Update on Wellhead Treatment Progress, Potential Issues and Water Quality Update

Report Date: December 2, 2021 Facility: Plant 6 Prepared by: Michael Levy, Superintendent

Milestone	Date	On Schedule (Y/N)	Notes and Comments				
		Or Completed					
Complete treatment piloting	11/20/2019	Completed	Final report submitted on 1/20/19 with engineering report, approved by NYSDOH on 9/9/2020				
Completed engineering report/submit for regulatory review	1/20/2020	Completed	Submitted to NYSDOH, Approved by NYSDOH on 9/9/20				
Complete project design/submit for regulatory review	3/6/2020	Completed	Submitted to NYSDOH, Approved by NYSDOH on 9/9/20				
Commence project Construction	4/1/2020	On Schedule	Contract signing date				
Approval to Operate	3/24/2021	Completed	NYS DOH has authorized the AOP system to be placed into servic				
Approval to Operate	5/7/2021	Completed	Nassau County authorized the GAC/AOP system to be placed into service				

Potential issues / concerns /delays:

Plant 6 is located at the corner of Hickory Rd. and Denton Ave. It should be noted that the 1, 4 Dioxane levels at well 6 are below the maximum contaminant level. The New York State Department of Health has authorized the use of the AOP treatment system with enhanced water quality protocols in place. Additionally, existing GAC treatment at the plant removes PFOS/PFOA to levels below the maximum contaminant level. As of May 10th 2021 the treatment for 1, 4 Dioxane with AOP has been placed into service.

Update on Wellhead Treatment Progress, Potential Issues and Water Quality Update

Report Date: December 2, 2021 Facility: Plant 7/10 Prepared by: Michael Levy, Superintendent

Milestone	Date	On Schedule (Y/N)	Notes and Comments				
		Or Completed					
Complete treatment piloting	N/A						
Completed engineering	11/19/2019	Completed Submitted to NYSDOH, Approved by NYSDOH on 6/10/					
report/submit for regulatory review							
Complete project design/submit for	01/15/2020	Completed	Submitted to NYSDOH, Approved by NYSDOH on 6/10/2020				
regulatory review			(including GAC for PFAS treatment and provisions for future AOP				
			treatment)				
Commence project	5/22/2020	Completed	Contract signing date				
Construction							
50% project completion	6/22/2020	Completed					
Other	10/16/2020		NCDOH / NYSDOH Approval of completed works to run GAC				
			treatment to system				
100% project completion	Spring 2022	On Schedule	Final Site work ongoing				

Potential issues / concerns /delays:

Plant 7/10 is located on Shelter Rock Road in Roslyn. Treatment for PFOA is installed and operational. As of 10/16/2020 the plant is producing system water with levels of PFOS and PFOA below detectable limits. Winter weather has delayed the completion of the project, but treatment is in place and operational. Final site work and restoration has begun.

Update on Wellhead Treatment Progress, Potential Issues and Water Quality Update

Report Date: December 2, 2021 Facility: Plant 8 Prepared by: Michael Levy, Superintendent

Milestone	Date	On Schedule (Y/N)	Notes and Comments				
		Or Completed					
Complete treatment piloting	7/18/2018		Calgon AOP Pilot – Calgon AOP reactor to be removed and replaced with UV/H202 AOP treatment				
Completed engineering report/submit for regulatory review	6/1/2021	Tentative	Engineering report for new UV/H202 AOP treatment				
Complete project design/submit for regulatory review	8/1/2021	Tentative	Project design for UV/H202				
GAC Filters ordered	12/10/2020		Purchase order issued for GAC filters				
Commence project Construction	10/1/2021	Tentative	Water quality samples for design purpose taken in October 2021				
50% project completion	1/1/2022	Tentative	Design and approvals still forthcoming				
100% project completion							

Potential issues / concerns /delays:

Well 8 is located on Old Courthouse Rd. in Manhasset Hills. An existing Calgon AOP system will be removed and new Trojan UV/H202 will be installed. Production from this well has been suspended and will only be used in an emergency. It is the Districts intention to keep the well offline until treatment for both 1,4 Dioxane and PFAS is installed.

