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SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF ALAMEDA

THE PEOPLE OF THE STATE OF CALIFORNIA, EX REL. ROB BONTA, ATTORNEY GENERAL OF CALIFORNIA, Plaintiff, v. 3M COMPANY; AGC CHEMICALS AMERICAS, INC.; ARCHROMA, U.S., INC.; ARKEMA, INC.; BUCKEYE FIRE EQUIPMENT COMPANY; CARRIER GLOBAL CORPORATION; CHEMGUARD, INC.; THE CHEMOURS COMPANY; THE CHEMOURS COMPANY FC, LLC; CLARIANT CORPORATION; CORTEVA, INC.; DUPONT DE NEMOURS, INC.; DYNAX CORPORATION; E.I. DU PONT DE NEMOURS AND COMPANY; KIDDE-FENWAL, INC.; NATIONAL FOAM, INC.; TYCO FIRE PRODUCTS, L.P.; UTC FIRE & SECURITY AMERICAS CORPORATION, INC.; and DOES 1 through 100, INCLUSIVE. Defendants.	Case No. **COMPLAINT FOR CIVIL PENALTIES, ABATEMENT, EQUITABLE RELIEF, AND DAMAGES** **JURY TRIAL DEMANDED** (1) PUBLIC NUISANCE; (2) GOVERNMENT CODE SECTION 12607; (3) STRICT PRODUCTS LIABILITY-FAILURE TO WARN; (4) STRICT PRODUCTS LIABILITY – DEFECTIVE & ULTRA HAZARDOUS PRODUCT; (5) UNLAWFUL BUSINESS PRACTICES – VIOLATION OF BUSINESS AND PROFESSIONS CODE SECTION 17200 ET SEQ.; (6) NEGLIGENCE PER SE; AND (7) FRAUDULENT TRANSFER.

The People of the State of California (People), by and through Rob Bonta, the Attorney General of California, allege as follows:

I. INTRODUCTION

1. The People bring this action against Defendants 3M Company; AGC Chemicals Americas, Inc.; Archroma, U.S., Inc.; Arkema, Inc.; Buckeye Fire Equipment Company; Carrier Global Corporation; Chemguard, Inc.; the Chemours Company; the Chemours Company FC, LLC; Clariant Corporation; Corteva, Inc.; DuPont De Nemours, Inc.; Dynax Corporation; E.I. Du Pont De Nemours and Company; Kidde-Fenwal, Inc.; National Foam, Inc.; Tyco Fire Products, L.P.; UTC Fire & Security Americas Corporation, Inc.; and Does 1 through 100 (collectively, Defendants), for causing and/or contributing to widespread toxic contamination in California, as more fully alleged below. In doing so, Defendants created and/or contributed to a public nuisance, harmed and destroyed natural resources, marketed defective products, failed to provide adequate warnings concerning the use of their products, and engaged in unlawful business practices.

2. Per- and polyfluoroalkyl substances are a class of human-made substances consisting of thousands of different chemicals. Defendants manufactured, distributed, marketed, and/or sold the following per- and polyfluoroalkyl substances (along with their salts and structural isomers), which are collectively referred to in this Complaint as "PFAS": perfluorooctanoic acid (PFOA); perfluorooctanesulfonic acid (PFOS); perfluorobutanesulfonic acid (PFBS); perfluorohexanesulfonic acid (PFHxS); perfluorohexanoic acid (PFHxA); perfluoroheptanoic acid (PFHpA); and perfluorononanoic acid (PFNA).

3. Defendants knew or should have known that PFAS were toxic and harmful to human health and the environment, yet they continued to produce PFAS and/or products containing PFAS. For decades, certain Defendants, including 3M Company (3M) and E.I. du Pont de Nemours and Company, were aware of crucial facts relating to PFAS's toxicity, persistence, and prevalence in humans but deliberately misled the government and the public.

4. PFAS were used and/or present in a wide array of products and industrial processes, including, but not limited to: food packaging and preparation materials (e.g., sandwich wrappers and other papers and paperboard for packaging); household products; stain- and water-

repellent fabrics and carpets; nonstick products; polishes; waxes; paints; cleaning products; surfactants (including without limitation surfactants used in Class B Firefighting foams); personal care products; in manufacturing and production, including in chrome plating, electronics manufacturing, textile manufacturing and oil recovery; as a wetting agent and fume suppressant; as a processing aid in fluoropolymer production and in textile coating applications; and in many other products and industrial applications.

5. As a direct result of Defendants' egregious misconduct, PFAS are present throughout California: in drinking water sources; bays, lakes, streams, and rivers; groundwater; in fish, wildlife, and sediments; and even in the bloodstreams of Californians.

6. PFAS are sometimes referred to as "forever chemicals." Their strong carbon-fluorine bonds make PFAS extremely resistant to degradation in the environment and harder for the body to effectively metabolize and/or excrete. As a result, six of the seven PFAS at issue in this Complaint are in the blood of nearly every Californian tested across several studies of distinct population cohorts.

7. PFAS are not only ubiquitous but extremely toxic and have significant detrimental impacts on human health. PFAS contribute to one or more of the following: (a) cancers (liver, kidney, testicular, breast, pancreas, and prostate); (b) liver diseases; (c) adverse pregnancy outcomes; (d) developmental effects (including delayed puberty); (e) reduced immune system responses; (f) infertility; (g) reduced bone density in children; (h) diabetes; and (i) non-alcoholic fatty liver disease. Californians continue to be exposed to these pernicious chemicals; that will not stop without decisive remedial action.

8. Each Defendant caused and/or contributed to the devastating statewide harm from PFAS contamination. Defendants comprise a small number of companies that jointly and severally cause and/or contribute to this statewide harm. PFOS is primarily synthesized using a complex electrochemical fluorination method made by a single company - Defendant 3M. PFNA was synthesized by AGC Chemicals Americas, Inc. (and its Japanese corporate parent AGC Inc. (f/k/a Asahi Glass, Co., Ltd)). PFOA, PFBS, PFHxS, PFHxA, and PFHpA were primarily synthesized by relatively few manufacturers, including 3M. Defendants can and should have kept

the PFAS and products made with PFAS off the market and/or should have provided warnings to mitigate adverse impacts to Californians and their environment. Instead, Defendants introduced PFAS into commerce without safety testing, oversight, or warnings and kept them on the market long after they (but not the government or public) knew or should have known of PFAS's harmful properties.

9. The scale of the devastating public nuisance created by Defendants' egregious misconduct is truly staggering. Unless drastic actions are taken soon, California will be dealing with the consequences of this misconduct for many generations. The People respectfully request that this Court use its equitable powers to order Defendants to mitigate future harm to the environment and people of California, including, but not limited to, by granting preliminary and permanent equitable relief. The People further respectfully request that this Court order Defendants to abate the massive public nuisance they caused and/or contributed to and to pay damages, statutory penalties, and restitution. The People likewise request that the Court void the fraudulent transfer of assets among Defendants The Chemours Company, Corteva, Inc., E.I. du Pont de Nemours and Company, and DuPont de Nemours, Inc. and to order recovery of the property or value fraudulently transferred among these defendants. The People seek to recover their attorneys' fees, expert costs, and litigation costs.

II. PLAINTIFF

10. Plaintiff is the People of the State of California. This civil enforcement action is prosecuted on behalf of the People by and through Rob Bonta, Attorney General of California. The Attorney General is authorized to bring this action on behalf of the People in, among other things, his role as Chief Law Officer under the California Constitution, Article V, Section 13, and by statute, including, but not limited to: Government Code section 12600 et seq.; Business and Professions Code sections 17203, 17204, and 17206; Civil Code sections 3479, 3480, and 3494; and Code of Civil Procedure sections 731 and 1021.8.

III. DEFENDANTS

11. At all relevant times, Defendants designed, manufactured, formulated, marketed, distributed, sold, and/or assumed or acquired liabilities for the manufacture and/or sale of: (a)

PFAS; (b) the chemical precursors of PFAS; (c) products (including, but not limited to, industrial, commercial and consumer products) containing PFAS and/or the chemical precursors of PFAS; and/or (d) aqueous film-forming foam (AFFF)[1] containing PFAS and/or the chemical precursors of PFAS (collectively, "PFAS Products").

12. Defendants designed, manufactured, formulated, marketed, distributed, sold, and/or assumed or acquired liabilities for the manufacture and/or sale of PFAS Products with the knowledge that these toxic compounds would be released into the environment, even when used as directed and as intended by the Defendants.

13. The use of PFAS Products, as directed and for their intended purpose, has resulted in detection of six of the seven PFAS at substantial levels in the blood of Californians, the soil, sediment, surface water, and groundwater in California, and in its wildlife.

14. Defendants designed, manufactured, formulated, marketed, distributed, sold, and/or assumed or acquired liabilities for the manufacture and/or sale of PFAS Products that have contaminated, and continue to contaminate California.

A. 3M Company

15. Defendant 3M (formerly known as Minnesota Mining and Manufacturing Company) is a Delaware corporation with its principal place of business at 3M Center, St. Paul, Minnesota 55144. 3M is registered to do business in the State of California. 3M owns and operates facilities in California. 3M manufactured, distributed, and sold PFAS Products. 3M was the sole producer of PFOS, which it made using an Electro-Chemical Fluorination method (ECF), for which it sought intellectual property rights. 3M researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products in markets around the United States, including within California.

[1] AFFF is a firefighting agent used to control and extinguish Class B fuel fires and is used at sites such as military bases, airports, petroleum refineries, and fire training centers.

B. DuPont Defendants

16. This Complaint refers to Corteva, Inc., E.I. du Pont de Nemours and Company, The Chemours Company, The Chemours Company FC, LLC, and DuPont de Nemours, Inc., formerly known as DowDuPont Inc., collectively as the "DuPont Defendants."

17. Defendant Corteva, Inc. (Corteva) is a Delaware corporation with its principal place of business located at 974 Center Road, Wilmington, Delaware 19805. Corteva is registered to do business in the State of California but its right to do business in California is presently forfeited by the California Franchise Tax Board (a status it has had since January 3, 2022). Corteva has done business throughout the United States, including conducting business in California. Corteva was created as part of Defendant E.I. du Pont de Nemours and Company's fraudulent transfer scheme (detailed below) and has acquired liabilities relating to E.I. du Pont de Nemours and Company's research, development, manufacturing, design, marketing, distribution, release, promotion, and/or sale of PFAS and/or PFAS Products in California.

18. Defendant E.I. du Pont de Nemours and Company (Old DuPont) is a Delaware corporation with its principal place of business located at 974 Centre Road, Wilmington, Delaware 19805. Old DuPont has done business throughout the United States, including conducting business in California. Old DuPont is registered to do business in California. Old DuPont has been involved in the production and sale of PFAS Products since the 1950s. When 3M left the market in 2002, Old DuPont took on a larger role in the AFFF market. Old DuPont researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products in markets around the United States, including within California.

19. Defendant DuPont de Nemours, Inc. (New DuPont), formerly known as DowDuPont Inc. is a Delaware corporation with its principal place of business at 974 Centre Road, Wilmington, Delaware 19805. New DuPont does business throughout the United States. New DuPont assumed liability for Old DuPont's PFAS contamination, including in California. On June 1, 2019, New DuPont—the surviving corporation after a spin-off from Corteva, Inc. and another entity known as Dow, Inc.—changed its name to DuPont de Nemours, Inc. Following the

spin-off, New DuPont retained assets in the specialty products business lines and assumed the financial assets and liabilities remaining from Old DuPont that were not assumed by Corteva. New DuPont was created as part of Old DuPont's fraudulent transfer scheme detailed below and as a result it has acquired liabilities relating to E.I. du Pont de Nemours and Company's research, development, manufacturing, design, marketing, distribution, release, promotion, and/or sale of PFAS and/or PFAS Products in California.

20. Defendant The Chemours Company (Chemours) is a Delaware corporation with its principal place of business located at 1007 Market Street, Wilmington, Delaware 19899. Chemours is registered to do business in the State of California. The Chemours Company was a wholly owned subsidiary of Old DuPont. In 2015, Old DuPont spun off its performance chemicals business to Chemours, along with certain environmental liabilities. On information and belief, at the time of the transfer of its Performance Chemicals business to Chemours, Old DuPont had been sued, threatened with suit and/or had knowledge of the likelihood of litigation to be filed regarding Old DuPont's liability for damages and injuries arising from the manufacture and sale of PFAS and/or PFAS Products. The Chemours Company has received and begun manufacturing certain product lines from Old DuPont, including some product lines involving marketing, manufacturing, sales, promotion and distribution of PFAS-containing intermediates and PFAS Products. In addition, Chemours was created as part of Old DuPont's fraudulent transfer scheme detailed below and as a result it has acquired liabilities relating to E.I. du Pont de Nemours and Company's research, development, manufacturing, design, marketing, distribution, release, promotion, and/or sale of PFAS and/or PFAS Products in California.

21. Defendant The Chemours Company FC, LLC is a Delaware corporation with its principal place of business in located at 1007 Market Street Wilmington, Delaware, 19899. The Chemours Company FC, LLC is registered to do business in California. The Chemours Company FC, LLC is a successor in-interest to DuPont Chemical Solutions Enterprise, and it conducts business throughout the United States, including in California. The Chemours Company FC, LLC operates as a subsidiary of Chemours and was created as part of Old DuPont's fraudulent transfer scheme detailed below and as a result it has acquired liabilities relating to E.I. du Pont de

Nemours and Company's research, development, manufacturing, design, marketing, distribution, release, promotion, and/or sale of PFAS and/or PFAS Products in California.

22. As used herein, "Chemours Defendants" refers to The Chemours Company and The Chemours Company FC, LLC. Chemours Defendants do business throughout the United States, including conducting business in California.

C. Remaining Defendants

23. Defendant AGC Chemicals Americas Inc. (AGC) is a Delaware corporation organized with a principal place of business in 5 East Uwchlan Avenue, Suite 201, Exton, Pennsylvania 19341. AGC and/or its affiliates manufactured PFNA and/or PFAS Products. AGC does and/or has done business throughout the United States, including California. On information and belief, AGC is the North American subsidiary of AGC Inc. (f/k/a Asahi Glass, Co., Ltd.) and is registered to do business in the State of California. AGC researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products in markets around the United States, including within California.

24. Defendant Archroma U.S., Inc. (Archroma U.S.) is a Delaware corporation with its principal place of business in Charlotte, North Carolina. Archroma U.S. was formed in 2013 when Clariant divested a PFAS Products line relating to AFFF. Archroma U.S. researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products in markets around the United States, including within California. Archroma U.S. is registered to do business in the State of California.

25. Defendant Arkema, Inc. (Arkema) is a Pennsylvania corporation with a principal place of business at 900 First Avenue, King of Prussia, Pennsylvania 19406. On information and belief, Arkema and/or its predecessors manufactured, marketed, promoted and/or sold PFAS Products used in AFFF. Arkema is a successor in interest to Atochem North American, Inc., Elf Atochem North America, Inc., and Atofina Chemicals, Inc. and does and/or has done business throughout the United States, including in California. Arkema is registered to do business in the State of California. Arkema researched, developed, manufactured, designed, marketed, distributed,

released, promoted, and/or otherwise sold PFAS and/or PFAS Products in markets around the United States, including within California.

26. Defendant Buckeye Fire Equipment Company (Buckeye) is an Ohio corporation with its principal place of business at 110 Kings Road, Kings Mountain, North Carolina 28086. Beginning in or around 2004, Buckeye researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products including AFFF in markets around the United States, including within California. Buckeye is registered to do business in the State of California.

27. Defendant Carrier Global Corporation (Carrier) is a Delaware corporation with its principal place of business in Palm Beach Gardens, Florida. Carrier is registered to do business in California. On information and belief, on or around April 3, 2020, UTC Fire & Security Americas Corporation completed the spin-off of one of its reportable segments into a separate publicly-traded company known as Carrier Global Corporation. Carrier's operations are classified into three segments: HVAC, Refrigeration, and Fire & Security. On information and belief, Carrier's Fire & Security PFAS Products and services are sold under brand names including Chubb and Kidde. Carrier researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products including AFFF in markets around the United States, including within California.

28. Defendant Chemguard, Inc. is a Texas corporation with its principal place of business at One Stanton Street, Marinette, Wisconsin 54143. Chemguard manufactured AFFF that contained PFAS. Chemguard was acquired by Defendant Tyco Fire Products LP in 2011. On information and belief, Chemguard researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products including AFFF in markets around the United States, including within California. Chemguard's website currently lists three different product distributors located in California.[2]

[2] Chemguard, *Find Locations*, https://www.chemguard.com/locator/Results.aspx?search=1&city=&state=CA&territory=true (accessed on Nov. 7, 2022).

29. Defendant Clariant Corporation (Clariant) is a New York corporation with a principal place of business at 4000 Monroe Road, Charlotte, North Carolina. Clariant researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products including AFFF in markets around the United States, including within California. On information and belief, Clariant is a subsidiary of Clariant Ltd, a Swiss company with headquarters in Muttenz, Switzerland, and with subsidiaries throughout the United States. Clariant was formed in 1995, via a name change from Sandoz Chemical Corporation, and in 1997, it acquired AFFF-related assets of Hoechst Specialty Chemicals. Clariant does and/or has done business throughout the United States, including in California. Clariant is registered to do business in California.

