

SUFFOLK COUNTY WATER AUTHORITY

Production Control - Bay Shore, New York

INTER-OFFICE CORRESPONDENCE

DATE: January 20, 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 December 16, 2022, to date.

PFC's

Installation of yard piping by CM at Blue Point Rd. (Holtsville) was completed on October 18, 2022. This system will be placed in service in the Spring of 2023. Concerns continue over the availability of piping to relocate existing lines and connect new systems, but a recent delivery of pipe has allowed work by CM forces to progress. The piping of relocated GAC system for Liberty St #2 (Hauppauge) has been delayed due to the need to replace several worn components on this twenty-year-old system. Shipment of those components from the manufacturer has been received and installation is scheduled to take place in the next few weeks.

Currently, all untreated wells that have PFC levels above the MCL are out of service. Additional GAC systems are on order and site work has begun to receive delivery of these systems.

On October 5, 2022, the New York State Department of Health published, in the State Register, its intent to regulate an additional 23 PFC compounds. The proposed regulation will set Maximum Containment Levels (MCLs) for an additional four (4) PFC compounds, set a MCL for a combined 6 PFC compounds and monitoring and public notification requirements for another 19 PFC compounds. Staff from the Lab, Engineering and Production Control are currently reviewing the impact that these new regulations will have upon SCWA operations. Many of the wells that have detections of these new 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.

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 currently reviewing shop drawings for approval and the contractor has ordered building material. A building conflict has been resolved such that fabrication and release of building components has occurred. The foundation has been released to the contractor for construction and should begin shortly. The existing generator fuel tank has been removed to make way for a new concrete pad for a new larger generator that can power the well and AOP system. Delivery of the AOP reactors is set to take place on January 26, 2023, to an SCWA site for storage until building addition is complete.

Flower Hill Rd (Halesite) – The AOP building addition has been completed. The three AOP reactors were delivered in December 2021. The mechanical contractor has installed all three reactors and piping between the reactors and the GAC systems was completed in late July. The delivery of the bulk chemical storage tank and three day-tanks has taken place. The contractor has installed the fill box and is beginning piping installation. PC has delivered a 55-gallon drum of hydrogen peroxide to the site so that pilot runs of the new systems can be completed. Xylem has had reps on site along with Engineering staff and PC trades to begin start-up by checking power/controls, etc. Pilot runs of the first reactor for Well #1 started on October 16 and have continued to now include Wells #2 and #3 and their reactors. Xylem and SCWA staff continue to work on trial runs to gain a steady-state operation.

Hollywood Pl (Huntington) - The AOP building addition has been completed. The AOP reactor and related mechanical work is complete other than the flow meter. Bulk chemical storage has been delivered and needs to be installed. Start-up of this system will begin after Flower Hill Rd is in service. Xylem has been on site this week doing an initial check of wiring.

McKay Rd. (Huntington Station) - The AOP building addition has been completed. The AOP reactor and related mechanical work is complete other than the flow meter. Bulk chemical storage has been delivered and needs to be installed. Start-up of this system will be concurrent with Hollywood Place after Flower Hill Rd. Xylem has been on site this week doing an initial check of wiring.

Waterside Rd. (Northport) - The AOP building addition has been completed. The AOP reactor has been delivered and the mechanical and electrical contractors continue to work on installation which is now over 90% complete.

Falcon Dr. (Hauppauge) – The AOP building addition has been completed and the three (3) AOP reactors have been delivered. The mechanical contract for installation has been awarded and the contractor has begun the mechanical installation. Currently the large piping is being installed. The bulk storage peroxide tank has been delivered to the site and awaits final installation in the building.

Broadway (Huntington) – The AOP building addition has been completed and the two (2) AOP reactors have been delivered. The mechanical contract for this installation was awarded at the September Board meeting. This contract is now executed, and the submittal phase has started.

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

Douglas Ave (Northport) - Demolition of the existing structures next door was completed in June 2021 and two new GAC systems have been received, piped, and placed in service. A contract was awarded for the construction of a new GAC/AOP building over the new vessels and construction is now complete. The mechanical contractor is currently working on the installation of the AOP system which is now over 90% complete.

