



Monthly Operating Report

MAY 2018



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So. Sangamon

June 14, 2018

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

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EXECUTIVE SUMMARY

Safety. Safety is the number one priority at Woodard and Curran. We continue to provide monthly training for operations staff at the plant, provide weekly safety updates and safety videos are assigned to all employees. The safety topic for this month was “Incident Reporting and Evaluation”. There were no lost time accidents in the month of May 2018. 100 percent of the items identified in the combined list of safety items have been completed.

Compliance. The finished water quality was within regulatory limits and all reporting and sampling requirements were met for the month. A copy of the Operations Report submitted to the Illinois Environmental Protection Agency is available at www.sswc.us.

During the month of May 2018, the plant pumped 42.704 million gallons from the well field and 33.343 million gallons of finished water. For the period of June 2017 through May 2018, the plant has pumped 875,000 more gallons of water than during the same period one year ago.

The SSWC plant has been placed on Critical Review status. Systems on Critical Review will be evaluated for sufficient capacity before issuance of water main extension permits.

Operations. There was 0 emergency call-outs for the month. There were 2 customer inquiries for the month.

Maintenance and Repair. For the month of May 2018, there were 10 inspections, 5 preventative and 13 corrective maintenance activities completed.

Budget. Through the end of the third year, we are \$8,746 under budget for the fiscal year. Please note that not all expenses for the 2017-2018 timeframe have been added to this summary.

Capital Planning. Woodard and Curran is working with Mecor Engineering to update and prioritize the Capital Improvement Plan. The CIP is a planning document that includes all projects anticipated to exceed \$5,000 in cost over the next five years. The CIP is an ongoing process and will be refined from time to time as projects are completed and new issues are identified.



1. SAFETY

1.1 SAFETY TRAINING

Woodard and Curran continue to provide safety training for personnel at the plant. This is accomplished by requiring daily safety meetings, weekly safety updates are available to the plant, and safety videos are assigned to all employees and are required to be completed. The May 2018 safety training topic was “

1.2 LOST TIME ACCIDENTS

There were 0 lost time accidents in the month of May 2018.

1.3 SAFETY AUDIT

Since Woodard and Curran assumed operational responsibility for the SSWC plant, two safety audits have been completed. The first audit was conducted in May 2015 and identified 89 items needing to be addressed. Approximately 86 percent of those items identified had been addressed when a second audit occurred in November 2016.

The findings for these two audits were combined to produce a list of 40 items needing to be addressed. As of November 30, 2017, 100 percent of the items have been addressed.

1.4 MISCELLANEOUS SAFETY

There were no Miscellaneous Safety items for the month.

2. COMPLIANCE, FLOWS AND LOADINGS

2.1 COMPLIANCE

The finished water quality was within regulatory limits and all reporting and sampling requirements were met for April. A copy of the Operations Report to the Illinois Environmental Protection Agency (IEPA) is available on the SSWC website.

2.2 INFLUENT FLOWS AND LOADINGS

The total gallons pumped from the well field was 34.149MG. The influent parameters were all within the normal range.

The influent flow and loadings are summarized below in Table 2.2

Table 2.2 Influent Concentrations and Flow								
	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Well Flow Gals (k)
Max.	7.66	16.3	1.27	0.240	-	372	290	1.600
Min.	7.03	14.0	0.54	0.186	-	350	280	0.994
Avg.	7.34	14.8	0.73	0.203	-	362	285	1.325
Total	-	-	-	-	-	-	-	41.060

2.3 EFFLUENT CONCENTRATIONS

The facility filtered 37.553MG during the month with a daily average of 1.028 MG and a min/max of 0.33/1.512 MG.

