

SUFFOLK COUNTY WATER AUTHORITY
Production Control - Bay Shore, New York

INTER-OFFICE CORRESPONDENCE

DATE: June 18, 2020
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

Pursuant to the Board's request, the following is an update to the Emerging Contaminants Action Plan covering from May 16, 2020 to date.

PFC's

Since the last update, one additional well has been placed on GAC for PFC removal. Fairmont Ave #3 in Medford was assigned to GAC in May, 2020. In addition, carbon has been loaded in the GAC system at Morris Ave (Farmingville) for Well #4 and should be in service the week of June 22.

Regarding new GAC installations, site prep and commissioning of new systems continues to take place at multiple sites. The systems for Old Country Rd (Speonk) and County Rd 31 (Westhampton) have been installed and piped by Construction Maintenance crews. Production Control has ordered a carbon delivery for Old Country Rd and we will begin the start-up procedure for County Rd 31 the week of June 22. The new system for Stem Lane (Stony Brook) is currently being piped by Construction Maintenance. In addition, one new GAC system has been delivered for Sy Court (Lake Grove), and two new systems delivered for Flint Lane (Selden). Another system is scheduled to be delivered at Middleville Rd (Fort Salonga) by the end of June.

A new contract for an additional 12 GAC systems was approved at the April Board Meeting and conformed on June 18th. Purchase orders will be issued for those systems the week of June 22.

1,4 Dioxane

The resubmittal of the Smith St AOP system has now taken place with all contract documents and drawings sent to both the County and State DHS. It is expected that this will be the final submission to these agencies and that once approved, we will be ready to solicit bids for this project.

Clearing and site work continued for future AOP sites including at Waterside Avenue where after clearing, a new blow off basin was constructed. The Huntington CM office is currently piping that basin. CM crews continue to relocate piping on multiple AOP sites to make room to accommodate the GAC building additions required to house new AOP systems.

A contract has been awarded for AOP building additions at 7 locations: Hollywood Pl, McKay Rd, Waterside Dr, Sunken meadow Park, Broadway, Falcon Dr, and Flower Hill Rd. These additions will house 13 AOP systems. The award was made at the May 2020 Board meeting and work will commence when the contracts are executed. Design drawings and specs continue to be prepared for future AOP sites.

The AOP pilot work needed in order to obtain NYSDOH approval for the use of AOP at any of our sites continues. Production control staff utilizing our mini-AOP reactor pilot trailer have completed pilot testing for three wells at Flower Hill Rd and three wells at Broadway Pump Station. The trailer is being moved to McKay Rd in Huntington Station and the testing of that well will be done during the week of June 22. Outside laboratory results for these trials are expected to begin coming in shortly.

Emerging Contaminant Wells Current Status

We are currently doing our best to comply with the proposed MCLs now while making sure that we do not compromise public safety and fire protection. Several wells that were removed from service last fall have been returned to service due to increased water demand. These wells were placed in lower call service to minimize their run time.

Wells that need to be piloted for AOP design are being run more just prior to piloting to normalize their water chemistry. When wells are not run, the chemistry may change. 1,4 Dioxane and other constituents may be higher or lower than typical. Therefore, the well to be piloted must be run until the water quality is what we typically see. Once piloting on a well is complete, the well will be placed in a lower call setting to minimize it's run time and will come out of service as soon as demand reduces to the point that we can afford to have it out of service.

Cc: J. Pokorny
K. Durk

Well	Current Status	GAC Systems					Est. delivery date	Actual delivery date	Carbon loaded	In Service
		Clearing	Pad	Yard Piping	GAC Ordered					
Fairmount Medford #3	Well assigned to GAC 5/19/20. Restoration work remains.	Done	Done	Done	Moving existing from Oxhead #4 week of 1/20/19; diverted ordered system to Morris	1/20/20 or 1/21/20	Done	Yes	Yes	
Old Country Rd #4	Carbon load scheduled	Done	Done	Done	Yes		3/20/2020			
Morris Ave #4	Carbon Loaded, waiting on samples	Done	Done	Done	Delivery scheduled 3/15/20 (new system was diverted from Fairmount #3)	Apr-20	3/19/2020	6/16/2020		
Station Rd #1A	Well assigned to GAC 3/16/20. Restoration work remains.	Done	Done	Done	Relocated from Old Nichols Rd	N/A	N/A	Yes	Yes	
County Rd 31 #1	CM currently piping	Done	Done	Done	Yes		Jun-20	5/28/2020		
Flint Ln #1	GAC delivered 6/18/20	Done	Done	dwgs issued to CM; tie-ins done	Yes		Jun-20	6/18/2020		
Plymouth St #1A		0								
Old Country Rd #1A	Blended, Pad complete	Done	Done	tie-ins complete; dwgs to be issued wk of 3/2						
Stem Ln #1	CM piping in progress	Done	Done	CM in progress	Yes	20-Jun	5/29/2020			
Sy Ct #3	GAC delivered 06/02/20	Done	Done	Tie-ins done	Yes	Jun-20	6/2/2020			
Plymouth St #2A		0								
Brook Ave #4	O/S									
Dare Rd #2	Pad exists									
Lincoln Ave #2	Pad for Model 10 exists, capacity?									
Oxhead Rd #4	Pad exists for Model 12, Blended	Done	Done		relocated to Fairmount					
Wheeler Rd #3	Pad and Bldg for Model 10 exists - O/S 8/2019	Done	Done	some mods needed						
Morris Ave #1	Current level Non-detect, monitor	Done	Done	tie-ins done	will relocate ordered system to Middleville #2 AOP					
Hawkins Rd #3		0								
Church St Hol #2	O/S									
Stem Ln #2		0	Done	Done	Tie-ins done					
Edgewood Ave SJ #1A	Blended									
Flint Ln #2	GAC delivered 6/18/20	Done	Done	Tie-ins done	Yes	20-Jun	6/18/2020			
North Magee #3	O/S									
Boyle Rd PJ #2	Blended									
Hallock Ave #3	Current level <1/2 MCL									
Foxcroft La #2	Blended inside Well #1A									