30. Defendant Dynax Corporation (Dynax) is a Delaware corporation with a principal place of business at 79 Westchester Avenue, Pound Ridge, New York 10576 and an address for service of process at 103 Fairview Park Drive Elmsford, New York 10523-1544. In 1991, Dynax Corporation entered the market, quickly becoming a leading global producer of PFAS Products used in AFFF. Dynax's PFAS Products are found in other Defendants' AFFF. On information and belief, Dynax researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products including compounds used in AFFF in markets around the United States, including within California.

31. Defendant Kidde-Fenwal, Inc. (Kidde-Fenwal) is a Delaware corporation with a principal place of business located at 400 Main Street, Ashland, Massachusetts 01721. Kidde-Fenwal is the successor-in-interest to Kidde Fire Fighting, Inc. Kidde-Fenwal is registered to do business in California. On information and belief, Kidde-Fenwal researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products including AFFF in markets around the United States, including within California.

32. Defendant National Foam, Inc. is a Pennsylvania corporation, with a principal place of business in Pennsylvania. National Foam manufactures the Angus brand of PFAS Products and is the successor-in-interest to Angus Fire Armour Corporation (collectively,

National Foam). National Foam's website contains a map showing California as part of its Sales Area 4.[3] It also contains a Press Release announcing that National Foam "will discontinue the sale of all PFAS based foam concentrates into the State of California effective January 1, 2021."[4] At all relevant times, National Foam researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products including AFFF in markets around the United States, including within California.

33. Defendant Tyco Fire Products, L.P. (Tyco) is a limited partnership formed in the State of Delaware with its principal place of business at One Tyco Park, Exeter, New Hampshire 03833. Tyco is registered to do business in California. Tyco is an indirect subsidiary ultimately wholly owned by Johnson Controls International plc, an Irish public limited company listed on the New York Stock Exchange [NYSE: JCI]. Tyco is the successor in interest of The Ansul Company (Ansul), having acquired Ansul in 1990. (Ansul and Tyco, as the successor in interest to Ansul, will hereinafter be collectively referred to as Tyco/Ansul.) Beginning in or around 1975, Ansul manufactured and/or distributed and sold AFFF that contained PFAS. After Tyco acquired Ansul in 1990, Tyco/Ansul researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products including AFFF in markets around the United States, including within California.

34. Defendant UTC Fire & Security Americas Corporation, Inc. (UTC Fire & Security) is a Delaware corporation with its principal place of business in Farmington, Connecticut. On information and belief, UTC Fire & Security was a division of United Technologies Corporation. On information and belief, UTC Fire & Security researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products including AFFF in markets around the United States, including within California.

[3] National Foam, Inc., *Sales – USA*, https://nationalfoam.com/contact/sales-usa/ (accessed on Nov. 7, 2022).
[4] National Foam, Inc., *California SB1044 State Legislation Press Release*, https://nationalfoam.com/2020/12/01/california-sb1044-state-legislation-press-release/ (accessed on Nov. 7, 2022).

35. The true names and capacities, whether individual, corporate, associate or otherwise, of defendants sued herein as Does 1 through 100, inclusive, presently are unknown to the People, who therefore sue these defendants by their fictitious names. Each fictitiously named defendant is responsible in some manner for the violations of law alleged herein. Each Doe Defendant researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products in markets around the United States, including within California. The People will seek leave to amend this Complaint to allege the true names of Does 1 through 100 once they have been ascertained. Does 1 through 100 participated in some or all of the acts alleged herein. Whenever reference is made in this Complaint to "Defendants," such reference shall include Does 1 through 100 as well as the named Defendants. Whenever reference is made in this Complaint to any act of Defendants, that allegation shall mean that each Defendant acted individually and jointly with the other Defendants named in that cause of action.

36. Whenever reference is made in this Complaint to any act of any Defendant or Defendants, the allegation shall mean that the Defendant or Defendants did the acts alleged in this Complaint either personally or through the Defendant's or Defendants' officers, directors, employees, agents and/or representatives acting within the actual or ostensible scope of their authority.

37. Each Defendant committed the acts, caused or directed others to commit the acts, or permitted other Defendants to commit the acts alleged in this Complaint. Additionally, some or all of the Defendants acted as the agents of the other Defendants, and all of the Defendants acted within the scope of their agency if acting as an agent of another.

38. All of the conduct that forms the basis for this Complaint has been undertaken by Defendants by and through their agents, employees, officers, or others acting on their behalf.

IV. JURISDICTION AND VENUE

39. This Court has original jurisdiction over this action pursuant to article VI, section 10 of the California Constitution.

40. This Court has jurisdiction over Defendants because each Defendant's principal place of business is in California or each Defendant otherwise intentionally avails itself of the California market so as to render the exercise of jurisdiction over it by the California courts consistent with traditional notions of fair play and substantial justice. Each Defendant researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products in markets around the United States, including within California.

41. Venue is proper in this Court pursuant to Code of Civil Procedure section 393, subdivision (a), because the violations of law and public nuisance alleged in this Complaint occurred in Alameda County and throughout California.

V. ALLEGATIONS COMMON TO ALL CAUSES OF ACTION

A. PFAS Definition and Properties

42. As alleged in paragraph 2, above, per- and polyfluoroalkyl substances are a class of human-made substances consisting of thousands of different chemicals. The term "PFAS" used in this Complaint refers to the following per- and polyfluoroalkyl substances (along with their salts and structural isomers): (i) PFOA including but not limited to, the chemical expressly identified by the Chemical Abstract Services Registry (CASR) as: perfluorooctanoic acid (CASR Number: 335-67-1); (ii) PFOS including but not limited to the chemical expressly identified by CASR as perfluorooctanesulfonic acid (CASRN: 1763-23-1); (iii) PFBS including but not limited to the chemical expressly identified by CASR as perfluorobutanesulfonic acid (CASRN: 375-73-5); (iv) PFHxS including but not limited to the chemical expressly identified by CASR as perfluorohexanesulfonic acid (CASRN: 355-46-4); (v) PFHxA including but not limited to the chemical expressly identified by CASR as perfluorohexanoic acid (CASRN: 307-24-4); (vi) PFHpA including but not limited to the chemical expressly identified by CASR as

perfluoroheptanoic acid (CASRN: 375-85-9); and (vii) PFNA including but not limited to the chemical expressly identified by CASR as perfluorononanoic acid (PFNA) (CASRN: 375-95-1).[5]

43. Two common processes to manufacture PFAS are ECF and telomerization. Production of PFAS occurred and is occurring at various sites in the United States.

44. PFAS are water-soluble. This allows them to migrate long distances and move readily from soil to groundwater. When released to the environment, PFAS can migrate through and contaminate all media and receptors, including drinking water, surface water, fish, wildlife and other natural resources.

45. The carbon-fluorine bonds in PFAS are strong, causing PFAS to be resistant to degradation in the environment (including biodegradation, photolysis and hydrolysis). PFAS do not readily degrade in conventional systems for drinking water. Thus, PFAS are likely to persist for long periods of time in the environment and in the human body.

B. PFAS are Harmful to Human Health and the Environment

46. Human exposure to PFAS occurs in multiple ways, including, but not limited to, drinking contaminated water, eating contaminated food, inhalation, contact with contaminated dust, dermal contact, and other pathways. PFAS bioaccumulate in the human body and in other organisms, particularly seafood and mammals. PFAS are found in infant blood and in breast milk.

47. Each of the PFAS at issue in this Complaint contribute to one or more of the following adverse human health impacts: (a) cancers (liver, kidney, testicular, breast, pancreas, and prostate); (b) liver diseases; (c) adverse pregnancy outcomes; (d) developmental effects (including delayed puberty); (e) reduced immune system responses; (f) infertility; (g) reduced bone density in children; (h) diabetes; and (i) fatty liver disease.

48. In 2016, the National Toxicology Program issued a Monograph on "Immunotoxicity Associated with Exposure to Perfluorooctanoic acid and Perfluorooctane Sulfonate."[6] Some of the main findings of that report were: (a) moderate confidence that exposure

[5] The People's investigation into other per- and polyfluoroalkyl substances is ongoing. As appropriate, the People may amend this Complaint to include other types of per- and polyfluoroalkyl substances.

[6] U.S. Department of Health and Human Services, National Toxicology Program, *NTP* (continued…)

to PFOA and PFOS are associated with suppression of the antibody response to common vaccines across multiple studies; and (b) high confidence that exposure to per- and polyfluoroalkyl substances is associated with suppression of the antibody response in animals. Importantly, this suppression of antibody response may include response to COVID-19 vaccines.

49. A study published in The Journal of Clinical Endocrinology & Metabolism, in August 2022, found that the presence of PFOS and PFOA in blood serum was associated with lower bone density in male teens.[7]

50. A study released in August 2022 by the University of Southern California's Keck School of Medicine using human samples collected from the Multiethnic Cohort Study, a project that has followed more than 200,000 residents of Los Angeles and Hawaii for the development of cancer and other diseases, found that "the strongest association was between PFOS and liver cancer and that subjects in the top 10% of PFOS exposure were 4.5 times more likely to develop liver cancer than those with the lowest levels of PFOS in their blood."[8]

51. PFAS are well absorbed via the oral route and are distributed throughout the body by noncovalent binding to serum albumin and other plasma proteins. PFAS are slowly eliminated from the human body. For example, the half-life of PFOA is 2.1 to 10.1 years and 3.3 to 27 years for PFOS. Because of their resistance to metabolic degradation, PFAS are eliminated from mammals primarily unchanged.[9]

(…continued)
Monograph: Immunotoxicity Associated with Exposure to Perfluorooctanoic acid and Perfluorooctane Sulfonate, September 2016, https://ntp.niehs.nih.gov/ntp/ohat/pfoa_pfos/pfoa_pfosmonograph_508.pdf (accessed on Nov. 7, 2022).

[7] Jenny L Carwile et. al, *Serum PFAS and Urinary Phthalate Biomarker Concentrations and Bone Mineral Density in 12-19 Year Olds: 2011-2016 NHANES*, The Journal of Clinical Endocrinology & Metabolism, Volume 107, Issue 8, August 2022, Pages e3343–e3352, https://doi.org/10.1210/clinem/dgac228 (accessed on Oct. 17, 2022).

[8] Keck School of Medicine of the University of Southern California, *Synthetic "forever chemical" linked to liver cancer*, https://keck.usc.edu/synthetic-forever-chemical-linked-to-liver-cancer/ (accessed on Oct. 17, 2022).

[9] See United States Environmental Protection Agency, *Designation of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) as CERCLA Hazardous Substances* (Nov. 11, 2022), 87 FR 54415-01 at p. 54425 [citing studies and data].

52. Human epidemiology studies observed associations between PFOA exposure and high cholesterol, changes in liver enzymes, decreased immune response to vaccination, thyroid effects, pregnancy-induced hypertension and preeclampsia, low birth weight, and cancer (testicular and kidney). Epidemiology studies have generally found a positive association between increasing serum PFOA and total cholesterol levels in PFOA-exposed workers and residents of high-exposure communities. In addition, associations between increasing serum PFOA concentrations and elevations in serum levels of alanine aminotransferase and gamma-glutamyl transpeptidase were consistently observed in occupational cohorts, high-exposure communities and the U.S. general population. Studies indicate the potential for PFOA to affect liver function. Studies found a decreased response to vaccines associated with PFOA exposure in adults in a highly exposed community and in studies of children in the general population. A study of a community with high exposure to PFOA observed an association between serum PFOA and risk of pregnancy-related hypertension or preeclampsia, conditions that are related to renal function during pregnancy. An association between increasing maternal PFOA or cord blood PFOA concentrations and decreasing birth weight was seen in several studies.[10]

53. Studies show associations between higher PFOS levels and increases in total cholesterol and high-density lipoproteins, decreases in female fecundity and fertility, in addition to decreased offspring body weights and negative effects on other measures of postnatal growth.[11]

54. PFAS are transferred to the fetus during pregnancy and to an infant via breast milk. Toxicity studies conducted in laboratory animal models demonstrate that the developing fetus is particularly sensitive to PFAS induced toxicity. Some studies in laboratory animal models indicate that gestation and/or lactation periods are critical exposure windows that may lead to developmental health effects including decreased offspring survival, low birth weight, accelerated puberty, and skeletal variations.[12]

[10] Id.
[11] Id.
[12] Id.

55. For PFOA, oral studies of short-term (subchronic) and chronic duration are available in multiple species including monkeys, rats, and mice. The animal studies report developmental effects, liver and kidney toxicity, immune effects, and cancer (liver, testicular and pancreatic). The developmental effects observed in rodents include decreased survival, delayed eye opening, reduced ossification, skeletal defects, altered puberty (delayed vaginal opening in females and accelerated puberty in males), and altered mammary gland development. [13]

56. For PFOS, short-term and chronic exposure studies in animals, including monkeys, rats, and mice, demonstrate increases in liver weight, changes in cholesterol, hepatic steatosis, lower body weight, and liver histopathological changes. One- and two-generation rodent toxicity studies also show decreased pup survival and body weights. Additionally, developmental neurotoxicity studies in rodents show increased motor activity, decreased habituation, and increased escape latency in the water maze test (a test of spatial learning and memory) following in utero and lactational exposure to PFOS. Gestational and lactational exposures were also associated with higher serum glucose levels and evidence of insulin resistance in adult offspring. Evidence suggests immunological effects in animal models.[14]

57. For PFBS, animal studies following oral exposure to PFBS have shown health effects on the thyroid, reproductive organs and tissues, developing fetus, and kidneys. The most sensitive non-cancer effect for PFBS is a thyroid effect (decreased serum total thyroxine).[15]

58. A coalition of nonprofits, research institutes and universities have created a database concerning per- and polyfluoroalkyl substances toxicology called the PFAS-Tox Database.[16] This database includes links to substantially all major toxicology studies concerning PFBS, PFHxS, PFHxA, PFHpA, and PFNA. A considerable number of studies have now been performed on each of these chemicals. The results have shown adverse health effects resulting

[13] Id. 87 FR 54415-01 at p. 54426 [citing studies and data].
[14] Id.
[15] See United States Environmental Protection Agency, *Lifetime Drinking Water Health Advisories for Four Perfluoroalkyl Substances* (June 2022), 87 FR 36848-02 at p. 36849 [citing studies and data].
[16] Pelch KE, Reade A, Kwiatkowski CF, Wolffe T, Merced-Nieves FM, Cavalier H, Schultz K, Rose K, Varshavsky J., *PFAS-Tox Database* (2021), https://pfastoxdatabase.org/ (accessed on Oct. 24, 2022).

from exposure to these chemicals, including impacts to the metabolic and digestive system, body weight, size and growth, the endocrine system, the reproductive system, the circulatory system, the nervous system and behavior, the immune system, the urinary system, the respiratory system, the musculoskeletal system, genotoxicity, the sensory system, as well as cell toxicity and cancers.

59. In addition to each PFAS's individual impacts, there is emerging science concerning the deleterious effect of exposure to a mixture of per- and polyfluoroalkyl substances. This is of particular concern because, as discussed below, most Californians have a mix of per- and polyfluoroalkyl substances in their blood. The PFAS-Tox Database also contains links to these studies and their health impacts.

60. PFAS contamination poses a substantial threat to natural resources and the environment.

61. PFAS are extremely persistent in the environment and will continue to contaminate drinking water, surface water, groundwater, soil, and air in California, exposing people and wildlife to dangerous health effects, unless and until the PFAS contamination is treated, removed, or otherwise cleaned-up from the environment.

62. PFAS cause a wide range of adverse effects in aquatic organisms and wildlife, including reproductive effects, developmental toxicity, and estrogen, androgen and thyroid hormone disruption.

63. PFAS's mobility and persistence make the clean-up of PFAS contamination difficult and expensive.

C. PFAS Regulatory Framework

i. California Regulation

64. Drinking water quality in the State of California is regulated by the State Water Resources Control Board's (Water Board) Division of Drinking Water (DDW) as codified by Title 22, Division 4, of the California Code of Regulations (CCR). All drinking water suppliers must obtain an operating permit from DDW and must strictly comply with the requirements of that permit as long as they serve water to the public. There are various types of regulatory requirements with which a water system must comply.

65. Maximum Contaminant Limits (MCLs or, individually referred to as MCL) are numeric limits on the concentrations of chemical constituents in drinking water. MCLs are enforceable limits on the maximum concentrations of chemicals in drinking water. Exceedance of an MCL in drinking water constitutes a violation of California regulations and triggers strict requirements for public notification and follow-up actions to eliminate the exceedance. At this time, there is no MCL for PFAS in California.

66. DDW has established other types of numeric limits on chemicals in drinking water in California, including notification levels and response levels. There are specific legal requirements in the event of an exceedance of these limits (Health & Saf. Code, §116455), with additional requirements for PFAS. (*Id*., §116378). A notification level is a health-based advisory level set by DDW for a chemical in drinking water that does not have an MCL. An exceedance of a notification level for a chemical constituent requires the water system to notify its governing board (e.g., Board of Directors or City Council) of the exceedance in a public meeting and to include a notice of the exceedance in the annual Consumer Confidence Report for that year. (*Id*., §116455).

67. A response level is typically higher than a notification level. If a chemical exceeds its response level in drinking water, based on a Quarterly Running Annual Average (QRAA), DDW requires that the exceedance be reported in the Consumer Confidence Report, and that the water system do one of the following: (1) take the offending source water out of service immediately; (2) utilize treatment to remove the chemical that exceeded the response level from the water before it is served to the public; or (3) provide public notification within 30 days of the confirmed detection, with specific notification requirements as mandated by law. (*Id*., §116378.)