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. The building design for Old Dock Rd. to house the GAC and AOP systems is complete, and construction of the GAC pad is complete. A new GAC system for Well #2 has been delivered. CM will begin yard piping tie-ins in the next two weeks.

Lawrence Rd (Kings Park) - CM has completed the installation of piping for two new GAC systems at Lawrence Rd. for future AOP systems at that site and PC has placed one of the two systems in service. Design work continues for the AOP buildings/systems at Lawrence and will include a third set of GAC vessels. The slab for that third set of vessels will be placed in the coming months and the vessels have been ordered (12-month lead time as of this writing).

Middleville Rd (Fort Salonga) – A second set of GACs for future AOP on Well #1 have been delivered to the site. Removal of the GAC building over the existing GAC vessels was completed in the Summer of 2022. The existing building was dismantled and transported to CR111 pump station in Manorville where a new foundation has been installed around an existing outdoor GAC system. The erection of this building is now complete except for punch list items. Electrical work will then be done to bring power to the building. Work on the expansion of the blow off basin at Middleville was completed in November 2022. CM is currently working on the yard piping for the wells and GAC systems. New foundation and equipment concrete slabs are being installed this month.

Design work and contract preparation continues with regards to the mechanical installation, controls, and peroxide delivery systems contracts that will be required to build the AOP systems. Site work continues for future AOP sites and electrical upgrade work where required continues.

The AOP pilot work needed to obtain NYSDOH approval for the use of AOP at any of our sites has been completed. Production Control staff utilizing our mini-AOP reactor pilot trailer completed pilot testing of twenty-nine (29) wells. Analysis of the data obtained to date has revealed no surprises in terms of by-product formation resulting from the AOP process. The Authority received approval from NYSDOH to waive further pilot testing of future AOP installation sites if the background water quality is like those already tested. This is great news and helps free up staff to address higher priority issues.

Another requirement for AOP system design is Water Quality Characterization. This is necessary for every well receiving AOP treatment. It helps identify compounds besides 1,4 dioxane that may be competing for the hydroxyl radicals created during AOP. SCWA entered into an agreement with the University of North Carolina at Charlotte to perform this testing. We have completed characterization

of another 18 wells under this agreement. To date, SCWA has completed characterization of over 36 wells.

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.

Similar strategies apply to 1,4-dioxane management. We continue to blend where we can. As water demand increased with the warmer weather, we had to utilize wells that have 1,4-dioxane levels above the MCL. Wells with levels of 1,4-dioxane over the MCL are programmed in our SCADA system that they are the last wells on and the first wells off. As water demand has now decreased, these wells were again removed from service where possible for the winter months. 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. We are also scheduling and exchanging carbon on all wells that have exceeded the MCL where we have a carbon system in place. Carbon does remove 1,4-dioxane, not well, but it does for a short period of time. Therefore, with new carbon, we can keep the levels as low as possible. This has and will continue to escalate our carbon and labor expenses.