Update on Wellhead Treatment Progress, Potential Issues and Water Quality Update

Report Date: December 2, 2021 Facility: Plant 9 Prepared by: Michael Levy, Superintendent

Milestone	Date	On Schedule (Y/N)	Notes and Comments				
		Or Completed					
Complete treatment piloting	11/26/2019	Completed	Field work completed 11/26/2019				
Completed engineering	1/22/2020	Completed	Submitted to NYSDOH, Approved by NYSDOH on 10/30/2020				
report/submit for regulatory review							
Complete project design/submit for	3/13/2020	Completed	Submitted to NYSDOH, Approved by NYSDOH on 10/30/2020				
regulatory review							
Commence project	3/10/2020	Complete	Contract signing date				
Construction							
50% project completion	4/29/2020	Yes					
Other	12/30/2020	Complete	Authorization to operate well to system received from NYSDOH				
Well back in service	3/31/2021	Complete	Well placed back in to service with 1,4 Dioxane and PFOA treatment				
			online				
100% project completion	Spring 2022	Yes					

Potential issues / concerns /delays:

Plant 9 located on County Courthouse Road has been upgraded with on AOP reactor and GAC filters to remove 1, 4 Dioxane and PFOA contaminants. Performance testing of these systems has been completed and authorization to operate has been granted. On March 31, 2021 the plant was placed back into service with treatment systems online and operational. Water produced at this facility has limits below detectable levels for both 1, 4 Dioxane and PFOA contaminants. Construction of the building and site will continue through the winter of 2021/2022.

Update on Wellhead Treatment Progress, Potential Issues and Water Quality Update

Report Date: December 2, 2021 Facility: Plant 11 Prepared by: Michael Levy, Superintendent

Milestone	Date	On Schedule (Y/N)	Notes and Comments				
		Or Completed					
Complete treatment piloting	N/A						
Completed engineering	N/A						
report/submit for regulatory review							
Complete project design/submit for	10/27/2020	Complete	Laboratory sampling following carbon replacement to confirm PFOA				
regulatory review	10/28/2020		removal				
Commence project	11/13/2020	Complete	NCHD Approval to Operate				
Construction/Implementation							
50% project completion		Completed					
Other			Existing GAC approved by NCHD for PFOA removal				

Potential issues / concerns /delays:

Well #11 is located on Links Drive in North Hills. Existing GAC filters installed for VOC removal have been approved for PFOA removal. Required sampling for PFOA will assure the filter bed is replaced when no longer removing efficiently.

Garden City Park Water District 1, 4 Dioxane, PFOA and PFOS Water Quality Summary

Status as of December 1, 2021

Location	Date	1,4 Dioxane	PFOA	PFOS	PFBS <mark>**</mark>	PFHpA <mark>**</mark>	PFHxS <mark>**</mark>	PFNA <mark>**</mark>	Notes and Comments
	Sampled	(ppb)	(ppt)	(ppt)	(ppt)	(ppt)	(ppt)	(ppt)	
Plant 6	11/04/201	BDL	BDL	BDL	BDL	BDL	BDL	BDL	Wellhead treatment for 1,4 Dioxane and
Well #6		(MCL is 1	(MCL is	(MCL is					PFOA/PFAS is operational as of May 7 th 2021
		ppb)	10ppt)	10ppt)					
Plant 7/10									
Well #7	11/11/2021	.15	BDL	BDL	BDL	BDL	BDL	BDL	Wellhead treatment for PFOA/PFOS is
									installed and operational. No wellhead
									treatment for 1,4 Dioxane is required
Well #10	11/11/2021	.19	BDL	BDL	BDL	BDL	BDL	BDL	Wellhead treatment for PFOA/PFOS is
									installed and operational. No wellhead
									treatment for 1,4 Dioxane is required
Plant 8	11/11/2021	9.2	55.1	14.7	<1.8	5.1	3.8	2.3	Well is Out of Service
Well #8									Design of wellhead treatment for 1,4
									Dioxane and PFOA is ongoing
Plant 9	11/29/2021	BDL	BDL	BDL	BDL	BDL	BDL	BDL	Wellhead treatment for 1,4 Dioxane and
Well #9									PFOA/PFAS is operational as of April 2021
Plant 11	11/29/2021	.17	BDL	BDL	BDL	BDL	BDL	BDL	Wellhead treatment for PFOA/PFAS is
Well #11									operational. No wellhead treatment for 1,4
									Dioxane is required

Notes:

Sample results are post treatment levels MCL – Maximum Contamination Level BDL – Below Detectable Limit ppt – part per trillion ppb – part per billon

PFOA – Perfluorooctanoic acid

PFBS – Perflurobutanesulfonic acid

PFHxS – Perflurohexanesulfonic acid

PFNA – Perflurohexanesulfonic acid

PFNA – Perflurohexanesulfonic acid

^{**} Additional perfluroinated compounds tested for but are not currently regulated