

**MATTHEW J. PLATKIN
ATTORNEY GENERAL OF
NEW JERSEY**

R.J. Hughes Justice Complex
25 Market Street, P.O. Box 093
Trenton, New Jersey 08625-0093
Attorney for Plaintiffs

By: Gwen Farley (000081999)
Jeffrey Koziar (015131999)
Deputy Attorneys General
(609) 376-2740
Gwen.Farley@law.njoag.gov
Jeffrey.Koziar@law.njoag.gov

[Additional attorneys listed on
signature page]

ATTORNEY GENERAL OF THE STATE
OF NEW JERSEY; NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL
PROTECTION; THE COMMISSIONER OF
THE NEW JERSEY DEPARTMENT OF
ENVIRONMENTAL PROTECTION; THE
ADMINISTRATOR OF THE NEW JERSEY
SPILL COMPENSATION FUND; and
ACTING DIRECTOR OF THE NEW
JERSEY DIVISION OF CONSUMER
AFFAIRS,

Plaintiffs,

v.

THE DOW CHEMICAL COMPANY,
VIBRANTZ CORPORATION f/k/a FERRO
CORPORATION, LEGACY VULCAN LLC
f/k/a VULCAN MATERIALS COMPANY,
and "ABC CORPORATIONS" 1-10
(NAMES FICTITIOUS),

Defendants.

SUPERIOR COURT OF NEW JERSEY
LAW DIVISION - MERCER COUNTY

DOCKET NO.: _____

Civil Action

COMPLAINT

JURY TRIAL DEMAND

TABLE OF CONTENTS

I. STATEMENT OF THE CASE.....	1
II. THE PARTIES	5
III. JURISDICTION & VENUE.....	7
IV. GENERAL ALLEGATIONS.....	8
A. THE CONTAMINANT: 1,4-DIOXANE	8
B. REGULATORY STANDARDS APPLICABLE TO 1,4-DIOXANE	9
C. DEFENDANTS’ KNOWLEDGE OF 1,4-DIOXANE’S HAZARDS TO PEOPLE AND THE ENVIRONMENT AND THEIR DECEPTIVE AND FRAUDULENT CONDUCT	11
D. HARM RESULTING FROM 1,4-DIOXANE IN NEW JERSEY’S DRINKING WATER	16
E. THE CONTAMINATED NATURAL RESOURCES	18
i. Groundwater	19
ii. Surface Waters	20
V. DEFENDANTS’ CONDUCT WAS DELIBERATE AND TAKEN WITH A WANTON AND WILLFUL DISREGARD FOR THE WELFARE OF THE RESIDENTS AND THE NATURAL RESOURCES OF NEW JERSEY.....	21
VI. CAUSES OF ACTION.....	22
FIRST COUNT Strict Products Liability: Defective Design	22
SECOND COUNT Strict Products Liability: Failure to Warn	27
THIRD COUNT Negligence.....	33
FOURTH COUNT Public Nuisance	37
FIFTH COUNT Trespass.....	42
SIXTH COUNT Impairment of the Public Trust	46
SEVENTH COUNT Spill Act.....	50
EIGHTH COUNT Consumer Fraud Act.....	56
DESIGNATION OF TRIAL COUNSEL	60
CERTIFICATION REGARDING OTHER PROCEEDINGS AND PARTIES	60
JURY DEMAND	60

Plaintiffs the Attorney General of the State of New Jersey (“Attorney General”), the New Jersey Department of Environmental Protection (“DEP”), the Commissioner of the New Jersey Department of Environmental Protection (“Commissioner”), the Administrator of the New Jersey Spill Compensation Fund (“Administrator”), and the Acting Director of the New Jersey Division of Consumer Affairs (“Acting Director”) (collectively, “Plaintiffs,” the “State,” or “New Jersey”), file this Complaint against the Dow Chemical Company, Vibrantz Corporation (formerly known as Ferro Corporation), and Legacy Vulcan LLC (formerly known as Vulcan Materials Company), and “ABC Corporations” 1–10 (Names Fictitious) (collectively, the “Defendants”), and allege as follows:

I. STATEMENT OF THE CASE

1. The State brings this civil action against Defendants pursuant to the common law of the State of New Jersey for injuries to natural resources of the State, including groundwater and surface water, as a result of releases of 1,4-dioxane into the environment. 1,4-Dioxane is a highly toxic substance and a likely human carcinogen. Defendants are designers, manufacturers, marketers, and sellers of 1,4-dioxane and certain industrial and commercial products containing 1,4-dioxane, which were used at various locations throughout New Jersey, causing widespread contamination of the State’s natural resources with 1,4-dioxane.

2. The State also brings this civil action against Defendants pursuant to the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 to -23.24 (the “Spill Act”), for cleanup and removal costs, injunctive relief, damages, and other relief as a result of the discharges of hazardous substances and pollutants by or for which Defendants are in any way responsible. 1,4-Dioxane is included on the DEP’s list of “hazardous substances,” N.J.A.C. 7:1E App. A.

3. The Attorney General and Acting Director also bring this action against Defendants

pursuant to the Consumer Fraud Act, N.J.S.A. 56:8-1 to -227 (“CFA”), based on Defendants’ deceptive and fraudulent business practices in connection with their advertisement, offer for sale, and sale of 1,4-dioxane and 1,4-dioxane products to industrial facilities and consumers in New Jersey. The Attorney General and the Acting Director are seeking civil penalties based on Defendants’ conduct, as well as other appropriate relief.

4. 1,4-Dioxane was used primarily as a stabilizer for chlorinated solvents, particularly 1,1,1-trichloroethane (“TCA”), most prominently from the 1950s through 1990s. 1,4-Dioxane was foreseeably released at places where these chlorinated solvents were used, stored, or disposed. Once released, 1,4-dioxane is stable in the environment and can move from soil into groundwater, where it rapidly migrates and can contaminate drinking water sources. It can also impact surface water drinking supplies from leaks and spills, landfill leachate, wastewater discharges (from consumer products) and disposal sites.

5. 1,4-Dioxane is a likely human carcinogen that has been associated with liver, gall bladder, and other cancers, and it is known to cause liver and kidney damage.

6. The U.S. Environmental Protection Agency (“EPA”) has established a health reference level of 0.35 parts per billion (“ppb”) for 1,4-dioxane. There is no federal maximum contaminant level (“MCL”) for 1,4-dioxane in drinking water. DEP has developed various groundwater quality standards for 1,4-dioxane and is in the process of promulgating an MCL for 1,4-dioxane in drinking water.

7. The Defendants knowingly and willfully designed, manufactured, marketed, and/or sold products containing 1,4-dioxane to distributors, industrial facilities, and consumers for use throughout New Jersey, when Defendants knew or reasonably should have known that this harmful compound would inevitably reach surface water and groundwater in substantial quantities,

significantly injure drinking water supplies, render drinking water unusable and unsafe, threaten the public health and welfare, and harm other natural resources, as it has done with respect to the natural resources in New Jersey.

8. Despite knowing the dangers associated with 1,4-dioxane and their 1,4-dioxane-containing products, Defendants concealed those dangers, as well as the very presence of 1,4-dioxane in their products, from end users and instructed those users to dispose of their products in ways that Defendants knew would inevitably result in 1,4-dioxane contamination of drinking water sources, such as simply pouring it on the ground so that it would purportedly “evaporate” or “burying” it in the ground. Affected entities include distributors and end users of Defendants’ products, who were deceived by Defendants about the risks posed by 1,4-dioxane and 1,4-dioxane-containing products and have been left to deal with the consequences.

9. As a result of Defendants’ conduct, 1,4-dioxane was discharged and 1,4-dioxane-containing products were used, stored, handled, released, spilled, and/or disposed of in and near New Jersey’s natural resources. 1,4-Dioxane has migrated from numerous sources into the State’s groundwater and surface water, among other natural resources, causing injury to New Jersey’s drinking water and other natural resources.

10. 1,4-Dioxane contamination is pervasive and widespread in New Jersey. To date, more than 700 industrial facilities, landfills, and other contaminated sites throughout New Jersey have detected 1,4-dioxane contamination at levels exceeding New Jersey’s groundwater quality standards. In 2015, public water system sampling as part of EPA’s third Unregulated Contaminant Monitoring Rule (“UCMR3”) revealed that 1,4-dioxane was detected more than twice as frequently in New Jersey drinking water sources compared to the national average, with levels reaching more than 15 times EPA’s health reference level. Those detections include both surface

water and groundwater sources of New Jersey's drinking water. Many of the drinking water systems known to be contaminated by 1,4-dioxane are located in overburdened communities, New Jersey's low-income communities and communities of color that already suffer disproportionately high and dangerous levels of air, water, and soil pollution that cause increased public health risk.

11. Investigation of 1,4-dioxane contamination in New Jersey is ongoing. As investigation continues, Plaintiffs expect that even more widespread contamination from the use, handling, storage, and disposal of 1,4-dioxane and products containing 1,4-dioxane will be uncovered in New Jersey's natural resources. Accordingly, this action seeks to require Defendants to pay all costs necessary to fully investigate the various locations throughout New Jersey where their 1,4-dioxane and products containing 1,4-dioxane were used, handled, stored, and/or disposed, as well as all areas affected by their 1,4-dioxane and related products.

12. Likewise, this action seeks to require Defendants to pay all costs to remediate (including investigation), assess, and restore the sites in New Jersey where their 1,4-dioxane and 1,4-dioxane-containing products were used, handled, stored, and/or disposed, as well as all areas affected by 1,4-dioxane and its related products.

13. Finally, the State files this lawsuit to recover all damages that Plaintiffs are entitled to recover, including damages for injuries to the State's natural resources, including compensatory and primary restoration damages, cleanup and removal costs, property damages to State and local government-owned properties, economic damages, disgorgement of Defendants' ill-gotten profits, all funds necessary to reimburse the State for the expense of designing, constructing, installing, operating, and maintaining the treatment facilities and equipment required to remove 1,4-dioxane from its water and other natural resources, punitive damages, and all other applicable relief,

damages, fees, costs, and equitable relief to which Plaintiffs are entitled and which will ensure that the parties responsible for the contamination bear this expense, rather than the State.

II. THE PARTIES

14. **The Attorney General of the State of New Jersey (“Attorney General”)** is the chief law enforcement officer and chief legal officer of the State, and is charged with, among other things, the responsibility of enforcing the Consumer Fraud Act (“CFA”). N.J.S.A. 52:17B-5.7.

15. **The New Jersey Department of Environmental Protection (“DEP”)** is a principal department within the Executive Branch of the New Jersey State government, vested with the authority to conserve and protect natural resources, protect the environment, prevent pollution, and protect the public health and safety. N.J.S.A. 13:1D-9.

16. Pursuant to the Public Trust Doctrine, the State is the trustee of all natural resources within its jurisdiction for the benefit of its citizens, and DEP is vested with the authority to protect this public trust and to seek compensation for any injury to the natural resources of this State. N.J.S.A. 58:10-23.11a; N.J.S.A. 13:1D-150(b). DEP brings this action and has standing to sue to protect the sovereign and quasi-sovereign interests of the State, including public resources and the environment, in its *parens patriae* authority as sovereign and protector of its citizens and territory. Here, the State represents interests distinct from those of any particular private party: It seeks natural resource damages and related environmental remedies affecting a substantial population of New Jersey residents. DEP brings this case in its trustee, *parens patriae*, and regulatory (police power) capacities.

17. **The Commissioner of the New Jersey Department of Environmental Protection (“Commissioner”)** is the Commissioner of DEP. N.J.S.A. 58:10-23.11b and N.J.S.A. 58:10A-

3. In this capacity, the Commissioner is vested by law with various powers and authority, including those conferred by DEP's enabling legislation. N.J.S.A. 13:1D-1 through -19.

18. **The Administrator of the New Jersey Spill Compensation Fund ("Administrator")** is the chief executive officer of the New Jersey Spill Compensation Fund (the "Spill Fund"). N.J.S.A. 58:10-23.11j. As chief executive officer of the Spill Fund, the Administrator is authorized to approve and pay any cleanup and removal costs DEP incurs, N.J.S.A. 58:10-23.11f.c and d, and to certify the amount of any claim to be paid from the Spill Fund, N.J.S.A. 58:10-23.11j.d.

