



# Monthly Operating Report

September:2022

So. Sangamon  
Water Commission  
October 17th, 2022

## SSWC

9199 Buckhart Rd Rochester IL 62563

# TABLE OF CONTENTS

SECTION	PAGE NO.
Executive Summary.....	ES-1
<b>1. SAFETY .....</b>	<b>1-1</b>
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
<b>2. COMPLIANCE, FLOWS AND LOADINGS .....</b>	<b>2-2</b>
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
<b>3. OPERATIONS.....</b>	<b>3-1</b>
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
<b>4. MAINTENANCE AND REPAIR.....</b>	<b>4-5</b>
4.1 Preventative and predictive maintenance.....	4-5
4.2 Corrective repairs .....	4-5
<b>5. PROJECT MANAGEMENT &amp; SUPPORT.....</b>	<b>5-1</b>
5.1 Staffing & Training.....	5-1
5.2 Corporate Support.....	5-2
5.3 Budget.....	5-3
<b>6. CAPITAL PLANNING .....</b>	<b>6-1</b>
6.1 Approved CIP Projects Current status.....	6-1
6.2 Draft Capital Improvement Plan .....	6-1



## LIST OF TABLES

<b>TABLE</b>	<b>PAGE NO.</b>
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 September 2022.

**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](http://www.sswc.us).

During the month of September 2022, the plant pumped 45.557 million gallons from the well field and 40.225 million gallons of finished water. This is 4.9 million gallons less than September of 2021.

The SSWC plant has been removed from Critical Review status.

**Operations.** There was 0 emergency call-outs for the month. There were numerous customer inquiry for the month.

**Maintenance and Repair.** For the month of September 2022, there were 30 inspections, 3 preventative and multiple corrective maintenance activity completed. There was 0 repair activities performed .

**Budget.** Passed at April 18<sup>th</sup> 2022 meeting.

### Capital Planning.

Chatham emergency interconnect

Onsite fuel storage tanks

Detention Tank

# 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 September 2022.

## 1.3 SAFETY AUDIT

No safety audits to date.

## 1.4 MISCELLANEOUS SAFETY

No notable safety issues

## 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 September. 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 45.557 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).
<b>Max.</b>	7.4	19.8	6.1	.482	-	360	320	1.773
<b>Min.</b>	6.8	14.3	.35	.016	-	300	294	1.331
<b>Avg.</b>	7.1	15.1	.91	.196	-	337	304	1.519
<b>Total</b>	-	-	-	-	-	-	-	45.557

### 2.3 EFFLUENT CONCENTRATIONS

The facility filtered 40.225 MG during the month with a daily average of 1.341 MG and a min/max 1.098/ 1.583 MG.

Table 2.3 Finished Water Quality										
	Free CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
<b>Max.</b>	.29	3.64	7.9		0.01	0.021	1.02	110	320	2.50
<b>Min.</b>	0.07	2.36	7.3		0.01	0.002	0.58	80	280	1.51
<b>Avg.</b>	0.11	3.0	7.5		0.01	0.011	0.81	96	298	2.08
<b>MCL</b>	-	-	-	-	1.00	-	4.00	-	-	-
<b>SMCL</b>	-	-	-	-	0.30	0.050	2.00	-	-	-

## Finished Water Flow Comparison for FY 2021 -22

Time Period	21-22	20-21	19-20
Oct-2021- Sept-2022	412,316,376	418,888,785	386,741,198
Increase for the same period last year		-6.6 MG	32.1 MG