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

Emerging Contaminant Wells Current Status
All Wells > 1/2 MCL

1/20/2023

PFOA / PFOS MCL = 10 ppt

Zone	Station	Well	Recent levels (PFOA/PFOS)	Current Status	Action plan (Planning window = 4 months)	Date Treatment I/S or Blend Started	Authorization(s)	Authorization(s) Value to Date (\$)
1	Bellmore Ave	1	9.1/8.8	I/S	On GAC	4/24/2020	195-20-00-0068	\$ 37,512
1	Church St Hol	1A	12/4.7	O/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			
1	Foxcroft Ln	1A	5.5/21	O/S	Received DHS approval to treat with resin (ion exchange) in portable GAC system; first approval of resin for PFC's in NY. Outdoors - seasonal	5/30/2019	055-18-00-0019	\$ 165,590
1	Foxcroft Ln	2	4.8/11	O/S	Blended inside #1A - Seasonal well, #1A seasonal GAC. Last blend was 2.9/5.5. Will now remain out of service pending the installation of treatment.	7/18/2019		
1	Gus Guerrero	1	2.3/21	O/S	On outdoor GAC - Seasonal	7/27/2016	055-17-00-0016	\$ 182,842
1	Gus Guerrero	2	ND/7.2	O/S	Removed from GAC due to decrease in levels 11/2020. Sample from 11/3/22 showed detection again. May go back on GAC in Spring 2023	7/11/2017		
1	Meetinghouse Rd	12A	16/210	I/S	On GAC	6/10/2016	055-17-00-0015	\$ 788,844
1	Meetinghouse Rd	14	11/57	I/S	Same as above	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	100/490	I/S	Same as above	6/10/2016		
1	Meetinghouse Rd	22	3.2/120	I/S	On GAC	7/27/2016	055-17-00-0013	\$ 29,528
1	Old Country Rd	1A	3.1/6.9	O/S	Blended with #4. Last blend was ND/2.9. GAC system delivered	7/30/2007 6/10/2021	195-22-00-0056	\$ 516,448
1	Old Country Rd	4	4.2/17	O/S	On outdoor GAC - Seasonal	6/26/2020	055-19-00-0020, 195-20-00-0053	\$ 802,282
1	Smith St	8	ND/3.9	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	5.3/3.2	I/S	Runs inside Well #1A when #1A is in service.			
10	Ruth Blvd	2	ND/5.7	O/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	O/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	6.6/3.3	I/S	Blended with any other well. Last blend 4.8/ND. GAC System delivered. CM has completed piping. Will go in service in Spring 2023	10/31/2016	195-22-00-0058	\$ 516,448
12	Blue Point Rd	4A	6.4/2.5	I/S	Monitor - new to list 12/21			
12	Carrol St	2	4.2/3.5	I/S	Blended - no further action planned	8/18/2016		
12	Hallock Ave	1	ND/6.5	O/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/ND	I/S	Levels have dropped with Well #1 on GAC, monitor			
12	Hallock Ave	3	ND/6.7	O/S	Levels have dropped with Well #1 on GAC, monitor			
12	Horseblock Rd	2	4.5/ND	I/S	Monitor - new to list 08/21			
12	Hurtin Blvd	3	5.6/7.3	I/S	Engineering for GAC started			
12	Liberty St	2	10.0/6.1	O/S	First time over MCL 01/17/22. Model 10 GAC from Douglas Ave relocated and currently being piped.	1/17/2022	195-22-00-0069	\$ 94,827
12	Liberty St	3	7.2/4.2	I/S	With rotations, runs every other day - no further action planned			
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
12	Morris Ave	1	4.0/3.3	I/S	Monitor - Decreased since Well #4 went on GAC		195-20-00-0059	\$ 576,048
12	Morris Ave	2A	6.2/3.8	I/S	Monitor - new to list 10/21 - GAC in planning for PFHxS			
12	Morris Ave	4	4.1/16	O/S	On outdoor GAC - Seasonal	6/28/2020	195-20-00-0054	\$ 118,797
12	Nichols Rd	2A	ND/5.1	I/S	Monitor - new to list 08/14/22			

