the sampling locations. Sample collection dates are marked with a diamond (◆) symbol. Sites without results reported were not sampled due to insufficient flow and are labeled "Dry." A map showing the location of the monitoring sites is included below.

Daily geometric means for wet weather and dry weather are calculated using the past 30 days of the respective sampling data (Table 2). For example, weeks with wet weather samples (collected less than 72 hours after a day with > 0.1" rain) use the previous wet weather single sample values to calculate the geometric mean. Non-sampling-day values are assigned the value of the most recent sampling event. Half the method reporting limit (MRL) was used to calculate the daily geometric means for sites with results reported as non-detect (ND) [e.g., < 18 most probable number per 100 milliliters (MPN/100 ml)]. Statistics are also calculated for dry events at all sampling locations by assigning a concentration value of half the MRL, as a zero value is



undefined logarithmically, and as such would be unusable in the geometric mean calculation.

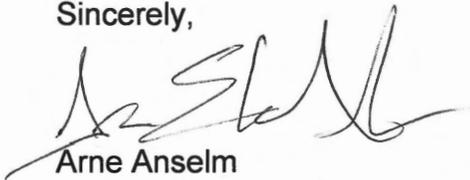
Due to regularly occurring high concentrations in analytical results, a dilution factor of 10 is applied to all samples to quantify results that exceed the standard upper reporting limit of a single dilution. As a result, the MRL for samples analyzed for this program is 18 MPN/100mL.

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017.

Fecal coliform monitoring has been discontinued, as approved by the Los Angeles Regional Water Quality Control Board on October 31, 2014, in alignment with the Regional Board's removal of the fecal coliform objective for REC-1 freshwaters from the TMDL on June 7, 2012 and subsequent approval by the U.S. Environmental Protection Agency on July 2, 2014.

If you have any questions regarding this matter, please contact me at (805) 654-3942.

Sincerely,



Arne Anselm
Deputy Director, Watershed Protection

CC: Glenn Shephard, Director, Watershed Protection (via email)
Ewelina Mutkowska, County of Ventura (via email)
Paul Jorgensen, City of Thousand Oaks (via email)
Joe Bellomo, Willdan Associates (via email)
Kelly Fisher, City of Agoura Hills (via email)
Allen Ma, County of Los Angeles (via email)



Table 1. Weekly sampling results

Location (Jurisdiction)	Time	Date	Rain	Single Sample (as sampled)	
					E. coli (235 MPN)
MCW-8b (County)	1145	6/2/2020 ♦		=	79
MCW-8b (County)	1140	6/9/2020 ♦		=	140
MCW-8b (County)	1400	6/16/2020 ♦		=	490
MCW-8b (County)	1139	6/23/2020 ♦		=	170
MCW-8b (County)	1145	6/29/2020 ♦		=	170
MCW-9 (County)	-	6/2/2020 ♦	Dry		Dry
MCW-9 (County)	-	6/9/2020 ♦	Dry		Dry
MCW-9 (County)	-	6/16/2020 ♦	Dry		Dry
MCW-9 (County)	-	6/23/2020 ♦	Dry		Dry
MCW-9 (County)	-	6/29/2020 ♦	Dry		Dry
MCW-12 (County)	1100	6/2/2020 ♦		=	45
MCW-12 (County)	1100	6/9/2020 ♦		=	45
MCW-12 (County)	1258	6/16/2020 ♦		=	230
MCW-12 (County)	1050	6/23/2020 ♦		=	330
MCW-12 (County)	1110	6/29/2020 ♦		=	68
MCW-14b (City and County)	1040	6/2/2020 ♦		=	490
MCW-14b (City and County)	1035	6/9/2020 ♦		=	790
MCW-14b (City and County)	1235	6/16/2020 ♦		=	790
MCW-14b (City and County)	1001	6/23/2020 ♦		=	460
MCW-14b (City and County)	1030	6/29/2020 ♦		=	230
MCW-15c (City)*	1000	6/2/2020 ♦		=	220
MCW-15c (City)*	1020	6/9/2020 ♦		=	45
MCW-15c (City)*	1148	6/16/2020 ♦		=	170
MCW-15c (City)*	925	6/23/2020 ♦		=	20
MCW-15c (City)*	1015	6/29/2020 ♦		=	110
MCW-17 (City and County)	940	6/2/2020 ♦		=	1,300
MCW-17 (City and County)	945	6/9/2020 ♦		=	230
MCW-17 (City and County)	1130	6/16/2020 ♦		=	490
MCW-17 (City and County)	845	6/23/2020 ♦		=	130
MCW-17 (City and County)	950	6/29/2020 ♦		=	130



Location (Jurisdiction)	Time	Date	Rain	Single Sample (as sampled)	
					E. coli (235 MPN)
MCW-18 (County)	-	6/2/2020 ♦	Dry		Dry
MCW-18 (County)	-	6/9/2020 ♦	Dry		Dry
MCW-18 (County)	-	6/16/2020 ♦	Dry		Dry
MCW-18 (County)	-	6/23/2020 ♦	Dry		Dry
MCW-18 (County)	-	6/29/2020 ♦	Dry		Dry

Notes:

*: The RWQCB granted permission to replace site MCW-15b with site Special-05 (renamed MCW-15c) on August 11th, 2010.

♦: Date of sampling

-: Time is not applicable, as no sample was collected due to insufficient flow

Dry: Samples were not collected due to insufficient flow

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017

A dilution factor of 10 is applied to all samples analyzed for this program, resulting in a MRL of 18 MPN/100 ml



Table 2. Computation of daily geometric mean

Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-8b (County)	1125	6/1/20		=	78	225
MCW-8b (County)	1145	6/2/2020♦		=	79	208
MCW-8b (County)	1145	6/3/20		=	79	193
MCW-8b (County)	1145	6/4/20		=	79	179
MCW-8b (County)	1145	6/5/20		=	79	165
MCW-8b (County)	1145	6/6/20		=	79	153
MCW-8b (County)	1145	6/7/20		=	79	142
MCW-8b (County)	1145	6/8/20		=	79	131
MCW-8b (County)	1140	6/9/2020♦		=	140	124
MCW-8b (County)	1140	6/10/20		=	140	117
MCW-8b (County)	1140	6/11/20		=	140	116
MCW-8b (County)	1140	6/12/20		=	140	116
MCW-8b (County)	1140	6/13/20		=	140	115
MCW-8b (County)	1140	6/14/20		=	140	114
MCW-8b (County)	1140	6/15/20		=	140	113
MCW-8b (County)	1400	6/16/2020♦		=	490	117
MCW-8b (County)	1400	6/17/20		=	490	122
MCW-8b (County)	1400	6/18/20		=	490	126
MCW-8b (County)	1400	6/19/20		=	490	130
MCW-8b (County)	1400	6/20/20		=	490	135
MCW-8b (County)	1400	6/21/20		=	490	140
MCW-8b (County)	1400	6/22/20		=	490	145
MCW-8b (County)	1139	6/23/2020♦		=	170	145
MCW-8b (County)	1139	6/24/20		=	170	145
MCW-8b (County)	1139	6/25/20		=	170	149
MCW-8b (County)	1139	6/26/20		=	170	153
MCW-8b (County)	1139	6/27/20		=	170	157
MCW-8b (County)	1139	6/28/20		=	170	161
MCW-8b (County)	1145	6/29/2020♦		=	170	165
MCW-8b (County)	1145	6/30/20		=	170	169
MCW-9 (County)	-	6/1/20	Dry	<	9	9
MCW-9 (County)	-	6/2/2020♦	Dry	<	9	9
MCW-9 (County)	-	6/3/20	Dry	<	9	9
MCW-9 (County)	-	6/4/20	Dry	<	9	9
MCW-9 (County)	-	6/5/20	Dry	<	9	9
MCW-9 (County)	-	6/6/20	Dry	<	9	9
MCW-9 (County)	-	6/7/20	Dry	<	9	9
MCW-9 (County)	-	6/8/20	Dry	<	9	9
MCW-9 (County)	-	6/9/2020♦	Dry	<	9	9



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-9 (County)	-	6/10/20	Dry	<	9	9
MCW-9 (County)	-	6/11/20	Dry	<	9	9
MCW-9 (County)	-	6/12/20	Dry	<	9	9
MCW-9 (County)	-	6/13/20	Dry	<	9	9
MCW-9 (County)	-	6/14/20	Dry	<	9	9
MCW-9 (County)	-	6/15/20	Dry	<	9	9
MCW-9 (County)	-	6/16/2020♦	Dry	<	9	9
MCW-9 (County)	-	6/17/20	Dry	<	9	9
MCW-9 (County)	-	6/18/20	Dry	<	9	9
MCW-9 (County)	-	6/19/20	Dry	<	9	9
MCW-9 (County)	-	6/20/20	Dry	<	9	9
MCW-9 (County)	-	6/21/20	Dry	<	9	9
MCW-9 (County)	-	6/22/20	Dry	<	9	9
MCW-9 (County)	-	6/23/2020♦	Dry	<	9	9
MCW-9 (County)	-	6/24/20	Dry	<	9	9
MCW-9 (County)	-	6/25/20	Dry	<	9	9
MCW-9 (County)	-	6/26/20	Dry	<	9	9
MCW-9 (County)	-	6/27/20	Dry	<	9	9
MCW-9 (County)	-	6/28/20	Dry	<	9	9
MCW-9 (County)	-	6/29/2020♦	Dry	<	9	9
MCW-9 (County)	-	6/30/20	Dry	<	9	9
MCW-12 (County)	1040	6/1/20		=	130	181
MCW-12 (County)	1100	6/2/2020♦		=	45	174
MCW-12 (County)	1100	6/3/20		=	45	166
MCW-12 (County)	1100	6/4/20		=	45	155
MCW-12 (County)	1100	6/5/20		=	45	145
MCW-12 (County)	1100	6/6/20		=	45	136
MCW-12 (County)	1100	6/7/20		=	45	127
MCW-12 (County)	1100	6/8/20		=	45	119
MCW-12 (County)	1100	6/9/2020♦		=	45	111
MCW-12 (County)	1100	6/10/20		=	45	104
MCW-12 (County)	1100	6/11/20		=	45	102
MCW-12 (County)	1100	6/12/20		=	45	101
MCW-12 (County)	1100	6/13/20		=	45	99
MCW-12 (County)	1100	6/14/20		=	45	97
MCW-12 (County)	1100	6/15/20		=	45	95
MCW-12 (County)	1258	6/16/2020♦		=	230	99
MCW-12 (County)	1258	6/17/20		=	230	102
MCW-12 (County)	1258	6/18/20		=	230	101
MCW-12 (County)	1258	6/19/20		=	230	100



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)	
				E. coli (235 MPN)	Geometric Mean E. coli (126 MPN)
MCW-12 (County)	1258	6/20/20	=	230	99
MCW-12 (County)	1258	6/21/20	=	230	97
MCW-12 (County)	1258	6/22/20	=	230	96
MCW-12 (County)	1050	6/23/2020 ♦	=	330	96
MCW-12 (County)	1050	6/24/20	=	330	96
MCW-12 (County)	1050	6/25/20	=	330	99
MCW-12 (County)	1050	6/26/20	=	330	102
MCW-12 (County)	1050	6/27/20	=	330	106
MCW-12 (County)	1050	6/28/20	=	330	109
MCW-12 (County)	1110	6/29/2020 ♦	=	68	107
MCW-12 (County)	1110	6/30/20	=	68	104
MCW-14b (City and County)	1025	6/1/20	=	700	667
MCW-14b (City and County)	1040	6/2/2020 ♦	=	490	656
MCW-14b (City and County)	1040	6/3/20	=	490	646
MCW-14b (City and County)	1040	6/4/20	=	490	629
MCW-14b (City and County)	1040	6/5/20	=	490	612
MCW-14b (City and County)	1040	6/6/20	=	490	596
MCW-14b (City and County)	1040	6/7/20	=	490	580
MCW-14b (City and County)	1040	6/8/20	=	490	565
MCW-14b (City and County)	1035	6/9/2020 ♦	=	790	558
MCW-14b (City and County)	1035	6/10/20	=	790	552
MCW-14b (City and County)	1035	6/11/20	=	790	570
MCW-14b (City and County)	1035	6/12/20	=	790	588
MCW-14b (City and County)	1035	6/13/20	=	790	606
MCW-14b (City and County)	1035	6/14/20	=	790	626
MCW-14b (City and County)	1035	6/15/20	=	790	645
MCW-14b (City and County)	1235	6/16/2020 ♦	=	790	666
MCW-14b (City and County)	1235	6/17/20	=	790	687
MCW-14b (City and County)	1235	6/18/20	=	790	687
MCW-14b (City and County)	1235	6/19/20	=	790	687
MCW-14b (City and County)	1235	6/20/20	=	790	687
MCW-14b (City and County)	1235	6/21/20	=	790	687
MCW-14b (City and County)	1235	6/22/20	=	790	687
MCW-14b (City and County)	1001	6/23/2020 ♦	=	460	675
MCW-14b (City and County)	1001	6/24/20	=	460	663
MCW-14b (City and County)	1001	6/25/20	=	460	653
MCW-14b (City and County)	1001	6/26/20	=	460	644
MCW-14b (City and County)	1001	6/27/20	=	460	635
MCW-14b (City and County)	1001	6/28/20	=	460	627
MCW-14b (City and County)	1030	6/29/2020 ♦	=	230	604



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)	
				E. coli (235 MPN)	Geometric Mean E. coli (126 MPN)
MCW-14b (City and County)	1030	6/30/20	=	230	582
MCW-15c (City)*	950	6/1/20	=	460	304
MCW-15c (City)*	1000	6/2/2020◆	=	220	291
MCW-15c (City)*	1000	6/3/20	=	220	279
MCW-15c (City)*	1000	6/4/20	=	220	276
MCW-15c (City)*	1000	6/5/20	=	220	272
MCW-15c (City)*	1000	6/6/20	=	220	268
MCW-15c (City)*	1000	6/7/20	=	220	265
MCW-15c (City)*	1000	6/8/20	=	220	261
MCW-15c (City)*	1020	6/9/2020◆	=	45	244
MCW-15c (City)*	1020	6/10/20	=	45	229
MCW-15c (City)*	1020	6/11/20	=	45	221
MCW-15c (City)*	1020	6/12/20	=	45	213
MCW-15c (City)*	1020	6/13/20	=	45	206
MCW-15c (City)*	1020	6/14/20	=	45	198
MCW-15c (City)*	1020	6/15/20	=	45	192
MCW-15c (City)*	1148	6/16/2020◆	=	170	193
MCW-15c (City)*	1148	6/17/20	=	170	195
MCW-15c (City)*	1148	6/18/20	=	170	191
MCW-15c (City)*	1148	6/19/20	=	170	187
MCW-15c (City)*	1148	6/20/20	=	170	182
MCW-15c (City)*	1148	6/21/20	=	170	178
MCW-15c (City)*	1148	6/22/20	=	170	175
MCW-15c (City)*	925	6/23/2020◆	=	20	159
MCW-15c (City)*	925	6/24/20	=	20	145
MCW-15c (City)*	925	6/25/20	=	20	130
MCW-15c (City)*	925	6/26/20	=	20	117
MCW-15c (City)*	925	6/27/20	=	20	106
MCW-15c (City)*	925	6/28/20	=	20	95
MCW-15c (City)*	1015	6/29/2020◆	=	110	91
MCW-15c (City)*	1015	6/30/20	=	110	87
MCW-17 (City and County)	930	6/1/20	=	330	720
MCW-17 (City and County)	940	6/2/2020◆	=	1,300	763
MCW-17 (City and County)	940	6/3/20	=	1,300	808
MCW-17 (City and County)	940	6/4/20	=	1,300	808
MCW-17 (City and County)	940	6/5/20	=	1,300	808
MCW-17 (City and County)	940	6/6/20	=	1,300	808
MCW-17 (City and County)	940	6/7/20	=	1,300	808
MCW-17 (City and County)	940	6/8/20	=	1,300	808



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-17 (City and County)	945	6/9/2020◆	=	230	763	
MCW-17 (City and County)	945	6/10/20	=	230	720	
MCW-17 (City and County)	945	6/11/20	=	230	684	
MCW-17 (City and County)	945	6/12/20	=	230	649	
MCW-17 (City and County)	945	6/13/20	=	230	616	
MCW-17 (City and County)	945	6/14/20	=	230	585	
MCW-17 (City and County)	945	6/15/20	=	230	555	
MCW-17 (City and County)	1130	6/16/2020◆	=	490	540	
MCW-17 (City and County)	1130	6/17/20	=	490	526	
MCW-17 (City and County)	1130	6/18/20	=	490	517	
MCW-17 (City and County)	1130	6/19/20	=	490	509	
MCW-17 (City and County)	1130	6/20/20	=	490	501	
MCW-17 (City and County)	1130	6/21/20	=	490	493	
MCW-17 (City and County)	1130	6/22/20	=	490	486	
MCW-17 (City and County)	845	6/23/2020◆	=	130	457	
MCW-17 (City and County)	845	6/24/20	=	130	430	
MCW-17 (City and County)	845	6/25/20	=	130	417	
MCW-17 (City and County)	845	6/26/20	=	130	405	
MCW-17 (City and County)	845	6/27/20	=	130	392	
MCW-17 (City and County)	845	6/28/20	=	130	380	
MCW-17 (City and County)	950	6/29/2020◆	=	130	369	
MCW-17 (City and County)	950	6/30/20	=	130	357	
MCW-18 (County)	-	6/1/20	Dry	<	9	9
MCW-18 (County)	-	6/2/2020◆	Dry	<	9	9
MCW-18 (County)	-	6/3/20	Dry	<	9	9
MCW-18 (County)	-	6/4/20	Dry	<	9	9
MCW-18 (County)	-	6/5/20	Dry	<	9	9
MCW-18 (County)	-	6/6/20	Dry	<	9	9
MCW-18 (County)	-	6/7/20	Dry	<	9	9
MCW-18 (County)	-	6/8/20	Dry	<	9	9
MCW-18 (County)	-	6/9/2020◆	Dry	<	9	9
MCW-18 (County)	-	6/10/20	Dry	<	9	9
MCW-18 (County)	-	6/11/20	Dry	<	9	9
MCW-18 (County)	-	6/12/20	Dry	<	9	9
MCW-18 (County)	-	6/13/20	Dry	<	9	9
MCW-18 (County)	-	6/14/20	Dry	<	9	9
MCW-18 (County)	-	6/15/20	Dry	<	9	9
MCW-18 (County)	-	6/16/2020◆	Dry	<	9	9
MCW-18 (County)	-	6/17/20	Dry	<	9	9
MCW-18 (County)	-	6/18/20	Dry	<	9	9



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-18 (County)	-	6/19/20	Dry	<	9	9
MCW-18 (County)	-	6/20/20	Dry	<	9	9
MCW-18 (County)	-	6/21/20	Dry	<	9	9
MCW-18 (County)	-	6/22/20	Dry	<	9	9
MCW-18 (County)	-	6/23/2020♦	Dry	<	9	9
MCW-18 (County)	-	6/24/20	Dry	<	9	9
MCW-18 (County)	-	6/25/20	Dry	<	9	9
MCW-18 (County)	-	6/26/20	Dry	<	9	9
MCW-18 (County)	-	6/27/20	Dry	<	9	9
MCW-18 (County)	-	6/28/20	Dry	<	9	9
MCW-18 (County)	-	6/29/2020♦	Dry	<	9	9
MCW-18 (County)	-	6/30/20	Dry	<	9	9

Notes:

♦: Date of sampling

A dilution factor of 10 is applied to all samples analyzed for this program, resulting in an MRL of 18 MPN/100 ml

Results of <18 MPN/100 ml are adjusted to use half the MRL (=9) in the calculation of the geometric mean. As such, Table 2 presents a value of 9 MPN/100mL to distinguish the value used for calculation of the 30-day geometric mean

Dry: Samples were not collected due to insufficient flow and a value of 9 MPN/100 ml (half the MRL) was used for calculation of the 30-day geometric mean

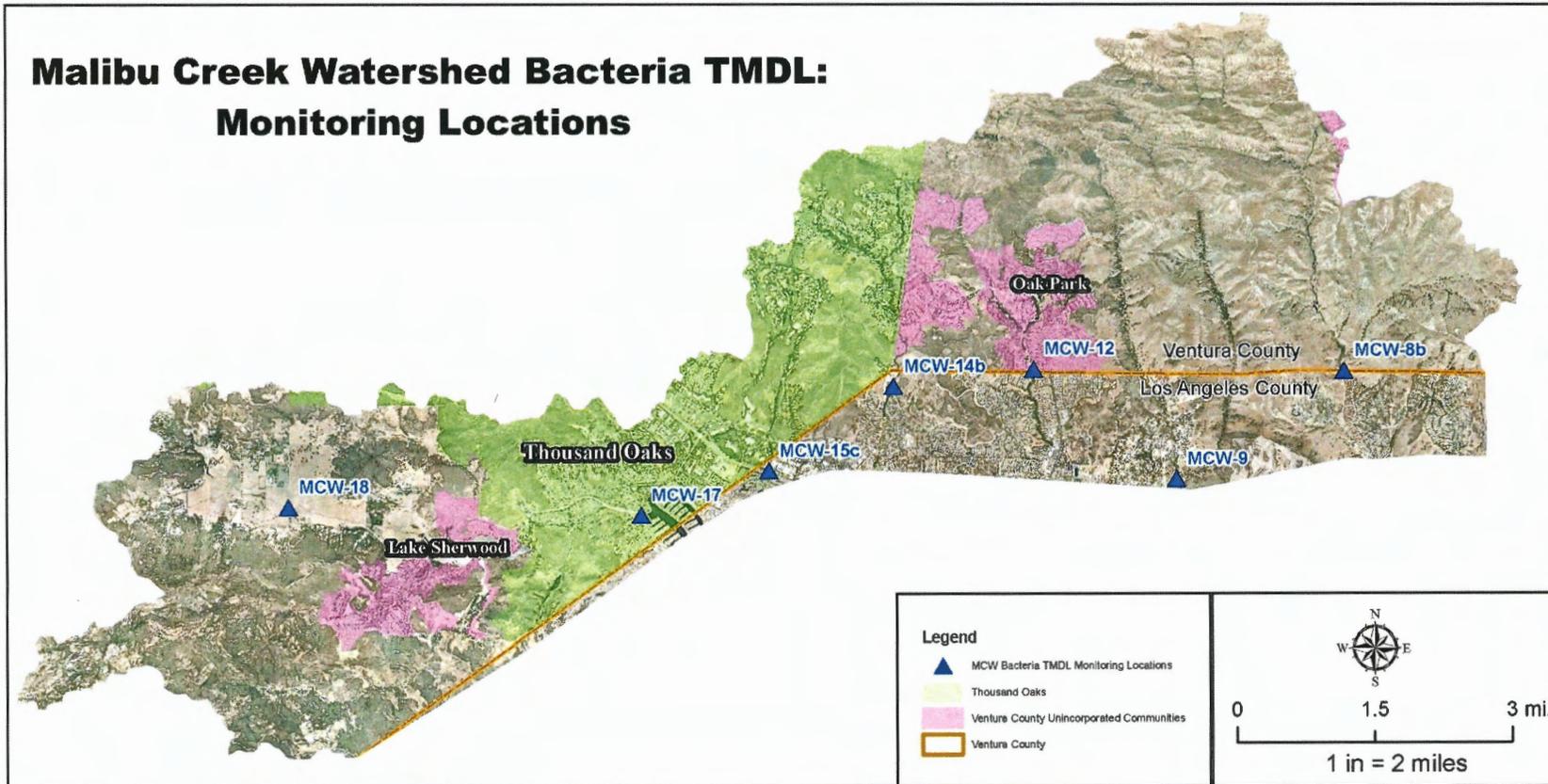
-: Time is not applicable, as no sample was collected due to insufficient flow

Weeks with wet weather samples (collected less than 72 hours after a day with >0.1" rain) use the previous non-rain single sample value to calculate the geometric mean.

