



To: ATSDR

From: National PFAS Contamination Coalition

Re: 2020 ToxProfile Nomination

May 27, 2020

Dear ATSDR,

We are the National PFAS Contamination Coalition, comprised of citizen groups in 22 PFAS impacted communities in 18 states and territories across the country, and we are writing to express input on which substances ATSDR should prioritize for the next round of Toxicological Profile development. We are writing today to advocate that a large class of chemicals known as perfluoroalkyl and polyfluoroalkyl substances (PFAS) be considered in the next round of Toxicological Profile development. We are aware of ATSDR's Toxicological Profile for Perfluoroalkyls released for public comment in June 2018. This document reported the data on some PFAS in this large class of more than 5,000 chemicals and recommended Provisional Minimal Risk Levels on only 4 different PFAS.

We feel strongly that ATSDR should consider the entire class of PFAS in their next round of Toxicological Profile development because many impacted communities are not just exposed to a handful of PFAS. And we urge ATSDR to consider a Provisional Minimal Risk Level of 1 part per trillion or less for the entire class of PFAS as we feel this is the most protective standard to minimize risk to impacted communities based on the best available science.

PFAS are called "forever chemicals" because they have one of the strongest bonds in chemistry causing them to live forever, never breaking down, and bioaccumulating in our bodies and in our environment. For decades, many residents in our communities have been overexposed to a mixture of many different PFAS. Through blood work and/or biomonitoring in various communities, results prove as fact that our families have been contaminated with numerous PFAS, leading to an even larger concern of the total body burden, as well as the unknown of additional PFAS that haven't yet been tested, but we know are in use. We do not have clear answers on what the long-term impacts of many of these individual PFAS will mean for our health. And we certainly do not have a clear understanding of how a mixture of many different PFAS, that we have been exposed to over a long period of time, will impact the health



of our families and future generations. For too long, the health and safety of our families have been disregarded.

The use of non-target analysis to detect PFAS compounds in drinking water has been a pivotal catalyst for public awareness regarding the full extent of PFAS contamination for multiple community groups within our national coalition. We know we are not being exposed to one single compound anymore. PFAS is a large class of widely used chemicals causing communities to be exposed to so many different PFAS at once. It is ineffective to look at individual compounds one by one to determine risk to human health. Instead, our government agencies should take protective action on the entire class of PFAS and recommend minimal or no exposure to protect the health of the communities. We are seeing major diseases and illnesses in people far too young in our communities. Many in our group have spoken publicly on numerous occasions sharing our personal heartaches, our illnesses, and our fears because of these chemical exposures. Sadly, we cannot undo the PFAS exposure that has happened to us and our families. We continue to face the unknowns of the long lasting impacts the class of PFAS will present to us. However, we can learn from this situation and we can take action to prevent ongoing PFAS exposure to communities moving forward.

The National PFAS Contamination Coalition envisions a PFAS-free world where people are not exposed to any PFAS, where the environment and public health are protected, where there is justice for the victims of PFAS exposure, and where laws and regulations prevent contamination disasters like this from happening again. As organizations and individuals whose families and communities have been directly harmed by the contamination of our drinking water by PFAS, along with ongoing exposure via food, air pollution, occupational exposures and consumer products, we strongly request that you consider PFAS as a class in your next round of Toxicological Profile development and you recommend a Provisional Minimal Risk Level of 1 part per trillion or less for the entire class of PFAS.

