SUMMARY OF CFPUA ACTIONS AGAINST CHEMOURS AND DUPONT

CFPUA intends to file a complaint in federal district court, Eastern District of North Carolina, against Dupont and Chemours. The federal complaint includes CFPUA's substantive claims against both Chemours and DuPont, and will be the primary mechanism by which CFPUA will assert its rights as against those companies. The complaint alleges:

- DuPont's and Chemours' historical use and releases of per- and polyfluoroalkyl substances (PFASs), which have been occurring at the Fayetteville Works Facility since at least 1980, and likely since the facility's inception in 1971;
- DuPont's and Chemours' knowledge of the adverse health effects associated with PFASs, which DuPont has studied since the 1950s;
- DuPont's and Chemours' failure to disclose PFASs in their NPDES Permit applications or notify the agency or the public of PFASs in their discharges;
- The PFAS contamination of the lower Cape Fear River resulting from DuPont's and Chemours' operations; and
- The harm incurred by CFPUA as a result, including contamination of its water system, as well as the need to retain a consultant and undertake a joint sampling program with UNCW to address the PFASs in the Cape Fear.

The federal complaint asserts CFPUA's common law causes of action, including nuisance, negligence, trespass, harm to riparian rights, failure to warn, and negligent manufacture (products liability). The complaint also alleges that the conduct of Chemours and DuPont was "willful and wanton," meaning it was done with a reckless disregard for the rights and safety of others, which provides a basis for punitive damages. We also anticipate amending the complaint to add the Resource Conservation and Recovery Act citizen suit claim once the 90 day notice period expires in early November, which would allege an "imminent and substantial endangerment" to health and the environment.

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF NORTH CAROLINA
SOUTHERN DIVISION

CAPE FEAR PUBLIC UTILITY AUTHORITY, Plaintiff, v. THE CHEMOURS COMPANY FC, LLC, and E.I. DU PONT de NEMOURS AND COMPANY Defendants,	)	**COMPLAINT**

COMES NOW Plaintiff Cape Fear Public Utility Authority ("CFPUA"), complaining of Defendant The Chemours Company FC, LLC ("Chemours") and Defendant E.I. du Pont de Nemours and Company ("DuPont") (collectively "Defendants"), and alleges as follows:

I. INTRODUCTION

1. For over three decades, DuPont and later Chemours have been manufacturing and/or using perfluoroalkyl and polyfluoroalkyl substances ("PFASs"), and quietly releasing or discharging PFASs and associated wastes contaminated by those chemicals (collectively "Fluoropollutants") at their Fayetteville Works Facility.

2. During that time, Defendants withheld from state regulators and the public information regarding both the identity of the Fluoropollutants being discharged and information related to the safety of those Fluoropollutants.

3. Moreover, Defendants have deliberately evaded accountability for, and scrutiny of, their releases of toxic Fluoropollutants. Facing multiple lawsuits and EPA pressure over its use and releases of one PFAS, perfluorooctanoic acid ("PFOA"), DuPont publicly discontinued its manufacture and use of *that* PFAS, but privately replaced it with "GenX"—a set of

structurally and functionally similar PFASs, with similar harmful effects—that Defendants could then release into the environment without public notice. Defendants' strategy amounts to a toxic chemical shell game, played at the expense of the lower Cape Fear River and those who use it for potable water.

II. PARTIES

4. CFPUA is a public utility authority created by New Hanover County and the City of Wilmington pursuant to North Carolina General Statutes Chapter 162A, and is vested with authority to sue in its own name. N.C. Gen. Stat. § 162A-6. CFPUA is authorized and empowered "to acquire in the name of the authority . . . any lands or rights in land or water rights in connection therewith . . . ." N.C. Gen. Stat. § 162A-6. CFPUA owns in fee simple a tract of land that touches the Cape Fear River ("CFPUA Riparian Land"). CFPUA owns and operates a water supply intake located on the CFPUA Riparian Land, downstream of the Fayetteville Works Facility.

5. Defendant Chemours is a corporation organized and existing under the laws of Delaware, and registered to do business as a foreign corporation in the State of North Carolina. Chemours currently owns and operates the Fayetteville Works Facility, located at 22828 NC Highway 87 W., Fayetteville, North Carolina. Chemours was formed by DuPont in or around 2015. Upon information and belief, Chemours' principal place of business is located in Wilmington, Delaware.

6. Defendant DuPont is a corporation organized and existing under the laws of Delaware, and registered to do business as a foreign corporation in the State of North Carolina. DuPont owned and operated the Fayetteville Works Facility from around 1971, until ownership was transferred to Chemours in 2015. DuPont currently leases a portion of the Fayetteville

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Works Facility from Chemours, and has ongoing operations at the Facility. Upon information and belief, DuPont's principal place of business is located in Wilmington, Delaware.

III. JURISDICTION AND VENUE

7. Jurisdiction is proper in this Court pursuant to 28 U.S.C. § 1332 because CFPUA is a citizen of a state different from both Defendants' home states, and the matter in controversy exceeds the sum or value of $75,000.

8. CFPUA has also provided notice of intent to bring citizen suit claims against Chemours and DuPont for violations of the Clean Water Act, 33 U.S.C. § 1365, and the Resource Conservation and Recovery Act, 42 U.S.C. § 6972. Although the North Carolina Department of Environmental Quality ("DEQ") has initiated an action against Chemours in Bladen County Superior Court, Case No. 17 CVS 580, related to PFAS contamination, CFPUA will evaluate whether to bring its citizen suit claims depending on the diligence exercised by DEQ in pursuing its enforcement action.

9. Venue is proper in this District pursuant to 28 U.S.C. § 1391 because a substantial part of the events giving rise to the claim occurred in this District, and the property that is the subject of the action is situated in this District.

IV. NATURE OF THE MATTER BEFORE THE COURT

10. This matter arises out of Defendants' operation of the Fayetteville Works Facility, a chemical manufacturing facility located on the Cape Fear River just south of Fayetteville, North Carolina.

11. Since the 1970s, DuPont and later Chemours—a DuPont spinoff—have manufactured at the Facility a line of products known as "fluoroproducts." Fluoroproducts consist of, incorporate, or are manufactured using PFASs.

