



Monthly Operating Report

January:2025

So. Sangamon
Water Commission
February 18th, 2025

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 2025.

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 January 2025, the plant pumped 42.645 million gallons from the well field and 37.997 million gallons of finished water. This is .556 million gallons less than January 2024.

The SSWC plant has been removed from Critical Review status.

Operations. There was 1 emergency call-outs for the month. There were numerous customer inquiry for the month.

Maintenance and Repair. For the month of January 2025, there were 31 inspections, 3 preventative and multiple corrective maintenance activity completed. There was 4 repair activities performed.

Budget. Passed at May 20th 2024 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 January 2025.

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 42.645 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.	7.53	14.6	3.62	.341	-	400	310	1.619
Min.	7.30	13.1	.30	.117	-	352	250	.0955
Avg.	7.40	13.7	.81	.201	-	373	296	1.376
Total	-	-	-	-	-	-	-	42.645

2.3 EFFLUENT CONCENTRATIONS

The facility filtered 37.997 MG during the month with a daily average of 1.226 MG and a min/max .858/ 1.460 MG.

Table 2.3 Finished Water Quality										
	Free CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
Max.	1.02	3.88	7.9		0.03	0.300	1.13	400	320	2.82
Min.	0.05	1.08	7.6		0.01	0.016	0.41	100	273	0.88
Avg.	0.13	3.28	7.8		0.01	0.066	0.75	324	292	1.95
MCL	-	-	-	-	1.00	-	4.00	-	-	-
SMCL	-	-	-	-	0.30	0.050	2.00	-	-	-

Finished Water Flow Comparison for FY 2024

Time Period	2024-25	2023-24	2022-23
Feb 2024-Jan 2025	414,494,294	421,469,532	415,813,951
Increase for the same period last year		-6.98 MG	5.66 MG

FINISHED WATER PUMPING HISTORY						
	2024-25	2023 -24	2022-23	2021-22	2020-21	2019-20
Feb	29,777,768	33,481,076	32,451,653	30,638,842	28,797,693	28,625,431
Mar	31,222,925	36,781,261	33,909,417	33,633,244	30,339,298	31,237,000
Apr	31,707,537	36,832,617	31,991,050	33,214,211	31,542,650	28,418,249
May	36,629,959	43,484,155	37,459,417	35,932,776	34,673,848	33,045,927
June	40,285,085	22,455,176	38,496,145	37,616,256	17,414,377	33,460,303
July	38,944,142	41,565,811	38,861,790	39,001,640	44,237,066	23,742,374
Aug	38,576,284	39,770,720	36,977,913	39,953,900	39,638,063	25,018,633
Sept	37,258,390	38,677,420	32,355,302	38,935,839	38,674,095	34,234,782
Oct	34,907,003	32,733,224	29,576,287	34,918,955	34,597,739	30,769,238
Nov	28,768,567	30,061,570	35,563,717	31,181,005	32,325,040	30,877,400
Dec	32,675,158	31,818,986	30,450,255	31,391,459	31,582,311	29,703,954
Jan	33,741,476	33,807,516	37,721,005	32,322,270	31,456,987	30,073,516
	-----	-----	-----	-----	-----	-----
Totals	414,494,294	421,469,532	415,813,951	418,740,397	395,279,167	359,206,807
Avg	1.13 MGD	1.16 MGD	1.14 MGD	1.15 MGD	1.08 MGD	.984 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)
Jan 27 th , 2025						
Minimum	.62	.83	203.7	.01	7.8	<4
Maximum	.62	.83	203.7	.01	7.8	<4
Average	.62	.83	203.7	.01	7.8	<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 January 2025. 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

Power surge

Power Sag

Ion Exchange Brine Pump

Well check valves

Brine Pumps

Permanganate Pumps

Air Scour Repair

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

SCADA programming

Mower Maintenance

Interconnect Start Up

Well #11 construction

Brine Pump Replacement

Permanganate Pump Replacement

Air Manifold Repair

Ball Chatham School Radio Removal



The air scour on train #1 came apart and had to be repaired.