FINISHED WATER PUMPING HISTORY						
	21-22	20-21	19-20	18-19	17-18	16-17
Oct	34,918,955	34,597,739	30,769,238	30,353,482	33,506,605	4,374,8320
Nov	31,181,005	32,325,040	30,877,400	30,464,000	28,617,333	30,478,309
Dec	31,391,459	31,582,311	29,703,954	31,930,000	28,808,037	32,525,530
Jan	32,322,270	31,456,987	30,073,516	28,823,375	30,556,824	30,449,215
Feb	32,451,653	30,638,842	28,797,693	28,625,431	25,617,914	27,373,232
Mar	33,909,417	33,633,244	30,339,298	31,237,000	28,217,699	30,068,363
Apr	31,991,050	33,214,211	31,542,650	28,418,249	27,110,578	29,625,797
May	37,459,417	35,932,776	34,673,848	33,045,927	33,304,196	32,120,873
June	38,496,145	37,616,256	17,414,377	33,460,303	34,040,000	39,931,402
July	38,861,790	39,001,640	44,237,066	23,742,374	41,178,722	42,164,927
Aug	36,977,913	39,953,900	39,638,063	25,018,633	35,176,238	38,760,634
Sept	32,355,302	38,935,839	38,674,095	34,234,782	34,754,000	39,896,986
	-----	-----	-----	-----	-----	-----
Totals	412,316,376	418,888,785	386,741,198	359,353,556	380,888,146	417,143,588
Avg	1.13 MGD	1.15 MGD	1.06 MGD	.985 MGD	1.04 MGD	1.14 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 <sup>2</sup> (mg/l)	pH (S.U.)	TSS (mg/l)
Sept 21st 2022	.07	.084	286	.03	7.6	83
Minimum	.07	.084	286	.03	7.6	83
Maximum	.07	.084	286	.03	7.6	83
Average	.07	.084	286	.03	7.6	83
<b>Monthly Avg Limit</b>	<b>2.000</b>	<b>1.000</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, performed by the Springfield Metropolitan Sanitary District, was below 30,000 mg/l for the month of September 2022. The limit for chloride discharge to the sanitary district is 30,000 mg/L.

## 3. OPERATIONS

### 3.1 EVENTS IMPACTING OPERATIONS

There was 0 incident that impacted the operation of the plant.

### 3.2 EMERGENCY & SERVICE CALLS

#### Service Calls:

- There was 0 emergency call out for the month.

### 3.3 EMERGENCY CALL-OUTS

There was 0 emergency call out for the month.

### 3.4 CUSTOMER INQUIRIE

There were numerous customer inquiries.

#### OTHER WORK PERFORMED

Trouble shooting all trains  
Trouble shooting of CIP skid and CIP procedure  
Inspected distribution mains  
Inspected booster station  
Flushed air system  
Trouble shooting of Ion exchange system  
Repair of air compressors  
Customer service  
Discussed taps with customer and EJ water  
Dan Neuman tap



Flushing hydrant on old rt 54.



Still flushing hydrants on Old Rt 54 as well as Loami /Bates Rd.



Preparing to draw a sample from a hydrant we had been flushing

## 4. MAINTENANCE AND REPAIR

### 4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of September 2022, there were 30 inspections, 3 preventative and multiple 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

Purged air control system

Air Compressor service

Repair of train #3

Repair of train #2

Flushing distribution mains.



## 5. PROJECT MANAGEMENT & SUPPORT

### 5.1 STAFFING & TRAINING

- 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 September 2022.

- Kevin Canham
- Stephen Bivin
- Katie Krall
- Dan (SCADAware)
- Joe Lee
- Kevin Garmin (SCADAware)





## 5.3 BUDGET

Table 5.3 Operating Budget

Table 5.3 Budget Table

Budget Table was removed: see clerks report

## 6. CAPITAL PLANNING

### 6.1 APPROVED CIP PROJECTS CURRENT STATUS

Pigging project construction complete. Awaiting first pigging before completely releasing contractor.

Benton and Assoc has initiated the planning phase of the Chatham Emergency interconnect. Construction permit has been approved and received. Construction has been postponed.

Train #2 upgrade repair has been completed and train #2 is back online.

Meter Project progressing, Half of the registers have arrived

### 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.

1. Second Torray filter train has been installed
2. Onsite fuel storage tanks have arrived on site
3. BOP CPU upgrade has been completed
4. Second raw water detention tank



