



Monthly Operating Report

June 2017

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So. Sangamon

July 18, 2017

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 employees at the plant, provide weekly safety updates and safety videos are assigned to all employees. The safety topic for this month was “Confined Space Non-Entry Rescue Annual Practice”. There were no lost time accidents in the month of June, 2017. Approximately 88 percent of the items identified in the combined list of safety items have been completed.

Ammonia Removal. On June 1, 2017, Woodard and Curran operational staff at the plant had the opportunity to remove the existing ammonia from the plant. As you may recall, the Illinois EPA indicated in its September 2015 letter that the ammonia should be removed since SSWC no longer feeds ammonia. Whalen Trucking was on-site June 1, 2017 to load the ammonia. It took most of the day to pump the 3,000 gallons from the storage tank to the semi-trailer. The ammonia was delivered to a water plant in O’Fallon, Missouri on June 2, 2017. The cost for the trucking was \$1,200. The cost for the use of the pump is unknown since we have not received a bill and the pump has yet to be picked up from the plant.

It should be noted that recent cost estimates to have the ammonia removed and process it for disposal was \$20,000 to \$25,000. Also, a project to reconfigure the ductwork for the exhaust system in the chemical rooms was included in the Capital list at \$69,000. By removing the ammonia at a cost of \$1,200, the SSWC has eliminated nearly \$100,000 in expense.

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 included in this report as Attachment A.

Pumping Information. The plant pumped 49.3 million gallons from the well field. Approximately 45.6 million gallons was filtered, and approximately 39.9 million gallons was available for distribution.

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

Lagoon Pump #1. Anderson Electric was on-site June 2, 2017 to pull new wire so Lagoon Pump #1 would operate as needed.

Well 7 Rehabilitation. Brotcke Well and Pump rehabilitated Well 7 June 12, 2017. The well was placed back in service on June 29, 2017.

Well 9 VFD. The VFD on Well 9 failed. The cost to replace it was approximately \$6,000 and this work has been completed.

Maintenance and Repair. For the month of June, 2017, there were 12 inspections, 11 preventative and 10 corrective maintenance activities completed.

Budget. No update is available for the month of June, 2017.

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 continues 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 June, 2017 safety training topic was “Confined Space Non-Entry Rescue Annual Practice”.

1.2 LOST TIME ACCIDENTS

There were no lost time accidents in the month of June, 2017.

1.3 SAFETY AUDITS

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 finding for these two audits were combined to produce a list of 42 items needing to be addressed. A safety audit conference call with Shannon Eyler was held on January 25, 2017. To date, 88 percent of the items have been addressed. Remaining items are being addressed at time permits and as funding becomes available.

1.4 MISCELLANEOUS SAFETY

In early June, Woodard and Curran operational staff at the plant had the opportunity to remove the existing ammonia from the plant. As you may recall, the Illinois EPA indicated in its September 2015 letter that the ammonia should be removed since SSWC no longer feeds ammonia. Whalen Trucking was on-site June 1, 2017 to load the ammonia. It took most of the day to pump the 3,000 gallons from the storage tank to the semi-trailer. The ammonia was delivered to a water plant in O’Fallon, Missouri on June 2, 2017. The cost for the trucking was \$1,200. The cost for the use of the pump is unknown since we have not received a bill and the pump has yet to be picked up from the plant.

It should be noted that recent cost estimates to have the ammonia removed and process it for disposal was \$20,000 to \$25,000. Also, a project to reconfigure the ductwork for the exhaust system in the chemical rooms was included in the Capital list at \$69,000. By removing the ammonia at a cost of \$1,200, the SSWC has eliminated nearly \$100,000 in expense. Pictured below is the pump used to remove the majority of the ammonia from the tank.



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 June, 2017. A copy of the Operations Report to the Illinois Environmental Protection Agency (IEPA) is included in Attachment A of this report

2.2 INFLUENT FLOWS AND LOADINGS

The total gallons pumped from the well field was 49.288 MG. 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.	7.50	15.5	3.00	0.229	-	382	298	2.054
Min.	7.33	14.2	0.58	0.172	-	356	274	1.186
Avg.	7.39	14.7	1.39	0.201	-	369	292	1.643
Total	-	-	-	-	-	-	-	49.288

2.3 EFFLUENT CONCENTRATIONS

The facility filtered 45.558 MG during the month with a daily average of 1.519 MG and a min/max of 1.106/1.932 MG.