68. Below is a summary of the notification levels and response levels for PFAS issued, requested, or proposed by the DDW.[17]

[17] California State Water Resources Control Board, *PFAS: Per- and Polyfluoroalkyl Substances*, https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/pfas.html (accessed on Oct. 17, 2022).

Abbreviation	Chemical name	Notification Level ng/L (parts per trillion)	Response Level ng/L (parts per trillion)	Date Issued / Status
PFOA	Perfluorooctanoic acid	5.1	10	February 6, 2020
PFOS	Perfluorooctane sulfonic acid	6.5	40	February 6, 2020
PFBS	Perfluorobutane sulfonic acid	500	5000	March 5, 2021
PFHxS	Perfluorohexane sulfonic acid	3	20	October 31, 2022
PFHxA	Perfluorohexanoic acid	--	--	Requested
PFHpA	Perfluoroheptanoic acid	--	--	Requested
PFNA	Perfluorononanoic acid	--	--	Requested

69. On November 10, 2017, the California Office of Environmental Health Hazard Assessment (OEHHA) listed PFOA and PFOS as chemicals known to the State of California to cause reproductive toxicity (developmental endpoint) under the Safe Drinking Water and Toxic Enforcement Act of 1986, commonly referred to as "Proposition 65."[18]

70. In August 2019, OEHHA developed toxicity values (acceptable daily doses) for PFOA and PFOS of 4.5×10^{-7} mg/kg-day and 1.8×10^{-6} mg/kg-day, respectively, and reference levels for drinking water based on cancer effects of 0.1 parts per trillion (ppt) and 0.4 ppt, respectively.[19]

[18] OEHHA, *Chemicals Listed Effective November 10, 2017 as Known to the State of California to Cause Reproductive Toxicity: Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS)*, (Nov. 2017), https://oehha.ca.gov/proposition-65/crnr/chemicals-listed-effective-november-10-2017-known-state-california-cause (accessed on Oct. 17, 2022).

[19] OEHHA, *Notification Level Recommendations Perfluorooctanoic Acid and Perfluorooctane*

(continued…)

71. In July 2021, OEHHA released draft Public Health Goals for PFOA of 0.007 ppt based on human kidney cancer data and PFOS of 1 ppt based on liver and pancreatic tumor animal data.[20]

72. PFOS and PFOA are both listed as known to cause cancer and reproductive toxicity under Proposition 65 by OEHHA. PFNA is likewise listed as known to cause reproductive toxicity under Proposition 65.[21]

ii. Federal Regulation

73. Under the Safe Drinking Water Act, the United States Environmental Protection Agency (EPA) has the authority to set enforceable National Primary Drinking Water Regulations (NPDWRs) for drinking water contaminants and require monitoring of public water systems. In March 2021, EPA published Regulatory Determinations for Contaminants on the Fourth Contaminant Candidate List, which included a final determination to regulate PFOA and PFOS in drinking water. On October 28, 2022, EPA submitted a draft Drinking Water Contaminant Candidate List 5 (CCL 5)– Final for publication in the Federal Register. CCL 5 includes per- and polyfluoroalkyl substances as a "chemical group" and as such, it includes each of the PFAS at issue in this Complaint.[22]

74. EPA anticipates publishing a proposed NPDWR for PFOA and PFOS by the end of 2022. Publication of the final NPDWR is expected by the end of 2023. The proposed rule may include both a non-enforceable Maximum Contaminant Level Goal (MCLG) and an enforceable MCL. The MCLG is the maximum level of a contaminant in drinking water at which no known or anticipated adverse effect on the health of persons would occur, allowing an adequate margin

(…continued)
Sulfonate in Drinking Water (August 2019), https://oehha.ca.gov/media/downloads/water/chemicals/nl/final-pfoa-pfosnl082119.pdf (accessed on Oct. 17, 2022).

[20] For further information, see *OEHHA, Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonic Acid (PFOS) in Drinking Water*, https://oehha.ca.gov/water/report/perfluorooctanoic-acid-pfoa-and-perfluorooctane-sulfonic-acid-pfos-drinking-water (accessed on Oct. 17, 2022).

[21] OEHHA, *Proposition 65 List* (2022), https://oehha.ca.gov/proposition-65/proposition-65-list (accessed on Nov. 7, 2022).

[22] See United States Environmental Protection Agency, *Contaminant Candidate List 5 - CCL 5*, (Oct. 28, 2022), https://www.epa.gov/ccl/contaminant-candidate-list-5-ccl-5 (accessed on Nov. 7, 2022).

of safety. The enforceable standard is required to be set as close as feasible to MCLG. EPA considers the ability to measure and treat a contaminant as well as costs and benefits in setting the enforceable standard.

75. On September 6, 2022, EPA published a notice of proposed rulemaking to designate PFOA and PFOS as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), which creates a cause of action for recovery of costs incurred in response to releases or threatened releases of hazardous substances that may endanger public health or the environment.

76. In 2016, EPA issued interim health advisories for PFOA and PFOS of 70 ppt. In June 2022, EPA released significantly revised interim updated health advisories for PFOA and PFOS based on human epidemiology studies in populations exposed to these chemicals. Based on the new data and EPA's draft analyses, the levels at which negative health effects could occur were found to be much lower than previously understood when EPA issued the 2016 health advisories for PFOA and PFOS (70 ppt). Specifically, in a technical support sheet, EPA noted: "EPA is conducting extensive evaluations of human epidemiological and experimental animal study data to support the Safe Drinking Water Act (SDWA) National Primary Drinking Water Regulation for PFOA and PFOS. In November 2021, EPA released draft documents that summarize the updated health effects analyses for EPA Science Advisory Board (SAB) review (U.S. EPA, 2021a, b). EPA evaluated over 400 studies published since 2016 and used new human health risk assessment approaches, tools, and models. Human studies have found associations between PFOA and/or PFOS exposure and effects on the immune system, the cardiovascular system, development (e.g., decreased birth weight), and cancer. The new published peer-reviewed data and draft EPA analyses (U.S. EPA, 2021a, b) indicate that the levels at which negative health outcomes could occur are much lower than previously understood when the agency issued its 2016 [health advisories] for PFOA and PFOS (70 parts per trillion or ppt). EPA's 2021 draft non-cancer reference doses (RfDs) based on human epidemiology studies for various effects (e.g., developmental/growth, cardiovascular health outcomes, immune health) range from ~10^{-7} to 10^{-9}

mg/kg/day. These draft RfDs are two to four orders of magnitude lower than EPA's 2016 RfDs of 2 x 10-5 mg/kg/day (U.S. EPA, 2021a, b)."[23]

D. PFAS Products and Industrial Processes

77. PFAS designed, manufactured, formulated, marketed, distributed, and/or sold by Defendants or their predecessor entities, have been used and/or present in a wide array of PFAS Products, including, but not limited to the following: food packaging and preparation (e.g., sandwich wrappers and other papers and paperboard for packaging); commercial household products, including stain- and water-repellent fabrics and carpets, nonstick products, polishes, waxes, paints, and cleaning products; surfactants (including without limitation surfactants used in AFFF and/or for the suppression of fumes in chrome plating tanks); personal care products; beauty products; manufacturing and production, including electronics manufacturing, textile manufacturing and oil recovery; plating processes, such as a wetting agent/fume suppressant; insecticides; processing aids in fluoropolymer production and in textile coating applications, among many others.

78. PFAS enter the environment from facilities that manufacture PFAS Products and/or that utilize PFAS for other purposes in their manufacturing facilities (e.g., for fume and/or fire suppression). Examples of types of facilities that release PFAS include textile manufacturers; metal finishers; plating facilities; refineries; facilities using and/or manufacturing flourosurfactants, resins, molds, plastics, photolithography, and semiconductors. PFAS releases can occur through waste discharge, leaks, and/or spills.

79. PFAS Products also include flourosurfactants (also known as fluorinated surfactants). Surfactants reduce the surface tension of a liquid in which it is dissolved. Flourosurfactants have a fluorinated "tail" and a hydrophilic "head" which gives them their surfactant properties. These surfactants are used in a variety of applications including

[23] See United States Environmental Protection Agency, *Technical Fact Sheet: Drinking Water Health Advisories for Four PFAS (PFOA, PFOS, GenX Chemicals, and PFBS)*, https://www.epa.gov/system/files/documents/2022-06/technical-factsheet-four-PFAS.pdf (June 2022), (accessed on Nov. 7, 2022).

intermediate industrial processes and AFFF. Their use as intermediates in industrial processes can result in contamination of products.

80. The use and disposal of PFAS Products can result in PFAS migrating into the environment. For example, landfills receive industrial waste, sewage sludge, waste from cleanup of contaminated sites, and consumer goods, which contain PFAS. PFAS from the waste disposed of in operating landfills and former landfills can leach into groundwater, surface water, and soils. Studies have shown high levels of PFAS in landfill leachate. The hydrogeological conditions in California are such that the PFAS flow easily from landfills and other releases through the environment contaminating our natural resources. PFAS can also be released into the air in the form of dust.

81. Municipal, industrial, and manufacturing wastewater treatment plants in California receive wastewater that contains PFAS and/or PFAS Products, from a variety of sources, including industries that manufacture or use these PFAS and their precursors and/or shedding from consumer PFAS Products. Wastewater treatment facilities typically are not designed to remove PFAS and treatment units at conventional wastewater treatment plants generally do not remove PFAS efficiently. Certain PFAS can be volatilized into the atmosphere from wastewater treatment plant operations, such as aeration chambers. Effluent discharged to receiving water bodies contains PFAS. Indeed, PFAS are widely detected in wastewater in California. PFAS have been detected in biosolids generated at wastewater treatment plants in California. Biosolids are commonly applied to land as fertilizers or soil amendments but can also be sent to a landfill. The use of contaminated biosolids on farmland and home gardens can lead to the uptake of PFAS in the food chain.

82. The use of AFFF is also a major source of PFAS contamination. AFFF was developed in the 1960s to extinguish flammable liquid fires, such as petroleum-fueled fires. On information and belief, AFFF containing PFAS continue to be used in California. Firefighters apply the AFFF by spraying the foam onto the fire where, unless it is contained, PFAS can spread easily into surrounding soil, groundwater, and surface water. PFAS-containing AFFF was routinely used in training exercises at military installations, airports, fire departments, refineries

and other industrial facilities. PFAS have been detected at and in proximity to these locations where AFFF was historically used and where it is currently being used.

83. PFAS can shed from product use directly and contaminate the surrounding environment. For example, PFAS shedding from PFAS Products are deposited or used outdoors, including, but not limited to, contaminated biosolids used as fertilizer, agricultural PFAS Products (including, but not limited to, pesticides), paints, treatments, coatings and other consumer, commercial, and industrial uses. This shedding process is occurring on a continuing basis in California.

E. PFAS Contamination

i. Sources of Contamination

84. Sources of PFAS contamination in the environment can include direct industrial discharges of PFAS to soil, air, and water. Other chemicals can also degrade to PFAS in the environment. PFAS precursors in PFAS Products can be converted to PFAS, respectively, by microbes in soil, sludge, and wastewater and through abiotic chemical reactions. PFAS Products that are deposited in a landfill without proper environmental controls can be discharged into the environment via leachates, groundwater pollution/migration and atmospheric releases.

85. The discharge of AFFF starting in the 1970s is also a significant source of PFAS contamination. PFAS were found in the soil and groundwater where AFFF was stored and/or used to fight fires and/or for training. Concrete where AFFF has been repeatedly discharged, such as during firefighting training activities, can absorb PFAS and then release PFAS to groundwater and soils during precipitation events.

86. The Water Board issued investigative orders to test for the presence of PFAS to numerous entities throughout California including airports, bulk fuel terminals, refineries, chrome plating facilities, landfills and wastewater facilities. The results of those investigative orders are still being received and—along with other location-based PFAS monitoring data—are available on a dedicated mapping website that links to the underlying data and documents: https://geotracker.waterboards.ca.gov/map/pfas_map. As a result of this effort, substantial data show PFAS contamination emanating from these and other sources to California's environment.

ii. PFAS in Human Blood

87. The California Environmental Contaminant Biomonitoring Program, known as Biomonitoring California, is a collaborative effort of the California Department of Public Health, OEHHA, and the California Department of Toxic Substances Control. The main goals of the program are to determine levels of environmental chemicals in a representative sample of Californians, establish trends in the levels of these chemicals over time, and help assess the effectiveness of public health efforts and regulatory programs to decrease exposures to specific chemicals.

88. Blood serum data collected by Biomonitoring California illustrate that regardless of the population cohort, six of the seven PFAS at issue in the Complaint are present in the blood of nearly all California participants in all studies. The following studies all had different geographic and demographic populations and found similar results: Maternal and Infant Environmental Exposure Project; California Teachers Study; Firefighter Occupational Exposures Project; Measuring Analytes in Maternal Archived Samples; Biomonitoring Exposures Study-1.Pilot; Biomonitoring Exposures Study - 2.Expanded; Asian/Pacific Islander Community Exposures Project - ACE 1; Asian/Pacific Islander Community Exposures Project - ACE 2; California Regional Exposure Study, Los Angeles County; California Regional Exposure Study, Region 2; and California Regional Exposure Study, Region 3.

89. The data are available on Biomonitoring California's website (https://biomonitoring.ca.gov), and the consolidated data show near universal blood contamination with PFAS as summarized by the following table showing a non-weighted average of the studies' data:

Chemical measured	**CAS Number**	**Percent of Tested Californians with Contaminated Blood**
PFOA	335-67-1	99.24%
PFOS	1763-23-1	99.09%
PFHxS	355-46-4	99.44%

Chemical measured	CAS Number	Percent of Tested Californians with Contaminated Blood
PFHxA (*Note: only 2 studies tested for this chemical*)	307-24-4	97.95%
PFHpA	375-85-9	57%
PFNA	375-95-1	97.83%

iii. PFAS Contamination of Drinking Water Sources and Groundwater Wells

90. Many of California's critical drinking water sources and groundwater wells are contaminated with PFAS.

91. The Water Board maintains a publicly accessible PFAS Mapping Tool that provides statewide testing data for PFAS found at industrial facilities and drinking water testing results. In many cases, the data show PFAS detections near industrial facilities where PFAS was used.[24]

92. According to data maintained by the Water Board, PFAS have been detected in drinking water supply wells and groundwater monitoring wells across California.

93. Between April 2016 and May 30, 2022, 2,295 Public Water System (PWS) wells and locations were sampled using the approved and accredited EPA Method 537.1 for Drinking Water. The following table shows the number of wells and locations that tested positive for each type of PFAS at issue in this Complaint:

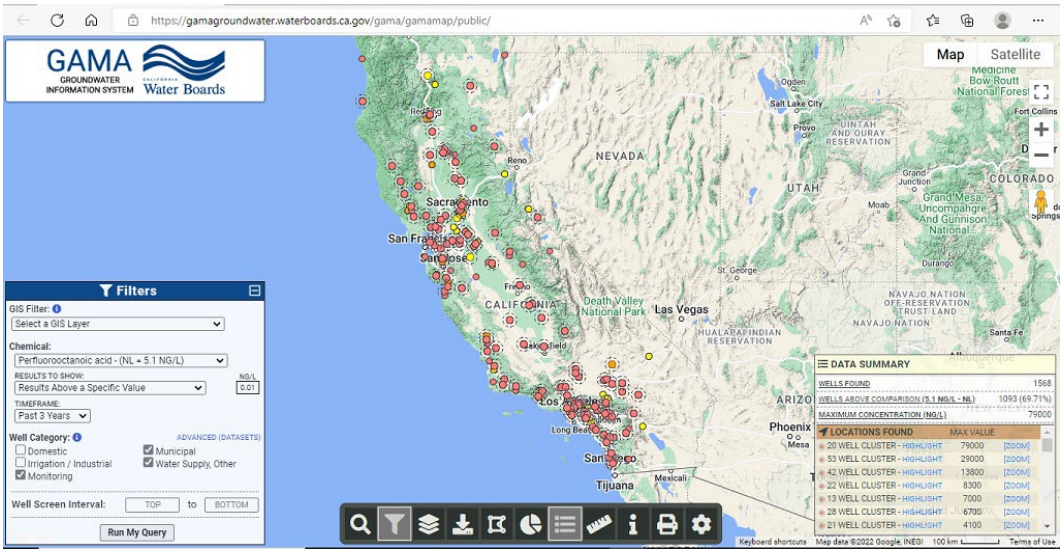
PFBS	PFHpA	PFHxA	PFHxS	PFNA	PFOS	PFOA
738	478	651	904	244	897	755

94. Beyond PWS wells, the Water Board's Groundwater Information System shows that PFAS groundwater contamination stretches across the entire state of California. The Water Board data collected over the last three years show frequent detections of PFAS in municipal, water supply, domestic, irrigation and industrial, and monitoring wells throughout the state. The Water Board map below shows wells contaminated by PFOA. The widespread geographic

[24] Water Board, *PFAS Mapping Tool*, https://geotracker.waterboards.ca.gov/map/pfas_map (accessed on Nov. 7, 2022).

distribution of PFOA in California—as demonstrated by the map—is representative of the geographic distribution of each of the PFAS at issue in this Complaint:

PFOA MAP: 1,093 Wells with Detections in Last 3 Years



iv. PFAS Contamination in Wastewater, Surface Water, and Sediment

95. PFAS contamination is present in California's surface waters, wastewater, and sediments.

96. Wastewater treatment facilities in California have PFAS in their influent, effluent and biosolids. For example, data provided in response to Water Board requests show detections in several thousand samples of influent, effluent and biosolids. The following table shows the number of samples where the PFAS at issue in this Complaint were found:

PFBS	PFHpA	PFHxA	PFHxS	PFNA	PFOS	PFOA
1,062	751	112	683	512	1,260	1,479

97. PFAS contamination is present in surface water throughout California. For example, California Environmental Data Exchange Network (CEDEN) data show PFAS in the following surface waters (from 2019 to 2022): Sacramento-San Joaquin Delta (a crucial source of drinking water for two-thirds of California); American River; Carmel River; Dry Creek; Monterey Bay; Old Alamo Creek; Pajaro River; Salinas River; San Joaquin River; and San Lorenzo River. By way of further example, recent data show substantial PFAS contamination in the San Francisco Bay and the Santa Ana River Watershed.