We attempted to purchase replacement pieces to affect a repair but have not been unable to do so. The staff at the plant has been able to manufacture replacement manifolds so that the train can be air scoured and have PDTs performed. These manifolds do the job but are not ideal. As soon as OEM parts can be sourced we will replace them.



The Manganese started to climb so we inspected the Sodium Permanganate feed system. It was found that the feed pump had failed and needed to be replaced. There are 2 feed pumps.



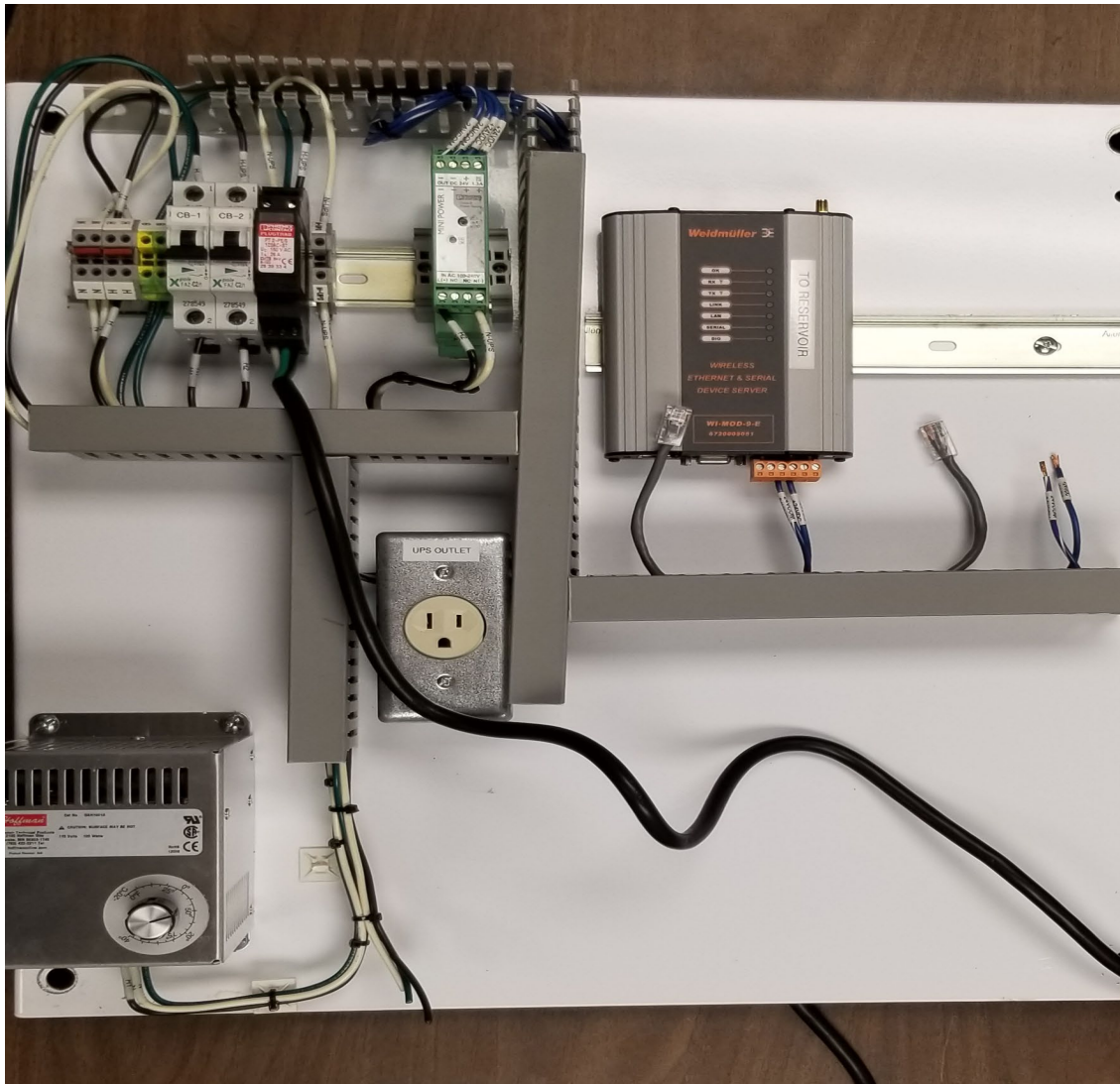
A new Sodium Permanganate has been installed. A newer, better design, less expensive feed pump has been installed. Another redundant feed pump is in the works, but has not been installed yet.