Table 2.3 Finished Water Quality										
	Free CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
Max.	1.4	1.6	7.95	15.3	0.03	0.019	0.87	120	290	1.60
Min.	1.0	1.2	7.71	14.2	0.01	0.001	0.71	104	268	1.17
Avg.	1.3	1.4	7.80	14.7	0.01	0.011	0.78	113	276	1.41
MCL	-	-	-	-	1.00	-	4.00	-	-	-
SMCL	-	-	-	-	0.30	0.050	2.00	-	-	-

FINISHED WATER PUMPING HISTORY						
	2017-2018	2016-2017	2015-2016	2014-2015	2013-2014	2012-2013
May	32,301,672	33,248,127	33,376,051	37,669,726	31,157,411	29,592,356
June	39,931,402	41,541,321	31,092,539	38,462,951	36,530,691	47,120,577
July		35,378,396	33,123,375	38,674,894	40,908,704	57,780,876
August		35,401,490	38,109,033	33,748,543	42,999,243	42,398,528
September		36,325,215	36,546,171	29,763,075	37,597,085	32,510,603
October		34,374,820	34,783,455	28,803,052	33,916,594	30,278,765
November		30,478,309	27,217,293	28,426,579	31,615,459	27,114,479
December		32,525,530	27,788,637	28,656,869	32,697,551	29,014,035
January		30,449,215	28,510,121	30,346,721	32,499,427	28,007,432
February		27,373,232	26,095,228	26,336,077	28,745,378	25,763,807
March		30,068,363	27,851,811	28,729,919	31,217,486	28,130,190
April		29,625,797	29,292,618	29,270,184	31,690,073	27,991,597
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Totals	72,233,074	396,789,815	373,786,332	378,888,590	411,575,102	405,703,245
Average		1,087,095	1,022,702	1,038,051	1,127,603	1,111,516
Maximum		2,061,098	2,177,926	1,837,344	2,010,587	2,546,901
Minimum		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)
June 6, 2017	0.12	.514	264	0.04	7.89	0
Minimum	-	-	-	-	-	-
Maximum	-	-	-	-	-	-
Average	-	-	-	-	-	-
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 June 2017, performed by the Springfield Metropolitan Sanitary District, was 11,700 mg/L. The limit for chloride discharge to the sanitary district is 30,000 mg/L.

3. OPERATIONS

3.1 EVENTS IMPACTING OPERATIONS

Lagoon Pump #1. Pump #1 at the Lagoon Influent Pump Station was not functioning. Anderson Electric was on-site June 2, 2017 to investigate and found a bad wire. Anderson Electric pulled a new set of wires and both pumps are now operational.

Well 7 Rehabilitation. Brotcke Well and Pump was on-site June 12, 2017. This is the second of three wells scheduled for rehabilitation during the 2017-2018 time frame. The well passed Bac-T testing and was placed back in service on June 29, 2017.

3.2 EMERGENCY & SERVICE CALLS

Service Calls:

- **Well 9 VFD.** Anderson Electric was on-site June 14, 2017 and determined the Variable Frequency Drive (VFD) on Well 9 has failed. Well 9 will not operate without a VFD and the cost to replace it is 6,059.62. Plant operation staff contacted Mr. Joel Sander and permission was given to replace the VFD. The new VFD was installed on June 21, 2017 and the well was placed back in service.

3.2.1 Emergency Call-outs

- There were 0 emergency call-outs for the month of June, 2017.

3.3 CUSTOMER INQUIRIES

There were no customer inquiries for the month of June, 2017.

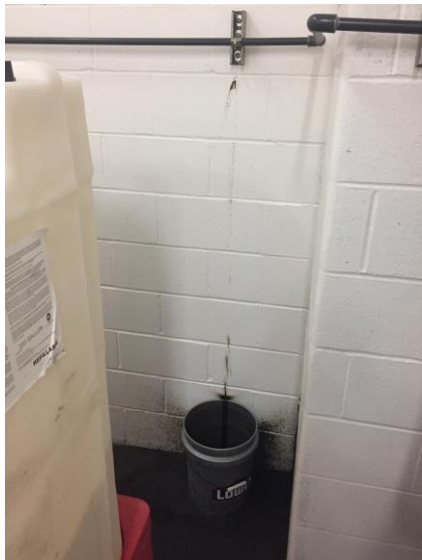
4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of June, 2017, there were 12 inspections, 11 preventative and 10 corrective maintenance activities completed.

4.2 CORRECTIVE REPAIRS

- Leak on Sodium Permanganate Line.** A leak was discovered in the Sodium Permanganate line that helps to oxidize Iron and Manganese prior to filtration. Pictured below is line that was leaking, the picture on the right was the repair completed by plant operation staff over the weekend.



- Replace broken Air Scour Four-Way.** A of the same fittings on the WesTech system were cracked and leaking water on June 25, 2017. The plant's operation staff replaced the fitting and there was no disruption in service.



- **Painting to prevent rust on the wells.** Repairs to the paint on several well sites were completed by plant operation staff.



5. PROJECT MANAGEMENT & SUPPORT

5.1 STAFFING & TRAINING

- Woodard and Curran continues to train and provide staffing to the plant as needed.
- Woodard and Curran IT staff are working with plant personnel on Hach Wims. Hach Wims is the programmed utilized by Woodard and Curran for developing IEPA Monthly Operating Reports and storage of test data. We are working through the issues discovered with the reporting earlier in the year as time allows.

5.2 CORPORATE SUPPORT

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

- | | |
|---------------|------------------|
| • Marc Thomas | • Shannon Eyler |
| • Joe Hurley | • Celina McManus |
| • Ray Giguere | • Wendy Foreman |
| • Renee Lanza | |

5.3 BUDGET

Table 5.3 No update is available for the 2017-2018 time frame at this time.

Table 5.3 Budget Table

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.

Woodard & Curran
July 18, 2017

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