



Monthly Operating Report

May:2022

So. Sangamon
Water Commission
June 20th, 2022

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 May 2022.

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 May 2022, the plant pumped 48.110 million gallons from the well field and 42.040 million gallons of finished water. This is .29 million gallons less than May of 2021.

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 May 2022, there were 30 inspections, 3 preventative and 3 corrective maintenance activity completed. There was 1 repair activities performed .

Budget. Passed at April 18th 2022 meeting.

Capital Planning.

Chatham emergency interconnect

Onsite fuel storage tanks

Detention Tank

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 May 2022.

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 April. 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 48.110 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	15.6	1.47	.225	-	380	308	1.890
Min.	7.1	12.9	.56	.188	-	280	280	1.300
Avg.	7.18	14.2	.87	.211	-	357	293	1.552
Total	-	-	-	-	-	-	-	48.110

2.3 EFFLUENT CONCENTRATIONS

The facility filtered 42.040 MG during the month with a daily average of 1.356 MG and a min/max .712/ 1.648 MG.

Table 2.3 Finished Water Quality										
	Free CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
Max.	.18	3.50	7.8		0.02	0.250	1.0	180	310	2.27
Min.	0.07	2.52	7.1		0.01	0.010	0.44	90	280	1.69
Avg.	0.12	3.06	7.6		0.01	0.038	0.77	124	292	1.92
MCL	-	-	-	-	1.00	-	4.00	-	-	-
SMCL	-	-	-	-	0.30	0.050	2.00	-	-	-

Finished Water Flow Comparison for FY 2021 -22

Time Period	21-22	20-21	19-20
June-2021- May-2022	421,132,861	403,344,751	363,233,689
Increase for the same period last year		17.8 MG	40.1 MG

FINISHED WATER PUMPING HISTORY						
	21-22	20-21	19-20	18-19	17-18	16-17
June	37,616,256	17,414,377	33,460,303	34,040,000	39,931,402	41,541,321
July	39,001,640	44,237,066	23,742,374	41,178,722	42,164,927	35,378,396
Aug	39,953,900	39,638,063	25,018,633	35,176,238	38,760,634	35,401,490
Sept	38,935,839	38,674,095	34,234,782	34,754,000	39,896,986	36,325,215
Oct	34,918,955	34,597,739	30,769,238	30,353,482	33,506,605	4,374,8320
Nov	31,181,005	32,325,040	30,877,400	30,464,000	28,617,333	30,478,309
Dec	31,391,459	31,582,311	29,703,954	31,930,000	28,808,037	32,525,530
Jan	32,322,270	31,456,987	30,073,516	28,823,375	30,556,824	30,449,215
Feb	32,451,653	30,638,842	28,797,693	28,625,431	25,617,914	27,373,232
Mar	33,909,417	33,633,244	30,339,298	31,237,000	28,217,699	30,068,363
Apr	31,991,050	33,214,211	31,542,650	28,418,249	27,110,578	29,625,797
May	37,459,417	35,932,776	34,673,848	33,045,927	33,304,196	32,120,873
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Totals	421,132,861	403,344,751	363,233,689	388,046,424	396,493,135	405,036,061
Avg	1.15 MGD	1.10 MGD	.995 MGD	1.06 MGD	1.08 MGD	1.11 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)
May,27th 2022	.28	.129	590	.05	7.8	<4
Minimum	.28	.129	590	.05	7.8	<4
Maximum	.28	.129	590	.05	7.8	<4
Average	.28	.129	590	.05	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 May 2022. The limit for chloride discharge to the sanitary district is 30,000 mg/L.

3. OPERATIONS

3.1 EVENTS IMPACTING OPERATIONS

There was 0 incident that impacted the operation of the plant.

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

Trouble shooting all trains

Trouble shooting of CIP skid and CIP procedure

Inspected distribution mains

Inspected booster station

Flushed air system

Trouble shooting of Ion exchange system

Repaired ion exchange valve and actuator

Repair of air compressors

Customer service

Construction of and commissioning of train #2

Consulted with MECO and Brotke concerning well #4

Grouted well#4

Pour concrete for washout in well field



New train #2



New Train #2



New drain connection for train #2



Grout in well #4 subsidence



Washout in well that we repaired with left over well grout.

