

## **APPENDIX C: Water Treatment Plant Flow Data**

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2019

Combined Plant Monthly Totals & Averages

Month	Gallons			Plant Hours	Rain Inches	Chemical Usage						Finished Water Averages			
	Influent	Backwash	Flush			Totalizer	Value	ACH	SodaAsh	Polymer	NaOCl	Turbidity	pH	Temp	Residual
Jan	31,206,000	806,000	210,000	30,560,900	48.1	2.13	Lbs. 606.38 mg/L 2.29	506.28	17.89	320.00	0.021	7.63	8.38	1.03	
Feb	28,838,000	738,000	195,000	28,691,700	323.4	5.55	Lbs. 582.52 mg/L 2.46	449.49	15.09	300.00	0.023	7.69	7.34	1.01	
Mar	32,019,000	703,000	180,000	31,816,700	400.5	1.82	Lbs. 634.52 mg/L 2.38	527.18	17.47	327.00	0.020	7.76	7.98	1.03	
Apr	31,704,000	773,000	315,000	31,076,900	402.2	5.07	Lbs. 606.87 mg/L 2.29	563.48	16.56	331.00	0.031	7.52	10.37	1.05	
May	38,768,000	913,000	420,000	37,937,200	484.4	1.91	Lbs. 684.54 mg/L 2.09	625.90	20.58	448.00	0.027	7.84	13.54	1.05	
Jun	49,957,000	1,300,000	195,000	47,777,800	743.4	0.78	Lbs. 1,068.31 mg/L 2.60	815.65	19.83	629.00	0.028	7.84	17.28	1.06	
Jul	54,749,000	1,438,000	195,000	52,615,200	834.1	0.24	Lbs. 1,307.25 mg/L 2.91	882.89	21.22	744.00	0.033	7.89	19.50	1.09	
Aug	54,999,000	1,347,000	210,000	52,452,900	808.7	0.59	Lbs. 1,324.99 mg/L 2.88	848.40	23.64	778.00	0.038	7.91	20.20	1.06	
Sep	37,591,000	913,000	270,000	36,962,900	515.2	3.72	Lbs. 1,073.50 mg/L 3.64	581.35	10.34	529.00	0.038	7.88	17.59	1.05	
Oct	31,676,000	739,000	285,000	30,878,900	381.9	2.03	Lbs. 1,132.48 mg/L 4.06	473.41	15.73	360.00	0.043	7.81	11.70	1.07	
Nov	29,533,000	633,000	180,000	29,125,900	362.4	1.03	Lbs. 882.78 mg/L 3.48	464.20	15.86	303.00	0.038	7.72	6.60	1.03	
Dec	30,805,000	880,000	210,000	29,884,300	384.4	3.51	Lbs. 786.20 mg/L 2.95	532.40	12.25	305.00	0.038	7.46	8.23	1.05	
<b>2019 Totals</b>															
	451,845,000	11,183,000	2,865,000	439,781,300	5688.7	28.38	Lbs. 10,690.34 mg/L N/A	7,270.62	206.47	5,374.00	N/A	N/A	N/A	N/A	
<b>Monthly Averages</b>															
	37,653,750	931,916.67	238,750	36,648,442	474.1	2.36	Lbs. 890.86 mg/L 2.84	605.88	17.21	447.83	0.032	7.75	12.39	1.05	
<b>Maximum Monthly Totals</b>															
	54,999,000	1,438,000	420,000	52,615,200	834.1	5.55	Lbs. 1,324.99 mg/L 4.06	882.89	23.64	778.00	0.04	7.91	20.20	1.09	
<b>Minimum Monthly Totals</b>															
	28,838,000	633,000	180,000	28,691,700	48.1	0.24	Lbs. 582.52 mg/L 2.09	449.49	10.34	300.00	0.020	7.46	6.60	1.01	

