







WOODARDCUITAN.COM

Monthly Operating Report

September 2017

0217327.00 So. Sangamon October 17, 2017

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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 "Hearing Conservation". There were no lost time accidents in the month of September 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 on the SSWC Website.

During the month of September 2017, the plant pumped 48.9 million gallons from the well field and 39.9 million gallons of finished water. For the period of May through September 2017, the plant has pumped 11,161,072 more gallons of water then during the same period one year ago.

The IEPA recently completed a review of SSWC's community water supply lead and copper 90th percentiles. Since SSWC has completed three (3) consecutive years of lead/copper monitoring without exceeding the action level, SSWC will now be required to collect five (5) lead/copper samples once every three (3) years. As a result, the next round of sampling is scheduled between June 1, 2020 and September 30, 2020.

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 4 customer inquiries for the month.

Maintenance and Repair. For the month of September 2017, there were 7 inspections, 5 preventative and 6 corrective maintenance activities completed.

Budget. Through September 29, 2017, we are \$5,129 under budget for the fiscal year.

Capital Planning. Woodard and Curran is working with Meco 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 September 2017 safety training topic was "Hearing Conservation".

1.2 LOST TIME ACCIDENTS

There were no lost time accidents in the month of September 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 September. A copy of the Operations Report to the Illinois Environmental Protection Agency (IEPA) is attached to the end of this report and is available on the SSWC website.

2.2 INFLUENT FLOWS AND LOADINGS

The total gallons pumped from the well field was 48.9 MG. The influent parameters were all within the normal range.

Table 2.2 Influent Concentrations and Flow											
	рН	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Well Flow Gals (k)			
Max.	7.70	15.5	1.06	0.244	-	374	298	1.913			
Min.	7.39	14.5	0.74	0.211	-	360	288	1.359			
Avg.	7.48	15.0	0.92	0.227	-	367	293	1.631			
Total	-	-	-	-	-	-	-	48.930			

The influent flow and loadings are summarized below in Table 2.2

2.3 EFFLUENT CONCENTRATIONS

The facility filtered 45.2 MG during the month with a daily average of 1.5 MG and a min/max of 1.3/1.8 MG.

	Table 2.3 Finished Water Quality											
	Free CL2	Total CL2	рН	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate		
Max.	1.5	1.7	8.06	15.6	0.02	0.022	1.00	126	294	1.42		
Min.	1.2	1.4	7.82	14.4	0.00	0.005	0.52	106	260	1.07		
Avg.	1.4	1.61	7.91	15.0	0.01	0.013	0.79	115	280	1.27		
MCL	-	-	-	-	1.00	-	4.00	-	-	-		
SMCL	-	-	-	-	0.30	0.050	2.00	-	-	-		

Finished Water Flow Comparison - 2017

Time	2017-2018	2016-2017	2015-2016
May – September	193,055,621	181,894,549	172,247,169
Increase 2016 to 2017	11,161,072		



	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		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					
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 NOTIFICATION

The IEPA recently completed a review of SSWC's community water supply lead and copper 90th percentiles. Since SSWC has completed three (3) consecutive years of lead/copper monitoring without exceeding the action level, SSWC will now be required to collect five (5) lead/copper samples once every three (3) years. As a result, the next round of sampling is scheduled between June 1, 2020 and September 30, 2020.

A copy of the letter from IEPA is included in Attachment B of this report.



2.4 LAGOON DISCHARGE CONCENTRATIONS

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

Lagoon Effluent Results									
Date	Fe (mg/l)	Mn (mg/l)	Chloride (mg/l)	Cl² (mg/l)	рН (S.U.)	TSS (mg/l)			
09/11/2017	0.220	0.447	251	0.00	7.91	4.00			
Minimum									
Maximum									
Average	0.220	0.447				4.00			
Monthly Avg Limit	2.000	1.00				15			
Daily Limit	4.000	2.000	500	0.05	6.0-9.0	30			

Table 2.4 Weekly Grab Sample Analysis Results

The Chloride sample for the month of September 2017, performed by the Springfield Metropolitan Sanitary District, was 18,600 mg/L. The limit for chloride discharge to the sanitary district is 30,000 mg/L.