Sincerely,



Andrea Amico
Testing for Pease
Portsmouth, NH

Diane and Paul Cotter
Your Turnout Gear and PFOA
Rindge, NH

Loreen Hackett
PFOA Project NY
Hoosick Falls, NY

Linda Shosie
Environmental Justice Task Force
Tucson, Arizona

Emily Donovan
Clean Cape Fear
Wilmington, NC

Sue Phelan
GreenCAPE
W. Barnstable, MA

Laurene Allen
Merrimack Citizens for Clean Water



Merrimack, NH

Joanne Stanton and Hope Grosse

Buxmont Coalition for Safer Water

Warminster/Horsham, PA

Stel Bailey

Fight For Zero

Brevard County, FL

Anthony M. Spaniola

Need Our Water (NOW)

Oscoda, Michigan

Community Impacts:

Portsmouth, New Hampshire (by Andrea Amico):

The Pease International Tradeport is currently home to ~ 250 businesses where over 10,000 people a day come to work, attend daycare, visit medical office buildings, attend college, and more. It was once the former Pease Air Force Base from the 1950's to the early 1990's and has a legacy of significant environmental contamination. In 1991, it was declared a Superfund Site and has had extensive oversight by local, state, and federal agencies of clean up and past environmental issues while being redeveloped into the robust tradeport it is today.



However, in May of 2014, high levels of PFAS were discovered in the drinking water at the Pease Tradeport causing the largest producing drinking water well (one of three) to be shut down immediately. The source of PFAS at Pease is firefighting foam known to be made up of a mixture of many different PFAS. The Pease community was devastated to learn they had been exposed to high levels of contaminants in their drinking water for decades despite the extensive oversight of the environmental issues and clean up since the early 1990's.

My two young children attended daycare at Pease starting at the very young age of 12 weeks old and my husband worked for a business there for years and they were drinking the water daily at work and at daycare prior to the discovery of PFAS in 2014. My family now has elevated levels of PFAS in their blood due to drinking contaminated water and I still lack clear answers on what the health effects will be given their exposure to multiple PFAS.

My life has changed forever as a result of their PFAS exposure. I feel incredible pain and fear that my family was exposed to a mixture of PFAS chemicals and I don't have clear answers on what the long term consequences will be to their health - especially my children who were exposed at such young ages and at critical times in their development. I am angry that our government (DoD and EPA) knew of the harm and persistent traits of these chemicals for years prior to the discovery of the contamination in my community and not only did they not act to test for the compounds, but instead allowed the use of PFAS to continue. I feel guilty that I sent my children to a daycare where they were exposed to contaminated water, unbeknownst to me, and I have to forever worry about their health and development as these chemicals will take decades to leave their body. And I have been robbed of some of my happiness as a mother, a wife, and an individual that I have had to expend so much time and energy into advocating for an environmental catastrophe playing out across our entire nation while our government is slow to respond and take forceful and proactive steps to protect public health and prevent this devastation from happening to another innocent family.

Real people have been harmed by PFAS, families are devastated by this exposure, and communities are violated because they have been contaminated without consent. My personal story is just one of millions of people impacted by PFAS and we need strong action from our government to regulate this entire class of dangerous and toxic chemicals by recommending a level of 1 or less part per trillion for all PFAS.



First Responders, Nationwide (by Diane & Paul Cotter):

America's Firefighters are exposed to PFAS via the Class B AFFF used in 58,000 fire stations in the nation with no national protocol for testing, removal, replacement and remediation. Only the state of New Hampshire has asked for a voluntary testing of fire wells when 7 of 10 wells tested elevated for PFAS in 2017. In addition to toxic AFFF, every firefighter who is wearing structural firefighting gear that meets NFPA Standard 1971 has been wearing staggering amounts of PFOA and PFAS that are degrading to form PFOA in hours to days, for at least 20 years. Only a non-industry independent investigation by nuclear physicist Dr Graham Peaslee of Notre Dame brought this issue to the attention of the fire service. His soon to be released findings may be the greatest challenge the fire service has ever faced. The fleet is hearing the 'new C6 chemical replacement is completely safe' and 'ten times less toxic'. This a blatant disregard for the safety of our firefighters who are putting themselves in harms way.

This has been accomplished by the lack of regulations and health guidelines for the chemical family of PFAS. The makers of AFFF and PPE have ingrained themselves into every aspect of firefighter protection by immersing themselves within our own institutions, and making themselves voting members of the only safety councils we rely on, they are able to produce AFFF and PPE with staggering amounts of PFAS. Because of the C8 Science Panel and known health effects of PFAS chemicals, makers of our gear and AFFF produce science from paid consultants like Exponent who then use paid science to conduct the language to the fleet of America's firefighters.

