



May 17, 2019

Delaware River Basin Commission
P.O. Box 7360
West Trenton, New Jersey 08628

Re: COMMENT on Warrington Township Tradesville Wastewater Treatment Plant Warrington Township, Bucks County, Pennsylvania Delaware River Basin Commission DOCKET NO. D-1999-012 CP-4

Delaware Riverkeeper Network submits this comment on behalf of our approximately 20,000 members throughout the Delaware River Watershed including residents of Bucks and Montgomery Counties in the vicinity or service area of the Warrington Township Tradesville Wastewater Treatment Plant (WWTP). The Delaware Riverkeeper Network (DRN) is a private non-profit membership organization, championing the rights of our communities to a Delaware River and tributary streams that are free-flowing, clean, healthy, and abundant with a diversity of life.

Request to Add PFOA and PFOS Monitoring, Reporting and Treatment Requirements to this Docket
Delaware Riverkeeper Network recommends that PFOA and PFOS be added to the permit requirements under this Delaware River Basin Commission (DRBC) Docket with effluent limitations, monitoring and reporting requirements.

Poly- and perfluoroalkyl substances (PFAS), specifically Perfluorooctanoic Acid (PFOA) and perfluorooctane sulfonate (PFOS), have been found at extremely high levels in groundwater wells in the vicinity of the former Naval Air Station Joint Reserve Base at Willow Grove, the current Horsham Air Guard Station and the Naval Air Warfare Center in Warminster. These facilities all used and released firefighting foam to the environment for decades, which is the primary source of the PFAS contamination. The contaminants have also migrated into the groundwater that feeds the water supplies of communities in the vicinity of the bases, affecting the water supply for over 70,000 people.¹ The most current estimates of the population impacted in this region by the contamination is 84,184 people, according to the most recent health investigation by the Pennsylvania Department of Health (PADOH).²

¹ <https://www.theintell.com/news/20190319/unwell-water-frequently-asked-questions>

² https://www.health.pa.gov/topics/Documents/Environmental%20Health/PEATT%20Pilot%20Project_Final%20Report_12-2018.pdf page 6.

Warrington Township Water and Sewer Department (WTWSD) found PFOA and PFOS in the drinking water they deliver to customers above the EPA's recommended PFOS and PFOA Health Advisory Level (HAL), which is set at 70 parts per trillion combined.³ The WTWSD shut down public wells in 2014 that exceeded the provisional health level set by EPA at the time and in 2016 shut down public wells that exceeded the EPA's HAL.⁴

According to the DRBC docket, the WWTP's service area is residential developments in the western area of Warrington Township. The water that is delivered to customers in the Township's western district is drawn from the North Wales Water Authority so is considered free of PFOA and PFOS.⁵ However, the concentration of PFOA and PFOS in the drinking water for people who are served by this portion of the WTWSD can change based on several factors. The quality of surface and groundwater can change over time as pollution plumes migrate and contaminants change. PFOA and PFOS are water soluble and mobile, making their presence and levels variable. According to the North Wales Water Authority (NWWA), the water they deliver has been non-detect for PFOA and PFOS since they started testing in 2016, with two exceptions. However, in 2018 eight months out of twelve had levels at 2.2 parts per trillion (ppt) or 2.3 ppt with that trend continuing into 2019 at 2.2 ppt⁶. While these are low concentrations, they are above Warrington Township's stated goal of providing drinking water at non-detect to customers and above the non-detect standard that Horsham and Warminster Townships have set.⁷

Additionally, as the scientific literature and health findings evolve, mandatory maximum contaminant levels (MCL) could be adopted that require stricter, more protective standards than the HAL, which is currently the standard implemented by NWWA. Also, groundwater can infiltrate piping that carries wastewater to the WWTP, making it possible that contaminated ground water can seep into the WWTP system. Our concern is that PFAS could be in the effluent that is being discharged into Mill Creek, subsequently flowing downstream to Neshaminy Creek, but there is no means of knowing this unless the discharge is monitored and reported through the discharge permit or DRBC Docket. If found, treatment methods can be instituted to remove it and action could be taken to reduce the source(s) of the contamination. Currently and as per the proposed Docket, there is no requirement in the current NPDES permit for the monitoring, reporting or removal of PFCs, specifically PFOA and PFOS.