98. CEDEN data likewise show PFAS in sediment samples collected from the Sacramento-San Joaquin Delta in 2020.

v. Contamination in Animals, Food, and Wildlife

99. PFAS contamination has also been detected in California's fish and wildlife.

100. CEDEN data show substantial PFAS contamination in fish tissues sampled in 2020 in the Sacramento-San Joaquin Delta.

101. The San Francisco Bay wildlife is contaminated with PFAS. Data obtained from tests commissioned in part by the San Francisco Estuary Institute show PFAS have contaminated both San Francisco Bay and its fish. A 2019 sampling event showed PFOS concentrations in largemouth bass, striped bass, shiner surfperch, white sturgeon, and white croaker.

102. CEDEN data show substantial PFAS contamination in water birds, including the double-crested cormorant (Phalacrocorax auritus) collected in the San Francisco Bay in 2018.

F. Defendants' Conduct Caused and/or Contributed to the PFAS Contamination in California

i. Defendants Designed, Manufactured, Promoted, Sold, Used, and/or Disposed of PFAS Products in California.

103. PFAS were first developed in the late 1930s to 1940s and put into large-scale manufacture and use by the early 1950s.

104. Defendants designed, manufactured, marketed, sold, and/or distributed large quantities of PFAS Products in California and/or that were used in California.

3M

105. Beginning in the 1940s, 3M produced PFAS by electrochemical fluorination. This process results in a product that contains or breaks down into compounds containing PFAS. 3M went on to market several PFAS Products, including its Scotchguard brand of stain repellant, food packaging, textile treatments, fluorosurfactants, and additives, among many others.

106. From the 1940s through the early 2000s, 3M was the primary manufacturer of PFAS in the United States.

107. 3M was the only known domestic manufacturer of PFOS.

108. 3M was a major manufacturer of PFOA, and manufactured PFOA for use throughout the United States, including California.

109. 3M's manufacturing process for PFOA also resulted in the production of PFHpA and its inclusion in PFAS Products.

110. 3M was a major manufacturer of PFBS and PFAS Products containing PFBS.

111. 3M was a major manufacturer of PFHxS and PFAS Products containing PFHxS.

112. 3M manufactured PFAS as raw chemical materials for use in 3M PFAS Products and PFAS Products made by third parties. 3M marketed and sold PFAS Products, including PFAS-containing AFFF, in California.

113. In response to pressure from the EPA, 3M began phasing out production of PFOS in the early 2000s.

DuPont Defendants

114. As a result of direct misconduct and the fraudulent transfer transactions detailed in this Complaint, DuPont Defendants and each of them are jointly and severally liable for the misconduct of Old DuPont.

115. In or around 1946, Old DuPont began to produce polytetrafluoroethylene (PTFE), a fluoropolymer. The production of PTFE requires PFOA as a processing aid, and results in the presence of PFOA in some PTFE PFAS Products. Old DuPont marketed its PTFE under the trade name "Teflon." PTFE is a fluoropolymer (i.e., a plastic containing fluorine) used in a diverse range of applications, including as sprayable coating that resists heat, water, and oil; a lubricant; and an oxidizer in flares, among many other uses.

116. Old DuPont also began producing PFOA for its own use and for sale in the early 2000s, after 3M ceased PFOA production. Old DuPont continued to manufacture, market, and sell PFOA until at least 2013.

117. Old DuPont researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFOA and/or PFAS Products containing PFOA in markets around the United States, including within California.

118. Old DuPont's manufacture of PFOA also resulted in the co-manufacture of PFHpA and its inclusion in PFAS Products.

119. In 2002, Old DuPont acquired AtoFina's fluorotelomer surfactant business. The acquisition added more than 40 new PFAS Products to its line of fluorotelomer-based specialty products for surface-protection applications. These PFAS Products are used primarily as oil, water and grease repellents in various markets, including carpet, textiles, paper, leather, tile, and others.

120. DuPont Defendants have researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold numerous other PFAS and/or PFAS Products in markets around the United States, including within California and/or assumed liabilities relating to Old DuPont's research, development, manufacturing, design, marketing, distribution, release, promotion, and/or sale of numerous other PFAS and/or PFAS Products in markets around the United States, including within California.

Remaining Defendants

121. AGC. AGC is the domestic subsidiary of Asahi Glass Company of Japan.

122. Asahi Glass Company of Japan's website lists the role of AGC as the "Manufacture and sales of Fluoropolymers (PTFE/ETFE), Fluoro Compounds and Sales & Marketing of AGC Chemicals Products."

123. Asahi Glass Company was a primary manufacturer of PFNA. PFNA was used in a manner similar to PFOA including in the production of non-stick, stain repellent and chemically inert coatings for applications similar to Teflon. Products containing AGC's PFNA were manufactured, marketed, and/or sold in California.

124. AGC researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products in markets around the United States, including within California.

125. National Foam. By at least the 1970s, National Foam started manufacturing, marketing, and/or selling PFAS-containing AFFF, including in California.

126. A 2013 study found substantial concentrations of PFAS in National Foam AFFF manufactured between 2002-2008.[25]

127. National Foam, Inc.'s website contains a map showing California as part of its Sales Area 4.

128. National Foam, Inc.'s website also contains a Press Release announcing that "it will discontinue the sale of all PFAS based foam concentrates into the State of California effective January 1, 2021."

129. National Foam researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products in markets around the United States, including within California.

130. Tyco/Ansul. By at least the 1970s, Tyco/Ansul started manufacturing, marketing, and/or selling PFAS-containing AFFF, including in California.

131. A 2013 study found substantial concentrations of PFAS in Ansul AFFF manufactured between 1984-1987 and 2009-2010.[26]

132. Tyco/Ansul acquired Chemguard and its PFAS Products business in or about 2011.

133. Tyco/Ansul researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products in markets around the United States, including within California.

134. Archroma. Archroma manufactured, marketed, and/or sold PFAS Products including AFFF that contained PFAS, including in California.

135. In 2013, Clariant divested the product line used for AFFF to Archroma, which began operation of that product line in October 2013. Prior to divestiture, Clariant had processed or manufactured at least five PFAS Products used in AFFF.

136. Archroma sold its PFAS Products to other Defendants who sold PFAS Products in California, including Chemguard Inc. and Dynax Corporation.

[25] Erika F. Houtz, et. al, *Persistence of Perfluoroalkyl Acid Precursors in AFFF-Impacted Groundwater and Soil*, Environmental Science & Technology (2013), https://doi.org/10.1021/es4018877 (accessed on Nov. 9, 2022).
[26] Id.

137. Archroma has itself sold PFAS Products, including fluorosurfactants under its Fluowet and Nuva trademarks.

138. On information and belief, AFFF containing Archroma's PFAS Products, including fluorosurfactants, have been used at California airports and elsewhere in California.

139. Archroma researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products in markets around the United States, including within California.

140. Chemguard. At all relevant times, Chemguard manufactured, marketed, and/or sold PFAS Products including AFFF in California.

141. In 2003 and 2004, Chemguard acquired Ciba Specialty Chemicals' Lodyne fluorosurfactant business. The acquired surfactants were used in PFAS Products including, but not limited to, AFFF and in leveling and wetting agents.

142. In or about August 2007, despite a stated commitment to phase out the use of PFOA, Chemguard reintroduced a surfactant containing PFOA in its PFAS Products.

143. Chemguard fluorosurfactant PFAS Products include surfactants for use in paints, adhesives, metal plating, cleaning, foaming, and stains.

144. Chemguard researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products in markets around the United States, including within California.

145. Dynax. At all relevant times, Dynax has been a leading producer of specialized fluorochemicals and a manufacturer and/or supplier of PFAS and PFAS Products for use in AFFF. Dynax has manufactured, marketed, and/or sold flourosurfactants containing PFAS that were used in PFAS Products in California including but not limited to its DX2200, DX 4302, and DX5011 fluorotelomer surfactants.

146. Dynax has described itself as the largest producer and supplier of specialty fluorochemicals to the fire-fighting foam industry in the world.

147. Dynax has never sought to prevent sales of its PFAS Products in California and Dynax robustly markets its fluorosurfactants in a wide geographic area. Dynax advertises in

international publications including Industrial Fire Journal, Industrial Fire World, International Airport Review, International Fire Protection, International Fire Fighter, and The Catalyst.

148. Dynax has sold or currently sells PFAS Products, including fluorosurfactants, to at least twelve AFFF manufacturers since at least 1994.

149. Dynax's PFAS Products have been incorporated into numerous Mil-Spec AFFF products appearing on the United States Department of Defense's Qualified Products List.

150. On information and belief, AFFF containing Dynax's fluorosurfactants have been used at California airports and elsewhere in California.

151. Dynax researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products in markets around the United States, including within California.

152. Clariant. At all relevant times, Clariant manufactured, marketed, and/or sold PFAS Products, including AFFF, nationwide and in California.

153. Clariant manufactured PFAS Products, including fluorosurfactants used in AFFF and other PFAS Products.

154. Clariant also sold its PFAS Products to other Defendants who sold PFAS Products incorporating Clariant's PFAS Products in California, including Chemguard and Dynax.

155. On information and belief, AFFF containing Clariant's PFAS Products, including fluorosurfactants, have been used at California airports and elsewhere in California.

156. Clariant manufactured PFAS Products for a variety of applications including its Nuva product lines (which were later transferred to Archroma).

157. Clariant researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products in markets around the United States, including within California.

158. Buckeye. At all relevant times, Buckeye manufactured, marketed, and/or sold PFAS-containing AFFF, including in California.

159. A 2013 study found substantial concentrations of PFAS in Buckeye AFFF manufactured in 2009.[27]

160. Buckeye researched, developed, manufactured, designed, marketed, distributed, released, promoted, and/or otherwise sold PFAS and/or PFAS Products in markets around the United States, including within California.

161. All Defendants, and each of them, designed, developed, manufactured, marketed, sold, distributed, supplied, transported, handled, used, released, and/or disposed of PFAS Products in California in such a way as to cause harm to California's natural resources, property, and residents.

ii. Defendants Knew or Should Have Known of the Dangers Posed by Their PFAS Products.

3M

162. For over half a century, 3M has known the health hazards and environmental risks posed by per- and polyfluoroalkyl substances.

163. As early as the 1950s, 3M began testing the physiological and toxicological properties of per- and polyfluoroalkyl substances. Based on these internal studies, 3M knew that per- and polyfluoroalkyl substances were toxic to humans and the environment.

164. In the 1950s, 3M also knew that per- and polyfluoroalkyl substances had the ability to move throughout groundwater, and that per- and polyfluoroalkyl substances bioaccumulate in humans and animals.

165. As early as 1960, 3M knew that per- and polyfluoroalkyl substances were capable of leaching into groundwater and contaminating the environment.

166. By at least the 1960s, 3M knew that some per- and polyfluoroalkyl substances do not naturally degrade in the environment. At around the same time, 3M also tested for per- and polyfluoroalkyl substances in well waters and confirmed the presence of surfactant pollution in wells.

[27] Id.

167. As early as 1970, 3M knew that per- and polyfluoroalkyl substances were hazardous to marine life. 3M researchers also documented per- and polyfluoroalkyl substances in fish.

168. In the 1970s, 3M began monitoring the blood of its employees for per- and polyfluoroalkyl substances because it was concerned about the health effects of per- and polyfluoroalkyl substances exposure. This research confirmed that per- and polyfluoroalkyl substances bioaccumulate in humans.

169. In 1975, 3M found that there was a "universal presence" of PFOA in samples of human blood serum taken across the United States. Since PFOA is not naturally occurring, this finding alerted and/or should have alerted, 3M to the likelihood that its PFAS Products were a source of this PFOA—a possibility that 3M considered internally but did not share outside the company.[28]

170. During the late 1970s, 3M continued to research and confirm the dangers of per- and polyfluoroalkyl substances.

171. In the late 1970s, 3M also continued to study the fate and transport characteristics of per- and polyfluoroalkyl substances in the environment, including in surface water and biota.

172. In 1983, 3M concluded that per- and polyfluoroalkyl substances use resulted in serious concerns about the persistence, accumulation potential, and ecotoxicity of per- and polyfluoroalkyl substances in the environment.

173. 3M's ecotoxicologists raised concerns about per- and polyfluoroalkyl substances.

174. Despite decades of research, 3M failed to share its concerns with EPA until the late 1990s.

175. 3M's employees were highly critical of 3M's management of per- and polyfluoroalkyl substances risks.

[28] A version of this 1975 memorandum is publicly available on the website Toxic Docs (a collaboration of Columbia University and the City University of New York), see https://cdn.toxicdocs.org/O1/O1b67XZ58gZvKpNKDyLEm4YXX/O1b67XZ58gZvKpNKDyLEm4YXX.pdf (accessed on Oct. 24, 2022).

176. 3M phased out production of PFAS Products containing PFOS in the early 2000s because of pressure from EPA, but 3M continued to publicly represent that PFAS Products are safe.

177. Even after 3M ceased manufacturing PFOS, it worked to control and distort the science on PFAS and to minimize their dangers to the environment and human health.

178. As recently as November 2018, 3M publicly stated that "the vast body of scientific evidence does not show that PFOS or PFOA cause adverse health effects in humans at current exposure levels, or even at the historically higher levels found in blood."[29] To this day, 3M continues to publicly claim that the "weight of scientific evidence from decades of research does not show that PFOS or PFOA causes harm in people at current or past levels."[30] These statements contradict decades of research demonstrating the serious health and environmental effects of PFAS, including internal studies conducted by 3M's own scientists.

179. 3M knew or should have known that the ordinary and intended use of its PFAS Products would injure public health and the environment in California.

DuPont Defendants

180. As a result of direct misconduct and the fraudulent transfer transactions detailed in this Complaint, the knowledge of Old DuPont is legally imputed to the DuPont Defendants and each of them.

181. DuPont Defendants have known for decades of the health and environmental risks posed by per- and polyfluoroalkyl substances.

182. In approximately 1951, Old DuPont started using PFOA to make Teflon at its Washington Works manufacturing plant in Parkersburg, West Virginia.

183. By early 1960s, Old DuPont's researchers had concluded that PFOA was toxic and Old DuPont knew that PFOA caused adverse liver reactions in dogs and rats.

[29] E. Fleischauer, Decatur Daily, *Authority prepares to borrow $25M to remove toxins from drinking water* (August 2, 2018). Available on Westlaw at 2018 WLNR 23491285.
[30] 3M Company, *3M's Commitment to PFAS Stewardship*, https://www.3m.com/3M/en_US/pfas-stewardship-us/health-science/ (accessed on Oct. 24, 2022).

184. By the mid-1960s, Old DuPont was aware that PFOA could leach from PFAS Products into groundwater.

185. By the 1970s, Old DuPont knew about research showing detections of organic fluorine in blood bank samples in the United States, which the researchers thought could be a potential result of human exposure to PFOA. Old DuPont also had data indicating that its workers who were exposed to PFOA had a significantly higher frequency of health issues compared to unexposed workers. At that time, Old DuPont did not report these data to any government agency or any community where it used PFOA.

186. By at least the 1980s, Old DuPont had internally confirmed that PFOA is toxic. Old DuPont also knew that PFOA could be emitted into the air from its manufacturing facilities, and that those air emissions could travel beyond the facility boundaries and enter the environment and natural resources.

187. By at least the mid-1980s, Old DuPont was aware that PFOA is bio-persistent and bio-accumulative.

188. By the early 1980s, Old DuPont had obtained a 3M internal study that documented birth defects in the eyes of unborn rats exposed to PFOA in utero. Based on this research, Old DuPont urged its female workers who came into contact with PFOA to consult their doctors prior to contemplating pregnancy.

189. In April 1981, Old DuPont began monitoring 50 female employees, including seven pregnant employees, who had been exposed to PFOA. Initial data showed that two of the seven pregnant workers exposed to PFOA had babies with eye and nostril deformities. Old DuPont abandoned the study rather than inform regulators or employees.

190. Old DuPont was long aware it was releasing PFOA from its manufacturing facilities, and that the PFOA releases were leaching into groundwater used as a drinking water supply. After obtaining data on these releases and the consequent contamination near Old DuPont facilities in West Virginia and Ohio, Old DuPont held a meeting in 1984 at its corporate headquarters in Wilmington, Delaware, to discuss health and environmental issues related to PFOA. Old DuPont employees who attended the 1984 meeting discussed available technologies

that were capable of controlling and reducing PFOA releases from its manufacturing facilities, as well as potential replacement materials capable of eliminating additional PFOA releases from its operations. Old DuPont chose not to use either the control technologies or replacement materials, despite knowing of PFOA's toxicity.

