BRACEWELL ENGINEERING, INC.
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August 10, 2023

Ms. Van Tsang
State Water Resources Control Board-Division of Drinking Water
850 Marina Bay Parkway, Building P, 2nd Floor
Richmond, CA 94804

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

Dear Ms. Tsang:

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 3.4 for a DDW required 1- log removal for Giardia.

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			Plant On	Raw Water	Raw Water	Treated Water	Backwash
Parameter			SW Plant	Tank	Flow	Average Flow	Flow
frequency			daily	daily	calculation	calculation	calculation
Units			Y/N	ft	gal/d	gal/d	gal/d
Type				level	flow		flow
High Limit							
Low Limit							
Date	Initials	Time					
7/1/2023			N		19,174	-	1,844
7/2/2023			N		19,174	-	1,844
7/3/2023			N		19,174	-	1,844
7/4/2023			N		19,174	-	1,844
7/5/2023	KB	930	Y	13.20	19,174	39,775	1,844
7/6/2023			Y		12,357	39,450	1,186
7/7/2023			N		12,357	-	1,186
7/8/2023			N		12,357	-	1,186
7/9/2023			N		12,357	-	1,186
7/10/2023			N		12,357	-	1,186
7/11/2023			N		12,357	-	1,186
7/12/2023	KB	1400	Y	13.20	12,357	39,450	1,186
7/13/2023			Y		1	31,450	2,750
7/14/2023	KB	930	Y	14.13	1	31,450	2,750
7/15/2023			Y		40,113	32,433	3,667
7/16/2023			Y		40,113	32,433	3,667
7/17/2023	KB	1100	Y	14.83	40,113	32,433	3,667
7/18/2023			Y		3,885	27,250	329
7/19/2023			N		3,885	-	329
7/20/2023			N		3,885	-	329
7/21/2023			N		3,885	-	329
7/22/2023			N		3,885	-	329
7/23/2023			N		3,885	-	329
7/24/2023			N		3,885	-	329
7/25/2023			N		3,885	-	329
7/26/2023			N		3,885	-	329
7/27/2023			N		3,885	-	329
7/28/2023			N		3,885	-	329
7/29/2023			N		3,885	-	329
7/30/2023			N		3,885	-	329
7/31/2023			N		3,885	-	329

Min	-	930	-	13.20	1	-	329
Max	-	1400	-	14.83	40,113	39,775	3,667
Average				13.84	11,519	9,875	1,246
Total					357,102	306,125	38,634

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	Inlet	Inlet	Inlet	Inlet	Air	Air	Filter Inlet	Contact Pipe	Contact Pipe	Contact Pipe	Contact Pipe	Contact Pipe
Parameter	pH	Max Turbidity	Turbidity	Temp.	Temp	Percip	Turbidity	pH	turbidity	Min Temp	CL2 Residual	pH
frequency	weekly	daily	weekly	weekly	daily	daily	weekly	daily	daily	daily	daily	weekly
Units	units	ntu	ntu	C	C	%	ntu	units	ntu	C	mg/L	units
Type		Analyzer	Grab	Grab			Grab	Analyzer	Analyzer	Analyzer	Analyzer	Grab
High Limit												
Low Limit												
Date												
7/1/2023												
7/2/2023												
7/3/2023												
7/4/2023												
7/5/2023	8.48	0.87	0.93	18.4	13.1	0.33	0.67	7.9	0.058	18	2.68	8.02
7/6/2023												
7/7/2023												
7/8/2023												
7/9/2023												
7/10/2023												
7/11/2023												
7/12/2023	8.5	0.489	0.59	21.8	19.8	0.31	0.71	7.7	0.051	18.8	2.43	7.65
7/13/2023												
7/14/2023		0.564			15.3	0.33		7.5	0.046	18.6	1.58	
7/15/2023												
7/16/2023												
7/17/2023		1.038			21.6	0.29		8.1	0.031	18.7	1.94	
7/18/2023												
7/19/2023												
7/20/2023												
7/21/2023												
7/22/2023												
7/23/2023												
7/24/2023												
7/25/2023												
7/26/2023												
7/27/2023												
7/28/2023												
7/29/2023												
7/30/2023												
7/31/2023												