Physical and Chemical Tests																																	
Raw				Pre UF Membrane				Post UF Membrane				Post IEX				Finished						Membrane Integrity											
Date	pH	Temp deg. C	Total Alk. mg/L	Total Fe mg/L	Total Mn mg/L	Total Sulfate mg/L	Turbidity NTU	Total Turbidity	Total Fe mg/L	Total Mn mg/L	Total Hardness as CaCO3 mg/L	Total Alk. mg/L	Total Turbidity NTU	Total Hardness as CaCO3 mg/L	Total Fe mg/L	Total Mn mg/L	Total Fluoride mg/L	Ortho Phosphate mg/L	Free Ammonia mg/L	Mn-Chloramine mg/L	Chlorine F mg/L	Chlorine T mg/L	F Distribution mg/L	T Distribution mg/L	Bank 1 psi	Bank 2 psi	Bank 3 psi						
																												1 mg/L	2 mg/L	3 mg/L	4 mg/L	1 mg/L	2 mg/L
1	6.90	14.9	294	335	1.26	0.202	0.308	0.018	0.01	0.025	0.29	7.50	0.28	320	100	0.01	0.007	1.00	2.15	0.40	1.20	0.11	3.05										
2	7.00	15.0	300	340	0.60	0.156	0.256	0.024	0.02	0.018	0.28	7.50	0.28	300	100	0.01	0.004	0.64	1.93	0.66	7.40	0.12	2.82					pass					
3	6.80	14.4	300	340	1.14	0.209	0.254	0.017	0.01	0.018	0.28	7.50	0.28	310	90	0.01	0.005	0.84	1.94	0.51	4.80	0.09	3.14										
4	7.30	14.3	296	336	0.97	0.175	0.266	0.031	0.01	0.029	0.33	7.90	0.32	320	96	0.01	0.010	0.96	2.07	0.59	5.12	0.08	3.19										
5	7.00	14.5	300	335	0.76	0.179	0.252	0.028	0.01	0.028	0.34	7.50	0.33	308	100	0.01	0.008	0.81	1.99	0.61	5.61	0.08	3.33										
6	7.00	14.7	300	340	0.71	0.212	0.283	0.025	0.01	0.029	0.28	7.50	0.32	300	110	0.01	0.009	0.78	1.89	0.57	5.09	0.10	3.20										
7	7.40	15.6	320	300	0.51	0.168	0.294	0.038	0.02	0.028	0.30	7.70	0.34	300	100	0.01	0.012	0.85	1.83	0.82	6.28	0.11	3.50					pass					
8	7.20	15.4	300	320	0.49	0.178	0.307	0.037	0.02	0.020	0.29	7.60	0.34	300	100	0.01	0.007	0.58	2.03	0.71	7.33	0.08	2.80										
9	7.10	15.4	300	330	0.51	0.180	0.296	0.031	0.01	0.021	0.28	7.60	0.33	300	100	0.01	0.011	0.80	2.00	0.56	6.31	0.09	2.88										
10	7.20	15.3	300	345	0.50	0.201	0.290	0.036	0.01	0.030	0.31	7.50	0.30	290	100	0.01	0.018	0.71	1.89	0.60	6.16	0.10	2.80										
11	7.20	15.1	300	340	0.56	0.198	0.253	0.038	0.02	0.030	0.28	7.50	0.30	290	100	0.01	0.021	0.88	1.87	0.53	6.21	0.11	2.84										
12	7.10	15.0	300	340	0.76	0.178	0.368	0.047	0.02	0.040	0.31	7.40	0.34	280	100	0.01	0.009	0.95	2.00	0.03	6.92	0.10	2.90					pass					
13	7.10	15.0	300	335	0.72	0.180	0.360	0.043	0.01	0.040	0.30	7.40	0.33	280	100	0.01	0.013	0.81	1.98	0.53	6.41	0.10	2.96										
14	7.10	15.0	300	330	0.76	0.201	0.366	0.039	0.01	0.045	0.29	7.40	0.35	280	110	0.01	0.021	0.76	1.89	0.47	6.57	0.11	2.80										
15	7.00	15.5	300	330	0.93	0.181	0.301	0.032	0.01	0.023	0.30	7.50	0.33	300	90	0.01	0.003	0.79	2.30	0.51	6.58	0.09	2.54										
16	7.00	15.4	300	330	0.66	0.166	0.280	0.023	0.01	0.037	0.34	7.50	0.34	290	90	0.01	0.007	0.80	2.32	0.57	6.56	0.15	3.16										