Zone	Station	Well	Recent levels (PFOA/PFOS)	Current Status	Action plan (Planning window = 4 months)	Date Treatment I/S or Blend Started	Authorization(s)	Authorization(s) Value to Date (\$)
12	Pierson St	1	6.8/7.9	O/S	Assigned to new GAC "A" system 5/10/21 - Seasonal	5/10/2021	195-21-00-0068	\$ 639,167
12	Pierson St	2	13/11	O/S	Well assigned to GAC 5/26/21 - Seasonal	5/26/2021	195-21-00-0068	\$ 639,167
12	Plymouth St	1A	6.8/13	O/S	Assigned to new GAC "B" system 4/13/2021 - Seasonal	4/13/2021	195-21-00-0062	\$ 634,044
12	Plymouth St	2A	4.8/9.3	O/S	Assigned to new GAC "A" system 4/29/2021 - Seasonal	4/29/2021	195-21-00-0062	\$ 634,044
12	Station Rd	3A	5.4/3.6	I/S	Monitor - Level goes down when #1A is in service in summer			
12	Sy Ct	3	16/7.3	O/S	On outdoor GAC - Seasonal	10/28/2020	195-20-00-0056, 195-20-00-0061	\$ 724,517
12	Townline Rd Nes	1A	11/7.9	I/S	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	3.1/5.1	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	2.5/5.2	I/S	Monitor - Level has been below 5.0. Can blend if needed.			
15	Bicycle Path	1	8.4/3.1	I/S	Blended for Mn for many years. Monitor. Last blend was 3.2/ND			
15	Boyle Rd PJ	2	6.0/3.7	I/S	Blended for nitrates for many years. Last blend was 3.6/2.5. Next round of GACs	7/31/2007		
15	Boyle Rd South	1	5.9/3.9	I/S	Monitor			
15	College Rd	2	5.5/ND	I/S	Monitor, blended with #4 for chlorides. First time above 1/2 MCL 02/22. Last blend 3.8/ND.	10/27/2016		
15	Crystal Brook Hollw	4	5.8/5.7	I/S	Monitor - new to list 08/21			
15	Daniel Webster Dr	1	5.6/3.8	I/S	Monitor			
15	Edgewood Ave SJ	1A	16/4.6	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	2.1/ND	I/S	Monitor. First time PFOA above 1/2 MCL 02/22			
15	Fairmount Medford	3	10/15	O/S	On outdoor GAC - Seasonal	5/19/2020	055-19-00-0021, 195-20-00-0052	\$ 609,567
15	Flint Ln	1	3.9/3.0	O/S	Assigned to new GAC "B" 05/28/21 - Seasonal	5/28/2021	195-20-00-0057	\$ 157,860
15	Flint Ln	2	5.8/5.0	O/S	Assigned to new GAC "B" 05/15/21 - Seasonal	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	O/S	On outdoor GAC - Seasonal	6/7/2017	055-17-00-0014	\$ 265,494
15	Oxhead Rd	2A	4.1/4.3	O/S	Blended inside #3. Last blend was 4.4/7.1	5/20/2017		
15	Oxhead Rd	4	2.7/4.1	O/S	Blended inside #1A, Last blend was ND/3.1	7/1/2017		
15	Stem Ln	1	4.2/21	O/S	On outdoor GAC - Seasonal	8/6/2020	195-20-00-0058, 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		195-22-00-0057	\$ 500,448
15	Strathmore Ct	3	6.1/2.9	I/S	With rotations, runs every third day - GAC system delivered			
15	Wheat Path	1	7.1/3.2	I/S	With rotations, runs every third day - no further action planned			
23	Bridgehampton Rd	2A	3/36	I/S	On GAC	10/1/2019		
23	Long Springs Rd	1A	9.2/8.8	O/S	On outdoor GAC - Seasonal	4/20/2020	055-19-00-0019	\$ 35,490
23	North Magee	3	2/13	O/S				
23	West Prospect	1	5.2/9.9	I/S	Loaded carbon in existing empty vessel	3/18/2019		
23	West Prospect	2A	ND/4.5	O/S	Monitor, seasonal well, runs in last call for Fe			
26	South Fulton	2	5.5/5.9	O/S	Seasonal well			
32	County Rd 31	1	ND/7.1	O/S	On outdoor GAC - Seasonal	8/19/2020	195-20-00-0055, 195-20-00-0060	\$ 691,008

Total Funds Authorized to date for PFAS related work

\$ 14,998,602

Zone	Station	Well	Recent levels (PFOA/PFOS)	Current Status	Action plan (Planning window = 4 months)	Date Treatment I/S or Blend Started	Authorization(s)	Authorization(s) Value to Date (\$)
Total Funds Authorized to date for Emerging Containment Work								\$ 36,227,502