Min	8.48	0.49	0.59	18.40	13.10	0.29	0.67	7.50	0.03	18.00	1.58	7.65
Max	8.50	1.04	0.93	21.80	21.60	0.33	0.71	8.10	0.06	18.80	2.68	8.02
Average	8.49	0.74	0.76	20.10	17.45	0.32	0.69	7.80	0.05	18.53	2.16	7.84
Total												

La Honda Water System (CSA No. 7)
555 County Center, 5th Floor
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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	Contact Pipe	Contact Pipe	Contact Pipe
Parameter	Turbidity	Temp	CL2
frequency	weekly	weekly	weekly
Units	ntu	C	mg/L
Type	Grab	Grab	Grab
High Limit			
Low Limit			
Date			
7/1/2023			
7/2/2023			
7/3/2023			
7/4/2023			
7/5/2023	0.12	18.8	2.48
7/6/2023			
7/7/2023			
7/8/2023			
7/9/2023			
7/10/2023			
7/11/2023			
7/12/2023	0.2	19.7	2.05
7/13/2023			
7/14/2023			
7/15/2023			
7/16/2023			
7/17/2023			
7/18/2023			
7/19/2023			
7/20/2023			
7/21/2023			
7/22/2023			
7/23/2023			
7/24/2023			
7/25/2023			
7/26/2023			
7/27/2023			
7/28/2023			
7/29/2023			
7/30/2023			
7/31/2023			

Min	0.12	18.80	2.05
Max	0.20	19.70	2.48
Average	0.16	19.25	2.27
Total			

La Honda Water System (CSA No. 7)
555 County Center, 5th Floor
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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		**TW Storage Tank**	**TW Storage Tank**	**TW Storage Tank**	**TW Storage Tank**
Parameter		**Level**	**Temp**	**pH**	**cl2 residual**
frequency		**weekly**	**weekly**	**weekly**	**weekly**
units		**ft**	**C**	**Units**	**ppm**
Type		**Visual**			
High Limit			**17.0**	**8.50**	**2.00**
Low Limit			**6.5**	**7.50**	**0.30**
Date	**Oper. Initials**				
7/1/2023					
7/2/2023					
7/3/2023					
7/4/2023					
7/5/2023					
7/6/2023	KB	27	17.5	7.87	0.74
7/7/2023					
7/8/2023					
7/9/2023					
7/10/2023					
7/11/2023					
7/12/2023					
7/13/2023	KB	23.5	18.9	8.2	0.54
7/14/2023					
7/15/2023					
7/16/2023					
7/17/2023					
7/18/2023	KB	30.2	18.8	8.1	1.07
7/19/2023					
7/20/2023					
7/21/2023					
7/22/2023					
7/23/2023					
7/24/2023					
7/25/2023					
7/26/2023					
7/27/2023					
7/28/2023	KB	21.5	18.4	8.1	0.38
7/29/2023					
7/30/2023					
7/31/2023					

Min	-	21.5	17.5	7.87	0.38
Max	-	30.2	18.9	8.20	1.07
Average		25.6	18.4	8.07	0.68
Total					

La Honda Water System (CSA No. 7)
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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		**Routine Sample Site**
Parameter		**Cl2 Residual**
frequency		**as needed**
units		**mg/L**
Type		**grab**
High Limit		
Low Limit		
Date	**Oper. Initials**	
7/1/2023		
7/2/2023		
7/3/2023		
7/4/2023		
7/5/2023		
7/6/2023	KB	0.44
7/7/2023		
7/8/2023		
7/9/2023		
7/10/2023		
7/11/2023		
7/12/2023		
7/13/2023	KB	0.97
7/14/2023		
7/15/2023		
7/16/2023		
7/17/2023		
7/18/2023	KB	1.32
7/19/2023		
7/20/2023		
7/21/2023		
7/22/2023		
7/23/2023		
7/24/2023		
7/25/2023		
7/26/2023		
7/27/2023		
7/28/2023	KB	0.25
7/29/2023		
7/30/2023		
7/31/2023		