# 2018

## Combined Plant Monthly Totals & Averages

Month	Gallons			Plant Hours	Rain Inches	Chemical Usage						Finished Water Averages			
	Influent	Backwash	Flush			Totalizer	Value	ACH	SodaAsh	Polymer	NaOCl	Turbidity	pH	Temp	Residual
Jan	31,747,000	667,000	225,000	25,983,100	401.1	5.05	Lbs. 623.42 mg/L 2.35	601.84 2.28	17.92 0.07	359.82 1.37	0.039	7.64	8.99	1.05	
Feb	27,826,000	665,000	135,000	22,820,400	353.7	2.39	Lbs. 432.74 mg/L 1.85	511.91 2.26	14.34 0.07	312.39 1.32	0.034	7.78	8.21	1.05	
Mar	30,839,000	701,000	210,000	25,174,400	385.3	2.62	Lbs. 569.22 mg/L 2.22	529.10 2.06	17.24 0.07	338.77 1.32	0.035	7.79	8.31	1.02	
Apr	30,385,000	737,000	180,000	24,781,900	369.3	5.00	Lbs. 506.71 mg/L 2.00	573.93 2.27	16.88 0.07	343.38 1.35	0.035	7.56	10.04	1.02	
May	38,079,000	811,000	255,000	31,847,000	466.4	0.33	Lbs. 628.60 mg/L 1.97	605.53 1.93	10.58 0.04	478.38 1.50	0.038	7.76	13.95	1.04	
Jun	48,419,000	1,178,000	180,000	41,435,200	724.5	0.93	Lbs. 879.68 mg/L 2.19	768.02 1.89	8.33 0.03	666.66 1.65	0.033	7.82	16.60	1.07	
Jul	61,400,000	1,406,000	210,000	53,566,200	929.0	0.01	Lbs. 1274.21 mg/L 2.48	1001.69 1.94	9.56 0.03	968.15 1.90	0.043	7.89	20.43	1.10	
Aug	56,858,000	1,335,000	210,000	49,722,100	855.3	0.07	Lbs. 1289.88 mg/L 2.72	896.36 1.86	0.00 0.00	956.84 2.01	0.042	7.89	20.51	1.07	
Sep	41,203,000	881,000	165,000	34,946,700	564.7	0.92	Lbs. 817.19 mg/L 2.35	634.43 1.82	13.86 0.05	590.00 1.73	0.025	7.86	16.80	1.09	
Oct	33,445,000	706,000	315,000	30,802,800	394.7	2.28	Lbs. 942.94 mg/L 3.40	480.98 1.73	18.03 0.07	438.00 1.56	0.026	7.90	13.48	1.03	
Nov	31,039,000	807,000	285,000	29,779,700	384.2	2.28	Lbs. 999.51 mg/L 3.88	436.43 1.69	17.53 0.07	399.00 1.54	0.028	7.73	9.90	1.05	
Dec	31,996,000	878,000	255,000	31,031,700	402.5	4.37	Lbs. 763.28 mg/L 2.89	513.98 1.90	17.91 0.07	370.00 1.38	0.022	7.64	8.69	1.05	
<b>2018 Totals</b>															
	463,236,000	10,772,000	2,625,000	401,891,200	6230.7	26.25	Lbs. 9727.38 mg/L N/A	7554.17 N/A	162.18 N/A	6221.38 N/A	N/A	N/A	N/A	N/A	
<b>Monthly Averages</b>															
	38,603,000	897,666.67	218,750	33,490,933	519.2	2.19	Lbs. 810.61 mg/L 2.52	629.51 1.97	13.51 0.05	518.45 1.55	0.033	7.77	12.99	1.05	
<b>Maximum Monthly Totals</b>															
	61,400,000	1,406,000	315,000	53,566,200	929.0	5.05	Lbs. 1289.88 mg/L 3.88	1001.69 2.28	18.03 0.07	968.15 2.01	0.04	7.90	20.51	1.10	
<b>Minimum Monthly Totals</b>															
	27,826,000	665,000	135,000	22,820,400	353.7	0.01	Lbs. 432.74 mg/L 1.85	436.43 1.69	0.00 0.00	312.39 1.32	0.022	7.56	8.21	1.02	

