



Submissions to the State of North Carolina and Cape Fear River Watch

The following table identifies submissions made by Chemours pursuant to the Consent Order and Addendum (COA) for the period of April 1, 2022 through the end of the second quarter on June 30, 2022.<sup>1</sup>

CO Section	Title	Submitted Date
<b>11</b>	Revised EPA Method 537 Mod for Site-Related PFAS - Cover Letter and Enclosures	05/18/2022
<b>11</b>	PFAS Non-Targeted Analysis and Methods Interim Report #5	06/30/2022
<b>12 - COA 1b</b>	Mass Loading Assessment – First Quarter 2022	06/30/2022
<b>12 - COA 2a</b>	Interim Seep Remediation O&M Report #8	05/31/2022
<b>28</b>	Quarterly Progress Report	04/28/2022

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<sup>1</sup> Consent Order submissions by Chemours from lodging of the Proposed Consent Order in November 2018 through March 31, 2019 were presented in the 2019 1<sup>st</sup> quarter report, April 1, 2019 through June 30, 2019 in the 2019 2<sup>nd</sup> quarter report, July 1, 2019 through September 30, 2019 in the 2019 3<sup>rd</sup> quarter report, October 1, 2019 through December 31, 2019 in the 2019 4<sup>th</sup> quarter report, January 1, 2020 through March 31, 2020 in the 2020 1<sup>st</sup> quarter report, April 1, 2020 through June 30, 2020 in the 2020 2<sup>nd</sup> quarter report, July 1, 2020 through September 30, 2020, in the 2020 3<sup>rd</sup> quarter report, October 1, 2020 through December 31, 2020 in the 2020 4<sup>th</sup> quarter report, January 1, 2021 through March 31, 2021 in the 2021 1<sup>st</sup> quarter report, April 1, 2021 through June 30, 2021 in the 2021 2<sup>nd</sup> quarter report, July 1, 2021 through September 30, 2021 in the 2021 3<sup>rd</sup> quarter report, October 1, 2021 through December 31, 2021 in the 2021 4<sup>th</sup> quarter report, and January 1, 2022 through March 31, 2022 in the 2022 1<sup>st</sup> quarter report.



2022 Second Quarter Residential Summary

Item	Cumberland County (East of River)	Cumberland County (West of River)	Bladen County (East of River)	Bladen County (West of River)	Robeson County	Sampson County	Total
Total Number of Residences Sampled	285	222	8	3	16	85	<b>619</b>
Residences Exceeding GAC Criteria (GenX $\geq$ 140 ng/L)	0	0	0	0	0	0	<b>0</b>
Residences Exceeding RO Criteria ( $\Sigma$ PFAS $\geq$ 70 ng/L)	0	1	0	0	0	0	<b>1</b>
Residences Exceeding RO Criteria (PFAS $\geq$ 10 ng/L)	6	5	0	0	0	0	<b>11</b>
Residences Drinking Water Well Detections (Results $<$ 10 ng/L)	37	20	0	0	1	2	<b>60</b>
Residences Drinking Water Well Non-Detections	242	196	8	3	15	83	<b>547</b>



Replacement Drinking Water Actions

(Replacement drinking water actions from November 2018<sup>2</sup> - June 30, 2022)

Fayetteville Counties Area

Summary	Number of Residences on Bottled Water	Homes Connected to Public Water by Chemours	Residences with GAC Systems Online	Residences with RO Installed	Outreach Letters Interactions	Outreach Call Team Interactions
<b>Total</b>	2,968	90	109	3,510	139,191	39,904
<b>Bottled Water</b>	Residences Eligible for Bottled Water	Eligible Residences Receiving Bottled Water Services				
2Q 2022	318	226				
<b>Total</b>	3,215	2,968				
<b>GAC</b>	Residences Eligible for GAC	Residences Declined GAC	Residences with GAC Systems Online	Number of GAC Systems Decommissioned		
2Q 2022	0	0	0	0		
<b>Total</b>	270	7	109	8		
<b>RO</b>	Residences Eligible for RO (including shared well homes)	Residences Declined RO	Residences with RO Installed			
2Q 2022	318	6	281			
<b>Total</b>	6,455	130	3,510			

<sup>2</sup> The date the proposed Consent Order was lodged.

## Consent Order Progress Details

This section summarizes the activities that have been undertaken by Chemours pursuant to the Consent Order Compliance Measures and Addendum for the period from April 1, 2022 through the end of the second quarter of 2022 (June 30, 2022). On August 13, 2020, Chemours signed the Addendum to Consent Order Paragraph 12, and the Addendum was entered by the Bladen County Superior Court on October 12, 2020.

