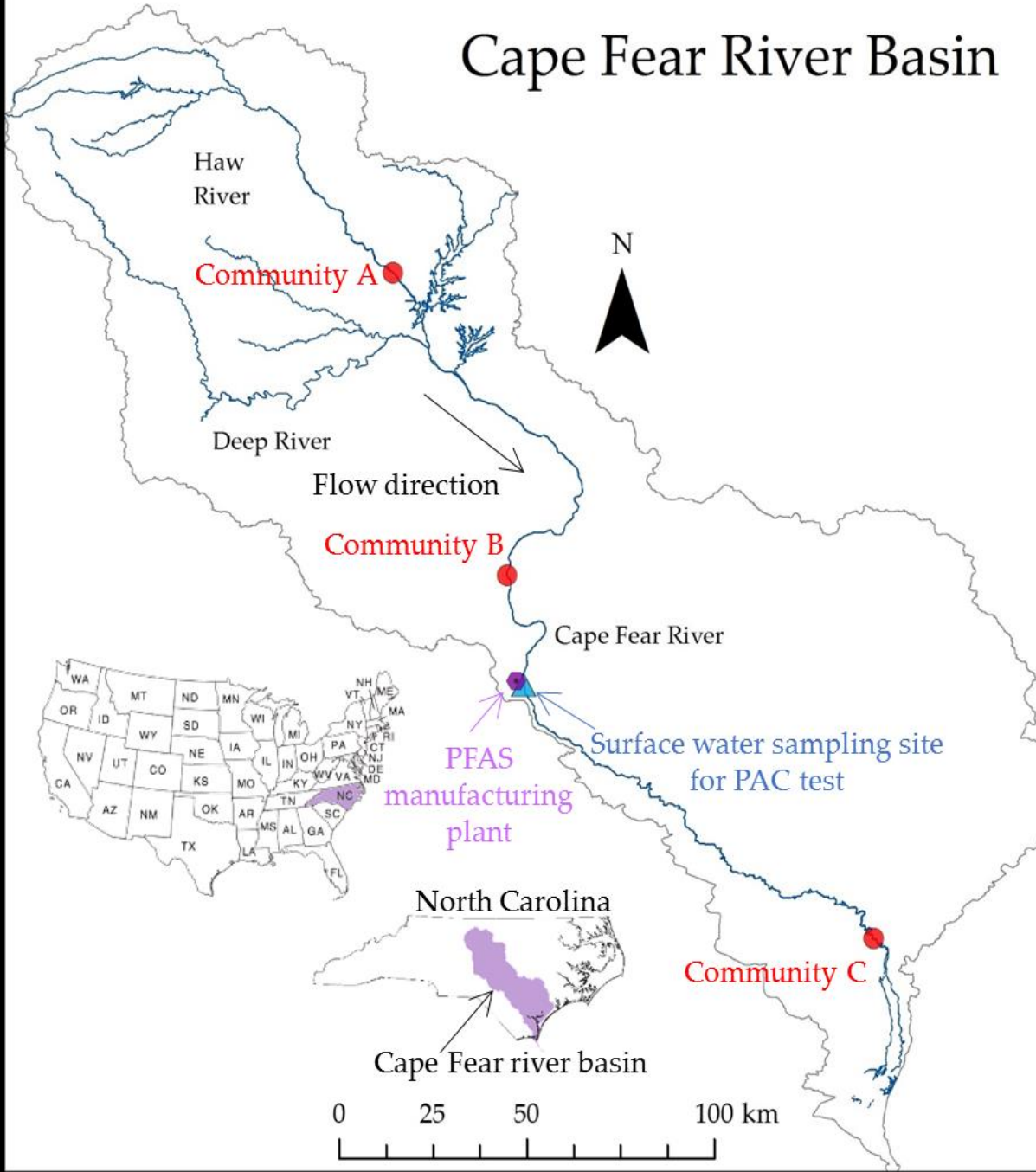


Update on occurrence of PFASs in the Wilmington area and effectiveness of home filters

