

Edward Meinhardt  
Mayor

Council Members:  
Alfred Anthony  
Rudy Fernandez  
Shawn Klein  
Michael Vieira



Barry R. Lewis, Jr.  
Township Manager  
973-535-7974

Carolyn Mazzucco  
Township Clerk  
973-535-7904

## **PFOA Timeline**

### **Livingston Water Department**

(September 2022) – There has been considerable public interest in the issues surrounding the recently regulated water contaminants PFOA and PFOS – specifically PFOA, for which levels have been detected above the regulatory limit in some of the Township’s wells. Residents have inquired as to the steps that the Township has taken and will be taking to remediate the problem and the projected completion of the remediation.

Below is a timeline and explanation of the key events in the regulatory history of PFOA and PFOS in our public water system and the Township of Livingston Water Department’s response to the detected exceedances of the new regulatory limits in some, but not all, of the Township’s wells. For more detailed information on these issues, residents are encouraged to visit the PFOA resource page on the Township’s website at: [www.livingstonnj.org/PFOA](http://www.livingstonnj.org/PFOA)

### **PFOA and PFOS Timeline**

**Summer 2019** – The New Jersey Department of Environmental Protection (NJDEP) signals its intent to explore and propose new regulatory standards for PFOA and PFOS in drinking water, suggesting a possible standard of 14 parts per trillion (ppt) for PFOA. At that time, the existing U.S. EPA guideline was 70 ppt and the NJDEP advisory was 40 ppt.

**September 2019 – May 2020** – The Livingston Water Department begins collecting water samples and testing for PFOA and PFOS in drinking water wells in anticipation of the potential new regulation. These preliminary results suggest that some Township wells may exceed the new PFOA limit of 14 ppt being proposed by NJDEP. Notably, the PFOA levels in all wells are significantly below the EPA guideline of 70 ppt and the NJDEP advisory of 40 ppt. The PFOS results are all below the proposed new limit of 13 ppt. Although not regulated at that time, the Township reports these PFOA results to our customers in the 2019 Annual Water Quality Report.

**May 2020** – The Livingston Water Department requests proposals from qualified engineering firms to complete a comprehensive study and analysis of the presence of PFOA/PFOS in Township drinking water and the options and costs for treatment.

**June 1, 2020** – The New Jersey DEP adopts its first ever regulations, establishing limits for PFOA and PFOS in public water systems, to become effective January 1, 2021.

**July 2020 - June 2021** – The Livingston Township Council awards a contract to a specialized engineering firm to complete a comprehensive study and analysis of PFOA and PFOS in the Township water system. The study includes testing and evaluating the Rolling Annual Average (RAA) PFOA levels in each well, investigating the best treatment alternatives and the locations for those treatment options, assessing opportunities for consolidated treatment facilities to treat multiple wells, and developing a long-term plan and cost estimates for the installation of treatment options. Analysis includes detailed hydraulic and distribution system modeling, flow rate analysis, adsorptive media options evaluation, and treatment system cost analysis. The study considers the capital costs and operation requirements, as well as different site constraints such as wetlands and flood hazard areas, to determine the best treatment option for each affected site.

**September 2020** – Based on interim reports from the engineering firm, the Livingston Township Council authorizes \$950,000 in capital funding to continue the process of investigating, evaluating and designing treatment options to remove PFOA and PFOS from the drinking water.

**January 2021** – The state’s new, first-ever PFOA and PFOS limits for drinking water go into effect. The Livingston Water Department is now required to begin testing for PFOA and PFAS and must notify residents if levels of PFOA exceed 14 ppt, based on the running annual average (RAA) in which the four most recent quarters of monitoring data are averaged. The Livingston Water Department has been testing for these contaminants since September 2019.

**June 2021** – The engineering firm completes its investigation and report, identifying those wells with PFOA levels expected to exceed the new standard of 14 ppt.

**June 2021** – The Livingston Water Department requests proposals from qualified engineering firms to design the treatment facilities that will remove and reduce PFOA from the drinking water to non-detectable levels – lower than New Jersey’s new, more stringent standards.

**July 2021** – The Township Council awards a contract to the Mott MacDonald engineering firm for the design, permitting and construction oversight of a granular activated-carbon treatment system at Wells Nos. 3, 14, 15 and 16. The feasibility study established that granular activated carbon is the best, most cost-effective and practical treatment for these wells.

**August 2021** – The Livingston Water Department is notified by the New Jersey Department of Environmental Protection that a violation for PFOA has been triggered at Well No. 10, the first Township well in violation. Every resident is notified of the violation and the Township provides comprehensive information to residents via mail and the Township’s website. Well No. 10 is immediately shut down and will not be returned to use until treatment is installed, as this well has the highest levels of PFOA in the water system and, as a smaller well, its water production can be offset from other sources. Simultaneously, the Livingston Water Department begins to proactively manage water production from contaminated wells to minimize the amount of water introduced into the system from those sources while maximizing the use of non-contaminated wells and third-party water sources.