19. **The Acting Director of the New Jersey Division of Consumer Affairs** is charged with administering the CFA on behalf of the Attorney General. N.J.S.A. 52:17B-120 and -124. The Attorney General and the Acting Director bring this action pursuant to their authority under the CFA, specifically N.J.S.A. 56:8-8, -11, -13, and -19.

20. The following defendants designed, manufactured, marketed, distributed, and/or sold 1,4-dioxane and/or products containing 1,4-dioxane that have injured the State's water and other natural resources.

21. **Defendant The Dow Chemical Company ("Dow")** is a Delaware corporation with its principal office in Midland, Michigan, which at all times relevant to this action was doing business in New Jersey.

22. **Defendant Vibrantz Corporation, formerly known as Ferro Corporation ("Ferro")**, is an Ohio corporation with its principal office in Mayfield Heights, Ohio, which at all times relevant to this action was doing business in New Jersey.

23. **Defendant Legacy Vulcan LLC, formerly known as Vulcan Materials Company ("Vulcan")**, is a New Jersey corporation with its principal place of business in

Birmingham, Alabama, which at all times relevant to this action was doing business in New Jersey.

24. **Defendants “ABC Corporations” 1–10**, these names being fictitious, are entities with identities that cannot be ascertained as of the filing of this Complaint, certain of which may be corporate successors to, predecessors of, or otherwise related to, the identified defendants in this matter, or which are otherwise liable for the causes of action set forth herein.

III. JURISDICTION & VENUE

25. Dow is subject to personal jurisdiction in this case because, at all times relevant to this litigation, Dow marketed, distributed, and/or sold 1,4-dioxane or products containing 1,4-dioxane to customers throughout New Jersey and Plaintiffs’ claims arise from and relate to Dow’s substantial contacts in New Jersey.

26. Ferro is subject to personal jurisdiction in this case because, at all times relevant to this litigation, Ferro marketed, distributed, and/or sold 1,4-dioxane or products containing 1,4-dioxane to customers throughout New Jersey and Plaintiffs’ claims arise from and relate to Ferro’s substantial contacts in New Jersey.

27. Vulcan is subject to personal jurisdiction in this case because, at all times relevant to this litigation, Vulcan marketed, distributed, and/or sold 1,4-dioxane or products containing 1,4-dioxane to customers throughout New Jersey and Plaintiffs’ claims arise from and relate to Vulcan’s substantial contacts in New Jersey. Additionally, the Court may exercise general personal jurisdiction over Vulcan because it is a New Jersey corporation.

28. Defendants “ABC Corporations” 1–10 are subject to personal jurisdiction in this case because, at all times relevant to this litigation, those fictitiously named corporations marketed and/or sold 1,4-dioxane or products containing 1,4-dioxane to customers throughout New Jersey and Plaintiffs’ claims arise from and relate to those fictitiously named corporations’ substantial

contacts in New Jersey. Some of Defendants “ABC Corporations” 1-10 may be subject to general personal jurisdiction because they are incorporated under the laws of New Jersey or maintain their principal places of business in this State.

29. Venue in this Court is proper, pursuant to R. 4:3-2, because Plaintiffs’ claims arose, in part, in Mercer County.

IV. GENERAL ALLEGATIONS

A. THE CONTAMINANT: 1,4-DIOXANE

30. 1,4-Dioxane is a synthetic industrial chemical that does not naturally occur in the environment. Highly toxic and extremely persistent in the environment, 1,4-dioxane poses a risk to human health and safety, the environment, and natural resources.

31. In the United States, 1,4-dioxane was primarily manufactured by Defendants Dow and Ferro.

32. 1,4-Dioxane was most widely used as a stabilizer for chlorinated solvents, primarily methyl chloroform, also known as 1,1,1-trichloroethane or TCA, which was used to dissolve oil and grease from metal in industrial settings, among other uses. Historically, approximately 90% of manufactured 1,4-dioxane was incorporated into TCA. Widespread use of TCA stabilized by 1,4-dioxane started in the 1950s and continued until 1996, when the Montreal Protocol banned TCA for its role in depleting the ozone layer. Even after the ban of TCA, its limited use continued, and 1,4-dioxane continued to be manufactured and used.

33. The technology for 1,4-dioxane stabilization of TCA was owned, and licensed, by Dow, the market leader in production of both TCA and 1,4-dioxane. Vulcan licensed this process from Dow to produce 1,4-dioxane-stabilized TCA.

34. 1,4-Dioxane has characteristics that have resulted in extensive and persistent

contamination of New Jersey's natural resources. Specifically, it is (1) mobile—that is, because it only weakly adsorbs (sticks) to soil particles, it is readily transported through soil and into water; (2) miscible—that is, it is completely soluble in water and can migrate long distances into other bodies of water, where it might injure biota relying on the water; and (3) persistent—that is, it does not readily biodegrade or chemically degrade in the environment or in conventional treatment systems for drinking water.

35. In short, once it was discharged, disposed of, or otherwise released into New Jersey's environment, 1,4-dioxane migrated through soils or other sediments into surface water and groundwater, where it now either contaminates and injures other natural resources, or persists in and continuously injures the water, resisting natural degradation and proving difficult and costly to treat or remove. 1,4-Dioxane entered the State's water and other natural resources through, among other things, leaks and spills, onsite wastewater treatment systems, landfill leachate, disposal sites, and industrial, commercial, and residential wastewater discharges.

36. 1,4-Dioxane contamination presents a significant threat to public health and safety and the environment. The EPA classifies 1,4-dioxane as “likely to be carcinogenic to humans.” 1,4-Dioxane also causes liver and kidney damage. Even at low levels, long-term exposure to 1,4-dioxane is expected to increase rates of cancer in the population.

37. Furthermore, 1,4-dioxane has been shown to be harmful to other natural resources, including biota. For example, 1,4-dioxane contamination in water may be taken up by fish, aquatic microorganisms, and other biota; and 1,4-dioxane has been recognized as an animal carcinogen for more than half a century.

B. REGULATORY STANDARDS APPLICABLE TO 1,4-DIOXANE

38. In 2013, EPA classified 1,4-dioxane as “likely to be carcinogenic to humans.” The

EPA has estimated the concentration of 1,4-dioxane in water corresponding to an increased lifetime cancer risk of one-in-a-million is 0.35 ppb, assuming consumption of two liters of water contaminated with 1,4-dioxane every day for a lifetime. There is no federal maximum contaminant level (“MCL”) for 1,4-dioxane in drinking water.

39. A chronology of DEP’s development of Groundwater Quality Standards (“GWQS”) for 1,4-dioxane is as follows:

- A. 2008: An Interim Specific Groundwater Quality Criterion (“ISGWQC”) of 3 ppb became effective in February 2008, for which the DEP relied on the EPA (1988) Integrated Risk Information System (“IRIS”) assessment of 1,4-dioxane.
- B. 2010: A revised ISGWQC of 0.35 ppb was recommended in 2010 following DEP review of the EPA IRIS (2010) updated cancer slope factor.
- C. 2018: DEP adopted a GWQS of 0.4 ppb for 1,4-dioxane. The earlier ISGWQS value of 0.35 ppb was rounded to one significant figure, as specified in the DEP GWQS regulations.

40. Of an estimated State population of 8.9 million, about 3 million people rely on groundwater from public water supply wells and private domestic potable wells. The DEP GWQS for 1,4-dioxane ensures that a standard based on current scientific information is in place to protect, maintain, and restore groundwater quality. The GWQS also establish minimum standards for the remediation of contaminated groundwater.

41. On September 24, 2021, the New Jersey Drinking Water Quality Institute recommended to the DEP Commissioner an MCL of 0.33 ppb for 1,4-dioxane after review of its basis, which adopts and follows the EPA’s cancer risk assessment for 1,4-dioxane. DEP

Commissioner Shawn LaTourette accepted this recommendation on December 16, 2021. Following this, DEP began initiating the stakeholder and rulemaking process, which remains ongoing as of the date of this filing. Once this rulemaking process is complete, New Jersey will have an enforceable drinking water standard for 1,4-dioxane.

42. There are more than 490 sites in New Jersey reporting data to DEP's Contaminated Site Remediation & Redevelopment ("CSRR") program that have detected 1,4-dioxane contamination in groundwater above the 0.4 ppb GWQS in the most recent round of sampling. More than 220 additional CSRR program sites have detected 1,4-dioxane above the GWQS at some point during site investigation, remediation, and/or monitoring. These industrial facilities, landfills, and other contaminated sites with 1,4-dioxane detections in groundwater are located throughout New Jersey, in all 21 counties.

C. DEFENDANTS' KNOWLEDGE OF 1,4-DIOXANE'S HAZARDS TO PEOPLE AND THE ENVIRONMENT AND THEIR DECEPTIVE AND FRAUDULENT CONDUCT

43. Defendants knew or should have known of the grave harm and threat to public health and the environment presented by proliferating use of 1,4-dioxane-containing products by end users, including industrial entities using dioxane-stabilized TCA for cold cleaning and vapor degreasing. Specifically, at all times relevant to this action, Defendants knew or reasonably should have known, among other things, that: (a) 1,4-dioxane is toxic to humans and other biota, and harmful to other natural resources; (b) the ordinary use and disposal of products containing 1,4-dioxane inevitably would lead to the discharge of 1,4-dioxane to the environment; and (c) when used as intended, discharged or disposed of as intended, or otherwise released onto land in a manner consistent with its ordinary use, 1,4-dioxane readily migrates along the land surface and through the subsurface, readily enters surface water and mixes easily with groundwater, and once present in water, resists natural degradation, renders drinking water unsafe and/or non-

potable, and requires significant expense to remove from drinking water supplies and other natural resources. In fact, Defendants' own research establishes their knowledge.

44. At all times relevant to this action, Defendants have been among the nation's most sophisticated and technically advanced companies in many areas, including chemistry, organic chemistry, analytical chemistry, toxicology, methods of subsurface investigation, and other areas. As such, they were uncommonly well positioned to evaluate the potential for the use and disposal of their products to result in environmental contamination and human health risks, including with respect to drinking water sources.

45. At all times relevant to this action, Defendants have known or reasonably should have known that 1,4-dioxane is toxic to humans and other animals. For example, Defendants knew or should have known since the 1960s that 1,4-dioxane was a confirmed animal carcinogen and potential human carcinogen, as discussed in published scientific literature.

46. The general mechanisms by which water becomes contaminated with persistent organic compounds, including 1,4-dioxane, have been described in technical literature with which Defendants were or should have been familiar since at least the 1940s.

47. At all times relevant to this action, Defendants knew or reasonably should have known that the degreasing equipment used by metal product manufacturers, computer and electronics manufacturing, and other industrial facilities routinely leaked or otherwise released TCA—and therefore necessarily 1,4-dioxane—into the environment.

48. At all times relevant to this action, Defendants knew that the primary use of their 1,4-dioxane-containing products (*i.e.*, metal cleaning, including vapor degreasing) results in concentrated amounts of 1,4-dioxane. Because 1,4-dioxane boils at a higher temperature than TCA, a relatively high proportion of 1,4-dioxane remains as a liquid during vapor degreaser

operations. Vapor degreasing includes losses of TCA to the atmosphere, requiring operators to periodically add TCA to the tank. Consequently, while TCA was stabilized with between 2.5% and 4.5% 1,4-dioxane by weight, Dow's publications and patents show that after use of 1,4-dioxane-stabilized TCA in vapor degreasing operations, the ending concentration of 1,4-dioxane was often as high as 15% to 25%. Waste TCA removed from vapor degreasers therefore typically includes high concentrations of 1,4-dioxane with great potential to contaminate large volumes of surface water and groundwater, among other natural resources. Moreover, it was foreseeable—indeed, it was well known—that such wastes were often disposed of as ordinary products (*e.g.*, down drains and into sanitary landfills) even though they had toxic and hazardous properties, where they then migrated into surface water and groundwater.