CRITICAL REVIEW LIST

A letter dated August 31, 2017 from the IEPA stated the South Sangamon Water Commission community water supply is being placed on Critical Review for inadequate treatment plant capacity. Systems on Critical Review will be evaluated for sufficient capacity before issuance of water main extension permits.

Meco Engineering is currently working with the SSWC to a plan to restore the plant's ability to feed ammonia at the plant. Feeding Chloramines would more closely mirror the City of Springfield's finished water. IEPA has indicated that converting the plant to Chloramines would remove the SSWC from the Critical Review list.

A copy of the letter received from the IEPA is included in this report as Attachment A

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3. OPERATIONS

3.1 EVENTS IMPACTING OPERATIONS

Repairs to Bank #2 Backwash Line. On September 7, 2017, Henson Robinson was on-site to fix the leak on the backwash line of Bank #2. The filters were off line while the repairs took place. Pictured below is Henson Robinson's Win Heyen completing repairs on the backwash line.



Leak on the Backwash Line #1. A leak was found on Backwash Line #1 early in the morning of September 10, 2017. Henson Robinson was contacted to secure the parts necessary and make repairs. Repairs were made on September 14, 2017. The line can be isolated and the plant can operate on one backwash pump so there was no interruption in service. Pictured below on the left is the elbow that was leaking and the replaced elbow is pictured on the right.





Fuse opens on Well #10. On September 12, 2017, plant operations staff received an alarm on Well 10 for Power Loss at 8:54 am. Plant operations staff investigated and found the fuse supplying power to Well 10 was open. The fuse was put back in place at 10:36 am and the well was returned to service. There was no disruption in service.



3.2 EMERGENCY & SERVICE CALLS

Service Calls:

• Henson Robinson was on site September 20, 2017 to effect repairs on the WesTech Filters.





<image>

Pictures below are the four pieces that were replaced a cost of \$3,769.07 not including labor.

Pictured below is visual evidence of why some of these repairs were needed. The laser line on the far right of the picture passes through the middle of the clamp. The laser line in the red circle passes through the top of the clamp. This suggests the pipes are not in alignment and stress on the joints causes them to crack and leak requiring replacement.







There is a split in the rubber which will require repair at a later date.

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 4 customer inquiries for the month of September:

- Low Chlorine residuals in the village of New Berlin
- Two readers that were no not working at two locations on the distribution main.
- Two (2) citizens requesting the bulk water station be restored.



4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of September 2017, there were 7 inspections, 5 preventative and 6 corrective maintenance activities completed.

4.2 CORRECTIVE REPAIRS

• **Repair Leaking Check Valves on Bank #3.** A portion of the check valves that were leaking on Bank #3 were replaced on September 20, 2017 while it was out of service to fix leaks on the manifolds mentioned earlier in this report. There are 22 canisters on each train and each canister. These valves were replaced a little over one year ago and cost approximately \$10.00 each.



• **Repairs to Bank #3.** A leak was found on Bank #3 early in the morning of September 11, 2017. Plant operations staff repaired the leak and there was no interruption in service.





• Leak on the transmission main valve vault. A leak was discovered on the transmission main near the Cardinal Hill Road bridge. On September 15, 2017, plant operations staff pumped the valve vault dry to see if the cause of the leak could be determined. Pictured below on the left is a picture of where the leak occurred. Plant operations staff worked with Henson Robinson to have repairs completed on October 9, 2017.



• **Fire Extinguisher Sensor.** Plant operations staff replaced the fire alarm sensor in the east chemical room that once housed Sodium Bisulfite. The picture on the left shows the corroded contacts the kept the sensor from operating. The picture on the right is the new sensor installed.





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
- Jen Anders
- Wendy Foreman
- Brian Ravens
- Celina Bland

- Jackie Smith
- Greg Freiden
- Stephanie Crowell
- Helen Whitcomb



5.3 BUDGET

Table 5.3 below is a breakdown of the current budget as of September 29, 2017.

