



Monthly Operating Report

July:2024

So. Sangamon
Water Commission
August 19th, 2024

SSWC

9199 Buckhart Rd Rochester IL 62563

TABLE OF CONTENTS

SECTION	PAGE NO.
Executive Summary.....	ES-1
1. SAFETY	1-1
1.1 Safety Training	1-1
1.2 Lost time Accidents	1-1
1.3 Safety Audit	1-1
1.4 Miscellaneous Safety.....	1-1
2. COMPLIANCE, FLOWS AND LOADINGS	2-2
2.1 Compliance	2-2
2.2 Influent flows and loadings	2-2
2.3 Effluent Concentrations	2-2
2.4 Lagoon Discharge Concentrations	2-4
3. OPERATIONS.....	3-1
3.1 Events impacting operations	3-1
3.2 Emergency & Service calls.....	3-1
3.3 Emergency Call-outs	3-1
3.4 Customer Inquiries	3-1
4. MAINTENANCE AND REPAIR.....	4-7
4.1 Preventative and predictive maintenance.....	4-7
4.2 Corrective repairs	4-7
5. PROJECT MANAGEMENT & SUPPORT	5-1
5.1 Staffing & Training.....	5-1
5.2 Corporate Support.....	5-2
5.3 Budget.....	5-3
6. CAPITAL PLANNING	6-1
6.1 Approved CIP Projects Current status.....	6-1
6.2 Draft Capital Improvement Plan	6-1

LIST OF TABLES

TABLE	PAGE NO.
Table 2.2 Influent Concentrations and Flow.....	2-2
Table 2.3 Finished Water Quality.....	2-2
Table 2.4 Weekly Grab Sample Analysis Results.....	2-4
Table 4.1 Budget Table.....	5-3

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 July 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 July 2024, the plant pumped 50.182 million gallons from the well field and 44.721 million gallons of finished water. This is 1.4 million gallons less than July 2023.

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 July 2024, there were 31 inspections, 3 preventative and multiple corrective maintenance activity completed. There was 0 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 July 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 July. 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 50.182 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.	7.6	17.1	2.02	.198	-	365	320	2.022
Min.	6.8	14.4	.06	.140	-	312	270	1.266
Avg.	7.05	15.3	.72	.180	-	356	298	1.619
Total	-	-	-	-	-	-	-	50.182

2.3 EFFLUENT CONCENTRATIONS

The facility filtered 44.721 MG during the month with a daily average of 1.443 MG and a min/max 1.204/ 1.798 MG.

Table 2.3 Finished Water Quality										
	Free CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
Max.	0.20	3.84	7.7		0.06	0.071	.99	300	320	2.39
Min.	0.06	2.50	7.0		0.02	0.003	0.45	100	272	.09
Avg.	0.11	3.22	7.4		0.02	0.025	0.74	127	297	1.86
MCL	-	-	-	-	1.00	-	4.00	-	-	-
SMCL	-	-	-	-	0.30	0.050	2.00	-	-	-

Finished Water Flow Comparison for FY 2023-24

Time Period	23-24	22-23	21-22
Aug 2023- July 2024	415,436,852	417,244,575	421,872,900
Increase for the same period last year		-1.81 MG	-4.63 MG

FINISHED WATER PUMPING HISTORY						
	2023-24	2022-23	2021-22	2020-21	2019-20	2018-19
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
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
	-----	-----	-----	-----	-----	-----
Totals	415,436,852	417,244,575	421,872,900	418,311,204	367,682,455	370,030,379
Avg	1.14 MGD	1.14 MGD	1.16 MGD	1.15 MGD	1.01 MGD	1.01 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)
July 22nd, 2024						
Minimum	.04	.148	317.6	.02	7.5	8.8
Maximum	.04	.148	317.6	.02	7.5	8.8
Average	.04	.148	317.6	.02	7.5	8.8
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 July 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

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 Mounting Platform

SCADA programming

Mower Maintenance

New scada computers

Interconnect Start Up

Train #3 Repair

Source Water Protection Plan



Staff was finally able to order chairs for the conference room



One of the chairs has been assembled for the board members to inspect for their approval before assembling the remaining conference room chairs



One day staff noticed the flow from the plant had decreased. As staff went to assess the situation, it was noticed that pump 3 had a violent shake to it.



Plant staff began disassembling the pump to see if a diagnosis could be made



Once the pump casing was opened up it was found that the impeller had degraded and pieces of the impeller had worn out and broken off. Bodine of Decatur will be to the plant to pick up the pump and install a new impeller.