49. The chlorinated solvent TCA is a major source of 1,4-dioxane released to the State's drinking water resources. 1,4-dioxane has reached groundwater from TCA-related industrial uses primarily because degreasing operations were characterized by inefficient solvent recapture and disposal systems that did not protect against 1,4-dioxane releases. Additionally, leaks, spills, and typical disposal practices led to frequent and substantial releases from facilities using 1,4-dioxane-related compounds.

50. Users of chlorinated solvents, including TCA, routinely disposed of waste solvents by pouring them onto the ground or into trenches for evaporation or burning; in addition, solvent use and recovery systems routinely malfunctioned and/or otherwise spilled solvent containing 1,4-dioxane, resulting in releases to surface and groundwater. Defendants at all times were or should have been aware of these practices and frequent equipment malfunctions and spills, and the likelihood of releases into the environment of solvents containing 1,4-dioxane.

51. Users of chlorinated solvents, including TCA, were routinely advised by

Defendants themselves to dispose of waste solvents in ways that Defendants knew or should have known would inevitably result in 1,4-dioxane contamination of natural resources, including surface water and groundwater.

52. Dating back to the 1950s, Defendants were instrumental in developing Chemical Safety Data Sheets (“CSDS”) through their involvement and leadership in the Manufacturing Chemists Association, the leading chemical trade organization (later called the Chemical Manufacturers’ Association and, today, the American Chemistry Council). Starting in the 1970s, Defendants created Material Safety Data Sheets (“MSDS”). Both CSDS and MSDS were intended to advise the actual handlers and users of Defendants’ chemicals about hazardous ingredients in their products, as well as proper handling and disposal methods.

53. The 1965 CSDS for TCA included information about “inhibited” (i.e., containing 1,4-dioxane) grades and stated that TCA “is one of the least toxic of the chlorinated hydrocarbons.” The CSDS did not identify or discuss the 1,4-dioxane inhibitor, although Defendants knew or should have known that it was toxic and a potential human carcinogen. The CSDS also informed users in the disposal section that “limited amounts may be poured on dry sand” and “discharge water contaminated with [TCA waste] may be air blown for a few hours in a well-ventilated area,” although Defendants knew or should have known that these disposal methods would result in 1,4-dioxane contamination to the environment because of 1,4-dioxane’s chemical characteristics, e.g., 1,4-dioxane does not evaporate as readily as TCA and will travel farther and faster through soil to reach groundwater and surface water.

54. Dow and Vulcan also affirmatively recommended in MSDS and in various product marketing literature that end users dispose of waste TCA by pouring it on the ground to “evaporate,” notwithstanding Defendants’ knowledge of 1,4-dioxane’s propensity to contaminate

and persist in water and other natural resources. Dow's and Vulcan's MSDS also advised end users to "bury" dioxane-stabilized TCA products for disposal purposes. Burying 1,4-dioxane makes it more likely to reach groundwater and to do so more quickly. These instructions resulted in significant contamination of water and other resources from metals fabrication and other industrial solvent release sites during the height of TCA use in the 1960s, 1970s, and 1980s.

55. Despite knowing or having reason to know that long-term contamination and pollution of water supplies and other natural resources were inevitable consequences of the foreseeable uses and disposal of their products without proper precautionary measures, including but not limited to adequate warnings concerning proper use and disposal techniques, Defendants nonetheless designed, manufactured, marketed, and or/sold such products in New Jersey and elsewhere without providing adequate warnings.

56. To the contrary, prior to late 1985, Dow and Vulcan did not even list 1,4-dioxane as an ingredient (or otherwise mention 1,4-dioxane) in a MSDS or on a product label for their dioxane-stabilized TCA products. Many of Dow's MSDS for various Chlorothene products (Dow's trade name for dioxane-stabilized TCA) listed ingredients, but only listed "1,1,1-Trichloroethane" at a "minimum" percentage of, for example, 95% of the product, without mentioning 1,4-dioxane or any other ingredient. In the same period, Dow's MSDS for Dowclene (another dioxane-stabilized TCA product) listed ingredients as 75% 1,1,1-Trichloroethane and 25% perchloroethylene, without disclosing the presence of 1,4-dioxane. Vulcan's MSDS also listed ingredients and only identified "100" percent "1,1,1 Trichloroethane (stabilized)" as an ingredient, without mentioning that 1,4-dioxane was also an ingredient.

57. During the same period, Dow's and Vulcan's MSDS either did not mention potential carcinogenic effects demonstrated in laboratory animals or explicitly denied them. For

example, a 1985 MSDS for Vulcan's Solvent 111 (Vulcan's trade name for dioxane-stabilized TCA) misleadingly asserts that "[t]he available data indicates that 1,1,1 Trichloroethane is not carcinogenic in laboratory animals," even though a 1965 study found that 1,4-dioxane caused cancer in laboratory rats when administered orally and in drinking water and subsequent publications confirmed that 1,4-dioxane was carcinogenic in laboratory animals. Indeed, Dow and Vulcan downplayed health risks of their dioxane-stabilized TCA products as a general matter. Vulcan claimed that "Solvent 111 has been shown to be one of the least toxic of the chlorinated hydrocarbons." Likewise, Dow misleadingly referred to its Chlorothene products as among the "safest" and "least toxic" solvents in promotional materials.

58. Defendants' 1,4-dioxane and dioxane-stabilized TCA products were publicly available, including to unsophisticated industrial and commercial end users throughout New Jersey, who did not order customized formulations of 1,4-dioxane and dioxane-stabilized TCA. Upon information and belief, commercial and industrial end users who purchased 1,4-dioxane and dioxane-stabilized TCA did not receive legal or expert assistance in the development and execution of the transaction. Furthermore, any prior relationship between end users and Defendants and their distributors did not provide an understanding of 1,4-dioxane's toxicity, miscibility, and persistence.

D. HARM RESULTING FROM 1,4-DIOXANE IN NEW JERSEY'S DRINKING WATER

59. New Jersey relies on both groundwater and surface water for its drinking water supply. Surface water sources provide drinking water to approximately 63% of New Jersey residents. Public and private wells collectively provide drinking water to approximately 37% of New Jersey residents.

60. 1,4-Dioxane has been detected in varying amounts at varying times in the State's

surface water and groundwater.

61. In 2015, under UCMR3, EPA began requiring nationwide monitoring for 1,4-dioxane by all large public water systems (those serving more than 10,000 customers), as well as a representative sample of smaller systems. Thirty public water systems in New Jersey had detections exceeding the proposed MCL and the EPA's 0.35 ppb lifetime health advisory for 1,4-dioxane. 1,4-Dioxane was detected at levels exceeding 0.35 ppb in both surface water and groundwater sources of New Jersey's drinking water.

62. Importantly, while EPA found detections of 1,4-dioxane nationwide, the occurrence of 1,4-dioxane was disproportionately more common in New Jersey. For example, 17.2% of public water systems sampled in the State had 1,4-dioxane detections, in contrast with just 6.6% of public water systems sampled nationwide. Factoring in smaller systems, a total of 24% of New Jersey water systems had detections exceeding the EPA's lifetime health advisory for 1,4-dioxane, compared to just 11.4% nationwide. Many of the water systems known to be contaminated by 1,4-dioxane are located in overburdened communities, New Jersey's low-income communities and communities of color that already suffer disproportionately high and dangerous levels of air, water, and soil pollution that cause increased public health risk.

63. 1,4-Dioxane's persistence and high mobility in soil and water means it will likely continue to spread to affect even more of the State's drinking water resources well into the future.

64. Upon information and belief, the 1,4-dioxane in Defendants' products is fungible and lacks traits that would make it possible to identify 1,4-dioxane as being manufactured, distributed, or sold by a particular defendant. Due to this fungibility, it may not be possible to identify, with respect to the 1,4-dioxane released at any particular site, which of the Defendants is responsible for the particular 1,4-dioxane-containing product resulting in that release. Any

inability of the State to identify the particular defendant responsible for the 1,4-dioxane detected in particular instances is a result of the fungibility of the products, and not a result of any action or inaction by the State.

E. THE CONTAMINATED NATURAL RESOURCES

65. 1,4-Dioxane contamination throughout New Jersey has injured the natural resources of this State, including the waters of the State.

66. The “natural resources” of this State include all land, fish, shellfish, wildlife, biota, air, water, and other such resources owned, managed, held in trust, or otherwise controlled by the State. N.J.S.A. 58:10-23.11b.

67. The natural resources of this State include the “waters of the State,” which are the ocean and its estuaries, all springs, streams, and bodies of surface water or groundwater, whether natural or artificial, within the boundaries of this State or subject to its jurisdiction. N.J.S.A. 58:10A-3(t).

68. For purposes of this Complaint, natural resources of this State do not include those natural resources on or underlying federally owned property, such as military facilities.

69. New Jersey’s habitats and ecosystems—including without limitation lakes, rivers, forests, wetlands, agricultural lands, coastal estuaries, pinelands, and grasslands—are some of the most threatened in the nation. They are vulnerable to pollution, degradation, injury, and destruction from the discharge of hazardous substances, contaminants, and pollutants.

70. Investigation of 1,4-dioxane contamination in New Jersey’s natural resources is ongoing. As investigation continues, the State expects to uncover additional 1,4-dioxane contamination of natural resources.

71. These natural resources have intrinsic (*i.e.*, inherent existence) values that exist

separate and independent of their usefulness to humans, such as the value derived from knowing that a resource exists in pristine condition and the value derived from passing a resource to future generations.

72. The current and future residents of New Jersey have a right to a clean environment. *See* N.J.S.A. 58:10-23.11a; N.J.S.A. 58:1A-2; N.J.S.A. 13:1D-157.

73. The State's action is exempt from the Comparative Negligence Act, N.J.S.A. 2A:15-5.1 to -5.8, because it is brought pursuant to "the environmental laws of the State" within the meaning of N.J.S.A. 2A:15-5.4.

74. The State's action is exempt from the Products Liability Act, N.J.S.A. 2A:58C-1 to -11, because it is an "environmental tort action" within the meaning of N.J.S.A. 2A:58C-6.

i. Groundwater

75. Groundwater (*i.e.*, water that exists beneath the Earth's surface) is a vital natural resource for the people of New Jersey, supplying approximately 430 million gallons of potable water per day—the drinking water for more than one third of New Jersey's population.

76. Not only does groundwater serve as a source of potable water, it also serves as an integral part of the State's ecosystem. Groundwater provides base flow to streams and other surface water bodies, and influences surface water quality, wetland ecological conditions, and the health of aquatic ecosystems. Groundwater also provides cycling and nutrient movement within and among the State's bodies of water and wetlands, prevents saltwater intrusion, provides ground stabilization, prevents sinkholes, and helps to maintain critical water levels in freshwater wetlands.

77. Groundwater and the other natural resources of the State are unique resources that help sustain the State's economy.

78. The 1,4-dioxane discharged in New Jersey from Defendants' products has reached

and injured the underlying groundwater. In turn, that 1,4-dioxane in the groundwater has foreseeably migrated to other bodies of water and contaminated and injured natural resources of all sorts throughout New Jersey.

79. The cost to restore New Jersey's groundwater to its dioxane-free or pre-discharge baseline condition is expected to be substantial.

80. Defendants' willful and knowing contamination of, and injury to, the State's groundwater with 1,4-dioxane gives rise to natural resource damages and other damages under New Jersey statutes and common law.

ii. Surface Waters

81. Surface waters are a critical ecological resource of New Jersey.

82. New Jersey's surface water includes all water in the State's lakes, ponds, rivers, streams, creeks, wetlands, estuaries, and springs.

83. Many bodies of surface water in this State—including lakes and streams—are a primary source of drinking water for persons in this State.

84. More than half of New Jersey's population obtains its drinking water from surface water sources. Approximately 770 million gallons of surface water per day are used for that purpose.

85. Surface water in New Jersey is also used for commercial and industrial purposes, such as cooling water and electrical generation, boating, fishing, irrigation, and transportation of goods and services.

86. The tourism and recreation industries, which are vital to this State's economy, are dependent on clean water.

87. Surface waters provide commercial, recreational, aesthetic, and ecological value, including by supporting aquatic ecosystems, nearby communities, and the citizens of the State.

88. The 1,4-dioxane discharged in New Jersey from Defendants' products has reached and injured the surface water bodies in the State.

