Post-Treatment Plant Water Quality

Sample Location

Sample	Unit of Measure	Well #1 May 30, 2019	Well #2 May 30, 2019	Well #3 May 30, 2019	Well #4 May 30, 2019	Well #6 May 30, 2019	Well #7 May 30, 2019	Well #8 May 30, 2019	Chestnut Stn May 30, 2019	Marine Dr Stn May 30, 2019	Malabar Stn May 30, 2019
Inorganic Nonmetallic Parameters											
Organic Carbon	**mg/L**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ammonia - N	**mg/L**	0.07	0.06	0.21	0.60	0.64	0.57	0.34	0.06	0.07	0.07
Metals Extractable											
Aluminum	**mg/L**	0.001	0.001	0.001	0.002	0.001	<0.001	<0.001	0.001	0.001	0.001
Antimony	**mg/L**	0.00008	0.00008	0.00006	0.00006	0.00003	0.00007	0.00006	0.00008	0.00007	0.00007
Arsenic	**mg/L**	0.0064	0.0042	0.0066	0.0033	0.0098	0.0081	0.0064	0.0009	0.0008	0.0007
Barium	**mg/L**	0.0143	0.0168	0.0166	0.0136	0.0252	0.0185	0.0177	0.0136	0.0133	0.0130
Boron	**mg/L**	0.014	0.013	0.013	0.010	0.042	0.020	0.012	0.016	0.015	0.014
Cadmium	**mg/L**	<0.00001	<0.00001	<0.00001	<0.00001	0.00001	<0.00001	0.00001	<0.00001	<0.00001	<0.00001
Chromium	**mg/L**	0.00022	0.00055	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00014	0.00140	0.00016
Copper	**mg/L**	0.00080	0.0031	<0.0005	0.00590	0.0016	<0.0005	0.002	0.0023	0.0052	0.0045
Lead	**mg/L**	0.0001	0.00004	0.00006	0.00092	0.00004	0.00032	0.00003	0.00015	0.00027	0.0005
Selenium	**mg/L**	0.00120	0.0092	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	0.0020	0.0016	0.0021
Uranium	**mg/L**	0.00012	0.00023	0.00008	0.00011	0.00021	0.00013	0.00012	0.00013	0.00013	0.00013
Vanadium	**mg/L**	0.00248	0.00312	0.00281	0.00240	0.00130	0.00206	0.00223	0.00008	<0.00005	<0.00005
Zinc	**mg/L**	0.0077	0.0019	0.0046	0.0069	0.0039	0.0023	0.0020	0.0033	0.0038	0.0052
Metals Total											
Mercury	**mg/L**	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Physical and Aggregate Properties											
Colour	**Colour Units**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Turbidity	**NTU**	0.26	0.15	0.14	0.34	0.20	0.21	0.24	0.10	0.18	0.10
Routine Water											
pH		7.72	7.78	7.77	7.80	7.89	7.86	7.83	7.89	7.88	7.85
Electrical Conductivity		254	292	241	204	341	266	238	272	272	272
Calcium	**mg/L**	21	27	20	19	26	23	23	23	23	23
Iron	**mg/L**	0.010	<0.004	0.007	0.007	0.020	0.004	<0.004	0.013	<0.004	0.007
Magnesium	**mg/L**	8.7	12	8.0	8.3	10	9.4	8.7	9.5	9.2	9.5
Manganese	**mg/L**	0.052	<0.001	0.18	0.16	0.16	0.12	0.18	0.009	0.006	0.005
Potassium	**mg/L**	2.9	3.1	2.9	2.4	4.0	3.5	2.9	3.2	3.1	3.1
Silicon	**mg/L**	11	11	11	11	11	11	11	11	11	11
Sodium	**mg/L**	15	13	15	8.1	28	17	10	15	14	14
T-Alkalinity	**mg/L**	87	102	85	88	126	108	97	97	100	100
Chloride	**mg/L**	18.6	18.1	17.7	5.95	15.7	10.1	8.75	13.6	13.5	13.8
Fluoride	**mg/L**	0.07	0.06	0.07	0.07	0.14	0.10	0.07	0.08	0.08	0.08
Nitrate - N	**mg/L**	0.20	0.78	<0.01	<0.01	<0.01	<0.01	<0.01	0.19	0.17	0.20
Nitrite - N	**mg/L**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sulfate (SO4)	**mg/L**	13.4	19.1	10.1	11.4	26.9	14.9	12.6	15.2	15.0	15.4
Hardness	**mg/L**	89	115	83	82	108	97	92	98	95	98
Total Dissolved Solids	**mg/L**	162	185	155	138	216	173	154	168	168	170

