

Update on Response to Emerging Contaminants

House Select Committee on North Carolina River Quality

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Executive Director

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Summary



- Final Report for HB56 submitted on March 23, 2018
- Continue to monitor levels of GenX and other emerging contaminants
- Filter media pilot study at Sweeney Water Treatment Plant in final stage
- Continue to monitor groundwater in the vicinity of ASR site
- Water stations are now open at Ogden Park & Veterans Park

Summary

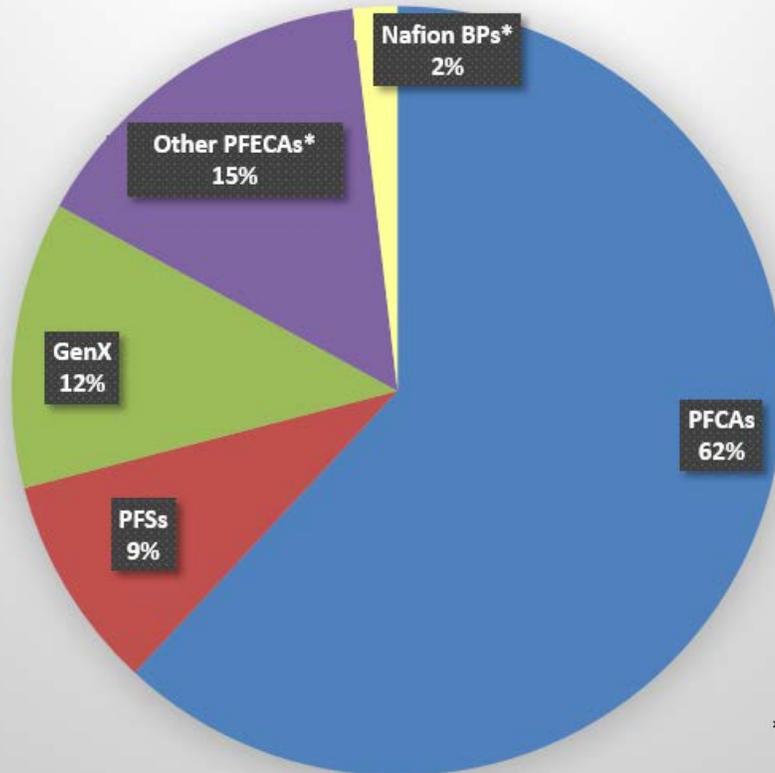


Controlling contaminants at the source remains the only option to:

- maintain drinking water quality
- protect public health
- safeguard the environment
- ensure associated costs are paid by discharger, not downstream communities