191. By 2000, Old DuPont received preliminary results from a monkey health study showing that PFOA caused monkeys to lose weight and increased their liver size. Even monkeys given the lowest doses suffered liver enlargement, and one was so ill it had to be euthanized.

192. Notwithstanding its internal knowledge of PFOA's health and environmental risks beginning as early as the 1950s, Old DuPont publicly stated in 2003 that "[w]e are confident that there are no health effects associated with C-8 exposure," and that "C-8 is not a human health issue."[31]

193. In light of the preceding statement and others, Old DuPont's own Epidemiology Review Board repeatedly raised concerns about Old DuPont's practice of stating publicly that there were no adverse health effects associated with human exposure to PFOA.

194. Old DuPont knew or should have known that the ordinary and intended use of its PFAS Products would injure public health and the environment in California.

Remaining Defendants

195. AGC, Archroma, Buckeye, Carrier, Chemguard, Clariant, Dynax, Kidde, National Foam, Tyco/Ansul, UTC and/or other Defendants also knew or should have known that the ordinary and intended use of their PFAS Products would injure the natural environment and threaten public health in California.

196. AGC, Archroma, Buckeye, Carrier, Chemguard, Clariant, Dynax, Kidde, National Foam, Tyco/Ansul, UTC , and/or other Defendants were experts in the field of PFAS Products manufacturing and/or materials needed to manufacture PFAS Products.

[31] *DuPont*, Media Update (March 18, 2003). A copy of the presentation is publicly available at the following website: https://static.ewg.org/reports/2003/pfcs/dupontpresentation.pdf (accessed on Oct. 24, 2022).

197. By virtue of that expertise, AGC, Archroma, Buckeye, Carrier, Chemguard, Clariant, Dynax, Kidde, National Foam, Tyco/Ansul, UTC and/or other Defendants had detailed information and understanding about the chemical compounds that form PFAS Products.

198. As manufacturers and sellers of PFAS Products including AFFF, AGC, Archroma, Buckeye, Carrier, Chemguard, Clariant, Dynax, Kidde, National Foam, Tyco/Ansul, UTC, and/or other Defendants had access to substantial information about the environmental fate and toxicity of PFAS.

199. Information about the toxicity of PFAS was also accessible to Defendants through various trade associations and groups formed for the purpose of defending their conduct, their industry, and their PFAS Products.

200. Defendant Kidde was aware of the presence of PFOA in telomer based AFFF by March 2001.

201. A trade association known as the Firefighting Foam Coalition (FFFC), was formed in 2001 to dispel concerns EPA had raised about AFFF's environmental harm. Some Defendants were members of the FFFC, including DuPont, Tyco/Ansul, Chemguard, Dynax, National Foam, Buckeye, and Kidde.

202. Through their involvement in the FFFC, or other trade associations and groups, some Defendants shared knowledge and information regarding PFAS.

203. Through FFFC, some Defendants worked together to protect AFFF and other PFAS Products from scrutiny and to shield the AFFF industry from the detrimental impact of the public and regulators learning about PFAS's harms to human health and the environment.

204. On or about October 30, 2003, the director of the FFFC reported to FFFC members concerning his communications with the EPA PFOA Enforceable Consent Agreement Plenary Committee (consisting of EPA and all parties who had identified themselves as being interested in the Enforceable Consent Agreement development proceedings) on October 29, 2003. The report indicated that FFFC had convinced EPA that telomer-based firefighting foams are not likely to be a source of PFOA in the environment. On information, belief, and inquiry, FFFC members knew or should have known that telomer-based firefighting foams are major sources of

PFOA in the environment, but no FFFC member corrected the record and informed EPA of the truth.

iii. Defendants Failed to Act on Their Knowledge of the Health and Environmental Risks of PFAS.

205. Despite their knowledge that PFAS Products posed grave environmental and human health risks, and despite the availability of safer alternative PFAS Products, Defendants failed to warn customers, users, the public, and regulators about those risks, and they failed to take any other appropriate precautionary measures to prevent or mitigate PFAS contamination of the environment. Instead, Defendants falsely and misleadingly promoted PFAS Products as being environmentally sound and appropriate for use.

206. At all relevant times, Defendants were or should have been aware that PFAS contamination and injury to California's natural resources, property, and its residents' public health were inevitable, due to the solubility of PFAS, the resistance to biodegradation and bioremediation, and the normal and foreseen use and disposal of PFAS in industrial processes, and in consumer, household, and commercial PFAS Products manufactured, distributed, sold, and used in California.

207. Defendants possess vastly superior knowledge, resources, experience, and other advantages, in comparison to any person or government entity, concerning the manufacture, distribution, nature, and properties of PFAS and PFAS Products.

208. By virtue of their economic and analytical resources, including the employment of scientists such as chemists, engineers, and toxicologists, Defendants have at all relevant times been in a position to know, identify, and confirm the threat PFAS posed and pose to California's natural resources, property, and public health.

209. In addition, by virtue of this knowledge, and/or by virtue of Defendants' partial, misleading, and incorrect statements regarding the nature and impacts of PFAS and/or PFAS Products, Defendants had a duty to disclose the truth, and to act in accordance with the truth, about PFAS and/or PFAS Products.

210. Defendants failed to take reasonable steps to eliminate or reduce the dangers posed by their PFAS Products. Instead, they concealed and misrepresented those dangers to the consumers, the public, and regulators.

iv. Safer and Feasible Alternatives were Available

211. At all relevant times, Defendants knew or should have known about the market availability and/or possibility to design reasonably safer and feasible alternatives to their PFAS Products. The hazardous properties of PFAS and the omission of safer and feasible alternative designs rendered Defendants PFAS Products not reasonably safe.

212. Each PFAS Product that substantially contributed to the statewide contamination alleged in this Complaint could have been designed with safer feasible alternatives to the PFAS at issue in this Complaint.

213. For example, as an alternative to AFFF's use on Class B Fires (liquid fuel fires), firefighting foams have been designed and are in use for Class B Fires that do not contain the seven PFAS chemicals at issue in this Complaint.

214. Some Defendants recently transitioned to short-chain per- and polyfluoroalkyl substances for use in PFAS Products, which they claim are safer than the seven PFAS chemicals at issue in this Complaint. [32] They could have made this transition much earlier. However, Defendants continued to sell hazardous PFAS Products even after claiming they had a safer alternative.

215. Safer alternatives exist to the use of PFAS as coatings on cookware, including non-stick ceramic, cast iron, and stainless steel, among many other options.

216. Safer alternatives were and are available to the use of PFAS in consumer PFAS Products like food packaging, clothing, and beauty products.

217. Safer alternatives were and are available to the use of PFAS in paints and varnishes.

[32] Existing evidence does not support Defendants' claim that short-chain per- and polyfluoroalkyl substances are safer than the seven PFAS chemicals at issue in this Complaint.

218. Safer alternatives were and are available to the use of PFAS in suppressing fumes in chrome plating operations.

219. Safer alternatives were and are available to the use of PFAS in hydrophobic coatings.

220. Safer alternatives were and are available to the use of PFAS in hydrophilic coatings.

v. Abatement is Possible; Damages are Substantial

221. To address PFAS contamination in California, extensive and expensive treatment and remediation of PFAS will be required, including, but not limited to, treatment of: (1) drinking water by regulated water systems; (2) water drawn from private wells and unregulated systems used for drinking water and irrigation; (3) influent and/or effluent from wastewater treatment plants and systems; and (4) landfill leachate. In addition, funds are necessary for proper disposal and treatment of waste containing PFAS, including, but not limited to, AFFF containing PFAS.

222. Separation Technologies. Separation technologies are systems that separate PFAS from the water and concentrate them on another medium that can be handled and disposed of separately. There are two types of separation technologies that are applicable for PFAS removal, including using specialty adsorbents that can adsorb the PFAS out of the water and filtration through a high-pressure membrane such as nanofiltration or reverse osmosis membranes.

223. Nanofiltration and reverse osmosis membranes have long been used to separate dissolved salts from water. They are used to remove calcium and manganese from groundwater and to desalinate seawater and produce low-salt drinking water. They are also used to remove various harmful chemicals from water such as nitrate, arsenic, chromium, and others. Reverse osmosis membranes are suitable for the removal of almost any ion from water. PFAS in water are present in ionic form above a certain water pH. For example, above a pH of 3.5, approximately 99% PFOA in water is present in its ionic form ($C_8F_{15}O_2^-$), which does not pass through the reverse osmosis membrane. Natural waters have pH values well above 3.5, and thus all PFOA present in water should be in its ionic form. This ensures that reverse osmosis treatment can remove a high percentage of PFOA from water (>99%).

224. Adsorption onto Specialty Material: Adsorption treatment systems are commonly used to remove chemicals from water. In this process, water passes through a "filter" packed with specialty granular material. As water passes by the material in the filter, the organic chemicals migrate from the water onto the surface of the material and attach to it. If the chemical adsorbs onto the material faster than the water passes through the filter, then the filtered water will have little to no chemical remaining in it. As the surface of the material becomes saturated with the adsorbed chemicals, the removal efficiency decreases. Eventually this results in a break-through where the material is exhausted and does not absorb anymore. Treatment vessels are operated in a lead-lag or series fashion. Once the lead vessel has breakthrough, it is taken out of service, its material is replaced, and then it becomes the lag vessel. The removed material is then removed from the site and disposed of appropriately. These types of adsorption systems are widely used for the removal of organic and inorganic chemicals from contaminated water. There are two main components to an adsorption treatment system. The first is the filter containers, or vessels, through which the water will pass. The second is the specialty material to put inside the filter, commonly referred to as the "adsorbent" onto which the chemical will adsorb as water passes through the filter.

225. Description of Filtration System: The filtration system is typically comprised of steel pipes that convey the water to steel filter vessels manufactured to hold the adsorbent material as the water passes through it under pressure and then exits into the water distribution system. Again, to maintain systems operations, the treatment vessels are operated in a lead-lag or series fashion. This means that each system must have more than one vessel. These filtration systems are currently deployed at water systems in California. The size of each filter vessel and the number of vessels required depend on the amount of water being treated each day and on the type of adsorbent used. At least three types of adsorbents have proven successful at efficiently removing PFAS from water: (1) granular activated carbon; (2) synthetic ion-exchange resin; and (3) specialty material with the trade name Fluorosorb.™

226. Costs of Abatement and Treatment: While necessary to protect Californians and the environment in California, treatment of statewide PFAS contamination will be expensive for

several reasons. First, each treatment system requires substantial capital costs to set up; not only for acquisition of the systems but also land acquisition, engineering, hardware acquisition, etc. Second, each treatment system requires substantial operation and maintenance costs (including without limitation costs related to changing out the adsorption materials (acquisition and disposal), power, monitoring, maintenance and dedicated personnel). As further alleged in Paragraphs 6 and 45, if left untreated, PFAS will remain in the environment indefinitely. This means that treatment technology will likely be required to be continuously used and maintained for forty years or more.

227. To effectively abate the statewide PFAS contamination and protect public health and the environment in California, treatment is needed at several critical junction points, including, but not limited to: (a) drinking water treatment systems for water suppliers (ground and surface-water); (b) wastewater treatment systems to prevent further discharges to surface water; (c) landfill mitigation and treatment systems including treatment of landfill leachates containing PFAS; (d) point of entry treatment (POE) systems for domestic well owners and very small systems; and (e) treatment for irrigation wells used for growing crops and livestock.

228. In addition to treatment costs, other funds are necessary to abate the nuisance and protect public health, including, but not limited to: (a) environmental testing costs; (b) medical monitoring costs; (c) public noticing costs; (d) replacement water (for period between testing and installation of treatment); (e) administrative costs to run testing and treatment abatement program; (f) safe disposal and destruction costs (including safe disposal or destruction of AFFF containing PFAS); and (g) additional costs related to the disposal of PFAS-contaminated biosolids.

229. Total Costs and Damages: The total costs to abate the statewide nuisance and to compensate for damages for statewide PFAS contamination are substantial. The total costs of abatement and damages are likely to be later affected by a number of factors including new federal and state regulatory requirements, developing technology and science, and continuing supply chain issues. The amounts are nevertheless quantifiable to a substantial certainty on an item-by-item basis and the People can and will prove them at trial.

G. Allegations Regarding DuPont Defendants' Fraudulent Transfers

i. Overview

230. Old DuPont used transactions to shield assets from the People and other creditors.

231. By 2013, Old DuPont knew that it faced substantial liabilities, including liability related to PFAS contamination at sites and areas throughout the country and its sale of PFAS Products.

232. Old DuPont knew that its liabilities, including clean-up costs, remediation obligations, tort damages, and natural resource damages arising from its misconduct, were likely in the billions of dollars.

233. On information and belief, including but not limited to a complaint filed by Chemours in Delaware, by 2013, Old DuPont's management considered restructuring the company to avoid liabilities relating to Old DuPont's PFAS Products. Old DuPont referred to this initiative internally as "Project Beta."

234. On information and belief, Old DuPont contemplated various restructuring opportunities, including potential merger structures as a part of Project Beta. In or about 2013, Old DuPont and The Dow Chemical Company (Old Dow) began discussions about a possible merger of equals.

235. On information and belief, including but not limited to a complaint filed by Chemours in Delaware, Old DuPont recognized that neither Old Dow, nor any other legitimate merger partner, would agree to a transaction that would result in exposing Old Dow, or any other merger partner, to the substantial PFAS and PFAS Products liabilities that Old DuPont faced.

236. On information and belief, Old DuPont's management decided to pursue a corporate restructuring to isolate Old DuPont's liabilities from its valuable tangible assets to shield those assets from creditors and convince Old Dow to pursue the proposed merger. Old DuPont then engaged in a three-part restructuring plan.

237. The first step in Old DuPont's restructuring was to transfer its Performance Chemicals business (which included PFAS Products) into a new wholly-owned subsidiary,

Chemours. In July 2015, Old DuPont spun off Chemours as a separate publicly traded entity and forced Chemours to take Old DuPont's massive liabilities (the Chemours Spinoff).

238. On information and belief, Old DuPont knew that Chemours was undercapitalized and could not satisfy those liabilities. Old DuPont knew that the Chemours Spinoff alone was insufficient to shield its assets from its PFAS Products liabilities, and that Old DuPont still faced direct liability.

239. The second step in Old DuPont's restructuring involved Old DuPont and Old Dow entering into an "Agreement and Plan of Merger." In December 2015, Old DuPont and Old Dow merged with subsidiaries of a new holding company, DowDuPont, Inc. (DowDuPont), which was created for the merger. Old DuPont and Old Dow were now subsidiaries of DowDuPont.

240. Next, through a series of subsequent agreements, DowDuPont began numerous business segment and product line "realignments" and "divestitures."

241. These transactions transferred, either directly or indirectly, a substantial portion of Old DuPont's assets to DowDuPont.

242. The third step in Old DuPont's restructuring involved DowDuPont spinning off two, new, public companies: (a) Corteva, which holds Old DuPont as a subsidiary, and (b) Dow, Inc. (New Dow) which holds Old Dow as a subsidiary. DowDuPont then became New DuPont.

243. As a result of Old DuPont's restructuring, between December 2014 (pre-Chemours Spinoff) and December 2019 (post-Dow merger), the value of Old DuPont's tangible assets decreased by $20.85 billion.

244. New DuPont and New Dow hold the vast majority of the tangible assets that Old DuPont formerly owned.

245. On information and belief, Old DuPont, New DuPont, and Corteva are concealing the details of certain of the restructuring transactions in an attempt to evade creditors, like the People, by covering up the transfer of Old DuPont's valuable assets and the inadequate consideration that Old DuPont received in return.

ii. Chemours Spin-Off (Step One)

246. In February 2014, Old DuPont formed Chemours as a wholly-owned subsidiary. Chemours was incorporated on February 18, 2014, under the name "Performance Operations, LLC."

247. On or about April 15, 2014, Performance Operations, LLC was renamed "The Chemours Company, LLC." On April 30, 2015, it was converted from a limited liability company to a corporation named "The Chemours Company."

248. Prior to July 1, 2015, Chemours was a wholly-owned subsidiary of Old DuPont. On July 1, 2015, Old DuPont completed the spinoff of its Performance Chemicals Business, consisting of Old DuPont's Titanium Technologies, Chemical Solutions, and Fluoroproducts segments, and Chemours became a separate, public company. The Performance Chemicals Business included PFAS Products and the business segment that had manufactured, used, and discharged PFAS into the environment.

249. Prior to the Spinoff, Chemours was a wholly-owned subsidiary of Old DuPont, and its board of directors had three members, all of whom were Old DuPont employees.

250. On June 19, 2015, a fourth member of the board of directors was appointed, and On information and belief, this fourth member had served as a member of Old DuPont's board of directors of Directors from 1998 to 2015.

251. On July 1, 2015, effective immediately prior to the Chemours Spinoff, the size of the Chemours board of directors was expanded to eight members. The three initial Old DuPont employees resigned from the board of directors, and to fill the vacancies created thereby, seven new members were appointed.

252. To effectuate the Chemours Spinoff, Old DuPont and Chemours entered into the June 26, 2015 Separation Agreement (the Chemours Separation Agreement).[33] As the Chemours

[33] E.I. DuPont and The Chemours Company, *June 26, 2015 Separation Agreement,* available at https://www.sec.gov/Archives/edgar/data/30554/000030554150000065/exhibit21separationagreeme.htm (accessed on Oct. 24, 2022).

