SUFFOLK COUNTY WATER AUTHORITY

Production Control - Bay Shore, New York

INTER-OFFICE CORRESPONDENCE

DATE: August 22, 2023

TO: Jeffrey Szabo, CEO

FROM: Michael O'Connell, Director of Production Control

Timothy Kilcommons, P.E., Chief Engineer & Dir. of R&D

SUBJECT: Emerging Contaminants Action Plan Monthly Update

The Suffolk County Water Authority has for years proactively addressed emerging contaminants in groundwater such as the perfluorinated compounds PFOA and PFOS and 1,4-dioxane, both through comprehensive testing and the development and implementation of innovative treatment technologies.

The following is the latest monthly update to the Emerging Contaminants Action Plan requested by the SCWA Board to provide the public with up-to-date information about the steps being taken to ensure that SCWA meets or surpasses the rigorous regulations established by New York State to remove these compounds from our groundwater. This update covers the period from July 24, 2023, to date.

PFAS

A new GAC system for Morris Ave #1 (Holtsville) has been delivered. Piping installation will be performed by CM and the well remains in service as the levels are below the MCL.

Currently, there are 2 untreated wells that have PFAS levels above the MCL. These wells are both out of service. Additional GAC systems are on order for these wells and site work continues prior to receiving delivery of these systems and others.

On October 5, 2022, the New York State Department of Health published, in the State Register, its intent to regulate an additional 23 PFAS compounds. The proposed regulation will set Maximum Containment Levels (MCLs) for an additional four (4) PFAS compounds, set a MCL for a combined 6 PFAS compounds and monitoring and public notification requirements for another 19 PFAS compounds. Staff from the Lab, Engineering and Production Control are reviewing the impact that these new regulations will have upon SCWA operations. Many of the wells that have detections of these additional compounds are already on GAC treatment. Many of the new 23 PFC compounds have never been detected. We are already planning on installing treatment at the few sites that do not already have treatment and do not anticipate any difficulties in meeting the MCL when it is proposed to be in effect on 01/01/2025.

On March 14, 2023, the EPA announced its intent to set MCLs for PFOA and PFOS at 4 parts per trillion (PPT). This is significantly less than the current NYS MCL of 10 PPT and would likely supersede it. The EPA also intends to regulate an additional 4 PFAS compounds as a group using a Hazard Index system. The full impact of the lower MCL and the Hazard Index are not completely known at this point and are under review by our Laboratory and Operations staff. It is likely however that more SCWA wells will require treatment systems as a result of these changes.

1,4-dioxane

Work continues to progress on the installation of the seventeen (17) AOP systems in Phase 1 and work continues at Phase 2 sites.

Smith St. East Farmingdale - SCWA submitted final contract plans to NYSDOH for this AOP system in late March 2021. The Health Department approved these plans on June 1, 2021. The Board awarded the contract for this project in September 2021. The contract has been executed and Engineering is reviewing shop drawings for approval. Construction of the GAC building addition for the AOP equipment is underway. The existing generator fuel tank was removed to make way for a new larger generator that can power the well and AOP system. That generator has been delivered. Electrical work for the AOP and new generator is scheduled to begin shortly. Delivery of the AOP reactors to an SCWA site for storage until the building addition is complete has occurred.

Flower Hill Rd (Halesite) – All construction related to the AOP systems at this site is complete. Site inspection by the Health Department for final approval occurred on 06/21/23. SCWA received approval from NYSDOH on July 7, 2023. Well #1 was placed on AOP treatment on 07/11/23. Well #2 was placed on AOP treatment on 07/28/23 and Well #3 went on treatment on 08/03/23. To date the systems are performing as designed.

Hollywood PI (Huntington) - All construction related to the AOP system at this site is complete. Bulk chemical storage piping is nearly complete but for a backordered valve. SCWA received approval to operate from NYSDOH on 8/4/23. Well #1 was placed on AOP treatment on 08/09/23. The system has been performing as designed.

McKay Rd. (Huntington Station) - All construction related to the AOP system at this site is complete. Bulk chemical storage piping is nearly complete but for a backordered valve. SCWA received approval to operate from NYSDOH on 8/4/23. Well #1 was placed on AOP treatment on 08/07/23. The system has been performing as designed.

<u>Waterside Rd. (Northport)</u> - Most of the construction related to the AOP system at this site is complete. Bulk chemical storage is installed. Initial start-up trials and sampling have been completed and final inspection by SCDHS occurred last week. We expect approval to operate this week.

<u>Douglas Ave (Northport)</u> - Demolition of the existing structures next door was completed in June 2021. A new GAC/AOP building over the new GAC vessels and reactors is complete. Bulk chemical storage is installed. Initial start-up trials and sampling have been completed and final inspection by SCDHS occurred last week. We expect approval to operate the Well #1 system this week. The Well #2 system has some more sampling to be completed before final approval is granted.