Table 2.3 Finished Water Quality										
	Free CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
Max.	1.8	1.8	7.91	16.2	0.01	0.020	1.18	140	290	1.37
Min.	1.0	1.2	7.03	13.9	0.00	0.002	0.47	108	270	1.01
Avg.	1.3	1.4	7.51	14.8	0.01	0.008	0.84	123	279	1.25
MCL	-	-	-	-	1.00	-	4.00	-	-	-
SMCL	-	-	-	-	0.30	0.050	2.00	-	-	-

Finished Water Flow Comparison for FY 2018

Time Period	2017-2018	2016-2017	2015-2016
June - May	396,493,135	398,320,645	373,765,957
Increase for the same period last year		-1,827,510	

FINISHED WATER PUMPING HISTORY						
	2017-2018	2016-2017	2015-2016	2014-2015	2013-2014	2012-2013
June	39,931,402	41,541,321	31,092,539	38,462,951	36,530,691	47,120,577
July	42,164,927	35,378,396	33,123,375	38,674,894	40,908,704	57,780,876
August	38,760,634	35,401,490	38,109,033	33,748,543	42,999,243	42,398,528
September	39,896,986	36,325,215	36,546,171	29,763,075	37,597,085	32,510,603
October	33,506,605	34,374,820	34,783,455	28,803,052	33,916,594	30,278,765
November	28,617,333	30,478,309	27,217,293	28,426,579	31,615,459	27,114,479
December	28,808,037	32,525,530	27,788,637	28,656,869	32,697,551	29,014,035
January	30,556,824	30,449,215	28,510,121	30,346,721	32,499,427	28,007,432
February	25,617,914	27,373,232	26,095,228	26,336,077	28,745,378	25,763,807
March	28,217,699	30,068,363	27,851,811	28,729,919	31,217,486	28,130,190
April	27,110,578	29,625,797	29,292,618	29,270,184	31,690,073	27,991,597
May	33,304,196	32,120,873	33,349,391	33,371,016	31,157,411	29,592,356
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Totals	396,493,135	395,662,561	373,759,672	374,589,880	416,948,392	405,703,245
Average	1,086,282	1,084,007	1,023,999	1,026,273	1,139,203	1,111,516
Maximum	2,220,362	2,061,098	2,177,926	1,837,344	2,010,587	2,546,901
Minimum	423,165	275,315	-	349,690	363,767	142,411

2.4 LAGOON DISCHARGE CONCENTRATIONS

The results for the NPDES lagoon discharge permit are summarized below.

Table 2.4 Weekly Grab Sample Analysis Results

Lagoon Effluent Results						
Date	Fe (mg/l)	Mn (mg/l)	Chloride (mg/l)	Cl ² (mg/l)	pH (S.U.)	TSS (mg/l)
04/19/2018	0.330	0.299	220	0.04	7.89	0
Minimum						
Maximum						
Average	.140	.572		.05	7.27	
Monthly Avg Limit	2.000	1.000				15
Daily Limit	4.000	2.000	500	0.05	6.0-9.0	30

The Chloride sample for the month of May 2018, performed by the Springfield Metropolitan Sanitary District, was unknown as of June 15, 2018. The limit for chloride discharge to the sanitary district is 30,000 mg/L.

3. OPERATIONS

3.1 EVENTS IMPACTING OPERATIONS

Rehabilitation of Chatham Ground Storage tank- Although the rehabilitation of the Chatham Ground Storage Reservoir did not directly affect the operation of the plant, customers may have experienced fluctuations in pressure. Some customers may have experienced taste and odor issues due to the mixing of sub-par CWLP chloramine water with the SSWC produced water.

3.2 EMERGENCY & SERVICE CALLS

Service Calls:

- There were no emergency call outs for the month.

3.3 EMERGENCY CALL-OUTS

There was 3 emergency call-out for the month requiring operational personnel at the plant after normal business hours.

3.4 CUSTOMER INQUIRIES

There were no customer inquiries for the month of May:

OTHER WORK PERFORMED

Pinning of the Membrane Modules. After replacing the questionable modules Plant Operations staff attempted to pin membranes to evaluate if there was any life left in the old modules. Pictured below are Stephen Bivin (left) and Kevin Canham (right) working on modules from Bank #1.



