



BRACEWELL ENGINEERING, INC.

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May 10, 2023/10/2023

Mr. Eric Lacy
State Water Resources Control Board-Division of Drinking Water
850 Marina Bay Parkway, Building P, 2nd Floor
Richmond, CA 94804

Re: April 2023 Monthly Report to the Office of Drinking Water
La Honda Water System (County Service Area No. 7), No. CA4100509

Dear Mr. Lacy:

Attached are the Monthly Summary of Distribution System Coliform Monitoring and the Monthly Summary of Monitoring for Surface Water Treatment Regulations for the La Honda Water System.

- The monthly distribution system treated water bacteriological sample showed an absence of total coliforms and E. coli.
- Chlorine residuals were maintained as required.
- The minimum Disinfection CT ratio was 1.5 for a DDW required 1- log removal for Giardia.
- The quarterly disinfection byproducts monitoring was completed and the TTHM running annual average of 72.8 ug/L was in compliance with its MCL of 80 ug/L and the HAA5 running annual average of 46.0 ug/L was in compliance with its MCL of 60 ug/L.

Please do not hesitate to contact me if you have any questions.

Respectfully submitted,
BRACEWELL ENGINEERING, INC.

Lloyd W. Bracewell, PhD., RCE
Water System Engineer

cc: San Mateo County, CSA #7
BEI Office

La Honda Water System (CSA No. 7)
 555 County Center, 5th Floor
 Redwood City, CA 94063
 System No. CA4100509

WATER SYSTEM MONITORING REPORT

Water Resources Control Board
 Division of Drinking Water
 850 Marina Bay Parkway, Bldg P
 Richmond, CA 98804

Location	Raw Water	Raw Water	Raw Water	Treated Water	Backwash
Parameter	Tank	Tank	Flow	Flow	Flow
frequency	daily	daily	calculation	calculation	calculation
Units	ft	ft	gal/d	gal/d	gal/d
Type	level	level	flow	flow	flow
High Limit					
Low Limit					
Date					
4/1/2023			-	3,389	991
4/2/2023			-	3,389	991
4/3/2023			-	3,389	991
4/4/2023			-	3,389	991
4/5/2023	7.75	10.94	622	3,389	991
4/6/2023			20,292	18,600	3,014
4/7/2023			20,292	18,600	3,014
4/8/2023			20,292	18,600	3,014
4/9/2023			20,292	18,600	3,014
4/10/2023			20,292	18,600	3,014
4/11/2023			20,292	18,600	3,014
4/12/2023	13.25	16.88	20,292	18,600	3,014
4/13/2023			24,447	23,389	3,600
4/14/2023			24,447	23,389	3,600
4/15/2023			24,447	23,389	3,600
4/16/2023			24,447	23,389	3,600
4/17/2023			24,447	23,389	3,600
4/18/2023			24,447	23,389	3,600
4/19/2023			24,447	23,389	3,600
4/20/2023			24,447	23,389	3,600
4/21/2023	13.84	19.48	24,447	23,389	3,600
4/22/2023			36,422	34,100	4,643
4/23/2023			36,422	34,100	4,643
4/24/2023			36,422	34,100	4,643
4/25/2023			36,422	34,100	4,643
4/26/2023			36,422	34,100	4,643
4/27/2023			36,422	34,100	4,643
4/28/2023	13.50	24.34	36,422	34,100	4,643
4/29/2023			34,720	32,320	4,920
4/30/2023			34,720	32,320	4,920

Min	7.75	10.94	-	3,389	991
Max	13.84	24.34	36,422	34,100	4,920
Average	12.09	17.91	22,903	22,033	3,360
Total			687,075	660,987	100,796

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WATER SYSTEM MONITORING REPORT

Water Resources Control Board
 Division of Drinking Water
 850 Marina Bay Parkway, Bldg P
 Richmond, CA 98804