Min	-	0.25
Max	-	1.32
Average		0.75
Total		

July La Honda Water System (W4100509)

CHLORINE RESIDUAL	SAMPLE POINT	SAMPLE ID	DATE	RESULT	UNIT	LIMIT	METHOD	DL	RL	TYPE	FREQUENCY
	14251 Pescadero Creek	AA04871	7/18/23	1.3	mg/L		SM 4500-Cl G		0.02		LHW_BAC
COLIFORM MPN	SAMPLE POINT	SAMPLE ID	DATE	RESULT	UNIT	LIMIT	METHOD	DL	RL	TYPE	FREQUENCY
	ALPINE CREEK - RAW	AA04870	7/18/23	160.7	MPN/100mL		SM9223B-18		1.0		LHW_BAC
COLIFORM PA	SAMPLE POINT	SAMPLE ID	DATE	RESULT	UNIT	LIMIT	METHOD	DL	RL	TYPE	FREQUENCY
	14251 Pescadero Creek	AA04871	7/18/23	A	P/A		SM9223B-18				LHW_BAC
E COLI MPN	SAMPLE POINT	SAMPLE ID	DATE	RESULT	UNIT	LIMIT	METHOD	DL	RL	TYPE	FREQUENCY
	ALPINE CREEK - RAW	AA04870	7/18/23	69.7	MPN/100mL		SM9223B-18		1.0		LHW_BAC
E COLI PA	SAMPLE POINT	SAMPLE ID	DATE	RESULT	UNIT	LIMIT	METHOD	DL	RL	TYPE	FREQUENCY
	14251 Pescadero Creek	AA04871	7/18/23	A	P/A		SM9223B-18				LHW_BAC
IRON	SAMPLE POINT	SAMPLE ID	DATE	RESULT	UNIT	LIMIT	METHOD	DL	RL	TYPE	FREQUENCY
	ALPINE CREEK - RAW	AA04872	7/18/23	71	µg/L		EPA 200.7	10	30		LHW_GM-GP
NITRATE	SAMPLE POINT	SAMPLE ID	DATE	RESULT	UNIT	LIMIT	METHOD	DL	RL	TYPE	FREQUENCY
	ALPINE CREEK - RAW	AA04873	7/18/23	0.2	mg/L as N	10MAX	SM 4500-NO3-D	0.07	0.40		LHW_MISC
UV254	SAMPLE POINT	SAMPLE ID	DATE	RESULT	UNIT	LIMIT	METHOD	DL	RL	TYPE	FREQUENCY
	ALPINE CREEK - RAW	AA04952	7/7/23	0.125	Abs/Tran		SM 5910B				LHW_MISC
	ALPINE CREEK - RAW	AA04987	7/13/23	0.084	Abs/Tran		SM 5910B				LHW_MISC
	ALPINE CREEK - RAW	AA05026	7/18/23	0.091	Abs/Tran		SM 5910B				LHW_MISC
	ALPINE CREEK - RAW	AA05051	7/25/23	0.109	Abs/Tran		SM 5910B				LHW_MISC
			HIGH 0.13	AVG 0.10	LOW 0.08						
	TREATMENT PLANT - TREATED	AA04953	7/7/23	0.053	Abs/Tran		SM 5910B				LHW_MISC
	TREATMENT PLANT - TREATED	AA04988	7/13/23	0.057	Abs/Tran		SM 5910B				LHW_MISC
	TREATMENT PLANT - TREATED	AA05027	7/18/23	0.057	Abs/Tran		SM 5910B				LHW_MISC
	TREATMENT PLANT - TREATED	AA05052	7/25/23	0.025	Abs/Tran		SM 5910B				LHW_MISC
			HIGH 0.06	AVG 0.05	LOW 0.03						

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

Date of Report: 8/10/2023 System Name: La Honda Water System (CSA #7) System Number: CA4100509

Laboratory: BEI Analytical Laboratory Elap No: 3019 Signature of Lab Director: Lloyd W Bracewell