**John Merrill, Zachary Hopkins, Mei Sun, Elisa Arevalo,
Andrew Lindstrom, Mark Strynar, Detlef Knappe**

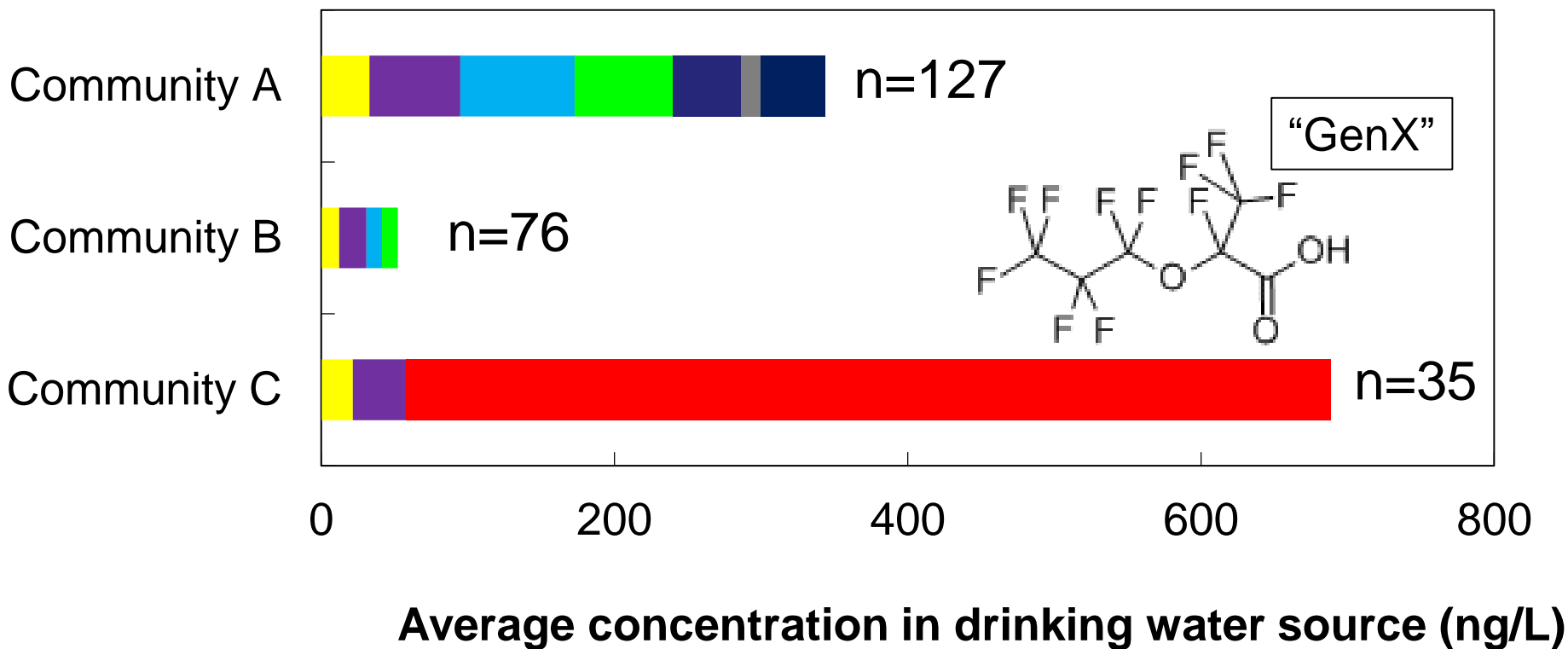
Cape Fear River Assembly
Wilmington, September 28, 2017

