



PRESS RELEASE

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Industrial Chemicals in Our Drinking Water - the Haw River and Cape Fear Rivers

The [news](#) in June that Wilmington's drinking water from the Cape Fear River has been contaminated by a chemical called GenX raised alarm among the city officials and the nearly 200,000 city and New Hanover county residents served by the Cape Fear Public Utility Authority. The chemical is a new generation of per- and polyfluoroalkyl substances (PFASs) used in many industrial applications, and is manufactured at the Chemours factory (a spin-off of DuPont) in Fayetteville, upriver from Wilmington. GenX and an earlier version of the chemical, PFOA, have likely been discharged into the Cape Fear River since the 1980s without Wilmington's knowledge. Both GenX and PFOA have been shown in lab studies to cause tumors and reproductive problems. [EPA fined DuPont \\$16.5 million in 2005](#) for violations in West Virginia related to withholding information about the dangers of PFOA.

There are currently no federal drinking water standards for GenX and for many other chemicals that are discharged by industry into our public water supplies. Even more troubling is that most drinking water treatment plants are largely unaware of what is in the source water. They may be doing a good job of removing the nearly 90 chemicals that are regulated by the [Safe Drinking Water Act](#), but have limited or no ability to deal with unregulated compounds like GenX. The Wilmington experience illustrates how our current regulatory framework leads to potentially hazardous levels of these chemicals in our public drinking water.

Closer to Home - Contaminants in the Haw River

A [study](#) published in 2007 documented that many other PFASs are also being discharged by industries into the Upper Cape Fear Basin, including high amounts found at various locations downriver of Burlington in the Haw River. EPA has now established a drinking water advisory recommending limits for two of the more common PFASs that have been found in drinking water (PFOA and PFOS). A recent 2016 paper, published in *Environmental Science and Technology Letters* "Legacy and Emerging Perfluoroalkyl Substances Are Important Drinking Water Contaminants in the Cape Fear River Watershed of North Carolina" (Mei Sun, Elisa Arevalo, Mark Strynar, Andrew Lindstrom, Michael Richardson, Ben Kearns, Adam Pickett, Chris Smith, and Detlef Knappe) shows that the sum of PFOS and PFOA exceeded the health advisory threshold (70 ng/L) for the source water (the Haw River) in the Town of Pittsboro on 57 out of 127 days of sampling (45% of the time) in 2013. A [report](#) co-authored by the Haw and Catawba Riverkeepers in Oct. 2015, revealed that PFOS and PFOA can contaminate drinking water supplies through stormwater runoff from land application of municipal waste water sludge.

Most industrial wastewater is treated in municipal waste water treatment plants, and regulations do not require monitoring for these chemicals.

Scientists, along with the Haw River Assembly, and other concerned citizens urged the Town of Pittsboro to take steps to identify and mitigate the source of this contamination. Pittsboro began using an additional treatment method last winter to try and remove more of the PFASs, but even these methods have limited results, as the study reference above showed. During EPA's study period for the advisory, large municipal water supplies in the Haw River watershed, including OWASA (serving Chapel Hill and Carrboro) and Greensboro were required to monitor for PFOS and PFOA. Both of these found PFASs in their source and/or finished drinking water, despite their water supply sources being much more protected than the Haw River.

Another contaminant, the industrial solvent, 1,4-dioxane, was found in the Haw River and in Pittsboro's drinking water through monitoring by Dr. Detlef Knappe of NC State University (Environ. Sci. Technol. 2016, 50, 2246–2254). Similar to many PFASs, 1,4-dioxane is very difficult to remove in the drinking water treatment process. What other industrial chemicals are in the Haw River, and in all public water supplies? How many chemicals that are currently unregulated under the Safe Drinking Water Act would be found, if we had the resources to look for them?

Clearly the system is broken. The current approach ignores unregulated emissions and discounts the possibility that these compounds may be responsible for harmful impacts to human health and the environment. We need much broader discharge control and advanced techniques for contaminant monitoring to stop this problem at the source, instead of trying to remove chemicals already in our water supplies. The public and our elected leaders should have confidence that our drinking water supplies are safe, and that our streams, lakes and rivers are healthy for recreation and wildlife.

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