



Monthly Operating Report

February: 2020

So. Sangamon
Water Commission
March 16th, 2020

SSWC

9199 Buckhart Rd Rochester IL 62563

TABLE OF CONTENTS

SECTION	PAGE NO.
Executive Summary.....	ES-1
1. SAFETY	1-1
1.1 Safety Training	1-1
1.2 Lost time Accidents	1-1
1.3 Safety Audit	1-1
1.4 Miscellaneous Safety.....	1-1
2. COMPLIANCE, FLOWS AND LOADINGS	2-2
2.1 Compliance	2-2
2.2 Influent flows and loadings	2-2
2.3 Effluent Concentrations	2-2
2.4 Lagoon Discharge Concentrations	2-4
3. OPERATIONS.....	3-1
3.1 Events impacting operations	3-1
3.2 Emergency & Service calls.....	3-1
3.3 Emergency Call-outs	3-1
3.4 Customer Inquiries	3-1
4. MAINTENANCE AND REPAIR.....	4-6
4.1 Preventative and predictive maintenance.....	4-6
4.2 Corrective repairs	4-6
5. PROJECT MANAGEMENT & SUPPORT.....	5-1
5.1 Staffing & Training	5-1
5.2 Corporate Support.....	5-2
5.3 Budget	5-3
6. CAPITAL PLANNING	6-1
6.1 Approved CIP Projects Current status.....	6-1
6.2 Draft Capital Improvement Plan	6-1

LIST OF TABLES

TABLE	PAGE NO.
Table 2.2 Influent Concentrations and Flow.....	2-2
Table 2.3 Finished Water Quality.....	2-2
Table 2.4 Weekly Grab Sample Analysis Results.....	2-4
Table 4.1 Budget Table.....	5-3

EXECUTIVE SUMMARY

Safety. Safety is the number one priority at South Sangamon. We have instituted a monthly safety meeting for operations staff at the plant. There were no lost time accidents in the month of February 2020.

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 February 2020, the plant pumped 38.261 million gallons from the well field and 29.851 million gallons of finished water. This is .172 million gallons more than February of 2019.

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 1 emergency call-outs for the month. There was 2 customer inquiry for the month.

Maintenance and Repair. For the month of February 2020, there were 29 inspections, 3 preventative and 3 corrective maintenance activity completed.

Budget. Passed at May 20th 2019 meeting.

Capital Planning.

Pigging Project

Chloramines Project

New Berlin Meter relocation.

Well Rehabilitation Project

1. SAFETY

1.1 SAFETY TRAINING

At South Sangamon we strive to provide a safe working environment for all employees. This is accomplished with daily safety meetings and open communication.

1.2 LOST TIME ACCIDENTS

There were 0 lost time accidents in the month of February 2020.

1.3 SAFETY AUDIT

No safety audits to date.

1.4 MISCELLANEOUS SAFETY

No usable Fall Arrestors for aerator on premises

2. COMPLIANCE, FLOWS AND LOADINGS

2.1 COMPLIANCE

The finished water quality was within regulatory limits and all Bacteriological testing was completed for the month of February. 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 were 38.261 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 (MGD).
Max.	7.77	16.0	1.67	.286	-	362	288	1.510
Min.	7.60	13.2	.77	.196	-	330	270	1.147
Avg.	7.77	14.0	1.13	.250	-	354	279	1.319
Total	-	-	-	-	-	-	-	38.26

2.3 EFFLUENT CONCENTRATIONS

The facility filtered 34.34 MG during the month with a daily average of 1.184 MG and a min/max 1.0/ 1.4 MG.

Table 2.3 Finished Water Quality										
	Free CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
Max.	1.8	1.9	8.40		0.05	0.050	0.92	140	285	2.16
Min.	1.3	1.5	8.20		0.03	0.001	0.54	90	220	1.47
Avg.	1.5	1.7	8.30		0.02	0.022	0.71	107	276	1.73
MCL	-	-	-	-	1.00	-	4.00	-	-	-
SMCL	-	-	-	-	0.30	0.050	2.00	-	-	-

Finished Water Flow Comparison for FY 2019-20

Time Period	2019-2020	2018-2019	2017-2018
Mar 2019-Feb 2020	359,379,069	383,977,721	399,675,695
Increase for the same period last year		-24.6 MG	