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12. In the course of their manufacturing activities, Defendants have released toxic PFASs into the environment, contaminating the surrounding soil and groundwater, as well as the waters, sediments, and banks of the Cape Fear River.

13. Defendants' PFAS releases have largely occurred as constituents of process wastewater discharges, for which PFASs were not disclosed to the permitting agency or authorized by the relevant permit.

14. Defendants knew that Fluoropollutants endanger human health and the environment, that their activities were causing Fluoropollutants to be released into the environment from the Fayetteville Works Facility, and that the releases were contaminating water supplies, including the lower Cape Fear River. Yet Defendants concealed those facts rather than take action to protect or even notify those affected.

15. CFPUA exercises public and essential governmental functions to provide for the public health and welfare of its customers by providing potable water for residents of New Hanover County and the City of Wilmington. The Authority owns and operates a water intake located on the Cape Fear River, downstream of the Fayetteville Works Facility, and a water treatment plant to provide potable water to its customers. As a result of Defendants' activities, CFPUA's water system (as defined in N.C. Gen. Stat. § 162A-2) has been contaminated, its riparian interests injured, its revenues diminished, and its reputation harmed.

V. GENERAL ALLEGATIONS

A. Fayetteville Works Facility Operations

16. The Fayetteville Works Facility is located in Duart Township, Bladen County, North Carolina, fifteen (15) miles southeast of Fayetteville, adjacent to the Cape Fear River. The Facility was constructed by DuPont and first began operations in the early 1970s. The site

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consists of approximately 2,177 acres, and includes offices, manufacturing facilities, and a wastewater treatment plant (WWTP) for the treatment of process wastewater that is discharged to the Cape Fear River.

17. DuPont owned and operated the Fayetteville Works Facility from the 1970s through approximately July 2015. Chemours was a wholly owned subsidiary of DuPont when it acquired the Fayetteville Works Facility from DuPont on February 1, 2015. Chemours later separated from DuPont in July 2015. DuPont still operates a manufacturing area at the Facility.

18. Upon information and belief, DuPont formed Chemours in part to offload its environmental liabilities for, among other issues, PFOA contamination it had caused and about which it was actively facing litigation. Chemours has even indemnified DuPont for liability resulting from environmental contamination cases related to PFOA, and possibly other PFASs. Upon information and belief, Chemours was undercapitalized when it was formed by DuPont.

19. The Fayetteville Works Facility includes five, active main manufacturing areas, as reflected in the below table:

Area	Description	Operator
Butacite	Manufactures Butacite-branded products, including polyvinyl butyral sheeting and resin for automotive and architectural glass. Process wastewater is discharged to Chemours' WWTP.	Kuraray America
Nafion	Manufactures Nafion-branded fluoroproducts, including polymer dispersions and a fluoropolymer membrane (a plastic film used in electrochemical fuel cells) and related fluorochemicals, as well as vinyl ether monomers, hexafluoropropylene oxide (HFPO), and other fluorinated products. Process wastewater is discharged to Chemours' WWTP.	Chemours
SentryGlas	Manufactures SentryGlas-branded products, including interlayer laminates for automotive and architectural safety glass. Chemours asserts in its NDPES Permit application that no contact wastewater is generated from this area.	Kuraray America

Polymer Processing Aid ("PPA")	Manufactures fluorochemicals, including GenX, used as processing aids for off-site fluoropolymer manufacturing. This same area previously manufactured PFOA. Chemours asserts in its NDPES Permit application that process wastewater is captured and disposed of off-site.	Chemours
Polyvinyl Fluoride ("PVF")	Manufactures polyvinyl fluoride resin used as backing for photovoltaic cells. Process wastewater is discharged to Chemours WWTP.	DuPont

20. Upon information and belief, the Fluoropollutants released into the environment are derived from the Nafion, PPA, and PVF manufacturing areas.

21. The Facility also includes a former, now inactive manufacturing area, identified as the Polymer Manufacturing Development Facility ("PMDF"). PMDF manufactured Teflon-branded fluorinated ethylene propylene (FEP) for electrical wiring insulation and other uses. Upon information and belief, the PMDF manufacturing area was also a source of Fluoropollutants released into the environment.

22. The manufacturing areas' process wastewater and stormwater flows through Chemours' on-site WWTP, is diluted with much larger volumes of non-contact water, and is ultimately discharged into the Cape Fear River at Outfall 002. The Fayetteville Works facility is operating under NPDES Permit No. NC0003573 (the "NPDES Permit"), the most recent version of which was issued to DuPont in 2012, and transferred to Chemours in 2015, for the point source discharge from the entire Fayetteville Works Facility.

B. Definitions for PFCs related to Defendants' Fluoroproducts

23. Defendants are chemical manufacturers whose businesses include the manufacture of "fluoroproducts" involving or consisting of PFASs, which do not occur in nature (*i.e.*, are man-made). PFASs are used to make products resistant to stains, grease, and water, for instance in carpets, clothing, and mattresses. PFASs are also used for non-stick products such as

Teflon. The fluorochemistry of PFASs is complex, and many of the fluorocarbon byproducts resulting from the manufacturing processes are unknown. The identify and structure of known PFASs have been concealed from the public by manufacturers.

24. Upon information and belief, PFASs generated, used, and/or disposed of by either or both Defendants at the Fayetteville Works Facility include perfluoroalkyl ether carboxylic acids, perfluorocarboxylic acids, perfluorosulfonic acids, perfluoroalkyl ether sulfonic acids, as well as the salts thereof, and chemicals that are structurally or functionally similar.