# 2017

Combined Plant Monthly Totals & Averages															
Month	Gallons				Plant Hours	Rain Inches	Chemical Usage					Finished Water Averages			
	Influent	Backwash	Flush	Totalizer			Value	ACH	SodaAsh	Polymer	NaOCl	Turbidity	pH	Temp	Residual
Jan	35,286,000	823,000	240,000	29,348,700	449.3	2.92	Lbs. 602.03 mg/L 2.03	493.27	17.18	352.17	0.042	7.66	6.76	1.07	
Feb	29,798,000	894,000	375,000	24,032,900	377.0	9.29	Lbs. 656.74 mg/L 2.56	420.61	15.92	294.35	0.046	7.63	8.50	1.06	
Mar	32,333,000	805,000	255,000	25,880,900	404.0	6.35	Lbs. 602.48 mg/L 2.21	469.98	16.14	329.98	0.051	7.60	9.18	1.07	
Apr	31,157,000	615,000	195,000	25,602,800	396.2	3.46	Lbs. 564.59 mg/L 2.19	446.88	16.05	336.68	0.042	7.81	10.11	1.07	
May	35,783,000	686,000	630,000	29,541,300	426.2	1.80	Lbs. 701.01 mg/L 2.33	456.64	18.27	408.70	0.040	7.92	12.01	1.05	
Jun	41,786,000	827,000	840,000	35,684,600	553.2	1.53	Lbs. 826.21 mg/L 2.42	573.38	0.00	605.05	0.036	7.89	15.24	1.05	
Jul	56,938,000	1,301,000	195,000	51,224,100	866.1	0.00	Lbs. 992.04 mg/L 2.07	870.25	0.00	870.58	0.030	7.89	18.98	1.06	
Aug	58,185,000	1,335,000	360,000	51,581,800	854.8	0.10	Lbs. 1171.26 mg/L 2.41	872.16	0.00	955.92	0.033	7.91	20.15	1.11	
Sep	40,621,000	1,019,000	210,000	35,115,600	589.2	3.36	Lbs. 966.51 mg/L 2.96	613.03	2.78	614.58	0.035	7.90	17.42	1.08	
Oct	31,903,000	842,000	180,000	26,728,800	423.0	4.20	Lbs. 903.29 mg/L 3.42	515.08	14.55	472.35	0.041	7.66	12.75	1.05	
Nov	30,259,000	806,000	195,000	25,222,600	411.3	6.26	Lbs. 856.67 mg/L 3.42	657.66	16.84	399.91	0.040	7.54	10.50	1.03	
Dec	30,684,000	700,000	195,000	25,809,400	400.0	3.38	Lbs. 586.19 mg/L 2.31	600.46	17.17	372.92	0.035	7.65	8.16	1.03	
2017 Totals															
	454,733,000	10,653,000	3,870,000	385,773,500	6150.3	42.65	Lbs. 9429.01 mg/L N/A	6989.39	134.89	6013.18	N/A	N/A	N/A	N/A	
Monthly Averages															
	37,894,417	887,750.00	322,500	32,147,792	512.5	3.55	Lbs. 785.75 mg/L 2.53	582.45	11.24	501.10	0.039	7.76	12.48	1.06	
Maximum Monthly Totals															
	58,185,000	1,335,000	840,000	51,581,800	866.1	9.29	Lbs. 1171.26 mg/L 8.70	872.16	18.27	955.92	0.190	8.36	21.70	1.32	
Minimum Monthly Totals															
	29,798,000	615,000	180,000	24,032,900	377.0	0.00	Lbs. 564.59 mg/L 1.25	420.61	0.00	294.35	0.020	6.47	4.30	0.86	

# 2016

Combined Plant Monthly Totals & Averages															
Month	Gallons				Plant Hours	Rain Inches	Chemical Usage						Finished Water Averages		
	Influent	Backwash	Flush	Totalizer			Value	ACH	SodaAsh	Polymer	NaOCl	Turbidity	pH	Temp	Residual
Jan	34,196,000	844,000	210,000	28,262,800	443.3	4.41	Lbs. 715.30 mg/L 2.52	496.38	18.02	345.89	0.047	7.08	8.48	1.03	
Feb	30,487,000	772,000	210,000	25,368,800	383.9	3.13	Lbs. 652.44 mg/L 2.55	436.15	16.66	283.08	0.042	7.21	9.46	1.06	
Mar	31,946,000	985,000	240,000	26,120,200	408.7	4.86	Lbs. 730.14 mg/L 2.58	441.38	14.97	316.99	0.047	7.11	9.76	1.10	
Apr	31,892,000	1,269,000	180,000	25,842,400	418.1	2.77	Lbs. 598.43 mg/L 1.91	376.75	10.22	404.51	0.045	7.03	11.83	1.12	
May	34,722,000	843,000	225,000	29,143,100	428.7	1.28	Lbs. 728.65 mg/L 2.54	479.23	19.02	395.30	0.037	6.99	14.10	1.05	
Jun	42,859,000	806,000	210,000	36,936,500	513.9	2.17	Lbs. 816.65 mg/L 2.25	581.21	21.69	531.39	0.035	7.04	16.57	1.08	
Jul	48,356,000	915,000	240,000	41,829,200	646.7	0.53	Lbs. 919.73 mg/L 2.28	693.13	22.00	640.10	0.035	7.11	18.90	1.13	
Aug	54,943,000	1,127,000	180,000	48,154,900	816.4	0.09	Lbs. 1104.58 mg/L 2.41	830.23	19.50	780.13	0.038	7.23	20.09	1.13	
Sep	40,173,000	807,000	210,000	34,393,000	513.3	1.53	Lbs. 962.56 mg/L 2.83	584.51	21.80	576.85	0.038	7.06	16.73	1.04	
Oct	32,940,000	917,000	300,000	26,675,600	414.5	7.53	Lbs. 1178.00 mg/L 4.25	489.36	18.23	453.09	0.035	7.07	13.48	1.07	
Nov	31,370,000	773,000	195,000	26,148,600	395.8	5.09	Lbs. 874.61 mg/L 3.32	496.38	13.92	394.46	0.034	7.17	10.10	1.11	
Dec	34,877,000	771,000	225,000	29,126,400	444.2	4.38	Lbs. 723.97 mg/L 2.49	504.63	16.84	380.23	0.037	7.67	8.22	1.07	
<b>2016 Totals</b>															
	448,761,000	10,829,000	2,625,000	378,001,500	5827.5	37.77	Lbs. 10005.07 mg/L N/A	6409.32	212.86	5502.02	N/A	N/A	N/A	N/A	
<b>Monthly Averages</b>															
	37,396,750	902,416.67	218,750	31,500,125	485.6	3.15	Lbs. 833.76 mg/L 2.66	534.11	17.74	458.50	0.039	7.15	13.14	1.08	
<b>Maximum Monthly Totals</b>															
	54,943,000	1,269,000	300,000	48,154,900	816.4	7.53	Lbs. 1178.00 mg/L 4.25	830.23	22.00	780.13	0.05	7.67	20.09	1.13	
<b>Minimum Monthly Totals</b>															
	30,487,000	771,000	180,000	25,368,800	383.9	0.09	Lbs. 598.43 mg/L 1.91	376.75	10.22	283.08	0.034	6.99	8.22	1.03	

