



# Monthly Operating Report

August:2023

So. Sangamon  
Water Commission  
September 18th, 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 August 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 August 2023, the plant pumped 50.82 million gallons from the well field and 45.21 million gallons of finished water. This is .7 million gallons more than August 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 August 2023, there were 31 inspections, 3 preventative and multiple corrective maintenance activity completed. There was 4 repair activities performed .

**Budget.** Passed at April 17<sup>th</sup> 2023 meeting.

### Capital Planning.

Chatham emergency interconnect

Onsite fuel storage tanks

Detention Tank

Well #11

# 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 August 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 August. 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 50.821 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>                                       | 7.3 | 17.0 | 5.52 | .482      | -        | 385      | 330        | 1.992                 |
| <b>Min.</b>                                       | 7.1 | 14.2 | .23  | .162      | -        | 340      | 305        | .971                  |
| <b>Avg.</b>                                       | 7.2 | 15.1 | .69  | .201      | -        | 353      | 315        | 1.639                 |
| <b>Total</b>                                      | -   | -    | -    | -         | -        | -        | -          | 50.821                |

### 2.3 EFFLUENT CONCENTRATIONS

The facility filtered 45.208 MG during the month with a daily average of 1.458 MG and a min/max 1.084/ 1.766 MG.

| <b>Table 2.3 Finished Water Quality</b> |          |           |     |      |      |           |          |          |            |           |
|-----------------------------------------|----------|-----------|-----|------|------|-----------|----------|----------|------------|-----------|
|                                         | Free CL2 | Total CL2 | pH  | Temp | Iron | Manganese | Fluoride | Hardness | Alkalinity | Phosphate |
| <b>Max.</b>                             | .12      | 4.34      | 7.7 |      | 0.03 | 0.026     | 1.52     | 160      | 320        | 3.05      |
| <b>Min.</b>                             | 0.01     | 1.90      | 7.4 |      | 0.01 | 0.002     | 0.33     | 100      | 300        | 1.72      |
| <b>Avg.</b>                             | 0.07     | 3.42      | 7.6 |      | 0.01 | 0.013     | 0.83     | 117      | 311        | 2.03      |
| <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       |
|----------------------------------------|-------------|-------------|-------------|
| Sep 2022- Aug-2023                     | 420,037,382 | 418,896,913 | 418,627,041 |
| Increase for the same period last year |             | 1.14 MG     | .27 MG      |

| FINISHED WATER PUMPING HISTORY |             |             |             |             |             |             |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                                | 2022-23     | 2021-22     | 2020-21     | 2019-20     | 2018-19     | 2017-18     |
| 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  |
| May                            | 43,484,155  | 37,459,417  | 35,932,776  | 34,673,848  | 33,045,927  | 33,304,196  |
| June                           | 22,455,176  | 38,496,145  | 37,616,256  | 17,414,377  | 33,460,303  | 34,040,000  |
| July                           | 41,565,811  | 38,861,790  | 39,001,640  | 44,237,066  | 23,742,374  | 41,178,722  |
| Aug                            | 39,770,720  | 36,977,913  | 39,953,900  | 39,638,063  | 25,018,633  | 35,176,238  |
|                                | -----       | -----       | -----       | -----       | -----       | -----       |
| Totals                         | 420,037,382 | 418,896,913 | 418,627,041 | 382,301,885 | 359,872,774 | 386,031,132 |
| Avg                            | 1.15 MGD    | 1.15 MGD    | 1.15 MGD    | 1.05 MGD    | .983 MGD    | 1.06 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) |
| August 28th, 2023        |              |              |                 |                        |                |            |
| Minimum                  | .06          | .081         | 283.4           | .03                    | 7.6            | <4         |
| Maximum                  | .06          | .081         | 283.4           | .03                    | 7.6            | <4         |
| Average                  | .06          | .081         | 283.4           | .03                    | 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 August 2023. The limit for chloride discharge to the sanitary district is 30,000 mg/L.

## 3. OPERATIONS

### 3.1 EVENTS IMPACTING OPERATIONS

**There were over 100 incident that impacted the operation of the plant.**

Backwash low flow

Ion exchange alarm

Westech filters comm loss

Power surge

Power Sag

Power Outages

Ion Exchange Brine Pump

Well comm loss Alarm

### 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

Customer service

Air Compressor research

SCADA programming

New Berlin Booster station trouble shooting

Cell Transmitter Installation

Tractor Maintenance

Well #11 Raw main Locate



A full service was performed on our tractor which includes all oils and hydraulic fluids.



The new, larger capacity compressed air tank for our plant operations air system has arrived on site. A new compressor and drier system has been ordered and we are awaiting delivery.



The battery back up for well #1 failed. A new one was purchased to replace the bad APC.



## **4. MAINTENANCE AND REPAIR**

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

For the month of August 2023, there were 31 inspections, 3 preventative and multiple corrective maintenance activity completed.

### **4.2 CORRECTIVE REPAIR AND MAINTENANCE**

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

Raw water line flushing

Detention tank flush

Flushing Air Lines

Maintenance of New Berlin Booster Station

Meter Transmitter Replacement

Well Communication Repair

Tractor Service

Well backup battery replacement





## 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 August 2023.

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

The Chatham /South Sangamon emergency interconnect is progressing. There was a preconstruction meeting in February. Petersburg Plumbing has pushed back the construction start date.

Meter Project progressing, All meter bases and registers are on site. 17 cell meters have been installed.

Meco Engineering has provided us with initial plans for well #11

### **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- completed
2. Onsite fuel storage tanks have arrived on site and pumps have been installed-completed
3. BOP CPU upgrade has been completed-completed
4. Second raw water detention tank
5. SSWC/Chatham interconnect
6. Well #11