Annual Total (K\$)

Foxcroft La #1A	Received DHS approval to treat with resin (ion exchange) in portable GAC system; first approval of resin for PFC's in NY. Went into service 5/30/19.	Done	Trailer	Done	Portable Trailer	N/A	N/A	Resin loaded	Yes
-----------------	--	------	---------	------	------------------	-----	-----	--------------	-----

Short Term Plan

Well	Current Status	GAC Systems					Est. delivery date	Actual delivery date	Carbon loaded	In Service
		Clearing	Pad	Yard Piping	GAC Ordered					
Pierston St #1	GAC (Model 10) on Site and piped, site access issue to load carbon; cost is carbon load	N/A	N/A	N/A	N/A	N/A	N/A			
Eastwood Blvd #3	Complete 5/6/2019	Done	Done	Done	Done	N/A	N/A	Yes	Yes	
West Prospect #1	Complete 3/18/2019	Done	Done	Done	Done	N/A	N/A	Yes	Yes	
Bridgehampton Rd #2A	Complete 10/01/2019	Done	Done	Done	Done	N/A	N/A	Yes	Yes	
Wheeler Rd #5	Complete - Assigned to GAC "A" 09/06/2019	Done	Done	Done	Done	N/A	N/A	Yes	Yes	
Townline Rd #1A	Complete	Done	Done	Done	Done	N/A	N/A	Yes	Yes	
Church St Hol #1A	Complete 5/7/2019	Done	Done	Done	Done	N/A	N/A	Yes	Yes	
Bellmore Ave #1	Complete 4/24/2020	Done	Done	Done	Model 10 Moved from Old Nichols Rd	N/A	Jan-20	Yes	Yes	
Long Springs Rd #1A	Complete 04/20/2020	Done	Done	Done	Done	N/A	N/A	Yes	Yes	
Pierston St #2	can be blended with #1 after #1 is on GAC; long-term could require another GAC @ \$600K	N/A	N/A	N/A	N/A	N/A	N/A	will be blended		
Ruth Blvd #3	only piping req'd, Well is currently Non Detect	N/A	N/A	Done	N/A	N/A	N/A	Yes		
Race Ave #1	O/S	Expected to remain out of service								

Emerging Contaminant Wells Current Status
All Wells > 1/2 Proposed MCL W/ No Treatment