4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of July 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

Air Compressor service

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

Pump Diagnostics

Well Maintenance

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 July 2024.

- 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 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. 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. Flood Plain Permit has been received and is posted. MECO Engineering has been on site and sample wells have been drilled.

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

South Sangamon Water Commission - IL1670080

July 2024

Date	Physical and Chemical Tests										Membrane Integrity																			
	Raw					Pre UF Membrane					Post UF Membrane					Post EX					Finished					Post Filter				
	Temp deg C	pH	Total Alk. mg/L	Total Fe mg/L	Total Mn mg/L	Turbidity	Total Soluble Fe mg/L	Total Mn mg/L	Total NTU	Total Turbidity	Total Alk. mg/L	Total Hard. mg/L	Total Fe mg/L	Total Mn mg/L	Total as CaCO3	Turbidity NTU	Total Alk. mg/L	Total Hard. mg/L	Total Fe mg/L	Total Mn mg/L	Total Fluoride mg/L	Phosphate mg/L	Free Ammonia mg/L	Monochloramine mg/L	Chlorine mg/L	Distribution F mg/L	Distribution T mg/L	Bank 1 psi	Bank 2 psi	Bank 3 psi
1	6.90	14.8	280	360	0.51	0.170	0.324	0.052	0.02	0.063	0.25	7.50	0.20	280	110	0.02	0.026	0.73	2.19	1.07	2.10	0.07	3.60							
2	6.90	15.1	280	365	0.69	0.166	0.341	0.064	0.03	0.056	0.27	7.50	0.23	280	100	0.02	0.014	0.78	1.88	1.23	2.75	0.08	3.84							
3	7.00	14.4	270	360	0.66	0.178	0.316	0.051	0.02	0.051	0.23	7.40	0.21	272	104	0.02	0.016	0.91	2.16	1.08	2.92	0.06	3.46							
4	7.00	14.4	282	360	0.71	0.181	0.322	0.051	0.02	0.074	0.22	7.30	0.22	276	110	0.02	0.011	0.84	1.88	1.16	2.88	0.07	3.51							
5	7.30	14.7	300	358	0.79	0.165	0.283	0.068	0.02	0.069	0.13	7.20	0.33	310	160	0.03	0.015	0.77	2.24	0.85	4.46	0.19	3.29			pass				
6	7.10	14.5	286	356	0.74	0.170	0.284	0.066	0.02	0.070	0.16	7.30	0.26	284	180	0.02	0.019	0.88	2.19	1.01	3.63	0.11	3.38							
7	7.10	14.5	290	360	0.70	0.184	0.308	0.068	0.02	0.067	0.18	7.20	0.22	290	170	0.02	0.018	0.69	2.24	1.08	3.31	0.09	3.49							
8	7.10	14.6	308	312	0.64	0.181	0.329	0.033	0.02	0.075	0.17	7.20	0.19	282	120	0.02	0.019	0.91	2.19	1.08	2.92	0.08	3.34							
9	6.90	15.0	310	360	0.36	0.181	0.286	0.061	0.03	0.067	0.22	7.50	0.21	310	120	0.03	0.029	0.87	1.11	0.80	0.40	0.07	3.10							
10	7.60	15.1	300	360	1.64	0.184	0.263	0.066	0.03	0.075	0.26	7.10	0.23	300	140	0.02	0.033	0.58	0.69	0.62	0.97	0.11	3.04							
11	7.10	15.4	300	365	0.78	0.144	0.278	0.057	0.03	0.065	0.23	7.50	0.20	300	125	0.03	0.017	0.45	0.18	0.87	1.63	0.08	3.22							
12	6.80	15.3	300	360	0.50	0.172	0.313	0.065	0.03	0.069	0.25	7.30	0.22	300	140	0.02	0.027	0.59	1.64	0.69	1.08	0.08	3.02							
13	6.90	15.4	300	365	0.48	0.183	0.301	0.060	0.03	0.065	0.27	7.50	0.21	300	110	0.02	0.029	0.64	1.76	0.62	1.13	0.08	3.18							