### Section 7 Control Technology Improvements

The thermal oxidizer (see photo at right) continues to control process emissions at an average PFAS destruction efficiency exceeding 99.99%.



### Section 10 No Discharge of Process Wastewater from Chemours' Manufacturing Areas

Chemours does not discharge its process wastewater and instead collects and ships its process wastewater offsite for disposal or recycles treated water internally within several manufacturing processes.

### Section 11 Characterization of PFAS in Process and Non-Process Wastewater and Stormwater at the Facility

During the second quarter of 2022, two sampling events were conducted. The first sampling event was conducted from April 5 - 13, 2022 (the April 2022 event) and the second sampling event was conducted from May 27 - 31, 2022 (the May 2022 event). Samples were collected from 22 locations during the April 2022 event and from 26 locations during the May 2022 event. Data collected from January - June 2022 will be evaluated and compiled in the semi-annual report, submitted at the end of Quarter 3.

On June 10, 2022, NCDEQ sent Chemours a letter commenting on Consent Order paragraph 11c and 11d sampling. The letter included comments pertaining to sampling locations, types, and frequency, analyte lists, split sampling and reporting. Chemours is preparing a response to this letter for submission during the third quarter of 2022.

### Section 12 Accelerated Reduction of PFAS Contamination in the Cape Fear River and Downstream Water Intakes, and Addendum to Consent Order Paragraph 12

Chemours continued operation of the treatment system for the Old Outfall (Outfall 003) pursuant to Consent Order Paragraph 12(e) and a NPDES permit issued by NCDEQ.

As noted above, the Addendum to Consent Order Paragraph 12 was signed in the third quarter of 2020 and entered by the Court during the fourth quarter of 2020. Chemours's Addendum implementation activities during the second quarter of 2022 included:



Consent Order Addendum Paragraph 1

On June 30, 2022, Chemours submitted to NCDEQ and Cape Fear River Watch the Cape Fear River PFAS Mass Loading Assessment – First Quarter 2022 Report pursuant to Consent Order Addendum Paragraph 1(b). The report describes sampling activities and mass loading results for the Cape Fear River and PFAS loading pathways from the first quarter of 2022. This submission was also pursuant to quarterly reporting of mass loading sampling outlined in the Corrective Action Plan (Paragraph 16). In the second quarter, Chemours conducted quarterly mass loading sampling required by Consent Order Addendum Paragraph 1.

Consent Order Addendum Paragraph 2

During the second quarter of 2022, Chemours operated and maintained the four flow-through cells, i.e., the interim remediation systems, at Seeps A-D. On May 31, 2022, Chemours submitted the Interim Seep Remediation Operation and Maintenance Report #8. The Operation and Maintenance report describes the operations and maintenance activities at the flow-through cells over the bimonthly reporting period of March/April 2022.

Consent Order Addendum Paragraph 3

The CO Addendum requires extraction of groundwater from seven existing Black Creek Aquifer monitoring wells (BCA-01, BCA-02, PW-11, PW-14, PW-15R, PIW-9D, and PIW-10DR) as an interim measure while the final remedy is being constructed. As part of the construction of the permanent remedy (outlined in more detail below), the abandonment of well PIW-9D was approved by NCDEQ on February 1, 2022. The pumping system in this well was subsequently taken off-line on May 13, 2022. The Black Creek Aquifer interim measure system continues to extract groundwater from the six remaining existing Black Creek Aquifer monitoring wells (BCA-01, BCA-02, PW-11, PW-14, PW-15R, and PIW-10DR). During the second quarter of 2022 through June 27, 2022 (the last reading taken during the reporting period), the system extracted 652,968 gallons of water for a total of 3,224,559 gallons since startup on November 30, 2020. The wells have continued to operate as designed with only minor, routine shutdowns for equipment issues, routine maintenance, or other issues.

On April 22, 2022, NCDEQ issued a Draft NPDES Permit and Draft Fact Sheet for Chemours Company Fayetteville Works – Outfall 004 for public comment. Public comment hearings were held on June 21 and June 23, 2022. Chemours awaits response from NCDEQ on the public comments and public hearings.

On April 13, 2022, a technical meeting was held between Chemours and NCDEQ on the groundwater model. Following this, an in-person meeting was conducted on May 5-6, 2022 and another meeting was held on June 2, 2022. NCDEQ comments on the groundwater model were received on June 3, 2022 and responses to these comments were progressed during the second quarter and submitted in the early third quarter (July 14, 2022).