4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of May 2022, there were 30 inspections, 3 preventative and 3 corrective maintenance activity completed.

4.2 CORRECTIVE REPAIR

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

Repair of train #3

Replaced old filter cartridges on train #3 with newer cartridges from train #2

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 May 2022.

- Kevin Canham
- Stephen Bivin
- Katie Krall
- Dan (SCADAware)
- Joe Lee
- Kevin Garmin (SCADAware)
- Petersburg Plumbing
- Westech

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.

Benton and Assoc has initiated the planning phase of the Chatham Emergency interconnect. Construction permit has been approved and received. Construction has been postponed.

Train #2 upgrade repair has been completed and train #2 is back online.

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
2. Onsite fuel storage tanks have been ordered.
3. BOP CPU upgrade has been completed
4. Meter Project progressing, meters scheduled to arrive on a future date.

South Sangamon Water Commission - IL 1670080
 May 2022

Pumping Totals										Chemicals Applied										UF Filters										Softeners									
Time	Raw Well	UF Plant	HS Plant	Lagoon Effluent	Sodium Permanganate		Sodium Bisulfite BW		Sodium Hypochlorite		Ammonium Sulfate		Fluorosisic Acid		Phosphate		Sodium Bisulfite Pond		Hours since previous backwash				Wash Water	Water Softened	Water Bypassed	Regeneration													
					Amnt Used lbs.	Calc mg/l as MnO4	Amnt Used lbs.	Calc mg/l as S2O5	Amnt Used lbs.	Calc mg/l as Cl	Amnt Used lbs.	Calc mg/l as NH3	Amnt Used lbs.	Calc mg/l as F	Amnt Used lbs.	Calc mg/l as PO4	Amnt Used lbs.	Calc mg/l	1	2	3	4				Gal	(M gal)	(M gal)	Gal	Used	Washed								
1	7:00	15.9	1.310	1.147	0.015	1.103	0.073	27	0.49	0.00	342	4.47	115	2.40	38	0.78	12	0.43	17	11.11	0.66	0.66	0.66	0.66	0.599	0.750	0.397	43.0	45.0	30.0	6843	32550							
2	7:00	17.5	1.427	1.265	0.013	1.186	0.073	29	0.49	0.00	348	4.12	115	2.14	40	0.78	14	0.48	16	10.57	0.66	0.66	0.66	0.66	0.863	0.827	0.438	34.0	35.0	45.0	4562	21700							
3	7:00	19.4	1.635	1.470	0.015	1.293	0.090	33	0.49	0.00	336	3.57	110	1.87	37	0.85	17	0.52	23	12.21	0.66	0.66	0.66	0.66	0.766	0.922	0.488	40.0	49.0	31.0	6843	32550							
4	7:00	18.1	1.449	1.298	0.014	1.127	0.078	30	0.49	0.00	302	3.49	102	1.88	35	0.71	25	0.88	19	11.63	0.66	0.66	0.66	0.66	0.864	0.846	0.450	16.0	42.0	31.0	6843	32550							