2015

Combined Plant Monthly Totals & Averages

Month	Gallons			Plant Hours	Rain Inches	Chemical Usage				Finished Water Averages				
	Influent	Backwash	Flush			Totalizer	Value	ACH	SodaAsh	Polymer	NaOCl	Turbidity	pH	Temp
Jan	28,634,000	561,000	180,000	24,184,600	358.6	2.97	Lbs. 623.24 mg/L 2.65	383.90	14.84	344.21	0.033	6.92	8.19	1.11
Feb	25,821,000	455,000	165,000	21,637,000	320.6	2.42	Lbs. 564.70 mg/L 2.67	348.15	16.09	309.04	0.032	6.88	9.40	1.10
Mar	29,331,000	701,000	150,000	24,434,000	365.3	3.93	Lbs. 699.43 mg/L 2.88	400.87	21.68	358.06	0.033	6.89	9.86	1.09
Apr	28,138,000	561,000	150,000	23,840,600	353.3	2.74	Lbs. 641.75 mg/L 2.79	380.66	17.32	351.33	0.032	6.94	10.33	1.13
May	33,500,000	804,000	285,000	28,328,900	419.9	1.91	Lbs. 850.89 mg/L 3.12	461.40	21.74	417.91	0.038	6.82	13.49	1.06
Jun	47,705,000	1,012,000	300,000	41,954,300	572.9	0.37	Lbs. 1121.66 mg/L 2.87	633.88	28.94	690.94	0.044	6.95	18.80	1.21
Jul	56,635,000	1,302,000	225,000	49,748,100	828.3	0.01	Lbs. 1482.34 mg/L 3.14	709.00	20.45	919.16	0.047	6.97	21.32	1.19
Aug	51,087,000	1,214,000	210,000	44,220,300	751.0	0.77	Lbs. 1346.22 mg/L 3.27	648.04	18.33	775.94	0.049	6.92	20.53	1.15
Sep	38,954,000	843,000	195,000	33,014,400	518.2	0.63	Lbs. 1032.94 mg/L 3.24	511.78	17.42	576.62	0.037	6.93	16.73	1.06
Oct	34,013,000	701,000	225,000	28,793,200	409.7	3.56	Lbs. 998.50 mg/L 3.54	439.18	17.42	440.53	0.040	6.79	14.67	1.10
Nov	31,206,000	739,000	210,000	26,067,100	389.4	5.20	Lbs. 1047.08 mg/L 4.04	281.88	21.02	422.10	0.052	6.88	10.86	1.05
Dec	32,845,000	1,018,000	255,000	27,023,400	430.9	11.92	Lbs. 754.00 mg/L 2.82	511.23	20.19	364.31	0.045	6.65	9.97	1.07
<b>2015 Totals</b>														
	437,869,000	9,911,000	2,550,000	373,245,900	5718.1	36.43	Lbs. 11162.75 mg/L N/A	5709.93	235.44	5970.15	N/A	N/A	N/A	N/A
<b>Monthly Averages</b>														
	36,489,083	825,916.67	212,500	31,103,825	476.5	3.04	Lbs. 930.23 mg/L 3.09	475.83	19.62	497.51	0.040	6.88	13.68	1.11
<b>Maximum Monthly Totals</b>														
	56,635,000	1,302,000	300,000	49,748,100	828.3	11.92	Lbs. 1482.34 mg/L 4.04	709.00	28.94	919.16	0.05	6.97	21.32	1.21
<b>Minimum Monthly Totals</b>														
	25,821,000	455,000	150,000	21,637,000	320.6	0.01	Lbs. 564.70 mg/L 2.65	281.88	14.84	309.04	0.032	6.65	8.19	1.05