



Monthly Operating Report

December:2024

So. Sangamon
Water Commission
January 21st, 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 December 2024.

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 2024, the plant pumped 42.295 million gallons from the well field and 37.735 million gallons of finished water. This is 5.56 million gallons less than December 2023.

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 December 2024, there were 31 inspections, 3 preventative and multiple corrective maintenance activity completed. There was 1 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 December 2024.

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 42.295 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.	7.50	15.8	1.32	.214	-	380	312	1.609
Min.	7.10	13.3	.05	.150	-	352	280	1.062
Avg.	7.42	14.2	.62	.182	-	367	302	1.364
Total	-	-	-	-	-	-	-	42.295

2.3 EFFLUENT CONCENTRATIONS

The facility filtered 37.735 MG during the month with a daily average of 1.217 MG and a min/max .926/ 1.459 MG.

Table 2.3 Finished Water Quality										
	Free CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
Max.	0.17	3.72	8.0		0.01	0.440	0.97	220	312	3.25
Min.	0.06	1.48	7.7		0.01	0.032	0.48	100	280	0.72
Avg.	0.09	3.06	7.9		0.01	0.093	0.75	130	298	1.94
MCL	-	-	-	-	1.00	-	4.00	-	-	-
SMCL	-	-	-	-	0.30	0.050	2.00	-	-	-

Finished Water Flow Comparison for FY 2024

Time Period	2024	2023	2022
Jan 2024-Dec 2024	414,560,334	425,383,021	410,415,216
Increase for the same period last year		-10.8 MG	15.0 MG

FINISHED WATER PUMPING HISTORY						
	2024	2023	2022	2021	2020	2019
Jan	33,807,516	37,721,005	32,322,270	31,456,987	30,073,516	28,823,375
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
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Totals	414,560,334	425,383,021	410,415,216	417,875,114	393,895,696	357,956,666
Avg	1.13 MGD	1.17 MGD	1.12 MGD	1.14 MGD	1.08 MGD	.981 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)
Dec 20 th , 2024						
Minimum	.23	.267	460.3	.02	7.8	<4
Maximum	.23	.267	460.3	.02	7.8	<4
Average	.23	.267	460.3	.03	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 December 2024. 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 Comm loss

Well check valves

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

Mower Maintenance

New scada computers

Interconnect Start Up

Well #11 construction

Train #3 repair

Cardinal Hill leak repair

SWPP

FOIA Request



When E.L.Pruitt was on site excavating to find our water leak a buried valve pit was discovered.



The valve pit was found to be flooded and during pump down it was found that the leak was in the pit.



The leak on Cardinal Hill Road was found to be a sample tap that had blown out.



The piping for well #11 raw main has been excavated and the piping is being plumbed to tie well #11 into the rest of the wells.



With the check valve at well #9 being bad when the plant lost power it caused the other wells to backfeed through well #9. We currently have well #9 valved out.



The new computers were setup and installed last month In tandem with the original scada computers. This was done so that the new computers could be debugged if need be, but still have uninterrupted scada usage. The original computers were disconnected in December.

4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of December 2024, 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

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 2024.

- 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 mostly complete. The valve has arrived and has been installed. Multiple startups have been attempted. Due to various issues start up has not been completed. A new startup date is being planned.

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

Well #11 platform has been rough installed. Pits, bypass piping and hydrant are installed. Excavating the raw water main is the next step in the process.

Joe Lee Electric and Dan from scadaaware have been onsite site to inspect and plan their portion of the 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 has been completed
3. Second raw water detention tank
4. SSWC/Chatham interconnect
5. Well #11
6. SCADA computer upgrade

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

DIVISION OF PUBLIC WATER SUPPLIES

MONTHLY IRON REMOVAL AND ION EXCHANGE SOFTENING REPORT

South Sangamon Water Commission - IL 1670080

December 2024

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Pumping Totals										Chemicals Applied										UF Filters										Softeners																																																																																																																																																																																																																																																																																																																																																																				
Raw					Lagoon					Sodium Permanganate					Sodium Bisulfite BW					Sodium Hypochlorite					Ammonium Sulfate					Fluorosilicic Acid					Phosphate					Sodium Bisulfite Pond					Hours since previous backwash					Wash					Water					Water					Regeneration																																																																																																																																																																																																																																																																																																																																	
Date	Time	Hours	Filter	Prod. (Mgal)	UF (Mgal)	Plant (Mgal)	HS (Mgal)	Effluent (Mgal)	Pumpage (Mgal)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l)	Am't (lbs)	Used	Calc (mg/l