89. The cost to restore New Jersey's surface waters to their dioxane-free or pre-discharge baseline condition is expected to be substantial.

90. Defendants' willful and knowing contamination of, and injury to, the State's surface waters with 1,4-dioxane gives rise to natural resource damages and other damages under New Jersey statutes and common law.

V. DEFENDANTS' CONDUCT WAS DELIBERATE AND TAKEN WITH A WANTON AND WILLFUL DISREGARD FOR THE WELFARE OF THE RESIDENTS AND THE NATURAL RESOURCES OF NEW JERSEY

91. For decades, Defendants intentionally engaged in conduct that foreseeably resulted in injury to the State's natural resources and drinking water supply with a man-made chemical that Defendants knew or had reason to know would harm the environment and adversely affect human health, including causing cancer.

92. At all times pertinent hereto, the actions and omissions of Defendants in the manufacture, marketing, and sale of 1,4-dioxane and related products resulting in the 1,4-dioxane contamination of the State's natural resources and water supply were deliberate and taken with a wanton and willful disregard for the welfare of the residents of New Jersey.

93. Once they discovered properties of 1,4-dioxane revealing its propensity to contaminate natural resources such as the drinking water supply and cause cancer in humans, Defendants engaged in an elaborate effort to hide that reality so that they could continue to profit from the manufacturing and sale of 1,4-dioxane and related products.

94. As a direct and proximate result of Defendants' wanton and willful conduct, natural resources throughout New Jersey have become contaminated and injured, and many sources of the

State's drinking water are toxic, thereby threatening to endanger or endangering human health.

VI. CAUSES OF ACTION

FIRST COUNT Strict Products Liability: Defective Design Against All Defendants

95. Plaintiffs reallege each of the preceding paragraphs and incorporate each such paragraph as if fully stated herein.

96. The State has a quasi-sovereign interest in the integrity of its natural resources and a *parens patriae* interest in the health and well-being of its residents.

97. Groundwater and surface water are among the natural resources of the State held in trust by the State for its residents.

98. Defendants designed, manufactured, marketed, and sold 1,4-dioxane and 1,4-dioxane-containing products that were used, stored, handled, released, spilled, and/or disposed of in New Jersey during the relevant period.

99. As designers, manufacturers, marketers, and/or sellers of 1,4-dioxane and/or products containing 1,4-dioxane, Defendants had a duty to make and sell products that are reasonably fit, suitable, and safe for their intended or reasonably foreseeable uses. Correspondingly, Defendants owed a duty of care to Plaintiffs not to place into the stream of commerce a product that was in a defective condition and unreasonably dangerous to the people or natural resources of New Jersey. Defendants owed these duties to the State, to reasonably foreseeable users of their products, and also to any person or property, including natural resources, that might reasonably be expected to come into contact with those products or their constituent ingredients.

100. Defendants' 1,4-dioxane and 1,4-dioxane-containing products were defective in design and unreasonably dangerous because, among other things:

- A. 1,4-Dioxane contamination in drinking water poses significant threats to public health and welfare.
- B. 1,4-Dioxane causes extensive and persistent environmental contamination when it, or products containing it, are used in their reasonably foreseeable and intended manner.
- C. Defendants failed to conduct and/or failed to disclose to the public or regulators like the State reasonable, appropriate, or adequate scientific studies to evaluate the environmental fate and transport and potential effects to human health and natural resources of 1,4-dioxane.

101. At all times relevant to this action, the 1,4-dioxane-containing products that Defendants designed, manufactured, marketed, and sold were dangerous to an extent beyond that which would be contemplated by the ordinary end user.

102. At all times relevant to this action, the foreseeable risk of harm to public health and welfare posed by 1,4-dioxane and 1,4-dioxane-containing products outweighed the cost to Defendants of reducing or eliminating such risk.

103. At all times relevant to this action, Defendants knew or should have known about reasonably safer and feasible alternatives to their 1,4-dioxane-containing products, including but not limited to 1,3-dioxolane and the use of alternative stabilizers to make TCA. The omission of such alternative designs rendered their TCA products and other 1,4-dioxane-containing products not reasonably safe. While Defendants have recently transitioned away from using 1,4-dioxane, they had a duty to make that transition many decades earlier.

104. Defendants' 1,4-dioxane and 1,4-dioxane-containing products were used in a reasonably foreseeable manner and without substantial change in the condition of such products.

Indeed, Defendants knew or should have known that end users would use Defendants' 1,4-dioxane and 1,4-dioxane-containing products without inspecting them for defects.

105. Defendants' 1,4-dioxane and 1,4-dioxane-containing products purchased or otherwise acquired (directly or indirectly) by third parties (including industrial end users) were applied, discharged, disposed of, or otherwise released onto lands and/or water in New Jersey. Such discharges occurred at various locations, at various times, and in various amounts. The use of Defendants' 1,4-dioxane and 1,4-dioxane-containing products in New Jersey has injured and is continuing to injure groundwater, surface water, and other natural resources throughout the State.

106. Defendants' 1,4-dioxane and 1,4-dioxane-containing products foreseeably contaminated New Jersey's natural resources throughout the State. Defendants knew or reasonably should have known that their design, manufacture, marketing, and/or sale, as well as their customers' and end users' storage, use, handling, release, spilling and/or disposal of 1,4-dioxane or 1,4-dioxane-containing products in an intended or reasonably foreseeable manner would result in the release of 1,4-dioxane into the environment, including at various locations throughout New Jersey.

107. As a direct and proximate result of the defects in Defendants' design of 1,4-dioxane and 1,4-dioxane-containing products, natural resources throughout New Jersey have become contaminated with 1,4-dioxane, causing the State and its citizens significant injury and damage.

108. As a direct and proximate result of Defendants' acts and omissions, as alleged herein, Plaintiffs have incurred, are incurring, and will continue to incur damages in an amount to be proved at trial related to 1,4-dioxane contamination of natural resources throughout New Jersey.

109. As a further direct and proximate result of Defendants' acts and omissions alleged in this Complaint, Plaintiffs have incurred, are incurring, and will continue to incur investigation,

cleanup and removal, restoration, treatment, monitoring, and other costs and expenses related to contamination of natural resources throughout New Jersey, for which Defendants are strictly, jointly, and severally liable.

110. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including 1,4-dioxane contamination of drinking water supplies and other natural resources.

111. Defendants committed each of the above-described acts and omissions with actual malice or with a wanton and willful disregard of persons who foreseeably might be harmed and natural resources that foreseeably might be injured by those acts or omissions. Such conduct was performed to promote sales of 1,4-dioxane and/or products containing 1,4-dioxane, in conscious disregard of the probable dangerous consequences of that conduct and the reasonably foreseeable impacts on the public health and safety and the environment of New Jersey.

112. Defendants are strictly, jointly and severally liable for all such damages, and Plaintiffs are entitled to recover all such damages and other relief as set forth below.

PRAYER FOR RELIEF

113. WHEREFORE, Plaintiffs request that this Court enter judgment against Defendants as follows:

- A. Finding Defendants liable for all costs to investigate, clean up and remove, restore, treat, monitor, and otherwise respond to 1,4-dioxane throughout New Jersey so the contaminated natural resources are restored to their pre-discharge condition, and for all damages to compensate New Jersey for the lost use and value of these natural resources during all times of injury caused by Defendants' 1,4-dioxane or 1,4-dioxane-containing products, and for such orders as may be

necessary to provide full relief to address risks to the State, including the costs of:

1. Past and future testing of natural resources throughout New Jersey where Defendants' 1,4-dioxane or 1,4-dioxane-containing products caused 1,4-dioxane contamination;
 2. Past and future treatment of all natural resources throughout New Jersey that contain detectable levels of Defendants' 1,4-dioxane, until restored to non-detectable levels; and
 3. Past and future monitoring of the State's natural resources throughout New Jersey as long as there is a detectable presence of 1,4-dioxane, and restoration of such natural resources to their pre-discharge condition;
- B. Ordering Defendants to pay for all costs related to the investigation, cleanup, restoration, treatment, and monitoring of 1,4-dioxane contamination of the State's natural resources attributable to Defendants;
- C. Ordering Defendants to pay for all damages in an amount at least equal to the full cost of restoring the State's natural resources to their original condition prior to the 1,4-dioxane contamination attributable to Defendants;
- D. Ordering Defendants to pay for all compensatory damages, for economic damages, and for the lost value (including lost use) of the State's natural resources as a result of the 1,4-dioxane contamination attributable to Defendants' 1,4-dioxane or 1,4-dioxane-containing products;
- E. Ordering Defendants to pay for all other damages sustained by Plaintiffs in their public trustee, *parens patriae*, and regulatory capacities as a direct and

proximate result of Defendants' acts and omissions alleged herein;

- F. Entering an order against Defendants to abate or mitigate the 1,4-dioxane contamination that they caused within the State;
- G. Awarding Plaintiffs punitive damages in an amount to be determined by the trier of fact;
- H. Awarding Plaintiffs costs and fees in this action, including reasonable attorneys' fees incurred in prosecuting this action, together with prejudgment interest, to the full extent permitted by law; and
- I. Awarding Plaintiffs such other relief as this Court deems appropriate.

SECOND COUNT
Strict Products Liability: Failure to Warn
Against All Defendants

114. Plaintiffs reallege each of the preceding paragraphs and incorporate each such paragraph as if fully stated herein.

115. The State has a quasi-sovereign interest in the integrity of its natural resources and a *parens patriae* interest in the health and well-being of its residents.

116. Groundwater and surface water are among the natural resources of the State held in trust by the State for its residents.

117. Defendants designed, manufactured, marketed, and sold 1,4-dioxane and 1,4-dioxane-containing products that were used, stored, handled, released, spilled, and/or disposed in New Jersey during the relevant period.

118. As designers, manufacturers, distributors, sellers, suppliers, and/or marketers of 1,4-dioxane and/or products containing 1,4-dioxane, Defendants had a strict duty to the State and to those who were at risk of being harmed by 1,4-dioxane to warn against foreseeable harms and latent dangers resulting from foreseeable uses of their products.

119. Defendants had a duty to warn the State about the dangers of their 1,4-dioxane and 1,4-dioxane-containing products because, among other things, the State is the trustee, for the benefit of its citizens, of all natural resources within its jurisdiction; because DEP is charged with enforcing the State's environmental laws and regulations; and because the State maintains a "quasi-sovereign" interest in the well-being of its residents.

120. Despite the fact that Defendants knew or should have known about the risks that 1,4-dioxane and 1,4-dioxane-containing products posed to human health and safety and the environment, Defendants did not warn the State, users and buyers of their 1,4-dioxane and/or 1,4-dioxane-containing products, or others whom it was reasonably foreseeable would be harmed by 1,4-dioxane and/or 1,4-dioxane-containing products, that Defendants' 1,4-dioxane and 1,4-dioxane-containing products would release 1,4-dioxane into the environment during the products' foreseeable use, and of the widespread, toxic, and persistent effects of such releases on the environment.

121. To the extent Defendants provided any warnings about 1,4-dioxane or their 1,4-dioxane-containing products, they were not warnings that a reasonably prudent person in the same or similar circumstances would have provided with respect to the danger posed by 1,4-dioxane and/or 1,4-dioxane-containing products, and the warnings did not convey adequate information on the dangers of 1,4-dioxane and 1,4-dioxane-containing products to the mind of a reasonably foreseeable buyer, end user, or bystander.

122. Moreover, Defendants withheld such knowledge from the State, regulators, and the public; and Defendants affirmatively sought to distort and/or suppress the public's understanding of and the scientific evidence linking their products to the unreasonable dangers they pose.

123. Defendants' 1,4-dioxane and 1,4-dioxane-containing products were used in a reasonably foreseeable manner and without substantial change in the condition of such products. Indeed, Defendants knew or should have known that industrial and consumer end users would use Defendants' 1,4-dioxane and 1,4-dioxane-containing products without inspecting them for defects. These products were defective and unfit for their reasonably foreseeable use for the reasons identified above. Defendants' 1,4-dioxane and 1,4-dioxane-containing products foreseeably harmed public health and safety and contaminated New Jersey's natural resources.