According to the proposed Docket, the WWTP is located on Pickertown Road in Warrington Township, Bucks County, Pennsylvania, discharging to the Neshaminy Creek Watershed. The WWTP discharges treated effluent to Mill Creek at River Mile 115.63 – 36.4 – 1.5 (Delaware River – Neshaminy Creek – Mill Creek). PFOA and PFOS have been found in the downstream Neshaminy Creek and the levels are increasing⁸. The military facilities have been discharging effluent and stormwater into tributaries of the Neshaminy Creek.

³ <http://www.warringtontownship.org/departments/water-sewer/water-contamination-info/>

⁴ <http://www.warringtontownship.org/departments/water-sewer/water-contamination-info/>

⁵ <http://www.warringtontownship.org/departments/water-sewer/water-contamination-info/>

⁶ <http://www.nwwater.com/images/PDFs/1-19pfc.pdf>

⁷ <https://www.theintell.com/news/20190319/unwell-water-frequently-asked-questions>

⁸ <http://www.buckscountycouriertimes.com/5ef4bcc8-300e-5f3a-b908-601e79422f49.html>

Background

The PFOS and PFOA levels found in public wells in Bucks County and Montgomery Counties near the three military bases were among the ten highest sampling results in the nation in 2015.⁹ Recent water quality reports suggest that the occurrence of the compounds may be even greater than previously thought due to more accurate detection methods, which has been borne out by subsequent water sampling in the region around the military bases¹⁰.

Many of the samples taken under the U.S. Environmental Protection Agency's (EPA) Unregulated Contaminant Monitoring Rule 3 (UCMR3) exceeded EPA's combined Health Advisory Level (HAL) of 70 parts per trillion (ppt) for PFOA and PFOS. All samples exceeded New Jersey Department of Environmental Protection's (NJDEP) proposed MCL for PFOA of 14ppt and 13 ppt for PFOS, currently out for public comment.¹¹ It also is much greater than the MCL of 1 to 6 ppt for PFOA and 5 ppt for PFOS recommended by Delaware Riverkeeper Network.¹²

The Naval Air Warfare Center in Warminster, Bucks County was designated for closure in 1995 by the Defense Base Closure and Realignment Commission (BRAC) program and now operates under BRAC as the Naval Air Development Center. It is classified as a CERCLA National Priority List (NPL) "Superfund" site due to contamination of area groundwater, primarily trichloroethylene (TCE), tetrachloroethylene (PCE) and carbon tetrachloride documented in 1989.¹³ A treatment system is operating on the site that removes Volatile Organic Compounds from the groundwater under BRAC's supervision. The site is 824 acres and is located in Warminster Township, Ivyland Borough and Northampton Township. The area has been dependent on groundwater for both public and private water supplies. A groundwater analysis is being conducted by the Navy to assess the migration of PFAS pollution.¹⁴

PFCs were discovered at these bases during the 2012 Five Year Superfund Review of the Naval Air Naval Air Warfare Center in Warminster, according to the EPA.¹⁵ The public found out about PFOA and PFOS in their drinking water through EPA's UCMR3 reporting from 2013 to 2015. The Navy shut down two Warminster water wells as early as 2014 because of PFAS.

Since the UCMR3 sampling, additional water testing in the region around the military bases has revealed PFOA and PFOS contamination in more locations. The most recent count is twenty-two communities in Bucks and Montgomery Counties where some level of PFOA/PFOS has been discovered.¹⁶ 22 public water supply wells and 230 private drinking water wells have been shut down by a variety of agencies because they exceed the 70 ppt EPA HAL.

⁹ <https://www.epa.gov/sites/production/files/2015-09/ucmr-3-occurrence-data.zip>

¹⁰ <http://www.theintell.com/news/20171101/is-epa-missing-pfc-water-contamination-across-country-one-expert-says-yes>

¹¹ <https://www.nj.gov/dep/rules/notices.html>

¹² <http://www.delawariverkeeper.org/sites/default/files/Verbal%20Testimony%20PFOA%20PFOS%20NJ%20rule%20%282019-05-15%29.pdf>

¹³ <https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0302466>

¹⁴ Statement of Willie Lee, US NAVY BRAC as per Tracy Carluccio, DRN, at Northampton Township Board of Supervisors meeting, 1.25.2017.