Delaware Complaint alleges (in paragraph 35), "No one representing Chemours's interests ever agreed to the Separation Agreement. The use of the word "Agreement" is simply a farce."[34]

253. Pursuant to the Chemours Separation Agreement, Old DuPont agreed to transfer to Chemours all businesses and assets related to the Performance Chemicals Business, including 37 active chemical plants.

254. Old DuPont completed a significant internal reorganization prior to the Chemours Spinoff, such that all of the assets that Old DuPont deemed to be part of the Performance Chemicals Business would be transferred to Chemours.

255. At the same time, Chemours accepted a broad assumption of liabilities for Old DuPont's historical use, manufacture, and discharge of PFAS, although the specific details regarding the nature, probable maximum loss value, and anticipated timing of the liabilities that Chemours assumed are not publicly available.

256. Notwithstanding the billions of dollars in PFAS and PFAS Products liabilities that Chemours would face, on July 1, 2015, Chemours transferred to Old DuPont approximately $3.4 billion as a cash dividend, along with a distribution in kind of promissory notes with an aggregate principal amount of $507 million.

257. In total, Chemours distributed $3.9 billion to Old DuPont. Chemours funded these distributions by entering into approximately $3.995 billion of financing transactions, including senior secured term loans and senior unsecured notes. Chemours distributed approximately $3 billion in common stock to Old DuPont shareholders on July 1, 2015 (181 million shares at $16.51 per share price).

258. Most of the valuable assets that Chemours may have had at the time of the Chemours Spinoff were now unavailable to creditors with current or future PFAS Products claims, and Old DuPont stripped Chemours' value for itself and its shareholders. In total, Chemours transferred almost $7 billion in stock, cash, and notes to Old DuPont and its shareholders. Old

[34] A copy of the Complaint was posted by NC Policy Watch. It is available at: https://s39248.p1438.sites.pressdns.com/wp-content/uploads/2019/07/Chemours-Complaint.pdf.

DuPont, however, only transferred $4.1 billion in net assets to Chemours. And, Chemours assumed billions of dollars of Old DuPont's PFAS and other liabilities.

259. In addition to the assumption of such liabilities, the Chemours Separation Agreement required Chemours to indemnify Old DuPont in connection with these liabilities, which is uncapped and does not have a survival period.

260. The Chemours Separation Agreement requires Chemours to indemnify Old DuPont against, and assume for itself, all "Chemours Liabilities," which is defined broadly to include, among other things, "any and all Liabilities relating . . . primarily to, arising primarily out of or resulting primarily from, the operation or conduct of the Chemours Business, as conducted at any time prior to, at or after the Effective Date . . . including . . . any and all Chemours Assumed Environmental Liabilities," which includes Old DuPont's historical liabilities relating to and arising from its decades of emitting PFAS and PFAS Products into the environment.

261. The Chemours Separation Agreement requires Chemours to indemnify Old DuPont against, and assume for itself, the Chemours liabilities regardless of (a) when or where such liabilities arose; (b) whether the facts upon which they are based occurred prior to, on, or subsequent to the effective date of the spinoff; (c) where or against whom such liabilities are asserted or determined; (d) whether arising from or alleged to arise from negligence, gross negligence, recklessness, violation of law, fraud or misrepresentation by any member of the Old DuPont group or the Chemours group; (e) the accuracy of the maximum probable loss values assigned to such liabilities; and (f) which entity is named in any action associated with any liability.

262. The Chemours Separation Agreement requires Chemours to indemnify Old DuPont from, and assume all, environmental liabilities that arose prior to the spinoff if they were "primarily associated" with the Performance Chemicals Business.

263. Chemours agreed to use its best efforts to be fully substituted for Old DuPont with respect to "any order, decree, judgment, agreement or Action with respect to Chemours Assumed Environmental Liabilities."

264. Notably, Chemours sued Old DuPont in Delaware state court in 2019, alleging, among other things, that if the full value of Old DuPont's liabilities were properly estimated and the state court does not limit Chemours' liability that the Chemours Separation Agreement imposes, then Chemours would have been insolvent at the time of the Chemours Spinoff.

265. On information and belief, there was no meaningful, arms-length negotiation of the Chemours Separation Agreement.

266. In its Delaware lawsuit, Chemours alleged that Old DuPont refused to allow any procedural protections for Chemours in the negotiations, and Old DuPont and its outside counsel prepared all the documents to effectuate the Chemours Spinoff. Indeed, during the period in which the terms of commercial agreements between Chemours and Old DuPont were negotiated, Chemours did not have an independent board of directors or management independent of Old DuPont.

267. Although Chemours had a separate board of directors, Old DuPont employees controlled the Chemours board of directors. Indeed, when the Chemours Separation Agreement was signed, Chemours was a wholly-owned subsidiary of Old DuPont, and the Chemours board of directors consisted of three Old DuPont employees and one former, long-standing member of the Old DuPont board of directors.

268. Chemours's independent board of directors, newly appointed on July 1, 2015, immediately prior to the Chemours Spinoff, did not participate in the negotiations of the terms of the separation.

269. Old DuPont's goal with respect to the Chemours Spinoff was to segregate a large portion of Old DuPont's legacy environmental liabilities, including liabilities related to its PFAS chemicals and PFAS Products, and in so doing, shield Old DuPont's assets from any financial exposure associated therewith.

270. Old DuPont extracted nearly $4 billion from Chemours immediately prior to the Chemours Spinoff. As a result of the extraction, Chemours was insufficiently capitalized and unable to satisfy the substantial liabilities that it assumed from Old DuPont. Indeed, Chemours

disclosed in public SEC filings that its "significant indebtedness" arising from its separation from Old DuPont restricted its current and future operations.

271. In June 2016, market analysts at Citron Research issued a report describing Chemours as "a bankruptcy waiting to happen" and a company "purposely designed for bankruptcy."[35]

272. At the end of December 2014, Chemours reported it had total assets of $5.959 billion and total liabilities of $2.286 billion. At the end of 2015, following the Chemours Spinoff, Chemours reported that it had total assets of $6.298 billion and total liabilities of $6.168 billion as of December 31, 2015, yielding total net worth of $130 million.

273. Removing Chemours's goodwill and other intangibles of $176 million yields tangible net worth of negative $46 million (that is, Chemours's liabilities were greater than its tangible assets). According to unaudited pro forma financial statements, as of March 31, 2015 (but giving effect to all of the transactions contemplated in the Chemours Spinoff), Chemours had total assets of $6.4 billion and total liabilities of $6.3 billion.

274. Chemours reported that these liabilities included $454 million in "other accrued liabilities," which included $11 million for accrued litigation and $68 million for environmental remediation. Chemours had $553 million in "other liabilities," which included $223 million for environmental remediation and $58 million for accrued litigation.

275. This report significantly underestimated its liabilities, including the liabilities that it had assumed from Old DuPont with respect to PFAS contamination, and which Old DuPont knew or should have known would be billions of dollars.

276. Had Chemours taken the full extent of Old DuPont's legacy liabilities into account, as it should have done, it would have had negative equity (that is, total liabilities that are greater than total assets), not only on a tangible basis, but on a total equity basis, and, Chemours would have been rendered insolvent at the time of the Chemours Spinoff.

[35] Citron Research, *Chemours is a Bankruptcy Waiting to Happen! Chemours was Purposely Designed for Bankruptcy!* (June 2, 2016), available at https://citronresearch.com/wp-content/uploads/2016/06/cc-final-a.pdf (accessed on Oct. 24, 2022)

iii. Old DuPont Merger (Step Two)

277. After the Chemours Spinoff, Old DuPont asserted that it was no longer responsible for the widespread PFAS and PFAS Products contamination. Old DuPont publicly claimed that the PFAS and PFAS Products liabilities associated with the Performance Chemicals business that Old DuPont had transferred to Chemours rested solely with Chemours, and not with Old DuPont.

278. On information and belief, Old DuPont knew that it could still face exposure for PFAS and PFAS Products liabilities.

279. On December 11, 2015, less than six months following the Chemours Spinoff, Old DuPont and Old Dow announced that their respective boards of directors had approved an agreement "under which the companies [would] combine in an all-stock merger of equals" and that the combined company would be named DowDuPont, Inc. (Dow-DuPont Merger). The companies disclosed that they intended to subsequently separate the combined companies' businesses into three publicly-traded companies through further spinoffs, each of which would occur 18 to 24 months following the closing of the merger.

280. Old DuPont and Old Dow entered into an Agreement and Plan of Merger (the Dow-DuPont Merger Agreement) that provided for (a) the formation of a new holding company—Diamond-Orion HoldCo, Inc., later named DowDuPont, —and (b) the creation of two new merger subsidiaries into which Old Dow and Old DuPont each would merge.[36]

281. Upon the closing of the DowDuPont Merger, Old Dow merged into one merger subsidiary, and Old DuPont merged into the other merger subsidiary. Thus, as a result of the merger, and in accordance with the Dow-DuPont Merger Agreement, Old Dow and Old DuPont each became wholly-owned subsidiaries of DowDuPont.

282. Although Old DuPont and Old Dow referred to the transaction as a "merger of equals," the two companies did not actually merge at all, because doing so would have infected Old Dow with all of Old DuPont's historical PFAS and PFAS Products liabilities. Rather, Old

[36] Dow Chemical and E.I. Du Pont, *Agreement and Plan of Merger* (December 11, 2015), available at https://www.sec.gov/Archives/edgar/data/29915/000119312515401629/d100117dex21.htm (accessed on Oct. 24, 2022).

DuPont and Old Dow became affiliated sister companies that were each owned by the newly formed DowDuPont.

iv. Transfer of Assets From Old DuPont and Separation of Corteva and New Dow (Step Three)

283. Following the Dow-DuPont Merger, DowDuPont underwent a significant internal reorganization and engaged in numerous business segment and product line "realignments" and "divestitures." The net effect of these transactions has been the transfer, either directly or indirectly, of a substantial portion of Old DuPont's assets out of the company.

284. While, again, the details of these transactions remain hidden from the People and other creditors, it is apparent that the transactions were intended to frustrate and hinder creditors with claims against Old DuPont, including with respect to its substantial PFAS and PFAS Products liabilities. The significant internal reorganization instituted by New DuPont was in preparation for the conglomerate being split into three, separate, publicly-traded companies.

285. Old DuPont's assets, including its remaining business segments and product lines, were transferred either directly or indirectly to New DuPont, which reshuffled the assets and combined them with the assets of Old Dow, and then reorganized the combined assets into three distinct divisions: (a) the "Agriculture Business;" (b) the "Specialty Products Business;" and (c) the "Material Sciences Business."

286. While the precise composition of these divisions, including many details of the specific transactions, the transfer of business segments, and the divestiture of product lines during this time, are not publicly available, it is apparent that Old DuPont transferred a substantial portion of its valuable assets to DowDuPont, for less than the assets were worth.

287. Once the assets of Old DuPont and Old Dow were combined and reorganized, DowDuPont incorporated two new companies to hold two of the three newly formed business lines. Corteva became the parent holding company of Old DuPont, which in turn holds the Agriculture Business. New Dow became the parent holding company of Old Dow, and holds the Materials Science Business. DowDuPont, retained the Specialty Products Business, and prepared to spin off Corteva and New Dow into separate, publicly traded companies.

288. The separations are governed by the April 1, 2019 Separation and Distribution Agreement among Corteva, New Dow, and DowDuPont (the DowDuPont Separation Agreement).[37]

289. The DowDuPont Separation Agreement allocates the assets primarily related to the respective business divisions to Corteva (Agriculture Business), New Dow (Materials Science Business) and New DuPont (Specialty Products Business), respectively. New DuPont retained several "non-core" business segments and product lines that once belonged to Old DuPont.

290. Corteva, New Dow, and DowDuPont each retained the liabilities primarily related to the business divisions that they retained, i.e., Corteva retained and assumed the liabilities related to the Agriculture Business; New DuPont retained and assumed the liabilities related to the Specialty Products Business; and New Dow retained and assumed the liabilities related to the Materials Science Business.

291. Corteva and DowDuPont assumed direct financial liability of Old DuPont that was not related to the Agriculture, Material Science or Specialty Products Businesses, including, on information and belief, the PFAS and PFAS Products liabilities. These assumed PFAS and PFAS Products liabilities are allocated on a pro rata basis between Corteva and New DuPont pursuant to the DowDuPont Separation Agreement, such that, after both companies have satisfied certain conditions, future liabilities are allocated 71% to DowDuPont and 29% to Corteva.

292. This "allocation" applies to Old DuPont's legacy liabilities for PFAS contamination and its former Performance Chemicals business, including the People's claims in this case.

293. While DowDuPont and Corteva concealed the details in non-public schedules of the Agreement, On information and belief the People allege that New DuPont and Corteva each assumed these liabilities under the DowDuPont Separation Agreement, along with other liabilities related to Old DuPont's discontinued and divested businesses.

[37] Corteva, Dow, and DowDupont, *Separation and Distribution Agreement* (April 2019), available at https://www.sec.gov/Archives/edgar/data/1751788/000119312519069293/d502004dex21.htm (accessed on Oct. 24, 2022).

294. The separation of New Dow was completed on or about April 1, 2019, when DowDuPont distributed all of New Dow's common stock to DowDuPont stockholders as a pro rata dividend. New Dow now trades on the New York Stock Exchange (NYSE) under Old Dow's stock ticker "DOW."

295. On or about May 2, 2019, DowDuPont consolidated the Agricultural Business line into Old DuPont, and then, on or about May 31, 2019, it "contributed" Old DuPont to Corteva. The following day, on June 1, 2019, DowDuPont spun off Corteva as an independent public company.

296. Corteva now holds 100% of the outstanding common stock of Old DuPont. Corteva now trades on the NYSE under the stock ticker "CTVA."

297. The separation of Corteva was completed on or about June 1, 2019, when DowDuPont distributed all of Corteva's common stock to DowDuPont stockholders as a pro rata dividend.

298. On or about June 1, 2019, DowDuPont changed its registered name to DuPont de Nemours Inc. (New DuPont).

v. Consequences of the Fraudulent Transaction

299. The net result of the DuPont Defendants' transactions was to strip away valuable tangible assets from Old DuPont and transfer those assets to New DuPont and Corteva for far less than the assets are worth.

300. The People can, therefore, bring claims against New DuPont and Corteva directly for Old DuPont's PFAS and PFAS Products misconduct.

301. Old DuPont estimated that the Dow-DuPont Merger created "goodwill" worth billions of dollars. When the Corteva separation was complete, a portion of this "goodwill" was assigned to Old DuPont in order to prop up its balance sheet. But, in reality, Old DuPont was left with substantially fewer tangible assets than it had prior to the restructuring.

302. Old DuPont owes a debt to Corteva of approximately $4 billion.

303. SEC filings demonstrate the substantial deterioration of Old DuPont's finances and the drastic change in its financial condition before and after the above transactions.

304. For example, for the fiscal year ended 2014, prior to the Chemours Spinoff, Old DuPont reported $3.6 billion in net income and $3.7 billion in cash provided by operating activities. However, for the fiscal year ended 2019, just months after the Corteva separation, Old DuPont reported a net loss of negative $1 billion and only $996 million in cash provided by operating activities. That is a decrease of 128% in net income and a decrease of 73% in annual operating cash flow.

305. Old DuPont reported a significant decrease in Income From Continuing Operations Before Income Taxes (EBT). Old DuPont reported $4.9 billion in EBT for the period ending December 31, 2014. For the period ending December 31, 2019, Old DuPont reported EBT of negative $422 million.

306. The value of Old DuPont's tangible assets further underscores Old DuPont's precarious financial situation. For the fiscal year ended 2014, prior to the Chemours Spinoff, Old DuPont owned nearly $41 billion in tangible assets. For the fiscal year ended 2019, Old DuPont owned just under $21 billion in tangible assets.

307. That means that in the five-year period over which the restructuring occurred, when Old DuPont knew that it faced billions of dollars in PFAS and PFAS Products liabilities, Old DuPont transferred or divested approximately half of its tangible assets, totaling $20 billion.

308. As of September 2019, just after the Corteva spinoff, Old DuPont reported $43.251 billion in assets. But almost $21.835 billion of these assets were comprised of intangible assets, including "goodwill" from its successive restructuring activities.

309. At the same time, Old DuPont reported liabilities totaling $22.060 billion. Thus, when the Corteva spinoff was complete, Old DuPont's tangible net worth (excluding its intangible assets) was negative $644 million.

310. Old DuPont's financial condition has continued to deteriorate. By end of fiscal year 2019, Old DuPont reported $42.397 billion in total assets, half of which (or $21.653 billion) are intangible assets. Old DuPont's reported liabilities for the same period totaled $21.869 billion.

311. Old DuPont's tangible net worth between September 30 and December 31, 2019 declined even further, whereby Old DuPont ended fiscal year 2019 with tangible net worth of negative $1.125 billion.

312. In addition, the allocation of liabilities to New DuPont and Corteva in the DowDuPont Separation Agreement is problematic. Neither of those Defendants has publicly conceded that they assumed Old DuPont's historical PFAS and PFAS Products liabilities. And it is far from clear that either entity will be able to satisfy any judgment in this case.