<u>Falcon Dr. (Hauppauge)</u> – The GAC building addition is complete. The three (3) AOP reactors have been installed. The mechanical contract for installation is in progress and is around 95% complete.

The bulk chemical storage is installed, and piping requires completion. These systems are about 2 weeks from start-up testing.

<u>Broadway (Huntington)</u> – The GAC building addition has been completed and the two (2) AOP reactors have been installed and are being connected. These 2 systems are around one month from start-up work and testing.

Sunken Meadow Park (Kings Park) – The GAC building addition has been completed.

Old Dock Rd (Kings Park) - The new well Old Dock Rd #2 has been drilled and construction has been completed. This well was constructed with the knowledge that it will require an AOP treatment system. It is replacing Carlson Ave #5 and #6 (Kings Park), both of which require AOP but are very old wells and are located on a site that does not have enough room for more treatment systems. A contract for the new AOP/GAC building was awarded at the April 2023 Board meeting. The building contractor has submitted shop drawings for review. Also approved was the AOP reactor for Well #2. A new GAC system for Well #2 has been delivered. CM has completed yard piping tie-ins for the additional GAC.

<u>Lawrence Rd (Kings Park)</u> - CM has completed the installation of piping for three new GAC systems at Lawrence Rd. for future AOP systems at that site and PC has placed two of the three systems in service. A fourth set of GAC vessels was recently delivered. Design for two AOP/GAC buildings is complete and a contract for this work was awarded at the June Board meeting. The contract is being conformed and contract submittals for approval are in progress.

Middleville Rd (Fort Salonga) – Removal of the building over the existing one GAC system is complete and that building was re-installed at the CR 111 pump station in Manorville over an existing outdoor GAC system. A second GAC system for Well #1 has been installed and CM has completed the yard piping installation for both wells and GAC systems. A new AOP/GAC building for both systems is currently being erected. The AOP mechanical contract for the installation of the two AOP systems and peroxide storage was awarded at the April 2023 Board meeting.

Site work continues for future AOP sites and electrical upgrade work where required continues. The GAC/AOP building for Peconic St. (Lakeland) was also awarded at the June Board meeting. That contract is also being conformed and shop drawing submittals have begun.

Emerging Contaminant Wells Current Status

As of this writing, all wells that have PFOA or PFOS above the MCL are either being treated to remove the contaminants or have been removed from service until treatment is installed. Wells that are above ½ of the MCL continue to be blended or have their run time managed to maintain lower levels. Additional GAC systems for these wells continue to be designed and ordered. The current lead time for GAC systems is at least 12 months.

Similar strategies apply to 1,4-dioxane management. Wells that have 1,4-dioxane above the MCL are on treatment, out of service or being blended with other wells so that 1,4-dioxane levels entering distribution are below the MCL. Treatment is either by an AOP system or GAC. Carbon does remove 1,4-dioxane, not well, but it does for a short period of time. This has and will continue to escalate our carbon and labor expenses but this approach ensures that the water entering our system has the lowest possible 1,4-dioxane concentrations while at the same time ensures our ability to meet demand for both domestic and emergency use by our customers.

The Authority has and continues to make constant progress on the completion of Phase 1 of the Emerging Contaminant Action Plan. Site work, foundations and equipment procurement have begun for Phase 2 of the Emerging Contaminant Action Plan. We are now beginning the planning stages for Phase 3 to eventually include all wells that have detections of PFC's and 1,4-dioxane.

SCWA applied for a MCL deferral to the NYSDOH. The application was approved on January 7, 2021. The Authority applied for an additional one-year deferral extension for 1,4-dioxane only in July 2022. The additional year was approved by NYSDOH on August 26, 2022.