6/18/2020

1,4 D Proposed MCL = 1.0 ppb

Zone	Station	Well	Recent levels	Current Status	Action planned (Planning window = 4 months)
1	Albany Ave	6	0.7	I/S	Blended since 8/23/16 - No further action planned
1	Barton Ave	2A	1.79	O/S	Remain O/S
1	Brook Ave	4	0.6	O/S	O/S for Mn - No further action planned
1	Great Neck Rd	1	3.36	O/S	2 well blend was below 1.0. If needed, blend with #3 and #4
1	Harvest Ln	1A	1.52	I/S	Blended since 10/31/17 - No further action planned
5	Hollywood Pl	1	1.29	I/S	Lock in Call-2 to minimize run time. One of two well fields in Zone
6	Broadway	1A	1.73	I/S	2 well blend was still over 1.0, Last call; mini-AOP pilot complete
6	Broadway	2	0.78	I/S	No further action planned; mini-AOP pilot complete
6	Broadway	3	0.79	I/S	No further action planned; mini-AOP pilot complete
6	Flowerhill Rd	1	2.82	I/S	Runs blended with two other wells, last on - first off. Mini AOP pilot complete
6	Flowerhill Rd	2	1.71	I/S	With rotations, runs every other day - no further action planned. mini AOP pilot complete
6	Flowerhill Rd	3	0.82	I/S	No further action planned; mini AOP pilot complete
6	Jennings Rd	1	0.77	I/S	With rotations, runs every other day - no further action planned
6	Jennings Rd	3	0.59	I/S	With rotations, runs every other day - no further action planned
6	Mayfair Dr	1	0.56	I/S	With rotations, runs every other day - no further action planned
6	Mayfair Dr	2	0.85	I/S	With rotations, runs every other day - no further action planned
6	Woodchck Hllw	1A	0.62	I/S	With rotations, runs every other day - no further action planned
7	McKay Rd	1	1.68	I/S	Minimal run time - pilot testing to start June 22
9	Douglas Ave	1	2.73	O/S	Remain O/S. Return to service in next 2 weeks for piloting
9	Douglas Ave	2	1.20	I/S	No further action planned
9	Middleville	1	1.24	I/S	Blend is just over 1.0 (1.07). Could throttle #1 and get 500 gpm
9	Middleville	2	0.80	I/S	No further action planned
9	Sunken Meadow	1	1.04	I/S	Blended, no further action planned
9	Sunken Meadow	2	0.77	I/S	Lead with
9	Waterside Rd	2	1.08	O/S	Remain O/S. Return to service in next 2 weeks for piloting
9	Wayne Ct	1	1.02	I/S	Lock in Call-2
10	Church St NPT	1	1.20	Blended	Nitrate Blend w/ Washington since 7/25/07 - No further action planned
10	Church St NPT	2	1.09	Blended	Nitrate Blend w/ Washington since 8/22/07 - No further action planned
10	Reservoir Ave	1A	0.76	Blended	Nitrate Blend w/ Washington since 1/22/16 - No further action planned
10	Reservoir Ave	2	0.62	Blended	Nitrate Blend w/ Washington since 5/25/12 - No further action planned
10	Ruth Blvd	1	0.63	I/S	With rotations, runs every other day - no further action planned
10	Ruth Blvd	3	0.65	I/S	With rotations, runs every other day - no further action planned
10	South Spur	1	0.71	I/S	Rotates with Well #3 - no further action planned
10	South Spur	2	1.38	O/S	Remain O/S - Try to blend if we need more supply
10	South Spur	3	0.62	I/S	Seasonal GAC - no further action planned
11	Carlson Ave	5	2.16	O/S	Remain O/S - Long term, retire and replace w/ Old Dock Rd #2
11	Carlson Ave	6	3.11	O/S	Remain O/S - Long term, retire and replace w/ Old Dock Rd #2
11	Cornell Dr	2	0.92	I/S	Rotates Call-1, Call-2 daily, so only runs every other day
11	Kings Park Rd	2A	0.52	I/S	Rotates Call-1, Call-2 daily, so only runs every other day
11	Lawrence Rd	1A	0.94	I/S	With rotations, runs every other day - no further action planned
11	Lawrence Rd	3	3.73	O/S	Remain O/S - 3 well blend was over 1.0
11	Lawrence Rd	4	1.27	I/S	Blended w/ Well #1A or #3 - no further action planned
11	Old Dock Rd	1	1.15	I/S	Locked in Call-2 to minimize run time
11	Wicks Rd	1	0.66	I/S	With rotations, runs every other day - no further action planned
12	Eastwood Blvd	2A	2.11	O/S	Leave O/S
12	Falcon Dr	1	0.76	I/S	Lock in Call-2
12	Falcon Dr	2A	1.44	O/S	Remain O/S. Return to service in next 2 weeks for piloting
12	Falcon Dr	2B	1.53	O/S	Remain O/S until demand increases
12	Oval Dr	4	0.54	Blended	Blend since 8/24/16 - No further action planned
12	Peconic St	1	1.68	I/S	Blended since 8/15/16. Minimize run time, blend is still over 1.0
12	Peconic St	2	0.78	I/S	Limited run time in winter
12	Third Ave	3	0.69	I/S	Blended since 4/1/19. Seasonal GAC
15	Boyle Rd N	1A	0.96	O/S	
15	Boyle Rd PJ	2	0.46	Blended	Nitrate Blend since 7/31/07 - No further action planned
15	Boyle Rd PJ	3	0.49	Blended	Nitrate Blend since 7/31/07 - No further action planned
15	College Rd	3	1.04	Blended	Blended since 10/27/16 - No further action planned
15	Daniel Webster	2A	0.49	I/S	Blended since 8/23/16 - No further action planned
15	Hawkins Rd	2	0.56	I/S	Rotates Call-1, Call-2 daily, so only runs every other day
15	Horseblock Rd	1	0.89	Blended	Nitrate Blend since 5/12/13 - No further action planned
15	Jayne Blvd	1	0.46	Blended	Nitrate blend since 6/21/07 - No further action planned

Zone	Station	Well	Recent levels	Current Status	Action planned (Planning window = 4 months)
15	Jayne Blvd	3	0.69	Blended	Blended since 2/19/19 - No further action planned
15	Kayron Dr	1A	0.52	I/S	Rotates Call-1, Call-2 daily, so only runs every other day
15	N Washington	1	0.72	I/S	Short timeclock for winter
15	Oxhead Rd	2A	1.02	I/S	Blended since 8/25/16 - No further action planned
26	Montauk St Blvd	1A	1.06	I/S	Blended with minimal run time
60	Gazza Blvd	2	3.62	O/S	Remain O/S. Additional supply to zone from Zone 12 now.
60	Smith St Ef	1	22.3	O/S	Awaiting approval of AOP; resubmitted contract docs and drawings to DHS