25. Upon information and belief, more specifically, and without limitation, the PFASs generated, used, and/or disposed of by either or both Defendants at the Fayetteville Works Facility include:

Compound	Formula	CAS No.
Perfluorobutanoic acid	$C_4HF_7O_2$	375-22-4
Perfluoropentanoic acid	$C_5HF_9O_2$	2706-90-3
Perfluorohexanoic acid	$C_6HF_{11}O_2$	307-24-4
Perfluoroheptanoic acid	$C_7HF_{13}O_2$	375-85-9
Perfluorooctanoic acid (PFOA / C8)	$C_8HF_{15}O_2$	335-67-1
Ammonium perfluorooctanoate (APFO / C8)[1]	$C_8HF_{15}O_2.H_3N$	3825-26-1
Perfluorononanoic acid	$C_9HF_{17}O_2$	375-95-1
Perfluorodecanoic acid	$C_{10}HF_{19}O_2$	335-76-2
Perfluorobutane sulfonic acid	$C_4HF_9SO_3$	375-73-5
Perfluorohexane sulfonic acid	$C_6HF_{13}SO_3$	355-46-4
Perfluorooctane sulfonic acid (PFOS)	$C_8HF_{17}SO_3$	1763-23-1
Perfluoro-2-methoxyacetic acid	$C_3HF_5O_3$	674-13-5
Perfluoro-3-methoxypropanoic acid	$C_4HF_7O_3$	377-73-1
Perfluoro-4-methoxybutanoic acid	$C_5HF_9O_3$	863090-89-5
Perfluoro-2-propoxypropanoic acid (PFPrOPrA / GenX)	$C_6HF_{11}O_3$	13252-13-6
Ammonium 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)-propanoate (GenX)[2]	$C_6HF_{11}O_3.H_3N$	62037-80-3

[1] Defendants adopted the term "C8" in reference to both PFOA and its ammonium salt APFO, due to their eight-carbon chain.

Perfluoro(3,5-dioxahexanoic) acid	$C_4HF_7O_4$	39492-88-1
Perfluoro(3,5,7-trioxaoctanoic) acid	$C_5HF_9O_5$	39492-89-2
Perfluoro(3,5,7,9-tetraoxadecanoic) acid	$C_6HF_{11}O_6$	39492-90-5
Ethanesulfonic acid, 2-[1-[difluoro(1,2,2,2-tetrafluoroethoxy)methyl]-1,2,2,2-tetrafluoroethoxy]-1,1,2,2-tetrafluoro-	$C_7H_2F_{14}O_5S$	749836-20-2
Perfluoro-3,6-dioxa-4-methyl-7-octene-1-sulfonic acid	$C_7HF_{13}O_5S$	29311-67-9

26. PFASs can be difficult to detect as a constituent in water, and for many PFASs there are no standard methods to identify the compounds in water samples. Some researchers estimate that there are over 3,000 PFASs on the global market.

C. PFASs including GenX are persistent, bioaccumulative, and toxic

27. Upon information and belief, PFASs are stable compounds that resist degradation in the environment, and can persist thousands if not millions of years once produced. PFASs are water soluble and can migrate readily through air, surface water, soil, and groundwater. PFASs also bioaccumulate, meaning their concentration increases over time in the blood and organs of fish and other living organisms, including humans. Exposure pathways include ingestion through food or water, inhalation, and contact with consumer goods.

28. As a result of their properties, PFASs are known to constitute persistent bioaccumulative toxic ("PBT") chemicals, and as such are toxic to humans.

29. Exposure to PFASs has been associated with adverse health effects in humans, including kidney cancer, testicular cancer, thyroid disease, high cholesterol, pregnancy-induced hypertension, and ulcerative colitis. Exposure to PFASs has also been associated with adverse health effects in laboratory animals, including birth defects, endocrine disruption, reduced

[2] Defendants adopted the term "GenX" in reference to both PFPrOPrA and its ammonium salt. Defendants have also used various other monikers for these substances, including C3 (in reference to their three-carbon chain), C3 dimer acid, and HFPO dimer acid.

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immunologic responses to vaccination, kidney cancer, liver abnormalities, pancreatic cancer, and other conditions.

30. In May 2015, 200 researchers and scientists signed and published "The Madrid Statement on Poly- and Perfluoroalkyl Substances," which described the various health effects associated with PFASs, including liver toxicity, disruption of lipid metabolism and the immune and endocrine systems, adverse neurobehavioral effects, neonatal toxicity and death, and tumors in multiple organ systems. The Madrid Statement called for governmental and industry action, including the cessation of use of PFASs for all but "essential" applications.

31. Upon information and belief, Defendants have maintained their own toxicology programs to evaluate the health risks of PFASs. Upon information and belief, Defendants have withheld results of those evaluations and prevented disclosure to the public based on assertions that the results include confidential business information.

32. For decades, DuPont has known that exposure to PFASs created a significant risk to human health and the environment. By the 1950s, DuPont had begun studying the health effects of PFASs it was manufacturing. By 1961, DuPont researchers found that a particular PFAS, PFOA, could increase the size of the liver in rats and rabbits. In or around 1981, DuPont was informed by its PFOA supplier, the 3M Company, that ingestion of PFOA caused birth defects in rats. By the 1990s, DuPont understood that PFOA caused testicular, pancreatic, and liver tumors in lab animals. In 1991, DuPont set an internal exposure guideline of 1 ppb for PFOA in drinking water. *See generally* Nathaniel Rich, *The Lawyer Who Became DuPont's Worst Nightmare*, The NY Times Magazine, Jan. 6, 2016.

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33. In 2006, EPA initiated a voluntary PFOA Stewardship Program, in which DuPont participated, calling for the complete elimination of PFOA both from emissions to all media and from product content by 2015, due to concerns over health effects of the substance.

34. In 2009, EPA released a drinking water health advisory level for PFOA of .4 ppb (parts per billion) and for PFOS (another type of PFAS) of .2 ppb. The EPA revised those levels downward in 2016 to a maximum combined level of .07 ppb, noting: "studies indicate that exposure to PFOA and PFOS over certain levels may result in adverse health effects, including developmental effects to fetuses during pregnancy or to breastfed infants (*e.g.*, low birth weight, accelerated puberty, skeletal variations), cancer (*e.g.*, testicular, kidney), liver effects (*e.g.*, tissue damage), immune effects (*e.g.*, antibody production and immunity), thyroid effects and other effects (*e.g.*, cholesterol changes)."

35. Adverse health effects have also been associated with PFECAs[3]—a category of PFASs that includes GenX, of which Defendants had knowledge. GenX is structurally and functionally similar to C8, but rather than an unbroken chain of eight carbons, GenX consists of two shorter carbon chains connected by an ether (oxygen) linkage.