We must rely on strong health standards and independent institutional studies to break this corporate hold of the PFAS-circle-dance within the fire service as 3M, DuPont, Johnson Controls, and others are the sponsors of our own cancer summits and firefighter cancer research and voting members of our NFPA yet deny the harms of PFAS to the fire service.

Hoosick Falls, New York (by Loreen Hackett):

Hoosick Falls, NY, severely contaminated with PFOA leading to the first two Federal NPL Superfund site declarations, in addition to several NYS Superfund declarations for other sites in our community. Through several rounds of blood testing by NYSDOH, we now know we have a variety of PFAS toxins in our bodies, at disturbing levels. Through recent EPA and DEC air emissions tests, we know for fact there are many other PFAS being utilized by these industries, with many discovered as unidentifiable. Combined, these should be more than ample reasons to regulate PFAS as a class.



Tucson, Arizona (by Linda Shosie):

Thank you for giving me the opportunity to comment on behalf of citizens of Tucson and NPCC relating, ATSDR's- PFAS substances we should prioritize for profile development. We thank ATSDR- for taking these major steps forward to safeguard the nations environmental health. We thank our Legislation for there role in this mandate.

In my form of judgement this process is critical, and I do not mean to be forward about my comments, but I will include my comments now.

For too long, the south-side residents have been fighting to cleanup historical contamination in our community, which has met with nothing but resistance from the Air Force. Four decades after TCE groundwater contamination, which includes the TIA Superfund Site, PFAS has been discovered at the Arizona Air National Guard Installations Water Systems that serves more than 675,686, people in our entire community.

My 19-year old daughter Tianna M. Shosie died of a rare disease, that I believe was caused by PFAS contamination. Our community has seen increased cancer rates for four decades, and other mothers like myself have also witnessed the deaths of their children, we believe is culprit to PFAS contamination.

It is our understanding that DOD- Installation Water Systems has detected PFAS (11-14,000ppt) above EPA current Drinking Water HAL, which serves our entire public water systems in our community that serves more than 675,686.

If this is the case, which it is, we would like to express our strongest support to ATSDR- proposal to add PFAS substances to the SPL.

It is immoral and unacceptable to us that our families, friends, and neighbors, particularly our children, could be placed in this position where they live, learn and play, and pray, in an area that presents a potential health hazard and/or imminent health threat. Furthermore, it is very disturbing to us that the EPA- would be so irresponsible as to be a party to the injustice out of which this problem has arise.

We are pleading to ATSDR- to please consider PFAS class chemicals on the SPL and ensure us a margin of safety and make recommendations for our public protections to end exposures to PFAS.



Wilmington, North Carolina (by Emily Donovan):

In June 2017, over a quarter of a million residents learned they'd been consuming large quantities of newly identified PFAS chemicals, including GenX, Nafion Byproduct 2, and PFMOAA, coming from industrial discharges related to a fluorochemical manufacturing facility upstream from our primary source of drinking water. Many of these exposures were happening for decades. A human exposure study conducted by NC State further revealed more newly identified PFAS chemicals in blood samples of the Wilmington residents who participated--many of the PFAS chemicals detected in 98% - 99% of the samples taken. There is no proven safe disposal method for PFAS chemistry. Over-exposed communities, like ours, can no longer afford for industry, government, and/or the scientific community to be wrong regarding PFAS chemistry. PFAS compounds must be reviewed and assessed as a class.