Cc: J. Pokorny

T. Schneider

T. Hopkins

PFOA / PFOS

MCL = 10 ppt

						Date Treatment		
			Recent levels	Current		I/S or Blend		Authorization(s)
Zone	Station	Well	(PFOA/PFOS)	Status	Action plan (Planning window = 4 months)	Started	Authorization(s)	Value to Date (\$)
1	Bellmore Ave	1	9.1/8.8	O/S	On GAC. Well screen failed, well being retired and replaced in the future.	4/24/2020	195-20-00-0068	\$ 37,512
1	Church St Hol	1A	12/4.7	I/S	On outdoor GAC - Seasonal	5/7/2019		
1	Church St Hol	2	8.7/4.6	O/S	O/S 11/2/18 - pending additional GAC installation			
					Received DHS approval to treat with resin (ion exchange) in portable GAC system; first			
1	Foxcroft Ln	1A	6.1/33	I/S	approval of resin for PFC's in NY. Outdoors - seasonal	5/30/2019	055-18-00-0019	\$ 165,590
					Blended inside #1A - Seasonal well, #1A seasonal GAC. Last blend was 2.9/5.5. Will			
1	Foxcroft Ln	2	4.8/11	O/S	now remain out of service pending the installation of treatment.	7/18/2019		
1	Gus Guerrera	1	ND/52	I/S	On outdoor GAC - Seasonal	7/27/2016	055-17-00-0016	\$ 182,842
1	Gus Guerrera	2	ND	I/S	Removed from GAC due to decrease in levels 11/2020.	7/11/2017		
1	Meetinghouse Rd	12A	7.5/120	I/S	On GAC	6/10/2016	055-17-00-0015	\$ 788,844
1	Meetinghouse Rd	14	400/1050	O/S	Same as above. Out of service for pump failure	6/10/2016	055-18-00-0015	
1	Meetinghouse Rd	17	350/7170	I/S	Same as above	6/10/2016		
1	Meetinghouse Rd	19	80/760	I/S	Same as above	6/10/2016		
1	Meetinghouse Rd	22	4.8/130	I/S	On GAC	7/27/2016	055-17-00-0013	\$ 29,528
1	Old Country Rd	1A	3.1/6.9	I/S	Was blended. Assigned to GAC 05/05/23	5/5/2023	195-22-00-0056	\$ 516,448
							055-19-00-0020,	
1	Old Country Rd	4	4.2/17	I/S	On outdoor GAC - Seasonal	6/26/2020	195-20-00-0053	\$ 802,282
1	Smith St	8	ND/4.7	I/S	Monitor			
1	Station Rd	1A	5.0/3.9	I/S	On outdoor GAC - Seasonal	3/14/2020	055-19-00-0015	\$ 417,765
1	Station Rd	2A	2.9/3.0	I/S	Runs inside Well #1A when #1A is in service.			
10	Ruth Blvd	2	ND/4.6	I/S	Well assigned to GAC 5/18/21 - Seasonal	5/18/2022	055-21-00-0007	\$ 670,255
10	Ruth Blvd	3	ND/7.7	I/S	Well assigned to GAC "B" 09/08/22 - Seasonal	9/8/2022	055-19-00-0018	\$ 23,057
11	St. Johnsland Rd	1	5.0/3.9	I/S	Monitor - new to list 06/21 (6.1/2.8)			
12	Blue Point Rd	1	5.9/4.1	I/S	On outdoor GAC - Seasonal as of 07/12/2023	7/12/2023	195-22-00-0058	\$ 516,448
12	Blue Point Rd	4A	6.6/3.0	I/S	Monitor - new to list 12/21. New GAC on order		195-23-00-0059	\$ 571,130
12	Carrol St	2	6.4/4.1	I/S	Blended - no further action planned	8/18/2016		
12	Hallock Ave	1	ND/6.5	I/S	Assigned to new seasonal GAC system on 4/27/22.	4/27/2022	195-21-00-0061	\$ 758,862
12	Hallock Ave	2	ND/4.2	I/S	Levels have dropped with Well #1 on GAC, monitor			
12	Hallock Ave	3	2.5/7.4	I/S	Levels drop when Well #1 on GAC is in service, monitor. Locked in Call-2			
12	Horseblock Rd	2	5.6/2.2	I/S	Monitor - new to list 08/21			
12	Hurtin Blvd	3	3.9/3.1	I/S	Engineering for GAC started, GAC ordered			
12	Liberty St	2	10.0/6.1	I/S	Model 10 GAC from Douglas Ave relocated. On GAC treatment 04/22/23.	4/22/2023	195-22-00-0069	\$ 94,827
12	Liberty St	3	8.0/5.3	I/S	With rotations, runs every other day - Locked in Call-3			
12	Lincoln Ave	2	ND/11	I/S	Well I/S and assigned to GAC "B" 03/19/2021.	3/19/2021	195-21-00-0065	\$ 549,854
							195-20-00-0059	
12	Morris Ave	1	5.4/6.8	I/S	Monitor - Decreased since Well #4 went on GAC - GAC delivery 6/22/23		195-23-00-0056	\$ 1,276,586
12	Morris Ave	2A	5.4/3.9	I/S	Monitor - new to list 10/21 -			
12	Morris Ave	4	5.6/23	I/S	On outdoor GAC - Seasonal	6/28/2020	195-20-00-0054	\$ 118,797
12	Nichols Rd	2A	ND/6.5	I/S	Monitor - new to list 08/14/22			
12	Pierson St	1	6.8/7.9	I/S	On Seasonal GAC	5/10/2021	195-21-00-0068	\$ 639,167
12	Pierson St	2	13/11	I/S	On Seasonal GAC	5/26/2021	195-21-00-0068	\$ 639,167