124. Defendants knew or reasonably should have known that their design, manufacture, marketing, and/or sale, as well as their customers' and end users' transport, storage, use, handling, release, spilling and/or disposal of 1,4-dioxane or 1,4-dioxane-containing products in an intended or reasonably foreseeable manner would result in harm to public health and safety and the release of 1,4-dioxane into the environment, including at various locations throughout New Jersey.

125. Defendants' 1,4-dioxane and 1,4-dioxane-containing products purchased or otherwise acquired (directly or indirectly) by third parties (including industrial end users) were applied, discharged, disposed of, or otherwise released onto lands and/or water in New Jersey. Such discharges occurred at various locations, at various times, and in various amounts in New Jersey.

126. Defendants 1,4-dioxane and 1,4-dioxane-containing products were in the same condition when they were purchased, transported, used, stored, handled, released, spilled, and/or disposed as they were when they left Defendants' control. Defendants' customers and/or end users used the 1,4-dioxane and 1,4-dioxane-containing products in a reasonably foreseeable manner and without any substantial change in the condition of the products.

127. Had Defendants provided accurate and adequate warnings about the hazards associated with their 1,4-dioxane and 1,4-dioxane-containing products, end users and buyers, the State, and others whom it was reasonably foreseeable would be harmed by 1,4-dioxane likely would have heeded those warnings.

128. As a direct and proximate result of Defendants' failure to warn of the hazards of 1,4-dioxane and 1,4-dioxane-containing products, groundwater, surface water, and other natural resources throughout New Jersey have become contaminated with 1,4-dioxane.

129. As a direct and proximate result of Defendants' acts and omissions, as alleged herein, Plaintiffs have incurred, are incurring, and will continue to incur damages in an amount to be proved at trial related to 1,4-dioxane contamination of natural resources throughout New Jersey.

130. As a further direct and proximate result of Defendants' acts and omissions alleged in this Complaint, Plaintiffs have incurred, are incurring, and will continue to incur investigation, cleanup and removal, restoration, treatment, monitoring, and other costs and expenses related to contamination of the natural resources throughout New Jersey, for which Defendants are strictly, jointly, and severally liable.

131. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including 1,4-dioxane contamination of water supplies and other natural resources.

132. Defendants committed each of the above-described acts and omissions with actual malice or with a wanton and willful disregard of persons who foreseeably might be harmed by those acts or omissions. Such conduct was performed to promote sales of 1,4-dioxane and/or products containing 1,4-dioxane, in conscious disregard of the probable dangerous consequences

of that conduct and the reasonably foreseeable impacts on public health and welfare, as well as New Jersey's natural resources including groundwater, surface waters, and other natural resources.

133. Defendants are jointly and severally liable for all such damages, and Plaintiffs are entitled to recover all such damages and other relief as set forth below.

PRAYER FOR RELIEF

134. WHEREFORE, Plaintiffs request that this Court enter judgment against Defendants as follows:

- A. Finding Defendants liable for all costs to investigate, clean up and remove, restore, treat, monitor, and otherwise respond to 1,4-dioxane contamination throughout New Jersey so the contaminated natural resources are restored to their pre-discharge condition, and for all damages to compensate New Jersey for the lost use and value of these natural resources during all times of injury caused by Defendants' 1,4-dioxane or 1,4-dioxane-containing products, and for such orders as may be necessary to provide full relief to address risks to the State, including the costs of:
 1. Past and future testing of natural resources throughout New Jersey where Defendants' 1,4-dioxane or 1,4-dioxane-containing products caused 1,4-dioxane contamination;
 2. Past and future treatment of all natural resources throughout the State that contain detectable levels of Defendants' 1,4-dioxane, until restored to non-detectable levels; and
 3. Past and future monitoring of the State's natural resources throughout New Jersey as long as there is a detectable presence of 1,4-dioxane, and

restoration of such natural resources to their pre-discharge condition;

- B. Ordering Defendants to pay for all costs related to the investigation, cleanup, restoration, treatment, and monitoring of 1,4-dioxane contamination of the State's natural resources attributable to Defendants;
- C. Ordering Defendants to pay for all damages in an amount at least equal to the full cost of restoring the State's natural resources to their original condition prior to the 1,4-dioxane contamination attributable to Defendants;
- D. Ordering Defendants to pay for all compensatory damages, for economic damages, and for the lost value (including lost use) of the State's natural resources as a result of the 1,4-dioxane contamination attributable to Defendants' 1,4-dioxane or 1,4-dioxane-containing products;
- E. Ordering Defendants to pay for all other damages sustained by Plaintiffs in their public trustee, *parens patriae*, and regulatory capacities as a direct and proximate result of Defendants' acts and omissions alleged herein;
- F. Entering an order against Defendants to abate or mitigate the 1,4-dioxane contamination that they caused within the State;
- G. Awarding Plaintiffs punitive damages in an amount to be determined by the trier of fact;
- H. Awarding Plaintiffs costs and fees in this action, including reasonable attorneys' fees incurred in prosecuting this action, together with prejudgment interest, to the full extent permitted by law; and
- I. Awarding Plaintiffs such other relief as this Court deems appropriate.

THIRD COUNT
Negligence
Against All Defendants

135. Plaintiffs reallege each of the preceding paragraphs and incorporate each such paragraph as if fully stated herein.

136. The State has a quasi-sovereign interest in the integrity of its natural resources and a *parens patriae* interest in the health and well-being of its residents.

137. Groundwater and surface water are among the natural resources of the State held in trust by the State for its residents.

138. Defendants designed, manufactured, marketed, and sold 1,4-dioxane and/or 1,4-dioxane-containing products that were used, stored, handled, released, spilled, and/or disposed in New Jersey during the relevant period.

139. Defendants had a duty to exercise due care in the design, manufacture, marketing, sale, testing, labeling, and instructions for use of their 1,4-dioxane and 1,4-dioxane-containing products.

140. As designers, manufacturers, distributors, sellers, suppliers, and/or marketers of 1,4-dioxane and/or products containing 1,4-dioxane, Defendants had a duty to the State to ensure that 1,4-dioxane was not released as a result of the storage, use, handling, spilling, and/or disposal of their 1,4-dioxane and 1,4-dioxane-containing products, and that 1,4-dioxane did not injure groundwater, surface waters, or other natural resources in New Jersey.

141. The public's use of groundwater and surface water resources was foreseeable.

142. Defendants' 1,4-dioxane and 1,4-dioxane-containing products foreseeably injured groundwater, surface waters, and other natural resources throughout the State.

143. Defendants breached their duties of care by negligently designing, manufacturing, distributing, selling, supplying, and/or marketing unreasonably dangerous products into the stream

of commerce, including in New Jersey, even when they knew or should have known about the dangers 1,4-dioxane posed to public health and safety and New Jersey's natural resources.

144. Despite the fact that Defendants knew or should have known about the risks that 1,4-dioxane and 1,4-dioxane-containing products posed, Defendants did not warn the State, users and buyers of their 1,4-dioxane and/or 1,4-dioxane-containing products, and others who it was reasonably foreseeable would be harmed by 1,4-dioxane and/or 1,4-dioxane-containing products, that Defendants' 1,4-dioxane and 1,4-dioxane-containing products would release 1,4-dioxane into the environment during the products' normal use, and of the widespread, toxic, and persistent effects of such releases. Indeed, Defendants affirmatively instructed end users to use and dispose of those products in ways that inevitably and foreseeably resulted in 1,4-dioxane contamination.

145. To the extent Defendants provided any warnings about their products, they were not warnings that a reasonably prudent person in the same or similar circumstances would have provided with respect to the danger posed by 1,4-dioxane and/or 1,4-dioxane-containing products, and the warnings did not convey accurate or adequate information on the dangers of 1,4-dioxane and 1,4-dioxane-containing products to the mind of a reasonably foreseeable buyer, end user, or bystander.

146. Moreover, Defendants withheld such information from Plaintiffs, regulators, and the public; and Defendants affirmatively distorted and/or suppressed others' knowledge and the scientific evidence linking their products to the unreasonable dangers they pose.

147. Had Defendants provided accurate and adequate warnings about the hazards associated with their 1,4-dioxane and 1,4-dioxane-containing products, end users and buyers, the State, and others whom it was reasonably foreseeable would be harmed by 1,4-dioxane likely would have heeded those warnings.

148. As a direct and proximate result of Defendants' acts and omissions, the public was injured and natural resources throughout New Jersey have become contaminated with 1,4-dioxane.

149. As a direct and proximate result of Defendants' acts and omissions, as alleged herein, Plaintiffs have incurred, are incurring, and will continue to incur damages in an amount to be proved at trial related to 1,4-dioxane contamination of groundwater, surface water, and other natural resources throughout New Jersey.

150. As a further direct and proximate result of Defendants' acts and omissions alleged in this Complaint, Plaintiffs have incurred, are incurring, and will continue to incur investigation, cleanup and removal, restoration, treatment, monitoring, and other costs and expenses related to contamination of the natural resources throughout New Jersey, for which Defendants are jointly and severally liable.

151. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including 1,4-dioxane contamination of drinking water supplies.

152. Defendants committed each of the above-described acts and omissions with actual malice or with a wanton and willful disregard of persons who foreseeably might be harmed by those acts or omissions. Such conduct was performed to promote sales of 1,4-dioxane and/or products containing 1,4-dioxane, in conscious disregard of the probable dangerous consequences of that conduct and the reasonably foreseeable impacts on public health and welfare, as well as New Jersey's natural resources.

153. Defendants are jointly and severally liable for all such damages, and Plaintiffs are entitled to recover all such damages and other relief as set forth below.

PRAYER FOR RELIEF

154. WHEREFORE, Plaintiffs request that this Court enter judgment against Defendants as follows:

- A. Finding Defendants liable for all costs to investigate, clean up and remove, restore, treat, monitor, and otherwise respond to 1,4-dioxane contamination throughout New Jersey so the contaminated natural resources are restored to their pre-discharge condition, and for all damages to compensate New Jersey for the lost use and value of these natural resources during all times of injury caused by Defendants' 1,4-dioxane or 1,4-dioxane-containing products, and for such orders as may be necessary to provide full relief to address risks to the State, including the costs of:
 1. Past and future testing of natural resources throughout New Jersey where Defendants' 1,4-dioxane or 1,4-dioxane-containing products caused 1,4-dioxane contamination;
 2. Past and future treatment of all natural resources throughout New Jersey that contain detectable levels of Defendants' 1,4-dioxane, until restored to non-detectable levels; and
 3. Past and future monitoring of the State's natural resources throughout New Jersey as long as there is a detectable presence of 1,4-dioxane, and restoration of such natural resources to their pre-discharge condition;
- B. Ordering Defendants to pay for all costs related to the investigation, cleanup, restoration, treatment, and monitoring of 1,4-dioxane contamination of the State's natural resources attributable to Defendants;

- C. Ordering Defendants to pay for all damages in an amount at least equal to the full cost of restoring the State's natural resources to their original condition prior to the 1,4-dioxane contamination attributable to Defendants;
- D. Ordering Defendants to pay for all compensatory damages, for economic damages, and for the lost value (including lost use) of the State's natural resources as a result of the 1,4-dioxane contamination attributable to Defendants' 1,4-dioxane or 1,4-dioxane-containing products;
- E. Ordering Defendants to pay for all other damages sustained by Plaintiffs in their public trustee, *parens patriae*, and regulatory capacities as a direct and proximate result of Defendants' acts and omissions alleged herein;
- F. Entering an order against Defendants to abate or mitigate the 1,4-dioxane contamination that they caused within the State;
- G. Awarding Plaintiffs punitive damages in an amount to be determined by the trier of fact;
- H. Awarding Plaintiffs costs and fees in this action, including reasonable attorneys' fees incurred in prosecuting this action, together with prejudgment interest, to the full extent permitted by law; and
- I. Awarding Plaintiffs such other relief as this Court deems appropriate.

FOURTH COUNT
Public Nuisance
Against All Defendants

155. Plaintiffs repeat each allegation of the preceding paragraphs above as though fully set forth in its entirety herein.

156. The State has a quasi-sovereign interest in the integrity of its natural resources and a *parens patriae* interest in the well-being of its residents.

