



SSWC

Monthly Operating Report

December:2023

So. Sangamon
Water Commission
January 16th, 2023

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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 December 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

During the month of December 2023, the plant pumped 39.380 million gallons from the well field and 32.174 million gallons of finished water. This is 4.9 million gallons less than December 2022.

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 December 2023, there were 31 inspections, 3 preventative and multiple corrective maintenance activity completed. There was 1 repair activities performed .

Budget. Passed at April 17th 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 December 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 December. 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 39.380 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).
Max.	7.3	15.3	4.38	.400	-	390	320	1.721
Min.	7.1	13.6	.01	.160	-	340	300	.929
Avg.	7.2	14.3	.64	.210	-	361	312	1.270
Total	-	-	-	-	-	-	-	39.380

2.3 EFFLUENT CONCENTRATIONS

The facility filtered 36.031 MG during the month with a daily average of 1.162 MG and a min/max .871/ 1.678 MG.

Table 2.3 Finished Water Quality										
	Free CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
Max.	2.9	4.24	7.9		0.03	0.024	1.25	170	320	2.14
Min.	0.04	2.98	7.6		0.01	0.00	0.45	100	280	1.72
Avg.	0.25	3.60	7.7		0.01	0.011	0.79	115	307	1.94
MCL	-	-	-	-	1.00	-	4.00	-	-	-
SMCL	-	-	-	-	0.30	0.050	2.00	-	-	-

Finished Water Flow Comparison for FY 2022-23

Time Period	22-23	21-22	20-21
Jan 2023- Dec-2023	425,383,691	410,415,216	417,875,114
Increase for the same period last year		14.9 MG	-.7.5 MG

FINISHED WATER PUMPING HISTORY						
	2022-23	2021-22	2020-21	2019-20	2018-19	2017-18
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
Sept	38,677,420	32,355,302	38,935,839	38,674,095	34,234,782	34,754,000
Oct	32,733,224	29,576,287	34,918,955	34,597,739	30,769,238	30,353,482
Nov	30,061,570	35,563,717	31,181,005	32,325,040	30,877,400	30,464,000
Dec	31,818,986	30,450,255	31,391,459	31,582,311	29,703,954	31,930,000
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Totals	425,383,691	410,415,216	417,875,114	393,895,696	357,956,666	382,703,653
Avg	1.16 MGD	1.12 MGD	1.15 MGD	1.08 MGD	.978 MGD	1.05 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 ² (mg/l)	pH (S.U.)	TSS (mg/l)
December 27 th 2023						
Minimum	.1	.391	456.7	.04	7	<4
Maximum	.1	.391	456.7	.04	7.7	<4
Average	.1	.391	456.7	.04	7.7	<4
Monthly Avg Limit	2.000	1.000				15
Daily Limit	4.000	2.000	500	0.05	6.0-9.0	30

The Chloride sample for the month, performed by the Springfield Metropolitan Sanitary District, was below 30,000 mg/l for the month of December 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 50 incident that impacted the operation of the plant.

Ion exchange alarm

Westech filters comm loss

Power surge

Power Sag

Power Outages

Ion Exchange Brine Pump

Well Comm loss

Generator Faults

3.2 EMERGENCY & SERVICE CALLS

Service Calls:

- There was 0 emergency call out for the month.

3.3 EMERGENCY CALL-OUTS

There was 1 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 Mounting Platform

SCADA programming

Cell Transmitter Installation

Tractor Maintenance

New scada computers

Booster Station Comms Repair



Line bores for interconnect valve control wiring and power lines



Line bore for Chatham influent turbidimeter



Tap for turbidimeter water supply

4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of December 2023, there were 31 inspections, 3 preventative and multiple corrective maintenance activities 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

Air compressor Repair

Pneumatic Tank Repair

Well #1 comm loss repair

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 December 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. Water and comm line conduit has been bored in.

Meter Project progressing, All meter bases and registers are on site. 31 cell meters have been installed.

Meco Engineering has provided us with initial plans for well #11. Well #11 construction permit has been approved and has been received at the plant.

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

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South Sangamon Water Commission - IL1670080

December 2023

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