14	7.00	15.2	300	360	0.45	0.180	0.292	0.057	0.02	0.056	0.25	7.50	0.20	300	100	0.02	0.022	0.69	1.62	0.87	1.70	0.08	3.20							
15	7.00	16.8	300	365	1.98	0.196	0.283	0.040	0.04	0.034	0.24	7.50	0.18	280	160	0.02	0.019	0.68	1.84	1.08	1.66	0.10	3.48							
16	7.10	15.5	300	360	0.91	0.191	0.307	0.078	0.03	0.079	0.22	7.50	0.20	300	100	0.02	0.018	0.59	2.00	0.01	3.11	0.08	3.29							
17	7.20	16.9	300	360	0.17	0.170	0.273	0.068	0.03	0.070	0.23	7.70	0.20	300	100	0.03	0.014	0.67	1.92	0.01	3.01	0.09	3.40							
18	7.10	15.5	300	365	0.40	0.176	0.287	0.060	0.03	0.061	0.22	7.50	0.23	300	100	0.03	0.022	0.90	2.12	0.01	2.88	0.07	2.92							
19	7.00	15.4	300	350	0.64	0.185	0.278	0.058	0.02	0.062	0.25	7.50	0.22	300	100	0.06	0.017	0.84	2.15	0.01	3.33	0.20	3.48			pass				
20	7.20	14.7	320	358	0.79	0.181	0.274	0.064	0.02	0.071	0.20	7.40	0.19	282	104	0.03	0.019	0.77	1.88	0.01	3.19	0.10	3.38							
21	7.20	14.6	300	360	0.40	0.184	0.281	0.054	0.02	0.064	0.21	7.40	0.18	310	100	0.02	0.019	0.91	2.10	0.03	3.01	0.07	3.01							
22	6.90	16.6	300	360	0.55	0.184	0.348	0.062	0.03	0.063	0.25	7.50	0.20	300	140	0.02	0.026	0.67	2.08	0.01	3.00	0.17	3.12							
23	6.90	15.4	300	350	0.74	0.183	0.301	0.065	0.03	0.065	0.23	7.50	0.18	300	100	0.02	0.015	0.68	1.92	0.01	2.84	0.15	3.24							
24	7.10	14.5	305	362	0.70	0.140	0.210	0.062	0.06	0.049	0.08	7.00	0.27	290	100	0.02	0.003	0.51	2.13	0.01	3.25	0.09	3.20							
25	7.00	15.6	300	350	1.20	0.192	0.252	0.120	0.02	0.097	0.02	7.50	0.25	300	100	0.02	0.037	0.99	2.39	0.01	1.77	0.18	2.52							
26	7.00	15.3	310	355	0.60	0.187	0.288	0.081	0.02	0.074	0.18	7.50	0.23	300	110	0.03	0.043	0.97	1.85	0.01	2.13	0.14	2.74							
27	7.00	15.1	300	350	0.53	0.198	0.310	0.078	0.02	0.069	0.26	7.50	0.25	300	110	0.02	0.034	0.72	1.98	0.01	2.08	0.12	2.86							
28	7.00	14.9	300	355	0.38	0.186	0.300	0.064	0.03	0.067	0.28	7.50	0.22	300	100	0.02	0.030	0.68	1.92	0.01	2.36	0.15	3.12							
29	6.80	15.7	310	350	0.05	0.181	0.394	0.092	0.03	0.063	0.22	7.20	0.20	320	100	0.02	0.047	0.72	2.09	0.01	2.88	0.11	3.46							
30	7.20	15.9	300	360	2.02	0.196	0.221	0.167	0.03	0.161	0.27	7.70	0.22	300	210	0.02	0.061	0.80	2.08	0.01	2.34	0.11	3.08							
31	7.20	17.1	300	360	0.56	0.181	0.164	0.161	0.01	0.168	0.28	7.60	0.25	310	300	0.02	0.071	0.63	1.81	0.01	2.62	0.13	2.68							
Ave	7.05	15.3	298	356	0.72	0.180	0.290	0.074	0.03	0.073	0.22	7.40	0.22	297	127	0.02	0.025	0.74	1.86	0.46	2.50	0.11	3.22	#DV01	#DV01	#DV01	#DV01	#DV01		
Max	7.60	17.1	320	365	2.02	0.198	0.000	0.000	0.000	0.168	0.28	300	0.06	0.071	0.99	2.38	1.23	4.46	0.20	3.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Min	6.80	14.4	270	312	0.05	0.140	0.000	0.000	0.164	0.031	0.01	0.034	0.02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lagoon Effluent Tests										Distribution Stability Tests										Remarks:										
Monthly	Date	7/22/2024	pH	Temp	T Chlor	Mn	Fe	Chloride	TSS	pH					Temp	TDS	Alkalinity	Calcium	Chloride	Sulfate										
			7.5	22.5	0.02	0.148	0.04	317.6	8.8	Every Two Weeks					7.07	16.7	440	280	33	50										
	Date	7/22/2024								Date																				