36. DuPont had begun studying the health effects of GenX no later than 1963. In or around 1963, DuPont conducted an acute oral toxicity study of the ammonium salt of GenX, to establish an approximate lethal dose in rats. In addition, as part of their premanufacture notices for GenX under the Toxic Substances Control Act ("TSCA"), DuPont submitted health and safety data to the EPA. Those submissions—redacted to omit alleged confidential business information—show that GenX has been associated with various health effects in laboratory animals consistent with the effects of other PFASs, such as effects on the liver, kidney, pancreas, testicles, and immune system.

[3] PFECAs are perfluoroalkyl ether carboxylic acids.

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37. On January 28, 2009, DuPont entered into a TSCA Consent Order with the EPA governing the manufacture of GenX. The Consent Order specified that "EPA has concerns that [GenX] will persist in the environment, could bioaccumulate, and be toxic ('PBT') to people, wild mammals, and birds," and that, based on available data, "EPA has human health concerns" for GenX. TSCA Consent Order at vii. Due to the likelihood that GenX would be used as a substitute for C8, EPA determined that "more information is needed on the toxicity and pharmacokinetics" of GenX, and noted the "high concern for possible environmental effects over the long-term." TSCA Consent Order at xi–xii. Accordingly, EPA concluded that "uncontrolled manufacture, import, processing, distribution in commerce, use, and disposal of [GenX] may present an unreasonable risk of injury to human health and the environment." TSCA Consent Order at xv. Due to the stated concerns of EPA, the Consent Order authorized the manufacture of GenX but required that DuPont "recover and capture (destroy) or recycle [GenX] at an overall efficiency of 99% from all effluent process streams and the air emissions (point source and fugitive)." TSCA Consent Order at 36.

38. More recently, The Netherlands' National Institute for Public Health and the Environment issued a report, finding that GenX substances "are perfluorinated hydrocarbons and poorly degradable in the environment . . . [and] are causing similar harmful effects as PFOA (such as carcinogenic [effects] and effects on the liver)." *Evaluation of substances used in the GenX technology by Chemours, Dordecht*, National Institute for Public Health and the Environment, The Netherlands at page 3 of 92 (2016).

39. In 2017, a set of studies published by researchers at the Stockholm University in Sweden likewise found that PFECAs may have comparable physicochemical properties and

toxicity to PFOA. *See* Melissa I. Gomis, *From emission sources to human tissues: modelling the exposure to per- and polyfluoroalkyl substances*, Stockholm University (2017).

40. On information and belief, PFASs have similar chemical structures and functions, such that their toxicity is cumulative.

41. In accordance with the above, throughout the time of their use, manufacture, emissions, spills, discharges, releases, and disposal of PFASs at the Fayetteville Works Facility, Defendants knew or should have known that exposures to PFASs created a significant risk to human health and the environment, and that Defendants' releases resulted in imminent and substantial endangerment to human health and the environment.

D. Defendants' NPDES Permit history for the Fayetteville Works Facility

42. In or around December 1995, DuPont submitted to North Carolina's Department of Environment and Natural Resources (now DEQ), Division of Water Quality ("DWQ," now Division of Water Resources ("DWR")) as part of its NPDES Permit renewal application, a request to reroute the wastewater from its Nafion manufacturing area to bypass the facility's wastewater treatment plant. According to DuPont, the only significant pollutant in this "low biodegradable" wastewater was fluoride, which was not removed in the water treatment process, so the wastewater only added to the hydraulic load at the WWTP. The 1996 NPDES Permit appears to have authorized the requested bypass, and includes an effluent limit and monitoring condition for fluoride—the only constituent in the Nafion wastewater disclosed to the agency. Based upon information and belief, the Nafion wastewater also included undisclosed GenX and other Fluoropollutants.

43. On May 3, 2001, DuPont submitted a renewal application for its 1996 NPDES Permit in which the company disclosed its intent to begin manufacturing C8 at the Fayetteville

Works facility. DuPont had previously been purchasing C8 from the 3M Company, which had stopped manufacturing the substance due to concerns over its persistence, bioaccumulation and toxicity. Upon information and belief, by the time of its 2001 NPDES renewal application:

a. DuPont had been conducting medical studies on C8 for decades. DuPont already "understood that PFOA [*i.e.*, C8] caused cancerous testicular, pancreatic, and liver tumors in lab animals. One laboratory study suggested possible DNA damage from PFOA exposure, and a study of workers linked exposure with prostate cancer." Nathaniel Rich, *The Lawyer Who Became DuPont's Worst Nightmare*, The NY Times Magazine, Jan. 6, 2016.
b. DuPont had set an internal exposure guideline of 1 ppb, in 1991.
c. DuPont had been the defendant in a federal lawsuit over adverse health effects arising from C8 contamination from its facility in Parkersburg, West Virginia (the "Washington Works Facility"), and a class action regarding adverse health effects was filed against the company in August 2001.

44. Upon information and belief, DuPont in its 2001 NPDES Permit renewal application failed to disclose any of the studies or health data on C8 in its possession. Instead, DuPont represented to DWQ that: (i) based on "medical surveillance of its own employees and epidemiological data from others in the industry," C8 "does not pose a health concern to humans or animals at levels present in the workplace or environment"; (ii) DuPont had used C8 for forty years "with no observed health effects in workers"; and (iii) the compound "is neither a known developmental toxin nor a known human carcinogen."

45. The 2001 NPDES Permit application requested authorization to discharge the C8 wastewater directly to a dedicated outfall, bypassing the facility's WWTP. Beginning in the fall of 2002, DuPont started manufacturing C8 at the Fayetteville Works Facility. The renewal NPDES Permit, however, was not issued until January 2004. Because later submissions from DuPont represented that the C8 manufacturing operation was constructed to have no process wastewater discharges, and that the wastewater would be captured and incinerated off site, the 2004 NPDES Permit did not include authorization for discharge of the C8 manufacturing

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wastewater. Upon information and belief, the wastewater from C8 manufacturing included Fluoropollutants.