Zone	Station	Well	Recent levels (PFOA/PFOS)	Current Status	Action plan (Planning window = 4 months)	Date Treatment I/S or Blend Started	Authorization(s)		orization(s) to Date (\$)
							195-21-00-0062		
12	Plymouth St	1A	6.8/13	I/S	On Seasonal GAC	4/13/2021	195-23-00-0063	\$	934,044
12	Plymouth St	2A	4.8/9.3	I/S	On Seasonal GAC	4/29/2021	195-21-00-0062	\$	634,044
12	Station Rd	3A	3.5/4.0	I/S	Monitor - Level goes down when #1A is in service in summer. Lowered in call				
							195-20-00-0056,		
12	Sy Ct	3	16/7.3	I/S	On Seasonal GAC	10/28/2020	195-20-00-0061	\$	724,517
12	Townline Rd Nes	1A	9.6/9.9	, -	On GAC	2/10/2020	055-19-00-0014	\$	100,412
12	Wheeler Rd	3	15/21	I/S	Assigned to GAC "A" 03/08/21	3/8/2021	195-21-00-0063	\$	75,433
12	Wheeler Rd	4	ND/ND	I/S	Since Well #3 went on GAC, levels have dropped. Monitor				
12	Wheeler Rd	5	2.7/6.1	I/S	On GAC - Was 18/32, big drop in level at HOP in March '21	9/6/2019	055-19-00-0017	\$	15,888
12	William Floyd Pkwy	3A	2.1/5.0	I/S	Monitor - Level has been below 5.0. Can blend if needed.				
15	Bicycle Path	1	7.6/4.0	I/S	Blended for Mn for many years. Monitor. Last blend was ND/ND				
15	Boyle Rd PJ	2	8.0/4.5	I/S	Blended for nitrates for many years. Last blend was 5.1/3.0. Next round of GACs	7/31/2007	195-23-00-0058	\$	1,004,170
15	Boyle Rd South	1	6.8/4.6	I/S	Monitor				
					Monitor, blended with #4 for chlorides. First time above 1/2 MCL 02/22. Last blend				
15	College Rd	2	4.6/2.0	I/S	ND/ND.	10/27/2016			
15	Crystal Brook Hollw	2	7.5/6.4	I/S	Blended with any other well.	5/15/2023			
15	Crystal Brook Hollw	4	8.4/4.3	I/S	Monitor - new to list 08/21				
15	Daniel Webster Dr	1	4.9/2.6	I/S	Monitor				
15	Edgewood Ave SJ	1A	14/4.7	I/S	New GAC vessels installed in existing building. Assigned to GAC 05/14/21	5/14/2021	195-21-00-0064	\$	579,263
15	Edgewood Ave SJ	2	4.6/3.3	I/S	Monitor. First time PFOA above 1/2 MCL 02/22				
							055-19-00-0021,		
15	Fairmount Medford	3	10/15	I/S	On Seasonal GAC	5/19/2020	195-20-00-0052	\$	609,567
15	Flint Ln	1	3.9/3.0	I/S	On Seasonal GAC	5/28/2021	195-20-00-0057	\$	157,860
15	Flint Ln	2	5.8/5.0	I/S	On Seasonal GAC	5/15/2021	195-20-00-0063	\$	1,051,739
15	Hawkins Rd	3	4.0/4.5	I/S	Continue to monitor				
15	Horseblock Rd	1	7.7/2.8	I/S	Already blended for nitrates. Assigned to GAC "B" on 12/27/21	12/27/2021	195-21-00-0067	\$	724,023
15	Oxhead Rd	1A	5.2/68	I/S	On Seasonal GAC		055-17-00-0014	\$	265,494
15	Oxhead Rd	2A	4.8/6.4	I/S	Blended inside #3. Last blend was 3.5/4.8 GAC on order	5/20/2017	195-23-00-0057	\$	696,679
15	Oxhead Rd	4	2.7/4.1	O/S	Blended inside #1A, Last blend was ND/3.1	7/1/2017			,
			,	,			195-20-00-0058,		
15	Stem Ln	1	4.2/21	I/S	On Seasonal GAC	8/6/2020	195-20-00-0062	\$	672,080
15	Strathmore Ct	1	4.2/2.1	O/S	Well screen failure - will be retired and replaced by #1A in future	2, 2,	195-22-00-0057	\$	500,448
	Strathmore Ct	3	4.1/3.6	I/S	GAC system delivered, yard piping complete. Assigned to GAC 5/6/2023	5/6/2023		T	200,110
15	Wheat Path	1	5.1/2.8	I/S	With rotations, runs every third day - GAC system ordered	3/ 3/ 2020			
15	Wheat Path	3	4.4/3.2	I/S	First time over MCL 03/09/23				
23	Bridgehampton Rd	2A	3/36	I/S	On GAC	10/1/2019			
23	Long Springs Rd	1A	9.2/8.8		On Seasonal GAC		055-19-00-0019	\$	35,490
23	North Magee	3	2/13	O/S	on seasonal arte	4/20/2020	033 13 00 0013	7	33,730
	West Prospect	1	5.2/9.9	I/S	Loaded carbon in existing empty vessel	3/18/2019			
	West Prospect	2A	ND/4.5	I/S	Monitor, seasonal well, runs in last call for Fe	3/10/2013			
	South Fulton	2A 2	5.5/5.9	0/S	Seasonal well				
20	Joden Fulcon		3.3/3.3	0/3			195-20-00-0055,		
			ND/5.7	I/S	On outdoor GAC - Seasonal	8/19/2020	195-20-00-0060		

						Date Treatment			
			Recent levels	Current		I/S or Blend		Autho	rization(s)
Zone	Station	Well	(PFOA/PFOS)	Status	Action plan (Planning window = 4 months)	Started	Authorization(s)	Value 1	to Date (\$)
	•				Total Funds Authorized to date for Emerging Containment Work			ς	40 971 804

Actions typed in RED have occurred in the past 30 days.