4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of May 2018, there were 10 inspections, 5 preventative and 0 corrective maintenance activity completed.

4.2 CORRECTIVE REPAIRS

Filter Train 1 Backwash Valve. On Monday May 28th Contractor Henson Robinson arrived to assemble the fittings needed to repair a leak at the backwash isolation valve. During this process it was discovered that the leak was caused by strain placed on the joint due to settling of the filter train itself. We attempted to relieve this strain by designing/aligning the new fitting in a different fashion. After assembly the new fitting must be given time to set up. As of the end of May the new fittings had not been installed.

Filter Module Replacement. We received our first shipment of replacement modules the beginning of May. On May 11th the first set of 4 was successfully installed on train 1.

The second set of 4 was successfully installed on train 3 on May 14th.

The final set of 4, from the first shipment, was successfully installed on train 2 on May 15th.

5. PROJECT MANAGEMENT & SUPPORT

5.1 STAFFING & TRAINING

- Woodard and Curran continue to train and provide staffing to the plant as needed. With the resignation of Mr. Keith Sommers, Mr. Stephen Bivin is filling in on a temporary basis.

5.2 CORPORATE SUPPORT

The following individuals, either on-site or remotely, provided assistance in operation and/or maintenance of the plant during the month.

- Marc Thomas
- Jackie Smith
- Ray Giguere
- Stephen Bivin
- Greg Frieden
- Stephanie Crowell
- Shannon Eyler
- Wendy Foreman

5.3 BUDGET

Table 5.3 below is a breakdown of the current budget as of May 25, 2018. Please note that not all expenses for the 2017-2018 timeframe have been added to this summary.

Table 5.3 Budget Table

Budget Category	Month Budget	Month Actual	YTD Budget	YTD Actual	Annual Budget
Labor (D.L. + OH)	\$24,213	\$15,261	\$314,764	\$276,739	\$314,764
Utilities	\$8,150	\$11,355	\$105,950	\$108,771	\$105,950
Chemicals	\$14,583	\$0	\$189,583	\$188,543	\$189,583
Maintenance & Repair	\$9,102	\$2,006	\$118,327	\$141,010	\$118,327
Chloride	\$13,522	\$9,680	\$175,782	\$151,906	\$175,782
Lab Supplies and Equipment	\$1,882	\$0	\$24,466	\$17,061	\$24,466
Office Supplies	\$216	\$0	\$2,802	\$3,969	\$2,802
Miscellaneous Expenses	\$1,141	\$2,044	\$13,695	\$15,406	\$13,695
Other Operating Costs	\$1,398	\$2,004	\$16,776	\$19,382	\$16,776
Subtotal of Costs for Contract Year 3	\$74,206	\$40,273	\$964,683	\$922,776	\$964,683
Fixed Fee for Contract Year 3	\$7,421	\$4,027	\$96,469	\$92,278	\$96,469
Year One Transition	\$1,366	\$1,366	\$17,755	\$17,755	\$17,755
Total	\$82,993	\$45,666	\$1,078,907	\$1,032,809	\$1,078,907

6. CAPITAL PLANNING

6.1 APPROVED CIP PROJECTS CURRENT STATUS

No new information is available.

6.2 DRAFT CAPITAL IMPROVEMENT PLAN

The CIP is a planning document that includes all projects anticipated to exceed \$5,000 in cost over the next five years. The CIP is an ongoing process and will be refined from time to time as projects are completed and new issues are identified.

The most recent Capital List was included in the Year 2 Annual Report.