46. DuPont submitted its next NPDES Permit renewal application on May 1, 2006. As to the manufacture of C8, DuPont represented in its application that: (i) the wastewater "is collected and shipped off-site for disposal"; (ii) "[n]o process wastewater from this manufacturing facility is discharged to the site's biological WWTP or to the Cape Fear River"; and (iii) the C8 produced at the facility "is used to produce fluoropolymers and fluorinated telomers, but none of the produced [C8] is used at the Fayetteville Works site." As to the Nafion manufacturing operations, DuPont disclosed in its application that the plant manufactures five final products, including FLPR Vinyl Ether monomers and HFPO monomers. According to DuPont, the Vinyl Ether and HFPO monomers were being shipped to other DuPont locations to produce various fluorochemical products such as Teflon, and the Nafion wastewater was being treated in the facility's WWTP. DuPont did not mention any other PFAS in a manner that identified the substance as a PFAS.

47. The renewal NPDES Permit was issued May 25, 2007. Although all C8 process wastewater was to be captured and disposed of off-site, the permit included a monitoring condition for C8 due to known groundwater contamination. Monitoring reports have documented discharges and/or releases of C8 to the Cape Fear River through at least March 2017.

48. As part of its next NPDES Permit renewal process, DuPont representatives, including its environmental manager Michael Johnson, met in August 2010 with DWQ to discuss the phase-out of C8. During that meeting, upon information and belief, DuPont identified the C8 replacement as "GenX" and, consistent with the disclosures in its renewal application,

represented that the wastewater generated from the manufacture of GenX would be captured and disposed of off-site.

49. On April 29, 2011, DuPont submitted another NPDES Permit renewal application. Upon information and belief, DuPont had begun transitioning from C8 to GenX by that time. Where its disclosures previously identified the manufacture of C8, DuPont instead identified the manufacturing area as a "PPA [polymer processing aid] manufacturing area." DuPont represented in its application that: (i) the "processing aids produced in this unit are used to produce fluoropolymers and fluorinated telomers, but none of the produced processing aids are used at the Fayetteville Works site"; (ii) "[a]ll process wastewater generated from this manufacturing facility is collected and shipped off-site for disposal"; and (iii) "[n]o process wastewater from this manufacturing facility is discharged to the site's biological WWTP or to the Cape Fear River."

50. DuPont's representations in the 2011 application regarding the Nafion plant are essentially identical to its May 2006 NPDES application. The effluent from the Nafion wastewater is represented as being heavily diluted with noncontact river water and other water prior to discharge.

51. The NPDES Permit renewal was issued February 6, 2012, and advised DuPont that the Cape Fear River segment into which DuPont is discharging wastewater had been reclassified to a water supply classification—WS-IV. As with the prior NPDES permit, PFOA (*i.e.*, C8) monitoring conditions were included; PFOA monitoring was required at Outfall 002—at a point where process wastewater was diluted with large volumes of non-contact river water and other water.

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52. The 2012 NPDES Permit does not authorize the discharge of GenX or any other Fluoropollutants in process wastewater. Upon information and belief, Defendants' NPDES Permit applications have never specifically identified any PFASs as constituents in the process wastewater discharged from the Fayetteville Works Facility.

53. Upon information and belief, the last date of C8 production at the Fayetteville Works Facility was April 2013, after which DuPont completed its transition to GenX.

54. On June 19, 2015, DuPont submitted an ownership change request, notifying DWR of the pending transfer of the Fayetteville Works facility to Chemours and requesting a permit amendment.

55. On June 24, 2015, Michael Johnson, Chemours' (and previously DuPont's) environmental manager, met with DWQ officials to discuss a "new" perfluorinated compound identified in the Cape Fear River, GenX, which had been identified by N.C. State University researchers conducting sampling on the Cape Fear River as part of a study commissioned by EPA. The researchers have since published their results, *Legacy and Emerging Perfluoroalkyl Substances are Important Drinking Water Contaminants in the Cape Fear River Watershed of North Carolina*, in Environmental Science & Technology Letters (November 10, 2016) (the "Knappe Report"). Upon information and belief, DuPont at the June 24, 2015 meeting represented to DWQ that GenX was C8's replacement, and that GenX was no longer being discharged to the Cape Fear.

56. The 2012 NPDES Permit was amended to reflect the change of ownership effective July 1, 2015.

57. Chemours submitted its most recent NPDES Permit renewal application on April 27, 2016. The application contained essentially identical representations regarding the PPA and

Nafion manufacturing areas as the April 2011 renewal application. Similar to the prior application, the effluent from the Nafion wastewater is represented by Chemours as being heavily diluted with noncontact river water and other water prior to discharge. The April 2016 NPDES renewal application requested that DWR remove C8 monitoring condition from the NPDES Permit.

E. Defendants' Historical and Current Releases of Fluoropollutants

58. Upon information and belief, at its Washington Works Facility in West Virginia, DuPont had used C8 since the 1950s. DuPont purchased C8 from the 3M Company for use in the production of various fluoroproducts. As a result of DuPont's discharges, emissions, and other releases of C8 from the Washington Works Facility, the soil, surface water, and groundwater in the vicinity of the facility, including public water supplies, became heavily contaminated with C8.

59. Upon information and belief, by 1990, DuPont had disposed of 7,100 tons of C8 sludge into a landfill abutting the facility, which DuPont had purchased specifically to discard its C8 waste. Around the same time, DuPont had begun researching possible alternatives to C8 due to concern over the health effects of the substance.

60. In 2000, the 3M Company discontinued production of C8 due to concern about C8's toxicity and due to pressure from the EPA. Instead of discontinuing its use of C8, DuPont began manufacturing the chemical itself at the Fayetteville Works Facility.

61. Upon information and belief, pursuant to a Letter of Agreement with EPA, DuPont began monitoring groundwater at the Fayetteville Works Facility for C8 beginning in or around January 2003, at which time C8 was immediately detected in the groundwater. DuPont therefore undertook a RCRA Facility Investigation (RFI) under the Hazardous and Solid Waste

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Amendments Corrective Action Program to investigate the C8 contamination, at the direction of DEQ's Division of Waste Management. The facility investigation process resulted in a series of RFI reports setting forth the findings from the investigations, in particular a Phase I RFI dated April 14, 2003 and revised August 18, 2003, a Phase II RFI dated June 2006 and addendum dated August 2009, and a Phase III RFI Report in February 2014, revised August 2014.

