Attachment A

MAYOR AND CITY COUNCIL OF BALTIMORE,
City Hall
100 N. Holliday St.,
Baltimore, MD 21202,

Plaintiff,

vs.

BP P.L.C.,
1 St James's Square
London,
SW1Y 4PD;

BP AMERICA, INC.,
200 E Randolph
Chicago IL 60601;

BP PRODUCTS NORTH AMERICA INC.,
7 St. Paul Street, Suite 820
Baltimore MD 21202;

CROWN CENTRAL PETROLEUM CORPORATION;
1 North Charles Street
Suite 2100
Baltimore, MD 21201;

CROWN CENTRAL LLC,
1 North Charles Street
Suite 2100
Baltimore, MD 21201;

CROWN CENTRAL NEW HOLDINGS LLC,
1 N Charles St
Ste 2200
Baltimore, MD 21201;

CHEVRON CORP.,
6001 Bollinger Canyon Road
San Ramon, CA 94583;

CHEVRON U.S.A. INC.,
6001 Bollinger Canyon Road
San Ramon, CA 94583;

IN THE
CIRCUIT COURT
FOR BALTIMORE CITY

Case Number:

JURY TRIAL DEMANDED

EXXON MOBIL CORP.,
5959 Las Colinas Boulevard
Irving, Texas 75039-2298;

EXXONMOBIL OIL CORPORATION,
5959 Las Colinas Boulevard
Irving, Texas 75039-2298;

ROYAL DUTCH SHELL PLC,
Carel van Bylandtlaan 16,
2596 HR The Hague,
The Netherlands;

SHELL OIL COMPANY,
P.O. Box 2463
Houston, TX 77252-2463;

CITGO PETROLEUM CORP.,
1293 Eldridge Parkway
Houston, TX 77077-1670;

CONOCOPHILLIPS,
600 North Dairy Ashford
Houston, Texas 77079-1175;

CONOCOPHILLIPS COMPANY.
600 North Dairy Ashford
Houston, Texas 77079-1175;

LOUISIANA LAND & EXPLORATION CO.,
909 Poydras Street
New Orleans, LA 70112;

PHILLIPS 66,
2331 CityWest Blvd
Houston, TX 77042;

PHILLIPS 66 COMPANY.
2331 CityWest Blvd
Houston, TX 77042;

MARATHON OIL COMPANY,
5555 San Felipe Street
Houston, TX 77056-2723;

MARATHON OIL CORPORATION,
5555 San Felipe Street
Houston, TX 77056-2723;

MARATHON PETROLEUM CORPORATION,
539 South Main Street
Findlay, OH 45840;

SPEEDWAY LLC,
500 Speedway Dr
Enon, OH 45323-1056;

HESS CORP.,
1209 Orange Street
Wilmington DE 19801;

CNX RESOURCES CORPORATION,
1000 Consol Energy Drive
Canonsburg PA 15317;

CONSOL ENERGY INC.,
1000 Consol Energy Drive
Canonsburg PA 15317;

CONSOL MARINE TERMINALS LLC,
1000 Consol Energy Drive
Canonsburg PA 15317;

Defendants.

PLAINTIFF'S COMPLAINT

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I. INTRODUCTION

1. Defendants, major corporate members of the fossil fuel industry, have known for nearly a half century that unrestricted production and use of their fossil fuel products create greenhouse gas pollution that warms the planet and changes our climate. They have known for decades that those impacts could be catastrophic and that only a narrow window existed to take action before the consequences would be irreversible. They have nevertheless engaged in a coordinated, multi-front effort to conceal and deny their own knowledge of those threats, discredit the growing body of publicly available scientific evidence, and persistently create doubt in the minds of customers, consumers, regulators, the media, journalists, teachers, and the public about the reality and consequences of the impacts of their fossil fuel pollution. At the same time, Defendants have promoted and profited from a massive increase in the extraction and consumption of oil, coal, and natural gas, which has in turn caused an enormous, foreseeable, and avoidable increase in global greenhouse gas pollution and a concordant increase in the concentration of greenhouse gases,[1] particularly carbon dioxide ("CO_2") and methane, in the Earth's atmosphere. Those disruptions of the Earth's otherwise balanced carbon cycle have substantially contributed to a wide range of dire climate-related effects, including, but not limited to, global warming, rising atmospheric and ocean temperatures, ocean acidification, melting polar ice caps and glaciers, more extreme and volatile weather, and sea level rise. Plaintiff, the Mayor and City Council of Baltimore,[2] along with the Baltimore's residents, infrastructure, and natural resources, suffer

[1] As used in this Complaint, the term "greenhouse gases" refers collectively to carbon dioxide, methane, and nitrous oxide. Where a cited primary source refers to a specific gas or gases, or when a process relates only to a specific gas or gases, this Complaint refers to each gas by name.

[2] In this Complaint, the words "City" and "Plaintiff" refer to the Mayor and City Council of Baltimore, unless otherwise stated. The word "Baltimore" refers to Baltimore City's geographic area, and specifically to non-federal lands within its boundaries, unless otherwise stated.

the consequences.