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017

*: The RWQCB granted permission to replace site MCW-15b with site Special-05 (renamed MCW-15c) on August 11th, 2010





Central Services
Joan Araujo, Director

Engineering Services
Christopher Cooper, Director

Roads & Transportation
David Fleisch, Director

Water & Sanitation
Joseph Pope, Director

Watershed Protection
Glenn Shephard, Director

August 24, 2020

VIA EMAIL

Kangshi Wang, Ph.D.
California Regional Water Quality Control Board
Los Angeles Region
Standards & TMDL Unit
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Subject: Malibu Creek and Lagoon Bacteria TMDL Compliance Monitoring for County of Ventura, Ventura County Watershed Protection District, and City of Thousand Oaks

Dear Dr. Wang:

Please find attached the report for the results of the weekly monitoring effort required by the Malibu Creek and Lagoon Bacteria Total Maximum Daily Load (TMDL) Compliance Monitoring Plan (CMP) for the month of July 2020. Sites were sampled weekly on Tuesday (July 7, 14, 21, and 28, 2020). Beginning on and following July 23, 2019, Rincon Consultants Inc. has been retained to conduct compliance monitoring activities.

Table 1 presents the weekly sampling results, while Table 2 presents the rolling 30-day geometric means for the sampling locations. Sample collection dates are marked with a diamond (◆) symbol. Sites without results reported were not sampled due to insufficient flow and are labeled "Dry." A map showing the location of the monitoring sites is included below.

Daily geometric means for wet weather and dry weather are calculated using the past 30 days of the respective sampling data (Table 2). For example, weeks with wet weather samples (collected less than 72 hours after a day with > 0.1" rain) use the previous wet weather single sample values to calculate the geometric mean. Non-sampling-day values are assigned the value of the most recent sampling event. Half the method reporting limit (MRL) was used to calculate the daily geometric means for sites with results reported as non-detect (ND) [e.g., < 18 most probable number per 100 milliliters (MPN/100 ml)]. Statistics are also calculated for dry events at all sampling locations by assigning a concentration value of half the MRL, as a zero value is undefined logarithmically, and as such would be unusable in the geometric mean calculation.



Due to regularly occurring high concentrations in analytical results, a dilution factor of 10 is applied to all samples to quantify results that exceed the standard upper reporting limit of a single dilution. As a result, the MRL for samples analyzed for this program is 18 MPN/100mL.

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017.

Fecal coliform monitoring has been discontinued, as approved by the Los Angeles Regional Water Quality Control Board on October 31, 2014, in alignment with the Regional Board's removal of the fecal coliform objective for REC-1 freshwaters from the TMDL on June 7, 2012 and subsequent approval by the U.S. Environmental Protection Agency on July 2, 2014.

If you have any questions regarding this matter, please contact me at (805) 654-3942.

Sincerely,



Arne Anselm
Deputy Director, Watershed Protection

CC: Glenn Shephard, Director, Watershed Protection (via email)
Ewelina Mutkowska, County of Ventura (via email)
Paul Jorgensen, City of Thousand Oaks (via email)
Joe Bellomo, Willdan Associates (via email)
Kelly Fisher, City of Agoura Hills (via email)
Allen Ma, County of Los Angeles (via email)



Table 1. Weekly sampling results

Location (Jurisdiction)	Time	Date	Rain	Single Sample (as sampled)	
					E. coli (235 MPN)
MCW-8b (County)	1130	7/7/2020 ♦		=	330
MCW-8b (County)	1142	7/14/2020 ♦		=	68
MCW-8b (County)	1342	7/21/2020 ♦		=	170
MCW-8b (County)	1200	7/28/2020 ♦		=	1,300
MCW-9 (County)	-	7/7/2020 ♦	Dry		Dry
MCW-9 (County)	-	7/14/2020 ♦	Dry		Dry
MCW-9 (County)	-	7/21/2020 ♦	Dry		Dry
MCW-9 (County)	-	7/28/2020 ♦	Dry		Dry
MCW-12 (County)	1050	7/7/2020 ♦		=	110
MCW-12 (County)	1106	7/14/2020 ♦		=	170
MCW-12 (County)	1300	7/21/2020 ♦		=	170
MCW-12 (County)	1100	7/28/2020 ♦		=	170
MCW-14b (City and County)	1030	7/7/2020 ♦		=	3,500
MCW-14b (City and County)	1033	7/14/2020 ♦		=	490
MCW-14b (City and County)	1230	7/21/2020 ♦		=	260
MCW-14b (City and County)	1130	7/28/2020 ♦		=	460
MCW-15c (City)*	1000	7/7/2020 ♦		=	330
MCW-15c (City)*	949	7/14/2020 ♦		=	45
MCW-15c (City)*	1211	7/21/2020 ♦		<	18
MCW-15c (City)*	1030	7/28/2020 ♦		<	18
MCW-17 (City and County)	940	7/7/2020 ♦		=	78
MCW-17 (City and County)	-	7/14/2020 ♦	Dry		Dry
MCW-17 (City and County)	-	7/21/2020 ♦	Dry		Dry
MCW-17 (City and County)	-	7/28/2020 ♦	Dry		Dry
MCW-18 (County)	-	7/7/2020 ♦	Dry		Dry
MCW-18 (County)	-	7/14/2020 ♦	Dry		Dry
MCW-18 (County)	-	7/21/2020 ♦	Dry		Dry
MCW-18 (County)	-	7/28/2020 ♦	Dry		Dry

Notes:

*: The RWQCB granted permission to replace site MCW-15b with site Special-05 (renamed MCW-15c) on August 11th, 2010.

♦: Date of sampling

-: Time is not applicable, as no sample was collected due to insufficient flow

Dry: Samples were not collected due to insufficient flow

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017

A dilution factor of 10 is applied to all samples analyzed for this program, resulting in a MRL of 18 MPN/100 ml



Table 2. Computation of daily geometric mean

Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-8b (County)	1145	7/1/20	=	170	174	
MCW-8b (County)	1145	7/2/20	=	170	178	
MCW-8b (County)	1145	7/3/20	=	170	183	
MCW-8b (County)	1145	7/4/20	=	170	188	
MCW-8b (County)	1145	7/5/20	=	170	193	
MCW-8b (County)	1145	7/6/20	=	170	198	
MCW-8b (County)	1130	7/7/2020◆	=	330	207	
MCW-8b (County)	1130	7/8/20	=	330	217	
MCW-8b (County)	1130	7/9/20	=	330	224	
MCW-8b (County)	1130	7/10/20	=	330	230	
MCW-8b (County)	1130	7/11/20	=	330	237	
MCW-8b (County)	1130	7/12/20	=	330	244	
MCW-8b (County)	1130	7/13/20	=	330	251	
MCW-8b (County)	1142	7/14/2020◆	=	68	245	
MCW-8b (County)	1142	7/15/20	=	68	239	
MCW-8b (County)	1142	7/16/20	=	68	224	
MCW-8b (County)	1142	7/17/20	=	68	210	
MCW-8b (County)	1142	7/18/20	=	68	196	
MCW-8b (County)	1142	7/19/20	=	68	184	
MCW-8b (County)	1142	7/20/20	=	68	172	
MCW-8b (County)	1342	7/21/2020◆	=	170	166	
MCW-8b (County)	1342	7/22/20	=	170	160	
MCW-8b (County)	1342	7/23/20	=	170	160	
MCW-8b (County)	1342	7/24/20	=	170	160	
MCW-8b (County)	1342	7/25/20	=	170	160	
MCW-8b (County)	1342	7/26/20	=	170	160	
MCW-8b (County)	1342	7/27/20	=	170	160	
MCW-8b (County)	1200	7/28/2020◆	=	1,300	171	
MCW-8b (County)	1200	7/29/20	=	1,300	184	
MCW-8b (County)	1200	7/30/20	=	1,300	196	
MCW-8b (County)	1200	7/31/20	=	1,300	210	
MCW-9 (County)	-	7/1/20	Dry	<	9	9
MCW-9 (County)	-	7/2/20	Dry	<	9	9
MCW-9 (County)	-	7/3/20	Dry	<	9	9
MCW-9 (County)	-	7/4/20	Dry	<	9	9
MCW-9 (County)	-	7/5/20	Dry	<	9	9
MCW-9 (County)	-	7/6/20	Dry	<	9	9
MCW-9 (County)	-	7/7/2020◆	Dry	<	9	9
MCW-9 (County)	-	7/8/20	Dry	<	9	9



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-9 (County)	-	7/9/20	Dry	<	9	9
MCW-9 (County)	-	7/10/20	Dry	<	9	9
MCW-9 (County)	-	7/11/20	Dry	<	9	9
MCW-9 (County)	-	7/12/20	Dry	<	9	9
MCW-9 (County)	-	7/13/20	Dry	<	9	9
MCW-9 (County)	-	7/14/2020♦	Dry	<	9	9
MCW-9 (County)	-	7/15/20	Dry	<	9	9
MCW-9 (County)	-	7/16/20	Dry	<	9	9
MCW-9 (County)	-	7/17/20	Dry	<	9	9
MCW-9 (County)	-	7/18/20	Dry	<	9	9
MCW-9 (County)	-	7/19/20	Dry	<	9	9
MCW-9 (County)	-	7/20/20	Dry	<	9	9
MCW-9 (County)	-	7/21/2020♦	Dry	<	9	9
MCW-9 (County)	-	7/22/20	Dry	<	9	9
MCW-9 (County)	-	7/23/20	Dry	<	9	9
MCW-9 (County)	-	7/24/20	Dry	<	9	9
MCW-9 (County)	-	7/25/20	Dry	<	9	9
MCW-9 (County)	-	7/26/20	Dry	<	9	9
MCW-9 (County)	-	7/27/20	Dry	<	9	9
MCW-9 (County)	-	7/28/2020♦	Dry	<	9	9
MCW-9 (County)	-	7/29/20	Dry	<	9	9
MCW-9 (County)	-	7/30/20	Dry	<	9	9
MCW-9 (County)	-	7/31/20	Dry	<	9	9
MCW-12 (County)	1110	7/1/20	=	=	68	102
MCW-12 (County)	1110	7/2/20	=	=	68	104
MCW-12 (County)	1110	7/3/20	=	=	68	105
MCW-12 (County)	1110	7/4/20	=	=	68	107
MCW-12 (County)	1110	7/5/20	=	=	68	108
MCW-12 (County)	1110	7/6/20	=	=	68	109
MCW-12 (County)	1050	7/7/2020♦	=	=	110	113
MCW-12 (County)	1050	7/8/20	=	=	110	116
MCW-12 (County)	1050	7/9/20	=	=	110	120
MCW-12 (County)	1050	7/10/20	=	=	110	123
MCW-12 (County)	1050	7/11/20	=	=	110	127
MCW-12 (County)	1050	7/12/20	=	=	110	131
MCW-12 (County)	1050	7/13/20	=	=	110	135
MCW-12 (County)	1106	7/14/2020♦	=	=	170	141
MCW-12 (County)	1106	7/15/20	=	=	170	147
MCW-12 (County)	1106	7/16/20	=	=	170	146
MCW-12 (County)	1106	7/17/20	=	=	170	144



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)	
				E. coli (235 MPN)	Geometric Mean E. coli (126 MPN)
MCW-12 (County)	1106	7/18/20	=	170	143
MCW-12 (County)	1106	7/19/20	=	170	142
MCW-12 (County)	1106	7/20/20	=	170	140
MCW-12 (County)	1300	7/21/2020◆	=	170	139
MCW-12 (County)	1300	7/22/20	=	170	137
MCW-12 (County)	1300	7/23/20	=	170	134
MCW-12 (County)	1300	7/24/20	=	170	131
MCW-12 (County)	1300	7/25/20	=	170	129
MCW-12 (County)	1300	7/26/20	=	170	126
MCW-12 (County)	1300	7/27/20	=	170	123
MCW-12 (County)	1100	7/28/2020◆	=	170	120
MCW-12 (County)	1100	7/29/20	=	170	124
MCW-12 (County)	1100	7/30/20	=	170	128
MCW-12 (County)	1100	7/31/20	=	170	132
MCW-14b (City and County)	1030	7/1/20	=	230	561
MCW-14b (City and County)	1030	7/2/20	=	230	547
MCW-14b (City and County)	1030	7/3/20	=	230	533
MCW-14b (City and County)	1030	7/4/20	=	230	520
MCW-14b (City and County)	1030	7/5/20	=	230	507
MCW-14b (City and County)	1030	7/6/20	=	230	494
MCW-14b (City and County)	1030	7/7/2020◆	=	3,500	528
MCW-14b (City and County)	1030	7/8/20	=	3,500	563
MCW-14b (City and County)	1030	7/9/20	=	3,500	592
MCW-14b (City and County)	1030	7/10/20	=	3,500	622
MCW-14b (City and County)	1030	7/11/20	=	3,500	654
MCW-14b (City and County)	1030	7/12/20	=	3,500	687
MCW-14b (City and County)	1030	7/13/20	=	3,500	722
MCW-14b (City and County)	1033	7/14/2020◆	=	490	711
MCW-14b (City and County)	1033	7/15/20	=	490	699
MCW-14b (City and County)	1033	7/16/20	=	490	688
MCW-14b (City and County)	1033	7/17/20	=	490	678
MCW-14b (City and County)	1033	7/18/20	=	490	667
MCW-14b (City and County)	1033	7/19/20	=	490	656
MCW-14b (City and County)	1033	7/20/20	=	490	646
MCW-14b (City and County)	1230	7/21/2020◆	=	260	622
MCW-14b (City and County)	1230	7/22/20	=	260	600
MCW-14b (City and County)	1230	7/23/20	=	260	588
MCW-14b (City and County)	1230	7/24/20	=	260	577
MCW-14b (City and County)	1230	7/25/20	=	260	567
MCW-14b (City and County)	1230	7/26/20	=	260	556



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-14b (City and County)	1230	7/27/20	=	260	545	
MCW-14b (City and County)	1130	7/28/2020◆	=	460	545	
MCW-14b (City and County)	1130	7/29/20	=	460	558	
MCW-14b (City and County)	1130	7/30/20	=	460	571	
MCW-14b (City and County)	1130	7/31/20	=	460	585	
MCW-15c (City)*	1015	7/1/20	=	110	83	
MCW-15c (City)*	1015	7/2/20	=	110	81	
MCW-15c (City)*	1015	7/3/20	=	110	79	
MCW-15c (City)*	1015	7/4/20	=	110	77	
MCW-15c (City)*	1015	7/5/20	=	110	75	
MCW-15c (City)*	1015	7/6/20	=	110	74	
MCW-15c (City)*	1000	7/7/2020◆	=	330	75	
MCW-15c (City)*	1000	7/8/20	=	330	76	
MCW-15c (City)*	1000	7/9/20	=	330	81	
MCW-15c (City)*	1000	7/10/20	=	330	86	
MCW-15c (City)*	1000	7/11/20	=	330	92	
MCW-15c (City)*	1000	7/12/20	=	330	99	
MCW-15c (City)*	1000	7/13/20	=	330	105	
MCW-15c (City)*	949	7/14/2020◆	=	45	105	
MCW-15c (City)*	949	7/15/20	=	45	105	
MCW-15c (City)*	949	7/16/20	=	45	101	
MCW-15c (City)*	949	7/17/20	=	45	96	
MCW-15c (City)*	949	7/18/20	=	45	92	
MCW-15c (City)*	949	7/19/20	=	45	88	
MCW-15c (City)*	949	7/20/20	=	45	84	
MCW-15c (City)*	1211	7/21/2020◆	<	9	77	
MCW-15c (City)*	1211	7/22/20	<	9	69	
MCW-15c (City)*	1211	7/23/20	<	9	68	
MCW-15c (City)*	1211	7/24/20	<	9	66	
MCW-15c (City)*	1211	7/25/20	<	9	64	
MCW-15c (City)*	1211	7/26/20	<	9	62	
MCW-15c (City)*	1211	7/27/20	<	9	61	
MCW-15c (City)*	1030	7/28/2020◆	<	9	59	
MCW-15c (City)*	1030	7/29/20	<	9	54	
MCW-15c (City)*	1030	7/30/20	<	9	50	
MCW-15c (City)*	1030	7/31/20	<	9	46	
MCW-17 (City and County)	950	7/1/20	=	130	346	
MCW-17 (City and County)	950	7/2/20	=	130	321	
MCW-17 (City and County)	950	7/3/20	=	130	297	

Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-17 (City and County)	950	7/4/20	=	130	275	
MCW-17 (City and County)	950	7/5/20	=	130	255	
MCW-17 (City and County)	950	7/6/20	=	130	236	
MCW-17 (City and County)	940	7/7/2020◆	=	78	215	
MCW-17 (City and County)	940	7/8/20	=	78	196	
MCW-17 (City and County)	940	7/9/20	=	78	189	
MCW-17 (City and County)	940	7/10/20	=	78	182	
MCW-17 (City and County)	940	7/11/20	=	78	176	
MCW-17 (City and County)	940	7/12/20	=	78	169	
MCW-17 (City and County)	940	7/13/20	=	78	163	
MCW-17 (City and County)	-	7/14/2020◆	Dry	<	9	147
MCW-17 (City and County)	-	7/15/20	Dry	<	9	132
MCW-17 (City and County)	-	7/16/20	Dry	<	9	115
MCW-17 (City and County)	-	7/17/20	Dry	<	9	101
MCW-17 (City and County)	-	7/18/20	Dry	<	9	88
MCW-17 (City and County)	-	7/19/20	Dry	<	9	77
MCW-17 (City and County)	-	7/20/20	Dry	<	9	68
MCW-17 (City and County)	-	7/21/2020◆	Dry	<	9	59
MCW-17 (City and County)	-	7/22/20	Dry	<	9	52
MCW-17 (City and County)	-	7/23/20	Dry	<	9	47
MCW-17 (City and County)	-	7/24/20	Dry	<	9	43
MCW-17 (City and County)	-	7/25/20	Dry	<	9	40
MCW-17 (City and County)	-	7/26/20	Dry	<	9	36
MCW-17 (City and County)	-	7/27/20	Dry	<	9	33
MCW-17 (City and County)	-	7/28/2020◆	Dry	<	9	30
MCW-17 (City and County)	-	7/29/20	Dry	<	9	28
MCW-17 (City and County)	-	7/30/20	Dry	<	9	25
MCW-17 (City and County)	-	7/31/20	Dry	<	9	23
MCW-18 (County)	-	7/1/20	Dry	<	9	9
MCW-18 (County)	-	7/2/20	Dry	<	9	9
MCW-18 (County)	-	7/3/20	Dry	<	9	9
MCW-18 (County)	-	7/4/20	Dry	<	9	9
MCW-18 (County)	-	7/5/20	Dry	<	9	9
MCW-18 (County)	-	7/6/20	Dry	<	9	9
MCW-18 (County)	-	7/7/2020◆	Dry	<	9	9
MCW-18 (County)	-	7/8/20	Dry	<	9	9
MCW-18 (County)	-	7/9/20	Dry	<	9	9
MCW-18 (County)	-	7/10/20	Dry	<	9	9
MCW-18 (County)	-	7/11/20	Dry	<	9	9
MCW-18 (County)	-	7/12/20	Dry	<	9	9