157. Groundwater and surface water are among the natural resources of the State held in trust by the State for its residents.

158. The use, enjoyment, and existence of uncontaminated natural resources are rights common to the general public. N.J.S.A. 58:10-23.11a; N.J.S.A. 58:1A-2; N.J.S.A. 13:1D-157.

159. At all times relevant to this action, Defendants designed, manufactured, marketed, and/or sold 1,4-dioxane or products containing 1,4-dioxane, and marketed or sold those products to customers throughout New Jersey, even though Defendants knew that the foreseeable use of those products would result in discharges of 1,4-dioxane in New Jersey and lead to contamination of the State's natural resources and endanger public health. Furthermore, well after the Defendants understood the mobile, persistent, and toxic nature of 1,4-dioxane in the environment, Defendants never properly warned their customers or instructed them to stop using their products and/or disposing of 1,4-dioxane waste in ways Defendants knew would foreseeably result in further contamination of the natural resources of the State.

160. Indeed, Defendants affirmatively instructed users to dispose of their products in ways that Defendants knew would result in 1,4-dioxane contamination of the environment.

161. Defendants exercised substantial control over every step of the lifecycle of 1,4-dioxane and/or 1,4-dioxane-containing products—from design, to manufacture, to marketing, to distribution, to sale, to instruction of end users regarding use and disposal.

162. Defendants' acts and omissions—including their design, manufacture, marketing, sale, and/or failure to warn regarding 1,4-dioxane in their products, and their instruction of distributors and end users on the use and disposal of 1,4-dioxane and products containing 1,4-dioxane—foreseeably resulted in the contamination of the State's natural resources, rendering the State's water a public health hazard and unfit for human consumption.

163. In this way, Defendants unreasonably and substantially interfered with and caused damage to a public or common resource and endangered public property, as well as the health, safety, and comfort of a great number of persons throughout New Jersey.

164. As Defendants were at all relevant times aware, the 1,4-dioxane contamination they caused has a significant effect upon the public right to non-toxic natural resources (including drinking water) and—given that the 1,4-dioxane contamination will likely persist in diverse environments across New Jersey for many decades—is of a continuing nature and will constitute a significant and long-lasting interference with the public health, the public safety, the public peace, the public comfort, and the public convenience.

165. The contamination of the water and other natural resources throughout New Jersey as a consequence of Defendants' conduct constitutes a physical invasion of the State's natural resources and public property, and an unreasonable and substantial interference, both actual and potential, with the integrity of the natural resources of the State; the exercise of the public's common right to these natural resources; the State's statutory status and obligations regarding the natural resources of the State; the State's ability, through the DEP, to protect, conserve and manage the natural resources of the State, which are by law precious and invaluable public resources held by the State in trust for the benefit of the public; and the rights of the people of the State to enjoy their natural resources free from interference by pollution and contamination, including the enjoyment of non-toxic drinking water. N.J.S.A. 58:10-23.11a; N.J.S.A. 58:1A-2; N.J.S.A. 13:1D-157.

166. As a direct and proximate result of Defendants' acts and omissions as alleged herein, Plaintiffs have incurred, are incurring, and will continue to incur damages and abatement costs related to 1,4-dioxane contamination of the State's natural resources, including, without

limitation, costs relating to the investigation and cleanup and removal of the discharged 1,4-dioxane; the restoration of New Jersey waters and other natural resources contaminated with Defendants' 1,4-dioxane; and the institution of corrective measures such as monitoring all public and private drinking water supplies and other natural resources for the presence of 1,4-dioxane, provision of interim water supplies to residents whose water has been contaminated with Defendants' 1,4-dioxane, the establishment of acceptable sources of potable water to injured members of the public, and other necessary remedial actions.

167. As the trustee of New Jersey residents' natural resources, the injuries suffered by the State are different in kind from those suffered by the community at large, because the State is responsible for safeguarding its residents' natural resources and providing clean water, and the State cannot carry out all its public service functions when New Jersey's drinking water and other natural resources are contaminated with a toxic pollutant like 1,4-dioxane. Thus, Defendants' conduct causes special harm to the State.

168. Defendants' conduct described in the foregoing paragraphs creates, contributes to, or maintains a public nuisance.

169. As long as the affected natural resources throughout New Jersey remain contaminated as a result of Defendants' conduct, the public nuisance continues.

170. Until these natural resources are restored to their pre-injury or pre-discharge condition, Defendants are liable for the creation, and continued maintenance, of a public nuisance in contravention of the public's common right to clean natural resources, including, without limitation, non-toxic drinking water.

171. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including injury to the public health and safety and 1,4-

dioxane contamination of natural resources and drinking water supplies. Defendants committed each of the above-described acts and omissions knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of 1,4-dioxane and/or products containing 1,4-dioxane, in conscious disregard to the dangerous consequences of that conduct and its reasonably foreseeable impacts on public health and safety and the environment. Therefore, Plaintiffs request an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.

172. Defendants are jointly and severally liable for all such damages, and Plaintiffs are entitled to recover all such damages and other relief as set forth below.

PRAYER FOR RELIEF

173. WHEREFORE, Plaintiffs request that this Court enter judgment against Defendants as follows:

A. Entering an order enjoining Defendants from future acts and omissions foreseeably leading to further 1,4-dioxane contamination in New Jersey and compelling Defendants immediately to clean up the contamination, at Defendants' own expense. Defendants must be ordered, for example, to investigate, clean up and remove, abate, restore, treat, monitor, and otherwise respond to 1,4-dioxane contamination throughout New Jersey so the contaminated natural resources are restored to their pre-discharge condition.

B. Finding and holding Defendants responsible for:

1. All past and future testing of natural resources throughout New Jersey where Defendants' 1,4-dioxane or 1,4-dioxane-containing products caused 1,4-dioxane contamination;

2. Past and future treatment of all natural resources throughout New Jersey that contain detectable levels of Defendants' 1,4-dioxane, until restored to non-detectable levels; and
 3. Past and future monitoring of the State's natural resources throughout New Jersey as long as there is a detectable presence of 1,4-dioxane, and restoration of such natural resources to their pre-discharge condition;
- C. Awarding Plaintiffs their costs and fees in this action, including reasonable attorneys' fees incurred in prosecuting this action, together with prejudgment interest, to the full extent permitted by law; and
- D. Awarding Plaintiffs such other relief as this Court deems appropriate.

FIFTH COUNT
Trespass¹
Against All Defendants

174. Plaintiffs repeat each allegation of the preceding paragraphs above as though fully set forth in its entirety herein.

175. The State has a quasi-sovereign interest in the integrity of its natural resources and the well-being of its residents.

176. Groundwater and surface water are among the natural resources of the State held in trust by the State for the people of New Jersey.

177. The State actually and actively exercises its rights to appropriate, use, and permit others to use New Jersey's natural resources, including, without limitation, the water drawn from its groundwater drinking supply wells and surface waters.

178. The State has a right to control New Jersey water and other natural resources as

¹ Unlike for the other Counts alleged herein, for purposes of this Fifth Count, Plaintiffs' claim does not involve Defendants' contamination of private wells.

against all others.

179. Defendants designed, manufactured, marketed, and/or sold 1,4-dioxane or 1,4-dioxane-containing products.

180. Defendants knew or reasonably should have known their 1,4-dioxane would foreseeably be discharged into the environment.

181. Defendants knew or reasonably should have known that 1,4-dioxane released into the environment has a propensity to infiltrate water; is a mobile and persistent water contaminant capable of moving substantial distances within and even among bodies of surface and/or groundwater; can be picked up from water by and contaminate other natural resources; is toxic to human health; and is hazardous to water systems and public health.

182. Nevertheless, Defendants' acts and omissions as designers, manufacturers, marketers, and/or sellers of 1,4-dioxane foreseeably caused that toxic chemical to contaminate the State's water and other natural resources—including public and state-owned natural resources—and thereby intrude upon and damage the State's possessory property interest with respect to those resources.

183. The State did not give any Defendant permission to cause 1,4-dioxane to enter its water or other natural resources.

184. The 1,4-dioxane in State natural resources and water supplies—including both surface water and groundwater—constitutes a physical invasion of the State's and the public's property without permission or license.

185. Each Defendant's conduct has been a substantial factor in bringing about the contamination of the State's water and other natural resources, and each Defendant aided and abetted the trespasses and is jointly responsible for the injuries and damages caused to Plaintiffs.

186. As a direct and proximate result of Defendants' acts and omissions as alleged herein, Plaintiffs have incurred, are incurring, and will continue to incur damages related to 1,4-dioxane contamination of the States' natural resources in an amount to be proved at trial.

187. Each Defendant is liable for trespass, and continued trespass, because the 1,4-dioxane invading the property (*i.e.*, natural resources) of the State and/or the property held in trust for the public by the State resulted from Defendants' acts and omissions as described above.

188. Until the State's natural resources are restored to their pre-contamination or pre-discharge condition, Defendants are liable for trespass, and continued trespass, upon public property.

189. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including 1,4-dioxane contamination of New Jersey's water and other natural resources. Defendants committed each of the above-described acts and omissions knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of 1,4-dioxane and/or products containing 1,4-dioxane, in conscious disregard to the dangerous consequences of that conduct and its reasonably foreseeable impacts on public health and welfare. Therefore, Plaintiffs request an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.

190. Defendants are jointly and severally liable for all such damages, and Plaintiffs are entitled to recover all such damages and other relief as set forth below.

PRAYER FOR RELIEF

191. WHEREFORE, Plaintiffs request that this Court enter judgment against Defendants as follows:

A. Finding Defendants liable for all costs to investigate, clean up and remove,

restore, treat, monitor, and otherwise respond to 1,4-dioxane contamination throughout New Jersey so the contaminated natural resources are restored to their pre-discharge condition, and for all damages to compensate New Jersey for the lost use and value of these natural resources during all times of injury caused by Defendants' 1,4-dioxane or 1,4-dioxane-containing products, and for such orders as may be necessary to provide full relief to address risks to the State, including the costs of:

1. Past and future testing of natural resources throughout New Jersey where Defendants' 1,4-dioxane or 1,4-dioxane-containing products caused 1,4-dioxane contamination;
 2. Past and future treatment of all natural resources throughout New Jersey that contain detectable levels of Defendants' 1,4-dioxane, until restored to non-detectable levels; and
 3. Past and future monitoring of the State's natural resources throughout New Jersey as long as there is a detectable presence of 1,4-dioxane, and restoration of such natural resources to their pre-discharge condition;
- B. Ordering Defendants to pay for all costs related to the investigation, cleanup, restoration, treatment, and monitoring of 1,4-dioxane contamination of the State's natural resources attributable to Defendants;
- C. Ordering Defendants to pay for all damages in an amount at least equal to the full cost of restoring the State's natural resources to their original condition prior to the 1,4-dioxane contamination attributable to Defendants;
- D. Ordering Defendants to pay for all compensatory damages, for economic

damages, and for the lost value (including lost use) of the State's natural resources as a result of the 1,4-dioxane contamination attributable to Defendants' 1,4-dioxane or 1,4-dioxane-containing products;

- E. Ordering Defendants to pay for all other damages sustained by Plaintiffs in their public trustee, *parens patriae*, and regulatory capacities as a direct and proximate result of Defendants' acts and omissions alleged herein;
- F. Entering an order against Defendants to abate or mitigate the 1,4-dioxane contamination that they caused within the State;
- G. Awarding Plaintiffs punitive damages in an amount to be determined by the trier of fact;
- H. Awarding Plaintiffs costs and fees in this action, including reasonable attorneys' fees incurred in prosecuting this action, together with prejudgment interest, to the full extent permitted by law; and
- I. Awarding Plaintiffs such other relief as this Court deems appropriate.

SIXTH COUNT
Impairment of the Public Trust
Against All Defendants

192. Plaintiffs repeat each allegation of the preceding paragraphs above as though fully set forth in its entirety herein.

193. Under New Jersey's centuries-old public trust doctrine, the State has the authority and the duty to protect natural resources held by the State in the public trust for its people, including by asserting claims for damages against entities who injure the corpus of the trust.

