



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 July 1, 2023 through the end of the third quarter on September 30, 2023.¹

Section	Title	Submitted Date
11	PFAS Process and Non-process Wastewater & Stormwater Final Report	07/31/2023
12 – COA 1(b)	Second Quarter 2023 Mass Loading Assessment	09/29/2023
12 – COA 2(c)	Onsite Seeps Long-Term Loading Baseline Report	09/20/2023
12 – COA 2(c)	CFR Long-Term Remedy Performance Monitoring Report #2	09/29/2023
28	Quarterly Progress Report	07/25/2023

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, October 1, 2022 through December 31, 2022 in the 2022 4th quarter report, January 1, 2023 through March 31, 2023 in the 2023 1st quarter report, and April 1, 2023 through June 30, 2023 in the 2023 2nd quarter report.



2023 Third Quarter Residential Sampling 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	45	75	8	8	13	38	0	187
Residences Exceeding GAC Criteria (GenX >= 10 ng/L)	1	3	0	1	0	0	0	5
Residences Exceeding RO Criteria (Σ PFAS >= 70 ng/L)	2	4	0	0	1	0	0	7
Residences Exceeding RO Criteria (PFAS >= 10 ng/L)	11	7	1	2	2	3	0	26
Residences Drinking Water Well Detections (Results < 10 ng/L)	18	21	5	0	1	11	0	56
Residences Drinking Water Well Non-Detections	13	39	2	5	9	24	0	92



Replacement Drinking Water Actions

(Replacement drinking water actions from November 2018² - September 30, 2023)

Fayetteville Counties Area

Summary	Number of Residences on Bottled Water	Residences Connected to Public Water by Chemours	Residences with GAC Systems Online	Residences with RO Installed	Outreach Letters Interactions	Outreach Call Team Interactions
Total	2,580	240	578	3,159	199,184	81,775
GAC	Residences Eligible for GAC	Residences Declined GAC	Residences with GAC Systems Online	Number of GAC Systems Decommissioned		
3Q 2023	39	0	212	1		
Total	2,051	2	578	10		
RO	Residences Eligible for RO (including shared well residences)	Residences Declined RO	Residences with RO Installed			
3Q 2023	61	3	48			
Total	5,606	137	3,159			

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 July 1, 2023 through the end of the third quarter of 2023 (September 30, 2023).



Section 7 Control Technology Improvements

The thermal oxidizer (see photo at left) 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 third quarter of 2023, one bi-monthly sampling event was conducted. The bi-monthly sampling event was conducted on September 22, 23, 25, and 26, 2023 (the September 2023 event). Samples were collected from 24 locations during the September 2023 event. Data collected from April – June 2023 were submitted on September 29, 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 third quarter of 2023 included:

Consent Order Addendum Paragraph 1

On September 29, 2023, Chemours submitted to NCDEQ and Cape Fear River Watch the Cape Fear River PFAS Mass Loading Assessment – Second Quarter 2023 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 second quarter of 2023. This submission was also made as part of the quarterly reporting of mass loading sampling outlined in the Corrective Action Plan (Paragraph 16). In July 2023, Chemours conducted quarterly mass loading sampling required by Consent Order Addendum Paragraph 1.

Consent Order Addendum Paragraph 2

During the third quarter of 2023, Chemours operated and maintained the four flow-through cells, i.e., the interim remediation systems, at Seeps A-D. On September 29, 2023, Chemours submitted the CFR Long-Term Remedy Performance Monitoring Report #2, which includes, in addition to the long-term remedy components, description of the operations and maintenance activities at the flow-through cells over the quarterly reporting period of April - June 2023.

Consent Order Addendum Paragraph 3

The CO Addendum required 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) was being constructed. Mechanical construction of the barrier wall was completed as of June 11, 2023. In an email dated June 29, 2023, Chemours communicated to NCDEQ that the interim measure would be turned off in early July. After concurrence from NCDEQ, pumping ceased on July 10, 2023, and all remaining pumps were removed from the wells in August 2023 (with the last pump being removed on August 23rd). Over 4.6 million gallons of water were extracted during the operation of the interim system (from November 30, 2020 through July 10, 2023).

With respect to the final remedy, mechanical construction of the barrier wall was completed as of June 11, 2023. Four ex-situ seep locations started pumping captured seep baseflow and the required rainfall runoff into the Outfall 004 water treatment plant on April 20, 2023. Further, the extraction wells installed under COA Paragraph 3(b) have been pumping into the Outfall 004 water treatment plant for treatment prior to discharge since or prior to March 15, 2023. The performance of the remedy for the period of April– June 2023 is detailed in the CFR Long-Term Remedy Performance Monitoring Report #2 submitted on September 29, 2023. Performance details from the third quarter of 2023 will be reported in the third quarterly report to be submitted by December 31, 2023.

Consent Order Addendum Paragraph 4

Consistent with the Stormwater Sampling Plan, Chemours conducted four sampling events in July 2023, three sampling events in August 2023, and four sampling events in September 2023. The stormwater treatment system removed greater than 99.9% of PFAS and consistently captured stormwater runoff from precipitation events up to the 1-inch, 24-hour design during the third quarter of 2023. A quarterly bypass sample was collected on August 30, 2023, when rainfall exceeded 1 inch in 24 hours.

Section 14 Toxicity Studies

The algae, ceriodaphnia, and fish acute studies are all in progress or scheduled with final reports expected in the late 4th Quarter 2023/early 1st Quarter 2024. The chronic ceriodaphnia studies are also scheduled or in progress with final reports expected in the 1st Quarter 2024.