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-18 (County)	-	7/13/20	Dry	<	9	9
MCW-18 (County)	-	7/14/2020◆	Dry	<	9	9
MCW-18 (County)	-	7/15/20	Dry	<	9	9
MCW-18 (County)	-	7/16/20	Dry	<	9	9
MCW-18 (County)	-	7/17/20	Dry	<	9	9
MCW-18 (County)	-	7/18/20	Dry	<	9	9
MCW-18 (County)	-	7/19/20	Dry	<	9	9
MCW-18 (County)	-	7/20/20	Dry	<	9	9
MCW-18 (County)	-	7/21/2020◆	Dry	<	9	9
MCW-18 (County)	-	7/22/20	Dry	<	9	9
MCW-18 (County)	-	7/23/20	Dry	<	9	9
MCW-18 (County)	-	7/24/20	Dry	<	9	9
MCW-18 (County)	-	7/25/20	Dry	<	9	9
MCW-18 (County)	-	7/26/20	Dry	<	9	9
MCW-18 (County)	-	7/27/20	Dry	<	9	9
MCW-18 (County)	-	7/28/2020◆	Dry	<	9	9
MCW-18 (County)	-	7/29/20	Dry	<	9	9
MCW-18 (County)	-	7/30/20	Dry	<	9	9
MCW-18 (County)	-	7/31/20	Dry	<	9	9

Notes:

◆: Date of sampling

A dilution factor of 10 is applied to all samples analyzed for this program, resulting in an MRL of 18 MPN/100 ml

Results of <18 MPN/100 ml are adjusted to use half the MRL (=9) in the calculation of the geometric mean. As such, Table 2 presents a value of 9 MPN/100mL to distinguish the value used for calculation of the 30-day geometric mean

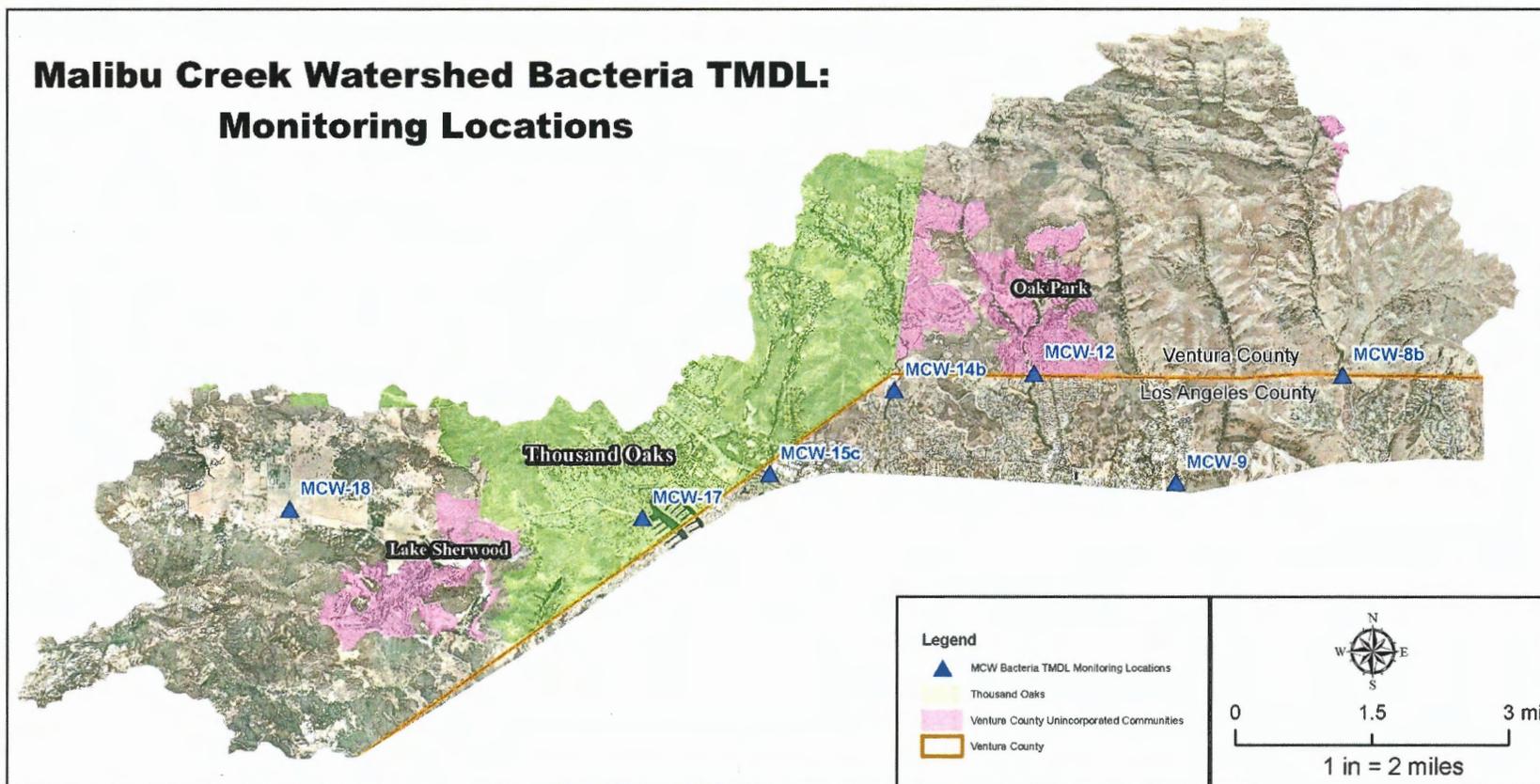
Dry: Samples were not collected due to insufficient flow and a value of 9 MPN/100 ml (half the MRL) was used for calculation of the 30-day geometric mean

-: Time is not applicable, as no sample was collected due to insufficient flow

Weeks with wet weather samples (collected less than 72 hours after a day with >0.1" rain) use the previous non-rain single sample value to calculate the geometric mean.

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017

*: The RWQCB granted permission to replace site MCW-15b with site Special-05 (renamed MCW-15c) on August 11th, 2010



Central Services
Joan Araujo, DirectorEngineering Services
Christopher Cooper, DirectorRoads & Transportation
David Fleisch, DirectorWater & Sanitation
Joseph Pope, DirectorWatershed Protection
Glenn Shephard, Director

September 28, 2020

VIA EMAIL

Kangshi Wang, Ph.D.
California Regional Water Quality Control Board
Los Angeles Region
Standards & TMDL Unit
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Subject: Malibu Creek and Lagoon Bacteria TMDL Compliance Monitoring for County of Ventura, Ventura County Watershed Protection District, and City of Thousand Oaks

Dear Dr. Wang:

Please find attached the report for the results of the weekly monitoring effort required by the Malibu Creek and Lagoon Bacteria Total Maximum Daily Load (TMDL) Compliance Monitoring Plan (CMP) for the month of August 2020. Sites were sampled weekly on Tuesday (August 4, 11, 18, and 25, 2020). Beginning on and following July 23, 2019, Rincon Consultants Inc. has been retained to conduct compliance monitoring activities.

Table 1 presents the weekly sampling results, while Table 2 presents the rolling 30-day geometric means for the sampling locations. Sample collection dates are marked with a diamond (◆) symbol. Sites without results reported were not sampled due to insufficient flow and are labeled "Dry." A map showing the location of the monitoring sites is included below.

Daily geometric means for wet weather and dry weather are calculated using the past 30 days of the respective sampling data (Table 2). For example, weeks with wet weather samples (collected less than 72 hours after a day with > 0.1" rain) use the previous wet weather single sample values to calculate the geometric mean. Non-sampling-day values are assigned the value of the most recent sampling event. Half the method reporting limit (MRL) was used to calculate the daily geometric means for sites with results reported as non-detect (ND) [e.g., < 18 most probable number per 100 milliliters (MPN/100 ml)]. Statistics are also calculated for dry events at all sampling locations by assigning a concentration value of half the MRL, as a zero value is undefined logarithmically, and as such would be unusable in the geometric mean calculation.



Due to regularly occurring high concentrations in analytical results, a dilution factor of 10 is applied to all samples to quantify results that exceed the standard upper reporting limit of a single dilution. As a result, the MRL for samples analyzed for this program is 18 MPN/100mL.

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017.

Fecal coliform monitoring has been discontinued, as approved by the Los Angeles Regional Water Quality Control Board on October 31, 2014, in alignment with the Regional Board's removal of the fecal coliform objective for REC-1 freshwaters from the TMDL on June 7, 2012 and subsequent approval by the U.S. Environmental Protection Agency on July 2, 2014.

If you have any questions regarding this matter, please contact me at (805) 654-3942.

Sincerely,



Arne Anselm
Deputy Director, Watershed Protection

CC: Glenn Shephard, Director, Watershed Protection (via email)
Ewelina Mutkowska, County of Ventura (via email)
Paul Jorgensen, City of Thousand Oaks (via email)
Joe Bellomo, Willdan Associates (via email)
Kelly Fisher, City of Agoura Hills (via email)
Allen Ma, County of Los Angeles (via email)



Table 1. Weekly sampling results

Location (Jurisdiction)	Time	Date	Rain	Single Sample (as sampled)	
					E. coli (235 MPN)
MCW-8b (County)	1210	8/4/2020◆		=	3,500
MCW-8b (County)	1159	8/11/2020◆		=	1,300
MCW-8b (County)	-	8/18/2020◆	Dry		Dry
MCW-8b (County)	1158	8/25/2020◆		=	490
MCW-9 (County)	-	8/4/2020◆	Dry		Dry
MCW-9 (County)	-	8/11/2020◆	Dry		Dry
MCW-9 (County)	-	8/18/2020◆	Dry		Dry
MCW-9 (County)	-	8/25/2020◆	Dry		Dry
MCW-12 (County)	1134	8/4/2020◆		=	330
MCW-12 (County)	1115	8/11/2020◆		=	93
MCW-12 (County)	1246	8/18/2020◆		=	790
MCW-12 (County)	1117	8/25/2020◆		=	330
MCW-14b (City and County)	1101	8/4/2020◆		=	490
MCW-14b (City and County)	1034	8/11/2020◆		=	1,100
MCW-14b (City and County)	1217	8/18/2020◆		=	270
MCW-14b (City and County)	1042	8/25/2020◆		=	330
MCW-15c (City)*	1036	8/4/2020◆		<	18
MCW-15c (City)*	1012	8/11/2020◆		=	110
MCW-15c (City)*	1158	8/18/2020◆		=	45
MCW-15c (City)*	1012	8/25/2020◆		=	18
MCW-17 (City and County)	-	8/4/2020◆	Dry		Dry
MCW-17 (City and County)	-	8/11/2020◆	Dry		Dry
MCW-17 (City and County)	-	8/18/2020◆	Dry		Dry
MCW-17 (City and County)	-	8/25/2020◆	Dry		Dry
MCW-18 (County)	-	8/4/2020◆	Dry		Dry
MCW-18 (County)	-	8/11/2020◆	Dry		Dry
MCW-18 (County)	-	8/18/2020◆	Dry		Dry
MCW-18 (County)	-	8/25/2020◆	Dry		Dry

Notes:

*: The RWQCB granted permission to replace site MCW-15b with site Special-05 (renamed MCW-15c) on August 11th, 2010.

◆: Date of sampling

-: Time is not applicable, as no sample was collected due to insufficient flow

Dry: Samples were not collected due to insufficient flow

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017

A dilution factor of 10 is applied to all samples analyzed for this program, resulting in a MRL of 18 MPN/100 ml



Table 2. Computation of daily geometric mean

Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-8b (County)	1200	8/1/20		=	1,300	225
MCW-8b (County)	1200	8/2/20		=	1,300	241
MCW-8b (County)	1200	8/3/20		=	1,300	258
MCW-8b (County)	1210	8/4/2020◆		=	3,500	285
MCW-8b (County)	1210	8/5/20		=	3,500	315
MCW-8b (County)	1210	8/6/20		=	3,500	341
MCW-8b (County)	1210	8/7/20		=	3,500	369
MCW-8b (County)	1210	8/8/20		=	3,500	399
MCW-8b (County)	1210	8/9/20		=	3,500	432
MCW-8b (County)	1210	8/10/20		=	3,500	467
MCW-8b (County)	1159	8/11/2020◆		=	1,300	489
MCW-8b (County)	1159	8/12/20		=	1,300	512
MCW-8b (County)	1159	8/13/20		=	1,300	565
MCW-8b (County)	1159	8/14/20		=	1,300	623
MCW-8b (County)	1159	8/15/20		=	1,300	688
MCW-8b (County)	1159	8/16/20		=	1,300	759
MCW-8b (County)	1159	8/17/20		=	1,300	837
MCW-8b (County)	-	8/18/2020◆	Dry	<	9	782
MCW-8b (County)	-	8/19/20	Dry	<	9	731
MCW-8b (County)	-	8/20/20	Dry	<	9	663
MCW-8b (County)	-	8/21/20	Dry	<	9	601
MCW-8b (County)	-	8/22/20	Dry	<	9	545
MCW-8b (County)	-	8/23/20	Dry	<	9	494
MCW-8b (County)	-	8/24/20	Dry	<	9	448
MCW-8b (County)	1158	8/25/2020◆		=	490	464
MCW-8b (County)	1158	8/26/20		=	490	481
MCW-8b (County)	1158	8/27/20		=	490	466
MCW-8b (County)	1158	8/28/20		=	490	451
MCW-8b (County)	1158	8/29/20		=	490	436
MCW-8b (County)	1158	8/30/20		=	490	422
MCW-8b (County)	1158	8/31/20		=	490	409
MCW-9 (County)	-	8/1/20	Dry	<	9	9
MCW-9 (County)	-	8/2/20	Dry	<	9	9
MCW-9 (County)	-	8/3/20	Dry	<	9	9
MCW-9 (County)	-	8/4/2020◆	Dry	<	9	9
MCW-9 (County)	-	8/5/20	Dry	<	9	9
MCW-9 (County)	-	8/6/20	Dry	<	9	9
MCW-9 (County)	-	8/7/20	Dry	<	9	9
MCW-9 (County)	-	8/8/20	Dry	<	9	9



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		
				E. coli (235 MPN)	Geometric Mean E. coli (126 MPN)	
MCW-9 (County)	-	8/9/20	Dry	<	9	9
MCW-9 (County)	-	8/10/20	Dry	<	9	9
MCW-9 (County)	-	8/11/2020◆	Dry	<	9	9
MCW-9 (County)	-	8/12/20	Dry	<	9	9
MCW-9 (County)	-	8/13/20	Dry	<	9	9
MCW-9 (County)	-	8/14/20	Dry	<	9	9
MCW-9 (County)	-	8/15/20	Dry	<	9	9
MCW-9 (County)	-	8/16/20	Dry	<	9	9
MCW-9 (County)	-	8/17/20	Dry	<	9	9
MCW-9 (County)	-	8/18/2020◆	Dry	<	9	9
MCW-9 (County)	-	8/19/20	Dry	<	9	9
MCW-9 (County)	-	8/20/20	Dry	<	9	9
MCW-9 (County)	-	8/21/20	Dry	<	9	9
MCW-9 (County)	-	8/22/20	Dry	<	9	9
MCW-9 (County)	-	8/23/20	Dry	<	9	9
MCW-9 (County)	-	8/24/20	Dry	<	9	9
MCW-9 (County)	-	8/25/2020◆	Dry	<	9	9
MCW-9 (County)	-	8/26/20	Dry	<	9	9
MCW-9 (County)	-	8/27/20	Dry	<	9	9
MCW-9 (County)	-	8/28/20	Dry	<	9	9
MCW-9 (County)	-	8/29/20	Dry	<	9	9
MCW-9 (County)	-	8/30/20	Dry	<	9	9
MCW-9 (County)	-	8/31/20	Dry	<	9	9
MCW-12 (County)	1100	8/1/20		=	170	136
MCW-12 (County)	1100	8/2/20		=	170	140
MCW-12 (County)	1100	8/3/20		=	170	144
MCW-12 (County)	1134	8/4/2020◆		=	330	152
MCW-12 (County)	1134	8/5/20		=	330	161
MCW-12 (County)	1134	8/6/20		=	330	167
MCW-12 (County)	1134	8/7/20		=	330	173
MCW-12 (County)	1134	8/8/20		=	330	179
MCW-12 (County)	1134	8/9/20		=	330	186
MCW-12 (County)	1134	8/10/20		=	330	193
MCW-12 (County)	1115	8/11/2020◆		=	93	192
MCW-12 (County)	1115	8/12/20		=	93	191
MCW-12 (County)	1115	8/13/20		=	93	187
MCW-12 (County)	1115	8/14/20		=	93	183
MCW-12 (County)	1115	8/15/20		=	93	179
MCW-12 (County)	1115	8/16/20		=	93	176
MCW-12 (County)	1115	8/17/20		=	93	172

Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-12 (County)	1246	8/18/2020◆		=	790	181
MCW-12 (County)	1246	8/19/20		=	790	191
MCW-12 (County)	1246	8/20/20		=	790	201
MCW-12 (County)	1246	8/21/20		=	790	212
MCW-12 (County)	1246	8/22/20		=	790	223
MCW-12 (County)	1246	8/23/20		=	790	234
MCW-12 (County)	1246	8/24/20		=	790	247
MCW-12 (County)	1117	8/25/2020◆		=	330	252
MCW-12 (County)	1117	8/26/20		=	330	258
MCW-12 (County)	1117	8/27/20		=	330	264
MCW-12 (County)	1117	8/28/20		=	330	270
MCW-12 (County)	1117	8/29/20		=	330	276
MCW-12 (County)	1117	8/30/20		=	330	282
MCW-12 (County)	1117	8/31/20		=	330	288
MCW-14b (City and County)	1130	8/1/20		=	460	598
MCW-14b (City and County)	1130	8/2/20		=	460	612
MCW-14b (City and County)	1130	8/3/20		=	460	626
MCW-14b (City and County)	1101	8/4/2020◆		=	490	642
MCW-14b (City and County)	1101	8/5/20		=	490	659
MCW-14b (City and County)	1101	8/6/20		=	490	617
MCW-14b (City and County)	1101	8/7/20		=	490	578
MCW-14b (City and County)	1101	8/8/20		=	490	541
MCW-14b (City and County)	1101	8/9/20		=	490	507
MCW-14b (City and County)	1101	8/10/20		=	490	475
MCW-14b (City and County)	1034	8/11/2020◆		=	1,100	457
MCW-14b (City and County)	1034	8/12/20		=	1,100	440
MCW-14b (City and County)	1034	8/13/20		=	1,100	452
MCW-14b (City and County)	1034	8/14/20		=	1,100	464
MCW-14b (City and County)	1034	8/15/20		=	1,100	477
MCW-14b (City and County)	1034	8/16/20		=	1,100	490
MCW-14b (City and County)	1034	8/17/20		=	1,100	503
MCW-14b (City and County)	1217	8/18/2020◆		=	270	493
MCW-14b (City and County)	1217	8/19/20		=	270	483
MCW-14b (City and County)	1217	8/20/20		=	270	484
MCW-14b (City and County)	1217	8/21/20		=	270	485
MCW-14b (City and County)	1217	8/22/20		=	270	485
MCW-14b (City and County)	1217	8/23/20		=	270	486
MCW-14b (City and County)	1217	8/24/20		=	270	486
MCW-14b (City and County)	1042	8/25/2020◆		=	330	490
MCW-14b (City and County)	1042	8/26/20		=	330	494



Location (Jurisdiction)	Time	Date	Rain		Single Sample (adjusted for rain, dry and NDs)	Geometric Mean
					E. coli (235 MPN)	E. coli (126 MPN)
MCW-14b (City and County)	1042	8/27/20		=	330	489
MCW-14b (City and County)	1042	8/28/20		=	330	483
MCW-14b (City and County)	1042	8/29/20		=	330	478
MCW-14b (City and County)	1042	8/30/20		=	330	473
MCW-14b (City and County)	1042	8/31/20		=	330	468
MCW-15c (City)*	1030	8/1/20	Dry	<	9	42
MCW-15c (City)*	1030	8/2/20	Dry	<	9	39
MCW-15c (City)*	1030	8/3/20	Dry	<	9	36
MCW-15c (City)*	1036	8/4/2020◆		<	9	33
MCW-15c (City)*	1036	8/5/20		<	9	30
MCW-15c (City)*	1036	8/6/20		<	9	27
MCW-15c (City)*	1036	8/7/20		<	9	24
MCW-15c (City)*	1036	8/8/20		<	9	21
MCW-15c (City)*	1036	8/9/20		<	9	19
MCW-15c (City)*	1036	8/10/20		<	9	17
MCW-15c (City)*	1012	8/11/2020◆		=	110	16
MCW-15c (City)*	1012	8/12/20		=	110	15
MCW-15c (City)*	1012	8/13/20		=	110	16
MCW-15c (City)*	1012	8/14/20		=	110	16
MCW-15c (City)*	1012	8/15/20		=	110	17
MCW-15c (City)*	1012	8/16/20		=	110	17
MCW-15c (City)*	1012	8/17/20		=	110	18
MCW-15c (City)*	1158	8/18/2020◆		=	45	18
MCW-15c (City)*	1158	8/19/20		=	45	18
MCW-15c (City)*	1158	8/20/20		=	45	19
MCW-15c (City)*	1158	8/21/20		=	45	20
MCW-15c (City)*	1158	8/22/20		=	45	21
MCW-15c (City)*	1158	8/23/20		=	45	22
MCW-15c (City)*	1158	8/24/20		=	45	23
MCW-15c (City)*	1012	8/25/2020◆		=	18	24
MCW-15c (City)*	1012	8/26/20		=	18	25
MCW-15c (City)*	1012	8/27/20		=	18	25
MCW-15c (City)*	1012	8/28/20		=	18	26
MCW-15c (City)*	1012	8/29/20		=	18	26
MCW-15c (City)*	1012	8/30/20		=	18	27
MCW-15c (City)*	1012	8/31/20		=	18	28
MCW-17 (City and County)	-	8/1/20	Dry	<	9	21
MCW-17 (City and County)	-	8/2/20	Dry	<	9	19
MCW-17 (City and County)	-	8/3/20	Dry	<	9	18



