



# Monthly Operating Report

August 2017

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So. Sangamon

September 19, 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 “Cleaning Up Small Chemical Spills”. There were no lost time accidents in the month of August 2017. Approximately 90 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 to the Illinois Environmental Protection Agency (IEPA) is available on the SSWC website along with this report for clarity.

**Operations.** There was 1 emergency call-outs for the month. There were 2 customer inquiries for the month.

Lagoon Treatment. On August 25, 2017, plant operations staff sprayed chemical on the lagoons in an attempt to control the algae and other plant life growing in the lagoons.

Cleaning of the Detention Tank and Clear Well. Liquid Engineering was on site August 8, 2017 to clean the Clear Well and the Mixing Tank. Following cleaning, samples were pulled to verify that no contamination took place during the cleaning.

**Maintenance and Repair.** For the month of August 2017, there were 10 inspections, 6 preventative and 0 corrective maintenance activities completed.

**Budget.** Through August 25, 2017, we are \$36,704 under budget for the fiscal year. Please note that a number of utility, chemical and laboratory invoices have not been paid for August so this number is artificially high.

**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 August 2017 safety training topic was “Cleaning up Small Chemical Spills”.

### **1.2 LOST TIME ACCIDENTS**

There were no lost time accidents in the month of August 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. A safety audit conference call with Shannon Eyler was held on January 25, 2017. To date, 90 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 August. A copy of the Operations Report to the Illinois Environmental Protection Agency (IEPA) is available on the SSWC website along with this report.

### 2.2 INFLUENT FLOWS AND LOADINGS

The total gallons pumped from the well field was 48.472 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.	7.77	15.8	1.25	0.241	-	378	296	2.007
Min.	7.40	14.5	0.68	0.217	-	360	282	0.959
Avg.	7.50	14.9	1.04	0.229	-	370	292	1.564
Total	-	-	-	-	-	-	-	48.472

### 2.3 EFFLUENT CONCENTRATIONS

The facility filtered 44.797 MG during the month with a daily average of 1.445 MG and a min/max of 0.914/1.851 MG.

Table 2.3 Finished Water Quality										
	Free CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
Max.	1.3	1.5	8.04	15.5	0.01	0.018	1.24	126	290	1.67
Min.	0.9	1.2	7.82	14.6	0.00	0.006	0.43	106	256	1.02
Avg.	1.2	1.4	7.93	15.1	0.01	0.014	0.81	116	277	1.25
MCL	-	-	-	-	1.00	-	4.00	-	-	-
SMCL	-	-	-	-	0.30	0.050	2.00	-	-	-

## 2.4 LAGOON DISCHARGE CONCENTRATIONS

The results for the NPDES lagoon discharge permit are summarized below. For the month of August, the plant is out of compliance on Chlorine. The NPDES requires Chlorine to be less than 0.05 mg/L. On August 7, 2017, the Chlorine was 0.21 mg/L.

**Table 2.4 Weekly Grab Sample Analysis Results**

Lagoon Effluent Results						
Date	Fe (mg/l)	Mn (mg/l)	Chloride (mg/l)	Cl <sup>2</sup> (mg/l)	pH (S.U.)	TSS (mg/l)
August 7, 2017	0.140	0.415	264	0.21	-	0.00
August 8, 2017	0.160	0.700	254	0.06	-	-
August 21, 2017	0.050	0.900	219	0.02	8.01	-
Minimum	0.050	0.415	219	0.02	-	0.00
Maximum	0.160	0.900	264	0.21	-	0.00
Average	0.116	0.672				0.00
<b>Monthly Avg Limit</b>	<b>2.000</b>	<b>1.00</b>				<b>15</b>
<b>Daily Limit</b>	<b>4.000</b>	<b>2.000</b>	<b>500</b>	<b>0.05</b>	<b>6.0-9.0</b>	<b>30</b>

The Chloride sample for the month of August 2017, performed by the Springfield Metropolitan Sanitary District, was 12,100 mg/L. The limit for chloride discharge to the sanitary district is 30,000 mg/L

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	<b>41,541,321</b>	31,092,539	38,462,951	36,530,691	47,120,577
July	42,164,927	35,378,396	33,123,375	<b>38,674,894</b>	40,908,704	<b>57,780,876</b>
August	38,760,634	35,401,490	<b>38,109,033</b>	33,748,543	<b>42,999,243</b>	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

## LEAD AND COPPER TESTING

Each year, the Illinois EPA requires the SSWC to analyze 5 samples from the distribution system for Lead and Copper. The tables below illustrate the test results for this year as was the results from the last two years.