THM & HAAs											
Chloroform	mg/L								<0.001	<0.001	<0.001
Bromodichloromethane	mg/L								<0.001	<0.001	<0.001
Dibromochloromethane	mg/L								<0.001	<0.001	<0.001
Bromoform mg/L	mg/L								<0.001	<0.001	<0.001
Total THMs mg/L	mg/L								<0.001	<0.001	<0.001
Dibromofluoromethane	%								99	105	107
Toluene-d8	%								99	99	100
Bromofluorobenzene	%								96	108	97
Monochloroacetic Acid	ug/L								<2.0	<2.0	<2.0
Monobromoacetic Acid	ug/L								<2.0	<2.0	<2.0
Dichloroacetic Acid	ug/L								<2.0	<2.0	<2.0
Bromochloroacetic Acid	ug/L								<2.0	<2.0	<2.0
Dibromoacetic Acid	ug/L								<2.0	<2.0	<2.0
Trichloroacetic Acid	ug/L								<2.0	<2.0	<2.0
Total HAA6	ug/L								<2.0	<2.0	<2.0

Post-Treatment Plant Water Quality

Sample Location

Sample	Unit of Measure	Mann Park Stn May 30, 2019	Balsam Stn May 30, 2019	Oxford Stn May 30, 2019	Oxford Reservoir May 30, 2019	Everall Stn May 30, 2019	Russell Stn May 30, 2019	Stevens Stn May 30, 2019	Finlay Stn May 30, 2019	Stayte Stn May 30, 2019
Inorganic Nonmetallic Parameters										
Organic Carbon	**mg/L**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ammonia - N	**mg/L**	0.07	0.07	0.07	0.08	0.07	0.07	0.07	0.07	0.07
Metals Extractable										
Aluminum	**mg/L**	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.001
Antimony	**mg/L**	0.00008	0.00007	0.00008	0.00007	0.00007	0.00006	0.00006	0.00007	0.00007
Arsenic	**mg/L**	0.0008	0.0010	0.0010	0.0009	0.0007	0.0011	0.0011	0.0011	0.0011
Barium	**mg/L**	0.0131	0.0129	0.0128	0.0135	0.0130	0.0131	0.0131	0.0133	0.0131
Boron	**mg/L**	0.015	0.017	0.015	0.014	0.015	0.015	0.016	0.016	0.014
Cadmium	**mg/L**	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Chromium	**mg/L**	0.00012	0.0001	0.0015	0.00015	0.00014	0.00020	0.00016	0.00018	0.00015
Copper	**mg/L**	0.0041	0.0019	0.0181	0.0073	0.0018	0.0014	0.0041	0.0013	0.0062
Lead	**mg/L**	0.00016	0.0002	0.00068	0.00011	0.00010	0.00011	0.00023	0.00005	0.00066
Selenium	**mg/L**	0.0019	0.0019	0.0018	0.0021	0.0015	0.0019	0.0020	0.0020	0.0020
Uranium	**mg/L**	0.00013	0.00013	0.00013	0.00013	0.00013	0.00013	0.00013	0.00013	0.00013
Vanadium	**mg/L**	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Zinc	**mg/L**	0.0052	0.0023	0.0035	0.0029	0.0017	0.0043	0.0039	0.0024	0.0086
Metals Total										
Mercury	**mg/L**	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Physical and Aggregate Properties										
Colour	**Colour Units**	<5	<5	<5	<5	<5	<5	<5	<5	<5
Turbidity	**NTU**	<0.10	0.26	0.52	0.36	<0.10	<0.10	0.20	0.42	0.34
Routine Water										
pH		7.88	7.74	7.75	7.60	7.88	7.89	7.87	7.93	7.70
Electrical Conductivity		271	260	263	260	269	273	273	273	258
Calcium	**mg/L**	23	23	23	24	24	23	23	23	24
Iron	**mg/L**	0.004	0.004	0.006	0.005	<0.004	<0.004	0.004	<0.004	0.004
Magnesium	**mg/L**	9.5	9.5	9.4	9.6	9.8	9.6	9.4	9.4	9.6
Manganese	**mg/L**	0.005	0.006	0.004	0.001	0.002	0.002	0.002	0.004	0.005
Potassium	**mg/L**	3.1	3.1	3.1	3.2	3.2	3.1	3.1	3.1	3.2
Silicon	**mg/L**	11	11	11	11	11	11	11	11	11
Sodium	**mg/L**	14	14	14	14	15	14	14	14	15
T-Alkalinity	**mg/L**	98	98	98	94	97	97	98	98	96
Chloride	**mg/L**	13.7	13.6	13.5	13.6	13.3	13.6	13.8	14.2	13.8
Fluoride	**mg/L**	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Nitrate - N	**mg/L**	0.20	0.19	0.18	0.21	0.16	0.18	0.19	0.20	0.20
Nitrite - N	**mg/L**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sulfate (SO4)	**mg/L**	15.3	15.2	15.1	15.4	15.1	15.4	15.4	15.7	15.3
Hardness	**mg/L**	97	97	97	98	100	98	97	96	99
Total Dissolved Solids	**mg/L**	168	169	168	167	169	168	169	169	169