The 28-day rodent study protocols are nearly finalized. There is a joint NCDEQ/Chemours/Charles River Laboratories meeting scheduled on October 27, 2023 to review the final dose selection for the first test substance in both rats and mice. This protocol will then serve as the template for the remaining substances. Dose level selection for the remaining substances will occur in the 4th Quarter 2023/1st Quarter 2024. After the 28-day protocols are finalized, the protocols for the 90-day studies will be reviewed.

Section 16 Groundwater Remediation

On September 29, 2023, Chemours submitted to NCDEQ and Cape Fear River Watch the Cape Fear River PFAS Mass Loading Assessment – Second Quarter 2023 Report pursuant to Consent Order Addendum Paragraph 1(b). This submission was also made as part of 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 2,580 homes. Chemours is working on installation of water meters, where available, so that eligible residences can be connected to a public water system.

Based on property owners' preferences for permanent replacement drinking water, Chemours continues the installation of mitigation systems or connections to public water systems to those eligible residences and properties.

Section 21 Private Well Testing

On July 27, 2023, Chemours met with NCDEQ via teleconference to discuss the program's status. Specifically, the meeting focused on an overview of the program, status of delineation across the 16 sectors, and path forward for the program's continuation. Following the meeting on July 27, 2023, Chemours provided NCDEQ with a table that presented information associated with the properties in the current study area, a map, and the presentation slides shared during the meeting.

As of September 30, 2023, 21,848 residences have been identified within the current study area, of which 12,676 have been sampled and 3,796 additional residences have received at least one initial sample offer letter. Results of sampling that occurred throughout the third quarter of 2023 (187 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 collect samples from private drinking water wells, confirm residences/tenants/owners' names, phone numbers, and addresses, and determine public water connections.

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 September 30, 2023, there are 2,580 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.



Chemours has identified potential additional residences for public water connections. Chemours is working with counties and water providers to facilitate and make public water connections where feasibility has been determined.

Section 28 Reporting

Chemours submitted the Consent Order 2nd quarter 2023 progress report on July 25, 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’s January 30, 2023 comments on the Assessment Work Plan. On May 9, 2023, NCDEQ provided additional comments on the Work Plan, which Chemours responded to on June 9, 2023. Chemours is implementing the Work Plan, as submitted to NCDEQ and in accordance with NCDEQ comments. Access agreements for sampling of public water systems have been obtained and sampling of the Wrightsville Beach wells was conducted on September 15, 2023. Obtaining access/encroachment agreements continues with private property owners and the NC Department of Transportation. Chemours continued to conduct residential sampling during the third 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 third 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. A fourth quarterly follow-up mailing via certified mail was sent to unresponsive owners/residents across the four counties in September 2023. Three monthly reports (for June 2023, July 2023, and August 2023) were submitted to NCDEQ during the third quarter which documented the progress of this private well program.

As of September 30, 2023, 27,631 addresses have been screened for sampling eligibility, and 8,686 met the eligibility criteria. Of these 8,686 eligible locations, 6,880 have been scheduled for sampling and 6,042 have been sampled. Of the 5,983 samples with analytical results, 4,542 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 September 30, 2023, bottled water was being provided to 895 residents/owners that qualified, 659 RO systems had been installed, 88 GAC systems had been installed, and 36 public water connections had been completed. These counts of bottled water recipients, system installations, and public water connections 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 Third Quarter and Cumulative Residential Sampling Summary

Item	New Hanover County	Brunswick County	Pender County	Columbus County	Total
Total Number of Residences Sampled	3,183	620	2,131	108	6,042
Total Number of Residences with Sample Results	3,165	609	2,102	107	5,983
Residences Exceeding GAC Criteria (GenX \geq 10 ng/L)	123	59	8	0	190
Residences Exceeding RO Criteria (Σ PFAS \geq 70 ng/L or PFAS \geq 10 ng/L)	659	130	457	5	1,251
Residences with Drinking Water Well Detections (Results $<$ 10 ng/L)	841	95	226	2	1,164
Residences with no Drinking Water Well Detections (All Attachment C PFAS Non-Detect)	1,542	325	1,411	100	3,378



Replacement Drinking Water Actions

Replacement drinking water actions from February 15, 2022, the start date of the Chemours Call Line in the Four Counties Area, through September 30, 2023.

Four Counties Area Interim Replacement Drinking Water

Metric	Total	New Hanover	Brunswick	Pender	Columbus
Number of Private Wells Above the CO Criteria	1,441 (238)	782 (144)	189 (4)	465 (90)	5 (0)
Number of Locations Currently Being Provided Interim Replacement Drinking Water ¹	895	452	112	328	3

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 currently being 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	1,365	755	131	474	5
Total Number of Properties who have Accepted Offer	787	489	69	228	1
Total Number of Properties with RO Systems Installed	659	400	61	196	2
Total Number of Properties that Selected Public Water Connection (if feasible and available)	192	33	23	136	0
Total Number of Properties Connected to Public Water	36	2	2	32	0
GAC					
Total Number of Properties Sent an Offer Letter	227	160	58	9	0
Total Number of Properties who have Accepted Offer	110	80	29	1	0
Total Number of Properties with GAC System Installed	88	68	19	1	0
Total Number of Properties that Selected Public Water Connection (if feasible and available)	54	40	10	4	0
Total Number of Properties Connected to Public Water	0	0	0	0	0