Cape Fear River Basin

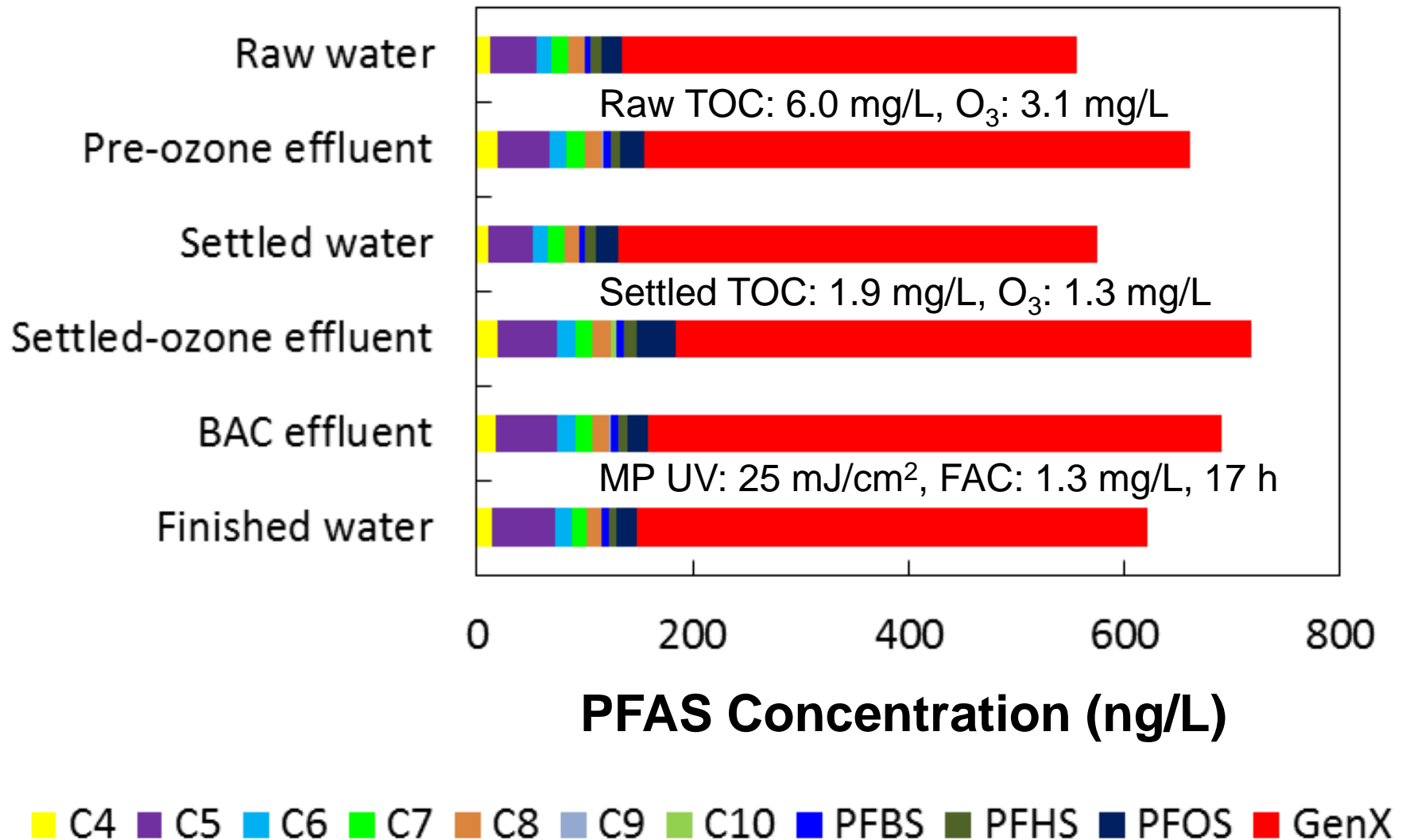


- Largest watershed in NC
- Supplies ~1.5M people with drinking water

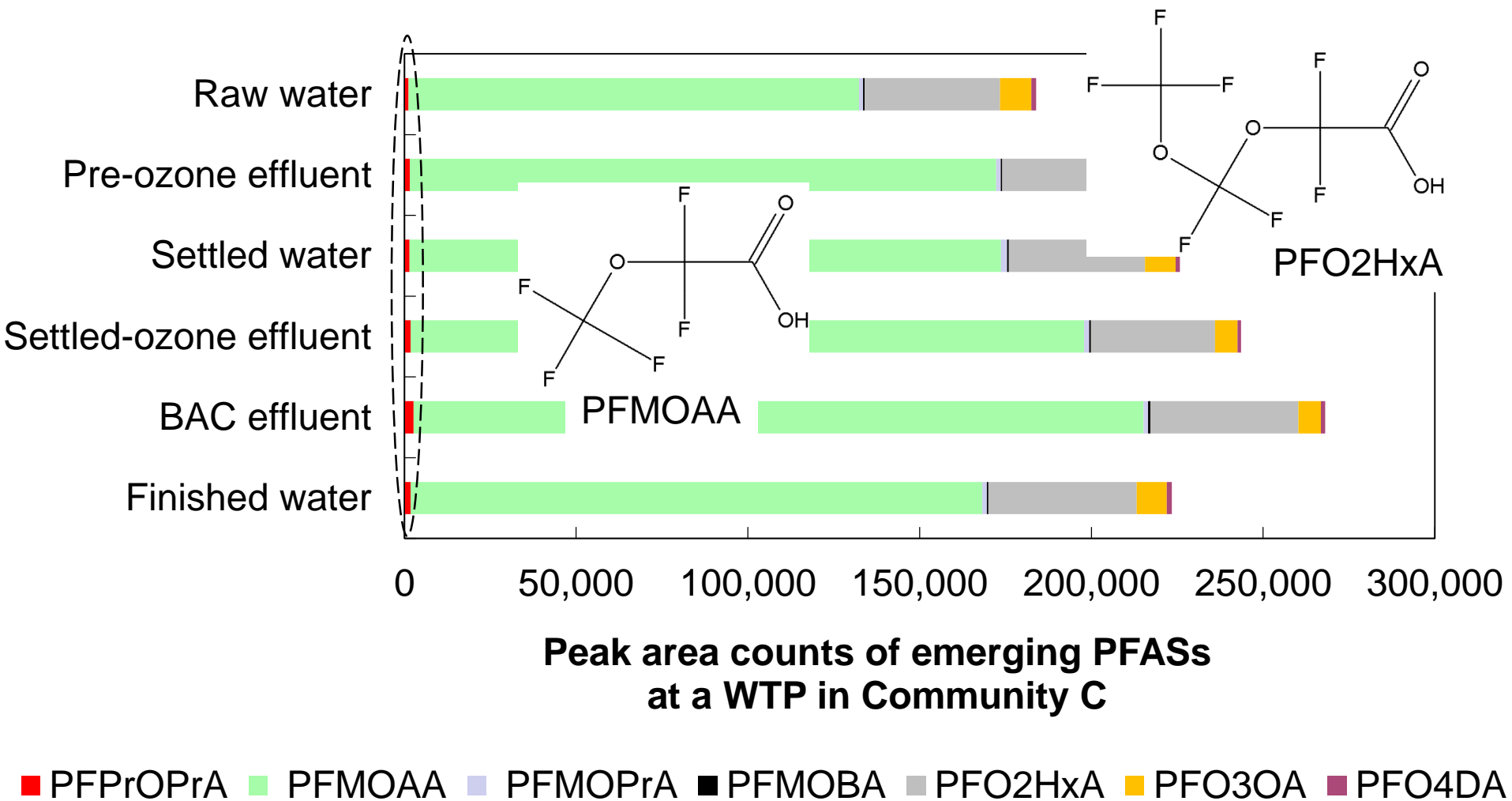
PFAS Occurrence in the CFR Watershed



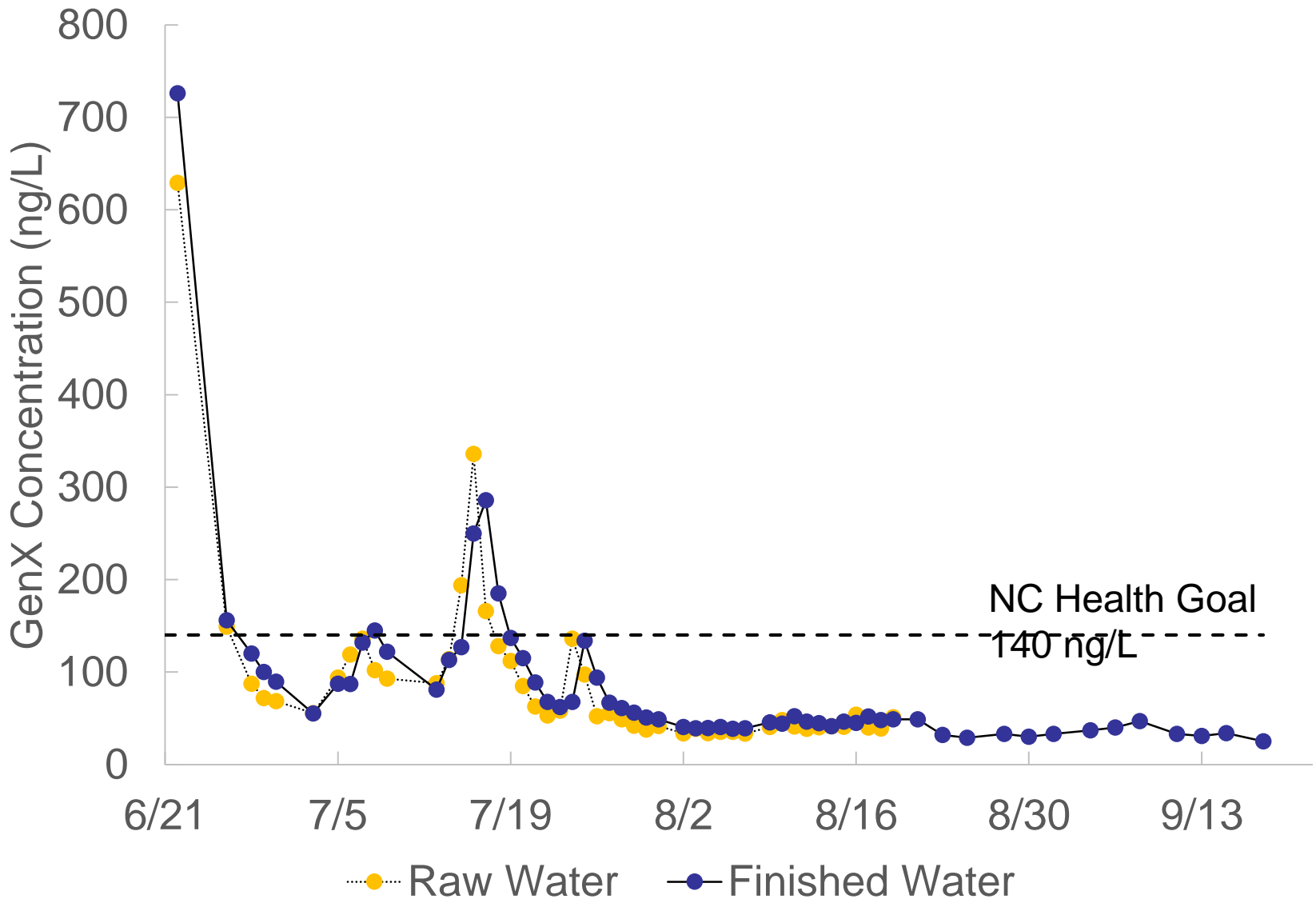