Importantly, the Township's delivery of water to residents is through one non-isolated system. Stated differently, each well and outside third-party water source injects water into a single system of interconnected water main pipes where it is "blended" with the water from other sources. As a result, no customer only receives water from any one well.

Equally important, the wells that are marginally in exceedance of the new limit represent only 21% of the total capacity of the Township's water system. The combination of the other Township wells (which are below the new limit) and our third-party water sources (New Jersey American Water and the East Orange Water Commission, which are also below the limit), produce 79% of the water introduced into our "blended" water system.

**September 2021** – The Livingston Township Council authorizes an additional \$5,000,000 in capital funding to continue to address the PFOA and PFOS contaminants in the Township's water system.

**October 2021** – The Livingston Township Council awards a contract to Mott Macdonald for the design, permitting and construction oversight of ion exchange facilities. There will be combined ion exchange treatment at Well Nos. 1, 2 and 8 and individual ion-exchange treatment at Well Nos. 4, 10, 11, and 12. The feasibility study established that ion exchange is the best, most cost-effective and practical treatment for these wells and has determined the best locations for those treatment facilities.

**December 2021** – The Township engages special legal counsel and engineering services to prepare an application to the New Jersey Infrastructure Bank for the funding of the PFOA remediation projects. This program has received funding from the 2021 Federal Bipartisan Infrastructure bill. Through this program, the Township will be eligible for low-interest loans and potential loan principal forgiveness for treatment construction. This favorable financing will save millions of dollars and help to control water rates for residents.

**December 2021** – The Livingston Water Department is notified by the New Jersey Department of Environmental Protection that a violation for PFOA has been triggered at Well Nos. 4, 8, 10 and 11. Residents are notified of the violation and will continue to be notified every quarter until the treatment is constructed and proven to reduce PFOA levels.

**March 2022** – The Livingston Water Department again notifies customers of the PFOA violation at Well Nos. 4, 8, 10 and 11.

**May 2022** – The Livingston Township Council authorizes an additional \$26,100,000 in capital funding so that the Township can not only meet, but exceed the New Jersey Department of Environmental Protection's standards for the Township's drinking water. The Township will use the Infrastructure Bank Funding to obtain low-interest loans and potential principal forgiveness to reduce future debt payments and minimize the impact on water rates.

**June 2022** – The Livingston Water Department notifies customers of PFOA violations at Well Nos. 2, 4, 8, 10 and 11. The results of the second quarter 2022 testing showed Well No. 2 now has

PFOA levels of 16 ppt, slightly exceeding the New Jersey Department of Environmental Protection's standard of 14 ppt. As preliminary testing revealed that this well had a potential for exceedance, the design of treatment at Well No. 2 has already been underway.

**August 2022** – The Livingston Water Department submits to the New Jersey Department of Environmental Protection for Bureau of Water System Engineering (BWSE) permits for Well Nos. 1, 2, 4, 8, and 11. The Township will not need Land Use Regulation Program (LURP) permits at these sites because there are no affected wetlands or flood hazard areas.

**September 6, 2022** – The Township Council, after reviewing several proposals, authorizes the retention of a specialized law firm and joins a class action lawsuit against the manufacturers of the chemicals responsible for the PFOA and PFOS contamination of public water systems. The law firm is engaged on a contingency basis so that tax dollars are not spent on legal fees. The Township has the potential for recovery of costs and expenses incurred in remediating the contamination without expending tax dollars, while the attorneys only get paid if they are successful in the lawsuit.

**September 2022 (anticipated)** – The Livingston Water Department will submit to the New Jersey Department of Environmental Protection for BWSE and LURP permits for Wells 10 and 12.

**December 2022 (anticipated)** – The Livingston Water Department plans to issue a public bid for the construction of ion exchange facilities at Well Nos. 1, 2, 4, 8 and 11, with construction expected to begin in early spring 2023.

**February 2023 (anticipated)** – The Livingston Water Department plans to issue a public bid for the construction of ion exchange facilities at Well Nos. 10 and 12, with construction expected to begin in late spring 2023.

**Summary:** As reflected above, the Township has been proactive and aggressive in responding to the initially proposed new regulations on PFOA and PFOS, including testing Township wells before required, promptly retaining specialized engineers and professionals to investigate and then design and obtain permits for the remediation facilities, appropriating over \$30 million to address these issues, pursuing the most economically favorable financing available, and seeking to recoup costs through the class action lawsuit.

Simultaneously, the Township has gone beyond the legally required public notifications and has provided extensive information to residents, which is continually updated on the Township website and in quarterly town-wide mailings.

Most importantly, since the first violation the Township has worked to manage water production to minimize the use of water from the contaminated wells (which represent only 21% of the total capacity of our blended system) to the greatest extent possible.

Finally, immediately upon the completion of the remediation facility for any wells, those wells will return to full production which will, in turn, allow for a further reduction in, and eventual elimination of, reliance on any remaining contaminated wells until they have all been remediated.