In the first quarter on March 25, 2022, Chemours submitted the 90% Design report to NCDEQ in advance of the Consent Order Addendum required date of March 31, 2022. Chemours is awaiting response to the 90% Design.

Construction activity on the remedy continues to proceed. Through the second quarter of 2022, Chemours has installed 64 extraction wells and 34 observation wells. In addition, construction of the

groundwater extraction conveyance system, the ex-situ conveyance system, and the groundwater treatment plant has begun.

#### Consent Order Addendum Paragraph 4

Consistent with the Stormwater Sampling Plan, Chemours conducted three sampling events in April 2022, two sampling events in May 2022, and two sampling events in June 2022 during the stormwater treatment system operation for removal of PFAS compounds. The monthly monitoring reports for April 2022 – June 2022 will be submitted in the third quarter of 2022. The treatment system also consistently captured stormwater runoff from precipitation events of up to the 1-inch, 24-hour design storm during the second quarter of 2022.

Chemours has prepared Stormwater Treatment System Monthly Monitoring Reports for the months of January 2022 through March 2022 and plans to submit these reports by the end of July 2022.

#### Section 14 Toxicity Studies

NCDEQ approved the algae and fish master protocols on April 22, 2022. The specific protocols for the individual test substances are being written and this work is being scheduled by the Eurofins lab. The final substance-specific protocols and study dates will be shared with NCDEQ when they are available.

#### Section 16 Groundwater Remediation

On June 30, 2022, Chemours submitted to NCDEQ and Cape Fear River Watch the Cape Fear River PFAS Mass Loading Assessment – First Quarter 2022 Report pursuant to Consent Order Addendum Paragraph 1(b). This submission was also pursuant to quarterly reporting of mass loading sampling outlined in the Corrective Action Plan (Paragraph 16). On-going groundwater remediation activities are being conducted pursuant to Consent Order Addendum Paragraph 3 and are described earlier in this document under that paragraph.

#### Sections 19 and 20 Provision of Public Water Supplies, Whole Building Filtration Systems, and Reverse Osmosis Drinking Water Systems

As shown in the summary tables above, Chemours continues to make significant progress in implementing the Consent Order requirements of Paragraphs 19 and 20. Since resuming RO installations in June 2020, following the COVID-19 postponement period, RO acceptance rates and installations have maintained a steady pace. O&M activities for installed GAC systems continue uninterrupted. Bottled water services continue uninterrupted for 2,968 homes. In September 2021, Chemours entered into an agreement with Bladen County to fund public water system upgrades and connections associated with providing permanent replacement drinking water supplies under the Consent Order, and Chemours proceeded with implementation of the agreement during the second quarter of 2022. On June 15, 2022, DEQ sent Chemours a letter concerning the issuance by EPA earlier that day of a Final Health Advisory for GenX Chemicals and requested revisions to the Consent Order replacement drinking water program, and Chemours submitted a response to DEQ's letter on July 13, 2022.

#### Section 21 Private Well Testing

As of June 30, 2022, 15,542 residences have been identified within the current study area, of which 10,378 have been sampled and 3,763 additional residences have received at least one initial sample offer letter. Results of sampling that occurred throughout the second quarter of 2022 (619 residences)

are presented at the beginning of this progress report. Current Step-out and Infill distance intervals range from 2.5 miles to 25.5 miles from the Site.

Chemours continues to follow the private well cold calling protocol (i.e., to confirm residences, tenant/owner name and phone number, addresses, not connected to public water, and residents' willingness to have a sample collected from their drinking water well).

## Section 22 Provision of Sampling Results

Chemours provided (and continues to provide) sampling results to NCDEQ and residents as required under the Consent Order. Chemours has provided sampling results to NCDEQ by sending a courtesy email notification and by uploading sampling results to the state EQUIS database. Chemours has also provided final lab reports to NCDEQ. Chemours has provided sampling results to residents by including preliminary results with water filtration system initial offer letters and sending the final lab reports to residents within the following 30 days. Chemours has also provided non-detect sampling results to residents.

## Section 23 Interim Replacement of Private Drinking Water Supplies

All residences eligible to receive the interim replacement drinking water supplies have received the supplies (i.e., bottled water or voucher card for bottled water). As of June 30, 2022, there are 2,968 residences receiving bottled water services.