Location	Contact Pipe	Contact Pipe	Contact Pipe	Contact Pipe	Contact Pipe
Parameter	CL2 Residual	pH	Turbidity	Temp	CL2
frequency	daily	weekly	weekly	weekly	weekly
Units	mg/L	units	ntu	C	mg/L
Type	Analyzer	Grab	Grab	Grab	Grab
High Limit					
Low Limit					
Date					
4/1/2023					
4/2/2023					
4/3/2023					
4/4/2023					
4/5/2023					
4/6/2023					
4/7/2023					
4/8/2023					
4/9/2023					
4/10/2023					
4/11/2023					
4/12/2023	0.87	7.47	0.14	13.5	1.89
4/13/2023					
4/14/2023					
4/15/2023					
4/16/2023					
4/17/2023					
4/18/2023					
4/19/2023					
4/20/2023					
4/21/2023	1.55	7.86	0.21	14.6	2.32
4/22/2023					
4/23/2023					
4/24/2023					
4/25/2023					
4/26/2023					
4/27/2023					
4/28/2023	1.77	7.72	0.13	15.3	1.55
4/29/2023					
4/30/2023					

Min	0.87	7.47	0.13	13.50	1.55
Max	1.77	7.86	0.21	15.30	2.32
Average	1.40	7.68	0.16	14.47	1.92
Total					

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WATER SYSTEM MONITORING REPORT

Water Resources Control Board
 Division of Drinking Water
 850 Marina Bay Parkway, Bldg P
 Richmond, CA 98804

Location		TW Storage Tank	TW Storage Tank	TW Storage Tank	TW Storage Tank	Aeration System	Aeration System
Parameter		Level	Temp	pH	cl2 residual	TTHM	UV Absorbance
frequency		weekly	weekly	weekly	weekly	weekly	weekly
units		ft	C	Units	ppm	mg/L	Au
Type		Visual					
High Limit			17.0	8.50	2.00		
Low Limit			6.5	7.50	0.30		
Date	Oper. Initials						
4/1/2023							
4/2/2023							
4/3/2023							
4/4/2023	KB	10.5	8.9	8.18	0.29		
4/5/2023							
4/6/2023							
4/7/2023							
4/8/2023							
4/9/2023							
4/10/2023							
4/11/2023							
4/12/2023							
4/13/2023							
4/14/2023	KB	18.9	16.2	7.53	1.38		
4/15/2023							
4/16/2023							
4/17/2023							
4/18/2023							
4/19/2023							
4/20/2023							
4/21/2023	KB	19.5	14.7	8.12	1.76		
4/22/2023							
4/23/2023							
4/24/2023							
4/25/2023							
4/26/2023							
4/27/2023							
4/28/2023	KB	24.4	14.9	8.09	1.32		
4/29/2023							
4/30/2023							

Min	-	10.5	8.9	7.53	0.29	-	-
Max	-	24.4	16.2	8.18	1.76	-	-
Average		18.3	13.7	7.98	1.19		
Total							

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WATER SYSTEM MONITORING REPORT

Water Resources Control Board
 Division of Drinking Water
 850 Marina Bay Parkway, Bldg P
 Richmond, CA 98804

Location	Old Chlorination Station
Parameter	Cl2 Residual
frequency	weekly
units	ppm
Type	
High Limit	2
Low Limit	0.3
Date	
4/1/2023	
4/2/2023	
4/3/2023	
4/4/2023	
4/5/2023	
4/6/2023	
4/7/2023	
4/8/2023	
4/9/2023	
4/10/2023	
4/11/2023	
4/12/2023	
4/13/2023	
4/14/2023	
4/15/2023	
4/16/2023	
4/17/2023	
4/18/2023	
4/19/2023	
4/20/2023	
4/21/2023	
4/22/2023	
4/23/2023	
4/24/2023	
4/25/2023	
4/26/2023	
4/27/2023	
4/28/2023	
4/29/2023	
4/30/2023	

Min	-
Max	-
Average	
Total	

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WATER SYSTEM MONITORING REPORT

