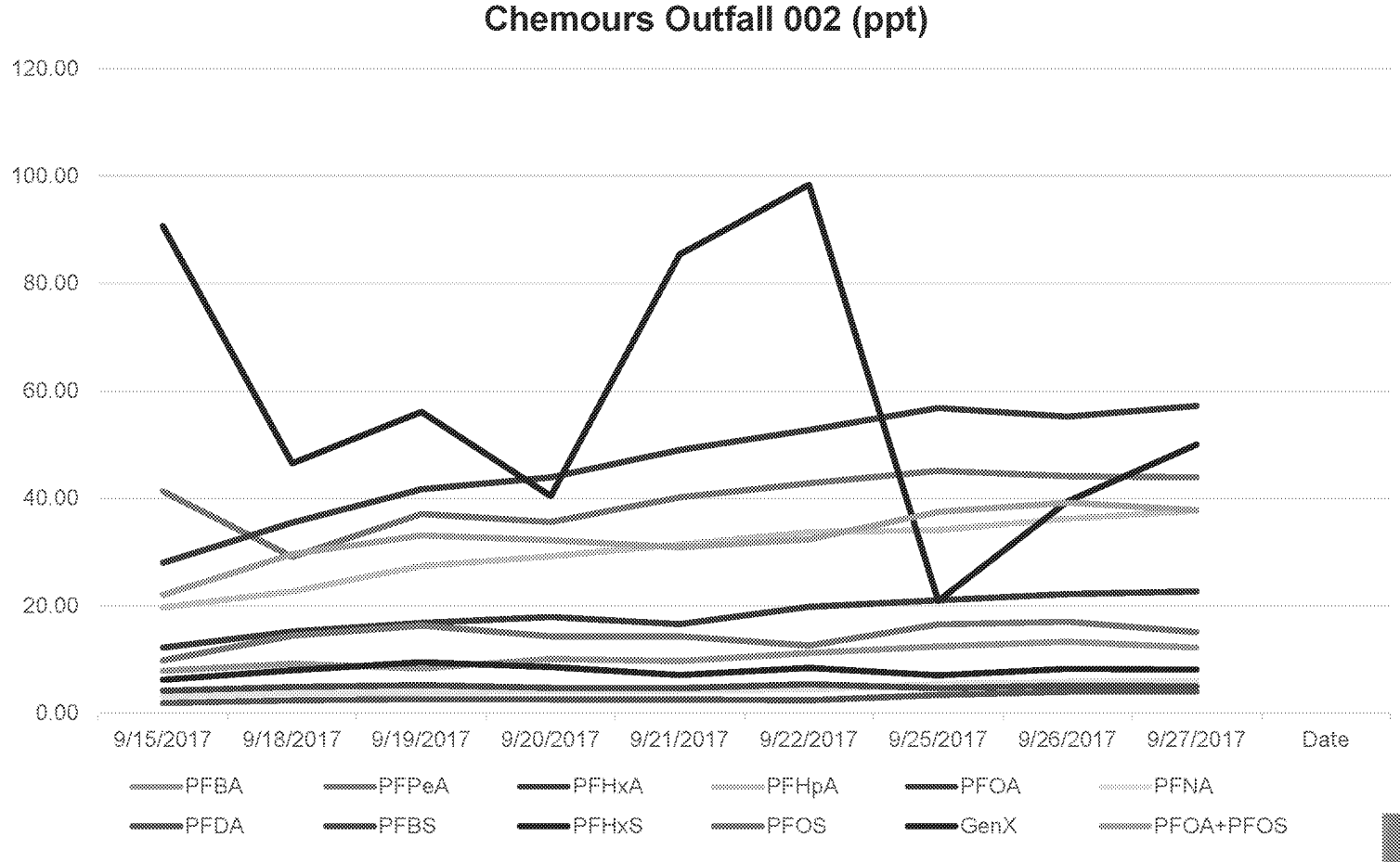
Nothing Compares
NORTH CAROLINA

GenX in the Cape Fear River Basin
Presentation to ECOS – EPA PFAS Call
October 30, 2017