Sampling Results of Water at Sweeney

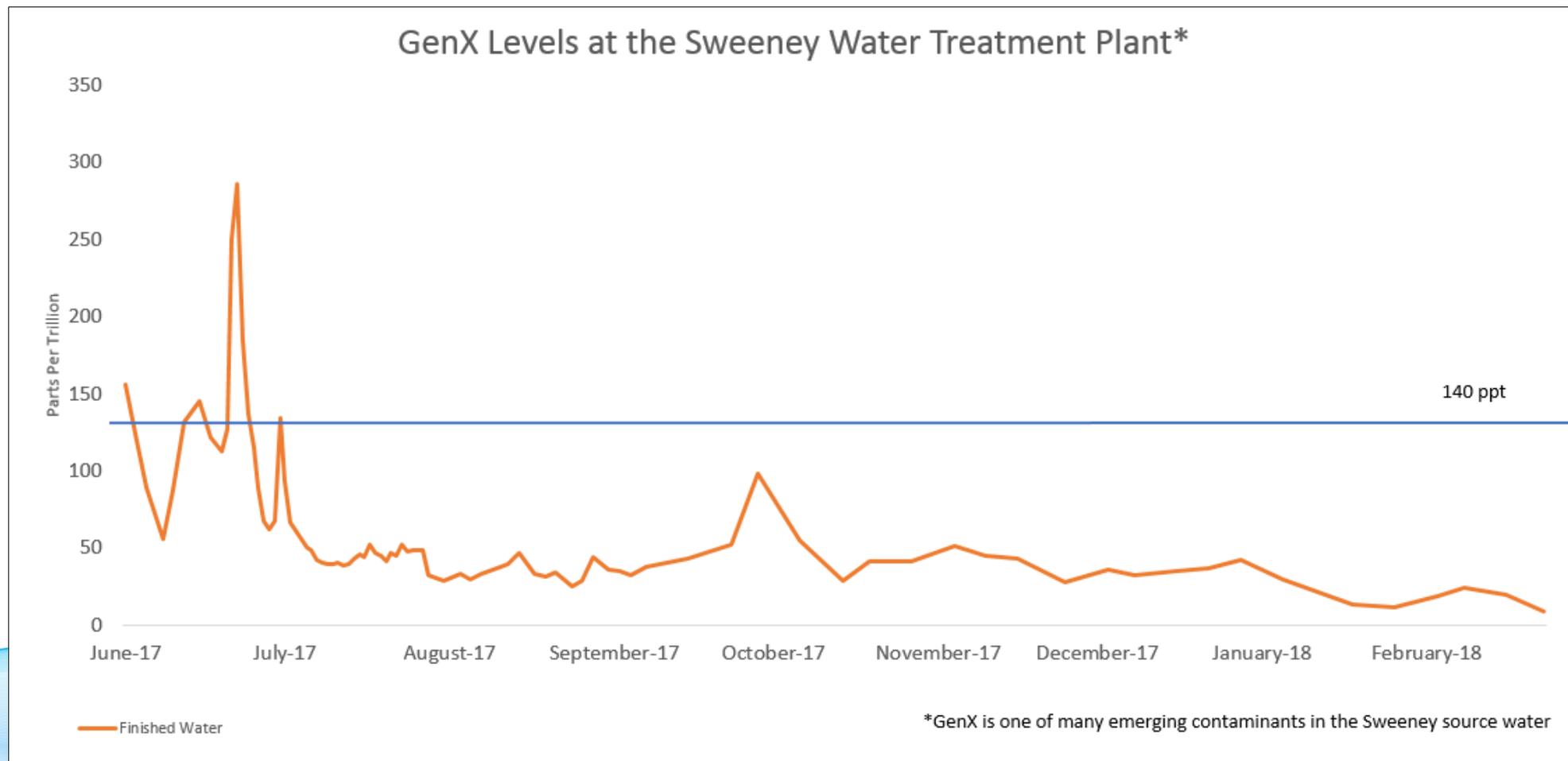
Breakdown of PFAS Detected- Average November 2017



* Levels must be estimated

- We are currently testing for over 30 per-fluorinated compounds.
- Of those, levels of nearly 10 per-fluorinated compounds must be estimated due to the lack of testing standards.
- In June 2017, CFPUA requested DuPont & Chemours provide a list of chemicals being discharged and testing standards—to date they have not been received.
- GenX consistently accounts for a small percentage of the per-fluorinated compounds that can be detected.

Weekly Sampling of the Finished Water



Filter Media Pilot Study

- Pilot study is in final phase of testing
- Granular Activated Carbon (GAC) and Ion Exchange show effectiveness in reducing per-fluorinated compounds in drinking water
- 100% removal cannot be achieved
- Higher levels of contaminants could overwhelm Plant's capacity to filter them