¹⁵ <http://horshamlibrary.org/docview.aspx?docid=28289>

¹⁶ <https://www.philly.com/news/pfas-water-contamination-pfos-pfoa-bucks-montgomery-20181222.html>

Why PFOA and PFOS should be added to the Docket

PFOA and PFOS are persistent in the environment, do not biodegrade, and build up in people's blood even when ingested in tiny amounts. These highly toxic compounds are linked to serious diseases, including cancers, and several detrimental human health conditions.¹⁷ Fetuses, infants, and children are the most vulnerable populations due to negative developmental impacts, which also affects pregnant women, women of childbearing age and women who are breastfeeding.

Chief among the bodies of data and findings available for PFOA are those from the court-ordered C8 Health Panel and the C8 Health Project in West Virginia, related to the DuPont facility there. Among the conclusions of this multi-year study of human subjects, their blood and scientific reports, it was found that PFOA is correlated with Kidney Cancer, Testicular Cancer, Thyroid Disease, High Cholesterol, Pregnancy-Induced Hypertension/Preeclampsia, and Ulcerative Colitis.¹⁸ In other published studies, probable links were found to decreased birth weight and decreased response to vaccines. A report reviewing all of the studies on low birth weight concluded that PFOA does reduce human birth weight.¹⁹

Blood studies by PADOH of people living near the Bucks and Montgomery County bases revealed higher levels of PFAS compounds in the blood of those sampled than in the general population.²⁰ Blood studies and health assessments will likely continue in the region to obtain more epidemiological information but an informal inquiry by PADOH during the PEATT Pilot Project for PFAS Testing showed a correlation between those with higher blood concentrations of PFAS and certain diseases, some known to be linked to PFOA and PFOS.²¹

While there is no federal safe drinking water standard or MCL for PFOA or PFOS, New Jersey has issued rulemaking that sets MCLs for PFOA of 14 ppt and 13ppt for PFOS, with public comment closing May 31. DRN commissioned expert reports by an independent toxicologist that recommended stricter MCLs. DRN supports an MCL of 1ppt or no greater than 6ppt for PFOA and 5ppt for PFOS, based on these expert reports, which would provide greater protection for the fetus, infants and young children who are vulnerable to developmental effects and the risk of developing a disease later in life from early life exposure. DRN also advocates a standard of combined PFOS and PFOA concentrations in water of no higher than 13ppt.

The movement towards regulation of these toxic compounds is slow but it is steady. MCLs for PFOA and PFOS is expected to be adopted in the near future in New Jersey and an MCL for perfluorononanoic acid (PFNA) of 13 ppt was adopted by New Jersey in 2018. Pennsylvania and other states such as New York may follow with mandatory MCLs. Some other states, such as Vermont, have already adopted guidance or health advisory levels that are being followed by water suppliers. Based on this evidence, DRBC should require PFOA and PFOS to be added to the referenced Docket with effluent limitations, monitoring and reporting requirements.

¹⁷ <https://www.epa.gov/sites/production/files/2015-09/ucmr-3-occurrence-data.zip>

¹⁸ <http://www.c8sciencepanel.org/newsletter10.html>

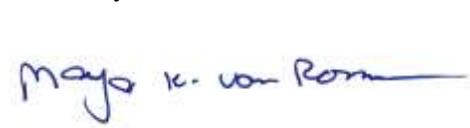
¹⁹ <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4181929/pdf/ehp.1307893.pdf>

²⁰ https://www.health.pa.gov/topics/Documents/Environmental%20Health/PEATT%20Pilot%20Project_Final%20Report_12-2018.pdf

²¹ https://www.health.pa.gov/topics/Documents/Environmental%20Health/PEATT%20Pilot%20Project_Final%20Report_12-2018.pdf

Thank you for the opportunity to comment.

Sincerely,

Handwritten signature of Maya van Rossum in blue ink.

Maya van Rossum
the Delaware Riverkeeper

Handwritten signature of Tracy Carluccio in blue ink.

Tracy Carluccio
Deputy Director