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

Wells highlighted in green are being treated to remove contaminant

Emerging Contaminant Wells Current Status
All Wells > 1/2 MCL

1/20/2023

1,4 Dioxane MCL = 1.0 ppb

Zone	Station	Well	Recent levels HOP	Current Status	Action plan (Planning window = 4 months)	Date Treatment I/S or Blend Started	Authorization(s)	Authorization(s) Value to Date (\$)	AOP Construction Phase
1	Albany Ave	6	0.79	O/S	Blended w/ 4A - Last blend 0.49	8/23/2016			
1	Barton Ave	2A	2.05	O/S	Blended w/ any other well. Last blend was 0.78	2/19/2019			
1	Bay Shore Rd	2	0.55	I/S	First sample above 1/2 MCL 10/13/22. Monitor				
1	Bellmore Ave	3	0.68	O/S	On GAC. Last GAC eff was 0.53				
1	Brook Ave	4	0.60	O/S	O/S for Mn				
1	Forty First St	6	0.82	I/S	Blended with Well #5 for operational control. Last blend was 0.32	8/23/2004			
1	Great Neck Rd	1	3.40	O/S	2 well blend was below 1.0. Blended	10/31/2016			
1	Harvest Ln	1A	2.01	O/S	Locked in Call-3. Last blend 0.85	10/31/2017			
5	Hollywood Pl	1	1.08	I/S	Lock in Call-2 to minimize run time. Mini AOP pilot, GAC Bldg Addition complete.		195-20-00-0068,		
5	Mill Lane	13A	0.78	I/S	Mechanical install of AOP equipment in progress. Carbon changed 10/27/22. Last GAC Effluent - ND		195-21-00-0052,	\$ 1,097,085	1
					With rotations, runs every third day. New carbon in April '22		195-22-00-0008		
6	Broadway	1A	2.16	I/S	Mini-AOP pilot complete. GAC Bldg expansion complete. Blended with Well #2 and #3.		195-20-00-0066,	\$ 200,023	1
6	Broadway	2	0.86	I/S	Last blend was 1.50		195-21-00-0053	\$ 200,023	1
6	Broadway	3	0.79	I/S	Mini-AOP pilot complete. GAC Bldg expansion complete. New carbon 11/09/21. Last GAC Effluent - 0.95		195-20-00-0066,	\$ 200,023	2
					Monitor; mini-AOP pilot complete; site work, piping has been relocated.		195-21-00-0053		
6	Flowerhill Rd	1	3.30	O/S	Runs blended with two other wells, last on - first off. Mini AOP pilot, electric upgrade, GAC Bldg expansion complete. Mechanical install complete. Start-up of AOP system began September 12. Trials and sampling for approval began 10/16/22		195-20-00-0020,	\$ 618,674	1
6	Flowerhill Rd	2	2.53	I/S	New carbon 05/24/22. Last GAC Eff - 2.35. Mini AOP pilot, electric upgrade, GAC building expansion complete. Mechanical install complete		195-21-00-0051,	\$ 618,674	1
6	Flowerhill Rd	3	1.49	I/S	New carbon 10/20/22. Last GAC Effluent - ND. Mini AOP pilot, electric upgrade, GAC building expansion complete. Mechanical install complete		195-20-00-0020,	\$ 618,674	1
6	Jennings Rd	1	0.54	I/S	With rotations, runs every other day.		195-21-00-0007		3
6	Jennings Rd	3	0.73	I/S	With rotations, runs every other day		195-22-00-0007		3
6	Mayfair Dr	1	0.48	O/S	With rotations, runs every other day. Mini AOP pilot complete. O/S for pump failure				2
6	Mayfair Dr	2	1.12	I/S	With rotations, runs every other day. Mini AOP pilot complete.				2
6	Woodchck Hillw	1A	0.97	O/S	Blended with Wells #2 and #3. Last blend was 0.79	9/25/2020			2
6	Woodchck Hillw	2	0.66	I/S	Blended inside Well #3. Last blend was 0.78	8/7/2021			3
6	Woodchck Hillw	3	0.85	I/S	With rotations, runs every other day				3
7	McKay Rd	1	1.16	I/S	Mini AOP pilot, GAC vessel rehab, GAC building expansion complete. Mechanical and electrical work to install AOP reactor in progress. New carbon 11/03/22. Last eff ND		195-20-00-0070,	\$ 1,062,719	1
							195-21-00-0055,		
9	Douglas Ave	1	4.59	O/S	Mini AOP pilot, new GAC vessels in service. GAC/AOP building complete. Mechanical work for AOP install in progress.		195-22-00-0051,	\$ 1,739,215	1
							195-22-00-0053,		
							195-21-00-0066,		
							195-22-00-0051,		
							195-23-00-0007		