THM & HAAs										
Chloroform	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromodichloromethane	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromochloromethane	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromoform mg/L	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total THMs mg/L	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromofluoromethane	**%**	105	109	113	111	99	107	107	106	110
Toluene-d8	**%**	97	103	101	100	99	97	96	100	99
Bromofluorobenzene	**%**	100	98	97	97	102	101	97	100	102
Monochloroacetic Acid	**ug/L**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Monobromoacetic Acid	**ug/L**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dichloroacetic Acid	**ug/L**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromochloroacetic Acid	**ug/L**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dibromoacetic Acid	**ug/L**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Trichloroacetic Acid	**ug/L**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total HAA6	**ug/L**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0

Post-Treatment Plant Water Quality

		Sample Location								
Sample	**Unit of Measure**	Roper Stn May 30, 2019	Roper PRV May 30, 2019	Merklin Reservoir May 30, 2019	Merklin Low Reservoir May 30, 2019	Roper Reservoir May 30, 2019		**Average**	**Nominal Detection Limit**	**Guideline Limit**
Inorganic Nonmetallic Parameters										
Organic Carbon	**mg/L**	<0.5	<0.5	<0.5	<0.5	<0.5		**#DIV/0!**	**0.5**	
Ammonia - N	**mg/L**	0.08	0.08	0.42	0.07	0.07		**0.17**	**0.01**	
Metals Extractable										
Aluminum	**mg/L**	0.001	<0.001	<0.001	<0.001	<0.001		**0.00109091**	**0.001**	**0.1**
Antimony	**mg/L**	0.00007	0.00007	0.00007	0.00007	0.00005		**0.0000675**	**0.00002**	**0.006**
Arsenic	**mg/L**	0.0011	0.0011	0.0011	0.0012	0.0008		**0.0026**	**0.0001**	**0.010**
Barium	**mg/L**	0.0133	0.0132	0.0128	0.0133	0.0127		**0.0144**	**0.0001**	**1**
Boron	**mg/L**	0.015	0.015	0.014	0.018	0.017		**0.01604167**	**0.002**	**5**
Cadmium	**mg/L**	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001		**0.00001**	**0.00001**	**0.005**
Chromium	**mg/L**	0.00015	0.00015	0.00014	0.00014	0.00013		**0.00031158**	**0.00005**	**0.05**
Copper	**mg/L**	0.0041	0.0009	<0.0005	0.0429	0.0013		**0.0058**	**0.0005**	**1.0**
Lead	**mg/L**	0.00048	0.00019	<0.00001	0.00008	0.00005		**0.00024087**	**0.00001**	**0.01**
Selenium	**mg/L**	0.0020	0.0017	0.0017	0.0019	0.0014		**0.0021**	**0.0002**	**0.05**
Uranium	**mg/L**	0.00013	0.00013	0.00013	0.00013	0.00012		**0.00013333**	**0.00001**	**0.02**