17	7.00	14.4	306	320	1.07	0.182	0.271	0.022	0.01	0.039	0.39	7.40	0.30	300	80	0.01	0.014	0.87	2.33	0.48	6.24	0.10	2.92										
18	7.20	16.8	312	328	0.81	0.016	0.259	0.022	0.01	0.022	0.51	7.60	0.31	316	100	0.01	0.002	1.02	2.20	0.54	6.19	0.15	2.64										
19	7.00	14.5	308	360	0.69	0.180	0.259	0.034	0.01	0.023	0.42	7.30	0.26	310	80	0.01	0.007	0.60	1.85	0.61	5.83	0.15	2.78										
20	7.10	15.6	310	340	6.10	0.482	0.301	0.030	0.01	0.038	0.38	7.60	0.28	300	80	0.01	0.005	0.63	1.82	0.12	5.75	0.12	3.06										
21	7.00	15.3	310	340	0.74	0.210	0.294	0.034	0.02	0.039	0.37	7.50	0.28	300	90	0.01	0.012	0.80	1.51	0.61	8.44	0.14	2.93										
22	7.00	15.1	300	340	0.76	0.208	0.314	0.033	0.01	0.035	0.39	7.50	0.32	300	90	0.01	0.010	0.66	1.64	0.35	6.40	0.09	3.08										
23	7.10	14.8	310	345	0.90	0.193	0.296	0.050	0.01	0.038	0.33	7.50	0.28	300	100	0.01	0.006	0.83	2.50	0.75	7.99	0.11	3.08										
24	7.00	14.4	310	354	1.29	0.250	0.292	0.048	0.03	0.078	0.45	7.40	0.39	310	90	0.01	0.007	0.88	2.34	0.67	6.51	0.15	2.36										
25	7.00	14.5	310	350	0.78	0.211	0.230	0.039	0.01	0.060	0.39	7.50	0.32	300	100	0.01	0.009	0.75	2.09	0.66	6.83	0.11	2.90					pass					
26	7.00	14.4	310	340	0.35	0.199	0.346	0.079	0.01	0.082	0.32	7.40	0.36	300	90	0.01	0.021	0.91	2.36	0.73	7.15	0.13	3.22										
27	7.00	14.8	300	340	0.42	0.193	0.295	0.067	0.01	0.052	0.30	7.40	0.38	290	90	0.01	0.015	0.90	2.30	0.76	7.46	0.11	3.64										
28	7.00	14.6	310	350	0.51	0.199	0.290	0.064	0.01	0.082	0.30	7.40	0.34	290	90	0.01	0.014	0.85	2.47	0.75	7.41	0.29	3.10										
29	7.00	14.6	300	340	0.54	0.194	0.304	0.068	0.01	0.058	0.38	7.50	0.39	280	90	0.01	0.012	0.83	2.40	0.61	7.02	0.09	3.50					pass					
30	7.10	19.8	300	350	0.48	0.194	0.298	0.063	0.01	0.080	0.35	7.50	0.39	290	110	0.01	0.018	0.93	2.38	0.59	10.08	0.07	3.00										
31																																	
Ave.	7.06	15.1	304	337	0.91	0.196	#DIV/0!	0.293	0.039	0.01	0.037	7.50	0.32	298	96	0.01	0.011	0.81	2.08	0.57	6.46	0.11	3.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00	0.00	0.00			
Max	7.40	19.8	320	360	6.10	0.482	0.00	0.389	0.04	0.03	0.078	7.90	0.39	320	110	0.01	0.021	1.02	2.50	0.92	10.08	0.29	3.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Min	6.80	14.3	294	300	0.35	0.016	0.00	0.030	0.017	0.01	0.018	7.30	0.26	280	80	0.01	0.002	0.58	1.51	0.03	1.20	0.07	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Lagoon Effluent Tests				pH	Temp °C	T-Chlor	Mh	Chloride mg/L	TSS mg/L	Distribution Stability Tests										Remarks:													
Lagoon Effluent Tests				pH	Temp °C	T-Chlor	Mh	Chloride mg/L	TSS mg/L	Distribution Stability Tests										Remarks:													
Date	9/21/2022	7.61	23.4	236.2	83																												
Date	9/22/2022	7.49	18	160	41																												
Date																																	



