



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 January 1, 2023 through the end of the first quarter on March 31, 2023.¹

Section	Title	Submitted Date
11	PFAS Process and Non-process Wastewater & Stormwater Analytical Results	03/30/2023
11	July – September 2022 P11 Data Submittal	01/27/2023
11	October – December 2022 P11 Data Submittal	03/03/2023
12 – COA 1(b)	Fourth Quarter 2022 Mass Load Assessment	03/30/2023
12 – COA 2(a)	Interim Seep Remediation O&M Report #12	01/31/2023
12 – COA 2(a)	Interim Seep Remediation O&M Report #13	03/29/2023
12 – COA 3(b)	Barrier Wall and GW Extraction System Schedule Letter	03/01/2023
24	Drinking Water Compliance Plan Revised GAC Section	01/17/2023
28	Quarterly Progress Report	01/27/2023

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



2023 First 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	Hoke County	Total
Total Number of Residences Sampled	116	44	22	2	10	73	0	267
Residences Exceeding GAC Criteria (GenX >= 10 ng/L)	1	3	0	0	0	0	0	4
Residences Exceeding RO Criteria (Σ PFAS >= 70 ng/L)	4	2	0	0	1	0	0	7
Residences Exceeding RO Criteria (PFAS >= 10 ng/L)	38	11	0	0	2	11	0	62
Residences Drinking Water Well Detections (Results < 10 ng/L)	39	16	6	1	2	33	0	97
Residences Drinking Water Well Non-Detections	34	12	16	1	5	29	0	97



Replacement Drinking Water Actions

(Replacement drinking water actions from November 2018² - March 31, 2023)

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
Total	2,510	160	225	3,996	167,033	71,018
Bottled Water	Residences Eligible for Bottled Water	Eligible Residences Receiving Bottled Water Services				
1Q 2023	124	86				
Total	3,268	2,510				
GAC	Residences Eligible for GAC	Residents Declined GAC	Residences with GAC Systems Online	Number of GAC Systems Decommissioned		
1Q 2023	29	0	92	0		
Total	2,030	3	225	9		
RO	Residences Eligible for RO (including shared well homes)	Residents Declined RO	Residences with RO Installed			
1Q 2023	95	8	115			
Total	5,485	138	3,996			

² 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 January 1, 2023 through the end of the first quarter of 2023 (March 31, 2023).

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 first quarter of 2023, one bi-monthly sampling event was conducted. The bi-monthly sampling event was conducted on January 22 and 23, 2023 (the January 2023 event). Samples were collected from 27 locations during this event and included a process wastewater sample.

Data collected from July - September 2022 were submitted on January 27, 2023, and data collected from October – December 2022 were submitted on March 3, 2023.

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.

Chemours's Addendum implementation activities during the first quarter of 2023 included:

Consent Order Addendum Paragraph 1

On March 30, 2023, Chemours submitted to NCDEQ and Cape Fear River Watch the Cape Fear River PFAS Mass Loading Assessment – Fourth 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 fourth quarter of 2022. This submission was also pursuant to quarterly reporting of mass loading sampling outlined in the Corrective Action Plan (Paragraph 16). In February 2023, Chemours conducted quarterly mass loading sampling during a wet weather event required by Consent Order Addendum Paragraph 1.

Consent Order Addendum Paragraph 2

During the first quarter of 2023, Chemours operated and maintained the four flow-through cells, i.e., the interim remediation systems, at Seeps A-D. On January 31, 2023 and March 29, 2023, Chemours submitted the Interim Seep Remediation Operation and Maintenance Reports #12 and #13, respectively. The Operation and Maintenance reports describe the operations and maintenance activities at the flow-through cells over the bi-monthly reporting periods of November/December 2022 and January/February 2023, respectively.

Consent Order Addendum Paragraph 3

The CO Addendum requires extraction of groundwater from existing Black Creek Aquifer monitoring wells as an interim measure while the final remedy (barrier wall and groundwater extraction and treatment system) is being constructed. During the first quarter of 2023, the interim system extracted 492,982 gallons of water for a total of 4,381,128 gallons since startup on November 30, 2020 (through April 5, 2023). The interim extraction system continues to operate as designed with only minor, routine shutdowns for equipment issues, routine maintenance, weather, or other issues.

With respect to the final remedy, construction of the groundwater extraction conveyance system and the groundwater treatment plant were completed prior to March 15, 2023, and the systems have started up and are being commissioned. The ex-situ conveyance system and barrier wall construction continues to progress.

Consent Order Addendum Paragraph 4

Consistent with the Stormwater Sampling Plan, Chemours conducted five sampling events in January 2023 and two sampling events in February 2023. No stormwater was treated in March 2023 due to minimal rainfall. The stormwater treatment system removed greater than 99.9% of PFAS and consistently captured stormwater runoff from precipitation events of up to the 1-inch, 24-hour design during the first quarter of 2023. A quarterly bypass sample was collected on January 25, 2023, when rainfall exceeded 1 inch in 24 hours.

Chemours submitted Stormwater Treatment System Monthly Monitoring Reports for the months of July and August 2022 on February 10, 2023, and for the months of September and October 2022 on March 24, 2023.

Section 14 Toxicity Studies

NCDEQ has approved all the protocols for aquatic toxicology studies. Range-finding and method validation has been completed for the algae studies and approved by DEQ. Range-finding work for the fat head minnow and aquatic invertebrates is currently underway and results are submitted for approval as they become available. Method validation for the sediment studies will begin in the second quarter of 2023.

Chemours submitted the revised mammalian toxicology study protocols to NCDEQ in November 2022 and requested a technical meeting between Chemours, Charles River Laboratories, and NCDEQ in order to finalize the study endpoints. The meeting occurred on January 27, 2023 and the Chemours minutes were submitted for agreement on February 17, 2023. The next draft of the 28-day rat study will be shared following agreement on the actions identified in the minutes.

