



# Monthly Operating Report

April:2023

So. Sangamon  
Water Commission  
May 15th, 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 April 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 April 2023, the plant pumped 47.038 million gallons from the well field and 39.182 million gallons of finished water. This is 1.6 million gallons more than April 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 April 2023, there were 30 inspections, 3 preventative and multiple corrective maintenance activity completed. There was 2 repair activities performed .

**Budget.** Passed at April 17<sup>th</sup> 2023 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 April 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 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 47.038 MG. The influent parameters were all within the normal range.

The influent flow and loadings are summarized below in Table 2.2

<b>Table 2.2 Influent Concentrations and Flow</b>								
	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Well Flow Gals (MGD).
<b>Max.</b>	7.2	14.5	1.66	.274	-	380	345	1.859
<b>Min.</b>	7.1	12.8	.36	.177	-	310	300	1.395
<b>Avg.</b>	7.15	13.7	.64	.211	-	345	318	1.568
<b>Total</b>	-	-	-	-	-	-	-	47..38

### 2.3 EFFLUENT CONCENTRATIONS

The facility filtered 40.964 MG during the month with a daily average of 1.365 MG and a min/max 1.205/ 1.607 MG.

<b>Table 2.3 Finished Water Quality</b>										
	Free CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
<b>Max.</b>	.14	3.78	7.7		0.02	0.049	.97	160	330	2.61
<b>Min.</b>	0.04	2.82	7.5		0.01	0.006	0.39	100	300	2.00
<b>Avg.</b>	0.08	3.15	7.6		0.01	0.024	0.72	124	311	2.28
<b>MCL</b>	-	-	-	-	1.00	-	4.00	-	-	-
<b>SMCL</b>	-	-	-	-	0.30	0.050	2.00	-	-	-

## Finished Water Flow Comparison for FY 2022-23

Time Period	22-23	21-22	20-21
May 2022- Apr-2023	424,556,785	419,606,220	402,085,823
Increase for the same period last year		4.95 MG	17.5 MG

FINISHED WATER PUMPING HISTORY						
	2022-23	2021-22	2020-21	2019-20	2018-19	2017-18
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
Feb	33,481,076	32,451,653	30,638,842	28,797,693	28,625,431	25,617,914
Mar	36,781,261	33,909,417	33,633,244	30,339,298	31,237,000	28,217,699
Apr	36,832,617	31,991,050	33,214,211	31,542,650	28,418,249	27,110,578
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Totals	424,556,785	419,606,220	402,085,823	361,605,768	388,304,693	395,309,812
Avg	1.16 MGD	1.15 MGD	1.10 MGD	.991 MGD	1.06 MGD	1.08 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>
April 3rd, 2023						
Minimum	.1	.049	275.3	.03	8.0	< 4
Maximum	.1	.049	275.3	.03	8.0	< 4
Average	.1	.049	275.3	.03	8.0	<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 2023. The limit for chloride discharge to the sanitary district is 30,000 mg/L.

## 3. OPERATIONS

### 3.1 EVENTS IMPACTING OPERATIONS

**There was 67 incident that impacted the operation of the plant.**

Low Clearwell level

Backwash low flow

Ion exchange alarm

Westech filters comm loss

Low Detention Tank Level

Power surge

Power Sag

Power Outages

HSP #3 VFD fault

Ion Exchange Brine Pump

### 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**

Inspected distribution mains

Inspected booster station

Trouble shooting of Ion exchange system

Customer service

Air Compressor research

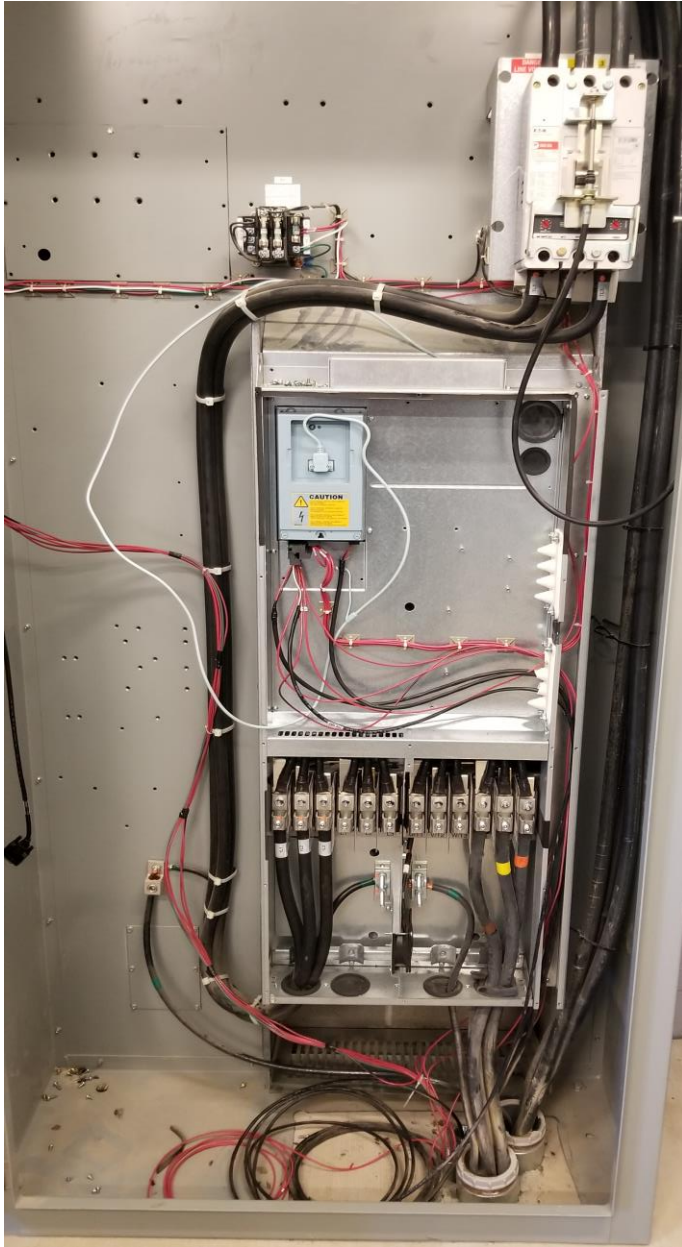
SCADA programming

New Berlin Booster station trouble shooting

Effluent Pump Install



The plant got a VFD fault alarm at HSP #3



Once troubleshooting was done it was found that the VFD fan was bad and needed to be replaced. It was located behind the cabinet. The cabinet had to be pulled away from the wall to replace the fan.



New Berlin booster station comms kept dropping out. We replaced the battery backup.







Effluent pump was installed

After the effluent pump was installed it was found there was a fault in the cabinet







An alarm relay had to be ordered to replace the relay that was found to be bad.



## **4. MAINTENANCE AND REPAIR**

### **4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE**

For the month of April 2023, 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

New Berlin Booster Station APC Replacement

Repair of train #3

Repair of train #2

Air Compressor service

Effluent pump Install

Raw water line flushing

Detention tank flush

Relay replacement

HSP #3 VFD fan replacement

Flushing Air Lines

Maintenance of New Berlin Booster Station



## 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 2023.

- Kevin Canham
- Stephen Bivin
- Katie Krall
- Dan (SCADAware)
- Joe Lee
- Kevin Garmin (SCADAware)
- Brotke Well and Pump



## 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.

The Chatham /South Sangamon emergency interconnect is progressing. There was a preconstruction meeting in February. Petersburg Plumbing is planning on starting construction late May, weather and materials permitting.

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

Meter Project progressing, All meter bases and registers are on site. 9 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











