



# Monthly Operating Report

April:2022

So. Sangamon  
Water Commission  
May 16th, 2022

## SSWC

9199 Buckhart Rd Rochester IL 62563

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## 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 April 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 April 2022, the plant pumped 43.578 million gallons from the well field and 37.622 million gallons of finished water. This is 2 million gallons less than April 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 April 2022, there were 30 inspections, 3 preventative and 3 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

Filter Train #2

## 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 April 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 April. 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 43.578 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	14.5	1.39	.229	-	384	320	1.819
<b>Min.</b>	7.1	12.4	.66	.195	-	340	270	1.303
<b>Avg.</b>	7.23	13.3	.89	.209	-	361	295	1.453
<b>Total</b>	-	-	-	-	-	-	-	43.578

### 2.3 EFFLUENT CONCENTRATIONS

The facility filtered 37.622 MG during the month with a daily average of 1.254 MG and a min/max 1.116/ 1.467 MG.

Table 2.3 Finished Water Quality										
	Free CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
<b>Max.</b>	.25	3.66	7.7		0.01	0.111	.95	180	320	2.44
<b>Min.</b>	0.08	1.78	7.4		0.01	0.017	0.53	80	270	1.77
<b>Avg.</b>	0.12	2.81	7.6		0.01	0.057	0.75	131	290	1.99
<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
May-2021- Apr-2022	419,606,220	402,085,823	361,605,768
Increase for the same period last year		17.5 MG	40.5 MG

FINISHED WATER PUMPING HISTORY						
	21-22	20-21	19-20	18-19	17-18	16-17
May	35,932,776	34,673,848	33,045,927	33,304,196	32,120,873	33,349,391
June	37,616,256	17,414,377	33,460,303	34,040,000	39,931,402	41,541,321
July	39,001,640	44,237,066	23,742,374	41,178,722	42,164,927	35,378,396
Aug	39,953,900	39,638,063	25,018,633	35,176,238	38,760,634	35,401,490
Sept	38,935,839	38,674,095	34,234,782	34,754,000	39,896,986	36,325,215
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
	-----	-----	-----	-----	-----	-----
Totals	419,606,220	402,085,823	361,605,768	388,304,693	395,309,812	406,264,579
Avg	1.15 MGD	1.10 MGD	.991 MGD	1.06 MGD	1.08 MGD	1.11 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)
April 12th, 2022	.17	.178	360	.01	7.6	<4
Minimum	.17	.178	360	.01	7.6	<4
Maximum	.17	.178	360	.01	7.6	<4
Average	.17	.178	360	.01	7.6	<4
<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 April 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

Repaired ion exchange valve and actuator

Serviced air compressors

Customer service

Consulted with Contractor on train #2

Consulted with MECO and Brotke concerning well #4



Operator Kevin Canham unloading the train #2 components



Train #2 components



## 4. MAINTENANCE AND REPAIR

### 4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of April 2022, there were 30 inspections, 3 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

Purged air control system

Air Compressor service



## 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 April 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 has begun. All of the parts and hardware have arrived on premises.

### 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 modules have arrived on site
2. Onsite fuel storage tanks have been ordered.
3. BOP CPU upgrade has been completed
4. Meter Project progressing, meters scheduled to arrive on a future date.