Water Resources Control Board
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Location		Routine Sample Site	Water Tank (Weekly)
Parameter		Cl2 Residual	Cl2 Residual
frequency		as needed	weekly
units		mg/L	mg/L
Type		grab	grab
High Limit			
Low Limit			
Date	Oper. Initials		
4/1/2023			
4/2/2023			
4/3/2023			
4/4/2023	KB	0.27	
4/5/2023			
4/6/2023			
4/7/2023			
4/8/2023			
4/9/2023			
4/10/2023			
4/11/2023	KB	1.08	
4/12/2023			
4/13/2023			
4/14/2023			
4/15/2023			
4/16/2023			
4/17/2023			
4/18/2023			
4/19/2023			
4/20/2023			
4/21/2023	KB	1.42	
4/22/2023			
4/23/2023			
4/24/2023			
4/25/2023			
4/26/2023			
4/27/2023			
4/28/2023	KB	1.17	
4/29/2023			
4/30/2023			

Min	-	0.27	-
Max	-	1.42	-
Average		0.99	
Total			

LHW

April

La Honda Water System (W4100509)

CHLORINE RESIDUAL	SAMPLE POINT	SAMPLE ID	DATE	RESULT	UNIT	LIMIT	METHOD	DL	RL	TYPE	FREQUENCY
	Water Delivery Truck	AA03870	4/4/23	0.7	mg/L		SM 4500-CI G		0.02		CALENDAR
	Old Chlorination Station	AA03755	4/11/23	1.1	mg/L		SM 4500-CI G		0.02		LHW_BAC
	Water Tank	AA03871	4/4/23	0.3	mg/L		SM 4500-CI G		0.02		CALENDAR
COLIFORM MPN	SAMPLE POINT	SAMPLE ID	DATE	RESULT	UNIT	LIMIT	METHOD	DL	RL	TYPE	FREQUENCY
	ALPINE CREEK - RAW	AA03754	4/11/23	107.6	MPN/100mL		SM9223B-18		1.0		LHW_BAC
COLIFORM PA	SAMPLE POINT	SAMPLE ID	DATE	RESULT	UNIT	LIMIT	METHOD	DL	RL	TYPE	FREQUENCY
	Water Delivery Truck	AA03870	4/4/23	A	P/A		SM9223B-18				CALENDAR
	Old Chlorination Station	AA03755	4/11/23	A	P/A		SM9223B-18				LHW_BAC
	Water Tank	AA03871	4/4/23	A	P/A		SM9223B-18				CALENDAR
E COLI MPN	SAMPLE POINT	SAMPLE ID	DATE	RESULT	UNIT	LIMIT	METHOD	DL	RL	TYPE	FREQUENCY
	ALPINE CREEK - RAW	AA03754	4/11/23	13.5	MPN/100mL		SM9223B-18		1.0		LHW_BAC
E COLI PA	SAMPLE POINT	SAMPLE ID	DATE	RESULT	UNIT	LIMIT	METHOD	DL	RL	TYPE	FREQUENCY
	Water Delivery Truck	AA03870	4/4/23	A	P/A		SM9223B-18				CALENDAR
	Old Chlorination Station	AA03755	4/11/23	A	P/A		SM9223B-18				LHW_BAC
	Water Tank	AA03871	4/4/23	A	P/A		SM9223B-18				CALENDAR
PH	SAMPLE POINT	SAMPLE ID	DATE	RESULT	UNIT	LIMIT	METHOD	DL	RL	TYPE	FREQUENCY
	ALPINE CREEK - RAW	AA03757	4/27/23	8.5	pH Units		SM 4500-H B				LHW_GM-GP
UV254	SAMPLE POINT	SAMPLE ID	DATE	RESULT	UNIT	LIMIT	METHOD	DL	RL	TYPE	FREQUENCY
	ALPINE CREEK - RAW	AA03765	4/7/23	0.104	Abs/Tran		SM 5910B				LHW_MISC
	ALPINE CREEK - RAW	AA03928	4/11/23	0.085	Abs/Tran		SM 5910B				LHW_MISC
	ALPINE CREEK - RAW	AA03982	4/17/23	0.088	Abs/Tran		SM 5910B				LHW_MISC
	ALPINE CREEK - RAW	AA04018	4/25/23	0.058	Abs/Tran		SM 5910B				LHW_MISC
			HIGH 0.10	AVG 0.08	LOW 0.06						
	TREATMENT PLANT - TREATED	AA03766	4/7/23	0.006	Abs/Tran		SM 5910B				LHW_MISC
	TREATMENT PLANT - TREATED	AA03929	4/11/23	0.027	Abs/Tran		SM 5910B				LHW_MISC
	TREATMENT PLANT - TREATED	AA03983	4/17/23	0.033	Abs/Tran		SM 5910B				LHW_MISC
	TREATMENT PLANT - TREATED	AA04019	4/25/23	0.016	Abs/Tran		SM 5910B				LHW_MISC
			HIGH 0.03	AVG 0.02	LOW 0.01						