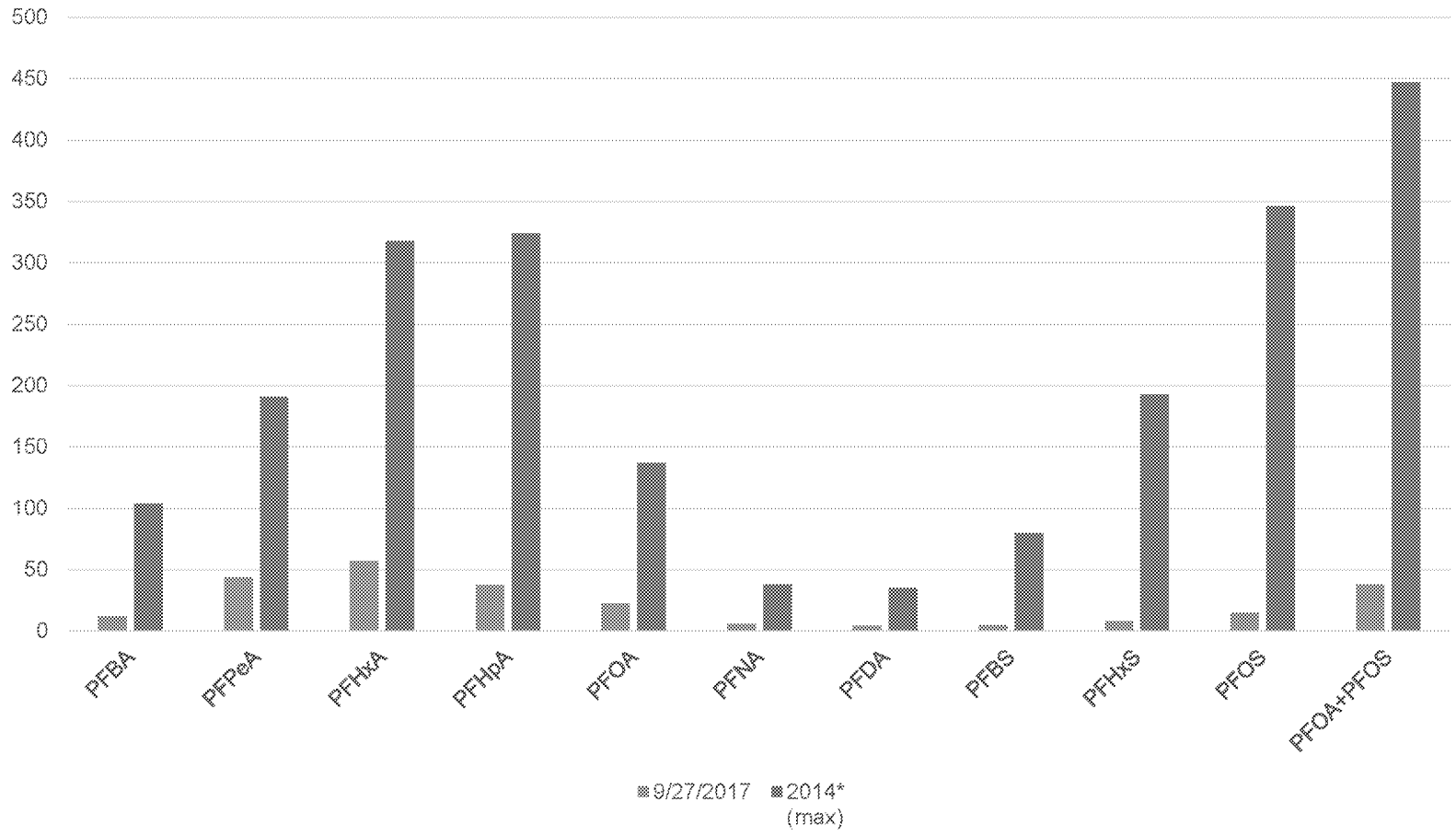
Latest Cape Fear River Sampling Data



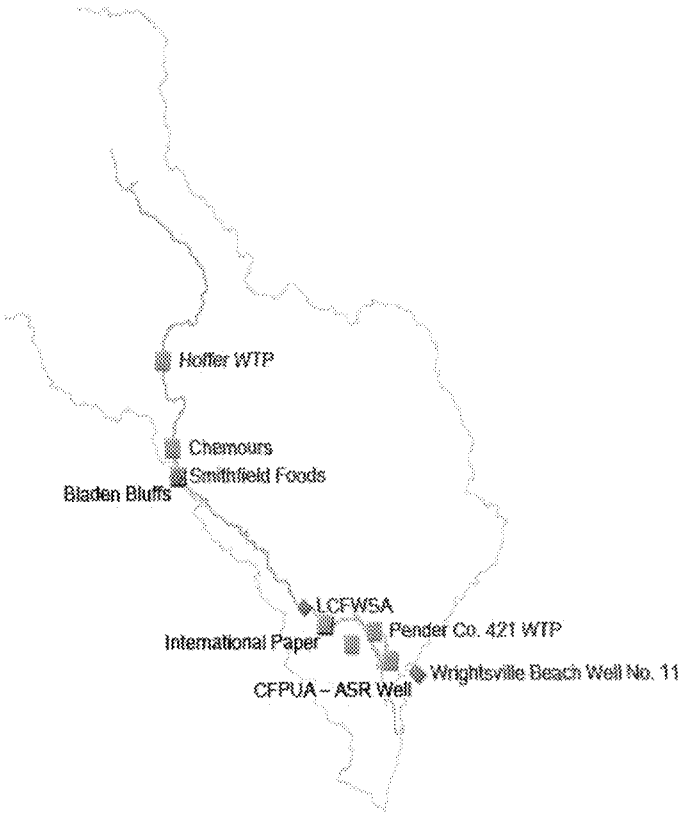
Drinking Water Samples

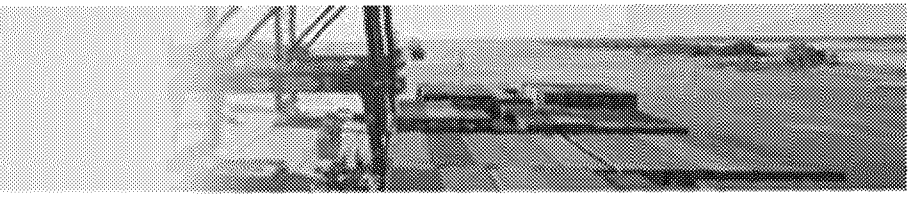
		Results (ppt)		
		9/14/2017	9/21/2017	9/28/2017
International Paper	PFOA	3.65	2.97	3.74
	PFOS	1.64 (J)	1.21 (J)	1.40 (J)
	PFOA+PFOS	5.29 (J)	4.18 (J)	5.14 (J)
	GenX	30.2	33.4	35.3
Cape Fear Public Utility	PFOA	15.1	10.1	12.1
	PFOS	17.2	17.3	14.5
	PFOA+PFOS	32.3	27.4	26.6
	GenX	33.2	36.1	28.9
Pender County	PFOA	12.2	2.74	2.87
	PFOS	0.544 (J)	1.02 (J)	0.977 (J)
	PFOA+PFOS	4.36 (J)	3.76 (J)	3.85 (J)
	GenX	40.4	41.0	42.4
NW Brunswick County	PFOA	9.98	7.96	8.16
	PFOS	7.78	5.98	7.78
	PFOA+PFOS	16.0	15.7	8.2
	GenX	33.1	35.0	24.3

Historic Comparison



DEQ Sampling





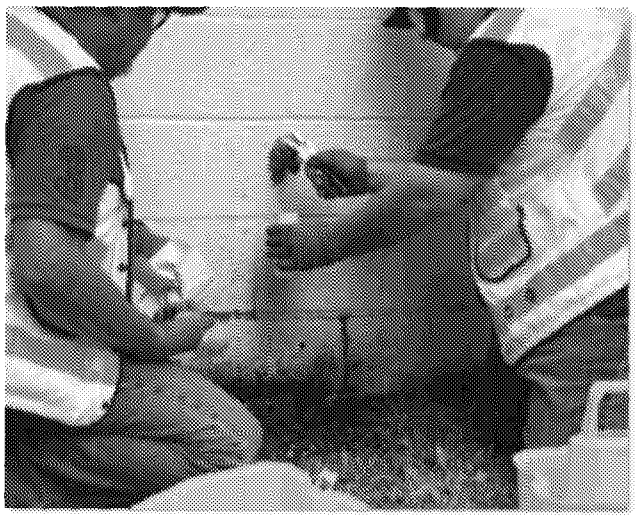
Process area sampling at Chemours.

Weekly composite sampling at the Chemours NPDES outfall 002.

Weekly sampling of finished drinking downstream of the Chemours facility.

Private Well Sampling Results

Private wells sampled:	110
Total # wells with exceedance of the GenX NC DHHS provisional health goal:	40 (36%)
Total # wells reported as not-detected (ND):	36 (33%)
Total # wells with a GenX detection (includes those above the health goal):	74 (67%)
Total # wells with a GenX detection less than the health goal:	34 (31%)
The maximum detected GenX concentration is	1300 ng/L (ppt)



Chemours Sampling Map (Northern Area)

Chemours Sampling Map (Central Area)

Chemours Sampling Map (Southern Area)

Chemours reported air emissions (pounds per year)