Location (Jurisdiction)	Time	Date	Rain		Single Sample (adjusted for rain, dry and NDs)	Geometric Mean
					E. coli (235 MPN)	E. coli (126 MPN)
MCW-17 (City and County)	-	8/4/2020◆	Dry	<	9	16
MCW-17 (City and County)	-	8/5/20	Dry	<	9	15
MCW-17 (City and County)	-	8/6/20	Dry	<	9	14
MCW-17 (City and County)	-	8/7/20	Dry	<	9	13
MCW-17 (City and County)	-	8/8/20	Dry	<	9	12
MCW-17 (City and County)	-	8/9/20	Dry	<	9	11
MCW-17 (City and County)	-	8/10/20	Dry	<	9	10
MCW-17 (City and County)	-	8/11/2020◆	Dry	<	9	10
MCW-17 (City and County)	-	8/12/20	Dry	<	9	9
MCW-17 (City and County)	-	8/13/20	Dry	<	9	9
MCW-17 (City and County)	-	8/14/20	Dry	<	9	9
MCW-17 (City and County)	-	8/15/20	Dry	<	9	9
MCW-17 (City and County)	-	8/16/20	Dry	<	9	9
MCW-17 (City and County)	-	8/17/20	Dry	<	9	9
MCW-17 (City and County)	-	8/18/2020◆	Dry	<	9	9
MCW-17 (City and County)	-	8/19/20	Dry	<	9	9
MCW-17 (City and County)	-	8/20/20	Dry	<	9	9
MCW-17 (City and County)	-	8/21/20	Dry	<	9	9
MCW-17 (City and County)	-	8/22/20	Dry	<	9	9
MCW-17 (City and County)	-	8/23/20	Dry	<	9	9
MCW-17 (City and County)	-	8/24/20	Dry	<	9	9
MCW-17 (City and County)	-	8/25/2020◆	Dry	<	9	9
MCW-17 (City and County)	-	8/26/20	Dry	<	9	9
MCW-17 (City and County)	-	8/27/20	Dry	<	9	9
MCW-17 (City and County)	-	8/28/20	Dry	<	9	9
MCW-17 (City and County)	-	8/29/20	Dry	<	9	9
MCW-17 (City and County)	-	8/30/20	Dry	<	9	9
MCW-17 (City and County)	-	8/31/20	Dry	<	9	9
MCW-18 (County)	-	8/1/20	Dry	<	9	9
MCW-18 (County)	-	8/2/20	Dry	<	9	9
MCW-18 (County)	-	8/3/20	Dry	<	9	9
MCW-18 (County)	-	8/4/2020◆	Dry	<	9	9
MCW-18 (County)	-	8/5/20	Dry	<	9	9
MCW-18 (County)	-	8/6/20	Dry	<	9	9
MCW-18 (County)	-	8/7/20	Dry	<	9	9
MCW-18 (County)	-	8/8/20	Dry	<	9	9
MCW-18 (County)	-	8/9/20	Dry	<	9	9
MCW-18 (County)	-	8/10/20	Dry	<	9	9
MCW-18 (County)	-	8/11/2020◆	Dry	<	9	9
MCW-18 (County)	-	8/12/20	Dry	<	9	9



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)	
				E. coli (235 MPN)	Geometric Mean E. coli (126 MPN)
MCW-18 (County)	-	8/13/20	Dry	<	9
MCW-18 (County)	-	8/14/20	Dry	<	9
MCW-18 (County)	-	8/15/20	Dry	<	9
MCW-18 (County)	-	8/16/20	Dry	<	9
MCW-18 (County)	-	8/17/20	Dry	<	9
MCW-18 (County)	-	8/18/2020◆	Dry	<	9
MCW-18 (County)	-	8/19/20	Dry	<	9
MCW-18 (County)	-	8/20/20	Dry	<	9
MCW-18 (County)	-	8/21/20	Dry	<	9
MCW-18 (County)	-	8/22/20	Dry	<	9
MCW-18 (County)	-	8/23/20	Dry	<	9
MCW-18 (County)	-	8/24/20	Dry	<	9
MCW-18 (County)	-	8/25/2020◆	Dry	<	9
MCW-18 (County)	-	8/26/20	Dry	<	9
MCW-18 (County)	-	8/27/20	Dry	<	9
MCW-18 (County)	-	8/28/20	Dry	<	9
MCW-18 (County)	-	8/29/20	Dry	<	9
MCW-18 (County)	-	8/30/20	Dry	<	9
MCW-18 (County)	-	8/31/20	Dry	<	9

Notes:

◆: Date of sampling

A dilution factor of 10 is applied to all samples analyzed for this program, resulting in an MRL of 18 MPN/100 ml

Results of <18 MPN/100 ml are adjusted to use half the MRL (=9) in the calculation of the geometric mean. As such, Table 2 presents a value of 9 MPN/100mL to distinguish the value used for calculation of the 30-day geometric mean

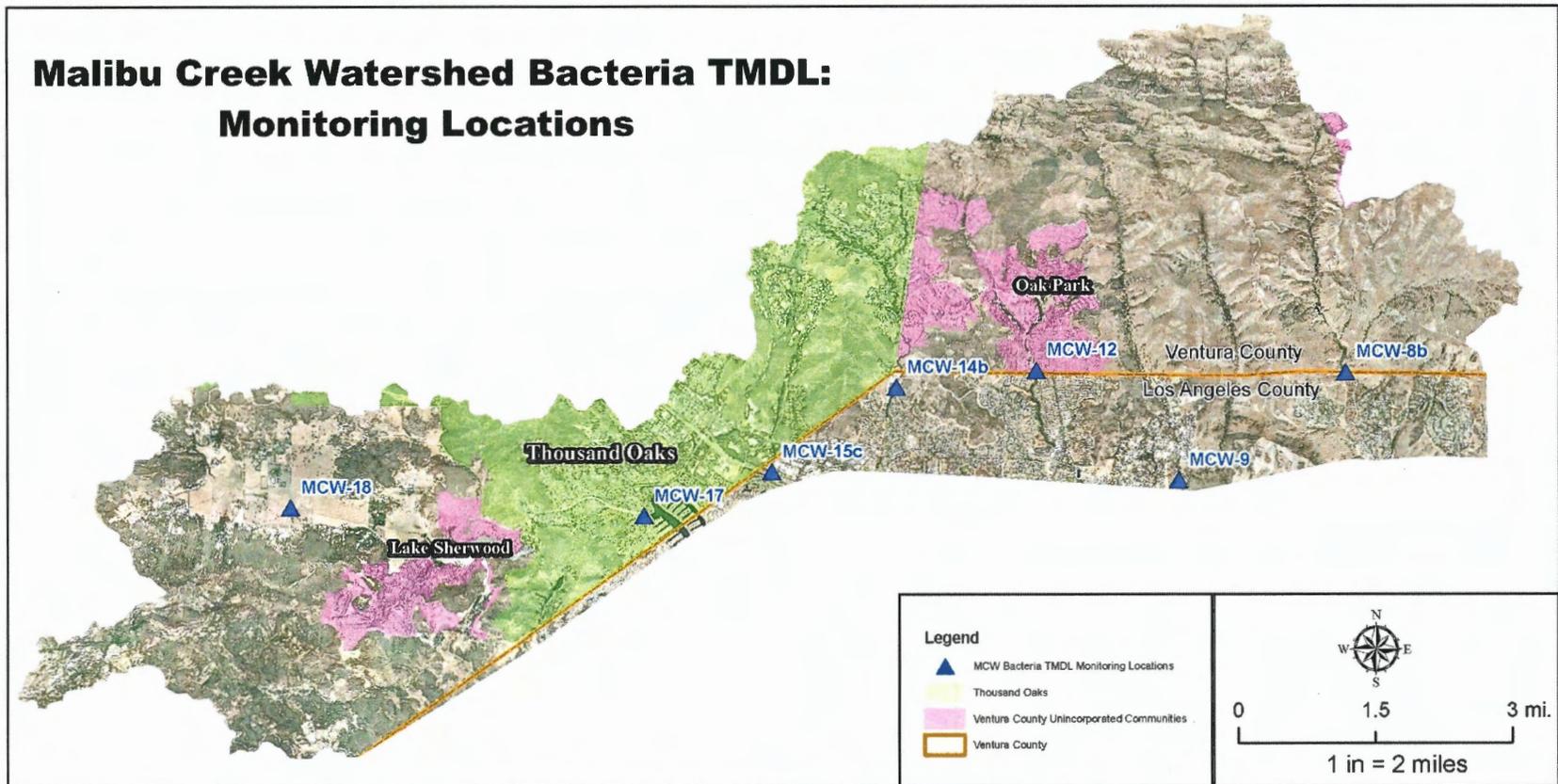
Dry: Samples were not collected due to insufficient flow and a value of 9 MPN/100 ml (half the MRL) was used for calculation of the 30-day geometric mean

-: Time is not applicable, as no sample was collected due to insufficient flow

Weeks with wet weather samples (collected less than 72 hours after a day with >0.1" rain) use the previous non-rain single sample value to calculate the geometric mean.

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017

*: The RWQCB granted permission to replace site MCW-15b with site Special-05 (renamed MCW-15c) on August 11th, 2010



Central Services
Joan Araujo, DirectorEngineering Services
Christopher Cooper, DirectorRoads & Transportation
David Fleisch, DirectorWater & Sanitation
Joseph Pope, DirectorWatershed Protection
Glenn Shephard, Director

October 26, 2020

VIA EMAIL

Kangshi Wang, Ph.D.
California Regional Water Quality Control Board
Los Angeles Region
Standards & TMDL Unit
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Subject: Malibu Creek and Lagoon Bacteria TMDL Compliance Monitoring for County of Ventura, Ventura County Watershed Protection District, and City of Thousand Oaks

Dear Dr. Wang:

Please find attached the report for the results of the weekly monitoring effort required by the Malibu Creek and Lagoon Bacteria Total Maximum Daily Load (TMDL) Compliance Monitoring Plan (CMP) for the month of September 2020. Sites were sampled weekly on Tuesday (September 1, 8, 15, 22 and 29, 2020). Beginning on and following July 23, 2019, Rincon Consultants Inc. has been retained to conduct compliance monitoring activities.

Table 1 presents the weekly sampling results, while Table 2 presents the rolling 30-day geometric means for the sampling locations. Sample collection dates are marked with a diamond (◆) symbol. Sites without results reported were not sampled due to insufficient flow and are labeled "Dry." A map showing the location of the monitoring sites is included below.

Daily geometric means for wet weather and dry weather are calculated using the past 30 days of the respective sampling data (Table 2). For example, weeks with wet weather samples (collected less than 72 hours after a day with > 0.1" rain) use the previous wet weather single sample values to calculate the geometric mean. Non-sampling-day values are assigned the value of the most recent sampling event. Half the method reporting limit (MRL) was used to calculate the daily geometric means for sites with results reported as non-detect (ND) [e.g., < 18 most probable number per 100 milliliters (MPN/100 ml)]. Statistics are also calculated for dry events at all sampling locations by assigning a concentration value of half the MRL, as a zero value is



undefined logarithmically, and as such would be unusable in the geometric mean calculation.

Due to regularly occurring high concentrations in analytical results, a dilution factor of 10 is applied to all samples to quantify results that exceed the standard upper reporting limit of a single dilution. As a result, the MRL for samples analyzed for this program is 18 MPN/100mL.

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017.

Fecal coliform monitoring has been discontinued, as approved by the Los Angeles Regional Water Quality Control Board on October 31, 2014, in alignment with the Regional Board's removal of the fecal coliform objective for REC-1 freshwaters from the TMDL on June 7, 2012 and subsequent approval by the U.S. Environmental Protection Agency on July 2, 2014.

If you have any questions regarding this matter, please contact me at (805) 654-3942.

Sincerely,



Arne Anselm
Deputy Director, Watershed Protection

CC: Glenn Shephard, Director, Watershed Protection (via email)
Ewelina Mutkowska, County of Ventura (via email)
Paul Jorgensen, City of Thousand Oaks (via email)
Joe Bellomo, Willdan Associates (via email)
Kelly Fisher, City of Agoura Hills (via email)
Allen Ma, County of Los Angeles (via email)



Table 1. Weekly sampling results

Location (Jurisdiction)	Time	Date	Rain	Single Sample (as sampled)	
					E. coli
					(235 MPN)
MCW-8b (County)	1130	9/1/2020 ♦		=	110
MCW-8b (County)	1242	9/8/2020 ♦		=	490
MCW-8b (County)	1150	9/15/2020 ♦		=	790
MCW-8b (County)	-	9/22/2020 ♦	Dry		Dry
MCW-8b (County)	1056	9/29/2020 ♦		=	170
MCW-9 (County)	-	9/1/2020 ♦	Dry		Dry
MCW-9 (County)	-	9/8/2020 ♦	Dry		Dry
MCW-9 (County)	-	9/15/2020 ♦	Dry		Dry
MCW-9 (County)	-	9/22/2020 ♦	Dry		Dry
MCW-9 (County)	-	9/29/2020 ♦	Dry		Dry
MCW-12 (County)	1050	9/1/2020 ♦		=	130
MCW-12 (County)	1106	9/8/2020 ♦		=	1,300
MCW-12 (County)	1100	9/15/2020 ♦		=	790
MCW-12 (County)	1115	9/22/2020 ♦		=	5,400
MCW-12 (County)	1006	9/29/2020 ♦		=	330
MCW-14b (City and County)	1015	9/1/2020 ♦		=	790
MCW-14b (City and County)	1212	9/8/2020 ♦		=	5,400
MCW-14b (City and County)	1030	9/15/2020 ♦		=	330
MCW-14b (City and County)	1050	9/22/2020 ♦		=	170
MCW-14b (City and County)	936	9/29/2020 ♦		=	790
MCW-15c (City)*	945	9/1/2020 ♦		=	2,400
MCW-15c (City)*	1151	9/8/2020 ♦		=	230
MCW-15c (City)*	1000	9/15/2020 ♦		=	5,400
MCW-15c (City)*	1020	9/22/2020 ♦		=	3,500
MCW-15c (City)*	-	9/29/2020 ♦	Dry		Dry
MCW-17 (City and County)	-	9/1/2020 ♦	Dry		Dry
MCW-17 (City and County)	-	9/8/2020 ♦	Dry		Dry
MCW-17 (City and County)	-	9/15/2020 ♦	Dry		Dry
MCW-17 (City and County)	-	9/22/2020 ♦	Dry		Dry
MCW-17 (City and County)	-	9/29/2020 ♦	Dry		Dry

Location (Jurisdiction)	Time	Date	Rain	Single Sample (as sampled)	
				E. coli	
				(235 MPN)	
MCW-18 (County)	-	9/1/2020 ♦	Dry		Dry
MCW-18 (County)	-	9/8/2020 ♦	Dry		Dry
MCW-18 (County)	-	9/15/2020 ♦	Dry		Dry
MCW-18 (County)	-	9/22/2020 ♦	Dry		Dry
MCW-18 (County)	-	9/29/2020 ♦	Dry		Dry

Notes:

*: The RWQCB granted permission to replace site MCW-15b with site Special-05 (renamed MCW-15c) on August 11th, 2010.

♦: Date of sampling

-: Time is not applicable, as no sample was collected due to insufficient flow

Dry: Samples were not collected due to insufficient flow

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017

A dilution factor of 10 is applied to all samples analyzed for this program, resulting in a MRL of 18 MPN/100 ml



Table 2. Computation of daily geometric mean

Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		
				E. coli (235 MPN)	Geometric Mean E. coli (126 MPN)	
MCW-8b (County)	1130	9/1/2020◆	=	110	376	
MCW-8b (County)	1130	9/2/20	=	110	347	
MCW-8b (County)	1130	9/3/20	=	110	309	
MCW-8b (County)	1130	9/4/20	=	110	275	
MCW-8b (County)	1130	9/5/20	=	110	245	
MCW-8b (County)	1130	9/6/20	=	110	219	
MCW-8b (County)	1130	9/7/20	=	110	195	
MCW-8b (County)	1242	9/8/2020◆	=	490	182	
MCW-8b (County)	1242	9/9/20	=	490	171	
MCW-8b (County)	1242	9/10/20	=	490	165	
MCW-8b (County)	1242	9/11/20	=	490	160	
MCW-8b (County)	1242	9/12/20	=	490	155	
MCW-8b (County)	1242	9/13/20	=	490	150	
MCW-8b (County)	1242	9/14/20	=	490	145	
MCW-8b (County)	1150	9/15/2020◆	=	790	143	
MCW-8b (County)	1150	9/16/20	=	790	140	
MCW-8b (County)	1150	9/17/20	=	790	163	
MCW-8b (County)	1150	9/18/20	=	790	189	
MCW-8b (County)	1150	9/19/20	=	790	220	
MCW-8b (County)	1150	9/20/20	=	790	255	
MCW-8b (County)	1150	9/21/20	=	790	296	
MCW-8b (County)	-	9/22/2020◆	Dry	<	9	296
MCW-8b (County)	-	9/23/20	Dry	<	9	296
MCW-8b (County)	-	9/24/20	Dry	<	9	259
MCW-8b (County)	-	9/25/20	Dry	<	9	227
MCW-8b (County)	-	9/26/20	Dry	<	9	199
MCW-8b (County)	-	9/27/20	Dry	<	9	174
MCW-8b (County)	-	9/28/20	Dry	<	9	152
MCW-8b (County)	1056	9/29/2020◆	=	170	147	
MCW-8b (County)	1056	9/30/20	=	170	142	
MCW-9 (County)	-	9/1/2020◆	Dry	<	9	9
MCW-9 (County)	-	9/2/20	Dry	<	9	9
MCW-9 (County)	-	9/3/20	Dry	<	9	9
MCW-9 (County)	-	9/4/20	Dry	<	9	9
MCW-9 (County)	-	9/5/20	Dry	<	9	9
MCW-9 (County)	-	9/6/20	Dry	<	9	9
MCW-9 (County)	-	9/7/20	Dry	<	9	9
MCW-9 (County)	-	9/8/2020◆	Dry	<	9	9
MCW-9 (County)	-	9/9/20	Dry	<	9	9



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
					E. coli (235 MPN)	E. coli (126 MPN)
MCW-9 (County)	-	9/10/20	Dry	<	9	9
MCW-9 (County)	-	9/11/20	Dry	<	9	9
MCW-9 (County)	-	9/12/20	Dry	<	9	9
MCW-9 (County)	-	9/13/20	Dry	<	9	9
MCW-9 (County)	-	9/14/20	Dry	<	9	9
MCW-9 (County)	-	9/15/2020 ♦	Dry	<	9	9
MCW-9 (County)	-	9/16/20	Dry	<	9	9
MCW-9 (County)	-	9/17/20	Dry	<	9	9
MCW-9 (County)	-	9/18/20	Dry	<	9	9
MCW-9 (County)	-	9/19/20	Dry	<	9	9
MCW-9 (County)	-	9/20/20	Dry	<	9	9
MCW-9 (County)	-	9/21/20	Dry	<	9	9
MCW-9 (County)	-	9/22/2020 ♦	Dry	<	9	9
MCW-9 (County)	-	9/23/20	Dry	<	9	9
MCW-9 (County)	-	9/24/20	Dry	<	9	9
MCW-9 (County)	-	9/25/20	Dry	<	9	9
MCW-9 (County)	-	9/26/20	Dry	<	9	9
MCW-9 (County)	-	9/27/20	Dry	<	9	9
MCW-9 (County)	-	9/28/20	Dry	<	9	9
MCW-9 (County)	-	9/29/2020 ♦	Dry	<	9	9
MCW-9 (County)	-	9/30/20	Dry	<	9	9
MCW-12 (County)	1050	9/1/2020 ♦		=	130	285
MCW-12 (County)	1050	9/2/20		=	130	283
MCW-12 (County)	1050	9/3/20		=	130	274
MCW-12 (County)	1050	9/4/20		=	130	266
MCW-12 (County)	1050	9/5/20		=	130	258
MCW-12 (County)	1050	9/6/20		=	130	250
MCW-12 (County)	1050	9/7/20		=	130	242
MCW-12 (County)	1106	9/8/2020 ♦		=	1,300	254
MCW-12 (County)	1106	9/9/20		=	1,300	265
MCW-12 (County)	1106	9/10/20		=	1,300	290
MCW-12 (County)	1106	9/11/20		=	1,300	316
MCW-12 (County)	1106	9/12/20		=	1,300	346
MCW-12 (County)	1106	9/13/20		=	1,300	377
MCW-12 (County)	1106	9/14/20		=	1,300	412
MCW-12 (County)	1100	9/15/2020 ♦		=	790	442
MCW-12 (County)	1100	9/16/20		=	790	475
MCW-12 (County)	1100	9/17/20		=	790	475
MCW-12 (County)	1100	9/18/20		=	790	475
MCW-12 (County)	1100	9/19/20		=	790	475



