



Monthly Operating Report

October 2017

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So. Sangamon

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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 “Fire Extinguisher Safety”. There were no lost time accidents in the month of October 2017. Approximately 93 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 in Attachment A of this document and at www.sswc.us.

During the month of October 2017, the plant filtered 38.7 million gallons from the well field and 33.5 million gallons of finished water. For the period of May through October 2017, the plant has pumped 10,292,857 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.

Discharge from the lagoons was within regulatory limits and all reporting and sampling requirements were met for the month. The Chloride sample for the month of October was 13,400.

Operations. There was 0 emergency call-outs for the month. There were 1 customer inquiries for the month.

Maintenance and Repair. For the month of October 2017, there were 9 inspections, 11 preventative and 4 corrective maintenance activities completed.

Budget. Through October 27, 2017, we are \$15,237 over budget for the fiscal year.

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 October 2017 safety training topic was “Fire Extinguisher Safety”.

1.2 LOST TIME ACCIDENTS

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

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 finding for these two audits were combined to produce a list of 40 items needing to be addressed. To date, 93 percent of the items have been addressed. Remaining items are being addressed at time permits and as funding becomes available.

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 October. 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 42.0 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.	7.51	16.0	1.01	0.243	-	374	298	1.893
Min.	7.30	13.8	0.49	0.214	-	342	282	0.912
Avg.	7.41	14.8	0.74	0.223	-	365	292	1.356
Total	-	-	-	-	-	-	-	42.039

2.3 EFFLUENT CONCENTRATIONS

The facility filtered 38.7 MG during the month with a daily average of 1.2 MG and a min/max of 1.7/0.8 MG.

Table 2.3 Finished Water Quality										
	Free CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
Max.	1.5	1.7	7.95	15.4	0.01	0.035	1.02	122	290	1.39
Min.	1.3	1.5	7.52	13.9	0.00	0.006	0.35	92	206	0.20
Avg.	1.4	1.6	7.83	14.7	0.01	0.021	0.84	114	277	1.15
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
May – October	226,562,226	216,269,369	207,030,624
Increase for the same period last year		10,292,857	

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	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		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	226,562,226	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)
10/03/2017	0.150	0.165	262	0.03	7.84	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

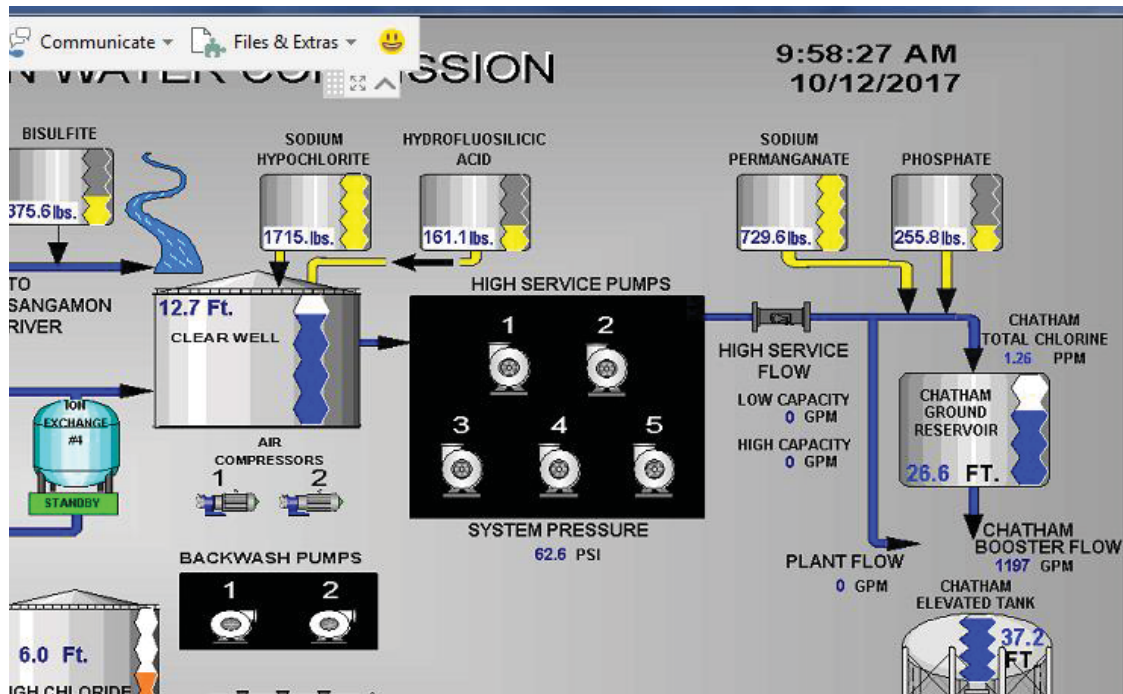
The Chloride sample for the month of October 2017, performed by the Springfield Metropolitan Sanitary District, was 13,400 mg/L. The limit for chloride discharge to the sanitary district is 30,000 mg/L.