CFPUA Aquifer Storage and Recovery Well Status



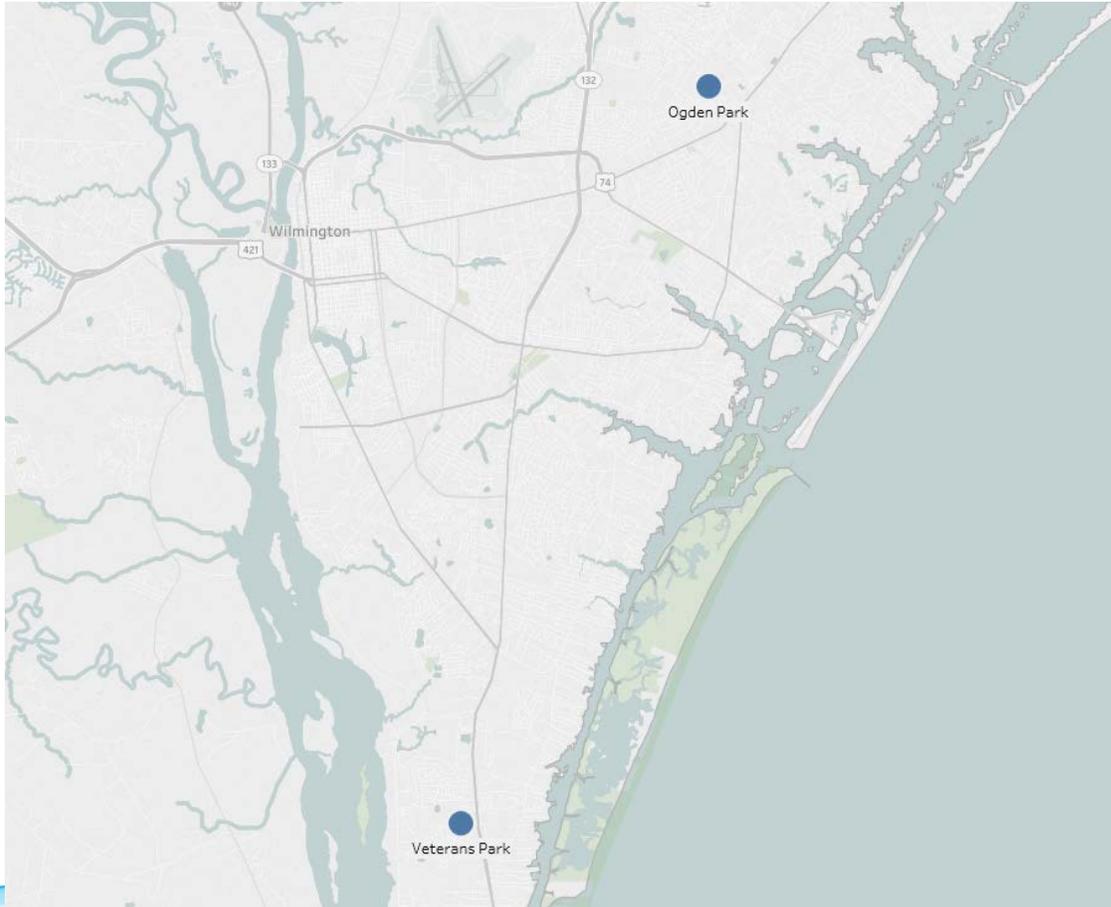
- Approximately 50 million gallons of groundwater removed from ASR Well
 - Pumped from aquifer to sanitary sewer from September 2017 to December 2017
 - ASR site tested 28 ppt GenX in March 2018 (initial level approximately 800 ppt)
- Monitoring of groundwater in the vicinity of ASR and WB #11 continues per NCDEQ Notice
 - All wells below 140 ppt health advisory level
 - Work Plan for additional sampling submitted to NCDEQ for comments
 - NCDEQ requested to establish groundwater interim maximum allowable concentration

Findings from UNCW Work

- Scientists at UNCW sample the raw and finished water at Sweeney Water Treatment Plant weekly
- To date, they have detected five new PFAS compounds not previously reported in the literature
- Final report to CFPUA expected summer 2018



CFPUA Water Stations



- Ogden Park and Veterans Park locations
- Groundwater sources tested free of GenX
- Open every day from 8am to 8pm
- No cost option for concerned customers

Expenses Related to GenX



- Approximately \$1.7 million expended to date
- HB 56 provided \$185,000 to help offset expenses related to pilot testing and UNCW research
- FY 19 Budget includes \$650,000 for related legal fees and water quality testing
- Balance is paid by customers and is driving up rates
\$1 million= 3% water rate increase

We Still Do Not Know:



- Identification of all emerging contaminants
- Health effects of combined levels of all contaminants
- Consequences of environmental accumulation such as in river sediments
- Effects of non-point sources on contaminant levels in the river
 - Air emissions
 - Groundwater
 - Stormwater runoff
- Impacts to commercial and residential markets, and to general economic development

Where We Go From Here



- Pilot study is in final phase of testing
- CFPUA staff working with consultants to understand results and develop conclusions
- Continue to follow UNCW progress in identifying new compounds
- Plant Upgrade: \$50 million (*estimated, subject to Board approval*)
 - Impact to water customers: 16% rate increase
 - CFPUA would issue debt that would be repaid by customers for 25 years
- Recommendation to CFPUA Board: May 9