No measurable PFAS removal by conventional and advanced treatment



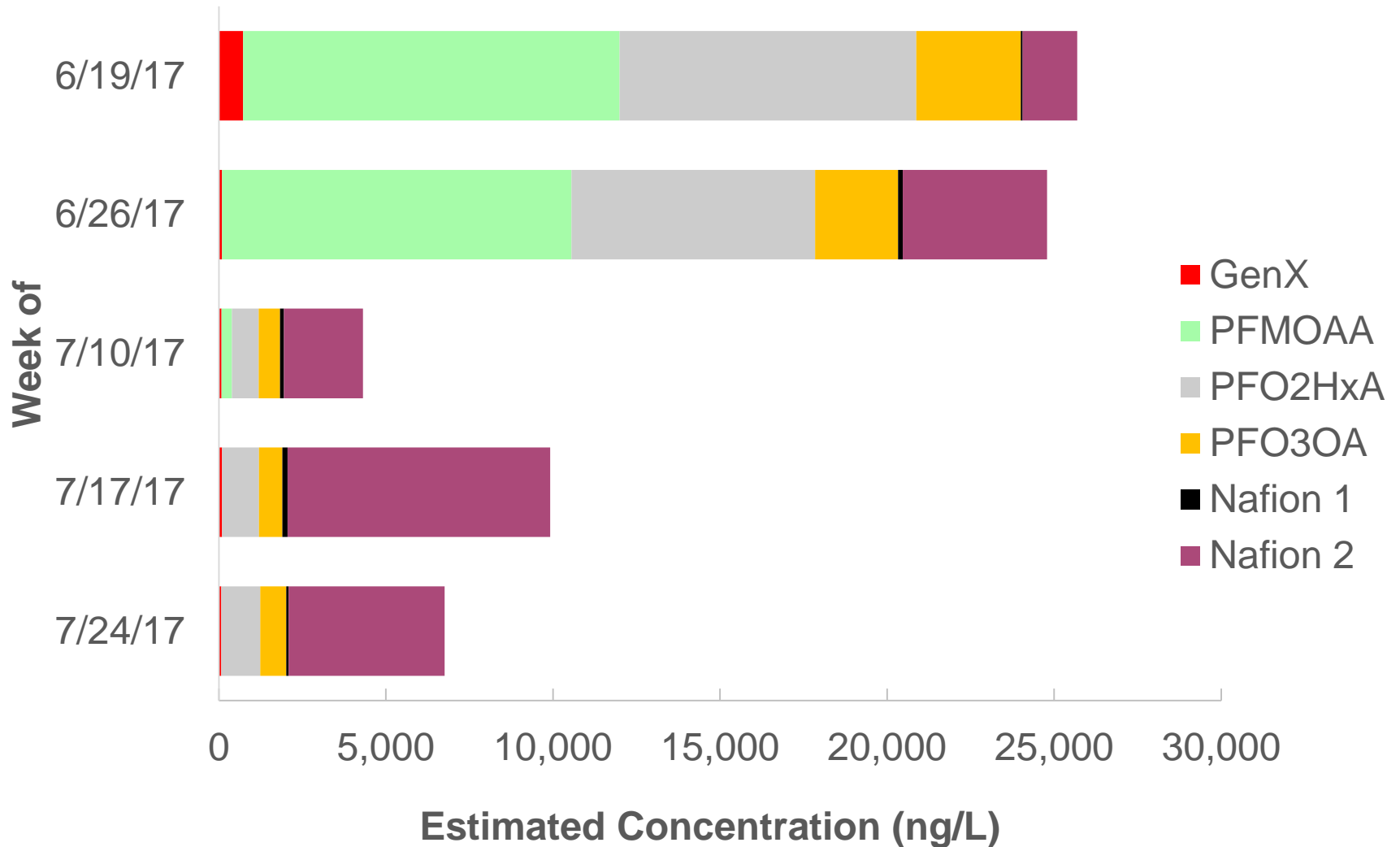
Recently discovered perfluoroalkyl ether carboxylic acids occur at substantially higher concentrations than traditional PFASs and GenX