62. The RFI reports: (i) identify C8 contamination in soil and groundwater throughout the Fayetteville Works Facility, and posit that some of the contamination is due to deposition of C8 air emissions; (ii) indicate that until 1990, unlined lagoons constructed in or around 1979 were used as biosludge settlement lagoons for wastewater from throughout the facility, before discharging to the Cape Fear River; (iii) acknowledge historical releases at the Nafion manufacturing area, including from solid waste management units (SWMUs) handling Nafion wastewater; and (iv) identify at least seven releases occurring between March 2011 and February 2013, including a release from the PPA facility in June 2011, a release from the Nafion facility in March 2012, and a release from the Waste Fluorocarbon Storage Tank in March 2012.

63. Upon information and belief, DuPont was generating PFASs at the Fayetteville Works Facility during the time of the activities, discharges, emissions, spills, and releases identified in the RFIs, such that Fluoropollutants were constituents of the contamination and releases described in the RFIs.

64. Upon information and belief, PFASs have been generated at the Fayetteville Works Facility since its inception. Upon information and belief, the Nafion, PPA, and PVF manufacturing areas at the Fayetteville Works Facility continue to generate PFASs, as a result of which Fluoropollutants continue to be emitted, discharged, and released to the air, soil, and water in the vicinity of the Facility.

65. Upon information and belief, since 1980 DuPont and later Chemours have been generating GenX and other PFASs as byproducts from its Nafion processes. The wastewater containing those PFASs was conveyed to the WWTP, which upon information and belief was ineffective at removing PFASs therefrom. Thus, upon information and belief, Defendants have discharged Fluoropollutants from the Nafion manufacturing processes since at least 1980.

66. Upon information and belief, it was not until November 2013 that DuPont installed additional wastewater treatment systems that reduced but did not eliminate the discharge of Fluoropollutants. At that time, DuPont had knowledge of effective methods for removal of all or substantially all Fluoropollutants from its discharges (as discussed below), but chose not to install those safeguards.

F. Defendants' Knowledge of Contamination and Failure to Act

67. Upon information and belief, in accord with the above allegations, since the inception of the Fayetteville Works Facility:

a. the manufacturing processes at the Fayetteville Works Facility have generated PFASs;

b. PFASs are persistent, bioaccumulative, and toxic;

c. Fluoropollutants were being discharged, emitted, spilled, and released at the Facility, resulting in contamination of the water (including the Cape Fear River), air, soil, plants, and animals in the vicinity of the Facility; and

d. discharge of the Fluoropollutants was not authorized by the NPDES Permit,

all of which Defendants knew or should have known.

68. Further, upon information and belief:

a. the groundwater and surface water being contaminated by Fluoropollutants, including the Cape Fear River, constitute drinking water supplies for people in the lower Cape Fear River Basin, including the people of New Hanover County and Wilmington, North Carolina;

b. Fluoropollutants discharged, emitted, spilled, and released at the Facility by Defendants reach the downstream water intake of CFPUA, where they enter CFPUA's water system along with water withdrawn from the Cape Fear River;

c. conventional water treatment methods such as those at CFPUA's Sweeney Plant are ineffective to remove Fluoropollutants from water; and

d. Fluoropollutants discharged, emitted, spilled, and released at the Facility by Defendants have reached CFPUA's customers in concentrations above levels established as safe,

all of which Defendants knew or should have known.

69. Defendants have operated, and upon information and belief continue to operate, the Fayetteville Works Facility and WWTP without sufficient pollution controls and management practices to prevent Fluoropollutants from entering the waters of the Cape Fear River through discharges, emissions, releases, spills, disposal and other means, and contaminating the CFPUA water supply and water system.

70. By 2004 DuPont knew that, although its WWTP was ineffective at removing PFASs from wastewater, alternate technologies such as a granular activated carbon filtration ("GAC") system would effectively remove PFASs. For instance, in January 2004, in response to the C8 contamination at the Washington Works Facility, DuPont offered to build a GAC to treat contaminated groundwater used as a public water supply by a local "water association." The

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association initially resisted, but eventually agreed to the offer. DuPont constructed the GAC at its own facility, so that water from the wellfield was first pumped to Washington Works for treatment before being pumped back to the association to be distributed to its customers. The GAC successfully reduced C8 levels to non-detect.

71. Nevertheless, Defendants have failed to install a GAC or other abatement technology at the Fayetteville Works Facility sufficient to eliminate PFASs from its effluent.

72. Defendants also failed to notify DEQ, CFPUA, or the public that Fluoropollutants were being discharged, emitted, or otherwise released to the water, air, and soil.

73. Defendants likewise failed to notify CFPUA that Fluoropollutants are incapable of being removed from water through conventional treatment methods, such as the treatment methods in use at the Sweeney Plant.

G. Contamination of Fluoropollutants in the Cape Fear River

74. As a result of Defendants' conduct, Fluoropollutants have contaminated the waters, sediments, and banks of the Cape Fear River and harmed the environment. Fluoropollutants in the Cape Fear River have traveled downstream and entered the CFPUA intake, and have entered the CFPUA public water supply system in concentrations in excess of levels established as safe.

75. As reflected in the Knappe Report published in November 2016, seven PFASs were identified at the CFPUA water intake on the Cape Fear River. GenX was identified at an average concentration of 631 ppt, with levels as high as approximately 4,500 ppt.

76. On July 24, 2017, the North Carolina Department of Health and Human Services ("NCDHHS") issued an updated Risk Assessment for GenX, setting the health goal for GenX concentrations in water at 140 ppt.

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77. Subsequent water sampling both in the Cape Fear River and of finished water from CFPUA have identified GenX and other PFASs at the CFPUA intake in levels harmful to human health. Upon information and belief, additional and as-yet unidentified Fluoropollutants have contaminated the waters, sediments, and banks of the Cape Fear River as a result of Defendants' discharges, emissions, and releases.

78. Upon information and belief, the Fayetteville Works Facility is the primary if not exclusive source of PFASs reaching CFPUA's intake in detectable quantities.