Vanadium	**mg/L**	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005		**0.00206**	**0.00005**	
Zinc	**mg/L**	0.0041	0.0018	0.0010	0.0019	0.0031		**0.00367917**	**0.0005**	**5.0**
Metals Total										
Mercury	**mg/L**	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001			**0.00001**	**0.001**
Physical and Aggregate Properties										
Colour	**Colour Units**	<5	<5	<5	<5	<5			**5**	
Turbidity	**NTU**	0.35	0.11	0.13	0.27	0.10		**0.24**	**0.02**	
Routine Water										
pH		7.91	7.92	7.77	7.64	7.92		**7.82**		**7.0-10.5**
Electrical Conductivity		273	272	259	257	270		**266**	**1**	
Calcium	**mg/L**	24	24	23	22	23		**23**	**0.01**	
Iron	**mg/L**	<0.004	<0.004	<0.004	<0.004	<0.004		**0.007**	**0.004**	**0.3**
Magnesium	**mg/L**	9.6	9.6	9.3	9.1	9.3		**9.4**	**0.02**	
Manganese	**mg/L**	0.004	0.002	0.002	0.002	0.004		**0.040**	**0.001**	**0.05**
Potassium	**mg/L**	3.1	3.2	3.1	3.0	3.1		**3.1**	**0.04**	
Silicon	**mg/L**	11	11	11	11	11		**11**	**0.005**	
Sodium	**mg/L**	14	15	14	14	14		**15**	**0.1**	**200**
T-Alkalinity	**mg/L**	98	98	98	97	97		**98**	**5**	
Chloride	**mg/L**	13.9	13.6	13.3	13.7	13.1		**13.6**	**0.05**	**250**
Fluoride	**mg/L**	0.07	0.08	0.08	0.08	0.08		**0.08**	**0.01**	**1.5**
Nitrate - N	**mg/L**	0.20	0.18	0.16	0.19	0.15		**0.22**	**0.01**	**10**
Nitrite - N	**mg/L**	<0.01	<0.01	<0.01	<0.01	<0.01		**#DIV/0!**	**0.01**	**1**
Sulfate (SO4)	**mg/L**	15.5	15.3	15.1	15.4	14.8		**15.3333333**	**0.5**	**500**
Hardness	**mg/L**	98	98	96	93	96		**97**	**1**	
Total Dissolved Solids	**mg/L**	169	169	167	166	166		**168**	**1**	

THM & HAAs										
Chloroform	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001			**0.001**	
Bromodichloromethane	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001			**0.001**	
Dibromochloromethane	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001			**0.001**	
Bromoform mg/L	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001			**0.001**	
Total THMs mg/L	**mg/L**	<0.001	<0.001	<0.001	<0.001	<0.001			**0.001**	**0.1**
Dibromofluoromethane	**%**	109	104	112	114	108		**107**	**50-140**	
Toluene-d8	**%**	96	98	100	99	97		**99**	**50-140**	
Bromofluorobenzene	**%**	98	99	100	98	101		**99**	**50-140**	
Monochloroacetic Acid	**ug/L**	<2.0	<2.0	<2.0	<2.0	<2.0			**2.0**	
Monobromoacetic Acid	**ug/L**	<2.0	<2.0	<2.0	<2.0	<2.0			**2.0**	
Dichloroacetic Acid	**ug/L**	<2.0	<2.0	<2.0	<2.0	<2.0			**2.0**	
Bromochloroacetic Acid	**ug/L**	<2.0	<2.0	<2.0	<2.0	<2.0			**2.0**	
Dibromoacetic Acid	**ug/L**	<2.0	<2.0	<2.0	<2.0	<2.0			**2.0**	
Trichloroacetic Acid	**ug/L**	<2.0	<2.0	<2.0	<2.0	<2.0			**2.0**	
Total HAA6	**ug/L**	<2.0	<2.0	<2.0	<2.0	<2.0			**2.0**	