Zone	Station	Well	Recent levels HOP	Current Status	Action plan (Planning window = 4 months)	Date Treatment I/S or Blend Started	Authorization(s)	Authorization(s) Value to Date (\$)	AOP Construction Phase
9	Douglas Ave	2	1.22	O/S	Mini AOP pilot, new GAC vessels in service. GAC/AOP building complete. Mechanical work for AOP install in progress.		195-22-00-0051, 195-22-00-0053, 195-21-00-0066, 195-22-00-0051, 195-23-00-0007, 195-21-00-0059, 195-21-00-0070	\$ 1,739,215	1
9	Middleville	1	1.05	O/S	Blended - Mini AOP pilot complete; site work project started; new GAC vessels delivered. Last blend was 1.03. Building project started		195-22-00-0063	\$ 730,573	1
9	Middleville	2	0.92	O/S	Mini AOP pilot complete. O/S to move GAC and repipe for AOP on both wells		195-21-00-0059	\$ 159,693	1
9	Sunken Meadow	1	0.66	I/S	Piping relocated - Mini AOP pilot complete. GAC Bldg expansion complete		195-20-00-0065, 195-21-00-0056	\$ 234,602	2
9	Sunken Meadow	2	0.55	I/S	Piping relocated - Mini AOP pilot complete. GAC Bldg expansion complete		195-20-00-0065, 195-21-00-0056, 195-20-00-0069, 195-21-00-0054, 195-23-00-0009	\$ 234,602	2
9	Waterside Rd	2	1.07	I/S	Mini AOP pilot, blow-off basin, GAC Bldg expansion complete. Mechanical installation in progress. Carbon changed 11/01/22 - Last Eff sample was ND.			\$ 1,087,465	1
9	Wayne Ct	1	0.91	I/S	Lock in Call-2. Mini AOP pilot complete; Carbon changed on 12/12/22. Last GAC Effluent - ND.				2
10	Church St NPT	1	1.10	I/S	Nitrate Blend w/ Washington - last blend 0.65; mini AOP pilot complete	7/25/2007			2
10	Church St NPT	2	1.17	I/S	Nitrate Blend w/ Washington - last blend 0.65; mini AOP pilot complete.	8/22/2007			2
10	Reservoir Ave	1A	0.82	I/S	Nitrate Blend w/ Washington - Elec service upgrade and mini AOP pilot complete. Last blend - 0.60	1/22/2016	195-21-00-0069	\$ 36,327	3
10	Reservoir Ave	2	0.78	I/S	Nitrate Blend w/ Washington - Elec service upgrade and mini AOP pilot complete. Last blend - 0.57	5/25/2012	195-21-00-0069	\$ 36,327	3
10	Ruth Blvd	1	0.68	O/S	With rotations, runs every other day				
10	Ruth Blvd	2	0.52	O/S	First time over 1/2 MCL 10/07/22. Monitor, on GAC				
10	Ruth Blvd	3	0.59	O/S	With rotations, runs every other day - monitor. Now on seasonal GAC w/ Well #1				
10	South Spur	1	1.15	O/S	Blended with Well #3.	6/8/2021			
10	South Spur	2	1.38	O/S	Remain O/S - Try to blend if we need more supply				
10	South Spur	3	0.70	O/S	Seasonal GAC - monitor				
11	Blue Spruce Ln	2A	0.51	I/S	First time above 1/2 MCL 09/22 - monitor				
11	Carlson Ave	5	2.16	O/S	Remain O/S - Retire & replace w/ Old Dock Rd #2; drilling of Old Dock #2 completed		040-20-0009, 040-20-00-0010	\$ 598,311	NONE
11	Carlson Ave	6	3.11	O/S	Remain O/S - Retire & replace w/ Old Dock Rd #2; drilling of Old Dock #2 completed		040-20-0009, 040-20-00-0010	\$ 598,311	NONE
11	Carlson Ave	7	1.15	I/S	On GAC - Carbon changed 09/24/22		195-21-00-0074	\$ 27,414	2
11	Cornell Dr	2	0.88	I/S	Rotates Call-1, Call-2 daily, so only runs every other day				3
11	Kings Park Rd	2A	0.97	I/S	Rotates Call-1, Call-2 daily, Blended with Well #1A. Last blend 0.59	9/26/2022			
11	Lawrence Rd	1A	1.05	I/S	With rotations, runs every other day - monitor. New GAC delivered		195-22-00-0061	\$ 516,448	2
11	Lawrence Rd	3	3.73	O/S	O/S pending AOP. New GACs for AOP delivered and piped. Blended w/ Well #1A or #2A - AOP mini-pilot complete. Assigned to new GAC 06/16/22.				2
11	Lawrence Rd	4	1.65	O/S	Last blend was - .79.	9/17/2020	195-21-00-0066	\$ 1,188,918	2
11	Old Dock Rd	1	1.39	I/S	Locked in Call-2, Mini AOP Pilot complete. New AOP/GAC building foundation under construction. New GAC 11/25/22. Last GAC Effluent - ND		195-22-00-0071, 195-22-00-0059, 195-22-00-0071	\$ 92,781	1
11	Old Dock Rd	2	1.18	O/S	New well to replace Carlson Ave #5 and #6. New GAC delivered.			\$ 609,229	2
11	Schuyler Dr	1A	0.54	I/S	First time above 1/2 MCL 11/22. Monitor				
11	Wicks Rd	1	0.81	I/S	With rotations, runs every other day - monitor				