	2012	2013	2014	2015	2016
C3 dimer acid fluoride	500	539	545	669	591
C3 dimer acid (GenX)	1	3	4	3	3
C3 dimer acid ammonium salt	1	3	3	2	2

- All data based on chemical process computational model.
- Air emission data for other emerging contaminants has been received and is being analyzed by staff.
- Source information, emissions data, and stack parameters needed to conduct air dispersion modeling has been received.

Stack Testing

- DAQ and Chemours discussing/evaluating appropriate methods
- No "off the shelf" method. Developing test methods that will capture and measure the contaminants of interest
- Chemours has indicated that they will test to better quantify air emissions as soon as measurement issues are resolved.

Ambient Air Quality Monitoring

- DAQ and EPA discussing/evaluating appropriate methods, equipment and lab capabilities
- Do the contaminants act as a gas or a particle?
- What analytical detection limits are possible?

RECAP ACTIVITIES

- Monitoring the Facility for surface water and groundwater and
- Air emissions modeling
- Continuing to delineate off-site groundwater contamination and its potential sources
- Reviewing private well water data from Chemours and DEQ for data analysis, data QC, HREs, planning and mapping
- Evaluating chemical pathways (chemicals created and transformed)
- Determine future sampling needs
- Continuing to host community meetings
- Engaging Federal/State and International partners

Questions?

Sheila Holman
Assistant Secretary
NC Department of Environmental Quality

Ex. 6