Wells highlighted in green are being treated to remove contaminant

1,4 Dioxane

MCL = 1.0 ppb

						Date Treatment			AOP
			Recent levels	Current		I/S or Blend		Authorization(s)	Construction
7	Chatian	VA/~II	HOP		Action plan (Diagram window - 4 months)	Started	A	Value to Date (\$)	Phase
	Station	Well		Status	Action plan (Planning window = 4 months) Blended w/ 4A - Last blend 0.40	8/23/2016	Authorization(s)	value to Date (\$)	Phase
1	Albany Ave	6	0.72	I/S	·	1 .			
1	Barton Ave	2A	2.05	O/S	Blended w/ any other well. Last blend was 0.78. To remain O/S	2/19/2019			
1	Bay Shore Rd	2	0.54	I/S	First sample above 1/2 MCL 10/13/22. Monitor				
1	Bellmore Ave	3	0.60	I/S	On GAC. Last GAC eff was ND, changed 02/9/23				
1	Brook Ave	4	0.60	O/S	O/S for Mn	2 /22 /222			
1	Forty First St	6	0.66	I/S	Blended with Well #5 for operational control. Last blend was 0.23	8/23/2004			
1	Great Neck Rd	1	3.40	O/S	Blended w/ 2 wells was below 1.0. To remain O/S	10/31/2016			
1	Harvest Ln	1A	2.01	O/S	Locked in Call-3. Last blend 0.85. To remain O/S	10/31/2017			
							195-20-00-0068,		
					All work complete. Bulk storage lacks one valve for completion. Using 55-gal drums until		195-21-00-0052,		
5	Hollywood Pl	1	1.08	I/S	complete. AOP system placed in service 08/09/2023.	8/9/2023	195-22-00-0008	\$ 1,097,085	1
5	Mill Lane	13A	0.75	I/S	With rotations, runs every third day. New carbon in April '22				
					Mini-AOP pilot and GAC Bldg expansion complete. Mechanical installation in progress.		195-20-00-0066,		
6	Broadway	1A	2.18	I/S	GAC changed 08/17/2023. Last GAC Eff was ND.		195-21-00-0053	\$ 200,023	1
					Mini-AOP pilot and GAC Bldg expansion complete. Mechanical installation in progress.		195-20-00-0066,		
6	Broadway	2	1.07	I/S	New carbon 7/27/23. Last GAC Effluent - ND.		195-21-00-0053	\$ 200,023	1
							195-20-00-0066,		
6	Broadway	3	0.74	I/S	Monitor; mini-AOP pilot complete; site work, piping has been relocated.		195-21-00-0053	\$ 200,023	2
							195-20-00-0020,		
							195-21-00-0051,		
6	Flowerhill Rd	1	3.57	I/S	All construction complete. AOP system placed in service 07/11/2023	7/11/2023	195-22-00-0007	\$ 618,674	1
				, -		1 .	195-20-00-0020,	,	
							195-21-00-0051,		
6	Flowerhill Rd	2	2.71	I/S	All construction complete. AOP system placed in service 07/28/2023	7/28/2023	195-22-00-0007	\$ 618,674	1
			2.72	.,, 0		1,22,252	195-20-00-0020,	7 323,011	_
							195-21-00-0051,		
6	Flowerhill Rd	3	1.01	I/S	All construction complete. AOP system placed in service 08/03/2023	8/3/2023	195-22-00-0007	\$ 618,674	1
6	Harbor Rd	2A	0.50	I/S	First time a 1/2 MCL 5/24/23	0/0/2023	133 22 00 0007	φ 010,071	-
6	Jennings Rd	1	0.57	I/S	With rotations, runs every other day.				3
6	Jennings Rd	3	0.76	1/S	With rotations, runs every other day				3
6	Mayfair Dr	1	0.78	1/5	With rotations, runs every other day With rotations, runs every other day. Mini AOP pilot complete.				2
6	Mayfair Dr	2	0.48	1/S	With rotations, runs every other day. Mini AOP pilot complete.				2
6	Woodchck Hllw	1A	0.83	1/S	Blended with Wells #2 and #3. Last blend was 0.90.	9/25/2020			2
				· ·	Blended inside Well #3. Last blend was 0.55	8/7/2021			
6	Woodchck Hllw	2	0.38	I/S		8///2021			3
6	Woodchck Hllw	3	0.63	I/S	With rotations, runs every other day. GAC exchanged 08/15/23		105 30 00 0070		3
					All work consider. Bulk stores had one valve for considering this		195-20-00-0070,		
				1.15	All work complete. Bulk storage lacks one valve for completion. Using 55-gal drums until	0/7/2022	195-21-00-0055,	4	
7	McKay Rd	1	1.55	I/S	complete. AOP system placed in service 08/07/2023.	8/7/2023	195-22-00-0009	\$ 1,062,719	1
							195-22-00-0051,		
							195-22-00-0053,		
					Mini AOP pilot, new GAC vessels in service. GAC/AOP building complete. Mechanical		195-21-00-0066,		
					work for AOP install complete. Start up samples complete. SCDHS inspection 08/16/23.		195-22-00-0051,		
9	Douglas Ave	1	4.59	O/S	Waiting for approval	1	195-23-00-0007	\$ 1,739,215	1