79. Because of the substantial quantity of Fluoropollutants discharged or released by DuPont and Chemours over a long term, the Cape Fear River's sediments and banks have, upon information and belief, become contaminated with Fluoropollutants which, when disturbed by the natural processes of the river ecosystem, including the normal use of the river by people and water-craft, will again be re-introduced into the waters of the Cape Fear River and be subject to being transported to CFPUA's water intake and introduced into CFPUA's public water supply system.

80. Beginning in 2008, CFPUA undertook a substantial upgrade and expansion project to its Sweeney Water Treatment Plant, which was completed in 2012 and cost more than $65 million. The Sweeney Plant is now a state-of-the-art system, with the capacity to treat 34.5 million gallons per day. Nevertheless, CFPUA was unaware at the time of the upgrade that DuPont had been contaminating the Cape Fear River with Fluoropollutants for decades, and the Sweeney Plant was therefore not designed to, and is largely ineffective at, removing Fluoropollutants from the water. The concentration levels of Fluoropollutants in the raw water and in the finished water following treatment are therefore comparable.

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81. Defendants knew or should have known that: (i) Fluoropollutants from the Fayetteville Works Facility were being discharged, emitted, and released to the water, air, and soil during the manufacture of their fluoroproducts; (ii) Fluoropollutants were contaminating the Cape Fear River and reaching the CFPUA intake in concentrations in excess of levels established as safe; (iii) Fluoropollutants were entering CFPUA's water system and would remain present in treated water in concentrations in excess of levels established as safe; and (iv) Fluoropollutants were reaching CFPUA's customers as constituents of finished water, in concentrations in excess of levels established as safe.

82. In addition, prior to constructing the Sweeney Plant, the Sweeney Plant expansion received substantial attention in the local press. Upon information and belief, DuPont had actual notice of the expansion. Nevertheless, DuPont did not warn CFPUA that the Cape Fear River was contaminated with Fluoropollutants, that conventional water treatment methods are ineffective at removing Fluoropollutants, and that the planned upgrade would be ineffective in removing Fluoropollutants.

83. Defendants' conduct as described above was willful or wanton, and manifested a reckless disregard for and indifference to the rights and safety of others, including CFPUA and its customers.

H. Harm to CFPUA

84. As a direct and proximate result of Defendants' conduct, CFPUA has suffered property, monetary, and reputational damage, which include the following:

a. CFPUA's water system has been contaminated with Fluoropollutants, including the Sweeney Plant and related water treatment equipment, as well as CFPUA's aquifer storage and recovery ("ASR") system. CFPUA has retained Black &

Veatch to determine how best to address the Fluoropollutants already existing in its water system, and has undertaken to remove nearly 50 million gallons of stored water from its ASR, at substantial expense.

b. Black & Veatch has also been retained to conduct pilot tests to evaluate possible treatment methods to remove Fluoropollutants from the raw water, which continue to reach the CFPUA water intake on the Cape Fear River and enter the CFPUA public water supply system. CFPUA reasonably anticipates that an upgrade to the Sweeney Plant will be necessary to remove Fluoropollutants released by Defendants, at substantial expense.

c. CFPUA has also partnered with researchers at UNC-Wilmington to undertake a three-phase research program, to search for and identify PFASs in the waters and sediments of the Cape Fear River, as well as within CFPUA's water system.

d. CFPUA has undertaken an extensive testing regimen for sampling its raw and finished water, in order to monitor the levels of known PFASs that can be identified and measured.

e. CFPUA has also made available to the public a free water filling station with treated water sourced from underground aquifers where GenX contamination has not been detected.

f. CFPUA has suffered reduced demand due to concern over the safety of CFPUA's finished water.

g. CFPUA has suffered reputational harm with customers and the public at large.

85. CFPUA's damages include costs incurred related to each of the above.

FIRST CLAIM
(Negligence)

86. The allegations in the preceding paragraphs are restated and incorporated herein by reference.

87. Defendants owed CFPUA a duty of reasonable care in the operation of the Fayetteville Works Facility, including the manufacture, management, use, storage, and handling of PFASs, the discharge, emission, and release of Fluoropollutants, and the remediation of Fluoropollutant contamination.

88. Defendants' duties included the duty to: (i) identify the PFASs generated from the manufacture of fluoroproducts and contained in the process wastewater; (ii) investigate and understand the PBT characteristics of PFASs before releasing them into the environment; (iii) operate the Fayetteville Works Facility in a manner that would not contaminate the Cape Fear River with Fluoropollutants and endanger public health; (iv) duly investigate and remediate the Fluoropollutant contamination in the Cape Fear River; and (v) warn CFPUA of the Fluoropollutant contamination in the Cape Fear River.

89. Defendants have failed to exercise ordinary and reasonable care in the manufacture, management, use, storage, and handling of PFASs, the discharge, emission, and release of Fluoropollutants, and the remediation of Fluoropollutant contamination. As was reasonably foreseeable, Defendants' conduct has resulted in Fluoropollutants contaminating not only the waters, sediments, and banks of the Cape Fear River, but also the soil and groundwater in the area of the Fayetteville Works Facility, all of which further contribute to contamination of the Cape Fear River.

90. As a direct and proximate result of Defendants' negligence, CFPUA has incurred the injuries, damage, and harm identified in preceding paragraphs. Defendants are therefore liable to CFPUA for damages, in an amount to be proven at trial.

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SECOND CLAIM
(Negligence Per Se)

91. The allegations in the preceding paragraphs are restated and incorporated herein by reference.

92. Defendants' conduct amounts to violations of federal and state public safety statutes intended to protect human health and the environment, including the Clean Water Act, Resource Conservation Recovery Act, Safe Drinking Water Act, and Solid Waste Disposal Act. Defendants' conduct therefore constitutes negligence per se.

93. CFPUA is within the class of persons those statutes are intended to protect, and its injuries are of the nature contemplated by the statutes.

94. As a direct and proximate result of Defendants' negligence per se, CFPUA has incurred the injuries, damage, and harm identified in preceding paragraphs. Defendants are therefore liable to CFPUA for damages, in an amount to be proven at trial.

THIRD CLAIM
(Private Nuisance)

95. The allegations in the preceding paragraphs are restated and incorporated herein by reference.

96. Defendants' discharges, emissions, and releases of Fluoropollutants into the environment constitute an unreasonable use of Defendants' land which has caused substantial and unreasonable interference with CFPUA's use and enjoyment of its property.