5	7:00	17.4	1.419	1.216	0.013	1.063	0.076	29	0.49	0.00	306	3.77	103	2.03	35	0.75	51	1.90	15	9.52	0.66	0.66	0.66	0.66	0.866	0.795	0.421	45.0	30.0	45.0	4562	21700							
6	7:00	16.5	1.378	1.204	0.009	1.092	0.076	28	0.49	0.00	312	3.88	103	2.05	35	0.73	64	2.32	19	11.93	0.66	0.66	0.66	0.66	0.862	0.787	0.417	37.0	42.0	33.0	6843	32550							
7	7:00	16.2	1.332	1.167	0.017	1.092	0.075	27	0.49	0.00	344	4.42	122	2.51	39	0.81	71	2.57	20	12.86	0.66	0.66	0.66	0.66	0.865	0.763	0.404	19.0	36.0	46.0	4562	21700							
8	7:00	16.8	1.437	1.262	0.023	1.126	0.069	29	0.49	0.00	358	4.25	128	2.45	40	0.81	1	0.04	23	16.04	0.66	0.66	0.66	0.66	0.864	0.825	0.437	36.0	36.0	22.0	2281	10850							
9	7:00	18.6	1.546	1.331	0.019	1.232	0.069	32	0.49	0.00	352	3.96	114	4.1	41	0.76	9	0.29	16	8.61	0.66	0.66	0.66	0.66	0.770	0.870	0.461	56.0	42.0	61.0	52.0	9124	43400						
10	7:00	21.5	1.820	1.589	0.018	1.483	0.099	37	0.49	0.00	378	3.57	120	1.81	41	0.63	9	0.24	20	9.65	0.66	0.66	0.66	0.66	0.865	1.039	0.550	23.0	30.0	27.0	6843	32550							
11	7:00	19.6	1.635	1.431	0.016	1.294	0.091	33	0.49	0.00	416	4.36	156	2.61	50	0.89	11	0.34	31	16.27	0.66	0.66	0.66	0.66	0.866	0.777	0.935	0.496	13.0	32.0	25.0	6843	32550						
12	7:00	21.5	1.800	1.583	0.010	1.146	0.096	37	0.49	0.00	400	3.79	129	1.95	41	0.41	15	4.07	20	10.04	0.66	0.66	0.66	0.66	0.866	0.766	0.486	38.0	40.0	38.0	40.0	45.0	4562	21700					
13	7:00	19.8	1.681	1.466	0.016	1.362	0.090	34	0.49	0.00	388	3.91	128	2.07	44	0.74	1	0.03	19	10.17	0.66	0.66	0.66	0.66	0.860	0.971	0.515	49.0	27.0	45.0	4562	21700							
14	7:00	21.6	1.890	1.648	0.013	1.501	0.095	38	0.49	0.00	438	3.98	158	2.30	47	0.71	11	0.29	20	10.12	0.66	0.66	0.66	0.66	0.860	1.077	0.571	69.0	27.0	22.0	2281	10850							
15	7:00	20.1	1.749	1.540	0.018	1.401	0.099	36	0.49	0.00	420	4.09	167	2.60	47	0.71	11	0.29	20	10.12	0.66	0.66	0.66	0.66	0.865	1.007	0.571	69.0	27.0	22.0	2281	10850							
16	7:00	20.1	1.749	1.540	0.018	1.401	0.099	36	0.49	0.00	420	4.09	167	2.60	47	0.71	11	0.29	20	10.12	0.66	0.66	0.66	0.66	0.865	1.007	0.571	69.0	27.0	22.0	2281	10850							
17	7:00	21.0	1.781	1.580	0.019	1.466	0.076	36	0.49	0.00	404	3.83	167	2.53	47	0.73	15	0.40	14	8.82	0.66	0.66	0.66	0.66	0.867	1.033	0.547	28.0	32.0	124.0	41.0	9124	43400						
18	7:00	20.4	1.704	1.517	0.022	1.505	0.027	35	0.49	0.00	360	3.56	140	2.21	42	0.64	16	0.42	15	26.85	0.66	0.66	0.66	0.66	0.866	0.922	0.525	29.0	36.0	29.0	6843	32550							
19	7:00	19.1	1.634	1.417	0.009	1.373	0.039	33	0.49	0.00	316	3.34	118	2.00	38	0.63	17	0.49	14	17.15	0.66	0.66	0.66	0.66	0.866	0.922	0.491	43.0	38.0	44.0	30.0	9124	43400						