194. As the common law has long recognized and the Legislature has repeatedly reaffirmed, the State is a trustee of all natural resources within its jurisdiction, including all land and waters in New Jersey that are owned, managed, administered, or otherwise controlled by the

State. N.J.S.A. 58:10-23.11a; N.J.S.A. 58:10-23.11b; N.J.S.A. 58:1A-2; N.J.S.A. 13:1D-150.

195. At all times relevant to this action, Defendants designed, manufactured, marketed and/or sold 1,4-dioxane or products containing 1,4-dioxane, and marketed or sold those products to customers throughout New Jersey, even though Defendants knew or should have known that the ordinary and foreseeable use and disposal of those products would result in discharges of 1,4-dioxane in New Jersey and lead to contamination of the State's public trust resources with adverse impacts on public health. Furthermore, well after Defendants understood the mobile, persistent, and toxic nature of 1,4-dioxane in the environment, Defendants never properly warned their customers or end users or instructed them to stop using their products and/or disposing of 1,4-dioxane waste in ways Defendants knew would foreseeably result in further injury to public health and safety and contamination of the natural resources of the State.

196. Defendants' acts and omissions—including their design, manufacture, marketing, sale, and/or failure to warn regarding 1,4-dioxane in their products, and their instruction to distributors and end users on the use and disposal of 1,4-dioxane and products containing 1,4-dioxane—foreseeably resulted in the contamination, degradation, impairment, and loss of use of the State's public trust resources.

197. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage to the public health and safety and the State's public trust resources, including 1,4-dioxane contamination of New Jersey's water and other natural resources. Defendants committed each of the above-described acts and omissions knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of 1,4-dioxane and/or products containing 1,4-dioxane, in conscious disregard to the adverse impacts of that conduct and its reasonably foreseeable impacts on public health and safety. Therefore,

Plaintiffs request an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.

198. Defendants are jointly and severally liable for all such damages, and Plaintiffs are entitled to recover all such damages and other relief as set forth below.

PRAYER FOR RELIEF

199. WHEREFORE, Plaintiffs request that this Court enter judgment against Defendants as follows:

- A. Finding Defendants liable for all costs to investigate, clean up and remove, restore, treat, monitor, and otherwise respond to 1,4-dioxane contamination throughout New Jersey so the contaminated natural resources are restored to their pre-discharge condition, and for all damages to compensate New Jersey for the lost use and value of these natural resources during all times of injury caused by Defendants' 1,4-dioxane or 1,4-dioxane-containing products, and for such orders as may be necessary to provide full relief to address risks to the State, including the costs of:
 1. Past and future testing of natural resources throughout New Jersey where Defendants' 1,4-dioxane or 1,4-dioxane-containing products caused 1,4-dioxane contamination;
 2. Past and future treatment of all natural resources throughout New Jersey that contain detectable levels of Defendants' 1,4-dioxane, until restored to non-detectable levels; and
 3. Past and future monitoring of the State's natural resources throughout New Jersey as long as there is a detectable presence of 1,4-dioxane, and

restoration of such natural resources to their pre-discharge condition;

- B. Ordering Defendants to pay for all costs related to the investigation, cleanup, restoration, treatment, and monitoring of 1,4-dioxane contamination of the State's natural resources attributable to Defendants;
- C. Ordering Defendants to pay for all damages in an amount at least equal to the full cost of restoring the State's natural resources to their original condition prior to the 1,4-dioxane contamination attributable to Defendants;
- D. Ordering Defendants to pay for all compensatory damages, for economic damages, and for the lost value (including lost use) of the State's natural resources as a result of the 1,4-dioxane contamination attributable to Defendants' 1,4-dioxane or 1,4-dioxane-containing products;
- E. Ordering Defendants to pay for all other damages sustained by Plaintiffs in their public trustee, *parens patriae*, and regulatory capacities as a direct and proximate result of Defendants' acts and omissions alleged herein;
- F. Entering an order against Defendants to abate or mitigate the 1,4-dioxane contamination that they caused to the State's natural resources;
- G. Awarding Plaintiffs punitive damages in an amount to be determined by the trier of fact;
- H. Awarding Plaintiffs costs and fees in this action, including reasonable attorneys' fees incurred in prosecuting this action, together with prejudgment interest, to the full extent permitted by law; and
- I. Awarding Plaintiffs such other relief as this Court deems appropriate.

SEVENTH COUNT
Spill Act
Against All Defendants

200. Plaintiffs repeat each allegation of the preceding paragraphs above as though fully set forth in its entirety herein.

201. Under the New Jersey Spill Act, the discharge of hazardous substances is prohibited. N.J.S.A. 58:10-23.11c.

202. 1,4-Dioxane is a hazardous substance within the meaning of the Spill Act because the Act includes as “hazardous” anything that is on the New Jersey “hazardous substances” list, which includes 1,4-dioxane. *See* N.J.S.A. 58:10-23.11b; *see also* N.J.A.C. 7:1E, Appendix A.

203. Except as otherwise provided in N.J.S.A. 58:10-23.11g.12, which is not applicable here, any person who is in any way responsible for the discharge of any hazardous substance, shall be liable, jointly and severally, without regard to fault, for all cleanup and removal costs no matter by whom incurred. N.J.S.A. 58:10-23.11g.(c).

204. Each Defendant is a “person” within the meaning of N.J.S.A. 58:10-23.11b.

205. Each Defendant is responsible for the discharge of 1,4-dioxane into the environment in New Jersey, insofar as their conduct foreseeably resulted in the discharge of 1,4-dioxane throughout New Jersey. Defendants are designers, manufacturers, marketers, and/or sellers of 1,4-dioxane or products containing 1,4-dioxane, marketed or sold those products in New Jersey, and were in a position of superior knowledge than were the end users regarding 1,4-dioxane’s tendency to contaminate water and other natural resources, persist there, and harm human health. Additionally, Defendants affirmatively instructed end users to use and dispose of those products in ways that inevitably and foreseeably resulted in 1,4-dioxane contamination.

206. As a direct or indirect result of Defendants’ contamination and injury of the State’s natural resources with 1,4-dioxane, Plaintiffs have incurred, are incurring, and will continue to

incur damages, including costs relating to the investigation and cleanup and removal of the discharged 1,4-dioxane; the restoration of waters and other natural resources of the State contaminated by discharges of 1,4-dioxane; the compensation of the citizens of New Jersey for the lost interim value and benefits of the natural resources of the State as a result of the contamination with 1,4-dioxane; and the institution of corrective measures, including monitoring of all public and private drinking water supplies and other resources for the presence of 1,4-dioxane, provision of interim water supplies to residents whose water supplies have been contaminated due to such discharges, the establishment of acceptable sources of non-toxic water for injured members of the public, and other necessary remedial actions.

207. The costs and damages Plaintiffs have incurred, are incurring, and will incur, in connection with Defendants' 1,4-dioxane contamination of the State's natural resources are "cleanup and removal costs" within the meaning of N.J.S.A. 58:10-23.11b.

208. Plaintiffs have not recouped any cleanup and removal costs resulting from Defendants' contamination of State resources with 1,4-dioxane.

209. Under N.J.S.A. 58:10-23.11e, "[a]ny person who may be subject to liability for a discharge which occurred prior to or after the effective date of the act of which this act is amendatory shall immediately notify [DEP]."

210. Under N.J.S.A. 58:10-23.11u.a.(1)(a) and N.J.S.A. 58:10-23.11u.b, DEP may enforce violations of the Spill Act by bringing an action in the Superior Court for injunctive relief, N.J.S.A. 58:10-23.11u.b.(1); for its unreimbursed investigation, cleanup and removal costs, including the reasonable costs of preparing and successfully litigating the action, N.J.S.A. 58:10-23.11u.b.(2); for the cost of restoring, repairing, or replacing real or personal property damaged or destroyed by a discharge and related losses of income or reductions in the value of property caused

by the discharge by comparison with its value prior to the discharge, N.J.S.A. 58:10-23.11u.b.(3); for natural resource restoration and replacement costs, N.J.S.A. 58:10-23.11u.b.(4); and for any other unreimbursed costs or damages DEP incurs, which are compensable under the Spill Act, N.J.S.A. 58:10-23.11u.b.(5).

211. Under N.J.S.A. 58:10-23.11u.c.(1), DEP may assess a civil penalty of up to \$50,000 for each violation of the Spill Act, and each day's continuance of the violation constitutes a separate violation.

212. The Spill Act was enacted on April 1, 1977, and is not bound by a statute of limitations.

213. Upon information and belief, Defendants' acts and omissions foreseeably resulting in 1,4-dioxane contamination of the State's resources in violation of the Spill Act began as early as the 1950s and continued at least through 1996, when the Montreal Protocol banned TCA in most contexts.

214. The Administrator has certified, and may continue to certify, for payment, valid claims made against the Spill Fund concerning the 1,4-dioxane contamination, and, further, has approved, and may continue to approve, other appropriations for 1,4-dioxane contamination.

215. Under N.J.S.A. 58:10-23.11q, the Administrator is authorized to bring an action in the Superior Court for any unreimbursed costs or damages paid from the Spill Fund.

216. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including 1,4-dioxane contamination of New Jersey water supplies and other natural resources, in violation of the Spill Act. Defendants committed each of the above-described acts and omissions knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of 1,4-dioxane and/or products containing

1,4-dioxane, in conscious disregard of its reasonably foreseeable impacts on public health and welfare. Therefore, Plaintiffs request an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.

217. Defendants are strictly, jointly, and severally liable for all such damages, and Plaintiffs are entitled to recover all such damages and other relief as set forth below.

PRAYER FOR RELIEF

218. WHEREFORE, Plaintiffs request that this Court enter judgment against Defendants as follows:

- A. Entering declaratory judgment against each Defendant, jointly and severally, without regard to fault, as responsible for the discharge of 1,4-dioxane into the environment throughout New Jersey and liable for all related costs available under the Spill Act;
- B. Ordering Defendants to reimburse Plaintiffs, jointly and severally, without regard to fault, for all costs they have already or will in the future incur (and have not yet recouped or settled) to investigate, clean up and remove, restore, repair, replace, treat, monitor, and/or otherwise respond to 1,4-dioxane contamination (including, without limitation, for costs and damages related to primary and compensatory restoration) throughout New Jersey so the contaminated natural resources are restored to their pre-discharge condition, and for all damages to compensate New Jersey for the lost use and value of these natural resources during all times of injury caused by Defendants' 1,4-dioxane or 1,4-dioxane-containing products, and for such orders as may be necessary to provide full relief to address risks to the State, including the costs

of:

1. Past and future testing of natural resources throughout New Jersey where Defendants' 1,4-dioxane or 1,4-dioxane-containing products caused 1,4-dioxane contamination;
 2. Past and future treatment of all natural resources throughout New Jersey that contain detectable levels of Defendants' 1,4-dioxane, until restored to non-detectable levels; and
 3. Past and future monitoring of the State's natural resources throughout New Jersey as long as there is a detectable presence of 1,4-dioxane, and restoration of such natural resources to their pre-discharge condition;
- C. Ordering Defendants to pay for all costs related to the investigation, cleanup and removal, restoration, treatment, and monitoring of 1,4-dioxane contamination of the State's natural resources attributable to Defendants;
- D. Ordering Defendants to pay for all damages in an amount at least equal to the full cost of restoring the State's natural resources to their pre-discharge condition prior to the 1,4-dioxane contamination attributable to Defendants;
- E. Ordering Defendants to pay for all compensatory damages, for economic damages, and for the lost value (including lost use) of the State's natural resources as a result of the 1,4-dioxane contamination attributable to Defendants' 1,4-dioxane or 1,4-dioxane-containing products;
- F. Ordering Defendants to pay for all other damages sustained by Plaintiffs as a direct and proximate result of Defendants' acts and omissions alleged herein;
- G. Ordering Defendants, jointly and severally, without regard to fault, to reimburse

Plaintiffs for the cost of restoring, repairing, or replacing real or personal property damaged or destroyed by a discharge and related losses of income or reductions in the value of property caused by the discharge by comparison with its value prior to the discharge;

- H. Ordering Defendants, jointly and severally, without regard to fault, to reimburse Plaintiffs for any other unreimbursed costs or damages DEP incurs under the Spill Act;
- I. Entering an order against Defendants to abate or mitigate the 1,4-dioxane contamination that they caused within the State;
- J. Entering judgment against Defendants, jointly and severally, without regard to fault, compelling each Defendant to abate or mitigate the 1,4-dioxane contamination that they caused within the State, and to perform, under Plaintiffs' oversight, or to fund Plaintiffs' performance of any further assessments and/or testing and remediation of State natural resources that have been or may be injured as a result of Defendants' 1,4-dioxane contamination of the State's natural resources, and compelling each Defendant to compensate the citizens of New Jersey for the lost value of any injured natural resources, including primary and compensatory restoration damages;
- K. Entering an order awarding civil penalties of up to \$50,000 for each unreported discharge for every day that the discharge remained unreported;
- L. Awarding Plaintiffs punitive damages in an amount to be determined by the trier of fact;
- M. Awarding Plaintiffs costs and fees in this action, including reasonable

attorneys' fees incurred in prosecuting this action, together with prejudgment interest, to the full extent permitted by law; and

N. Awarding Plaintiffs such other relief as this Court deems appropriate.

**EIGHTH COUNT
Consumer Fraud Act
Against Defendants Dow and Vulcan**

219. Plaintiffs repeat each allegation of the preceding paragraphs above as though fully set forth in its entirety herein.