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)	Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)
MCW-12 (County)	1100	9/20/20	=	790	475
MCW-12 (County)	1100	9/21/20	=	790	475
MCW-12 (County)	1115	9/22/2020◆	=	5,400	507
MCW-12 (County)	1115	9/23/20	=	5,400	540
MCW-12 (County)	1115	9/24/20	=	5,400	593
MCW-12 (County)	1115	9/25/20	=	5,400	651
MCW-12 (County)	1115	9/26/20	=	5,400	714
MCW-12 (County)	1115	9/27/20	=	5,400	784
MCW-12 (County)	1115	9/28/20	=	5,400	860
MCW-12 (County)	1006	9/29/2020◆	=	330	860
MCW-12 (County)	1006	9/30/20	=	330	860
MCW-14b (City and County)	1015	9/1/2020◆	=	790	476
MCW-14b (City and County)	1015	9/2/20	=	790	485
MCW-14b (City and County)	1015	9/3/20	=	790	493
MCW-14b (City and County)	1015	9/4/20	=	790	500
MCW-14b (City and County)	1015	9/5/20	=	790	508
MCW-14b (City and County)	1015	9/6/20	=	790	517
MCW-14b (City and County)	1015	9/7/20	=	790	525
MCW-14b (City and County)	1212	9/8/2020◆	=	5,400	569
MCW-14b (City and County)	1212	9/9/20	=	5,400	616
MCW-14b (City and County)	1212	9/10/20	=	5,400	650
MCW-14b (City and County)	1212	9/11/20	=	5,400	685
MCW-14b (City and County)	1212	9/12/20	=	5,400	722
MCW-14b (City and County)	1212	9/13/20	=	5,400	762
MCW-14b (City and County)	1212	9/14/20	=	5,400	803
MCW-14b (City and County)	1030	9/15/2020◆	=	330	771
MCW-14b (City and County)	1030	9/16/20	=	330	741
MCW-14b (City and County)	1030	9/17/20	=	330	746
MCW-14b (City and County)	1030	9/18/20	=	330	751
MCW-14b (City and County)	1030	9/19/20	=	330	756
MCW-14b (City and County)	1030	9/20/20	=	330	761
MCW-14b (City and County)	1030	9/21/20	=	330	766
MCW-14b (City and County)	1050	9/22/2020◆	=	170	755
MCW-14b (City and County)	1050	9/23/20	=	170	743
MCW-14b (City and County)	1050	9/24/20	=	170	727
MCW-14b (City and County)	1050	9/25/20	=	170	711
MCW-14b (City and County)	1050	9/26/20	=	170	695
MCW-14b (City and County)	1050	9/27/20	=	170	680
MCW-14b (City and County)	1050	9/28/20	=	170	665
MCW-14b (City and County)	936	9/29/2020◆	=	790	685

Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-14b (City and County)	936	9/30/20		=	790	705
MCW-15c (City)*	945	9/1/2020◆		=	2,400	33
MCW-15c (City)*	945	9/2/20		=	2,400	40
MCW-15c (City)*	945	9/3/20		=	2,400	48
MCW-15c (City)*	945	9/4/20		=	2,400	58
MCW-15c (City)*	945	9/5/20		=	2,400	70
MCW-15c (City)*	945	9/6/20		=	2,400	84
MCW-15c (City)*	945	9/7/20		=	2,400	102
MCW-15c (City)*	1151	9/8/2020◆		=	230	113
MCW-15c (City)*	1151	9/9/20		=	230	126
MCW-15c (City)*	1151	9/10/20		=	230	129
MCW-15c (City)*	1151	9/11/20		=	230	133
MCW-15c (City)*	1151	9/12/20		=	230	136
MCW-15c (City)*	1151	9/13/20		=	230	139
MCW-15c (City)*	1151	9/14/20		=	230	143
MCW-15c (City)*	1000	9/15/2020◆		=	5,400	163
MCW-15c (City)*	1000	9/16/20		=	5,400	185
MCW-15c (City)*	1000	9/17/20		=	5,400	217
MCW-15c (City)*	1000	9/18/20		=	5,400	255
MCW-15c (City)*	1000	9/19/20		=	5,400	299
MCW-15c (City)*	1000	9/20/20		=	5,400	350
MCW-15c (City)*	1000	9/21/20		=	5,400	411
MCW-15c (City)*	1020	9/22/2020◆		=	3,500	475
MCW-15c (City)*	1020	9/23/20		=	3,500	549
MCW-15c (City)*	1020	9/24/20		=	3,500	655
MCW-15c (City)*	1020	9/25/20		=	3,500	781
MCW-15c (City)*	1020	9/26/20		=	3,500	931
MCW-15c (City)*	1020	9/27/20		=	3,500	1,109
MCW-15c (City)*	1020	9/28/20		=	3,500	1,322
MCW-15c (City)*	-	9/29/2020◆	Dry	<	9	1,292
MCW-15c (City)*	-	9/30/20	Dry	<	9	1,263
MCW-17 (City and County)	-	9/1/2020◆	Dry	<	9	9
MCW-17 (City and County)	-	9/2/20	Dry	<	9	9
MCW-17 (City and County)	-	9/3/20	Dry	<	9	9
MCW-17 (City and County)	-	9/4/20	Dry	<	9	9
MCW-17 (City and County)	-	9/5/20	Dry	<	9	9
MCW-17 (City and County)	-	9/6/20	Dry	<	9	9
MCW-17 (City and County)	-	9/7/20	Dry	<	9	9
MCW-17 (City and County)	-	9/8/2020◆	Dry	<	9	9



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
					E. coli (235 MPN)	E. coli (126 MPN)
MCW-17 (City and County)	-	9/9/20	Dry	<	9	9
MCW-17 (City and County)	-	9/10/20	Dry	<	9	9
MCW-17 (City and County)	-	9/11/20	Dry	<	9	9
MCW-17 (City and County)	-	9/12/20	Dry	<	9	9
MCW-17 (City and County)	-	9/13/20	Dry	<	9	9
MCW-17 (City and County)	-	9/14/20	Dry	<	9	9
MCW-17 (City and County)	-	9/15/2020♦	Dry	<	9	9
MCW-17 (City and County)	-	9/16/20	Dry	<	9	9
MCW-17 (City and County)	-	9/17/20	Dry	<	9	9
MCW-17 (City and County)	-	9/18/20	Dry	<	9	9
MCW-17 (City and County)	-	9/19/20	Dry	<	9	9
MCW-17 (City and County)	-	9/20/20	Dry	<	9	9
MCW-17 (City and County)	-	9/21/20	Dry	<	9	9
MCW-17 (City and County)	-	9/22/2020♦	Dry	<	9	9
MCW-17 (City and County)	-	9/23/20	Dry	<	9	9
MCW-17 (City and County)	-	9/24/20	Dry	<	9	9
MCW-17 (City and County)	-	9/25/20	Dry	<	9	9
MCW-17 (City and County)	-	9/26/20	Dry	<	9	9
MCW-17 (City and County)	-	9/27/20	Dry	<	9	9
MCW-17 (City and County)	-	9/28/20	Dry	<	9	9
MCW-17 (City and County)	-	9/29/2020♦	Dry	<	9	9
MCW-17 (City and County)	-	9/30/20	Dry	<	9	9
MCW-18 (County)	-	9/1/2020♦	Dry	<	9	9
MCW-18 (County)	-	9/2/20	Dry	<	9	9
MCW-18 (County)	-	9/3/20	Dry	<	9	9
MCW-18 (County)	-	9/4/20	Dry	<	9	9
MCW-18 (County)	-	9/5/20	Dry	<	9	9
MCW-18 (County)	-	9/6/20	Dry	<	9	9
MCW-18 (County)	-	9/7/20	Dry	<	9	9
MCW-18 (County)	-	9/8/2020♦	Dry	<	9	9
MCW-18 (County)	-	9/9/20	Dry	<	9	9
MCW-18 (County)	-	9/10/20	Dry	<	9	9
MCW-18 (County)	-	9/11/20	Dry	<	9	9
MCW-18 (County)	-	9/12/20	Dry	<	9	9
MCW-18 (County)	-	9/13/20	Dry	<	9	9
MCW-18 (County)	-	9/14/20	Dry	<	9	9
MCW-18 (County)	-	9/15/2020♦	Dry	<	9	9
MCW-18 (County)	-	9/16/20	Dry	<	9	9
MCW-18 (County)	-	9/17/20	Dry	<	9	9
MCW-18 (County)	-	9/18/20	Dry	<	9	9



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
					E. coli (235 MPN)	E. coli (126 MPN)
MCW-18 (County)	-	9/19/20	Dry	<	9	9
MCW-18 (County)	-	9/20/20	Dry	<	9	9
MCW-18 (County)	-	9/21/20	Dry	<	9	9
MCW-18 (County)	-	9/22/2020◆	Dry	<	9	9
MCW-18 (County)	-	9/23/20	Dry	<	9	9
MCW-18 (County)	-	9/24/20	Dry	<	9	9
MCW-18 (County)	-	9/25/20	Dry	<	9	9
MCW-18 (County)	-	9/26/20	Dry	<	9	9
MCW-18 (County)	-	9/27/20	Dry	<	9	9
MCW-18 (County)	-	9/28/20	Dry	<	9	9
MCW-18 (County)	-	9/29/2020◆	Dry	<	9	9
MCW-18 (County)	-	9/30/20	Dry	<	9	9

Notes:

◆: Date of sampling

A dilution factor of 10 is applied to all samples analyzed for this program, resulting in an MRL of 18 MPN/100 ml

Results of <18 MPN/100 ml are adjusted to use half the MRL (=9) in the calculation of the geometric mean. As such, Table 2 presents a value of 9 MPN/100ml to distinguish the value used for calculation of the 30-day geometric mean

Dry: Samples were not collected due to insufficient flow and a value of 9 MPN/100 ml (half the MRL) was used for calculation of the 30-day geometric mean

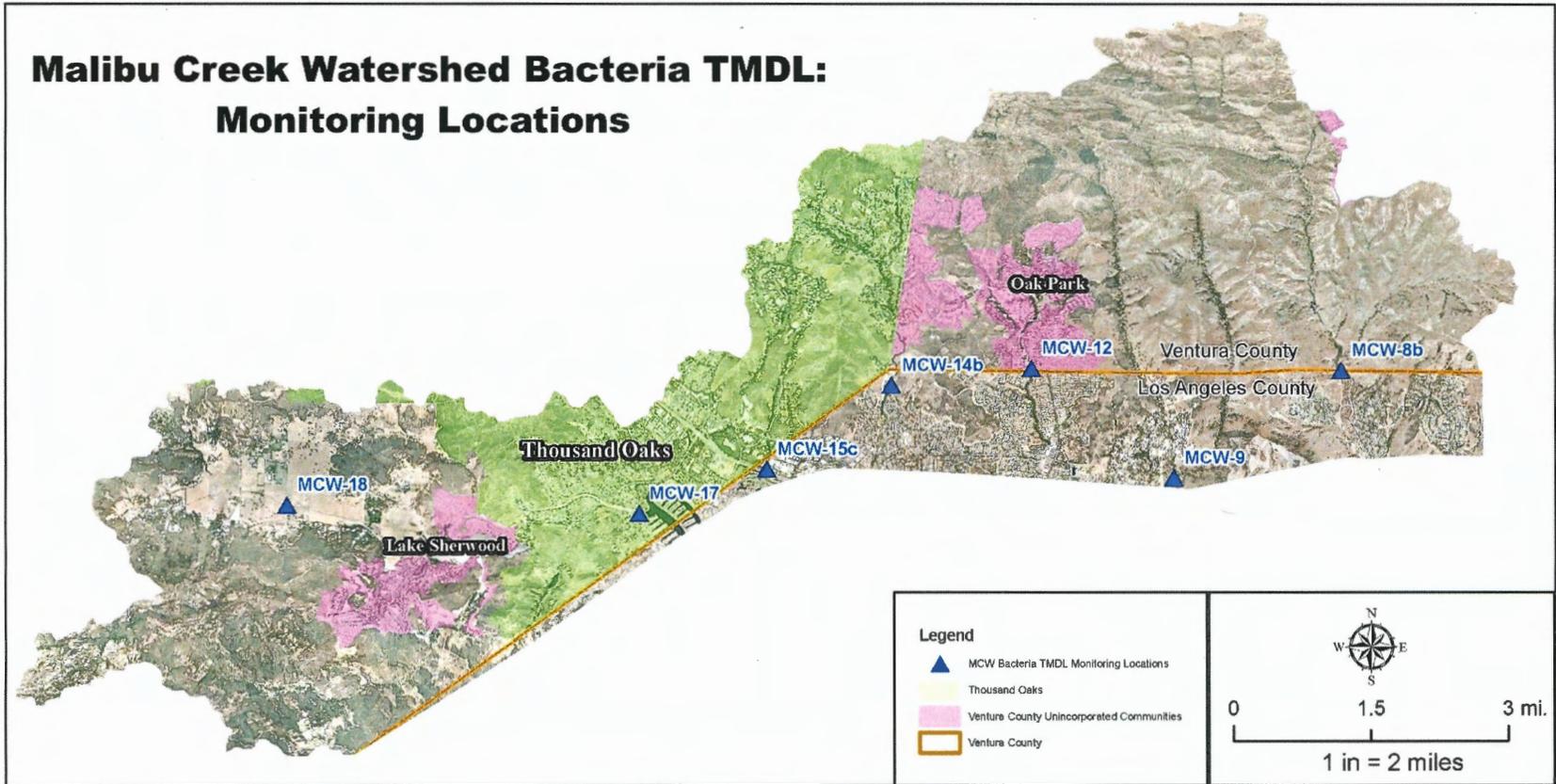
-: Time is not applicable, as no sample was collected due to insufficient flow

Weeks with wet weather samples (collected less than 72 hours after a day with >0.1" rain) use the previous non-rain single sample value to calculate the geometric mean.

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017

*: The RWQCB granted permission to replace site MCW-15b with site Special-05 (renamed MCW-15c) on August 11th, 2010





Central Services
Joan Araujo, Director

Engineering Services
Christopher Cooper, Director

Roads & Transportation
David Fleisch, Director

Water & Sanitation
Joseph Pope, Director

Watershed Protection
Glenn Shephard, Director

November 25, 2020

VIA EMAIL

Kangshi Wang, Ph.D.
California Regional Water Quality Control Board
Los Angeles Region
Standards & TMDL Unit
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Subject: Malibu Creek and Lagoon Bacteria TMDL Compliance Monitoring for County of Ventura, Ventura County Watershed Protection District, and City of Thousand Oaks

Dear Dr. Wang:

Please find attached the report for the results of the weekly monitoring effort required by the Malibu Creek and Lagoon Bacteria Total Maximum Daily Load (TMDL) Compliance Monitoring Plan (CMP) for the month of October 2020. Sites were sampled weekly on Tuesday (October 6, 13, 20, and 27). Beginning on and following July 23, 2019, Rincon Consultants Inc. has been retained to conduct compliance monitoring activities.

Table 1 presents the weekly sampling results, while Table 2 presents the rolling 30-day geometric means for the sampling locations. Sample collection dates are marked with a diamond (◆) symbol. Sites without results reported were not sampled due to insufficient flow and are labeled "Dry." A map showing the location of the monitoring sites is included below.

Daily geometric means for wet weather and dry weather are calculated using the past 30 days of the respective sampling data (Table 2). For example, weeks with wet weather samples (collected less than 72 hours after a day with > 0.1" rain) use the previous wet weather single sample values to calculate the geometric mean. Non-sampling-day values are assigned the value of the most recent sampling event. Half the method reporting limit (MRL) was used to calculate the daily geometric means for sites with results reported as non-detect (ND) [e.g., < 18 most probable number per 100 milliliters (MPN/100 ml)]. Statistics are also calculated for dry events at all sampling locations by assigning a concentration value of half the MRL, as a zero value is undefined logarithmically, and as such would be unusable in the geometric mean calculation.



Due to regularly occurring high concentrations in analytical results, a dilution factor of 10 is applied to all samples to quantify results that exceed the standard upper reporting limit of a single dilution. As a result, the MRL for samples analyzed for this program is 18 MPN/100mL.

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017.

Fecal coliform monitoring has been discontinued, as approved by the Los Angeles Regional Water Quality Control Board on October 31, 2014, in alignment with the Regional Board's removal of the fecal coliform objective for REC-1 freshwaters from the TMDL on June 7, 2012 and subsequent approval by the U.S. Environmental Protection Agency on July 2, 2014.

If you have any questions regarding this matter, please contact me at (805) 654-3942.

Sincerely,



Arne Anselm
Deputy Director, Watershed Protection

CC: Glenn Shephard, Director, Watershed Protection (via email)
Ewelina Mutkowska, County of Ventura (via email)
Paul Jorgensen, City of Thousand Oaks (via email)
Joe Bellomo, Willdan Associates (via email)
Kelly Fisher, City of Agoura Hills (via email)
Allen Ma, County of Los Angeles (via email)



Table 1. Weekly sampling results

Location (Jurisdiction)	Time	Date	Rain	Single Sample (as sampled)	
					E. coli (235 MPN)
MCW-8b (County)	-	10/6/2020◆	Dry		Dry
MCW-8b (County)	1126	10/13/2020◆		=	220
MCW-8b (County)	1320	10/20/2020◆		=	700
MCW-8b (County)	1130	10/27/2020◆		=	130
MCW-9 (County)	-	10/6/2020◆	Dry		Dry
MCW-9 (County)	-	10/13/2020◆	Dry		Dry
MCW-9 (County)	-	10/20/2020◆	Dry		Dry
MCW-9 (County)	-	10/27/2020◆	Dry		Dry
MCW-12 (County)	1115	10/6/2020◆		=	1,300
MCW-12 (County)	1244	10/13/2020◆		=	78
MCW-12 (County)	1235	10/20/2020◆		=	490
MCW-12 (County)	1040	10/27/2020◆		=	110
MCW-14b (City and County)	1025	10/6/2020◆		=	330
MCW-14b (City and County)	1030	10/13/2020◆		=	16,000
MCW-14b (City and County)	1215	10/20/2020◆		=	490
MCW-14b (City and County)	1020	10/27/2020◆		=	490
MCW-15c (City)*	1000	10/6/2020◆		=	2,400
MCW-15c (City)*	1015	10/13/2020◆		=	790
MCW-15c (City)*	1200	10/20/2020◆		=	330
MCW-15c (City)*	1000	10/27/2020◆		=	170
MCW-17 (City and County)	-	10/6/2020◆	Dry		Dry
MCW-17 (City and County)	-	10/13/2020◆	Dry		Dry
MCW-17 (City and County)	-	10/20/2020◆	Dry		Dry
MCW-17 (City and County)	-	10/27/2020◆	Dry		Dry
MCW-18 (County)	-	10/6/2020◆	Dry		Dry
MCW-18 (County)	-	10/13/2020◆	Dry		Dry
MCW-18 (County)	-	10/20/2020◆	Dry		Dry
MCW-18 (County)	-	10/27/2020◆	Dry		Dry

Notes:

*: The RWQCB granted permission to replace site MCW-15b with site Special-05 (renamed MCW-15c) on August 11th, 2010.