Hyannis, Cape Cod, Massachusetts (by Sue Phelan):



In May 2016, the Hyannis, MA, community learned that several wells supplying municipal drinking water tested above the EPA's Drinking Water Health Advisory level (70 ppt) for perfluoroalkyl substances (PFASs). Only 2 PFASs of the thousands known were tested. These contaminants entered the water supply from fire training exercises utilizing AFFF (Aqueous Film Forming Foam) from the 1950's to the present from the Barnstable County Fire and Rescue Training Academy and the Barnstable Municipal Airport as well as other possible sites yet to be identified. All are located above the sand-covered EPA-designated sole-source aquifer of Cape Cod-the only drinking water supply for the entire county. Hyannis is also the Cape's hub of transportation, commerce, and tourism, with a year-round population of nearly 50,000 that expands to 150,000 in the summer. The area served by this water district is also a state and federally designated Environmental Justice Community. As individuals and as a community, we do not yet know the dosage or duration of our exposure or what, if any, related health outcomes we and the next generations might experience in our future. Many residents report a variety of health issues that have been associated with PFAS exposure, including cancers. It is critical for our community of thousands -exposed to PFAS for decades via the public drinking water supply-to know that their water is protected by federal law to the fullest extent possible. Regulation of a few of the hundreds of PFAS chemicals in the water supply is utterly inadequate. It would benefit the nation to have more protective and legally enforceable PFAS standards for drinking water, surface waters, soils, foods, air, and discharge permits, that treat per- and polyfluoroalkyl substances (PFASs) as a class of compounds and regulate their total to be protective of the most vulnerable populations. This is critically necessary to spare further damage to the physical and mental development of the next generation.

Merrimack, NH (by Laurene Allen)

An active industrial PFAS user in Merrimack, NH is the identified responsible party for drinking water contamination for public and private wells in my home town and 5 additional communities. State investigation with the assistance of the EPA has identified the presence of 190 PFAS in air stack testing and 34 PFAS compounds in water samples. While thousands of residents have been exposed to multiple PFAS chemicals for up to 2 decades, the lengthy process of toxicological profiles approaches this chemical class individually. NH's investigation counts on the federal government's guidance and our residents' exposure to a full panel of PFAS in drinking water must be acknowledged.

Everywhere we look, we see health issues known to be associated with PFAS exposure in our impacted communities, with countless family stories of significant harm. Children with rare cancers, reproductive health disruptions, neurobehavioral and autoimmune disorders have not



been counted in my community and surrounding areas known to be contaminated with PFAS chemicals. Adults with multiple and unexpected health conditions have not received answers to their questions of whether PFAS exposure could be the reason they have been struggling. I believe my family's health has been altered by our long term exposure to PFAS in our drinking water and environment.

It is not conscionable for the CDC/ATSDR to engage in the endless task of individual PFAS toxicological profiles as health impacts are consistently found to exist for each compound. Merrimack and 5 surrounding communities have significant environmental contamination that will never go away, people deserve the information that both they and their physicians need. The work of the ATSDR must reflect the true PFAS exposure communities with drinking water contamination are consuming. We need you to put together the science for PFAS as a class to justify an end to the presence of toxic chemicals in our water sources so we can make our communities whole again.

Warminster/Horsham, PA (by Joanne Stanton and Hope Grosse)

Nearly 100,000 area residents living in close proximity to the Naval Air Station Joint Reserve Base Willow Grove in Horsham, PA and/or the Naval Air Warfare Center Warminster in Warminster, PA were exposed to PFAS and many other hazardous substances released from the Naval Bases into public and private drinking water wells since the early 1970s. Area residents are concerned about the health effects their families have suffered or will suffer as a result of the exposure.