						Date Treatment			AOP
			Recent levels	Current		I/S or Blend		Authorization(s)	
Zone	Station	Well	НОР		Action plan (Planning window = 4 months)	Started	Authorization(s)	Value to Date (\$)	Phase
			1101		,	0001100	195-22-00-0051,	14.00 00 14.00 (4)	
							195-22-00-0053,		
					Mini AOP pilot, new GAC vessels in service. GAC/AOP building complete. Mechanical		195-21-00-0066,		
					work for AOP install complete. Start up and sampling in progress. New carbon 05/11/23.		195-22-00-0051,		
9	Douglas Ave	2	2.85	I/S	Last GAC Eff - ND		195-23-00-0007	\$ 1,739,215	1
	2048.407.110	_	2.00	., 0			195-21-00-0059,	ų 1,700,210	_
					Blended - Mini AOP pilot complete; site work project started; new GAC vessels delivered.		195-21-00-0070		
9	Middleville	1	1.05	O/S	Last blend was 1.03. Building construction 75 % complete		195-22-00-0063	\$ 730,573	1
9	Middleville	2	0.76	I/S	Mini AOP pilot complete. Building project 75% complete		195-21-00-0059	\$ 159,693	1
		_	0.70	., 0	The state of the s		195-20-00-0065,	200,000	_
9	Sunken Meadow	1	0.69	I/S	Piping relocated - Mini AOP pilot complete. GAC Bldg expansion complete		195-21-00-0056	\$ 234,602	2
	oumen meadon	_	0.03	., 0			195-20-00-0065,	20.,002	_
9	Sunken Meadow	2	0.62	I/S	Piping relocated - Mini AOP pilot complete. GAC Bldg expansion complete		195-21-00-0056	\$ 234,602	2
	oumen meadon	_	0.02	., 0			195-20-00-0069,	20.,002	_
					All site work and mechanical contruction complete. Start up and sampling complete.		195-21-00-0054,		
9	Waterside Rd	2	0.94	I/S	SCDHS inspection 08/16/23. Waiting for approval.		195-23-00-0009	\$ 1,087,465	1
	Waterside Na	_	0.5 1	1,5	Lock in Call-2. Mini AOP pilot complete; Carbon changed on 12/12/22. Last GAC Effluent -		255 25 55 555	1,007,103	-
9	Wayne Ct	1	0.96	I/S	0.97. Scheduling a GAC exchange				2
10	Church St NPT	1	1.00	I/S	Nitrate Blend w/ Washington - last blend 0.54; mini AOP pilot complete.	7/25/2007			2
10	Church St NPT	2	0.93	1/S	Nitrate Blend w/ Washington - last blend 0.52; mini AOP pilot complete.	8/22/2007			2
10	Charch St Wi	_	0.55	1,5	Nitrate Blend w/ Washington - Elec service upgrade and mini AOP pilot complete. Last	0,22,2007			
10	Reservoir Ave	1A	0.66	I/S	blend - 0.48	1/22/2016	195-21-00-0069	\$ 36,327	3
10	Neservon Ave	17	0.00	1/3	Nitrate Blend w/ Washington - Elec service upgrade and mini AOP pilot complete. Last	1/22/2010	155-21-00-0005	ÿ 30,327	3
10	Reservoir Ave	2	0.55	I/S	blend - 0.39	5/25/2012	195-21-00-0069	\$ 36,327	3
10	Ruth Blvd	1	0.71	1/S	With rotations, runs every other day	3/23/2012	155-21-00-0005	ÿ 30,327	3