◆: Date of sampling

-: Time is not applicable, as no sample was collected due to insufficient flow

Dry: Samples were not collected due to insufficient flow

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017

A dilution factor of 10 is applied to all samples analyzed for this program, resulting in a MRL of 18 MPN/100 ml

Table 2. Computation of daily geometric mean

Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)	
				E. coli (235 MPN)	Geometric Mean E. coli (126 MPN)
MCW-8b (County)	1056	10/1/2020	=	170	144
MCW-8b (County)	1056	10/2/2020	=	170	146
MCW-8b (County)	1056	10/3/2020	=	170	148
MCW-8b (County)	1056	10/4/2020	=	170	150
MCW-8b (County)	1056	10/5/2020	=	170	152
MCW-8b (County)	-	10/6/2020♦	Dry <	9	140
MCW-8b (County)	-	10/7/20	Dry <	9	129
MCW-8b (County)	-	10/8/20	Dry <	9	113
MCW-8b (County)	-	10/9/20	Dry <	9	99
MCW-8b (County)	-	10/10/20	Dry <	9	86
MCW-8b (County)	-	10/11/20	Dry <	9	76
MCW-8b (County)	-	10/12/20	Dry <	9	66
MCW-8b (County)	1126	10/13/2020♦	=	220	65
MCW-8b (County)	1126	10/14/20	=	220	63
MCW-8b (County)	1126	10/15/20	=	220	60
MCW-8b (County)	1126	10/16/20	=	220	58
MCW-8b (County)	1126	10/17/20	=	220	55
MCW-8b (County)	1126	10/18/20	=	220	53
MCW-8b (County)	1126	10/19/20	=	220	51
MCW-8b (County)	1320	10/20/2020♦	=	700	51
MCW-8b (County)	1320	10/21/20	=	700	50
MCW-8b (County)	1320	10/22/20	=	700	58
MCW-8b (County)	1320	10/23/20	=	700	67
MCW-8b (County)	1320	10/24/20	=	700	78
MCW-8b (County)	1320	10/25/20	=	700	90
MCW-8b (County)	1320	10/26/20	=	700	104
MCW-8b (County)	1130	10/27/2020♦	=	130	114
MCW-8b (County)	1130	10/28/20	=	130	124
MCW-8b (County)	1130	10/29/20	=	130	123
MCW-8b (County)	1130	10/30/20	=	130	122
MCW-8b (County)	1130	10/31/20	=	130	121
MCW-9 (County)	-	10/1/2020	Dry <	9	9
MCW-9 (County)	-	10/2/2020	Dry <	9	9
MCW-9 (County)	-	10/3/2020	Dry <	9	9
MCW-9 (County)	-	10/4/2020	Dry <	9	9
MCW-9 (County)	-	10/5/2020	Dry <	9	9
MCW-9 (County)	-	10/6/2020♦	Dry <	9	9
MCW-9 (County)	-	10/7/20	Dry <	9	9
MCW-9 (County)	-	10/8/20	Dry <	9	9



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-9 (County)	-	10/9/20	Dry	<	9	9
MCW-9 (County)	-	10/10/20	Dry	<	9	9
MCW-9 (County)	-	10/11/20	Dry	<	9	9
MCW-9 (County)	-	10/12/20	Dry	<	9	9
MCW-9 (County)	-	10/13/2020◆	Dry	<	9	9
MCW-9 (County)	-	10/14/20	Dry	<	9	9
MCW-9 (County)	-	10/15/20	Dry	<	9	9
MCW-9 (County)	-	10/16/20	Dry	<	9	9
MCW-9 (County)	-	10/17/20	Dry	<	9	9
MCW-9 (County)	-	10/18/20	Dry	<	9	9
MCW-9 (County)	-	10/19/20	Dry	<	9	9
MCW-9 (County)	-	10/20/2020◆	Dry	<	9	9
MCW-9 (County)	-	10/21/20	Dry	<	9	9
MCW-9 (County)	-	10/22/20	Dry	<	9	9
MCW-9 (County)	-	10/23/20	Dry	<	9	9
MCW-9 (County)	-	10/24/20	Dry	<	9	9
MCW-9 (County)	-	10/25/20	Dry	<	9	9
MCW-9 (County)	-	10/26/20	Dry	<	9	9
MCW-9 (County)	-	10/27/2020◆	Dry	<	9	9
MCW-9 (County)	-	10/28/20	Dry	<	9	9
MCW-9 (County)	-	10/29/20	Dry	<	9	9
MCW-9 (County)	-	10/30/20	Dry	<	9	9
MCW-9 (County)	-	10/31/20	Dry	<	9	9
MCW-12 (County)	1006	10/1/2020	=		330	888
MCW-12 (County)	1006	10/2/2020	=		330	916
MCW-12 (County)	1006	10/3/2020	=		330	945
MCW-12 (County)	1006	10/4/2020	=		330	974
MCW-12 (County)	1006	10/5/2020	=		330	1,005
MCW-12 (County)	1115	10/6/2020◆	=		1,300	1,085
MCW-12 (County)	1115	10/7/20	=		1,300	1,172
MCW-12 (County)	1115	10/8/20	=		1,300	1,172
MCW-12 (County)	1115	10/9/20	=		1,300	1,172
MCW-12 (County)	1115	10/10/20	=		1,300	1,172
MCW-12 (County)	1115	10/11/20	=		1,300	1,172
MCW-12 (County)	1115	10/12/20	=		1,300	1,172
MCW-12 (County)	1244	10/13/2020◆	=		78	1,067
MCW-12 (County)	1244	10/14/20	=		78	971
MCW-12 (County)	1244	10/15/20	=		78	899
MCW-12 (County)	1244	10/16/20	=		78	832
MCW-12 (County)	1244	10/17/20	=		78	771



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)	Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)
MCW-12 (County)	1244	10/18/20	=	78	713
MCW-12 (County)	1244	10/19/20	=	78	660
MCW-12 (County)	1235	10/20/2020♦	=	490	650
MCW-12 (County)	1235	10/21/20	=	490	640
MCW-12 (County)	1235	10/22/20	=	490	591
MCW-12 (County)	1235	10/23/20	=	490	545
MCW-12 (County)	1235	10/24/20	=	490	503
MCW-12 (County)	1235	10/25/20	=	490	465
MCW-12 (County)	1235	10/26/20	=	490	429
MCW-12 (County)	1040	10/27/2020♦	=	110	377
MCW-12 (County)	1040	10/28/20	=	110	331
MCW-12 (County)	1040	10/29/20	=	110	319
MCW-12 (County)	1040	10/30/20	=	110	307
MCW-12 (County)	1040	10/31/20	=	110	296
MCW-14b (City and County)	936	10/1/2020	=	790	705
MCW-14b (City and County)	936	10/2/2020	=	790	705
MCW-14b (City and County)	936	10/3/2020	=	790	705
MCW-14b (City and County)	936	10/4/2020	=	790	705
MCW-14b (City and County)	936	10/5/2020	=	790	705
MCW-14b (City and County)	1025	10/6/2020♦	=	330	685
MCW-14b (City and County)	1025	10/7/20	=	330	665
MCW-14b (City and County)	1025	10/8/20	=	330	606
MCW-14b (City and County)	1025	10/9/20	=	330	552
MCW-14b (City and County)	1025	10/10/20	=	330	503
MCW-14b (City and County)	1025	10/11/20	=	330	458
MCW-14b (City and County)	1025	10/12/20	=	330	418
MCW-14b (City and County)	1030	10/13/2020♦	=	16,000	433
MCW-14b (City and County)	1030	10/14/20	=	16,000	449
MCW-14b (City and County)	1030	10/15/20	=	16,000	511
MCW-14b (City and County)	1030	10/16/20	=	16,000	581
MCW-14b (City and County)	1030	10/17/20	=	16,000	662
MCW-14b (City and County)	1030	10/18/20	=	16,000	753
MCW-14b (City and County)	1030	10/19/20	=	16,000	857
MCW-14b (City and County)	1215	10/20/2020♦	=	490	869
MCW-14b (City and County)	1215	10/21/20	=	490	880
MCW-14b (City and County)	1215	10/22/20	=	490	912
MCW-14b (City and County)	1215	10/23/20	=	490	944
MCW-14b (City and County)	1215	10/24/20	=	490	978
MCW-14b (City and County)	1215	10/25/20	=	490	1,013
MCW-14b (City and County)	1215	10/26/20	=	490	1,050



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-14b (City and County)	1020	10/27/2020 ♦		=	490	1,088
MCW-14b (City and County)	1020	10/28/20		=	490	1,127
MCW-14b (City and County)	1020	10/29/20		=	490	1,109
MCW-14b (City and County)	1020	10/30/20		=	490	1,091
MCW-14b (City and County)	1020	10/31/20		=	490	1,074
MCW-15c (City)*	-	10/1/2020	Dry	<	9	1,048
MCW-15c (City)*	-	10/2/2020	Dry	<	9	870
MCW-15c (City)*	-	10/3/2020	Dry	<	9	722
MCW-15c (City)*	-	10/4/2020	Dry	<	9	599
MCW-15c (City)*	-	10/5/2020	Dry	<	9	498
MCW-15c (City)*	1000	10/6/2020 ♦		=	2,400	498
MCW-15c (City)*	1000	10/7/20		=	2,400	498
MCW-15c (City)*	1000	10/8/20		=	2,400	538
MCW-15c (City)*	1000	10/9/20		=	2,400	582
MCW-15c (City)*	1000	10/10/20		=	2,400	629
MCW-15c (City)*	1000	10/11/20		=	2,400	680
MCW-15c (City)*	1000	10/12/20		=	2,400	736
MCW-15c (City)*	1015	10/13/2020 ♦		=	790	767
MCW-15c (City)*	1015	10/14/20		=	790	799
MCW-15c (City)*	1015	10/15/20		=	790	749
MCW-15c (City)*	1015	10/16/20		=	790	703
MCW-15c (City)*	1015	10/17/20		=	790	659
MCW-15c (City)*	1015	10/18/20		=	790	618
MCW-15c (City)*	1015	10/19/20		=	790	580
MCW-15c (City)*	1200	10/20/2020 ♦		=	330	528
MCW-15c (City)*	1200	10/21/20		=	330	481
MCW-15c (City)*	1200	10/22/20		=	330	445
MCW-15c (City)*	1200	10/23/20		=	330	411
MCW-15c (City)*	1200	10/24/20		=	330	380
MCW-15c (City)*	1200	10/25/20		=	330	351
MCW-15c (City)*	1200	10/26/20		=	330	325
MCW-15c (City)*	1000	10/27/2020 ♦		=	170	294
MCW-15c (City)*	1000	10/28/20		=	170	265
MCW-15c (City)*	1000	10/29/20		=	170	293
MCW-15c (City)*	1000	10/30/20		=	170	323
MCW-15c (City)*	1000	10/31/20		=	170	356
MCW-17 (City and County)	-	10/1/2020	Dry	<	9	9
MCW-17 (City and County)	-	10/2/2020	Dry	<	9	9
MCW-17 (City and County)	-	10/3/2020	Dry	<	9	9



Location (Jurisdiction)	Time	Date	Rain		Single Sample (adjusted for rain, dry and NDs)	Geometric Mean
					E. coli (235 MPN)	E. coli (126 MPN)
MCW-17 (City and County)	-	10/4/2020	Dry	<	9	9
MCW-17 (City and County)	-	10/5/2020	Dry	<	9	9
MCW-17 (City and County)	-	10/6/2020◆	Dry	<	9	9
MCW-17 (City and County)	-	10/7/20	Dry	<	9	9
MCW-17 (City and County)	-	10/8/20	Dry	<	9	9
MCW-17 (City and County)	-	10/9/20	Dry	<	9	9
MCW-17 (City and County)	-	10/10/20	Dry	<	9	9
MCW-17 (City and County)	-	10/11/20	Dry	<	9	9
MCW-17 (City and County)	-	10/12/20	Dry	<	9	9
MCW-17 (City and County)	-	10/13/2020◆	Dry	<	9	9
MCW-17 (City and County)	-	10/14/20	Dry	<	9	9
MCW-17 (City and County)	-	10/15/20	Dry	<	9	9
MCW-17 (City and County)	-	10/16/20	Dry	<	9	9
MCW-17 (City and County)	-	10/17/20	Dry	<	9	9
MCW-17 (City and County)	-	10/18/20	Dry	<	9	9
MCW-17 (City and County)	-	10/19/20	Dry	<	9	9
MCW-17 (City and County)	-	10/20/2020◆	Dry	<	9	9
MCW-17 (City and County)	-	10/21/20	Dry	<	9	9
MCW-17 (City and County)	-	10/22/20	Dry	<	9	9
MCW-17 (City and County)	-	10/23/20	Dry	<	9	9
MCW-17 (City and County)	-	10/24/20	Dry	<	9	9
MCW-17 (City and County)	-	10/25/20	Dry	<	9	9
MCW-17 (City and County)	-	10/26/20	Dry	<	9	9
MCW-17 (City and County)	-	10/27/2020◆	Dry	<	9	9
MCW-17 (City and County)	-	10/28/20	Dry	<	9	9
MCW-17 (City and County)	-	10/29/20	Dry	<	9	9
MCW-17 (City and County)	-	10/30/20	Dry	<	9	9
MCW-17 (City and County)	-	10/31/20	Dry	<	9	9
MCW-18 (County)	-	10/1/2020	Dry	<	9	9
MCW-18 (County)	-	10/2/2020	Dry	<	9	9
MCW-18 (County)	-	10/3/2020	Dry	<	9	9
MCW-18 (County)	-	10/4/2020	Dry	<	9	9
MCW-18 (County)	-	10/5/2020	Dry	<	9	9
MCW-18 (County)	-	10/6/2020◆	Dry	<	9	9
MCW-18 (County)	-	10/7/20	Dry	<	9	9
MCW-18 (County)	-	10/8/20	Dry	<	9	9
MCW-18 (County)	-	10/9/20	Dry	<	9	9
MCW-18 (County)	-	10/10/20	Dry	<	9	9
MCW-18 (County)	-	10/11/20	Dry	<	9	9
MCW-18 (County)	-	10/12/20	Dry	<	9	9



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-18 (County)	-	10/13/2020◆	Dry	<	9	9
MCW-18 (County)	-	10/14/20	Dry	<	9	9
MCW-18 (County)	-	10/15/20	Dry	<	9	9
MCW-18 (County)	-	10/16/20	Dry	<	9	9
MCW-18 (County)	-	10/17/20	Dry	<	9	9
MCW-18 (County)	-	10/18/20	Dry	<	9	9
MCW-18 (County)	-	10/19/20	Dry	<	9	9
MCW-18 (County)	-	10/20/2020◆	Dry	<	9	9
MCW-18 (County)	-	10/21/20	Dry	<	9	9
MCW-18 (County)	-	10/22/20	Dry	<	9	9
MCW-18 (County)	-	10/23/20	Dry	<	9	9
MCW-18 (County)	-	10/24/20	Dry	<	9	9
MCW-18 (County)	-	10/25/20	Dry	<	9	9
MCW-18 (County)	-	10/26/20	Dry	<	9	9
MCW-18 (County)	-	10/27/2020◆	Dry	<	9	9
MCW-18 (County)	-	10/28/20	Dry	<	9	9
MCW-18 (County)	-	10/29/20	Dry	<	9	9
MCW-18 (County)	-	10/30/20	Dry	<	9	9
MCW-18 (County)	-	10/31/20	Dry	<	9	9

Notes:

◆: Date of sampling

A dilution factor of 10 is applied to all samples analyzed for this program, resulting in an MRL of 18 MPN/100 ml

Results of <18 MPN/100 ml are adjusted to use half the MRL (=9) in the calculation of the geometric mean. As such, Table 2 presents a value of 9 MPN/100mL to distinguish the value used for calculation of the 30-day geometric mean

Dry: Samples were not collected due to insufficient flow and a value of 9 MPN/100 ml (half the MRL) was used for calculation of the 30-day geometric mean

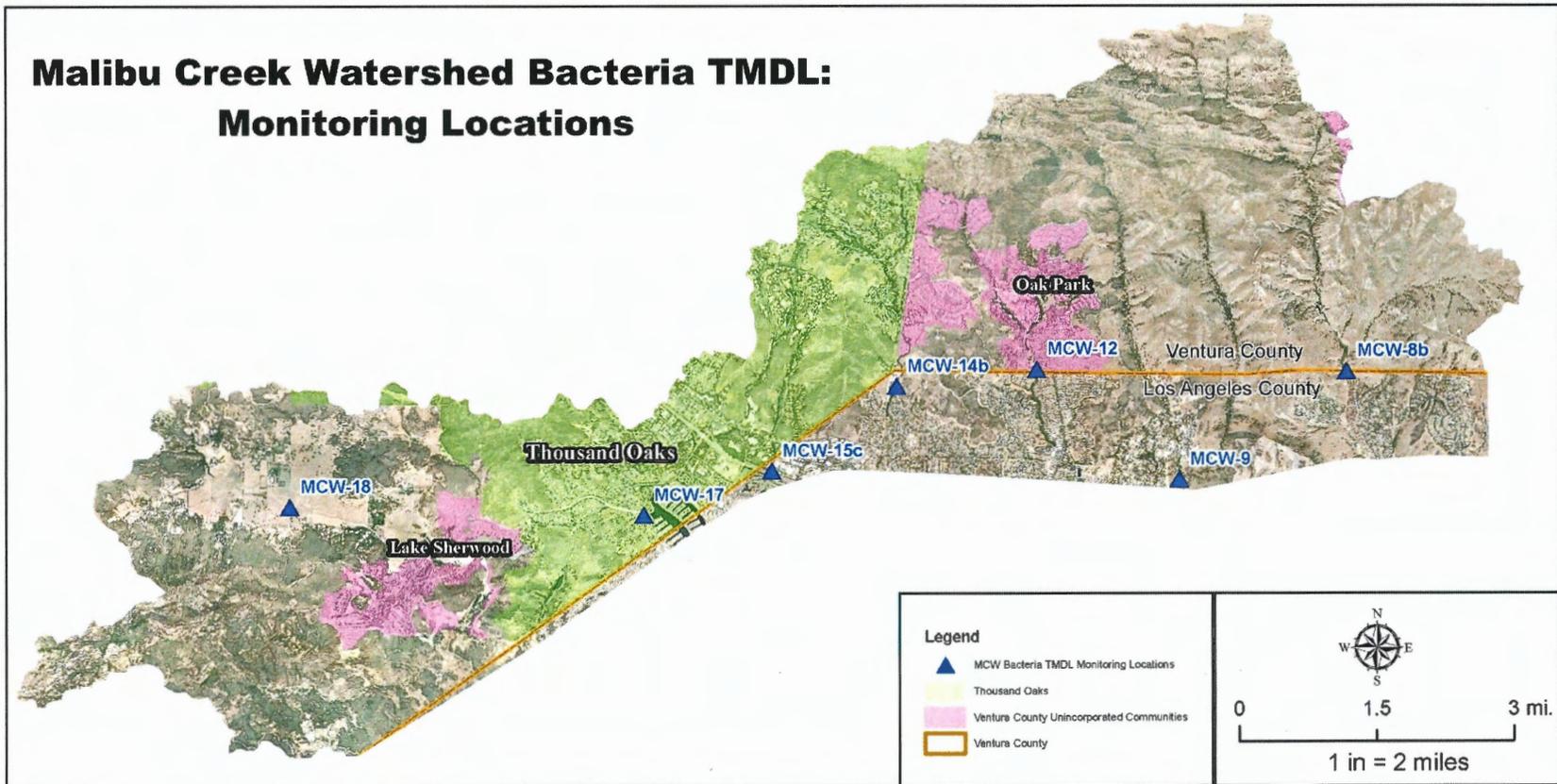
-: Time is not applicable, as no sample was collected due to insufficient flow

Weeks with wet weather samples (collected less than 72 hours after a day with >0.1" rain) use the previous non-rain single sample value to calculate the geometric mean.

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017

*: The RWQCB granted permission to replace site MCW-15b with site Special-05 (renamed MCW-15c) on August 11th, 2010





Central Services
Joan Araujo, Director

Engineering Services
Christopher Cooper, Director

Roads & Transportation
David Fleisch, Director

Water & Sanitation
Joseph Pope, Director

Watershed Protection
Glenn Shephard, Director

December 28, 2020

VIA EMAIL

Kangshi Wang, Ph.D.
California Regional Water Quality Control Board
Los Angeles Region
Standards & TMDL Unit
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Subject: Malibu Creek and Lagoon Bacteria TMDL Compliance Monitoring for County of Ventura, Ventura County Watershed Protection District, and City of Thousand Oaks

Dear Dr. Wang:

Please find attached the report for the results of the weekly monitoring effort required by the Malibu Creek and Lagoon Bacteria Total Maximum Daily Load (TMDL) Compliance Monitoring Plan (CMP) for the month of November 2020. Sites were sampled weekly on Tuesday (November 3, 10, and 17) and on Monday November 24 and 30, 2020 due to staffing schedule conflicts. Beginning on and following July 23, 2019, Rincon Consultants Inc. has been retained to conduct compliance monitoring activities.

Table 1 presents the weekly sampling results, while Table 2 presents the rolling 30-day geometric means for the sampling locations. Sample collection dates are marked with a diamond (◆) symbol. Sites without results reported were not sampled due to insufficient flow and are labeled "Dry." A map showing the location of the monitoring sites is included below.

Daily geometric means for wet weather and dry weather are calculated using the past 30 days of the respective sampling data (Table 2). For example, weeks with wet weather samples (collected less than 72 hours after a day with > 0.1" rain) use the previous wet weather single sample values to calculate the geometric mean. Non-sampling-day values are assigned the value of the most recent sampling event. Half the method reporting limit (MRL) was used to calculate the daily geometric means for sites with results reported as non-detect (ND) [e.g., < 18 most probable number per 100 milliliters (MPN/100 ml)]. Statistics are also calculated for dry events at all sampling locations by assigning a concentration value of half the MRL, as a zero value is



undefined logarithmically, and as such would be unusable in the geometric mean calculation.

Due to regularly occurring high concentrations in analytical results, a dilution factor of 10 is applied to all samples to quantify results that exceed the standard upper reporting limit of a single dilution. As a result, the MRL for samples analyzed for this program is 18 MPN/100mL.

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017.

Fecal coliform monitoring has been discontinued, as approved by the Los Angeles Regional Water Quality Control Board on October 31, 2014, in alignment with the Regional Board's removal of the fecal coliform objective for REC-1 freshwaters from the TMDL on June 7, 2012 and subsequent approval by the U.S. Environmental Protection Agency on July 2, 2014.

If you have any questions regarding this matter, please contact me at (805) 654-3942.