97. As a direct and proximate result of Defendants' creation of a nuisance, CFPUA has incurred the injuries, damage, and harm identified in preceding paragraphs. Defendants are therefore liable to CFPUA for damages, in an amount to be proven at trial.

FOURTH CLAIM
(Public Nuisance)

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98. The allegations in the preceding paragraphs are restated and incorporated herein by reference.

99. Defendants' discharges, emissions, and releases of Fluoropollutants into the environment constitute an unreasonable use of Defendants' land which has caused substantial and unreasonable interference with CFPUA's use and enjoyment of its property.

100. As a direct and proximate result of Defendants' creation of a nuisance, CFPUA, as a public utility authority exercising public and essential governmental functions to provide for the public health and welfare of its customers, has incurred special injuries, damage, and harm identified in preceding paragraphs.

101. Defendants are therefore liable to CFPUA for damages, in an amount to be proven at trial.

FIFTH CLAIM
(Trespass to Real Property)

102. The allegations in the preceding paragraphs are restated and incorporated herein by reference.

103. Defendants' operation of the Fayetteville Works Facility and its discharges, emissions, and releases of Fluoropollutants into the environment have resulted in unauthorized entry by Defendants upon real property owned by CFPUA.

104. Defendants' unauthorized entry upon CFPUA property has resulted in substantial injuries, damage, and harm to CFPUA and constitutes a trespass to real property.

105. Defendants are therefore liable to CFPUA for damages, in an amount to be proven at trial.

SIXTH CLAIM
(Trespass to Chattels)

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106. The allegations in the preceding paragraphs are restated and incorporated herein by reference.

107. Defendants' operation of the Fayetteville Works Facility and its discharges, emissions, and releases of Fluoropollutants into the environment have contaminated the Cape Fear River, resulting in unauthorized interference with CFPUA's possession and use of its water and water system.

108. Defendants' unauthorized interference has resulted in substantial injuries, damage, and harm to CFPUA and constitutes a trespass to chattels.

109. Defendants are therefore liable to CFPUA for damages, in an amount to be proven at trial.

SEVENTH CLAIM
(Failure to Warn)

110. The allegations in the preceding paragraphs are restated and incorporated herein by reference.

111. Defendants had a duty to exercise reasonable care and to warn CFPUA of the Fluoropollutant contamination in the Cape Fear River, the likelihood that Fluoropollutants were reaching CFPUA's water system, the lack of efficacy of conventional treatment systems at removing Fluoropollutants, and the PBT characteristics of Fluoropollutants,.

112. As a direct and proximate result of Defendants' negligent failure to warn, CFPUA has incurred the injuries, damage, and harm identified in preceding paragraphs. Defendants are therefore liable to CFPUA for damages, in an amount to be proven at trial.

EIGHTH CLAIM
(Negligent Manufacture)

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113. The allegations in the preceding paragraphs are restated and incorporated herein by reference.

114. PFASs manufactured, generated, used, stored, handled, or disposed of by Defendants in the manufacture of fluoroproducts constitute dangerous instrumentalities or substances.

115. Defendants failed to execute the highest or utmost caution commensurate with the serious risk of harm involved in the manufacture, generation, use, storage, handling, and disposal of PFASs, resulting in the Fluoropollutant contamination described herein.

116. As a direct and proximate result of Defendants' negligent manufacture of fluoroproducts, CFPUA has incurred the injuries, damage, and harm identified in preceding paragraphs. Defendants are therefore liable to CFPUA for damages, in an amount to be proven at trial.

NINTH CLAIM
(Willful or Wanton – Punitive Damages)

117. The allegations in the preceding paragraphs are restated and incorporated herein by reference.

118. Defendants' conduct, including its discharges, emissions, and releases of Fluoropollutants to the environment, was willful or wanton, in that it was done with a conscious disregard of and indifference to the rights and safety of others, which Defendants knew or should have known was reasonably likely to result in injury, damage, or harm.

119. As a direct and proximate result of Defendants' willful or wanton conduct, CFPUA has incurred the injuries, damage, and harm identified in preceding paragraphs. Defendants are therefore liable to CFPUA for punitive damages.

TENTH CLAIM

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(Riparian Rights / Injunctive Relief)

120. The allegations in the preceding paragraphs are restated and incorporated herein by reference.

121. CFPUA is authorized and empowered to "acquire in the name of the authority … any lands or rights in land or water rights in connection therewith …." N.C. Gen. Stat. § 162A-6.

122. CFPUA owns in fee simple the CFPUA Riparian Land, a tract of land that touches the Cape Fear River.

123. CFPUA, as owner of the CFPUA Riparian Land, owns riparian rights including, but not limited to, the right to the natural flow of the Cape Fear River undiminished in quality except as may be occasioned by the reasonable use of the water by other riparian owners.

124. CFPUA Riparian Land is downstream of the Fayetteville Works where Defendants have caused and continue to cause Fluoropollutants to be introduced into the Cape Fear River.

125. Defendants have materially interfered with and continue to materially interfere with CFPUA's riparian rights by causing the waters of the Cape Fear River to contain Fluoropollutants that unreasonably diminish the quality of the waters of the Cape Fear River where CFPUA withdraws water from the Cape Fear River for human consumption.

126. As a direct and proximate result of Defendants' interference with CFPUA's riparian rights, CFPUA has suffered and will continue to suffer the injuries, damage, and harm identified in preceding paragraphs. Defendants are therefore liable to CFPUA for compensatory damages, in an amount to be proven at trial.

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127. CFPUA is further entitled to such prohibitory and mandatory injunctive relief as is necessary to prevent continuing injury to CFPUA's riparian rights as a result of Defendants' actions and inactions.

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Plaintiff hereby demands a trial by jury on all issues so triable.

WHEREFORE, Plaintiff CFPUA prays the Court as follows:

1. Enter judgment for CFPUA and against Defendants for compensatory and punitive damages;

2. Enter such prohibitory and mandatory injunctive relief as is necessary to prevent continuing injury to CFPUA's riparian rights;

3. Grant Plaintiff a trial by jury;

4. For such other and further relief as to the Court seems just and proper.

This the _____ day of October, 2017.

_____

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