The brine system for regen portion of the softening system quit filling the softeners with brine. It was found, after much testing, that the brine pumps had failed. One pump had a failed motor and one pump had a failed pump. Although both pumps were technically the same pump, they were not. Staff attempted scavenge parts from the 2 pumps to make 1 but were unable to do so.



After many phone calls 2 new brine were able to be sourced and installed.



Staff went out to the Ball-Chatham school and retrieved a couple of radios that South Sangamon had on site. We no longer use these radios for communications with the Chatham ground storage tanks. We will be using them for well #11 which will save us from having to purchasing a radio.

4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of January 2025, 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

Raw water line flushing

Detention tank flush

Flushing Air Lines

Maintenance of New Berlin Booster Station

Meter Transmitter Replacement

Air compressor Maintenance

Pneumatic Tank Maintenance

Well Maintenance

Train #1 Repair

Brine Pump replacement

Sodium Permanganate Pump 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 January 2025.

- Kevin Canham
- Stephen Bivin
- Katie Krall
- Dan (SCADAware)
- Joe Lee Electric
- 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 construction is complete. After many failed attempts; start has been completed.

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

Well #11 platform has been installed. Pits, bypass piping and hydrant are installed. Excavating the raw water main has been completed and the well connection to the raw water main has been done. Thrust blocks are to be poured in the near future

Joe Lee Electric and Dan from scadaWARE have been onsite site to inspect and plan their portion of the well #11 construction.

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. Onsite fuel storage tanks have arrived on site and pumps have been installed-completed
2. BOP CPU upgrade-completed
3. Second raw water detention tank
4. SSWC/Chatham interconnect-completed
5. Well #11-underway
6. SCADA computer upgrade-90% complete

South Sangamon Water Commission - IL1670080
January 2025

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Physical and Chemical Tests																												Membrane Integrity																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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Date	pH	Temp deg C	Total		Hard.	Alk.	mg/L as CaCO3	NTU	Total Fe mg/L	Mn mg/L	Soluble		Total Fe mg/L	Mn mg/L	Total Turbidity	Post IEX				Total Hard.	Total Fe mg/L	Mn mg/L	Total Fluoride mg/L	Ortho Phosphate mg/L	Free Ammonia mg/L	Mono-Chloramine mg/L	Chlorine		F mg/L	T mg/L	Distribution	Bank 1	Bank 2	Bank 3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

DIVISION OF PUBLIC WATER SUPPLIES

MONTHLY IRON REMOVAL AND ION EXCHANGE SOFTENING REPORT

South Sangamon Water Commission - IL 167080

January 2025

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Pumping Totals										Chemicals Applied										UF Filters										Softeners																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Sodium Permanganate					Sodium Bisulfite BW					Sodium Hypochlorite					Ammonium Sulfate					Fluorosiilicic Acid					Phosphate					Sodium Bisulfite Pond					Hours since previous backwash					Wash Water					Water					Regeneration																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Date	Time	Hours	Well	Raw	Filter	UF	Plant	HS	Lagoon	Am't Used	Calc	mg/l as NaHCO4	Am't Used	Calc	lbs.	mg/l as NH4	Am't Used	Calc	lbs.	mg/l as F	Am't Used	Calc	lbs.	mg/l as PO4	Am't Used	Calc	lbs.	mg/l	Am't Used	Calc	lbs.	mg/l	Wash Water	Sched	Bypassed	Water	Each day indicate total number of hours since previous regeneration.	Used	Gal.	If regeneration at mid-day, indicate	Regeneration																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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