



VEOLIA WATER NEW YORK INC.

PFAS PROGRESS REPORT

PUTNAM COUNTY - MAHOPAC

3RD QUARTER OF 2023

Revised November 13, 2023



1. OVERVIEW

PFOA and PFOS are chemical substances that have been used for decades to manufacture firefighting foam and many common household and consumer products the public uses frequently, including non-stick cookware, fast food packaging, adhesives, paints, shampoo and cosmetics.

Since 2016, states and water providers have followed the Environmental Protection Agency (EPA) health advisory level of 70 parts per trillion (ppt) for PFOA and PFOS in drinking water. Multiple laboratory tests confirmed that Veolia Water New York Inc.'s ("Veolia" or the "Company") Mahopac water system in Putnam County, New York (Public Water Supply ID# NY3905707) tested well below the 2016 federal advisory levels for these substances. In June 2022, the EPA issued new health advisory levels for PFOA and PFOS which are set at very low levels: 0.004 and 0.02 ppt, respectively, which is below the current detection and reporting limits. Health advisory levels are not binding regulations and are intended to provide technical information that federal and state agencies and local officials can utilize in considering monitoring, treatment, and policy issues.

In late August 2020, the State of New York set a new standard of 10 ppt for PFOA and PFOS in drinking water. In anticipation that the New York State Department of Health would set a new standard for PFOA and PFOS, as it did in 2020, Veolia engineers and water quality experts began investigating and designing treatment solutions in 2019.

Veolia has submitted the applications for approval of new treatment facilities to the New York State Department of Health in Q3 2021 and is working closely with the New York State Department of Health (NYSDOH) and the Putnam County Health Department (PCHD) to achieve compliance by installing the advanced treatment. Veolia received NYSDOH approval in Q1 2023 (March 8, 2023).

Veolia received a deferral from the New York State Department of Health on January 7, 2021 for the implementation of treatment, recognizing the design, testing, permitting, construction, and other activities will take time to complete. As part of the deferral process, the Company submitted a detailed action plan that will ensure that the water system will meet the new State standard and has produced this progress report as a further requirement of the deferral process. In Q3 2022, Veolia submitted a request and received the approval on August 23, 2022 for an additional deferral for the project due to delays in receiving the required approvals to begin the construction of the new treatment facilities.

Q3 Update: Due to continued delays in the receipt of local permits, Veolia proceeded with submission to and subsequent approval from the DOH to install temporary PFAS treatment at the Mahopac site pending local permit approvals and the construction of the permanent treatment. The temporary treatment plant was installed in mid July 2023, compliance samples collected on July 17, 2023 and received on August 14, 2023. On August 15, 2023 the Construction Completion form was submitted to the DOH for approval. DOH granted approval to place the system in service on September 27, 2023 with conditions to resolve prior to placing the system in service. As of submission of this report, corrective actions prior to placing the system in service are pending.

Update November 13, 2023: *Following meeting the conditions set by the DOH and subsequent approval, on October 16, 2023 the Mahopac well temporary treatment was placed in service. The temporary treatment will remain in place until permanent PFAS treatment is placed in service.*

Please note that the Q3 compliance sample results depicted in the table below we collected prior to placing the temporary system into service. Results reflecting post PFAS treatment will be represented in the Q4 Status Report.

1.1. Test Results

The results of compliance and confirmation sampling are summarized in Table 1-1 for the sites with analytical results confirming a current or previous MCL exceedance.

Table 1-1: Sample Test Results

Well Site	Sample Date*	PFOS (ppt)	PFOA (ppt)
Mahopac Well 1	10/8/2020	20	22
Mahopac Well 2	10/8/2020	8.7	13
Mahopac Well 3	10/8/2020	11	15
Mahopac Well 1	10/26/2020	11	13
Mahopac Well 2	10/26/2020	9.5	12
Mahopac Well 3	10/26/2020	11	14
Mahopac Well 1	1/28/2021	0	10
Mahopac Well 2	1/28/2021	8.7	10
Mahopac Well 3	1/28/2021	Non-detect	13
Mahopac Well 1	4/19/2021	10	11
Mahopac Well 2	4/19/2021	9.1	12
Mahopac Well 3	4/19/2021	10	14
Mahopac Well 1	7/21/2021	8.3	10
Mahopac Well 2	7/21/2021	8.3	10
Mahopac Well 3	7/21/2021	8.9	12
Mahopac Well 1	10/20/2021	9.2	10
Mahopac Well 2	10/20/2021	8.3	11
Mahopac Well 3	10/20/2021	10	14
Mahopac Well 1	1/20/2022	9.6	9.6
Mahopac Well 2	1/20/2022	8.1	9.7
Mahopac Well 3	1/20/2022	9.8	14
Mahopac Well 1	4/21/2022	8.2	9.1
Mahopac Well 2	4/21/2022	6.8	8.7
Mahopac Well 3	4/21/2022	9.3	12
Mahopac Well 1	8/16/2022	11	11
Mahopac Well 2	8/16/2022	9.5	9.8
Mahopac Well 3	9/22/2022	12	16
Mahopac Well 1	10/24/2022	12	12