GenX Concentrations after Chemours announced on 6/21/17 that it stopped discharging GenX



EPA Data: PFECA Concentrations in Wilmington Drinking Water (8/31/17 Data Release)



Update on performance of home filters

Reverse Osmosis (Under Sink)

Sampling Date:

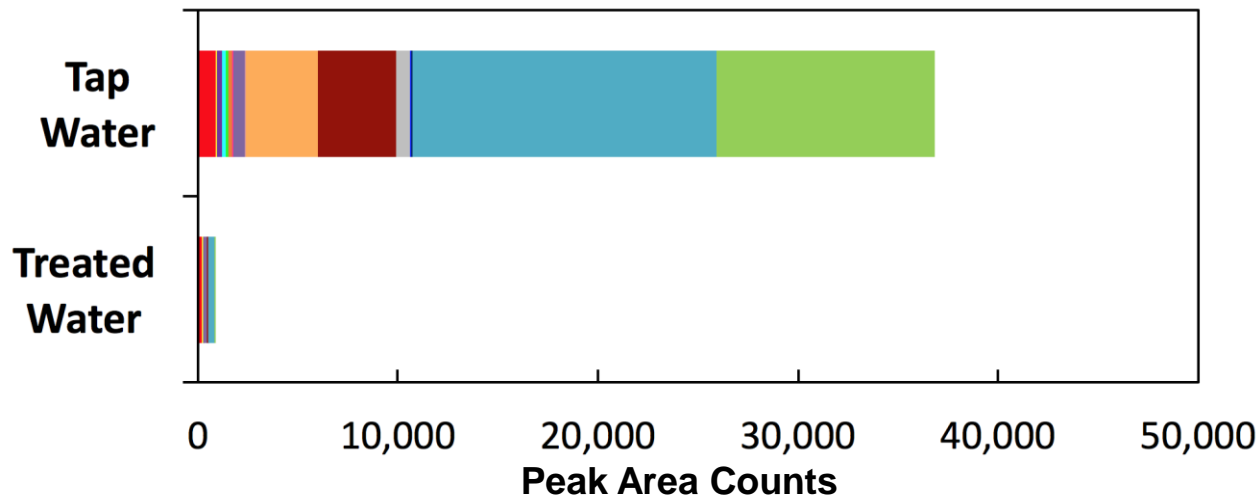
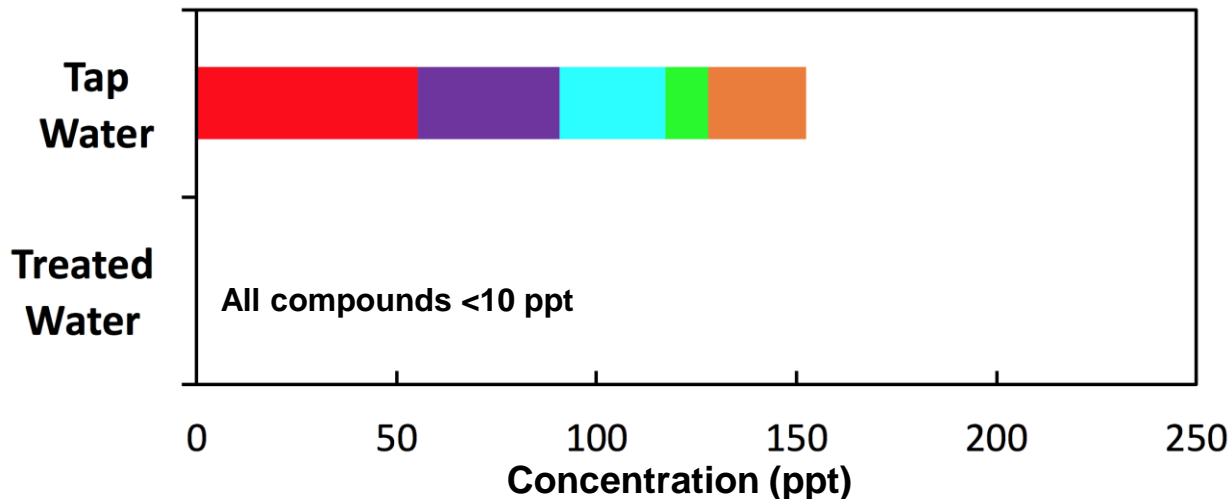
August 4, 2017

Install Date:

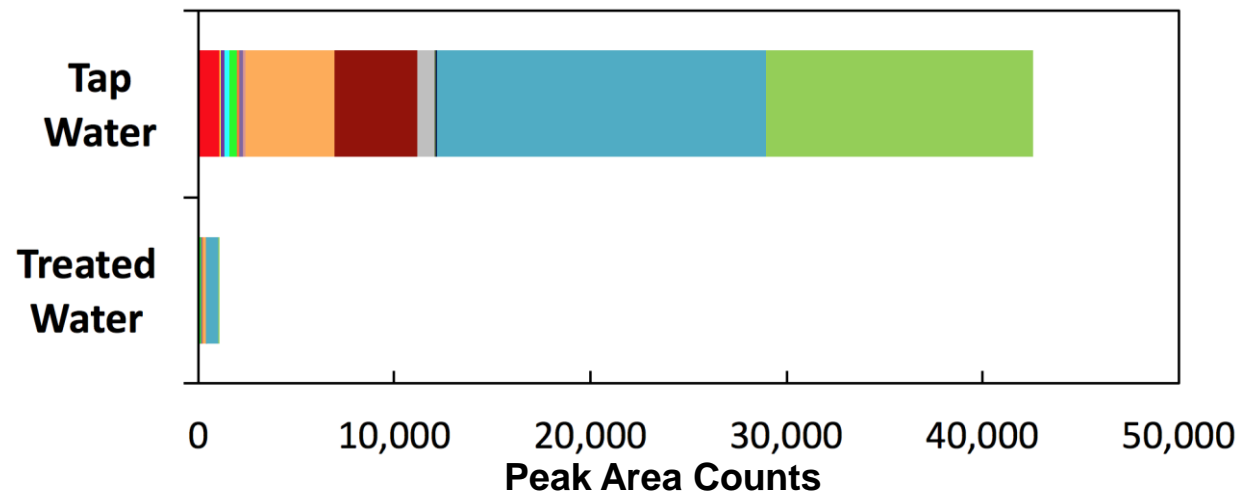
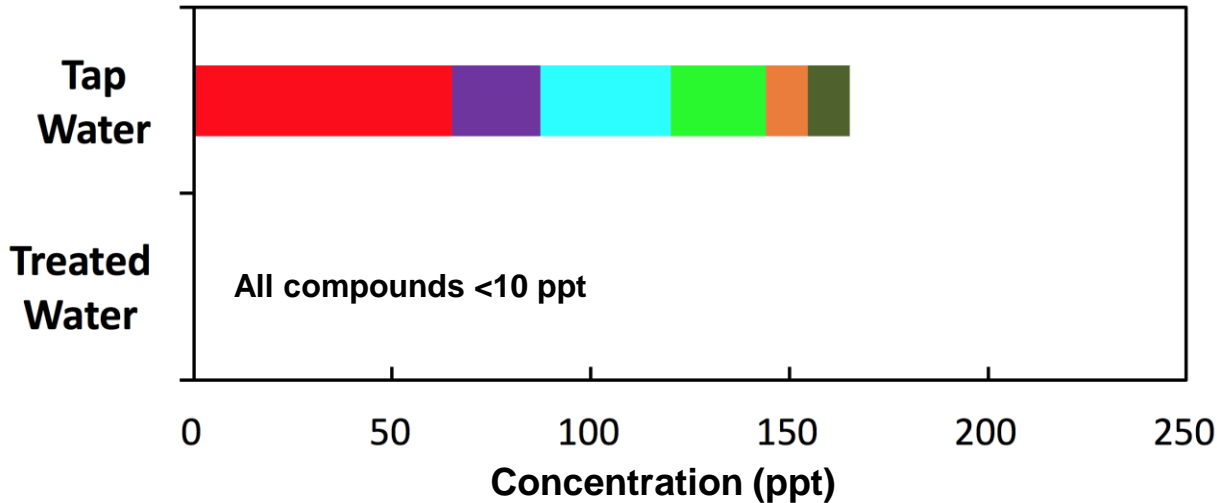
July 23, 2017

Water:

Cape Fear Public
Utility Authority
(Sweeney WTP)



Activated Carbon (Under Sink)



Sampling Date:

August 4, 2017

Install Date:

June 21, 2017

Water:

Cape Fear Public
Utility Authority
(Sweeney WTP)



Activated Carbon (Whole House)

Sampling Date:

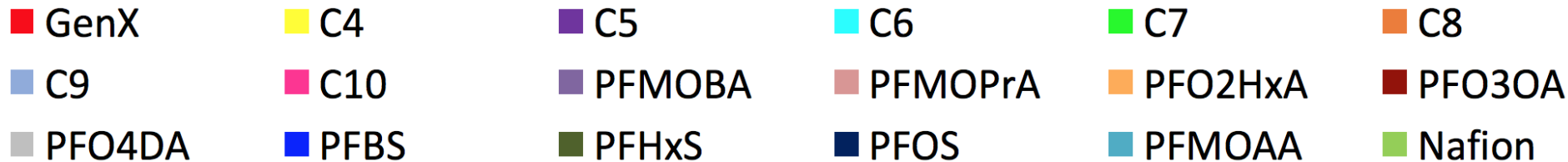
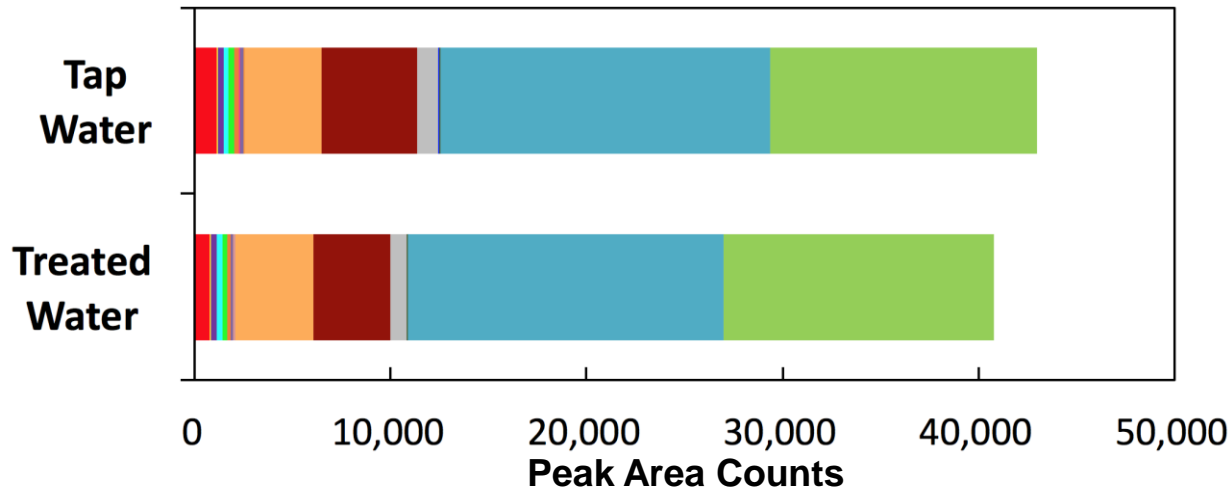
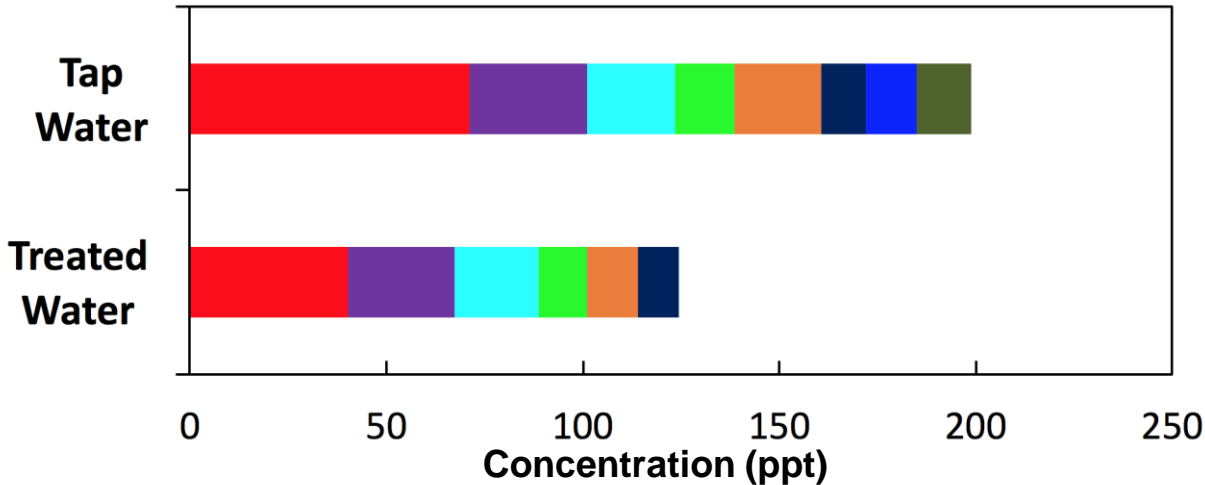
August 4, 2017

Install Date:

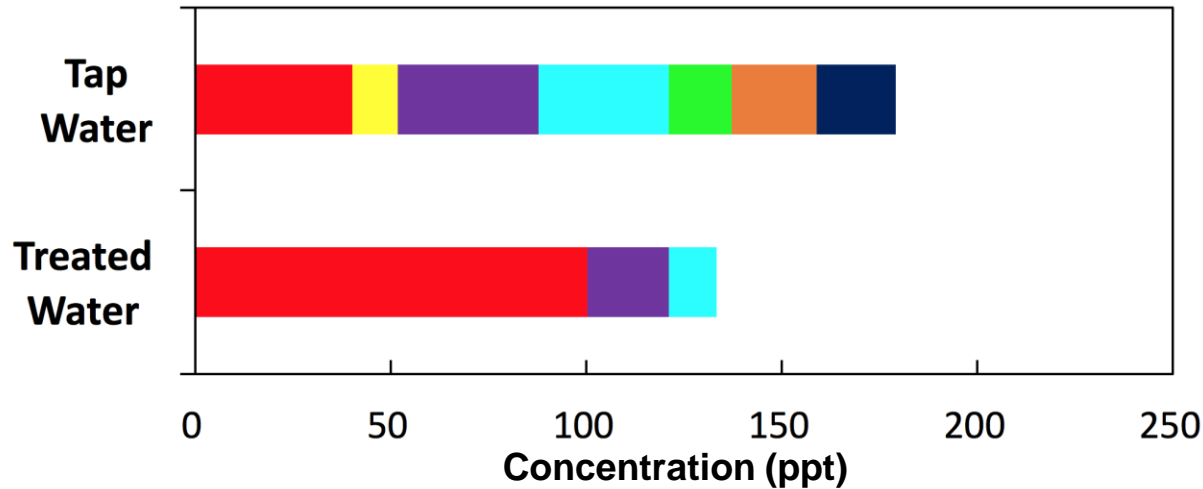
June 29, 2017

Water:

Cape Fear Public
Utility Authority
(Sweeney WTP)



Activated Carbon (Countertop)



Sampling Date:

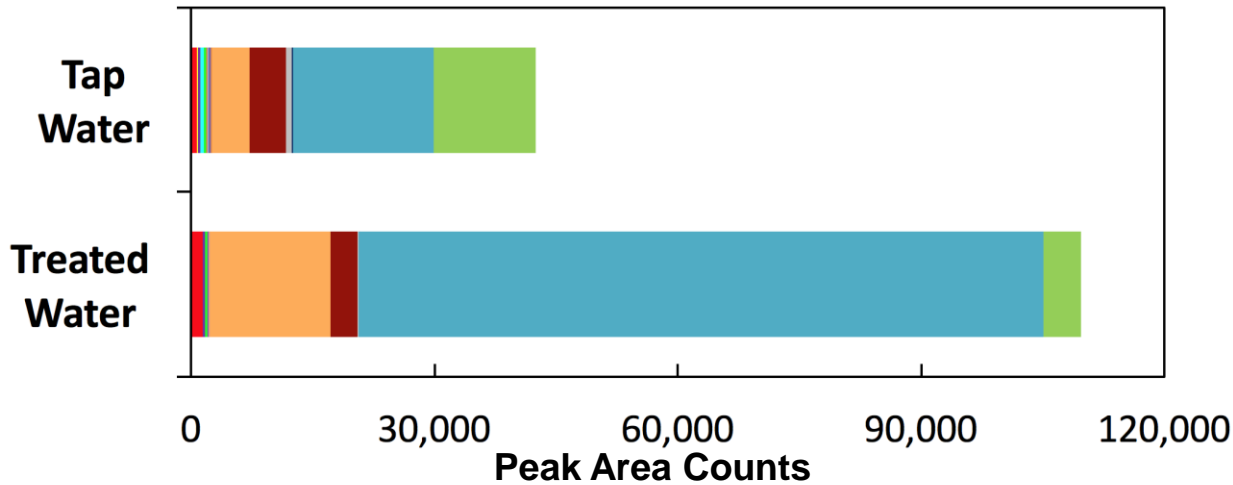
August 4, 2017

Install Date:

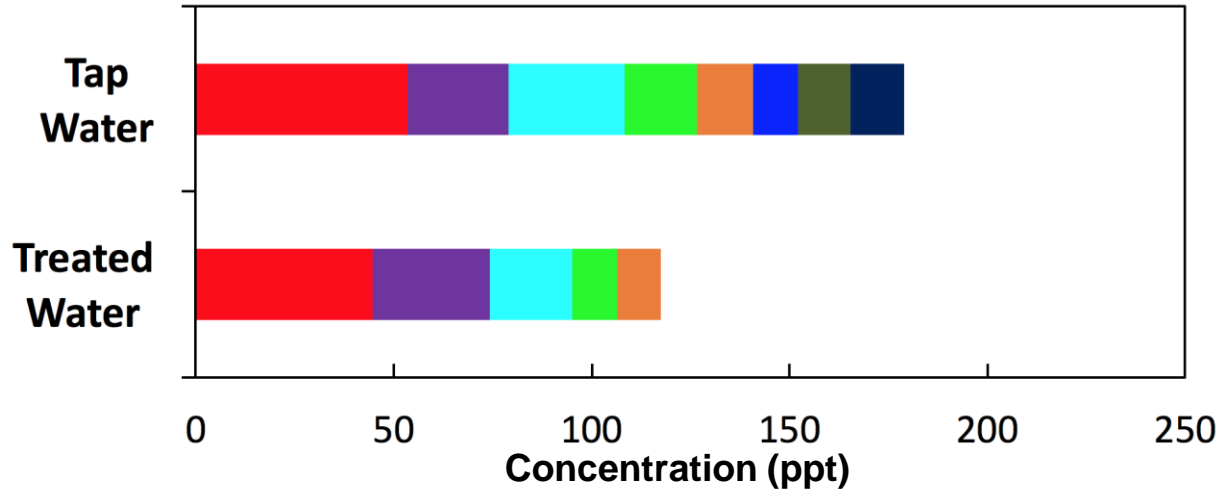
June 11, 2015

Water:

Cape Fear Public
Utility Authority
(Sweeney WTP)



Ion Exchange (Whole House)

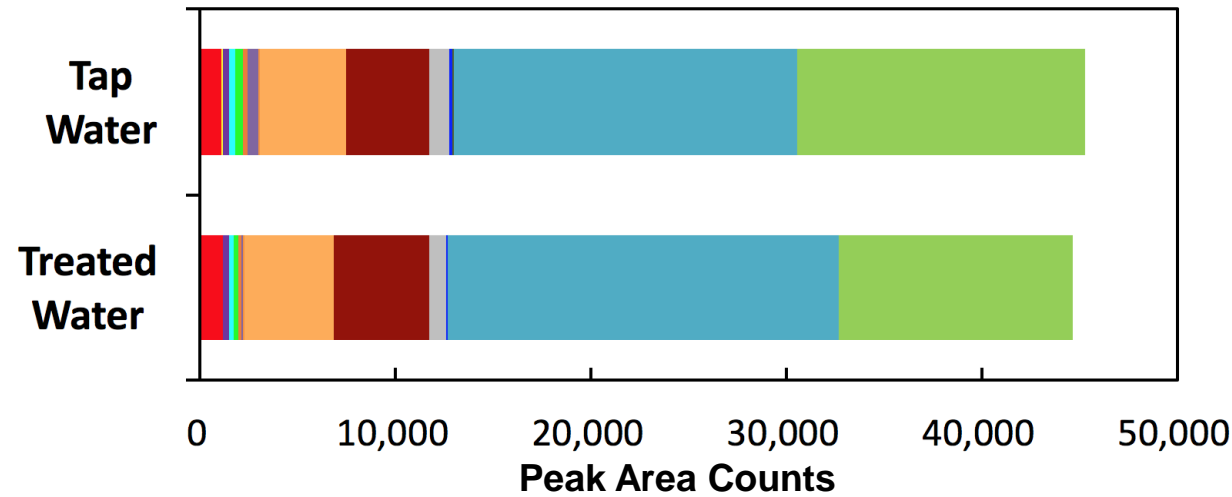


Sampling Date:

August 4, 2017

Install Date:

May 4, 2016



Water:

Cape Fear Public
Utility Authority
(Sweeney WTP)





Questions?

knappe@ncsu.edu