Sincerely,



Arne Anselm
Deputy Director, Watershed Protection

CC: Glenn Shephard, Director, Watershed Protection (via email)
Ewelina Mutkowska, County of Ventura (via email)
Paul Jorgensen, City of Thousand Oaks (via email)
Joe Bellomo, Willdan Associates (via email)
Kelly Fisher, City of Agoura Hills (via email)
Allen Ma, County of Los Angeles (via email)



Table 1. Weekly sampling results

Location (Jurisdiction)	Time	Date	Rain	Single Sample (as sampled)	
					E. coli (235 MPN)
MCW-8b (County)	-	11/3/2020◆	Dry		Dry
MCW-8b (County)	1140	11/10/2020◆		=	20
MCW-8b (County)	-	11/17/2020◆	Dry		Dry
MCW-8b (County)	-	11/23/2020◆	Dry		Dry
MCW-8b (County)	1130	11/30/2020◆		=*	40
MCW-9 (County)	-	11/3/2020◆	Dry		Dry
MCW-9 (County)	-	11/10/2020◆	Dry		Dry
MCW-9 (County)	-	11/17/2020◆	Dry		Dry
MCW-9 (County)	-	11/23/2020◆	Dry		Dry
MCW-9 (County)	-	11/30/2020◆	Dry		Dry
MCW-12 (County)	1035	11/3/2020◆		=	9,200
MCW-12 (County)	1050	11/10/2020◆		=	310
MCW-12 (County)	1340	11/17/2020◆		=	20
MCW-12 (County)	1110	11/23/2020◆		=	20
MCW-12 (County)	1100	11/30/2020◆		=*	130
MCW-14b (City and County)	1000	11/3/2020◆		=	20
MCW-14b (City and County)	1030	11/10/2020◆		=	16,000
MCW-14b (City and County)	1320	11/17/2020◆		=	110
MCW-14b (City and County)	1040	11/23/2020◆		=	330
MCW-14b (City and County)	1020	11/30/2020◆		=*	7
MCW-15c (City)*	-	11/3/2020◆	Dry		Dry
MCW-15c (City)*	1010	11/10/2020◆		=	330
MCW-15c (City)*	1300	11/17/2020◆		=	1,300
MCW-15c (City)*	1020	11/23/2020◆		=	1,300
MCW-15c (City)*	-	11/30/2020◆	Dry		Dry
MCW-17 (City and County)	-	11/3/2020◆	Dry		Dry
MCW-17 (City and County)	-	11/10/2020◆	Dry		Dry
MCW-17 (City and County)	-	11/17/2020◆	Dry		Dry
MCW-17 (City and County)	-	11/23/2020◆	Dry		Dry
MCW-17 (City and County)	-	11/30/2020◆	Dry		Dry



				Single Sample (as sampled)	
Location (Jurisdiction)	Time	Date	Rain		E. coli
					(235 MPN)
MCW-18 (County)	-	11/3/2020◆	Dry		Dry
MCW-18 (County)	-	11/10/2020◆	Dry		Dry
MCW-18 (County)	-	11/17/2020◆	Dry		Dry
MCW-18 (County)	-	11/23/2020◆	Dry		Dry
MCW-18 (County)	-	11/30/2020◆	Dry		Dry

Notes:

*: The RWQCB granted permission to replace site MCW-15b with site Special-05 (renamed MCW-15c) on August 11th, 2010.

◆: Date of sampling

-: Time is not applicable, as no sample was collected due to insufficient flow

Dry: Samples were not collected due to insufficient flow

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017

A dilution factor of 10 is applied to all samples analyzed for this program, resulting in a MRL of 18 MPN/100 ml

=*: Samples collected on November 30, 2020 were not analyzed for E. coli. Table 1 presents results from Fecal Coliform analysis



Table 2. Computation of daily geometric mean

Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
					E. coli (235 MPN)	E. coli (126 MPN)
MCW-8b (County)	1130	11/1/2020		=	130	120
MCW-8b (County)	1130	11/2/2020		=	130	119
MCW-8b (County)	-	11/3/2020♦	Dry	<	9	108
MCW-8b (County)	-	11/4/2020	Dry	<	9	98
MCW-8b (County)	-	11/5/2020	Dry	<	9	98
MCW-8b (County)	-	11/6/2020	Dry	<	9	98
MCW-8b (County)	-	11/7/2020	Dry	<	9	98
MCW-8b (County)	-	11/8/2020	Dry	<	9	98
MCW-8b (County)	-	11/9/2020	Dry	<	9	98
MCW-8b (County)	1140	11/10/2020♦		=	20	100
MCW-8b (County)	1140	11/11/2020		=	20	103
MCW-8b (County)	1140	11/12/2020		=	20	95
MCW-8b (County)	1140	11/13/2020		=	20	88
MCW-8b (County)	1140	11/14/2020		=	20	81
MCW-8b (County)	1140	11/15/2020		=	20	75
MCW-8b (County)	1140	11/16/2020		=	20	69
MCW-8b (County)	-	11/17/2020♦	Dry	<	9	62
MCW-8b (County)	-	11/18/2020	Dry	<	9	56
MCW-8b (County)	-	11/19/2020	Dry	<	9	48
MCW-8b (County)	-	11/20/2020	Dry	<	9	42
MCW-8b (County)	-	11/21/2020	Dry	<	9	36
MCW-8b (County)	-	11/22/2020	Dry	<	9	31
MCW-8b (County)	-	11/23/2020♦	Dry	<	9	27
MCW-8b (County)	-	11/24/2020	Dry	<	9	23
MCW-8b (County)	-	11/25/2020	Dry	<	9	20
MCW-8b (County)	-	11/26/2020	Dry	<	9	18
MCW-8b (County)	-	11/27/2020	Dry	<	9	17
MCW-8b (County)	-	11/28/2020	Dry	<	9	15
MCW-8b (County)	-	11/29/2020	Dry	<	9	14
MCW-8b (County)	-	11/30/2020♦		=*	40	14
MCW-9 (County)	-	11/1/2020	Dry	<	9	9
MCW-9 (County)	-	11/2/2020	Dry	<	9	9
MCW-9 (County)	-	11/3/2020♦	Dry	<	9	9
MCW-9 (County)	-	11/4/2020	Dry	<	9	9
MCW-9 (County)	-	11/5/2020	Dry	<	9	9
MCW-9 (County)	-	11/6/2020	Dry	<	9	9
MCW-9 (County)	-	11/7/2020	Dry	<	9	9
MCW-9 (County)	-	11/8/2020	Dry	<	9	9
MCW-9 (County)	-	11/9/2020	Dry	<	9	9



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-9 (County)	-	11/10/2020♦	Dry	<	9	9
MCW-9 (County)	-	11/11/2020	Dry	<	9	9
MCW-9 (County)	-	11/12/2020	Dry	<	9	9
MCW-9 (County)	-	11/13/2020	Dry	<	9	9
MCW-9 (County)	-	11/14/2020	Dry	<	9	9
MCW-9 (County)	-	11/15/2020	Dry	<	9	9
MCW-9 (County)	-	11/16/2020	Dry	<	9	9
MCW-9 (County)	-	11/17/2020♦	Dry	<	9	9
MCW-9 (County)	-	11/18/2020	Dry	<	9	9
MCW-9 (County)	-	11/19/2020	Dry	<	9	9
MCW-9 (County)	-	11/20/2020	Dry	<	9	9
MCW-9 (County)	-	11/21/2020	Dry	<	9	9
MCW-9 (County)	-	11/22/2020	Dry	<	9	9
MCW-9 (County)	-	11/23/2020♦	Dry	<	9	9
MCW-9 (County)	-	11/24/2020	Dry	<	9	9
MCW-9 (County)	-	11/25/2020	Dry	<	9	9
MCW-9 (County)	-	11/26/2020	Dry	<	9	9
MCW-9 (County)	-	11/27/2020	Dry	<	9	9
MCW-9 (County)	-	11/28/2020	Dry	<	9	9
MCW-9 (County)	-	11/29/2020	Dry	<	9	9
MCW-9 (County)	-	11/30/2020♦	Dry	<	9	9
MCW-12 (County)	1040	11/1/2020		=	110	286
MCW-12 (County)	1040	11/2/2020		=	110	275
MCW-12 (County)	1035	11/3/2020♦		=	9,200	308
MCW-12 (County)	1035	11/4/2020		=	9,200	344
MCW-12 (County)	1035	11/5/2020		=	9,200	367
MCW-12 (County)	1035	11/6/2020		=	9,200	392
MCW-12 (County)	1035	11/7/2020		=	9,200	418
MCW-12 (County)	1035	11/8/2020		=	9,200	446
MCW-12 (County)	1035	11/9/2020		=	9,200	476
MCW-12 (County)	1050	11/10/2020♦		=	310	454
MCW-12 (County)	1050	11/11/2020		=	310	433
MCW-12 (County)	1050	11/12/2020		=	310	453
MCW-12 (County)	1050	11/13/2020		=	310	475
MCW-12 (County)	1050	11/14/2020		=	310	497
MCW-12 (County)	1050	11/15/2020		=	310	520
MCW-12 (County)	1050	11/16/2020		=	310	545
MCW-12 (County)	1340	11/17/2020♦		=	20	521
MCW-12 (County)	1340	11/18/2020		=	20	498
MCW-12 (County)	1340	11/19/2020		=	20	447
MCW-12 (County)	1340	11/20/2020		=	20	402



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-12 (County)	1340	11/21/2020	=	20	361	
MCW-12 (County)	1340	11/22/2020	=	20	325	
MCW-12 (County)	1110	11/23/2020♦	=	20	292	
MCW-12 (County)	1110	11/24/2020	=	20	263	
MCW-12 (County)	1110	11/25/2020	=	20	236	
MCW-12 (County)	1110	11/26/2020	=	20	223	
MCW-12 (County)	1110	11/27/2020	=	20	211	
MCW-12 (County)	1110	11/28/2020	=	20	199	
MCW-12 (County)	1110	11/29/2020	=	20	188	
MCW-12 (County)	1100	11/30/2020♦	=*	130	189	
MCW-14b (City and County)	1020	11/1/2020	=	490	1,057	
MCW-14b (City and County)	1020	11/2/2020	=	490	1,040	
MCW-14b (City and County)	1000	11/3/2020♦	=	20	920	
MCW-14b (City and County)	1000	11/4/2020	=	20	814	
MCW-14b (City and County)	1000	11/5/2020	=	20	742	
MCW-14b (City and County)	1000	11/6/2020	=	20	675	
MCW-14b (City and County)	1000	11/7/2020	=	20	615	
MCW-14b (City and County)	1000	11/8/2020	=	20	560	
MCW-14b (City and County)	1000	11/9/2020	=	20	510	
MCW-14b (City and County)	1030	11/10/2020♦	=	16,000	581	
MCW-14b (City and County)	1030	11/11/2020	=	16,000	661	
MCW-14b (City and County)	1030	11/12/2020	=	16,000	661	
MCW-14b (City and County)	1030	11/13/2020	=	16,000	661	
MCW-14b (City and County)	1030	11/14/2020	=	16,000	661	
MCW-14b (City and County)	1030	11/15/2020	=	16,000	661	
MCW-14b (City and County)	1030	11/16/2020	=	16,000	661	
MCW-14b (City and County)	1320	11/17/2020♦	=	110	560	
MCW-14b (City and County)	1320	11/18/2020	=	110	474	
MCW-14b (City and County)	1320	11/19/2020	=	110	451	
MCW-14b (City and County)	1320	11/20/2020	=	110	429	
MCW-14b (City and County)	1320	11/21/2020	=	110	408	
MCW-14b (City and County)	1320	11/22/2020	=	110	389	
MCW-14b (City and County)	1040	11/23/2020♦	=	330	384	
MCW-14b (City and County)	1040	11/24/2020	=	330	379	
MCW-14b (City and County)	1040	11/25/2020	=	330	374	
MCW-14b (City and County)	1040	11/26/2020	=	330	369	
MCW-14b (City and County)	1040	11/27/2020	=	330	364	
MCW-14b (City and County)	1040	11/28/2020	=	330	359	
MCW-14b (City and County)	1040	11/29/2020	=	330	354	
MCW-14b (City and County)	1020	11/30/2020♦	=*	6.8	307	



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
					E. coli (235 MPN)	E. coli (126 MPN)
MCW-15c (City)*	1000	11/1/2020		=	170	393
MCW-15c (City)*	1000	11/2/2020		=	170	433
MCW-15c (City)*	-	11/3/2020◆	Dry	<	9	433
MCW-15c (City)*	-	11/4/2020	Dry	<	9	433
MCW-15c (City)*	-	11/5/2020	Dry	<	9	359
MCW-15c (City)*	-	11/6/2020	Dry	<	9	298
MCW-15c (City)*	-	11/7/2020	Dry	<	9	248
MCW-15c (City)*	-	11/8/2020	Dry	<	9	206
MCW-15c (City)*	-	11/9/2020	Dry	<	9	171
MCW-15c (City)*	1010	11/10/2020◆		=	330	160
MCW-15c (City)*	1010	11/11/2020		=	330	150
MCW-15c (City)*	1010	11/12/2020		=	330	145
MCW-15c (City)*	1010	11/13/2020		=	330	141
MCW-15c (City)*	1010	11/14/2020		=	330	137
MCW-15c (City)*	1010	11/15/2020		=	330	133
MCW-15c (City)*	1010	11/16/2020		=	330	129
MCW-15c (City)*	1300	11/17/2020◆		=	1,300	131
MCW-15c (City)*	1300	11/18/2020		=	1,300	134
MCW-15c (City)*	1300	11/19/2020		=	1,300	140
MCW-15c (City)*	1300	11/20/2020		=	1,300	146
MCW-15c (City)*	1300	11/21/2020		=	1,300	153
MCW-15c (City)*	1300	11/22/2020		=	1,300	160
MCW-15c (City)*	1020	11/23/2020◆		=	1,300	168
MCW-15c (City)*	1020	11/24/2020		=	1,300	176
MCW-15c (City)*	1020	11/25/2020		=	1,300	184
MCW-15c (City)*	1020	11/26/2020		=	1,300	197
MCW-15c (City)*	1020	11/27/2020		=	1,300	211
MCW-15c (City)*	1020	11/28/2020		=	1,300	226
MCW-15c (City)*	1020	11/29/2020		=	1,300	241
MCW-15c (City)*	-	11/30/2020◆	Dry	<	9	219
MCW-17 (City and County)	-	11/1/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/2/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/3/2020◆	Dry	<	9	9
MCW-17 (City and County)	-	11/4/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/5/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/6/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/7/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/8/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/9/2020	Dry	<	9	9



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
					E. coli (235 MPN)	E. coli (126 MPN)
MCW-17 (City and County)	-	11/10/2020◆	Dry	<	9	9
MCW-17 (City and County)	-	11/11/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/12/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/13/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/14/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/15/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/16/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/17/2020◆	Dry	<	9	9
MCW-17 (City and County)	-	11/18/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/19/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/20/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/21/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/22/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/23/2020◆	Dry	<	9	9
MCW-17 (City and County)	-	11/24/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/25/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/26/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/27/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/28/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/29/2020	Dry	<	9	9
MCW-17 (City and County)	-	11/30/2020◆	Dry	<	9	9
MCW-18 (County)	-	11/1/2020	Dry	<	9	9
MCW-18 (County)	-	11/2/2020	Dry	<	9	9
MCW-18 (County)	-	11/3/2020◆	Dry	<	9	9
MCW-18 (County)	-	11/4/2020	Dry	<	9	9
MCW-18 (County)	-	11/5/2020	Dry	<	9	9
MCW-18 (County)	-	11/6/2020	Dry	<	9	9
MCW-18 (County)	-	11/7/2020	Dry	<	9	9
MCW-18 (County)	-	11/8/2020	Dry	<	9	9
MCW-18 (County)	-	11/9/2020	Dry	<	9	9
MCW-18 (County)	-	11/10/2020◆	Dry	<	9	9
MCW-18 (County)	-	11/11/2020	Dry	<	9	9
MCW-18 (County)	-	11/12/2020	Dry	<	9	9
MCW-18 (County)	-	11/13/2020	Dry	<	9	9
MCW-18 (County)	-	11/14/2020	Dry	<	9	9
MCW-18 (County)	-	11/15/2020	Dry	<	9	9
MCW-18 (County)	-	11/16/2020	Dry	<	9	9
MCW-18 (County)	-	11/17/2020◆	Dry	<	9	9
MCW-18 (County)	-	11/18/2020	Dry	<	9	9
MCW-18 (County)	-	11/19/2020	Dry	<	9	9
MCW-18 (County)	-	11/20/2020	Dry	<	9	9



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-18 (County)	-	11/21/2020	Dry	<	9	9
MCW-18 (County)	-	11/22/2020	Dry	<	9	9
MCW-18 (County)	-	11/23/2020♦	Dry	<	9	9
MCW-18 (County)	-	11/24/2020	Dry	<	9	9
MCW-18 (County)	-	11/25/2020	Dry	<	9	9
MCW-18 (County)	-	11/26/2020	Dry	<	9	9
MCW-18 (County)	-	11/27/2020	Dry	<	9	9
MCW-18 (County)	-	11/28/2020	Dry	<	9	9
MCW-18 (County)	-	11/29/2020	Dry	<	9	9
MCW-18 (County)	-	11/30/2020♦	Dry	<	9	9

Notes:

♦: Date of sampling

A dilution factor of 10 is applied to all samples analyzed for this program, resulting in an MRL of 18 MPN/100 ml. Results of <18 MPN/100 ml are adjusted to use half the MRL (=9) in the calculation of the geometric mean. As such, Table 2 presents a value of 9 MPN/100mL to distinguish the value used for calculation of the 30-day geometric mean. Dry: Samples were not collected due to insufficient flow and a value of 9 MPN/100 ml (half the MRL) was used for calculation of the 30-day geometric mean.

-: Time is not applicable, as no sample was collected due to insufficient flow.

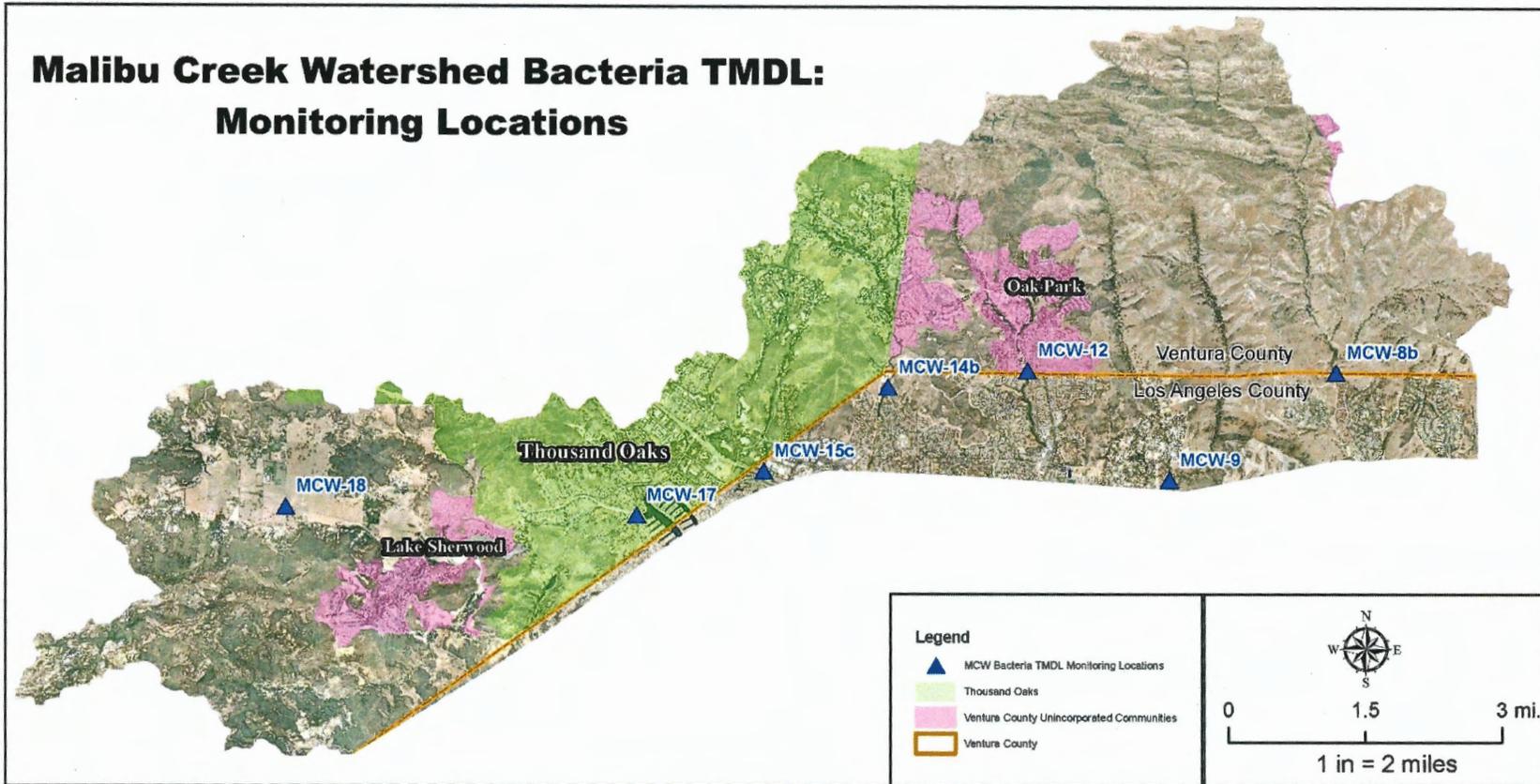
Weeks with wet weather samples (collected less than 72 hours after a day with >0.1" rain) use the previous non-rain single sample value to calculate the geometric mean.

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017.

*: The RWQCB granted permission to replace site MCW-15b with site Special-05 (renamed MCW-15c) on August 11th, 2010.

=*: Samples collected on November 30, 2020 were not analyzed for E. coli. Table 2 presents results and geometric mean calculations using Fecal Coliform results.