DIVISION OF PUBLIC WATER SUPPLIES FOR MONTH OF May 2018

Totals		Chemical Test												Dist. Criter F = Free T = Total F mg/L T mg/L									
		Raw			Pre-Filter			Post-Filter			Post-LEX					Finished							
Water Treated (M gal)	Plant (M gal)	Temp deg. C	pH	Total mg/L	Alk. mg/L	Hard. mg/L	Total mg/L	Fe mg/L	Mn mg/L	Total mg/L	Mem Turb. NTU	Total mg/L	Fe mg/L	Mn mg/L	Total mg/L	Hard. mg/L	Alk. mg/L	pH	Total mg/L	Fe mg/L	Mn mg/L	Total mg/L	
1.145	0.014	7.58	14.5	280	350	0.88	0.209	0.363	0.013	0.011	0.32	0.011	0.32	0.011	0.32	7.78	270	110	0.01	0.014	0.87	1.8	
1.025	0.009	7.04	14.7	280	350	0.90	0.206	0.374	0.016	0.019	0.34	0.019	0.34	0.019	0.34	7.04	270	120	0.01	0.006	1.02	1.5	
1.058	0.012	7.66	15.1	290	360	0.67	0.209	0.349	0.014	0.017	0.42	0.017	0.42	0.017	0.42	7.53	280	120	0.01	0.007	1.05	1.3	
1.037	0.008	7.45	14.4	290	350	0.78	0.208	0.367	0.016	0.024	0.32	0.024	0.32	0.024	0.32	7.80	270	110	0.01	0.006	0.74	1.2	
1.052	0.011	7.44	14.4	280	350	0.88	0.219	0.379	0.026	0.035	0.17	0.035	0.17	0.035	0.17	7.91	280	110	0.00	0.008	0.75	1.2	
1.094	0.009	7.45	14.4	290	360	0.68	0.206	0.369	0.017	0.022	0.39	0.022	0.39	0.022	0.39	7.68	280	120	0.01	0.008	0.77	1.3	
1.039	0.017	7.42	14.4	280	360	0.56	0.198	0.348	0.018	0.021	0.20	0.021	0.20	0.021	0.20	7.84	270	130	0.00	0.004	0.82	1.3	
1.274	0.011	7.47	14.0	280	360	0.62	0.205	0.412	0.019	0.023	0.31	0.023	0.31	0.023	0.31	7.72	270	130	0.00	0.009	0.78	1.3	
1.242	0.009	7.33	15.2	280	370	0.85	0.177	0.328	0.003	0.027	0.33	0.027	0.33	0.027	0.33	7.45	280	130	0.01	0.003	0.76	1.4	
1.227	0.014	7.41	14.5	280	360	1.03	0.214	0.357	0.020	0.023	0.37	0.023	0.37	0.023	0.37	7.63	270	130	0.01	0.006	0.84	1.3	
1.154	0.009	7.30	14.5	280	360	1.00	0.207	0.362	0.019	0.025	0.23	0.025	0.23	0.025	0.23	7.45	280	130	0.01	0.007	0.81	1.3	
1.290	0.018	7.47	14.4	284	360	0.68	0.218	0.379	0.024	0.032	0.18	0.032	0.18	0.032	0.18	7.75	280	108	0.01	0.010	0.86	1.3	
1.272	0.013	7.40	14.2	290	370	0.67	0.204	0.377	0.015	0.021	0.20	0.021	0.20	0.021	0.20	7.70	290	120	0.01	0.007	0.80	1.4	
1.411	0.019	7.26	14.6	290	370	0.58	0.192	0.370	0.011	0.017	0.30	0.017	0.30	0.017	0.30	7.45	270	120	0.00	0.008	1.18	1.3	
1.152	0.004	7.39	16.3	280	360	0.54	0.176	0.328	0.093	0.015	0.25	0.015	0.25	0.015	0.25	7.42	280	130	0.01	0.002	0.78	1.3	
0.896	0.013	7.31	16.2	290	370	1.27	0.209	0.336	0.013	0.009	0.24	0.009	0.24	0.009	0.24	7.04	290	128	0.01	0.005	1.01	1.2	