Mahopac Well 2	10/24/2022	9.7	11
Mahopac Well 3	10/24/2022	12	15

Well Site	Sample Date*	PFOS (ppt)	PFOA (ppt)
Mahopac Well 1	1/25/2023	11	12
Mahopac Well 2	1/25/2023	9.6	11
Mahopac Well 3	1/25/2023	11	14
Mahopac Well 1	04/25/2023	11	11
Mahopac Well 2	04/25/2023	9.1	9.8
Mahopac Well 3	04/25/2023	12	11
Mahopac Well 1	07/26/2023	8.7	9.9
Mahopac Well 2	07/26/2023	10.6	9.1
Mahopac Well 3	07/26/2023	11	11.2

Notes:

Red font indicates concentrations greater than the new New York State Drinking Water Standard of 10 parts per trillion (ppt) and require treatment.

Gray shading indicates sample results from previous periods

*Analytical results depicted from 9/2020 through 6/2022 are EPA Method 537. Analytical results from 7/2022 to date are EPA Method 533. EPA Method 537.1 data from 7/2022 to date is available in the Supplemental Report.

Beginning Q2 2023, Veolia Water New York made the following changes to its PFAS sampling protocol. Method 533 is used to analyze all 25 unique PFAS compounds covered by this Method as indicated on the US EPA, Office of Water, table number MS-140 dated December 2019. Method 537.1 is used to analyze only the 4 additional PFAS compounds not addressed by Method 533 as presented in the same above reference EPA table. Supplemental reports will also reflect this change beginning Q2 2023.

1.2. Progress Update

Veolia continues to identify treatment requirements, including design and construction needs for PFOA/PFOS treatment facilities and procurement of Granular Activated Carbon (GAC) vessels and media, which is identified as the Best Available Technology for the treatment of PFOA/PFOS. Veolia's proactive efforts, including bench testing studies for treatment alternatives, design for treatment equipment and facilities, and bidding for long-lead time equipment, began in advance of New York State's adoption of the new state standard for PFOA and PFAS.

In the second quarter of 2023, Veolia made progress on multiple fronts to meet the new standards for PFOA and PFOS in New York State.

Veolia previously completed construction drawings and documents for the advanced treatment solutions and has been actively working with the State and Local agencies to finalize permitting and approval for the treatment facilities. The plans include all structural, architectural, process piping,

electrical, HVAC, and instrumentation and control components needed to provide a fully functional treatment system in compliance with state and local codes and regulations. Veolia received NYSDOH approval in Q1 2023 (March 8, 2023).

As of Q3 2023, due to continued delays in the receipt of local permits, Veolia proceeded with submission to and subsequent approval from the DOH to install temporary PFAS treatment at the Archer site pending local permit approvals and the construction of the permanent treatment. The temporary treatment plant was installed in mid July 2023, compliance samples collected on July 17, 2023 and received on August 14, 2023. On August 15, 2023 the Construction Completion form was submitted to the DOH for approval. DOH granted approval to place the system in service on September 27, 2023 with conditions to resolve prior to placing the system in service. As of submission of this report, corrective actions prior to placing the system in service are pending.

Update November 13, 2023: *Following meeting the conditions set by the DOH and subsequent approval, on October 16, 2023 the Mahopac well temporary treatment was placed in service. The temporary treatment will remain in place until permanent PFAS treatment is placed in service.*

Because the permanent treatment equipment delivery times may extend beyond one year due to supply chain constraints and demand, Veolia continued to coordinate with vendors to expedite equipment fabrication and coordinate delivery schedules with contractors. Equipment was expected to be ready for delivery in Q1-2022, but deliveries are planned to be deferred to Q1-2024 due to delays obtaining local permitting approvals and related impact on construction schedules.