10	Ruth Blvd	2	0.71	1/S	First time over 1/2 MCL 10/07/22. Monitor, on GAC				
10	Ruth Blvd	3	0.42	1/S	With rotations, runs every other day - monitor. Now on seasonal GAC w/ Well #1				
10	South Spur	1	1.66	1/S	Blended with Well #3. Last blend was 0.44	6/8/2021			
10	South Spur	2	1.38	0/S	Remain O/S	0/0/2021			
10	South Spur	3	0.70	I/S	Seasonal GAC - monitor				
	Blue Spruce Ln	2A	0.42	I/S	First time above 1/2 MCL 09/22 - monitor				
11	blue Spruce Lii	ZA	0.42	1/3	This time above 1/2 wice 05/22 - monitor		040-20-0009, 040-		
11	Carlson Ave	5	2.16	O/S	 Remain O/S - Retire & replace w/ Old Dock Rd #2; drilling of Old Dock #2 completed		20-00-0010	\$ 598,311	NONE
11	Carison Ave	5	2.10	0/3	Nethral O/3 - Nethre & replace w/ Old Dock Nd #2, drilling of Old Dock #2 completed		040-20-0009, 040-	\$ 590,511	NONE
11	Carlson Ave	6	2 11	O/S	 Remain O/S - Retire & replace w/ Old Dock Rd #2; drilling of Old Dock #2 completed		20-00-0010	\$ 598,311	NONE
11	Carlson Ave	7	3.11 0.88	1/S	On GAC - Carbon changed 09/24/22. Last GAC Eff 0.86		195-21-00-0074	\$ 27,414	2
11	Cornell Dr	2	0.80	1/3 1/S	Rotates Call-1, Call-2 daily, so only runs every other day		193-21-00-0074	\$ 27,414	3
			0.80		Rotates Call-1, Call-2 daily, Blended with Well #1A. Last blend 0.35	9/26/2022			3
	Kings Park Rd Lawrence Rd	2A		I/S	New GAC installed - and I/S	9/20/2022	105 22 00 0061	\$ 516,448	2
11	Lawrence Ru	1A	1.67	I/S	New GAC Installed - and 1/3		195-22-00-0061 195-23-00-0062	\$ 516,448	2
11	Laurence Del	2	2.72	O/C	O/S nanding AOD, Now CASs for AOD delivered and nined			¢ 000 CEE	2
11	Lawrence Rd	3	3.73	O/S	O/S pending AOP. New GACs for AOP delivered and piped.		195-23-00-0055	\$ 900,655	2
44	Lauranas Dd		4.65	1/6	Blended w/ Well #1A or #2A - AOP mini-pilot complete. Assigned to new GAC 06/16/22.	0/17/2020	105 31 00 0000	ć 1400.010	2
11	Lawrence Rd	4	1.65	I/S	Last blend was - 1.4. Carbon exchanged 06/06/23	9/17/2020	195-21-00-0066	\$ 1,188,918	2
	Old Deads Di	_	4.33	1/0	Locked in Call-2, Mini AOP Pilot complete. New AOP/GAC building foundation under		405 22 02 227	ć 00.70:	
11	Old Dock Rd	1	1.20	I/S	construction. New GAC scheduled for 08/22/23. Last GAC Effluent -		195-22-00-0071	\$ 92,781	1
	OLI Desile Di	_	4.40	0 /5	November rankes Carles Ave HE and HC Nove CAC delivered		195-22-00-0059,	ć coo occ	
	Old Dock Rd	2	1.18	O/S	New well to replace Carlson Ave #5 and #6. New GAC delivered.		195-22-00-0071	\$ 609,229	2
	Schuyler Dr	1A	0.54	I/S	First time above 1/2 MCL 11/22. Monitor				
11	Wicks Rd	1	0.61	I/S	With rotations, runs every other day - monitor		l		

