



# Monthly Operating Report

January:2023

So. Sangamon  
Water Commission  
February 21st, 2023

## 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 January 2023.

**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 January 2023, the plant pumped 49.090 million gallons from the well field and 40.412 million gallons of finished water. This is 1.65 million gallons more than January 2022.

The SSWC plant has been removed from Critical Review status.

**Operations.** There was 2 emergency call-outs for the month. There were numerous customer inquiry for the month.

**Maintenance and Repair.** For the month of January 2023, there were 31 inspections, 3 preventative and multiple corrective maintenance activity completed. There was 1 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 January 2023.

## 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 January. 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 49.090 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	15.2	3.38	.730	-	360	320	1.710
<b>Min.</b>	7.0	12.5	.04	.166	-	300	300	1.384
<b>Avg.</b>	7.2	13.8	.72	.212	-	337	311	1.584
<b>Total</b>	-	-	-	-	-	-	-	49.090

### 2.3 EFFLUENT CONCENTRATIONS

The facility filtered 42.858 MG during the month with a daily average of 1.383 MG and a min/max 1.219/ 1.518 MG.

Table 2.3 Finished Water Quality										
	Free CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
<b>Max.</b>	.5	3.52	7.9		0.01	0.061	.99	240	320	2.48
<b>Min.</b>	0.02	2.79	7.6		0.01	0.010	0.46	100	280	1.97
<b>Avg.</b>	0.09	3.43	7.7		0.01	0.025	0.70	136	305	2.28
<b>MCL</b>	-	-	-	-	1.00	-	4.00	-	-	-
<b>SMCL</b>	-	-	-	-	0.30	0.050	2.00	-	-	-

## Finished Water Flow Comparison for FY 2022

Time Period	21-22	20-21	19-20
Feb 2022- Jan 2023	415,813,951	418,740,397	395,279,167
Increase for the same period last year		-2.9 MG	23.5 MG

FINISHED WATER PUMPING HISTORY						
	2022-23	2021-22	2020-21	2019-20	2018-19	2017-18
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
Oct	29,576,287	34,918,955	34,597,739	30,769,238	30,353,482	33,506,605
Nov	35,563,717	31,181,005	32,325,040	30,877,400	30,464,000	28,617,333
Dec	30,450,255	31,391,459	31,582,311	29,703,954	31,930,000	28,808,037
Jan	37,721,005	32,322,270	31,456,987	30,073,516	28,823,375	30,556,824
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Totals	415,813,951	418,740,397	395,279,167	359,206,807	380,970,204	401,431,013
Avg	1.14 MGD	1.15 MGD	1.08 MGD	.984 MGD	1.04 MGD	1.10 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

<b>Lagoon Effluent Results</b>						
<b>Date</b>	<b>Fe (mg/l)</b>	<b>Mn (mg/l)</b>	<b>Chloride (mg/l)</b>	<b>Cl<sup>2</sup> (mg/l)</b>	<b>pH (S.U.)</b>	<b>TSS (mg/l)</b>
Jan 3 <sup>rd</sup> , 2023						
Minimum	.05	.269	300	.01	7.5	4
Maximum	.05	.269	300	.01	7.5	4
Average	.05	.269	300	.01	7.5	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 January 2023. The limit for chloride discharge to the sanitary district is 30,000 mg/L.

## 3. OPERATIONS

### 3.1 EVENTS IMPACTING OPERATIONS

There was 36 incident that impacted the operation of the plant.

Low Clearwell level

Backwash low flow

Ion exchange alarm

Westech air pressure alarm

Westech filters comm loss

Well #6

### 3.2 EMERGENCY & SERVICE CALLS

#### Service Calls:

- There was 0 emergency call out for the month.

### 3.3 EMERGENCY CALL-OUTS

There was 2 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

Air Compressor research

SCADA programming



Well #6 began quickly losing flow in the beginning of January. Brotke was scheduled to come and do a well clean and a pump replacement if necessary.



Once well #6 pump was pulled it was found to be fouled with iron. Luckily the pump and motor we had previously ordered for stock had arrived and we were able to replace the pump without having to wait for one to arrive.



Well #6 pump completely fouled and full of iron.





Staff flushed the raw water line to remove iron and manganese that may have settled out in the raw water main.



Brotke taking a video of our well after cleaning





## 4. MAINTENANCE AND REPAIR

### 4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of January 2023, there were 31 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

Air Compressor repair

Well #6 repair

Raw water line flushing

Detention tank flush



## 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 January 2023.

- 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 put the Chatham Interconnect out for bid. There were 2 bids; The bid was awarded to Petersburg Plumbing.

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

Meter Project progressing, All meter bases and registers are on site. 5 cell meters have been installed.

### 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 and pumps have been installed
3. BOP CPU upgrade has been completed
4. Second raw water detention tank
5. SSWC/Chatham interconnect















