



Monthly Operating Report

October:2023

So. Sangamon
Water Commission
November 20th, 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 October 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 October 2023, the plant pumped 42.459 million gallons from the well field and 37.975 million gallons of finished water. This is 6.341 million gallons more than October 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 October 2023, there were 31 inspections, 3 preventative and multiple corrective maintenance activity completed. There was 2 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 October 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 October. 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 42.459 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.	7.4	16.0	4.56	.409	-	380	348	1.725
Min.	7.1	13.6	.23	.133	-	310	300	1.058
Avg.	7.2	14.9	.74	.193	-	354	311	1.370
Total	-	-	-	-	-	-	-	42.459

2.3 EFFLUENT CONCENTRATIONS

The facility filtered 37.975 MG during the month with a daily average of 1.225 MG and a min/max .898/ 1.536 MG.

Table 2.3 Finished Water Quality										
	Free CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
Max.	.1	4.16	7.8		0.02	0.056	.97	140	320	2.81
Min.	0.0	2.84	7.6		0.01	0.002	0.57	100	300	1.77
Avg.	0.05	3.43	7.7		0.01	0.013	0.75	114	312	1.99
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
Nov 2022- Oct-2023	429,516,437	406,973,708	419,210,001
Increase for the same period last year		22.5 MG	-.12.2 MG

FINISHED WATER PUMPING HISTORY						
	2022-23	2021-22	2020-21	2019-20	2018-19	2017-18
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
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
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Totals	429,516,437	406,973,708	419,210,001	390,569,699	359,769,312	377,735,023
Avg	1.17 MGD	1.11 MGD	1.15 MGD	1.07 MGD	.983 MGD	1.03 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)	Cl² (mg/l)	pH (S.U.)	TSS (mg/l)
October 18 th , 30 th 2023						
Minimum	.08	.153	257.6	.01	7.7	<4
Maximum	.13	.173	316	.02	7.8	60
Average	.1	.163	286.8	.015	7.75	30
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 October 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 alarms

Ion exchange alarm

Westech filters comm loss

Power surge

Power Sag

Power Outages

Ion Exchange Brine Pump

Well Comm loss

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

Inspected distribution mains

Inspected booster station

Customer service

Air Compressor research

SCADA programming

Cell Transmitter Installation

Tractor Maintenance

New scada computers



The air inlet valve on the hydropneumatics tank wasn't opening



Upon inspection it was found that the interior of the valve was corroded. After disassembly the inner workings were cleaned allowing the valve to operate properly.



The actuator in the air valve being seized caused the fuse to weaken. Once it was freed the increased amp draw caused the fuse to blow. Once replaced the control valves began operating as they should.



The scada computers that arrived onsite were unpackaged and power was put to them to ensure operation. Once powered up the computers were attached to the plant network. This will allow SCADAware to program the computers remotely.

4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of October 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

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 October 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. 28 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