Budget Category	Month Budget	Month Actual	YTD Budget	YTD Actual	Annual Budget	Over (under)	% of budget
Labor (D.L. + OH)	\$24,213	\$19,780	\$121,063	\$102,187	\$290,551	(\$18,876)	35%
Utilities	\$8,150	\$2,260	\$40,750	\$42,229	\$97,800	\$1,479	43%
Chemicals	\$14,583	\$2,046	\$72,917	\$78,223	\$175,000	\$5,306	45%
Maintenance & Repair	\$9,102	\$4,783	\$45,510	\$62,387	\$109,225	\$16,877	57%
Chloride	\$13,522	\$15,900	\$67,608	\$55,732	\$162,260	(\$11,876)	34%
Lab Supplies and Equipment	\$1,882	\$1,389	\$9,410	\$8,888	\$22,584	(\$522)	39%
Office Supplies	\$216	\$1,129	\$1,078	\$2,787	\$2,586	\$1,710	108%
Miscellaneous Expenses	\$1,141	\$609	\$5,706	\$6,322	\$13,695	\$616	46%
Other Operating Costs	\$1,398	\$1,080	\$6,990	\$7,614	\$16,776	\$624	45%
Subtotal of Costs for Contract Year 3	\$74,206	\$48,976	\$371,032	\$366,369	\$890,477	(\$4,663)	41%
Fixed Fee for Contract Year 3	\$7,421	\$10,291	\$37,103	\$36,637	\$89,048	(\$466)	41%
Year One Transition	\$1,366	\$1,366	\$6,829	\$6,829	\$16,389	\$0	42%
Total	\$82,993	\$60,633	\$414,964	\$409,835	\$995,914	(\$5,129)	41%

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.

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



Attachment A Page 1 of 3



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

PO21 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGRIELD, ILLINGIS 802794-9276 + (217) 783-9397 BRUCE RAUNER, GOVERNOR ALEC MESSINA, DIRECTOR

217/782-1724

August 31, 2017

Joel Sander, Chairman South Sangamon Water Commission P.O. Box 83 New Berlin, IL 62670

Re: South Sangamon Water Commission, IL1670080 Critical Review Determination

Dear Mr. Sander:

The Restricted Status and Critical Review Lists were developed to give additional notice to officials of community water systems which are or may be close to being in violation of a regulation adopted pursuant to Section 18 of the Environmental Protection Act. Placement on the restricted status is notification that the Illinois Environmental Protection Agency cannot issue a construction permit for a water main extension that would serve new users. Construction permits for systems on restricted status can only be issued for water main replacement projects or projects to correct a violation. Systems on critical review will be evaluated for sufficient capacity before issuance of water main extension permits.

The South Sangamon Water Commission community water system is being placed on Critical Review for inadequate treatment plant capacity. The name of your community water system will appear on the Illinois Pollution Control Board's *Environmental Register* each quarter, until the deficiency is corrected or a variance is obtained from the Illinois Pollution Control Board. Notify any person requesting a water main extension of this status.

For your reference, enclosed is a copy of Illinois Administrative Code, Title 35, Subtitle F, Sections 602.106 and 602.107. If you have any questions, please contact me.

Sincerely

David C. Cook, P.E. Acting Manager, Permit Section Division of Public Water Supplies

Enclosure

cc: Marc Thomas, Vice President Daniel Held, ROINC DPWS/Division File 03D Springfield Regional Office

4302 N. max St., Keekford, K. 61103 (818)497-0760 195.5. Stee, Ban, L. 60133 (847-606-313) 2125 S. Free, Ban, L. 60133 (847-606-313) 2125 S. Free St., Greenpoli, L. 61036 (317)2018,850 2007 Mol B., Collowith, K. 6234 (616)66-6132

8671 Herman St., Dat Futher, 1, 4001 6 (847) 294-4000 419 SW Wathington St., Suite St., Fernite II, 61600 (2019) - 2022 2029 W., Alan St., Shife II, S., Markan, M. 3989 (1997) - 2020 100 W. Rassielah, Suite 10-300, Chicage, 1, 40401