FINISHED WATER PUMPING HISTORY						
	2019-20	2018-19	2017-18	2016-17	2015-16	2014-15
March	31,237,000	28,217,699	30,068,363	27,851,811	28,729,919	31,217,486
April	28,418,249	27,110,578	29,625,797	29,292,618	29,270,184	31,690,073
May	33,045,927	33,304,196	32,120,873	33,349,391	33,371,016	31,157,411
June	33,460,303	34,040,000	39,931,402	41,541,321	31,092,539	38,462,951
July	23,742,374	41,178,722	42,164,927	35,378,396	33,123,375	38,674,894
Aug	25,018,633	35,176,238	38,760,634	35,401,490	38,109,133	33,748,543
Sept	34,234,782	34,754,000	39,896,986	36,325,215	36,546,171	29,763,075
Oct	30,769,238	30,353,482	33,506,605	34,374,820	34,783,455	28,803,052
Nov	30,877,400	30,464,000	28,617,333	30,478,309	27,217,293	28,426,579
Dec	29,703,954	31,930,000	28,808,037	32,525,530	27,788,637	28,656,869
Jan	30,073,516	28,823,375	30,556,824	30,449,215	28,510,121	30,346,721
Feb	28,797,693	28,625,431	25,617,914	27,373,232	26,095,228	26,336,077
	-----	-----	-----	-----	-----	-----
Totals	359,379,069	383,977,721	399,675,695	394,341,348	374,637,071	377,283,731
Avg	.984 MGD	1.04 MGD	1.10 MGD	1.07 MGD	1.03 MGD	1.04 MGD

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)
February 4th, 2020	.34	.794	350	0.05	8.0	5.6
Minimum	.34	.794	350	0.05	8.0	5.6
Maximum	.34	.794	350	0.05	8.0	5.6
Average	.34	.794	350	0.05	8.0	5.6
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, performed by the Springfield Metropolitan Sanitary District, was below 30,000 mg/l for the month of February 2020. The limit for chloride discharge to the sanitary district is 30,000 mg/L.

3. OPERATIONS

3.1 EVENTS IMPACTING OPERATIONS

There were no incidents impacting plant operations for the month of February.

3.2 EMERGENCY & SERVICE CALLS

Service Calls:

- There were 0 emergency call outs 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

3.4 CUSTOMER INQUIRIE

There was 2 customer inquiry.

OTHER WORK PERFORMED

Learned correct operating procedures for the new filter train

Trouble shooting of new train

Trouble shooting of CIP skid and CIP procedure

Repaired chlorination system

Covered air purge valve at Vigil Rd

Repaired Train 1



Brentags contract shipping company delivered salt. In doing so the driver pulled through the plant yard.



Once the snow melted a better evaluation of the damage to the yard was made.



On February 25th the lower main groove lock let go causing plant personnel to be at plant outside of normal business hours



The groove lock has been removed and the pipes have been rough lined up awaiting plant personnel to finish lining up the coupler and reinstall groove lock.

4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of February 2020, there were 29 inspections, 12 preventative and 3 corrective maintenance activity completed.

4.2 CORRECTIVE REPAIR

Pulling and cleaning pre filters on all 3 filter trains on weekly basis

CIP train 1,2 and 3

Repaired Train 1

5. PROJECT MANAGEMENT & SUPPORT

5.1 STAFFING & TRAINING

- With the addition of a new staff member training has been continuous and ongoing.
- Operator and Asst. Operator have been studying for EPA licensing test.

5.2 OPERATIONAL SUPPORT

The following individuals, either on-site or remotely, provided assistance in operation and/or maintenance of the plant during the month of January 2020.

- Kevin Canham
- Stephen Bivin
- Katie Krall
- Keslee Carson (Westech)

5.3 BUDGET

Table 5.3 Operating Budget

Table 5.3 Budget Table

Budget Category	Month Budget	Month Actual	YTD Budget	YTD Actual	Annual Budget
Labor (D.L. + OH)	\$13,909.06	?	\$68,237	\$70,128	\$163,768
Utilities	\$8,306.30		\$40,750	\$36,019	\$97,800
Chemicals	\$22,421		\$110,000	\$74,593	\$264,000
Maintenance & Repair	\$13,668.62		\$67,056	\$56,429	\$160,937*
Chloride	\$13,160		\$65,800	\$58,080	\$157,920
Lab Supplies and Equipment	\$1,918.09		\$9,410	\$5,987	\$22,584
Office Supplies	\$220.14		\$1,080	\$627	\$2,592
Miscellaneous Expenses*	\$41		\$123	?	\$500
Other Operating Costs	\$1,398	?	\$6,990	\$6,107	\$16,776
Engineering Fees	\$2,500		\$7,500	\$5,950	\$30,000
Office Equipment rental	\$65		\$542	\$325	\$780
Locates	\$378	0	\$1,890	\$2,758	\$4,536
Truck	\$3,333	0	\$33,333	\$35,560	\$40,000
Total	\$81,318.21	\$37,337.12	\$377,488	\$349,805	\$962,193

*as of September 30 2019

6. CAPITAL PLANNING

6.1 APPROVED CIP PROJECTS CURRENT STATUS

Chloramine conversion project- Hach arrived to commission analyzer. Mother board was damaged causing a fatal error to the equipment. Hach will commence startup of Monochloramine analyzer in February after parts arrive and repairs have been made.