State of California
Water Resources Control Board
Division of Drinking Water
Coliform Reporting Form


Date of Report: 5/10/2023

System Name: La Honda Water System (CSA #7)

System Number: CA4100509

Laboratory: BEI Analytical Laboratory

Elap No: 3019

Signature of Lab Director: 

Report Period from: 4/1/2023 to 4/30/2023

Sampler: Keefe Brennan

Employed by: Bracewell Engineering, Inc.

Collection Date	Laboratory Number	Bottle Number	Site Name or Street Address	Sample Type	Total Coliform	E. Coli	Remarks
4/11/2023			Old Chlorination Station	1	A	A	SM 9223B-18
4/11/2023			Raw Water	4	107.6	13.5	SM 9223 B-18 (MPN)
4/4/2023			Water Delivery Truck	4	A	A	SM 9223B-18
4/4/2023			Water Tank	4	A	A	SM 9223B-18

1 = Routine
2 = Repeat
3 = Replacement
4 = Other

P = Present
A = Absent

**Monthly Summary of Monitoring
For Surface Water Treatment Regulations**

System Name: La Honda Water System (CSA #7)

System Number: 4100509

Treatment Plant Name: La Honda Water System (CSA #7)

Month: April Year: 2023

Treated Water Turbidities Every Four Hours (NTU)*

Date	Peak Raw Water Turbidity	Peak Settled Water Turbidity	Midnight to 0400	0400 to 0800	0800 to Noon	Noon to 1600	1600 to 2000	2000 to Midnight	Average Treated Water	Minimum Ct. Ratio
1										
2										
3										
4										
5	3.28						0.04		0.04	1.5
6	1.37						0.05		0.05	3.0
7	2.24						0.04	0.04	0.04	2.2
8	1.64		0.10	0.04	0.04				0.06	2.6
9	1.84						0.05	0.05	0.05	2.7
10	1.67					0.09	0.05	0.04	0.06	2.2
11	2.02		0.04		0.09		0.05	0.04	0.05	1.9
12	1.85		0.05	0.04	0.04	0.05	0.05	0.05	0.04	2.4
13	1.46		0.05	0.05	0.04	0.05	0.05	0.05	0.05	3.3
14	1.46		0.07	0.05	0.05	0.06	0.05	0.05	0.05	3.1
15	1.38		0.05	0.04		0.05	0.05	0.04	0.05	2.6
16	1.30		0.05	0.05	0.05	0.06	0.05	0.05	0.05	2.5
17	1.26		0.06	0.05	0.05	0.06	0.05	0.05	0.05	2.9
18	1.07		0.07	0.05	0.05				0.05	3.0
19										
20										
21	0.95					0.06	0.05	0.05	0.05	2.9
22	0.94		0.08	0.05	0.05		0.06	0.05	0.06	3.0
23	0.80		0.05			0.05	0.05		0.05	2.4
24	0.74		0.05	0.05	0.13	0.05	0.05	0.05	0.06	2.6
25	0.66		0.05	0.05	0.05	0.05	0.05	0.05	0.05	2.9
26	0.60		0.05	0.05	0.05	0.05	0.05	0.05	0.05	2.9
27	0.62		0.05	0.05	0.05	0.05	0.05	0.05	0.05	2.9
28	0.56		0.06	0.05	0.05		0.05	0.05	0.05	3.4
29	0.51		0.05			0.06	0.05	0.05	0.05	3.2
30	0.50		0.06	0.05	0.05	0.09	0.05	0.05	0.06	3.4
31										
Ave.									0.05	