FLUE PRINT ON REPORT PARTY



Attachment A Page 2 of 3

Section 602.106 Restricted Status

- a) Restricted status shall be defined as the Agency determination, pursuant to Section 39(a) of the Act and Section 602.105, that a community water supply facility, or portion thereof, may no longer be issued a construction permit without causing a violation of the Act or Board or Agency rules. Violations of Board rules that can result in a restricted status determination include, but are not limited to, regulations establishing maximum contaminant levels, treatment techniques, source water quantity requirements, treatment unit loading rates, storage volume requirements, and minimum pressure for a distribution system.
 - When the Agency cannot issue a construction permit to a community water supply because that issuance would extend an existing violation of the Act or Board or Agency rules, the Agency must place the community water supply on restricted status.
 - Except as specified in Section 602.105(a)(5), the Agency must not issue a permit for water main extension construction when the water main would extend an existing violation of the Act or Board or Agency rules.
- b) The Agency must publish on its website and in the Environmental Register and update, at intervals of not more than three months, a comprehensive list of community water supplies subject to restrictive status. This list will be entitled the 'Restricted Status List'.
- c) The Agency shall notify the owners or official custodian and Responsible Operator in Charge of a community water supply when the community water supply is initially placed on restricted status by the Agency.
- d) The restricted status list must include a statement of the potential or existing violation of the Act or Board regulations that caused the community water supply's inclusion on the list.
- e) Owners or official custodians of community water supplies that have been placed on restricted status must notify any person requesting construction of a water main extension of this status.

(Source: Amended at 40 Ill. Reg. 6799, effective April 15, 2016)



Attachment A Page 3 of 3

Section 602.107 Critical Review

- a) The Agency must publish in the Environmental Register and on its webpage, at the same frequency as the Restricted Status List, a list of those community water supplies that Agency records indicate exceed 80 percent of the rate of any of the quantity requirements in the Board's or Agency's rules. This list will be entitled the "Critical Review List".
- b) The Critical Review List must include a description of the cause of the community water supply's inclusion on the list.
- c) The Agency must notify the owner or official custodian and the Responsible Operator in Charge of the community water supply when the community water supply is initially placed on critical review status by the Agency.
- d) Owners or official custodians of community water supplies that have been placed on critical review status must notify of this status any person requesting construction of a water main extension.

(Source: Former Section 602.107 renumbered to Section 602.110 and new Section 602.107 added at 40 III. Reg. 6799, effective April 15, 2016)

http://www.ilga.gcv/commission/jcar/admincode/035/03500602sections.html



Attachment B Page 1 of 1



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397 BRUCE RAUNER, GOVERNOR ALEC MESSINA, DIRECTOR

217/785-0561

September 27, 2017

DANIEL L HELD 9199 BUCKHART ROAD ROCHESTER, IL 62563

Re: IL1670080, SOUTH SANGAMON WATER COMMISSION-- Notification of Triennial Lead/Copper Monitoring

Water System Official:

After a recent review of your water system's lead and copper 90th percentiles, your water system has completed three consecutive years of lead/copper monitoring without exceeding the action level. Therefore, your water system has been scheduled on a triennial monitoring frequency. Your water system will be required to collect 5 lead/copper samples once every three years with your next round of sampling scheduled between June 1, 2020 and September 30, 2020.

Samples should be collected at the same locations as those used during annual monitoring.

If you have any questions or comments, please contact us at the telephone number referenced above.

Sincerely. eri on

Chemical Monitoring Sub-Unit Drinking Water Compliance Unit Bureau of Water

cc: MARC THOMAS

4302 N. Main St., Rodeford, IL 61103 (815)987-7760 595 S. Stote, Egin, IL 60123 (847)608-3131 2125 S. First St., Champaign, IL 61820 (217)278-5800 2009 Mall St., Collinsville, IL 62234 (618)346-5120 9511 Harrison St., Des Plaines, IL 60016 (847)294-4000 412 SW Washington St., Suite D, Peorio, IL 61602 (309)671-3022 2309 W. Adin St., Suite 116, Marton, IL 62959 (618)993-7200 100 W. Randolph, Suite 10-300, Chicago, IL 60601

PLEASE POINT ON DECYCLED PADED