New Berlin Meter master meter relocation project is commencing. Engineering and relocation plans have been finalized. Awaiting ground breaking.

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.

South Sangamon Water Commission - IL1670080
February 2020

Physical and Chemical Tests													Post Filter																			
Date	Raw			Pre UF Membrane			Post UF Membrane			Post IEX				Finished						Membrane Integrity												
	pH	Temp deg.C	Total Alk. mg/L	Total Hard. mg/L	Total Fe mg/L	Total Mh mg/L	Turbidity NTU	Total Fe mg/L	Total Mh mg/L	Total Soluble Mh mg/L	Total Fe mg/L	Total Mh mg/L	Total Turbidity NTU	Total Alk. mg/L	Total Hard. mg/L	Total Fe mg/L	Total Mh mg/L	Total Fluoride mg/L	F Phosphate mg/L	Omo mg/L	Free Ammonia mg/L	Mono-Chloramine mg/L	F mg/L	T mg/L	Distribution F mg/L	Distribution T mg/L	Bank 1 Bank 2 Bank 3 psi	psi				
1	7.70	14.4	280	355	1.22	0.256																										
2	7.70	14.8	280	360	1.19	0.256																										
3	7.80	14.4	285	350	1.28	0.286																										
4	7.70	14.2	278	360	1.57	0.290																										
5	7.80	14.4	288	355	1.30	0.220																										
6	7.80	13.9	295	360	1.29	0.278																										
7	7.80	13.5	280	350	1.10	0.245																										
8	7.70	15.2	280	362	1.40	0.225																										
9	7.60	15.3	280	350	0.90	0.230																										
10	7.70	16.0	280	362	1.87	0.249																										
11	7.80	14.4	280	360	1.26	0.231																										
12	7.80	14.1	280	365	1.18	0.259																										
13	7.90	13.3	280	360	1.08	0.263																										
14	7.80	13.2	275	355	1.42	0.265																										
15	7.80	13.6	280	355	0.95	0.196																										
16	7.80	13.6	280	360	0.89	0.225																										
17	7.70	14.2	280	358	1.46	0.263																										
18	7.80	13.4	280	355	1.35	0.270																										
19	7.80	13.6	270	355	0.83	0.248																										
20	7.80	13.6	270	330	1.02	0.252																										
21	7.70	13.7	280	350	0.94	0.250																										
22	7.70	14.1	272	346	0.97	0.249																										
23	7.80	14.3	276	346	1.10	0.237																										
24	7.70	13.8	280	355	0.88	0.250																										
25	7.80	14.0	280	360	0.77	0.240																										
26	7.80	13.5	280	360	0.87	0.242																										
27	7.80	13.2	280	355	0.98	0.264																										
28	7.80	13.7	280	358	1.00	0.252																										
29	7.80	13.8	280	355	0.83	0.263																										
30																																
31																																
Ave.	7.77	14.0	279	354	1.13	0.250	#DW01	#DW01	0.589	0.666	0.71	0.061	0.35	49.0	277	75.6	27.5	8.27	0.30	276	107	0.02	0.022	0.71	1.73	0.01	0.02	1.52	1.65	#DW01	#DW01	
Max	7.90	16.0	288	362	1.67	0.286	0.00	0.00	0.400	0.222	1.14	0.196	0.51	85	46	117	42	8.40	0.39	285	140	0.03	0.050	0.92	2.16	0.23	0.29	1.83	1.85	0.00	0.00	
Min	7.60	13.2	270	330	0.77	0.196	0.00	0.00	0.234	0.024	0.01	0.016	0.26	28	9	39	19	8.20	0.24	220	90	0.01	0.001	0.001	0.54	1.47	0.00	0.00	1.31	1.49	0.00	0.00
Lagoon Effluent Tests																																
Monthly																																
Date	2/4/2020																															
Temp	13.7																															
pH	8																															
T Chlor	0.05																															
Mn	0.794																															
Fe	0.34																															
Chloride	350																															
TSS	5.6																															
Calcium	290																															
Mg	36																															
Alkalinity	370																															
Hardness	290																															
CaCO3	290																															
Chloride	36																															
Sulfate	60																															
Remarks:																																