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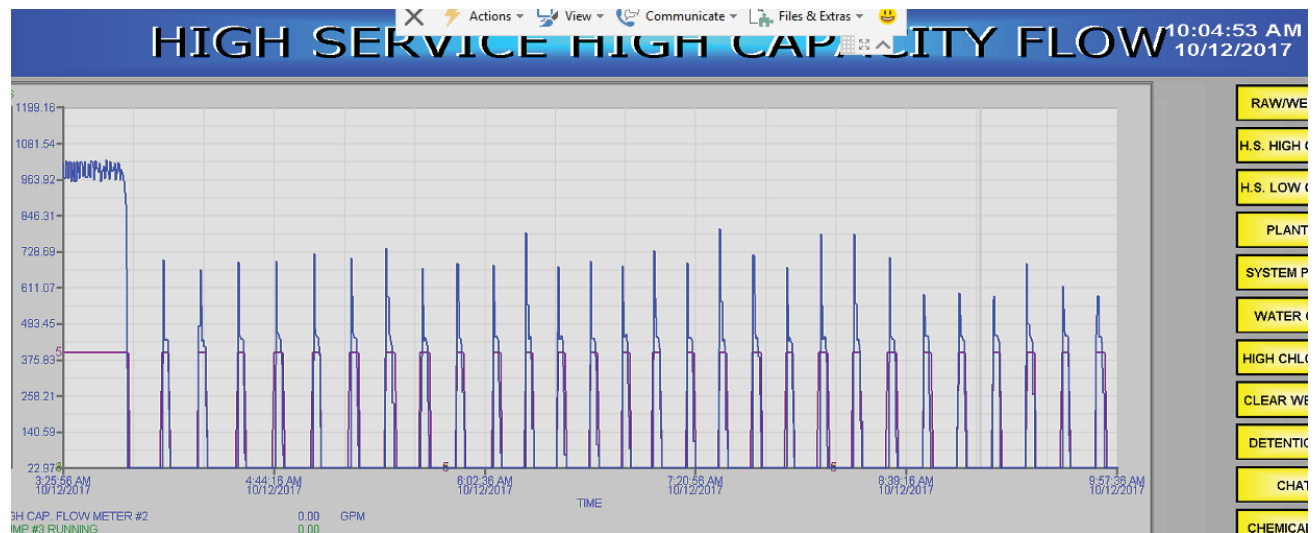
3. OPERATIONS

3.1 EVENTS IMPACTING OPERATIONS

Water Pumping vs. Water Quality. The village of Chatham has been working with the Altitude Valve that controls the flow of water the Chatham Ground Reservoir. Pictured below is a snapshot of the SCADA screen. Note the Chatham Reservoir is at 26.6-feet with a maximum capacity of about 40-feet.



Pictured below is a trend chart of the high service pumps when Chatham's Altitude Valve is closed.



3.2 EMERGENCY & SERVICE CALLS

Service Calls:

- Henson Robinson was on-site October 9, 2017 to repair the leak on Cardinal Hill Road just south of the bridge approximately 2 miles north of New City Road. Pictured below is the valve that was leaking prior to repair.



3.3 EMERGENCY CALL-OUTS

There was 0 emergency call-out for the month requiring operational personnel at the plant after normal business hours.

3.4 CUSTOMER INQUIRIES

There were 1 customer inquiries for the month of October:

- The village of Chatham sent a text indicating the Chatham Reservoir and the Water Tower were going to be inspected on October 10, 2017. While the inspection took place, the plant would pump directly to the tower.

4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of October 2017, there were 9 inspections, 11 preventative and 4 corrective maintenance activities completed.

4.2 CORRECTIVE REPAIRS

- **Pre-Filter Cleaning.** The Pre-filters on the WesTech system requires routine cleaning to keep them in serviceable condition. Banks 1 and 2 were cleaned on October 24, 2017. Pictured below is the cleaning mechanism for Bank #2 after it was removed but prior to cleaning.



Below is the screen prior to cleaning



- **Repair Broken Light Fixture.** This light fixture on the west side of the building was broken. Repairs were made early in October and the light is working.



OTHER WORK PERFORMED

- Confined Space Entry signs were posted around the plant where appropriate on October 31, 2017. Pictured below is an example of one location.



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 computer program 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 last 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 during the month.

- | | |
|-----------------|------------------|
| • Marc Thomas | • Jackie Smith |
| • Bobby Nichols | • Greg Freiden |
| • Joe Hurley | • Alan Fabiano |
| • Brian Ravens | • Jeannie Dubois |
| • Joyce Garnett | • Joanne Wallace |

5.3 BUDGET

Table 5.3 below is a breakdown of the current budget as of October 27, 2017.

Table 5.3 Budget Table

Budget Category	Month Budget	Month Actual	YTD Budget	YTD Actual	Annual Budget	Over (under)	% of budget
Labor (D.L. + OH)	\$24,213	\$22,327	\$145,276	\$124,515	\$290,551	(\$20,761)	43%
Utilities	\$8,150	\$8,537	\$48,900	\$50,766	\$97,800	\$1,866	52%
Chemicals	\$14,583	\$30,263	\$87,500	\$108,486	\$175,000	\$20,986	62%
Maintenance & Repair	\$9,102	\$13,591	\$54,613	\$75,978	\$109,225	\$21,366	70%
Chloride	\$13,522	\$14,096	\$81,130	\$69,828	\$162,260	(\$11,302)	43%
Lab Supplies and Equipment	\$1,882	\$914	\$11,292	\$9,802	\$22,584	(\$1,490)	43%
Office Supplies	\$216	\$173	\$1,293	\$2,960	\$2,586	\$1,667	114%
Miscellaneous Expenses	\$1,141	\$1,442	\$6,848	\$7,764	\$13,695	\$917	57%
Other Operating Costs	\$1,398	\$1,378	\$8,388	\$8,992	\$16,776	\$604	54%
Subtotal of Costs for Contract Year 3	\$74,206	\$92,721	\$445,239	\$459,091	\$890,477	\$13,852	52%
Fixed Fee for Contract Year 3	\$7,421	\$9,272	\$44,524	\$45,909	\$89,048	\$1,385	52%
Year One Transition	\$1,366	\$1,366	\$8,195	\$8,195	\$16,389	\$0	50%
Total	\$82,993	\$103,359	\$497,957	\$513,194	\$995,914	\$15,237	52%

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.