0.963	0.010	7.49	15.5	280	360	0.78	0.202	0.340	0.013	0.018	0.26	0.018	0.26	0.018	0.26	7.84	278	120	0.01	0.004	1.07	1.3	
0.969	0.008	7.44	14.1	290	370	0.57	0.196	0.352	0.013	0.020	0.19	0.020	0.19	0.020	0.19	7.73	290	130	0.01	0.006	0.98	1.2	
0.877	0.009	7.49	15.3	290	352	0.78	0.224	0.374	0.022	0.028	0.21	0.028	0.21	0.028	0.21	7.85	280	112	0.00	0.013	0.83	1.0	
0.988	0.009	7.39	15.3	290	360	0.73	0.208	0.358	0.017	0.021	0.18	0.021	0.18	0.021	0.18	7.42	280	120	0.00	0.007	0.88	1.6	
0.981	0.009	7.40	14.5	284	358	0.58	0.193	0.336	0.016	0.019	0.21	0.019	0.21	0.019	0.21	7.72	280	122	0.00	0.011	0.98	1.3	
0.953	0.018	7.35	14.7	290	370	0.66	0.203	0.357	0.015	0.021	0.34	0.021	0.34	0.021	0.34	7.45	280	120	0.00	0.005	0.75	1.2	
1.004	0.005	7.30	14.2	280	362	0.64	0.200	0.345	0.017	0.023	0.39	0.023	0.39	0.023	0.39	7.48	290	130	0.00	0.007	0.81	1.4	
1.072	0.013	7.04	14.2	280	372	0.58	0.193	0.368	0.016	0.025	0.31	0.025	0.31	0.025	0.31	7.04	278	128	0.00	0.004	0.75	1.3	
1.104	0.013	7.30	15.3	288	358	0.56	0.196	0.345	0.018	0.021	0.25	0.021	0.25	0.021	0.25	7.71	270	124	0.00	0.008	0.79	1.3	
1.140	0.008	7.53	14.6	284	358	0.80	0.238	0.459	0.036	0.030	0.56	0.030	0.56	0.030	0.56	7.73	274	116	0.01	0.019	0.47	1.3	
1.015	0.013	7.04	14.4	280	370	0.61	0.199	0.371	0.014	0.017	0.25	0.017	0.25	0.017	0.25	7.04	278	120	0.01	0.005	0.86	1.4	
1.133	0.013	7.42	15.1	280	370	0.64	0.193	0.368	0.013	0.018	0.34	0.018	0.34	0.018	0.34	7.73	290	135	0.00	0.020	0.70	1.3	
1.199	0.010	7.03	15.4	290	364	0.61	0.187	0.362	0.010	0.012	0.32	0.012	0.32	0.012	0.32	7.03	290	128	0.01	0.006	0.78	1.3	
1.130	0.012	7.03	15.8	290	364	0.66	0.206	0.362	0.009	0.017	0.40	0.017	0.40	0.017	0.40	7.04	286	140	0.01	0.004	0.83	1.3	
0.792	0.007	7.03	15.7	286	366	0.91	0.204	0.349	0.014	0.017	0.32	0.017	0.32	0.017	0.32	7.03	278	135	0.01	0.005	0.86	1.4	
33.69																							
1.41																							
0.79																							
1.09																							

CHLORINATION		FLUORIDATION	
Type of Chlorine Used	Chlorine Gas	Type of Fluoride Used	Hydrofluosulfic Acid
Calcium Hypochlorite _____%	Chlorine Gas	Sodium Fluoride	Hydrofluosulfic Acid
Sodium Hypochlorite _____%	Calcium Hypochlorite _____%	Other	Other
Chlorine Test Kit Used: _____	Chlorine Test Kit Used: _____	Type of Test Instrum	Type of Test Instrum

I certify that the information in this report is complete and accurate to the best of my knowledge
 Reported by: _____ Cert or Req: _____
 Bacterials Sent: _____