We are two concerned mothers that formed a non-profit advocacy group after PFAS was detected in our local drinking water at some of the highest levels ever found in the country. Too many area residents have seen loved ones, including our own children, die from cancer or suffer other chronic illnesses as a result of drinking DOD contaminated water for decades. Like many other communities across the country we have been left alone to deal with the health effects of PFAS and far too many unanswered questions about our exposures. Mothers have been especially hard hit dealing with insurmountable guilt. Did we unknowingly expose our babies to PFAS through the umbilical cord or our breast milk? Did PFAS cause my child's cancer or other chronic illness? With increased cancer rates locally in both adults and children and groundwater levels of PFAS still at levels 4,000 times EPAs HAL, we need action! How can the EPA and ATSDR continually turn a blind eye to much of the PFAS science conducted by top federal scientists at the NIH? Choosing instead to hide behind ongoing political agendas. Sadly, the combined and cumulative effects of this class of chemicals has never been studied leaving us completely in the dark with regards to the full extent of our health effects. It is time for ATSDR to step up to the plate and publicly establish the science behind this entire class of chemicals and fulfill its mission to protect the health of the American people and an exposed community's right to know!

Brevard County, Florida (by Stel Bailey)



Patrick Air Force Base is one of the nation's military installations most severely impacted by PFAS contamination. Wells on Patrick Air Force Base tested at 4.3 million ppt of PFOA and PFOS. Families were devastated to learn that PFAS and other hazardous substances were in the water. Patrick Air Force Base, Cape Canaveral Air Force Station, and Kennedy Space Center utilized AFFF (Aqueous Film Forming Foam), which entered our water. In 2016, scientists measured these chemicals at the highest levels ever found in alligators, dolphins, manatees, and mullet. Through our crowdsourcing efforts, which began in 2014, we collected 800 cancer cases in one zip code (32937) directly next to Patrick Air Force Base. These health concerns were brought to light in 2018 by Dr. Julie Greenwalt, an oncologist and cancer survivor. She attended the high school next to the base that had at least 56 graduates diagnosed with cancer within a few years of one another. The area had a cancer cluster investigation in the 90s with 27 cases of Hodgkin's Lymphoma. At that time, Dr. Richard Clapp, a former director of the Massachusetts state cancer registry who studied more than 1,000 cancer cases, said that the cancer cluster was one of the most striking in U.S. medical history. My family was personally affected in 2013 when my uncle, little brother, the family dog, father, and I were diagnosed with rare blood cancers. Dr. Greenwalt's concerns combined with our crowdsourced medical information resulted in another cancer cluster study in 2019, where the Department of Health concluded that cancer rates are high in Brevard County, FL, but cannot explain why. It would benefit our military service members, their families, and surrounding communities if we had more protective and legally enforceable PFAS standards. It's time for ATSDR to step up and protect the health of our communities by regulating this entire class of dangerous chemicals.

Oscoda, Michigan (by Anthony M. Spaniola)



Oscoda, Michigan is the home of the first publicly reported PFAS contamination site in Michigan and the first publicly reported U.S. military PFAS contamination site in the world. The contamination stems from the use of AFFF fire fighting foam at the former Wurtsmith Air Force Base. Since Michigan regulatory officials discovered the contamination in 2010, public health officials have issued five separate public health warnings for the Oscoda area, comprised of (1) a “Do Not Eat” fish warning for a 9 mile stretch of the Au Sable River (which flows directly into nearby Lake Huron); (2) a “Do Not Drink” water warning for residential water wells serving approximately 3,000 people; (3) a “Do Not Eat” venison warning for deer harvested within a five mile radius of the former base; (4) a “Do Not Come Into Contact” warning for highly contaminated surface water foam on a large inland lake; and (5) a “Do Not Eat” warning for all small game and semi aquatic wildlife in a beautiful marsh near the former base. People in Oscoda have been exposed for decades to a PFAS cocktail containing far more than the four PFAS chemicals for which Provisional Minimal Risk Levels have been recommended. As new lives are being brought into this world every day, and as new PFAS chemicals are added regularly to the already large PFAS class, we simply cannot wait for a one-at-a-time review. For our families, for our children and for future generations, it is time to act now, and to act decisively, on the entire class of PFAS chemicals. That’s why my group, Need Our Water (NOW), wholeheartedly supports and joins the National PFAS Contamination Coalition in calling for a Provisional Minimal Risk Level of 1 part per trillion, or less, for the entire class of PFAS chemicals.