					Date Treatment					AOP
			Recent levels	Current		I/S or Blend		Autho	orization(s)	Construction
Zone	Station	Well	НОР	Status	Action plan (Planning window = 4 months)	Started	Authorization(s)	Value	to Date (\$)	Phase
11	Wicks Rd	2	0.42	I/S	First time above 1/2 MCL 07/22 - monitor		, ,			
					Well #2 failed and retired. Replacement Well #2A complete. GAC piping relocated to allow					
12	Commercial Blvd	2A	0.57	I/S	for building expansion. Blended inside Well #3. Last blend was 0.14	6/10/2023	195-21-00-0060	\$	45,583	2
12	Commercial Blvd	3	5.05	I/S	AOP completed	3/1/2018	055-14-00-0016	\$	909,474	IN SERVICE
12	Eastwood Blvd	2A	2.11	O/S	Leave O/S			•	,	
12	Eastwood Blvd	3	0.48	I/S	Monitor. On Seasonal GAC. First time over 1/2 MCL 06/21					
				•	·		195-20-00-0067,			
					Lock in Call-2. Mini AOP Pilot, GAC building expansion complete. GAC Vessels rebuilt.		195-21-00-0057,			
12	Falson Du	1	0.60	L/C			195-23-00-0008	ے ا	F10.CC4	4
12	Falcon Dr	1	0.69	I/S	Mechanical installation of AOP complete. System start up to begin soon.		195-23-00-0008	\$	519,664	1
							195-20-00-0067,			
					Mini AOP Pilot GAC building expansion complete. Mechanical installation of AOP complete.		195-21-00-0057,			
12	Falcon Dr	2A	1.44	O/S	System startup started.		195-23-00-0008	\$	519,664	1
							195-20-00-0067,			
					Mini AOP Pilot GAC building expansion complete. Mechanical installation of AOP complete.		195-21-00-0057,			
12	Falcon Dr	2B	1.53	O/S	System startup started.		195-23-00-0008	\$	519,664	1
12	Lincoln	2	0.51	ı/S	Monitor, throttled to 1,200 gpm and on GAC.				,	
12	Oval Dr	4	0.60	I/S	Monitor, at or below 1/2 MCL					
				, -	Blended. Blend is still over 1.0 Leave O/S. GAC relocated to allow for construction of new					
12	Peconic St	1	2.60	O/S	AOP/GAC building for both wells.	8/15/2016	195-23-00-0061	\$	571,130	2
12	Peconic St	2	0.94	I/S	Limited run time in winter. New GACs for #1 and #2 delivered	-, -, -	195-22-00-0060	Ś	516,448	2
12	Third Ave	3	0.66	ı/S	Blended. Seasonal GAC. Last blend was 0.22. Mini AOP complete	4/1/2019	155 11 55 5555	Ť	520,	2
12	Wheeler Rd	4	0.99	I/S	Monitor - 1st sample over 1/2 MCL 11/23/21. Blended with #3 or #5.	6/16/2023				3
12	Wheeler Rd	6	2.10	ı/S	On GAC. Blend with other wells. Carbon exchanged 7/11/23. Last blend was ND	4/13/2021				3
15	Boyle Rd N	1A	1.21	O/S	Leave O/S	,, ==, ====				
15	Boyle Rd PJ	1	0.52	I/S	Monitor					
15	Boyle Rd PJ	2	0.42	1/S	Nitrate Blend - monitor	7/31/2007				
15	Boyle Rd PJ	3	0.54	1/S	Nitrate Blend - monitor	7/31/2007				
15	College Rd	3	0.67	I/S	Blended w/ #4 - monitor - Last blend was 0.45	10/27/2016				
15	Daniel Webster	2A	0.50	I/S	Blended - monitor. Last blend was 0.49	8/23/2016				
15	Hawkins Rd	2	0.64	I/S	Rotates Call-1, Call-2 daily, so only runs every other day	0,23,2010				
15	Horseblock Rd	1	0.63	I/S	Nitrate Blend - monitor. Last blend was 0.41. Now on GAC	5/12/2013				
15	Jayne Blvd	1	0.51	1/S	Nitrate Blend - monitor. Last blend was 0.33. Now on GAC	6/21/2007				
15	Jayne Blvd	2A	0.99	1/S	Blend with #5 and #1. Seasonal GAC. New carbon 5/15/23. Last blend was 0.46	9/17/2020				2
15	Jayne Blvd	3	1.01	1/S	Blended w/#4 - monitor - Last blend was 0.70. GAC for future AOP being prepared	2/19/2019	195-22-00-0062	\$	516,448	2
15	Kayron Dr	1A	0.44	1/S	First time above 1/2 MCL 11/22. Monitor	2,13,2013	133 22 00 0002	,	310,440	2
15	N Washington	1	0.79	1/S	Short timeclock for winter					3
15	Oxhead Rd	2A	0.75		Blended w/ #3 - monitor - Last blend was 0.59	8/25/2016				,
	Montauk St Blvd	1A	0.73	•	Blended. Seasonal. Level tends to increase with pumping. Last blend was 0.59	4/1/2016				3
	Montauk St Blvd	2	0.83	1/S	Blended. Seasonal. Level increases with pumping	1, 1, 2010				,
60	Gazza Blvd	2	2.99	0/S	Last on / first off. Only supply well in service in the zone. Carbon changed 7/6/23.					
30	CGZZG DIVG	_	2.55	0/3	AOP design approved 12/10/20, Construction contract awarded 09/21; Mini AOP complete.		190-19-00-0004,			
60	Smith St Ef	1	22.30	O/S	AOP equipment arrived. Building addition 50% complete.		195-21-00-0071	\$	1,349,309	1
- 50	Various		22.50	5/3	Electrical Service Upgrades for AOP		195-20-00-0071	\$	562,630	1
	Various				Electrical Service Opgrades for AOP		195-21-00-0058	\$	851,784	
	Bulk Storage, pads				Contract awarded		195-22-00-0054	Ġ	452,905	
	Various				Mini-AOP by-products pilot testing project		195-20-00-0051	\$	220,000	
	various				Total Funds Authorized to date for 1,D related work		1133-20-00-0031			
					Total Fullus Authorized to date for 1,D related WOFK			\$ 2	22,700,685	

						Date Treatment			AOP
			Recent levels	Current		I/S or Blend		Authorization(s)	Construction
Zone	Station	Well	НОР	Status	Action plan (Planning window = 4 months)	Started	Authorization(s)	Value to Date (\$)	Phase

Actions typed in RED have occurred in the past 30 days.

Wells highlighted in green are being treated to remove contaminant