Section 16 Groundwater Remediation

On March 30, 2023, Chemours submitted to NCDEQ and Cape Fear River Watch the Cape Fear River PFAS Mass Loading Assessment – Fourth 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. 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 2,510 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. Pursuant to that agreement, Chemours and its contractors were completing the installation of treatment system enhancements to the Tobermory and Live Oak public water supply systems during the first quarter, and both systems went online in March 2023. In addition, Chemours is also working with the county on installation of water meters so that eligible residences can be connected to a public water system.

Based on property owners' preferences for permanent replacement drinking water as a result of the EPA Health Advisory, Chemours has started the installation of mitigation systems or connection to public water systems to those eligible residences and properties.

Section 21 Private Well Testing

As of March 31, 2023, 20,356 residences have been identified within the current study area, of which 12,144 have been sampled and 2,418 additional residences have received at least one initial sample offer letter. Results of sampling that occurred throughout the first quarter of 2023 (267 residences) are presented at the beginning of this progress report. Current Step-out and Infill distance intervals range from 2.5 miles to 26.5 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 March 31, 2023, there are 2,510 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 (DWCP) is currently under review and some of the protocols are being revised based on discussions with NCDEQ. In January 2023, Chemours submitted to NCDEQ a revised section 5.2 of the DWCP. The revised section incorporates the carbon transition plan that was conditionally approved by NCDEQ on October 27, 2022. This plan is currently being implemented for GAC installations.

The public water pilot program is 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 and make the public water connections where feasibility has been determined.

Section 28 Reporting

Chemours submitted the Consent Order 4th quarter 2022 progress report on January 27, 2023.

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

In accordance with the “Framework to Assess Table 3+ PFAS in New Hanover, Brunswick, Columbus, and Pender Counties” (Assessment Framework), Chemours submitted to NCDEQ a work plan to conduct groundwater and soil sampling in the four counties (New Hanover, Brunswick, Columbus, and Pender counties) on August 29, 2022. On March 16, 2023, Chemours submitted responses to NCDEQ comments on the Assessment Framework, which were received on January 30, 2023. Chemours continued to conduct residential sampling during the first quarter.

Interim Sampling and Drinking Water Plan for Four Counties

Based on the revised Interim Plan dated June 1, 2022, representative sampling activities continued in the first quarter which included eligible private wells identified through community outreach via letters across the four counties, proximity to Consent Order exceedances, and requests received via the call line or web form. Three monthly reports (December 2022, January 2023, and February 2023) were submitted to NCDEQ during the first quarter which documented the progress of this private well program.

As of March 31, 2023, 22,414 addresses have been screened for sampling eligibility, and 7,242 met the eligibility criteria. Of these 7,242 eligible locations, 5,640 have been scheduled for sampling and 4,943 have been sampled. Of the 4,749 samples with analytical results, 3,609 showed no exceedances of Consent Order Attachment C criteria. Chemours and its contractors have started the installation of mitigation systems or connection to public water systems to those properties that are eligible based on the sampling results. As of March 31, 2023, bottled water was being provided to 939 residents/owners that qualified, 381 RO systems had been installed, and 30 GAC systems had been installed. These counts of bottled water recipients and system installations include qualifying shared well users. No further action was required for properties that were vacant, empty lots, connected to public water, or declined bottled water, including four of the NCDEQ resampling locations.



2023 First Quarter Residential Summary

Item	New Hanover County	Brunswick County	Pender County	Columbus County	Total
Total Number of Residences Sampled	2,799	412	1,650	82	4,943
Total Number of Residences with Sample Results	2,716	392	1,562	79	4,749
Residences Exceeding GAC Criteria (GenX \geq 10 ng/L)	95	29	5	0	129
Residences Exceeding RO Criteria (Σ PFAS \geq 70 ng/L or PFAS \geq 10 ng/L)	570	78	361	2	1,011
Residences Drinking Water Well Detections (Results $<$ 10 ng/L)	734	58	168	2	962
Residences Drinking Water Well Non-Detections	1,317	227	1,028	75	2,647



Replacement Drinking Water Actions

(Replacement drinking water actions from February 15, 2022³ - March 31, 2023)

Four Counties Area Interim Replacement Drinking Water

Metric	Total	New Hanover	Brunswick	Pender	Columbus
Number of Private Wells Above the CO Criteria	1,140 (189)	665 (101)	107 (3)	366 (85)	2 (0)
Number of Locations Provided Interim Replacement Drinking Water ¹	939	499	83	355	2

Notes:

Values in parentheses indicate additional number of properties connected to shared wells or community wells that have a CO exceedance.

¹ – Number of Locations Provided Interim Replacement Drinking Water includes shared wells

Four Counties Area Permanent Replacement Drinking Water

Metric	Total	Totals By County			
		New Hanover	Brunswick	Pender	Columbus
RO					
Total Number of Properties Sent an Offer Letter	1,106	650	80	374	2
Total Number of Properties who have Accepted Offer	477	315	32	130	0
Total Number of Properties with RO Systems Installed	381	251	25	105	0
Total Number of Properties that Selected Public Water Connection (if feasible and available)	121	22	11	88	0
GAC					
Total Number of Properties Sent an Offer Letter	146	111	29	6	0
Total Number of Properties who have Accepted Offer	63	50	11	2	0
Total Number of Properties with GAC System Installed	30	30	0	0	0
Total Number of Properties that Selected Public Water Connection (if feasible and available)	20	13	5	2	0

³ The start date of the Chemours Call Line in the Four Counties Area.