20	7:00	17.3	1.452	1.257	0.018	1.248	0.027	30	0.49	0.00	348	4.15	128	2.44	43	0.78	10	0.32	13	23.46	0.66	0.66	0.66	0.66	0.866	0.917	0.822	0.435	30.0	29.0	45.0	4562	21700						
21	7:00	18.3	1.500	1.296	0.009	1.306	0.030	31	0.49	0.00	430	4.97	157	2.91	56	0.98	12	0.36	18	28.19	0.66	0.66	0.66	0.66	0.866	0.922	0.489	44.0	41.0	29.0	30.0	9124	43400						
22	7:00	17.1	1.458	1.290	0.018	1.159	0.028	30	0.49	0.00	204	2.37	77	1.43	28	0.55	7	0.24	9	15.65	0.66	0.66	0.66	0.66	0.866	0.922	0.447	31.0	36.0	36.0	36.0	45.0	4562	21700					
23	7:00	15.6	1.300	1.119	0.019	1.173	0.032	27	0.49	0.00	278	3.72	90	1.93	35	0.68	10	0.34	9	13.34	0.66	0.66	0.66	0.66	0.866	0.922	0.447	31.0	36.0	36.0	36.0	45.0	4562	21700					
24	7:00	19.3	1.633	1.411	0.013	1.341	0.038	33	0.49	0.00	292	3.10	97	1.65	38	0.65	11	0.32	10	12.57	0.66	0.66	0.66	0.66	0.866	0.922	0.489	44.0	41.0	29.0	30.0	9124	43400						
25	7:00	16.2	1.364	1.411	0.024	1.212	0.029	28	0.49	0.00	310	3.29	96	1.63	39	0.73	13	0.42	19	31.88	0.66	0.66	0.66	0.66	0.866	0.922	0.489	42.0	31.0	33.0	45.0	4562	21700						
26	7:00	16.9	1.459	1.379	0.009	1.201	0.046	30	0.49	0.00	294	2.79	105	1.59	38	0.72	15	0.49	12	12.83	0.66	0.66	0.66	0.66	0.866	1.032	0.547	43.0	33.0	45.0	4562	21700							
27	7:00	17.0	1.462	1.212	0.017	1.199	0.049	30	0.49	0.00	310	6.53	108	3.64	40	0.76	18	0.59	16	15.54	0.66	0.66	0.66	0.66	0.866	0.922	0.465	24.0	36.0	29.0	6843	32550							
28	7:00	16.5	1.398	1.254	0.016	1.212	0.042	29	0.49	0.00	298	3.56	95	1.82	37	0.70	22	0.72	12	13.65	0.66	0.66	0.66	0.66	0.866	0.922	0.489	44.0	40.0	34.0	32.0	9124	43400						
29	7:00	17.1	1.421	1.218	0.024	1.181	0.034	29	0.49	0.00	316	3.89	92	1.81	41	0.79	46	1.54	12	16.75	0.66	0.66	0.66	0.66	0.866	0.922	0.465	24.0	36.0	29.0	6843	32550							
30	7:00	18.0	1.512	1.327	0.014	1.279	0.027	31	0.49	0.00	412	4.65	125	2.26	54	0.96	9	2.82	11	19.85	0.66	0.66	0.66	0.66	0.866	0.922	0.465	24.0	36.0	29.0	6843	32550							
31	7:00	20.9	1.765	1.541	0.018	1.535	0.037	36	0.49	0.00	302	2.94	86	1.37	38	0.56	4	0.10	18	23.10	0.66	0.66	0.66	0.66	0.866	1.007	0.554	31.0	31.0	26.0	6843	32550							
Total		572.5	48.110	42.040	0.486	1.930	983.0316	15.19	0	0	10736	120.46	3842	65.25	1269	28.54	643	24.69	526	463.23					1.552	27.477	14.563	705	740	753	718	180.99	857.50						
Ave.		18.5	1.522	1.356	0.016	1.233	0.062	31.7	0.49	0	346	3.89	117	2.10	40.9	0.92	20.7	0.80	17.0	14.94	0.66	0.66	0.66	0.66	0.866	0.922	0.465	24.0	36.0	29.0	6843	32550							
Max		21.6	1.890	1.648	0.024	1.535	0.101	38.6	0.49	0	438	6.53																											