*If a continuous monitoring turbidimeter is used, determine discrete turbidity value for the same times during each 24-hour period

Total No. of Samples: 104 No. of Readings ≤ 0.3 NTU: 104

% Readings ≤ 0.3 NTU = [(No. Readings ≤ 0.3 NTU) / (Total No. Samples)] x 100 = 100%

Meets Standard (i.e. more than 95% of readings are ≤ 0.3 NTU) (Y/N)? Y

Percent reduction during the month = [(Average Raw NTU - Average Effluent NTU) / (Average Raw NTU)] x 100 = #DIV/0!

Meets Standard (i.e. reduction is greater than 80%) (Y/N)? #DIV/0!

95th Percentile Value of all turbidity readings (95% of all turbidity readings are less than this value): 0.075

Incidents of turbidity greater than 1.0 NTU

Date of Incident				
Value				
Duration				

Total Number of incidents where turbidity is > 1.0 NTU: 0
 Total Number of incidents where turbidity is > 5.0 NTU: 0
 Meets Standards (i.e. NTU is not > 1.0 for more than eight consecutive hours) (Y/N)? Y

After placing a filter back into service after any interruption (e.g. backwashing), did the filter effluent comply with the following criteria:

a. < 2.0 NTU after all events (Y/N)? Y
 b. < 1.0 NTU after 90% of events (Y/N)? Y
 c. < 0.5 NTU after 4 hours (Y/N)? Y

Indicate the date that the turbidimeters that are used for regulatory monitoring purposes were calibrated

Date	Which Turbidimeter	Standard used (primary/secondary)	Date	Which Turbidimeter	Standard Used (primary/secondary)
1/28/2022	Hach, raw wtr	0/20 Formazin	1/28/2022	Hach, treated	0/20 Formazin
4/28/2022	Hach, raw wtr	0/20 Formazin	4/28/2022	Hach, treated	0/20 Formazin
7/22/2022	Hach, raw wtr	0/20 Formazin	7/22/2022	Hach, treated	0/20 Formazin
10/26/2022	Hach, raw wtr	0/20 Formazin	10/26/2022	Hach, treated	0/20 Formazin
1/27/2023	Hach, raw wtr	0/20 Formazin	1/27/2023	Hach, treated	0/20 Formazin

Disinfection Process Data

Disinfectant residual type: free chlorine: X combined chlorine: _____ other (specify) _____

Incidents of chlorine residuals less than 0.2 ppm at the plant effluent:

Date of Incident				
Duration				
Date Dept. Notified				

Total number of incidents where residual is < 0.2 ppm: 0
 Meets standard (i.e. not less than 0.2 ppm for more than four hours) (Y/N)? Y

No. of distribution system residual samples collected:	1
No of distribution system samples for HPC only:	
Total No. residual and/or HPC samples collected:	1
No. of samples with no detectable residual and HPC is not measured:	0
No. of samples with no residual and HPC > 500 CFU/ml:	
No. of samples for HPC only and HPC > 500 CFU/ml:	
Total No. Samples with no residual and/or HPC > 500 CFU/ml:	0

Compute V where $V = [1 - (\text{Total number of samples with no residual and/or HPC} > 500) / (\text{Total number of residual and/or HPC samples collected})] \times 100 =$ 100%

Meets Standard (i.e V > 95%) (Y/N) Y

Summary of Water Quality Complaints

General Complaints

Type of Complaint	Number	Corrective Actions Taken
Taste/Odor	0	
Color	0	
Turbidity	0	
Suspended Solids	0	
Other (describe)	0	