Zone	Station	Well	Recent levels HOP	Current Status	Action plan (Planning window = 4 months)	Date Treatment I/S or Blend Started	Authorization(s) Authorization(s)	Authorization(s) Value to Date (\$)	AOP Construction Phase
11	Wicks Rd	2	0.44	I/S	First time above 1/2 MCL 07/22 - monitor				
12	Commercial Blvd	2	1.13	O/S	Well failed and retired, drilling of Well #2A complete, well building under construction. GAC piping relocated to allow for building expansion		195-21-00-0060	\$ 45,583	2
12	Commercial Blvd	3	4.16	I/S	AOP completed - Station Treated sample is Negative	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	0.50	O/S	Monitor. On Seasonal GAC. First time over 1/2 MCL 06/21				
12	Falcon Dr	1	0.82	I/S	Lock in Call-2. Mini AOP Pilot complete, piping relocated; GAC building expansion complete. GAC Vessels rebuilt. Mechanical contract for reactor install awarded.		195-20-00-0067, 195-21-00-0057, 195-23-00-0008	\$ 519,664	1
12	Falcon Dr	2A	1.44	O/S	Throttled to 500 gpm, Blended w/ #1. , Mini AOP Pilot complete, piping relocated, GAC building expansion complete. Mechanical contract for reactor install awarded.		195-20-00-0067, 195-21-00-0057, 195-23-00-0008	\$ 519,664	1
12	Falcon Dr	2B	1.53	O/S	Blended with Well #1. Mini AOP pilot complete, piping relocated, GAC building expansion complete. Mechanical contract for reactor install awarded.		195-20-00-0067, 195-21-00-0057, 195-23-00-0008	\$ 519,664	1
12	Lincoln	2	0.54	I/S	Monitor, throttled to 1,200 gpm and on GAC.				
12	Oval Dr	4	0.71	I/S	Monitor, at or below 1/2 MCL				
12	Peconic St	1	2.60	O/S	Blended. Blend is still over 1.0 Leave O/S. GAC relocated to allow for construction of new AOP/GAC building for both wells.	8/15/2016			2
12	Peconic St	2	1.22	I/S	Limited run time in winter. New GACs for #1 and #2 delivered		195-22-00-0060	\$ 516,448	2
12	Third Ave	3	1.02	O/S	Blended. Seasonal GAC. Last blend was 0.37. Mini AOP complete	4/1/2019			2
12	Wheeler Rd	4	0.94	I/S	Monitor - 1st sample over 1/2 MCL 11/23/21				3
12	Wheeler Rd	6	1.91	O/S	On GAC. Blend with any other well. Last blend was 0.56	4/13/2021			3
15	Boyle Rd N	1A	1.21	O/S	Leave O/S				
15	Boyle Rd PJ	1	0.70	I/S	Monitor				
15	Boyle Rd PJ	2	0.52	I/S	Nitrate Blend - monitor	7/31/2007			