South Sangamon Water Commission - IL1670080

April 2022

Date	Physical and Chemical Tests										Finished										Post Filter															
	Raw					Pre UF Membrane					Post UF Membrane					Post IEX					Finished					Post Filter										
	Temp deg C	pH	Total Alk. mg/L	Total Fe mg/L	Total Mn mg/L	Turbidity	Total Fe mg/L	Total Mn mg/L	Total NTU	Total Sulfate mg/L	Total Chloride mg/L	Total Fe mg/L	Total Mn mg/L	Total NTU	Total CaCO3	Total Alk. mg/L	Total Fe mg/L	Total Mn mg/L	Total as CaCO3	Total Hard. mg/L	Total Fe mg/L	Total Mn mg/L	Total Fluoride mg/L	Total F Phosphate mg/L	Total Ortho Phosphate 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 psi	Bank 2 psi	Bank 3 psi		
1	7.20	12.9	300	380	0.85	0.214	0.240	0.197	0.94	0.187	0.19	0.01	0.081	0.80	2.03	0.71	5.79	0.10	2.86																	
2	7.20	12.4	308	384	0.85	0.208	0.213	0.187	0.01	0.132	0.16	0.01	0.068	0.83	2.02	0.64	5.44	0.10	2.40																	
3	7.40	12.6	310	380	0.77	0.229	0.198	0.201	0.01	0.186	0.14	0.01	0.085	0.76	1.77	0.80	5.24	0.10	1.78																	
4	7.30	13.6	300	365	1.00	0.214	0.223	0.189	0.80	0.178	0.20	0.01	0.081	0.56	1.86	0.61	4.02	0.13	2.32																	
5	7.30	13.3	300	380	1.10	0.213	0.225	0.180	0.87	0.189	0.20	0.01	0.111	0.81	2.12	0.73	5.97	0.25	3.02																	
6	7.20	13.2	280	340	0.85	0.211	0.259	0.182	0.79	0.159	0.15	0.01	0.049	0.53	2.06	0.76	3.70	0.14	2.70																	
7	7.30	13.1	280	345	0.82	0.208	0.258	0.188	0.85	0.162	0.20	0.01	0.047	0.59	1.87	0.73	5.08	0.09	2.62																	
8	7.30	12.9	300	360	0.97	0.207	0.222	0.186	0.80	0.172	0.21	0.01	0.053	0.84	1.92	0.48	4.13	0.10	2.58																	
9	7.30	13.0	300	340	0.86	0.213	0.230	0.190	0.72	0.183	0.20	0.01	0.041	0.60	1.98	0.68	5.06	0.10	2.70																	
10	7.30	13.1	280	360	0.72	0.221	0.265	0.167	0.80	0.178	0.18	0.01	0.038	0.69	1.87	0.70	5.12	0.11	2.36																	
11	7.30	13.4	280	340	0.78	0.212	0.211	0.191	0.61	0.155	0.21	0.01	0.081	0.57	2.14	0.55	3.56	0.16	2.60																	
12	7.30	13.6	280	360	0.98	0.202	0.427	0.175	0.66	0.167	0.20	0.01	0.110	0.71	2.44	0.70	4.60	0.11	2.62																	
13	7.30	14.0	280	360	0.92	0.197	0.319	0.165	0.76	0.119	0.18	0.01	0.082	0.85	1.94	0.61	4.78	0.12	2.26																	
14	7.20	13.6	290	345	1.01	0.210	0.218	0.184	0.67	0.164	0.18	0.01	0.057	0.77	1.98	0.45	4.91	0.09	2.62																	
15	7.10	13.1	308	362	0.97	0.217	0.470	0.186	0.01	0.172	0.15	0.01	0.069	0.85	1.89	0.56	4.62	0.11	2.21																	
16	7.40	13.0	302	364	0.81	0.195	0.212	0.205	0.01	0.142	0.13	0.01	0.041	0.90	1.97	0.60	4.77	0.09	2.31																	
17	7.10	12.4	308	360	0.68	0.203	0.202	0.193	0.01	0.173	0.21	0.01	0.066	0.86	1.90	0.63	4.69	0.09	2.55																	
18	7.20	14.2	320	350	0.85	0.199	0.193	0.177	0.01	0.111	0.23	0.01	0.045	0.95	2.13	0.71	4.59	0.09	2.66																	
19	7.20	13.0	280	360	1.39	0.214	0.212	0.189	1.10	0.162	0.20	0.01	0.043	0.83	2.34	0.47	5.95	0.09	2.92																	
20	7.20	13.3	270	360	0.87	0.210	0.328	0.168	0.92	0.160	0.21	0.01	0.052	0.63	2.02	0.72	7.10	0.14	3.48																	
21	7.20	13.2	280	370	1.08	0.206	0.389	0.178	0.87	0.150	0.25	0.01	0.040	0.69	1.89	0.63	7.28	0.16	3.66																	
22	7.10	13.8	290	360	0.90	0.213	0.224	0.185	0.75	0.179	0.22	0.01	0.054	0.81	1.86	0.66	7.27	0.18	3.34																	
23	7.20	13.8	280	360	0.98	0.209	0.286	0.110	0.77	0.123	0.18	0.01	0.056	0.80	1.87	0.70	7.29	0.11	3.14																	
24	7.20	13.7	280	360	0.87	0.211	0.313	0.098	0.80	0.159	0.20	0.01	0.042	0.72	1.89	0.68	6.39	0.10	3.02																	
25	7.20	13.8	300	360	0.97	0.209	0.224	0.187	0.66	0.157	0.21	0.01	0.063	0.66	2.13	0.61	7.97	0.11	3.60																	
26	7.10	13.0	300	360	0.78	0.205	0.280	0.094	0.58	0.040	0.20	0.01	0.056	0.54	1.97	0.53	7.25	0.15	3.40																	
27	7.30	13.0	300	365	0.86	0.211	0.350	0.049	0.64	0.083	0.23	0.01	0.027	0.67	1.94	0.47	7.52	0.10	3.48																	
28	7.20	13.2	300	370	0.66	0.204	0.559	0.077	0.84	0.085	0.18	0.01	0.021	0.65	1.96	0.72	6.45	0.11	3.08																	
29	7.10	12.8	310	370	0.85	0.198	0.288	0.065	0.01	0.059	0.36	0.01	0.036	0.89	2.00	0.61	6.22	0.08	2.93																	
30	7.20	14.5	310	372	0.77	0.202	0.290	0.075	0.01	0.023	0.26	0.01	0.017	0.89	1.96	0.74	6.91	0.15	2.93																	
31																																				
Ave.	7.23	13.3	295	361	0.89	0.209	#DIV/0!	0.277	0.161	0.56	0.142	0.20	0.057	0.75	1.99	0.64	5.66	0.12	2.81																	
Max	7.40	14.5	320	384	1.39	0.229	0.00	0.559	0.205	1.10	0.186	0.36	0	0	0	0.80	7.97	0.25	3.66																	
Min	7.10	12.4	270	340	0.68	0.195	0.00	0.093	0.049	0.01	0.023	0.13	0	0	0	0.45	3.56	0.08	1.78																	

  

Lagoon Effluent Tests				Distribution Stability Tests				Every Two Weeks						
Date	pH	Temp °C	T Chlor mg/L	Mn mg/L	Fe mg/L	Chloride mg/L	TSS mg/L	Date	pH	Temp °C	TDS mg/L	Alkalinity mg/L as CaCO3	Calcium Chloride mg/L	Sulfate mg/L
4/12/2022	7.6	15.4	0.01	0.178	0.17	360	<4	4/21/2022	7.5	13	370	280	35	58