Report Period from: 7/1/2023 to 7/31/2023 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
7/18/2023			14251 Pescadero	1	A	A	SM 9223B-18
7/18/2023			Alpine Creek Raw Water	4	160.7	69.7	SM 9223 B-18 (MPN)

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: July 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	0.71					0.04	0.05	0.12	0.07	3.5
6	0.85		0.05	0.04	0.11	0.05	0.04	0.04	0.05	3.4
7										
8										
9										
10										
11										
12	0.51					0.06			0.06	5.4
13	0.67				0.05	0.04	0.10	0.04	0.06	6.0
14	1.03		0.04	0.05	0.04	0.04	0.04	0.04	0.04	4.7
15	0.86		0.04	0.04	0.05	0.04	0.04	0.05	0.04	5.2
16	0.85		0.04	0.04					0.04	4.4
17	1.24				0.03	0.04	0.04	0.03	0.03	4.5
18	0.90		0.05	0.04	0.04				0.04	4.7
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
Ave.	0.85								0.05	3.4

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

Total No. of Samples: 35 No. of Readings ≤ 0.3 NTU: 35

% 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 = 94%

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

95th Percentile Value of all turbidity readings (95% of all turbidity readings are less than this value) 0.102

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
6/2/2023	Hach, raw wtr	0/20 Formazin	6/2/2023	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 - (Total number of samples with no residual and/or HPC > 500) / (Total number of residual and/or HPC samples collected)] x 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: Lloyd W Bucknell

Date: 8/10/2023

La Honda Water System
County Service Area No. 7
CA4100509

Surface Water Contact Time Calculation

Water Resources Control Board
Division of Drinking Water
1 Lower Ragsdale, Bldg 1, Rm 120
Monterey, CA 93940

Date	Flow (gpd)	Flow (gpm)	Minimum Clearwell Volume (gal)	Short Circuiting Factor	Tank Detention Time (min)	Pipeline Volume (gal)	Pipeline Detention Time (min)	Finish Water Cl2 Residual (mg/L)	pH	Temperature (C)	Required CT	Total Contact Time (min-mg/L)	CT Ratio
7/1/2023													
7/2/2023													
7/3/2023													
7/4/2023													
7/5/2023	39,775	46.9	22,500	0.1	48	245	5.2	1.74	7.58	18.8	14.25	49.69	3.5
7/6/2023	39,775	46.9	22,500	0.1	48	245	5.2	1.59	7.48	18.8	13.49	45.49	3.4
7/7/2023													
7/8/2023													
7/9/2023													
7/10/2023													
7/11/2023													
7/12/2023	31,450	46.9	22,500	0.1	48	245	5.2	3.37	7.86	19.7	17.93	96.30	5.4
7/13/2023	31,450	46.9	22,500	0.1	48	245	5.2	4.99	8.13	19.7	23.82	142.76	6.0
7/14/2023	31,450	46.9	22,500	0.1	48	245	5.2	2.32	7.52	19.7	14.00	66.28	4.7
7/15/2023	32,433	46.9	22,500	0.1	48	245	5.2	2.55	7.45	19.7	14.01	72.77	5.2
7/16/2023	32,433	46.9	22,500	0.1	48	245	5.2	2.01	7.40	19.7	12.97	57.47	4.4
7/17/2023	32,433	46.9	22,500	0.1	48	245	5.2	2.59	7.87	19.7	16.48	73.91	4.5
7/18/2023	32,433	46.9	22,500	0.1	48	245	5.2	2.43	7.61	19.7	14.67	69.54	4.7
7/19/2023													
7/20/2023													
7/21/2023													
7/22/2023													
7/23/2023													
7/24/2023													
7/25/2023													
7/26/2023													
7/27/2023													
7/28/2023													
7/29/2023													
7/30/2023													

Average	33,737	46.9	22,500	0.1	48	245	5.2	2.62	7.66	19.5	15.7	74.9	4.6
High	39,775	46.9	22,500	0.1	48	245	5.2	4.99	8.13	19.7	23.8	142.8	6.0
Low	31,450	46.9	22,500	0.1	48	245	5.2	1.59	7.40	18.8	13.0	45.5	3.4
Total	303,632												