15	Boyle Rd PJ	3	0.70	I/S	Nitrate Blend - monitor	7/31/2007			
15	College Rd	3	0.69	I/S	Blended w/ #4 - monitor - Last blend was ND	10/27/2016			
15	Daniel Webster	2A	0.50	O/S	Blended - monitor. Last blend was 0.23	8/23/2016			
15	Hawkins Rd	2	0.77	I/S	Rotates Call-1, Call-2 daily, so only runs every other day				
15	Horseblock Rd	1	0.73	I/S	Nitrate Blend - monitor. Last blend was 0.41. Now on GAC	5/12/2013			
15	Jayne Blvd	1	0.66	I/S	Nitrate Blend - monitor. Last blend was 0.41. Now on GAC	6/21/2007			
15	Jayne Blvd	2A	1.07	O/S	Blend with #5 and #1. Seasonal GAC. Last blend 0.71	9/17/2020			2
15	Jayne Blvd	3	1.01	O/S	Blended w/#4 - monitor - Last blend was 0.70. GAC for future AOP being piped up	2/19/2019	195-22-00-0062	\$ 516,448	2
15	Kayron Dr	1A	0.55	I/S	First time above 1/2 MCL 11/22. Monitor				
15	N Washington	1	0.75	I/S	Short timeclock for winter				3
15	Oxhead Rd	2A	0.95	O/S	Blended w/ #3 - monitor - Last blend was 0.71	8/25/2016			
26	Montauk St Blvd	1A	1.11	O/S	Blended. Seasonal. Level tends to increase with pumping. Last blend was 0.93	4/1/2016			3
26	Montauk St Blvd	2	0.72	O/S	Blended. Seasonal. Level increases with pumping				
60	Gazza Blvd	2	2.69	O/S	Last on / first off. Only supply well in service in the zone. AOP design approved 12/10/20, Construction contract awarded 09/21; Mini AOP complete.		190-19-00-0004, 195-21-00-0071	\$ 1,349,309	1
60	Smith St Ef	1	22.30	O/S	Reviewing submittals and material on order				
	Various				Electrical Service Upgrades for AOP		195-20-00-0072	\$ 562,630	
	Various				Electrical Service Upgrades for AOP		195-21-00-0058	\$ 851,784	
	Bulk Storage, pads				Contract awarded		195-22-00-0054	\$ 452,905	
	Various				Mini-AOP by-products pilot testing project		195-20-00-0051	\$ 220,000	
Total Funds Authorized to date for 1,D related work								\$ 21,228,900	

Zone	Station	Well	Recent levels HOP	Current Status	Action plan (Planning window = 4 months)	Date Treatment I/S or Blend Started	Authorization(s)	Authorization(s) Value to Date (\$)	AOP Construction Phase
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Actions typed in RED have occurred in the past 30 days.

Wells highlighted in green are being treated to remove contaminant