313. Indeed, New DuPont—to which 71% of PFAS and PFAS Products liabilities are "allocated" under the DowDuPont Separation Agreement once certain conditions are satisfied—is in the process of divesting numerous business segments and product lines, including tangible assets that it received from Old DuPont, and for which Old DuPont has received less than reasonably equivalent value.

314. In September 2019, New DuPont sold the Sustainable Solutions business for $28 million to Gyrus Capital.

315. On or about December 15, 2019, New DuPont agreed to sell the Nutrition and Biosciences business to International Flavors & Fragrances for $26.2 billion. In March 2020, New DuPont completed the sale of Compound Semiconductor Solutions for $450 million to SK Siltron.

316. Old DuPont's parent holding company, Corteva—to which 29% of PFAS and PFAS Products liabilities are "allocated" under the DowDuPont Separation Agreement once certain conditions are satisfied—holds as its primary tangible asset the intercompany debt owed to it by its wholly-owned subsidiary, Old DuPont. But Old DuPont does not have sufficient tangible assets to satisfy this debt obligation.

VI. CAUSES OF ACTION

FIRST CAUSE OF ACTION AGAINST ALL DEFENDANTS

PUBLIC NUISANCE

(VIOLATION OF CIVIL CODE SECTIONS 3479, 3480, and 3494)

317. The factual and legal allegations stated in paragraphs 1 through 316 are hereby incorporated by reference in full and made a part of this First Cause of Action.

318. Under California Civil Code section 3479, a "nuisance" is "anything which is injurious to health," including, but not limited to "an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, or river, bay, stream, canal, or basin, or any public park, square, street, or highway."

319. Under California Civil Code section 3480, a "public nuisance" is "one which affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal."

320. Pursuant California Civil Code section 3494, a "public nuisance may be abated by any public body or officer authorized thereto by law." As courts have recognized, the Attorney General is such a public officer authorized to bring an action in the name of the People of the State of California to abate a public nuisance.

321. PFAS contamination represents a condition that is injurious to health of a considerable number of California persons and therefore constitutes a public nuisance. PFAS contamination of drinking water, soil, air, surface water, groundwater, and blood in California is a public nuisance because PFAS are reproductive toxins, carcinogens, and endocrine disruptors and their presence harms human health.

322. PFAS contamination represents a condition that obstructs or interferes with the comfortable enjoyment of life and property. The PFAS contamination of drinking water, soil, surface water, and groundwater in California is a public nuisance because PFAS are reproductive

toxins, carcinogens, and endocrine disruptors and their presence harms the environment, including wildlife.

323. PFAS are present statewide at levels unreasonably injurious to health and life in all aspects of California's environment and natural resources:

(a) Six of the seven PFAS at issue in this complaint are present in nearly all Californians' blood;

(b) PFAS are present in California drinking water sources;

(c) PFAS are present in California's groundwater;

(d) PFAS are present in California's surface water including in bays, lakes, streams, and rivers;

(e) PFAS are present in California's sediments; and

(f) PFAS are present in California's fish and wildlife.

324. PFAS are injurious to health and unreasonably interfere with enjoyment of life.

(a) The PFAS contamination of drinking water, soil, surface water, and groundwater in California is a public nuisance because they are reproductive toxins, carcinogens, and endocrine disruptors and their presence harms human health and the environment, including wildlife.

(b) The PFAS contamination impairs the People's rights to use and enjoy California's natural resources and public property.

325. PFAS contribute to one or more diseases.

326. In the judgment of federal and California regulators, PFAS are so extremely injurious and threatening to human health that regulators have set threshold levels for PFAS contamination, as low as 0.1 part per trillion.

327. The presence of PFAS in waterbodies, soil, and fish and wildlife in California is obstructing the free use of property and natural resources and interfering with their comfortable enjoyment of life, property, and natural resources statewide.

328. The presence of PFAS is unlawfully and unreasonably obstructing the free passage or use, in the customary manner, of navigable lakes, rivers, bays, streams, basins, and public parks (including without limitation by contaminating water, fish and wildlife).

329. Considerable number of persons. PFAS contamination is a "public nuisance" as defined in Civil Code section 3480, because it affects at the same time an entire community or neighborhood, or any considerable number of persons. PFAS are present in: nearly all Californians' blood; many public drinking water sources (both surface and groundwater); groundwater used for domestic wells; surface water including in bays, lakes, streams, and rivers (including sediments) used for many purposes; and California's fish and wildlife which provide recreation and ecosystem services. PFAS contamination is present in every geographic area of California and is harming the entire state. In addition, PFAS contamination has been detected in the Sacramento-San Joaquin River Delta, a source of critical drinking water supplies for two-thirds of Californians and for agricultural uses.

330. The public nuisance is continuing in nature, with new PFAS detections and instances of contamination being detected in California.

331. From a date unknown to the People and continuing to the present, Defendants, and each of them, have engaged in and continue to engage in, have aided and abetted and continue to aid and abet, and have conspired to and continue to conspire to engage in acts that have created and/or contributed to a public nuisance based on PFAS contamination in California.

332. Defendants' Contribution to the Public Nuisance. Defendants caused and/or contributed to the nuisance by: (a) promoting, manufacturing, distributing, marketing and/or selling PFAS and PFAS Products in California (this widespread promotion and marketing of PFAS Products for a hazardous use constitutes a public nuisance); (b) promoting, manufacturing, distributing, marketing and/or selling PFAS Products without adequate testing or analysis of their impact on human health; (c) even when Defendants became aware of the dire human health impacts, Defendants took no action to mitigate the public nuisance they created; (e) failing to provide adequate warnings concerning the proper use of PFAS Products that they promoted, manufactured, distributed, marketed and/or sold; (f) failing to provide adequate instructions

concerning the proper use of PFAS Products that that they promoted, manufactured, distributed, marketed and/or sold which might have mitigated some of the environmental damage (e.g., using containment to trap AFFF and contaminated water when fighting a fire); (g) failing to report known instances of contamination to California to state, local and/or federal authorities; (h) failing to recall their PFAS Products from the market for proper disposal; (i) concealing hazard information from regulators and the public; (j) concealing studies and other documents showing the dangers of PFAS from the public and government, including U.S. EPA.

333. Interference outweighed social utility. The interference caused by PFAS contamination is unreasonable because the gravity of the harm outweighs the social utility of the Defendants' conduct. The social utility of Defendants' conduct was outweighed by the massive harm they have caused to the environment and the people of California: (a) PFAS contamination in California imposes severe, unavoidable, and costly health risks on California's residents, communities, and health-care systems; (b) the harmful impacts of PFAS contamination in groundwater, surface water, soils, fish and wildlife in California are ubiquitous and significant; (c) it is costly to treat, remove and/or remediate PFAS contamination throughout California; (d) there were PFAS-free substitutes for Defendants' PFAS Products; (e) taking into account Defendants' extensive knowledge of PFAS hazards and their deep technical and scientific expertise, it was feasible and reasonable for Defendants to investigate, pursue and develop and adopt safer alternatives for the PFAS Products, including without limitation providing adequate warnings of the dangers posed by PFAS Products and supplying adequate instructions on safe handling, use, and disposal of PFAS Products; (f) for each product PFAS was used in other less harmful alternatives existed to PFAS; (g) for each product PFAS was used in, Defendants could have provided warnings, instructions, and training that could have mitigated the harm. For example, Defendants that promoted, manufactured, distributed, marketed and/or sold AFFF could have instructed firefighters to never use the AFFF for training purposes and to contain and remediate any areas where AFFF was used; (h) Defendants and each of them could have also mitigated harm by fully apprising the federal and state government of all information they had concerning the prevalence and toxicity of PFAS. Defendants' concealment of this information led to the

continued use of their PFAS Products and additional harms; and (i) Defendants themselves have manufactured products that they themselves have stated are less harmful. Once these products were brought to market, Defendants can and should have issued immediate recalls for all PFAS Products, which Defendants have still not done.

334. Substantial Certainty. Defendants caused and/or contributed to the alleged public nuisance by designing, marketing, developing, distributing, selling, manufacturing, releasing, supplying, using, and/or disposing of PFAS Products—all while knowing to a substantial certainty that the intended use of these PFAS Products would result in widespread contamination in California, knowing to a substantial certainty that PFAS are dangerous to human health and the environment, and misrepresenting those dangers to consumers, the public, and California.

335. Defendants and each of them, knowingly, intentionally, and/or recklessly created or assisted in the creation of a substantial and unreasonable nuisance by failing to recall their dangerously defective PFAS Products from the California market at any time, up to and including today.

336. Substantial Factor. The misconduct of Defendants, and each of them, was a substantial factor in bringing about the continuing public nuisance.

337. PFAS contamination constitutes a continuing public nuisance because there exist reasonable, cost-effective methods for treating, remediating, and/or abating that contamination and its attendant hazards to public health, and the environment. In addition, because PFAS contamination continues to move and spread throughout California, and because PFAS levels at any given contamination site fluctuate over time, this public nuisance represents an ongoing, repeated, and harmful interference with the public's enjoyment of life.

338. As a direct and proximate result of Defendants' acts and omissions, abatement and clean-up will require the expenditure of public resources to investigate, remediate, cleanup, restore, remove, treat, monitor and to take other actions to address the PFAS contamination of natural resources and property throughout California.

339. As a direct and proximate result of Defendants' acts and omissions, Californians have sustained and will sustain the loss of use and enjoyment of the natural resources that have been contaminated, for which Defendants are jointly and severally liable.

340. Defendants' acts and omissions have caused or threatened to cause injuries to properties and natural resources in California that are indivisible.

341. The People seek abatement of the PFAS public nuisance caused by Defendants. (Civ. Code, § 3494.)

342. The People request that this Court order Defendants, and each of them jointly and severally, to abate the nuisance. Abatement could include payment by Defendants into an abatement fund to address the PFAS public nuisance. The fund will be used to abate the nuisance through (without limitation): testing and monitoring the contamination of natural resources and Californians; proper remediation and treatment of wastewater prior to its discharge to the environment; proper remediation and treatment of contaminated drinking water; proper remediation and treatment of landfill leachate prior to its discharge to the environment; proactive measures to prevent further discharges to the environment from landfills; and funds for safe disposal and destruction of PFAS Products.

343. The People are entitled to and seek an award to the Attorney General of all costs of investigating and prosecuting the action, including expert fees, reasonable attorney's fees, and costs pursuant to Code of Civil Procedure section 1021.8.

SECOND CAUSE OF ACTION AGAINST ALL DEFENDANTS

ACTION FOR EQUITABLE RELIEF FOR POLLUTION, IMPAIRMENT, AND DESTRUCTION OF NATURAL RESOURCES

(GOVERNMENT CODE SECTION 12607)

344. The factual and legal allegations stated in paragraphs 1 through 343 are hereby incorporated by reference in full and made a part of this Second Cause of Action.

345. Government Code section 12607 authorizes the Attorney General to "maintain an action for equitable relief in the name of the people of the State of California against any person for the protection of the natural resources of the state from pollution, impairment, or destruction."

346. The statutory term "natural resource" is defined as including "land, water, air, minerals, vegetation, wildlife, silence, historic or aesthetic sites, or any other natural resource which, irrespective of ownership contributes, or in the future may contribute, to the health, safety, welfare, or enjoyment of a substantial number of persons, or to the substantial balance of an ecological community." (Gov. Code, § 12605.)

347. Government Code section 12603 provides that the article containing it and Government Code section 12607 "shall be liberally construed and applied to promote its underlying purposes."

348. As a result of Defendants' misconduct, PFAS are polluting California's natural resources including drinking water sources; groundwater; surface water in bays, lakes, streams, and rivers, as well as soils; and fish and wildlife.

349. As a result of Defendants' misconduct, PFAS are polluting "other natural resources" as described in the statute which, "irrespective of ownership contribute, or in the future may contribute, to the health, safety, welfare, or enjoyment of a substantial number of persons, or to the substantial balance of an ecological community."

350. The pollution, impairment, and destruction of natural resources including water, wildlife, and other natural resources is continuing in nature, with new PFAS detections, which are reported in various systems maintained by the State of California.

351. Defendants, and each of them, have engaged in and continue to engage in, conduct that caused or contributed to the pollution, impairment, and destruction of natural resources, including water resources, wildlife, and other natural resources. The acts and practices engaged in by Defendants that polluted, impaired and destroyed natural resources, including: (a) promoting, manufacturing, distributing, marketing and/or selling PFAS Products in California; (b) promoting, manufacturing, distributing, marketing and/or selling PFAS Products without adequate testing or analysis of their impact on human health; (c) even when Defendants became aware of the dire human health impacts, Defendants took no action to mitigate the impacts; (e) failing to provide adequate warnings concerning the proper use of PFAS Products that they promoted, manufactured, distributed, marketed and/or sold; (f) failing to provide adequate instructions

concerning the proper use of PFAS Products that that they promoted, manufactured, distributed, marketed and/or sold which might have mitigated some of the environmental damage (e.g. using containment to trap AFFF and contaminated water when fighting a fire); (g) failing to report known instances of contamination in California to state, local and/or federal authorities; (h) failing to recall their PFAS Products from the market for proper disposal; (i) concealing hazard information from regulators and the public; and (j) concealing studies and other documents showing the dangers of PFAS from the public and government, including EPA.

352. PFAS pollution, impairment and destruction of natural resources water, wildlife, and other natural resources can be equitably abated because there exist reasonable, cost-effective methods for treating, remediating, and/or abating that contamination and its attendant hazards to public health, and the environment. In addition, because PFAS contamination continues to move and spread throughout California, and because PFAS levels at any given contamination site fluctuate over time, this pollution, impairment and destruction are ongoing.

353. Defendants' acts and omissions have caused pollution, impairment and destruction of natural resources including water, wildlife, and other natural resources in California that are indivisible.

354. Pursuant to Government Code section 12607, the People request that the Court grant temporary and permanent equitable relief and impose such conditions upon the Defendants as are required to protect the natural resources of California from pollution, impairment, or destruction.

355. Pursuant to Government Code section 12610, the People request that this Court grant any and all temporary and permanent equitable relief needed to prevent further pollution, impairment and destruction of the natural resources of California, including the imposition of such conditions upon the Defendants as are required to protect the natural resources of California from pollution, impairment, or destruction.

356. The People are entitled to and seek an award to the Attorney General of all costs of investigating and prosecuting the action, including expert fees, reasonable attorney's fees, and costs pursuant to Code of Civil Procedure section 1021.8.

THIRD CAUSE OF ACTION AGAINST ALL DEFENDANTS

STRICT PRODUCTS LIABILITY

(FAILURE TO WARN)

357. The factual and legal allegations stated in paragraphs 1 through 316 are hereby incorporated by reference in full and made a part of this Third Cause of Action.

358. At all relevant times, Defendants were engaged in the business of manufacturing and selling PFAS Products.

359. As manufacturers of PFAS Products, Defendants had a strict duty to adequately warn against latent dangers resulting from foreseeable uses and misuses of their PFAS Products that Defendants knew or should have known about. Defendants' duty to warn extended to all third parties—including California and Californians—who might be foreseeably harmed by the ordinary use and misuse of their PFAS Products.

360. Defendants knew or reasonably should have known that (a) the use of PFAS Products in their intended manner would result in the discharge, disposal, or release of PFAS to the environment; (b) PFAS are highly soluble in water, very mobile, and extremely persistent in the environment; (c) when released, PFAS would contaminate natural resources and property throughout California, including soils, sediments, groundwater, surface waters, wildlife, and drinking water supplies; (d) PFAS posed substantial risks to human health and the environment; and (e) ultimately, PFAS contamination would be difficult and costly to remediate.

361. At all relevant times, the dangers posed by PFAS Products were not contemplated by ordinary consumers, the general public, or California.

362. Notwithstanding Defendants' superior knowledge of the risks posed by their PFAS Products, Defendants failed to warn consumers, the public, and California of those risks; they failed to instruct consumers and users on safe methods for handling, using, and disposing of PFAS Products in ways that would have eliminated or reduced PFAS discharges to the environment; and they failed to provide adequate precautions regarding such hazards in the labeling of their PFAS Products.

363. Any warnings that Defendants might have disseminated were rendered ineffective by their false and misleading public statements about the dangers of their PFAS Products, and their widespread and longstanding efforts to conceal and misrepresent the public health and environmental impacts of PFAS.

364. Defendants' inadequate warnings and instructions rendered their PFAS Products defective and not reasonably safe.

365. Defendants' defective warnings rendered their PFAS Products unreasonably dangerous for their foreseeable uses and misuses because, among other things:

(a) PFAS Products cause extensive contamination of groundwater, surface waters, soils, sediments, and fish and wildlife, even when those PFAS Products are used in their foreseeable and intended manner.

(b) PFAS Products pose grave threats to public health, economic welfare, and the environment.

(c) It is difficult and costly to treat, remove, and/or remediate PFAS contamination from the environment.

(d) Defendants affirmatively misrepresented and downplayed the health and environmental dangers posed by their PFAS Products; and/or failed to provide adequate warnings about the health and environmental risks posed by PFAS.

366. Defendants' PFAS Products were defective by virtue of their inadequate warnings at the time they left Defendants' control, and those PFAS Products reached their end user without substantial change in their condition.

367. Defendants' failure to warn proximately caused reasonably foreseeable injuries to Californians and their natural resources. Consumers and users would have heeded legally adequate warnings about the dangers of PFAS Products.