Central Services
Joan Araujo, Director

Engineering Services
Christopher Cooper, Director

Roads & Transportation
David Fleisch, Director

Water & Sanitation
Joseph Pope, Director

Watershed Protection
Glenn Shephard, Director

January 26, 2021

VIA EMAIL

Kangshi Wang, Ph.D.
California Regional Water Quality Control Board
Los Angeles Region
Standards & TMDL Unit
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Subject: Malibu Creek and Lagoon Bacteria TMDL Compliance Monitoring for County of Ventura, Ventura County Watershed Protection District, and City of Thousand Oaks

Dear Dr. Wang:

Please find attached the report for the results of the weekly monitoring effort required by the Malibu Creek and Lagoon Bacteria Total Maximum Daily Load (TMDL) Compliance Monitoring Plan (CMP) for the month of December 2020. Sites were sampled weekly on Tuesday (December 8, 15, 22, and 29). Beginning on and following July 23, 2019, Rincon Consultants Inc. has been retained to conduct compliance monitoring activities.

Table 1 presents the weekly sampling results, while Table 2 presents the rolling 30-day geometric means for the sampling locations. Sample collection dates are marked with a diamond (◆) symbol. Sites without results reported were not sampled due to insufficient flow and are labeled "Dry." A map showing the location of the monitoring sites is included below.

Daily geometric means for dry weather are calculated using the past 30 days of the respective sampling data (Table 2). Note that geometric means are not calculated for wet weather samples (collected less than 72 hours after a day with > 0.1" rain). Non-sampling-day values are assigned the value of the most recent sampling event. Half the method reporting limit (MRL) was used to calculate the daily geometric means for sites with results reported as non-detect (ND) [e.g., < 18 most probable number per 100 milliliters (MPN/100 ml)]. Statistics are also calculated for dry events at all sampling locations by assigning a concentration value of half the MRL, as a zero value is undefined logarithmically, and as such would be unusable in the geometric mean calculation.



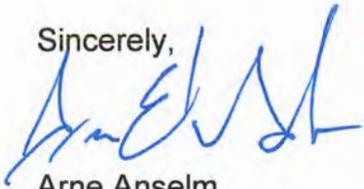
Due to regularly occurring high concentrations in analytical results, a dilution factor of 10 is applied to all samples to quantify results that exceed the standard upper reporting limit of a single dilution. As a result, the MRL for samples analyzed for this program is 18 MPN/100mL.

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017.

Fecal coliform monitoring has been discontinued, as approved by the Los Angeles Regional Water Quality Control Board on October 31, 2014, in alignment with the Regional Board's removal of the fecal coliform objective for REC-1 freshwaters from the TMDL on June 7, 2012 and subsequent approval by the U.S. Environmental Protection Agency on July 2, 2014.

If you have any questions regarding this matter, please contact me at (805) 654-3942.

Sincerely,



Arne Anselm
Deputy Director, Watershed Protection

CC: Glenn Shephard, Director, Watershed Protection (via email)
Ewelina Mutkowska, County of Ventura (via email)
Paul Jorgensen, City of Thousand Oaks (via email)
Joe Bellomo, Willdan Associates (via email)
Kelly Fisher, City of Agoura Hills (via email)
Allen Ma, County of Los Angeles (via email)



Table 1. Weekly sampling results

Location (Jurisdiction)	Time	Date	Rain	Single Sample (as sampled)	
					E. coli (235 MPN)
MCW-8b (County)	1125	12/8/2020 ♦		=	20
MCW-8b (County)	1155	12/15/2020 ♦		=	78
MCW-8b (County)	1145	12/22/2020 ♦		=	68
MCW-8b (County)	1200	12/29/2020 ♦	Rain	=	490
MCW-9 (County)	-	12/8/2020 ♦	Dry		Dry
MCW-9 (County)	-	12/15/2020 ♦	Dry		Dry
MCW-9 (County)	-	12/22/2020 ♦	Dry		Dry
MCW-9 (County)	-	12/29/2020 ♦	Rain		Dry
MCW-12 (County)	1045	12/8/2020 ♦		=	20
MCW-12 (County)	1125	12/15/2020 ♦		<	18
MCW-12 (County)	1115	12/22/2020 ♦		=	490
MCW-12 (County)	1125	12/29/2020 ♦	Rain	=	790
MCW-14b (City and County)	1015	12/8/2020 ♦		=	78
MCW-14b (City and County)	1215	12/15/2020 ♦		=	78
MCW-14b (City and County)	1040	12/22/2020 ♦		=	1,100
MCW-14b (City and County)	1100	12/29/2020 ♦	Rain	=	16,000
MCW-15c (City)*	-	12/8/2020 ♦	Dry		Dry
MCW-15c (City)*	-	12/15/2020 ♦	Dry		Dry
MCW-15c (City)*	1000	12/22/2020 ♦		=	3,500
MCW-15c (City)*	1020	12/29/2020 ♦	Rain	=	9,200
MCW-17 (City and County)	-	12/8/2020 ♦	Dry		Dry
MCW-17 (City and County)	-	12/15/2020 ♦	Dry		Dry
MCW-17 (City and County)	-	12/22/2020 ♦	Dry		Dry
MCW-17 (City and County)	1000	12/29/2020 ♦	Rain	=	410
MCW-18 (County)	-	12/8/2020 ♦	Dry		Dry
MCW-18 (County)	-	12/15/2020 ♦	Dry		Dry
MCW-18 (County)	-	12/22/2020 ♦	Dry		Dry
MCW-18 (County)	-	12/29/2020 ♦	Rain		Dry

Notes:

*: The RWQCB granted permission to replace site MCW-15b with site Special-05 (renamed MCW-15c) on August 11th, 2010.

♦: Date of sampling

-: Time is not applicable, as no sample was collected due to insufficient flow

Dry: Samples were not collected due to insufficient flow

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017

A dilution factor of 10 is applied to all samples analyzed for this program, resulting in a MRL of 18 MPN/100 ml



Table 2. Computation of daily geometric mean

Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)	Geometric Mean	
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-8b (County)	1130	12/1/2020		=*	40	13
MCW-8b (County)	1130	12/2/2020		=*	40	13
MCW-8b (County)	1130	12/3/2020		=*	40	13
MCW-8b (County)	1130	12/4/2020		=*	40	14
MCW-8b (County)	1130	12/5/2020		-*	40	15
MCW-8b (County)	1130	12/6/2020		=*	40	15
MCW-8b (County)	1130	12/7/2020		=*	40	16
MCW-8b (County)	1125	12/8/2020◆		=	20	17
MCW-8b (County)	1125	12/9/2020		=	20	17
MCW-8b (County)	1125	12/10/2020		=	20	17
MCW-8b (County)	1125	12/11/2020		=	20	17
MCW-8b (County)	1125	12/12/2020		=	20	17
MCW-8b (County)	1125	12/13/2020		=	20	17
MCW-8b (County)	1125	12/14/2020		=	20	17
MCW-8b (County)	1155	12/15/2020◆		=	78	18
MCW-8b (County)	1155	12/16/2020		=	78	19
MCW-8b (County)	1155	12/17/2020		=	78	20
MCW-8b (County)	1155	12/18/2020		=	78	22
MCW-8b (County)	1155	12/19/2020		=	78	23
MCW-8b (County)	1155	12/20/2020		=	78	25
MCW-8b (County)	1155	12/21/2020		=	78	27
MCW-8b (County)	1145	12/22/2020◆		=	68	29
MCW-8b (County)	1145	12/23/2020		=	68	31
MCW-8b (County)	1145	12/24/2020		=	68	33
MCW-8b (County)	1145	12/25/2020		=	68	35
MCW-8b (County)	1145	12/26/2020		=	68	37
MCW-8b (County)	1145	12/27/2020		=	68	40
MCW-8b (County)	1145	12/28/2020		=	68	43
MCW-8b (County)	1200	12/29/2020◆	Rain	**Rain**	**Rain**	**Rain**
MCW-8b (County)	1200	12/30/2020	Rain	**Rain**	**Rain**	**Rain**
MCW-8b (County)	1200	12/31/2020	Rain	**Rain**	**Rain**	**Rain**
MCW-9 (County)	-	12/1/2020	Dry	<	9	9
MCW-9 (County)	-	12/2/2020	Dry	<	9	9
MCW-9 (County)	-	12/3/2020	Dry	<	9	9
MCW-9 (County)	-	12/4/2020	Dry	<	9	9
MCW-9 (County)	-	12/5/2020	Dry	<	9	9
MCW-9 (County)	-	12/6/2020	Dry	<	9	9
MCW-9 (County)	-	12/7/2020	Dry	<	9	9
MCW-9 (County)	-	12/8/2020◆	Dry	<	9	9



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
					E. coli (235 MPN)	E. coli (126 MPN)
MCW-9 (County)	-	12/9/2020	Dry	<	9	9
MCW-9 (County)	-	12/10/2020	Dry	<	9	9
MCW-9 (County)	-	12/11/2020	Dry	<	9	9
MCW-9 (County)	-	12/12/2020	Dry	<	9	9
MCW-9 (County)	-	12/13/2020	Dry	<	9	9
MCW-9 (County)	-	12/14/2020	Dry	<	9	9
MCW-9 (County)	-	12/15/2020◆	Dry	<	9	9
MCW-9 (County)	-	12/16/2020	Dry	<	9	9
MCW-9 (County)	-	12/17/2020	Dry	<	9	9
MCW-9 (County)	-	12/18/2020	Dry	<	9	9
MCW-9 (County)	-	12/19/2020	Dry	<	9	9
MCW-9 (County)	-	12/20/2020	Dry	<	9	9
MCW-9 (County)	-	12/21/2020	Dry	<	9	9
MCW-9 (County)	-	12/22/2020◆	Dry	<	9	9
MCW-9 (County)	-	12/23/2020	Dry	<	9	9
MCW-9 (County)	-	12/24/2020	Dry	<	9	9
MCW-9 (County)	-	12/25/2020	Dry	<	9	9
MCW-9 (County)	-	12/26/2020	Dry	<	9	9
MCW-9 (County)	-	12/27/2020	Dry	<	9	9
MCW-9 (County)	-	12/28/2020	Dry	<	9	9
MCW-9 (County)	-	12/29/2020◆	Rain		**Rain**	**Rain**
MCW-9 (County)	-	12/30/2020	Rain		**Rain**	**Rain**
MCW-9 (County)	-	12/31/2020	Rain		**Rain**	**Rain**
MCW-12 (County)	1100	12/1/2020		=*	130	190
MCW-12 (County)	1100	12/2/2020		=*	130	191
MCW-12 (County)	1100	12/3/2020		=*	130	166
MCW-12 (County)	1100	12/4/2020		=*	130	144
MCW-12 (County)	1100	12/5/2020		=*	130	125
MCW-12 (County)	1100	12/6/2020		=*	130	108
MCW-12 (County)	1100	12/7/2020		=*	130	94
MCW-12 (County)	1045	12/8/2020◆		=	20	77
MCW-12 (County)	1045	12/9/2020		=	20	62
MCW-12 (County)	1045	12/10/2020		=	20	57
MCW-12 (County)	1045	12/11/2020		=	20	52
MCW-12 (County)	1045	12/12/2020		=	20	47
MCW-12 (County)	1045	12/13/2020		=	20	43
MCW-12 (County)	1045	12/14/2020		=	20	40
MCW-12 (County)	1125	12/15/2020◆		<	9	35
MCW-12 (County)	1125	12/16/2020		<	9	31
MCW-12 (County)	1125	12/17/2020		<	9	30
MCW-12 (County)	1125	12/18/2020		<	9	30



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-12 (County)	1125	12/19/2020		<	9	29
MCW-12 (County)	1125	12/20/2020		<	9	28
MCW-12 (County)	1125	12/21/2020		<	9	27
MCW-12 (County)	1115	12/22/2020◆		=	490	30
MCW-12 (County)	1115	12/23/2020		=	490	34
MCW-12 (County)	1115	12/24/2020		=	490	38
MCW-12 (County)	1115	12/25/2020		=	490	42
MCW-12 (County)	1115	12/26/2020		=	490	47
MCW-12 (County)	1115	12/27/2020		=	490	52
MCW-12 (County)	1115	12/28/2020		=	490	58
MCW-12 (County)	1125	12/29/2020◆	Rain		**Rain**	**Rain**
MCW-12 (County)	1125	12/30/2020	Rain		**Rain**	**Rain**
MCW-12 (County)	1125	12/31/2020	Rain		**Rain**	**Rain**
MCW-14b (City and County)	1020	12/1/2020		=*	6.8	266
MCW-14b (City and County)	1020	12/2/2020		=*	6.8	231
MCW-14b (City and County)	1020	12/3/2020		=*	6.8	223
MCW-14b (City and County)	1020	12/4/2020		=*	6.8	215
MCW-14b (City and County)	1020	12/5/2020		=*	6.8	207
MCW-14b (City and County)	1020	12/6/2020		=*	6.8	200
MCW-14b (City and County)	1020	12/7/2020		=*	6.8	193
MCW-14b (City and County)	1015	12/8/2020◆		=	78	202
MCW-14b (City and County)	1015	12/9/2020		=	78	211
MCW-14b (City and County)	1015	12/10/2020		=	78	177
MCW-14b (City and County)	1015	12/11/2020		=	78	148
MCW-14b (City and County)	1015	12/12/2020		=	78	124
MCW-14b (City and County)	1015	12/13/2020		=	78	104
MCW-14b (City and County)	1015	12/14/2020		=	78	87
MCW-14b (City and County)	1215	12/15/2020◆		=	78	73
MCW-14b (City and County)	1215	12/16/2020		=	78	61
MCW-14b (City and County)	1215	12/17/2020		=	78	60
MCW-14b (City and County)	1215	12/18/2020		=	78	60
MCW-14b (City and County)	1215	12/19/2020		=	78	59
MCW-14b (City and County)	1215	12/20/2020		=	78	58
MCW-14b (City and County)	1215	12/21/2020		=	78	58
MCW-14b (City and County)	1040	12/22/2020◆		=	1,100	62
MCW-14b (City and County)	1040	12/23/2020		=	1,100	65
MCW-14b (City and County)	1040	12/24/2020		=	1,100	67
MCW-14b (City and County)	1040	12/25/2020		=	1,100	70
MCW-14b (City and County)	1040	12/26/2020		=	1,100	73
MCW-14b (City and County)	1040	12/27/2020		=	1,100	76



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
					E. coli (235 MPN)	E. coli (126 MPN)
MCW-14b (City and County)	1040	12/28/2020		=	1,100	79
MCW-14b (City and County)	1100	12/29/2020 ♦	Rain		**Rain**	**Rain**
MCW-14b (City and County)	1100	12/30/2020	Rain		**Rain**	**Rain**
MCW-14b (City and County)	1100	12/31/2020	Rain		**Rain**	**Rain**
MCW-15c (City)*	-	12/1/2020	Dry	<	9	198
MCW-15c (City)*	-	12/2/2020	Dry	<	9	180
MCW-15c (City)*	-	12/3/2020	Dry	<	9	180
MCW-15c (City)*	-	12/4/2020	Dry	<	9	180
MCW-15c (City)*	-	12/5/2020	Dry	<	9	180
MCW-15c (City)*	-	12/6/2020	Dry	<	9	180
MCW-15c (City)*	-	12/7/2020	Dry	<	9	180
MCW-15c (City)*	-	12/8/2020 ♦	Dry	<	9	180
MCW-15c (City)*	-	12/9/2020	Dry	<	9	180
MCW-15c (City)*	-	12/10/2020	Dry	<	9	160
MCW-15c (City)*	-	12/11/2020	Dry	<	9	142
MCW-15c (City)*	-	12/12/2020	Dry	<	9	126
MCW-15c (City)*	-	12/13/2020	Dry	<	9	111
MCW-15c (City)*	-	12/14/2020	Dry	<	9	99
MCW-15c (City)*	-	12/15/2020 ♦	Dry	<	9	88
MCW-15c (City)*	-	12/16/2020	Dry	<	9	78
MCW-15c (City)*	-	12/17/2020	Dry	<	9	66
MCW-15c (City)*	-	12/18/2020	Dry	<	9	56
MCW-15c (City)*	-	12/19/2020	Dry	<	9	47
MCW-15c (City)*	-	12/20/2020	Dry	<	9	40
MCW-15c (City)*	-	12/21/2020	Dry	<	9	34
MCW-15c (City)*	1000	12/22/2020 ♦		=	3,500	35
MCW-15c (City)*	1000	12/23/2020		=	3,500	36
MCW-15c (City)*	1000	12/24/2020		=	3,500	37
MCW-15c (City)*	1000	12/25/2020		=	3,500	39
MCW-15c (City)*	1000	12/26/2020		=	3,500	53
MCW-15c (City)*	1000	12/27/2020		=	3,500	48
MCW-15c (City)*	1000	12/28/2020		=	3,500	46
MCW-15c (City)*	1020	12/29/2020 ♦	Rain		**Rain**	**Rain**
MCW-15c (City)*	1020	12/30/2020	Rain		**Rain**	**Rain**
MCW-15c (City)*	1020	12/31/2020	Rain		**Rain**	**Rain**
MCW-17 (City and County)	-	12/1/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/2/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/3/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/4/2020	Dry	<	9	9



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
					E. coli (235 MPN)	E. coli (126 MPN)
MCW-17 (City and County)	-	12/5/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/6/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/7/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/8/2020◆	Dry	<	9	9
MCW-17 (City and County)	-	12/9/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/10/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/11/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/12/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/13/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/14/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/15/2020◆	Dry	<	9	9
MCW-17 (City and County)	-	12/16/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/17/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/18/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/19/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/20/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/21/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/22/2020◆	Dry	<	9	9
MCW-17 (City and County)	-	12/23/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/24/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/25/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/26/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/27/2020	Dry	<	9	9
MCW-17 (City and County)	-	12/28/2020	Dry	<	9	9
MCW-17 (City and County)	1000	12/29/2020◆	Rain		**Rain**	**Rain**
MCW-17 (City and County)	1000	12/30/2020	Rain		**Rain**	**Rain**
MCW-17 (City and County)	1000	12/31/2020	Rain		**Rain**	**Rain**
MCW-18 (County)	-	12/1/2020	Dry	<	9	9
MCW-18 (County)	-	12/2/2020	Dry	<	9	9
MCW-18 (County)	-	12/3/2020	Dry	<	9	9
MCW-18 (County)	-	12/4/2020	Dry	<	9	9
MCW-18 (County)	-	12/5/2020	Dry	<	9	9
MCW-18 (County)	-	12/6/2020	Dry	<	9	9
MCW-18 (County)	-	12/7/2020	Dry	<	9	9
MCW-18 (County)	-	12/8/2020◆	Dry	<	9	9
MCW-18 (County)	-	12/9/2020	Dry	<	9	9
MCW-18 (County)	-	12/10/2020	Dry	<	9	9
MCW-18 (County)	-	12/11/2020	Dry	<	9	9
MCW-18 (County)	-	12/12/2020	Dry	<	9	9
MCW-18 (County)	-	12/13/2020	Dry	<	9	9
MCW-18 (County)	-	12/14/2020	Dry	<	9	9



Location (Jurisdiction)	Time	Date	Rain	Single Sample (adjusted for rain, dry and NDs)		Geometric Mean
				E. coli (235 MPN)	E. coli (126 MPN)	
MCW-18 (County)	-	12/15/2020◆	Dry	<	9	9
MCW-18 (County)	-	12/16/2020	Dry	<	9	9
MCW-18 (County)	-	12/17/2020	Dry	<	9	9
MCW-18 (County)	-	12/18/2020	Dry	<	9	9
MCW-18 (County)	-	12/19/2020	Dry	<	9	9
MCW-18 (County)	-	12/20/2020	Dry	<	9	9
MCW-18 (County)	-	12/21/2020	Dry	<	9	9
MCW-18 (County)	-	12/22/2020◆	Dry	<	9	9
MCW-18 (County)	-	12/23/2020	Dry	<	9	9
MCW-18 (County)	-	12/24/2020	Dry	<	9	9
MCW-18 (County)	-	12/25/2020	Dry	<	9	9
MCW-18 (County)	-	12/26/2020	Dry	<	9	9
MCW-18 (County)	-	12/27/2020	Dry	<	9	9
MCW-18 (County)	-	12/28/2020	Dry	<	9	9
MCW-18 (County)	-	12/29/2020◆	Rain		**Rain**	**Rain**
MCW-18 (County)	-	12/30/2020	Rain		**Rain**	**Rain**
MCW-18 (County)	-	12/31/2020	Rain		**Rain**	**Rain**

Notes:

◆: Date of sampling

A dilution factor of 10 is applied to all samples analyzed for this program, resulting in an MRL of 18 MPN/100 ml

Results of <18 MPN/100 ml are adjusted to use half the MRL (=9) in the calculation of the geometric mean. As such, Table 2 presents a value of 9 MPN/100mL to distinguish the value used for calculation of the 30-day geometric mean

Dry: Samples were not collected due to insufficient flow and a value of 9 MPN/100 ml (half the MRL) was used for calculation of the 30-day geometric mean

-: Time is not applicable, as no sample was collected due to insufficient flow

Weeks with wet weather samples (collected less than 72 hours after a day with >0.1" rain) use the previous non-rain single sample value to calculate the geometric mean.

Coliform tables from SM9221 in standard methods 22nd and 23rd have been adopted thus changing the reporting limit from 2.0 MPN/100 ml to 1.8 MPN/100 ml as of November 7, 2017

*: The RWQCB granted permission to replace site MCW-15b with site Special-05 (renamed MCW-15c) on August 11th, 2010

'=* : Samples collected on November 30, 2020 were not analyzed for E. coli. Table presents results from Fecal Coliform analysis