1.3. Action Plan Schedule

Veolia is moving as quickly as possible to complete the implementation of treatment solutions and in an effort to complete the work on or around 24 months. However, circumstances beyond VVNY's control, including unavailability of local permitting resources and unprecedented supply chain constraints associated with COVID-19 are expected to delay 'Treatment Facilities in Service' by up to eighteen (18) months. The original estimated completion dates and actual completion dates are summarized in Table 1-2 for the impacted site.

Table 1-2: Project Schedule

Milestone	Estimated Completion Date	Actual Completion Date
Treatment Equipment Bidding	4 th Quarter 2020	4 th Quarter 2020
Engineering, Procurement, and Construction Award	1 st Quarter 2021	1 st Quarter 2021
Complete Design / Submit for Permitting Review	3 rd Quarter 2021	3rd Quarter 2021
Commence Project Construction / Implementation	1 st Quarter 2022	Temporary in Q3 2023 - * / **
Treatment Facilities In Service	3 rd Quarter 2022	Temporary on October 16, 2023 - **

*Mobilization for is expected to be delayed by up to twelve months due to unavailability of local permitting resources

**Expected to be delayed by up to eighteen months or more due to unavailability of local permitting resources and supply chain constraints. Veolia is exploring the installation of temporary PFAS treatment at the site to achieve compliance while local approvals and subsequent construction of the permanent treatment facility is completed.

1.4. Potential Schedule Impacts

The installation of water quality treatment must be planned and constructed carefully to ensure effectiveness. There are several steps that must be taken prior to implementation of treatment in a drinking water system, including:

- Bench testing and studies
- Issuance of request for proposals for design services, permitting services, equipment fabrication, and construction
- Contract award and execution for above services
- Detailed design
- Permitting
- Construction
- Start-up and commissioning

Similarly, several industry resources, many of whom are independent and outside of a water utility's management or control (as listed below), are needed to fully execute the treatment plan, which could result in unanticipated delays:

- Availability of laboratories to manage the volume and reporting of water quality data
- Availability of consulting services needed:
 - o to conduct bench and/or pilot scale studies to develop treatment design criteria
 - o to detail treatment design and preparation of permit applications
 - o to develop construction bid documents
 - o to procure construction contracts,
- Availability of construction services needed install and commission treatment facilities
- Availability of appropriate commercial treatment equipment and media
- Availability of Health Department and local planning board for permitting and review processes

Permits and/or approvals are anticipated to be required from the following agencies:

- Putnam County Department of Health
- New York State Department of Health
- New York State Department of Environmental Conservation
- Town Planning Board and Building Department.
- Town Board, Architectural Commission and/or Zoning Board of Appeals may also be required, depending on whether the design requires a variance

During the detailed design of the treatment facilities, permitting constraints outside of Veolia's control are expected to result in unanticipated delays. The permitting constraints include unavailability of local planning boards for permitting and review processes, and various site constraints, including zoning and environmental conflicts. Delays due to local Planning Board resources are estimated at up to nine months or more.

Supply chain constraints associated with COVID-19 have caused unanticipated delays in the fabrication and delivery of materials and equipment, ranging from stainless steel vessels to building materials to freight carriers. Delays due to materials and equipment resources are currently estimated at up to three months. Veolia's proactive efforts to release major materials for fabrication in parallel with permitting reviews and to source alternate vendors are expected to mitigate schedule delays by three months or more.

In addition, many large and medium-sized public community water systems and non-community water systems will need to comply with the new regulations at approximately the same time, potentially creating bottlenecks in the above areas and resulting in schedule impacts.

Despite Veolia's affirmative efforts to meet all existing project milestones, the hardships beyond Veolia's control (noted above) are predicted to cause up to eighteen (18) months of delay, which required an additional deferral from the State as of Q3 2022. This additional deferral was approved on August 23, 2022.

1.5. Implementation of Interim Measures

Temporary GAC treatment was installed and placed in service in Q3 2023 to maintain compliance with Deferral requirements in keeping this critical water supply in operation as necessary local approvals and construction are completed.

1.6. Emergency Conditions

There are no interim measures that can be taken at this time while maintaining adequate water supply.