### Lead (expressed in Parts Per Billion)

	2017	2016	2015
Location 1	0.000	0.000	0.000
Location 2	0.000	0.000	0.000
Location 3	0.000	8.99	0.000
Location 4	0.000	0.00	
Location 5	0.000	0.00	

**Maximum Contaminant Level for Lead is 15 Parts Per Billion**

### Copper (expressed in Parts Per Million)

	2017	2016	2015
Location 1	0.096	0.340	0.660
Location 2	0.455	0.497	0.505
Location 3	0.203	0.412	0.146
Location 4	0.524	0.925	
Location 5	0.357	0.776	

**Maximum Contaminant Level for Copper is 1.300 Parts Per Million**

### 3. OPERATIONS

#### 3.1 EVENTS IMPACTING OPERATIONS

**Lagoon Treatment.** On August 25, 2017, plant operations staff sprayed chemical on the lagoons in an attempt to control the algae and other plant life growing in the lagoons. The top two pictures below are the lagoons prior to them being sprayed. The bottom two pictures are after the lagoons were treated.



**Tank Cleaning.** Liquid Engineering was on site August 8, 2017 to clean the Clear Well and the Mixing Tank. Following cleaning, samples were pulled to verify that no contamination took place during the cleaning.



### 3.2 EMERGENCY & SERVICE CALLS

#### Service Calls:

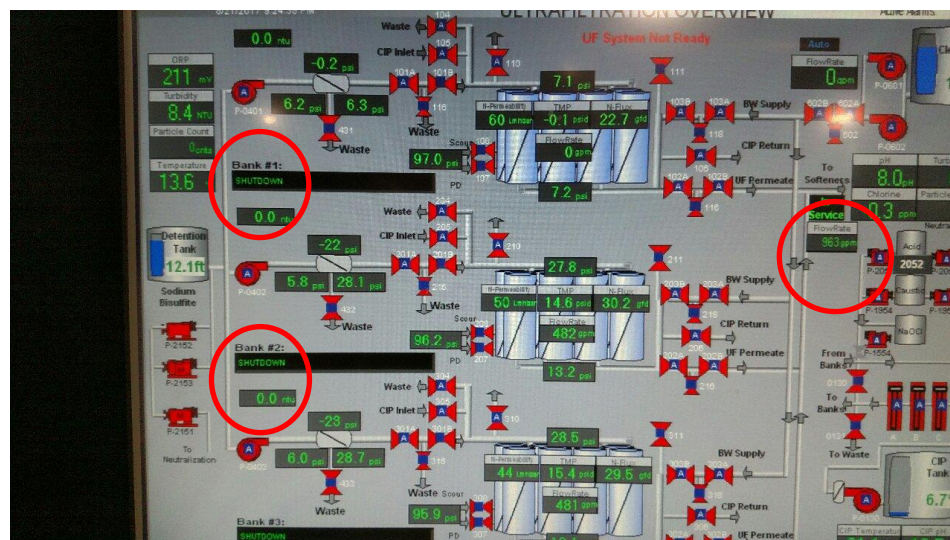
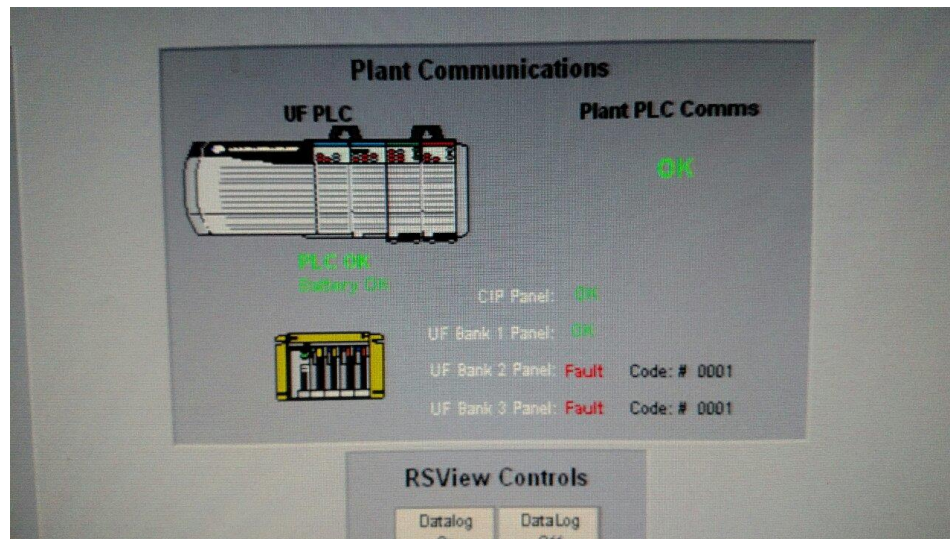
- There were no service calls for the month.

### 3.3 EMERGENCY CALL-OUTS

There was 1 emergency call-out for the month requiring operational personnel at the plant after normal business hours.