## Section 24 Drinking Water Compliance Plan

As discussed above, the off-site replacement drinking water program continues. The Drinking Water Compliance Plan is currently under review and some of the protocols are being revised based on discussions with NCDEQ. The following revised procedures are currently implemented based on approval by NCDEQ:

- Point-of-Use (POU) Granular Activated Carbon (GAC) filtration systems for commercial establishments that were eligible for RO systems, pursuant to NCDEQ's approval letter dated January 5, 2021.
- Chemours connected six homes in Cumberland County to public water as part of a pilot program and a report was submitted to NCDEQ on June 25, 2021 and approved by NCDEQ on September 22, 2021.
- The pilot program is now expanding to include additional residences for public water connections in the study area. Chemours has identified potential additional residences for public water connections. Chemours is working with counties and water providers to facilitate the public water connections where feasibility has been determined. One residence was connected to public water in February 2022. Nineteen additional homes were connected to public water through June 30, 2022.
- Since the second quarter of 2020, the GAC OM&M sampling has been revised to include quarterly sampling in between the lead and lag carbon vessel and one annual raw water sample.

## Section 28 Reporting

Chemours submitted the Consent Order 1<sup>st</sup> quarter 2022 progress report on April 28, 2022.



**Consent Order Progress Report For  
Second Quarter 2022**

Sections 29 and 30 Public Information

Chemours has continued to post its Consent Order submissions at

<https://www.chemours.com/en/about-chemours/global-reach/fayetteville-works/compliance-testing>.





### Four Counties Sampling Program

On March 28, 2022, Chemours received a letter containing comments from NCDEQ on the “Framework to Assess Table 3+ PFAS in New Hanover, Brunswick, Columbus, and Pender Counties” (the “Assessment Framework”), which was initially submitted to NCDEQ on February 1, 2022. Chemours submitted a response to NCDEQ comments and a revised Assessment Framework to NCDEQ on May 12, 2022. Both documents were prepared by Chemours’s consultant Geosyntec Consultants of NC, PC.

Chemours maintained communications with Brunswick County, Pender County, and New Hanover County representatives regarding water infrastructure and public water customers. Chemours reviewed records received from county representatives in response to December 2021 and January 2022 public record requests. Data gathering from the counties was considered complete on May 28, 2022, after which Chemours commenced the preparation of a work plan for submittal to NCDEQ by August 26, 2022. The work plan will describe a scope of work to sample groundwater and soil, as outlined in the Assessment Framework.

### Interim Sampling and Drinking Water Plan for Four Counties

On May 2, 2022, Chemours received a letter containing comments from NCDEQ on the Interim Plan. Chemours submitted a response to NCDEQ comments and a revised Interim Plan to NCDEQ on June 1, 2022. The first monthly report to NCDEQ summarizing the activities conducted as part of the implementation of the Interim Plan was submitted on June 15, 2022.

Based on the revised Interim Plan dated June 1, 2022, Representative Sampling activities included eligible private wells identified through community outreach via letters across the four counties, proximity to Consent Order Attachment C criteria exceedances, and requests received via the call line or web form. In addition to the existing call line, a web form was activated by Chemours for residents to respond to community outreach letters and request sampling of their private wells.

As of June 30, 2022, 5905 addresses have been screened for sampling eligibility, and 1292 met the eligibility criteria. Of these 1292 eligible locations, 504 have been scheduled for sampling and 416 have been sampled. Of the 179 samples with analytical results, 148 showed no exceedances of Consent Order Attachment C criteria. Bottled water has been provided to the 27 residences that qualified. The four other results that showed exceedances were resamples of wells that were sampled by NCDEQ and these locations are already connected to a public water source.



2022 Second Quarter Residential Summary

Item	New Hanover County	Brunswick County	Pender County	Columbus County	Total
Total Number of Residences Sampled	318	54	32	12	416
Total Number of Residences with Sample Results	158	3	15	3	179
Residences Exceeding GAC Criteria (GenX >= 140 ng/L)	0	0	0	0	0
Residences Exceeding RO Criteria ( $\Sigma$ PFAS >= 70 ng/L)	18	0	0	0	18
Residences Exceeding RO Criteria (PFAS >= 10 ng/L)	13	0	0	0	13
Residences Drinking Water Well Detections (Results < 10 ng/L)	25	0	1	0	26
Residences Drinking Water Well Non-Detections	102	3	14	3	122

Replacement Drinking Water Actions

(Replacement drinking water actions from February 15, 2022<sup>3</sup> - June 30, 2022)

Four Counties Area

Summary	Total Number of Residences with Sample Results <sup>4</sup>	Residences with Results Above Consent Order Criteria	Residences Provided Interim Replacement Drinking Water
	Total	179	31

<sup>3</sup> The start date of the Chemours Call Line in the Four Counties Area.

<sup>4</sup> Includes eight NCDEQ resampled locations which are not all residences (i.e., country clubs, parks).