220. The New Jersey Consumer Fraud Act ("CFA"), N.J.S.A. 56:8-2, prohibits:

The act, use or employment by any person of any unconscionable commercial practice, deception, fraud, false promise, misrepresentation, or the knowing [] concealment, suppression, or omission of any material fact with the intent that others rely upon such concealment, suppression or omission, in connection with the sale or advertisement of any merchandise

N.J.S.A. 56:8-2.

221. The CFA defines "advertisement" as:

the attempt directly or indirectly by publication, dissemination, solicitation, indorsement or circulation or in any other way to induce directly or indirectly any person to enter or not enter into any obligation or acquire any title or interest in any merchandise or to increase the consumption thereof

N.J.S.A. 56:8-1(a).

222. The CFA defines "merchandise" as including "any objects, wares, goods, commodities, services or anything offered, directly or indirectly to the public for sale." N.J.S.A. 56:8-1(c).

223. The CFA defines "sale" as "any sale, rental or distribution, offer for sale, rental or distribution or attempt directly or indirectly to sell, rent or distribute." N.J.S.A. 56:8-1(e).

224. The CFA defines "person" as "any natural person or his legal representative, partnership, corporation, trust, business entity or association, and any agent, employee, salesman,

partner, officer, director, member, stockholder, associate, trustee or cestuis que trustent thereof.” N.J.S.A. 56:8-1(d).

225. Dow and Vulcan’s 1,4-dioxane and dioxane-stabilized TCA products were publicly available, including to unsophisticated industrial and commercial end users throughout New Jersey, who did not order customized formulations of 1,4-dioxane and dioxane-stabilized TCA. Upon information and belief, commercial and industrial end users who purchased 1,4-dioxane and dioxane-stabilized TCA did not receive legal or expert assistance in the development and execution of the transaction. Furthermore, any prior relationship between end users and Defendants and their distributors did not provide an understanding of 1,4-dioxane’s toxicity, miscibility, and persistence.

226. The 1,4-dioxane and 1,4-dioxane-containing products advertised, offered for sale, and sold by Dow and Vulcan comprise merchandise within the meaning of the CFA.

227. The definition of “person” as defined by the CFA applies to Dow and Vulcan, and Dow and Vulcan have advertised, offered for sale, and sold “merchandise as defined by the CFA.

228. Dow and Vulcan advertised, offered for sale, and sold 1,4-dioxane and 1,4-dioxane-containing products to consumers in New Jersey, including industrial end users.

229. Those consumers and industrial end users are consumers entitled to protection under the CFA.

230. Dow and Vulcan, in the course of advertising, offering for sale, and selling 1,4-dioxane and 1,4-dioxane-containing products, have engaged in unconscionable commercial practices, deception, misrepresentations, and/or knowing omissions of material fact in violation of the CFA.

231. Dow and Vulcan have engaged in unconscionable commercial practices and deception, including, but not limited to, the following:

- A. Affirmatively instructing end users to use and dispose of 1,4-dioxane and 1,4-dioxane containing products in ways that Defendants knew would inevitably result in 1,4-dioxane contamination of drinking water.
- B. Despite knowing the dangers associated with 1,4-dioxane and 1,4-dioxane-containing products, withholding this material knowledge from New Jersey government entities and industrial end users, such that these entities and end users did not fully understand the consequences of using 1,4-dioxane-products.
- C. Deceptively claiming that their 1,4-dioxane and 1,4-dioxane-containing products did not present a threat to the environment or human health.

232. Dow and Vulcan have made misrepresentations, including, but not limited to, representing that 1,4-dioxane was safe and did not pose a threat to the environment or human health, when they knew or had reason to know that was not the case.

233. Dow and Vulcan have engaged in the knowing omissions or concealments of material facts, including, but not limited to the following:

- A. Omitting or concealing material facts regarding the highly mobile, persistent, and toxic nature of 1,4-dioxane;
- B. Omitting or concealing material facts regarding the effect of using Dow and Vulcan's 1,4-dioxane and/or 1,4-dioxane-containing products on the human health and safety and the environment.

234. Each unconscionable commercial practice, act of deception, misrepresentation, and/or knowing omission of fact by Dow and Vulcan constitutes a separate violation of the CFA, N.J.S.A. 56:8-2.

235. The Products Liability Act, N.J.S.A. 2A:58C-1 to -11, does not apply to the State's Consumer Fraud Act claim.

PRAYER FOR RELIEF

236. WHEREFORE, Plaintiffs request that this Court enter judgment against Dow and Vulcan as follows:

- A. Finding that the acts, practices, and omissions of Dow and Vulcan constitute multiple violations of the CFA, N.J.S.A. 56:8-1 to -227;
- B. Permanently enjoining Dow and Vulcan and their owners, officers, directors, shareholders, founders, managers, agents, servants, employees, representatives, independent contractors, corporations, subsidiaries, affiliates, successors, assigns, and all other persons or entities directly under their control, from engaging in, continuing to engage in, or doing any of the acts or practices in violation of the CFA, N.J.S.A. 56:8-1 to -227, including, but not limited to, the acts and practices alleged in this Complaint, N.J.S.A. 56:8-8;
- C. Directing Dow and Vulcan to disgorge all funds and property (real and personal) acquired and/or retained as a result of any acts or practices in violation of the CFA, N.J.S.A. 56:8-8;
- D. Directing Dow and Vulcan to pay the maximum statutory civil penalties, for each and every violation of the CFA, N.J.S.A. 56:8-13;

E. Directing Dow and Vulcan to pay costs and fees, including attorneys' fees, for use of the State, N.J.S.A. 56:8-11 and -19; and

F. Granting Plaintiffs such other relief as the interests of justice may require.

DESIGNATION OF TRIAL COUNSEL

Pursuant to R. 4:25-4, Plaintiffs designate Deputy Attorneys General Gwen Farley and Jeffrey Koziar as trial counsel in this matter.

CERTIFICATION REGARDING OTHER PROCEEDINGS AND PARTIES

Undersigned counsel hereby certifies, in accordance with R. 4:5-1(b)(2), that the matters in controversy in this action are not the subject of any other pending or contemplated action in any court or arbitration proceeding known to the Plaintiffs at this time, nor is any non-party known to the Plaintiffs at this time who should be joined in this action pursuant to R. 4:28, or who is subject to joinder pursuant to R. 4:29-1. If, however, any such non-party later becomes known to the Plaintiffs, an amended certification shall be filed and served on all other parties and with this Court in accordance with R. 4:5-1(b)(2).

JURY DEMAND

Plaintiffs demand a trial by jury on all issues so triable.

Dated: March 23, 2023

MATTHEW J. PLATKIN
**ATTORNEY GENERAL OF THE STATE OF
NEW JERSEY**
Attorney for Plaintiffs

By: /s/ Gwen Farley
Gwen Farley (000081999)
Jeffrey Koziar (015131999)
Deputy Attorneys General
Richard J. Hughes Justice Complex
25 Market Street; PO Box 093
Trenton, New Jersey 08625-0093
(609) 376-2740
Email: Gwen.Farley@law.njoag.gov
Jeffrey.Koziar@law.njoag.gov

SHER EDLING LLP
Special Counsel to the Attorney General

By: /s/ Matthew K. Edling
Matthew K. Edling
100 Montgomery St. Suite 1401
San Francisco, CA 94104

Victor M. Sher
Stephanie D. Biehl
Katie H. Jones
Ashley B. Campbell
Quentin C. Karpilow
Paul Stephan (275272018)
100 Montgomery St. Suite 1401
San Francisco, CA 94104
(628) 231-2500
Email: matt@sheredling.com
vic@sheredling.com
stephanie@sheredling.com
katie@sheredling.com
ashley@sheredling.com
quentin@sheredling.com
paul@sheredling.com

HAUSFELD LLP
Special Counsel to the Attorney General

By: /s/ Katie R. Beran
Katie R. Beran (031262012)
325 Chestnut Street, Suite 900
Philadelphia, PA 19106
kberan@hausfeld.com

James Gotz
One Marina Park Drive
Boston, MA 02210
jgotz@hausfeld.com

Timothy Lockwood Kelly (302852020)
325 Chestnut Street, Suite 900
Philadelphia, PA 19106
tkelly@hausfeld.com

Amanda Lee-DasGupta
888 16 Street, N.W., Suite 300
Washington, D.C. 20006
alee@hausfeld.com

Renner Walker (264302018)
33 Whitehall Street
New York, NY 10004
rwalker@hausfeld.com

Civil Case Information Statement

Case Details: MERCER | Civil Part Docket# L-000552-23

Case Caption: ATTORNEY GENERAL OF NEW JERSEY
VS THE DOW CHEMIC

Case Initiation Date: 03/23/2023

Attorney Name: KATIE ROSE BERAN

Firm Name: HAUSFELD LLP

Address: 325 CHESTNUT ST STE 900
PHILADELPHIA PA 19106

Phone: 2159853270

Name of Party: PLAINTIFF : Attorney General of New
Jersey

Name of Defendant's Primary Insurance Company
(if known): Unknown

Case Type: ENVIRONMENTAL/ENVIRONMENTAL COVERAGE
LITIGATION

Document Type: Complaint with Jury Demand

Jury Demand: YES - 6 JURORS

Is this a professional malpractice case? NO

Related cases pending: NO

If yes, list docket numbers:

**Do you anticipate adding any parties (arising out of same
transaction or occurrence)?** NO

Does this case involve claims related to COVID-19? NO

**Are sexual abuse claims alleged by: Attorney General of New
Jersey?** NO

**Are sexual abuse claims alleged by: NJ Dept of Environmental
Protection?** NO

**Are sexual abuse claims alleged by: Commissioner of NJ Dept
of Environmental Protection?** NO

**Are sexual abuse claims alleged by: Admin of NJ Spill Comp
Fund?** NO

**Are sexual abuse claims alleged by: NJ Division of Consumer
Affairs?** NO

THE INFORMATION PROVIDED ON THIS FORM CANNOT BE INTRODUCED INTO EVIDENCE

CASE CHARACTERISTICS FOR PURPOSES OF DETERMINING IF CASE IS APPROPRIATE FOR MEDIATION

Do parties have a current, past, or recurrent relationship? NO

If yes, is that relationship:

Does the statute governing this case provide for payment of fees by the losing party? YES

**Use this space to alert the court to any special case characteristics that may warrant individual
management or accelerated disposition:**

Do you or your client need any disability accommodations? NO

If yes, please identify the requested accommodation:

Will an interpreter be needed? NO

If yes, for what language:

Please check off each applicable category: Putative Class Action? NO Title 59? NO Consumer Fraud? YES

I certify that confidential personal identifiers have been redacted from documents now submitted to the court, and will be redacted from all documents submitted in the future in accordance with *Rule* 1:38-7(b)

03/23/2023
Dated

/s/ KATIE ROSE BERAN
Signed