368. Had Defendants provided adequate warnings and instructions, their PFAS Products would not have gained widespread acceptance in the marketplace, and third parties would have handled, distributed, used, and disposed of PFAS Products in ways that reduced or eliminated PFAS releases to the environment. In addition, if Defendants adequately warned of the

adverse impacts to public health and the environment caused by the ordinary and foreseeable uses and misuses of PFAS Products, the State of California and its residents would have taken measures to avoid or lessen those impacts in California.

369. As a direct and proximate result of Defendants' failure to warn, California's natural resources and public health have been injured by widespread and toxic PFAS contamination.

370. These and other acts by Defendants were a direct and proximate cause of widespread PFAS contamination in California and as a result the People's damages include without limitation damages to wildlife, and other natural resources in California. These damages include, without limitation, the costs of paying for the following: testing and monitoring the contamination of natural resources and Californians; proper remediation and treatment of wastewater prior to its discharge to the environment; proper remediation and treatment of contaminated drinking water; proper remediation and treatment of landfill leachate prior to its discharge to the environment; proactive measures to prevent further discharges to the environment from landfills; and funds for safe disposal and destruction of PFAS Products.

FOURTH CAUSE OF ACTION AGAINST ALL DEFENDANTS

STRICT PRODUCTS LIABILITY

(DEFECTIVE AND ULTRA HAZARDOUS PRODUCT)

371. The factual and legal allegations stated in paragraphs 1 through 316 are hereby incorporated by reference in full and made a part of this Fourth Cause of Action.

372. At all times relevant to this Complaint, Defendants were engaged in the business of selling PFAS Products.

373. As manufacturers of PFAS Products, Defendants had a duty not to place into the stream of commerce a product that is unreasonably dangerous, and they owed that duty to all persons, including the State of California and its residents who might be foreseeably harmed by the ordinary use and misuse of their PFAS Products.

374. Defendants' PFAS Products are unreasonably dangerous for their foreseeable uses and misuses because, among other things:

(a) PFAS Products cause extensive and persistent contamination of groundwater, surface waters, soils, sediments, and biota, even when those PFAS Products are used in their foreseeable and intended manner.

(b) PFAS contamination poses significant threats to public health, economic welfare, and the environment.

(c) Defendants failed to disclose these threats to consumers, the public, and California, and instead downplayed and misrepresented the dangers posed by their PFAS Products.

375. At all relevant times, Defendants' PFAS Products were dangerous to an extent beyond that which would be contemplated by the ordinary consumer, the general public, and California.

376. Defendants knew of these risks and nevertheless failed to use reasonable care in the design of their PFAS Products. Defendants could have made products that did not contain the seven PFAS chemicals at issue in this complaint or could have designed PFAS Products in ways that reduced or eliminated the health and environmental dangers posed by PFAS. Defendants' failure to adopt those reasonable, feasible, safer, alternative designs rendered their PFAS Products defective, not reasonably safe, and unreasonably dangerous to persons and to property.

377. At all relevant times, the foreseeable risk of harm to public health, property, and the environment posed by Defendants' PFAS Products outweighed the cost to Defendants of reducing or eliminating such risk.

378. Defendants' PFAS Products were defectively designed at the time they left Defendants' control, and those PFAS Products reached their end user without substantial change in their condition.

379. As a direct and proximate result of Defendants' unreasonably dangerous design of PFAS Products, California's natural resources, and public health have been injured by widespread and toxic PFAS contamination.

380. These and other acts by Defendants were a direct and proximate cause of widespread PFAS contamination in California and as a result the People's damages include,

without limitation, damages to wildlife, and other natural resources in California. These damages include the costs of paying for the following: testing and monitoring the contamination of natural resources and Californians; proper remediation and treatment of wastewater prior to its discharge to the environment; proper remediation and treatment of contaminated drinking water; proper remediation and treatment of landfill leachate prior to its discharge to the environment; proactive measures to prevent further discharges to the environment from landfills; and funds for safe disposal and destruction of PFAS Products.

FIFTH CAUSE OF ACTION AGAINST ALL DEFENDANTS

UNLAWFUL BUSINESS PRACTICES

(BUSINESS AND PROFESSIONS CODE SECTION 17200)

381. The factual and legal allegations stated in paragraphs 1 through 343 are hereby incorporated by reference in full and made a part of this Fifth Cause of Action.

382. Defendants, and each of them, have engaged in and continue to engage in business acts or practices that constitute unfair competition as defined in the Unfair Competition Law, Business and Professions Code section 17200 et seq., in that such business acts and practices are unlawful within the meaning of that statute.

383. The business acts and practices engaged in by Defendants that violate the Unfair Competition Law include: Defendants, and each of them, in the course of manufacturing, marketing, selling, and/or distributing the PFAS Products created a public nuisance as defined in Civil Code sections 3479 and 3480, as alleged in the First Cause of Action, which allegations are incorporated by reference herein as if set forth in full.

384. These business acts and practices are unlawful because they violate laws, including Civil Code sections 3479 and 3480, as more particularly alleged in the First Cause of Action, which allegations are incorporated by reference herein as if set forth in full.

385. Defendants, their successors, agents, representatives, employees, assigns and all persons who act in concert with Defendants should be permanently enjoined from engaging in unfair competition as defined in Business and Professions Code section 17200, including, but not

limited to, the acts and practices alleged in this Complaint, under the authority of Business and Professions Code section 17203.

SIXTH CAUSE OF ACTION AGAINST ALL DEFENDANTS

NEGLIGENCE PER SE

(COMMON LAW & EVIDENCE CODE SECTION 669)

386. The factual and legal allegations stated in paragraphs paragraphs 1 through 343 are hereby incorporated by reference in full and made a part of this Sixth Cause of Action.

387. Defendants owed a duty of care to all parties foreseeably injured by their PFAS Products.

388. Defendants, and each of them, breached that duty of care because in the course of manufacturing, marketing, selling, and/or distributing the PFAS Products they violated Civil Code sections 3479 and 3480, as alleged in the First Cause of Action, which allegations are incorporated by reference herein as if set forth in full. Pursuant to Evidence Code section 669, this violation creates a presumption that Defendants failed to exercise due care.

389. Defendants knew or reasonably should have known that (i) the use of PFAS Products in their intended manner would result in the discharge, disposal, or release of PFAS into the environment; (ii) PFAS are highly soluble in water, very mobile, and extremely persistent in the environment; (iii) when released, PFAS would contaminate property and natural resources located throughout California, including soils, sediments, groundwater, surface waters, wildlife, and drinking water supplies; (iv) PFAS posed substantial risks to human health and the environment; and (v) ultimately, PFAS would be difficult and costly to remove.

390. Despite their knowledge of the harms caused by PFAS Products, Defendants breached their duty of care by, among other things, violating Civil Code sections 3479 and 3480, as alleged in the First Cause of Action, which allegations are incorporated by reference herein as if set forth in full. Pursuant to Evidence Code section 669, this violation creates a presumption that Defendants failed to exercise due care.

391. These and other negligent acts by Defendants were a direct and proximate cause of widespread PFAS contamination in California and as a result the People's damages include

without limitation damages to wildlife, and other natural resources in California. These damages include, without limitation, the costs of paying for the following: testing and monitoring the contamination of natural resources and Californians; proper remediation and treatment of wastewater prior to its discharge to the environment; proper remediation and treatment of contaminated drinking water; proper remediation and treatment of landfill leachate prior to its discharge to the environment; proactive measures to prevent further discharges to the environment from landfills; and funds for safe disposal and destruction of PFAS Products.

392. These harms to property and natural resources located California far exceed the costs that Defendants would have incurred to adequately guard against the dangers posed by their PFAS Products.

SEVENTH CAUSE OF ACTION AGAINST DUPONT DEFENDANTS

FRAUDULENT TRANSFER

(CALIFORNIA CIVIL CODE SECTION 3439 ET SEQ.)

393. The factual and legal allegations stated in paragraphs 1 through 316 are hereby incorporated by reference in full and made a part of this Seventh Cause of Action.

394. This claim is brought under the former Uniform Fraudulent Transfer Act (UFTA) and the superseding Uniform Voidable Transactions Act (UVTA) against the DuPont Defendants.

395. The People seek equitable and other relief against the DuPont Defendants. Pursuant to Civil Code section 3439 et. seq., a transfer is voidable if the debtor made the transfer or incurred the obligation with actual intent to hinder, delay, or defraud any creditor of the debtor, or without receiving a reasonably equivalent value in exchange for the transfer or obligation in specified financial circumstances. As alleged herein, there is ample evidence that DuPont Defendants' misconduct satisfies UFTA.

Actual Fraudulent Transfer—California Civil Code section 3439.04, subdivision (a)(1)

396. Through its participation in the Chemours spinoff Chemours transferred valuable assets to DuPont, including the $3.9 billion dividend (the Chemours Transfers), while simultaneously assuming significant liabilities pursuant to the Separation Agreement (the Chemours Assumed Liabilities).

397. The Chemours Transfers and Chemours Assumed Liabilities were made for the benefit of Old DuPont.

398. At the time that the Chemours Transfers were made and the Chemours Assumed Liabilities were assumed, and until the Chemours Spinoff was complete, Old DuPont was in a position to, and in fact did, control and dominate Chemours.

399. Old DuPont and Chemours acted with the actual intent to hinder, delay, and defraud creditors or future creditors.

400. The People have been harmed as a result of the Chemours Transfers.

401. Old DuPont and Chemours engaged in acts in furtherance of a scheme to transfer Chemours' assets out of the reach of parties such as the People have been damaged as a result of the actions described in this Complaint.

402. Pursuant to the UFTA, the People seek to void the Chemours Transfers and to recover property or value that Chemours transferred to Old DuPont.

403. On information and belief, Corteva and New DuPont assumed Old DuPont's liability described above.

404. The People further reserve such other rights and remedies that may be available under the UFTA as may be necessary to fully compensate the People for the damages and injuries suffered as alleged in this Complaint.

Constructive Fraudulent Transfer—California Civil Code section 3439.04, subdivision (b), paragraph (5)

405. Chemours did not receive reasonably equivalent value from Old DuPont in exchange for the Chemours Transfers and Chemours Assumed Liabilities.

406. Each of the Chemours Transfers and Chemours' assumption of the Chemours Assumed Liabilities was made to or for the benefit of Old DuPont.

407. At the time that the Chemours Transfers were made and the Chemours Assumed Liabilities were assumed, and until the Chemours Spinoff was complete, Old DuPont was in a position to, and in fact did, control and dominate Chemours.

408. Chemours made the Chemours Transfers and assumed the Chemours Assumed Liabilities when it was engaged or about to be engaged in a business for which its remaining assets were unreasonably small in relation to its business and debt obligations.

409. Chemours was insolvent at the time or became insolvent as a result of the Chemours Transfers and its assumption of the Chemours Assumed Liabilities.

410. At the time that the Chemours Transfers were made and Chemours assumed the Chemours Assumed Liabilities, Chemours intended to incur, or believed or reasonably should have believed that it would incur debts beyond its ability to pay as they became due.

411. The People have been harmed as a result of the Chemours Transfers.

412. The People seek to void the Chemours Transfers and to recover property or value transferred to Old DuPont.

413. On information and belief, Corteva and New DuPont assumed Old DuPont's liability described above.

414. The People further reserve such other rights and remedies that may be available under the UFTA and UVTA as may be necessary to fully compensate the People for the damage and injuries suffered as alleged in this Complaint.

Actual Fraudulent Transfer—Dow-DuPont Merger and Subsequent Restructurings, Asset Transfers and Separations—California Civil Code section 3439.04, subdivision (a) (2016)

415. Following the Dow-DuPont Merger, and through the separations of New DuPont, New Dow, and Corteva, Old DuPont sold or transferred, directly or indirectly, valuable assets and business lines to Corteva and New DuPont (the Old DuPont Transfers).

416. The Old DuPont Transfers were made for the benefit of New DuPont or Corteva.

417. At the time that the Old DuPont Transfers were made, New DuPont was in a position to, and in fact did, control and dominate Old DuPont and Corteva.

418. Old DuPont, New DuPont, and Corteva acted with the actual intent to hinder, delay, and defraud creditors or future creditors.

419. The People have been harmed as a result of the Old DuPont Transfers.

420. Old DuPont engaged in acts in furtherance of a scheme to transfer its assets out of the reach of parties such as the People that have been damaged as a result of the actions described in this Complaint.

421. Pursuant to the UVTA, the People seek to void the Transfers and to recover property or value transferred to New DuPont and Corteva.

422. Pursuant to the UVTA, the People seek to enjoin New DuPont and Corteva, as transferees, from distributing, transferring, capitalizing, or otherwise disposing of any proceeds from the sale of any business lines, segments, divisions, or other assets that formerly belonged to Old DuPont, and seek a constructive trust over such proceeds for the benefit of the People.

423. The People further reserve such other rights and remedies that may be available under the UVTA as may be necessary to fully compensate the People for the damage and injuries suffered as alleged in this Complaint.

Constructive Fraudulent Transfer—Dow-DuPont Merger and Subsequent Restructurings, Asset Transfers and Separations—California Civil Code section 3439.04, subdivision (b), paragraph (5) (2016)

424. Old DuPont did not receive reasonably equivalent value from New DuPont and Corteva in exchange for the Old DuPont Transfers.

425. Each of the Old DuPont Transfers was made to or for the benefit of New DuPont or Corteva.

426. At the time that the Old DuPont Transfers were made, New DuPont was in a position to, and in fact did, control and dominate Old DuPont and Corteva.

427. Old DuPont made the Old DuPont Transfers when it was engaged or about to be engaged in a business for which its remaining assets were unreasonably small in relation to its business.

428. Old DuPont was insolvent at the time or became insolvent as a result of the Old DuPont Transfers.

429. At the time that the Old DuPont Transfers were made, Old DuPont intended to incur, or believed or reasonably should have believed that it would incur debts beyond its ability to pay as they became due.

430. The People have been harmed as a result of the Old DuPont Transfers.

431. Pursuant to the UVTA, the People seek to void the Transfers and to recover property or value transferred to New DuPont and Corteva.

432. Pursuant to the UVTA, the People seek to enjoin New DuPont and Corteva, as transferees, from distributing, transferring, capitalizing, or otherwise disposing of any proceeds from the sale of any business lines, segments, divisions, or other assets that formerly belonged to Old DuPont, and seeks a constructive trust over such proceeds for the benefit of the People.

433. The People further reserve such other rights and remedies that may be available under the UVTA as may be necessary to fully compensate the People for the damage and injuries suffered as alleged in this Complaint.

VII. PRAYER FOR RELIEF

WHEREFORE, the People respectfully request that the Court enter judgment in favor of the People and against Defendants, jointly and severally, as follows:

1. Order Defendants to abate the PFAS public nuisance, including by establishing an abatement fund to investigate, remove, treat, remediate, clean up and otherwise mitigate PFAS contamination in California;

2. Grant any and all temporary and permanent equitable relief and impose such conditions upon the Defendants as are required needed to protect and/or prevent further pollution, impairment and destruction of the natural resources of California, including the imposition of such conditions upon the Defendants as are required to protect the natural resources of California from pollution, impairment, or destruction, pursuant to Government Code sections 12607 and 12610;

3. Permanently enjoin Defendants, their successors, agents, representatives, employees, assigns and all persons who act in concert with Defendants from engaging in unfair competition as defined in Business and Professions Code section 17200, including, but not

limited to, the acts and practices alleged in this Complaint, under the authority of Business and Professions Code section 17203;

4. Issue any orders or judgments as may be necessary, including preliminary injunctive and ancillary relief, to prevent the use or employment by any Defendant of any practice which constitutes unfair competition or as may be necessary to restore to any person in interest any money or property, real or personal, which may have been acquired by means of such unfair competition, under the authority of Business and Professions Code section 17203;

5. Assess a civil penalty of $2,500 against each Defendant for each violation of Business and Professions Code section 17200, in an amount according to proof, under the authority of Business and Professions Code section 17206;

6. Order Defendants to pay the People's compensatory damages in an amount according to proof including without limitation damages to water, wildlife, and other natural resources in California, including, but not limited to, the costs of PFAS remediation and treatment and natural resource damages;

7. Void the Chemours Transfers and the DuPont Transfers to the extent necessary to satisfy the People's claims;

8. Enjoin New DuPont from distributing, transferring, capitalizing, or otherwise transferring any proceeds from the sale of any business lines, segments, divisions, or other assets that formerly belonged to Old DuPont and/or impose a constructive trust over any proceeds from the sale of Old DuPont assets for the benefit of the People;

9. Award to the Attorney General of all costs of investigating and prosecuting the public nuisance cause of action pursuant to Civil Code section 3494 and Government Code section 12607 cause of action, including expert fees, reasonable attorney's fees, and costs in an amount according to proof pursuant to Code of Civil Procedure section 1021.8;

10. Order that the People recover their costs of suit, including costs of investigation;

11. Order that the People receive all other relief to which they are legally entitled; and

12. Award such other relief that the Court deems just, proper, and equitable.

VIII. JURY TRIAL DEMAND

The People respectfully request trial by jury on their First Cause of Action for Public Nuisance; on their Third Cause of Action for Strict Products Liability- Failure to Warn; on their Fourth Cause of Action for Strict Products Liability—Defective & Ultra Hazardous Product; on their Sixth Cause of Action for Negligence Per Se; and on their Seventh Cause of Action for Fraudulent Transfer.

Dated: November 10, 2022

Respectfully Submitted,

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