- **SCADA malfunction.** On August 22, 2017, plant operation staff received an alarm at 9:15 pm for communications loss on Trains 2 and 3. These alarms essentially hold the filters in

whatever position they're in until someone arrives in person and resets the breakers on each individual train. Pictured below is computer screen that indicates that Banks 2 and 3 are in fault. The picture below that shows the filters are still pumping water because that's what they were doing at the time of the alarm.



**Note:** The status shows the filters in are “shutdown” mode but the plant is still producing water.

### 3.4 CUSTOMER INQUIRIES

There were 2 customer inquiries for the month of August:

- Mr. Greg Marconi contacted SSWC regarding low volume and pressure at this residence. Plant Operations staff checked the meter at the residence and found volume and pressure were correct up to the meter. Mike Williams Plumbing told the home owner the problem was at the meter.

Mr. Marconi had Williams Plumbing return on August 17, 2017 and found the pressure regulator inside the residence was the issue.

Pictured below is the water running through the meter at about 65 psi which lead to Williams Plumbing to finding the real issue.



- SSWC received a FOIA Request for water testing and pumping information. This information is now available in two different reports on the website to make them more legible.

## 4. MAINTENANCE AND REPAIR

### 4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of August 2017, there were 10 inspections, 6 preventative and 0 corrective maintenance activities completed.

- **Hoist Inspection.** Tri-State Equipment Company was on-site August 11, 2107 to inspect the hoists at both the west and east end of the plant. Pictured below is their representative conducting the inspection.



### 4.2 CORRECTIVE REPAIRS

- **Corrective Repairs.** There were no corrective repairs for the month of August, 2017.
- **Plant Clean-up.** Remaining fittings from the plant influent and distribution lines located on the east side of the building were moved to mow the weeds that have become unsightly. In addition, a raccoon had tried to take up residence in the area. Pictured below is the area prior to cleaning and after. Note the pile of pallets in the background on the right picture that were disposed of after cleaning.



## 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 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 during the month.

- |                  |                     |
|------------------|---------------------|
| • Marc Thomas    | • Joyce Garnett     |
| • Joe Hurley     | • Jackie Smith      |
| • Bobby Nichols  | • Greg Freiden      |
| • Shannon Eyller | • Stephanie Crowell |
| • Ray Giguere    | • Jen Anders        |
| • Renee Lanza    | • Wendy Foreman     |
| • Brian Ravens   | • Joanna Wallace    |
| • Gary Miller    |                     |

### 5.3 BUDGET

Table 5.3 below is a breakdown of the current budget as of August 25, 2017.

**Table 5.3 Budget Table**

<b>Budget Category</b>	<b>Month Budget</b>	<b>Month Actual</b>	<b>YTD Budget</b>	<b>YTD Actual</b>	<b>Annual Budget</b>	<b>Over (under)</b>	<b>% of budget</b>
Labor (D.L. + OH)	\$24,213	\$19,780	\$96,850	\$80,033	\$290,551	(\$16,817)	28%
Utilities	\$8,150	\$2,260	\$32,600	\$33,826	\$97,800	\$1,226	35%
Chemicals	\$14,583	\$2,046	\$58,333	\$31,607	\$175,000	(\$26,726)	18%
Maintenance & Repair	\$9,102	\$4,783	\$36,408	\$56,793	\$109,225	\$20,385	52%
Chloride	\$13,522	\$26,160	\$54,087	\$39,832	\$162,260	(\$14,255)	25%
Lab Supplies and Equipment	\$1,882	\$2,588	\$7,528	\$7,499	\$22,584	(\$29)	33%
Office Supplies	\$216	\$1,129	\$862	\$2,467	\$2,586	\$1,605	95%
Miscellaneous Expenses	\$1,141	\$609	\$4,565	\$5,078	\$13,695	\$513	37%
Other Operating Costs	\$1,398	\$1,080	\$5,592	\$6,323	\$16,776	\$731	38%
<b>Subtotal of Costs for Contract Year 3</b>	<b>\$74,206</b>	<b>\$60,435</b>	<b>\$296,826</b>	<b>\$263,458</b>	<b>\$890,477</b>	<b>(\$33,368)</b>	<b>30%</b>
Fixed Fee for Contract Year 3	\$7,421	\$7,775	\$29,683	\$26,346	\$89,048	(\$3,337)	30%
<b>Year One Transition</b>	<b>\$1,366</b>	<b>\$1,366</b>	<b>\$5,463</b>	<b>\$5,463</b>	<b>\$16,389</b>	<b>\$0</b>	<b>33%</b>
<b>Total</b>	<b>\$82,993</b>	<b>\$69,576</b>	<b>\$331,971</b>	<b>\$295,267</b>	<b>\$995,914</b>	<b>(\$36,704)</b>	<b>30%</b>

## **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.