Reports of Gastrointestinal Illness (Attach additional sheets if necessary):

Person Reporting	Date	Corrective Actions Taken

Attach explanation of any failure of the performance standards or operating criteria and corrective action taken or planned

Signature:

Greg W. Baccard

Date:

5/10/2023

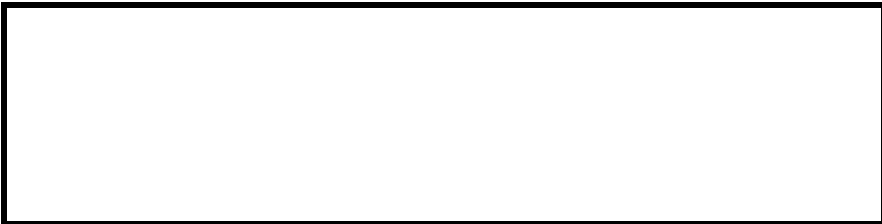
Quarterly TTHM Report for Disinfection Byproducts Compliance (in µg/L or ppb)

System Name: La Honda Water System (CSA #7) System No.: 4100509 Year: 2022 Quarter: 1

Year:	2019				2020				2021				2022				2023			
Quarter:	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Sample Date (month/date):	3/5	6/19	9/11	12/17	3/10	6/9	9/8	12/1	3/1	6/14	9/8	12/7	3/1	6/14	9/13	12/13	3/28			
Site 1	79.5	62.5	115.2	104.6	61.2	40.0	39.0	67.0	38.0	71.0	53.0	75.1	31.0	65.0	80.0	102.0	44.0			
Quarterly Average	79.5	62.5	115.2	104.6	61.2	40.0	39.0	67.0	38.0	71.0	53.0	75.1	31.0	65.0	80.0	102.0	44.0			
Running Annual Average	77.7	79.8	90.2	90.5	85.9	80.3	61.2	51.8	46.0	53.8	57.3	59.3	57.5	56.0	62.8	69.5	72.8			
Meets Standard (80 ug/L)?*	Yes	Yes	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Number of Samples Taken	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			

Identify the sample locations in the table below.

Site	Sample Location
1	Old Chlorination Station
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	



Signature *Logan W. Bassett* Date 5/10/2023

*If, during the first year of monitoring, any individual quarter's average will cause the running annual average of that system to exceed the standard, then the system is out of compliance at the end of that quarter.

Quarterly HAA5 Report for Disinfection Byproducts Compliance (in µg/L or ppb)

System Name: La Honda Water System System No.: 4100509 Year: 2022 Quarter: 1

Year:	2019				2020				2021				2022				2023			
Quarter:	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Sample Date (month/date):	3/5	6/19	9/11	12/17	3/10	6/9	9/8	12/1	3/1	6/14	9/8	12/7	3/1	6/14	9/13	12/13	3/28			
Site 1	46.0	44.3	64.0	83.5	101.6	69.0	29.0	32.0	25.0	55.0	19.0	40.0	22.0	35.0	43.0	87.0	19.0			
Site 1 Sample																				
Site 3																				
Site 4																				
Site 5																				
Site 6																				
Site 7																				
Site 8																				
Site 9																				
Site 10																				
Site 11																				
Site 12																				
Quarterly Average	46.0	44.3	64.0	83.5	101.6	69.0	29.0	32.0	25.0	55.0	19.0	40.0	22.0	35.0	43.0	87.0	19.0			
Running Annual Average	41.5	42.1	53.0	59.5	73.4	79.5	70.8	57.9	38.8	35.3	32.8	34.8	34.0	29.0	35.0	46.8	46.0			
Meets Standard (60 ug/L)?*	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Number of Samples Taken	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			

Identify the sample locations in the table below.

Site	Sample Location
1	Old Chlorination Station
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

Greg W. Beccard

Signature _____ Date 5/10/2023

*If, during the first year of monitoring, any individual quarter's average will cause the running annual average of that system to exceed the standard, then the system is out of compliance at the end of that quarter.