2. Defendants are vertically integrated extractors, producers, refiners, manufacturers, distributors, promoters, marketers, and sellers of fossil fuel products. Decades of scientific research show that pollution from the production and use of Defendants' fossil fuel products plays a direct and substantial role in the unprecedented rise in emissions of greenhouse gas pollution and increased atmospheric CO_2 concentrations that has occurred since the mid-20th century. This dramatic increase in atmospheric CO_2 and other greenhouse gases is the main driver of the gravely dangerous changes occurring to the global climate.

3. Anthropogenic (human-caused) greenhouse gas pollution, primarily in the form of CO_2, is far and away the dominant cause of global warming resulting in severe impacts, including, but not limited to, sea level rise, disruption to the hydrologic cycle, more frequent and intense extreme precipitation and associated flooding, more frequent and intense heatwaves, and associated consequences of those physical and environmental changes.[3] The primary source of this pollution is the extraction, production, and consumption of coal, oil, and natural gas, referred to collectively in this Complaint as "fossil fuel products."[4]

4. The rate at which Defendants have extracted and sold fossil fuel products has exploded since the Second World War, as have emissions from those products. The substantial

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[3] *See* IPCC, *Climate Change 2014: Synthesis Report*, Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland (2014) 6, Figure SMP.3, https://www.ipcc.ch/report/ar5/syr.

[4] *See* C. Le Quéré et al., *Global Carbon Budget 2016*, 8 EARTH SYST. SCI. DATA 632 (2016), http://www.earth-syst-sci-data.net/8/605/2016. Cumulative emissions since the beginning of the industrial revolution to 2015 were 413 GtC attributable to fossil fuels, and 190 GtC attributable to land use change. *Id.* Global CO_2 emissions from fossil fuels and industry remained nearly constant at 9.9 GtC in 2015, distributed among coal (41%), oil (34%), gas (19%), cement (5.6%), and gas flaring (0.7%). *Id.* at 629.

majority of all greenhouse gas emissions in history has occurred since the 1950s, a period known as the "Great Acceleration."[5] About three quarters of all industrial CO_2 emissions in history have occurred since the 1960s,[6] and more than half have occurred since the late 1980s.[7] The annual rate of CO_2 emissions from extraction, production, and consumption of fossil fuels has increased by more than 60 percent since 1990.[8]

5. Defendants have known for nearly 50 years that greenhouse gas pollution from their fossil fuel products has a significant impact on the Earth's climate and sea levels. Defendants' awareness of the negative implications of their actions corresponds almost exactly with the Great Acceleration, and with skyrocketing greenhouse gas emissions. With that knowledge, Defendants took steps to protect their own assets from these threats through immense internal investment in research, infrastructure improvements, and plans to exploit new opportunities in a warming world.

6. Instead of working to reduce the use and combustion of fossil fuel products, lower the rate of greenhouse gas emissions, minimize the damage associated with continued high use and combustion of such products, and ease the transition to a lower carbon economy, Defendants concealed the dangers, sought to undermine public support for greenhouse gas regulation, and engaged in massive campaigns to promote the ever-increasing use of their products at ever greater volumes. Thus, each Defendant's conduct has contributed substantially to the buildup of CO_2 in the environment that drives global warming and its physical, environmental, and socioeconomic consequences.

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[5] Will Steffen et al., *The Trajectory of the Anthropocene: The Great Acceleration*, 2 THE ANTHROPOCENE REVIEW 81, 81 (2015).

[6] R. J. Andres et al., *A Synthesis of Carbon Dioxide Emissions from Fossil-Fuel Combustion*, 9 BIOGEOSCIENCES 1845, 1851 (2012).

[7] *Id.*

[8] C. Le Quéré et al., *Global Carbon Budget 2016*, *supra* note 4, at 630.

7. Defendants' products—based on the volume of oil, gas, and coal these companies extracted from the earth—are directly responsible for at least 151,000 gigatons of CO_2 emissions between 1965 and 2015, representing approximately 15 percent of total emissions of that potent greenhouse gas during that period. Accordingly, Defendants are directly responsible for a substantial portion of past and committed sea level rise (sea level rise that will occur even in the absence of any future emissions), as well as for a substantial portion of changes to the hydrologic cycle, because of the consumption of their fossil fuel products. Defendants, individually and collectively, have made even greater contributions to fossil fuel pollution based on their shares of "downstream" operations, that is, refinery output, as well as wholesale and retail sales of their products. And the Defendants, individually and collectively, have played leadership roles in denialist campaigns to confuse and obscure the role of their products in causing climate change and the associated dire effects on the world, including Baltimore.

8. As a direct and proximate consequence of Defendants' wrongful conduct described in this Complaint, flooding and storms will become more frequent and more severe, and average sea level will rise substantially along Maryland's coast, including in Baltimore. Disruptions to weather cycles, extreme precipitation, heatwaves, and associated consequences—all due to anthropogenic global warming—will increase in Baltimore. Because Baltimore is situated on the eastern seaboard in the Mid-Atlantic region and features over 60 miles of waterfront land, it is particularly vulnerable to sea level rise and flooding, and the City has already spent significant funds to study, mitigate, and adapt to the effects of global warming. Climate change impacts already adversely affect Baltimore and jeopardize City-owned or operated facilities deemed critical for operations, utility services, and risk management, as well as other assets that are essential to community health, safety, and well-being.

9. The City has engaged in several planning processes to prepare for the multitude of impacts from climatic shifts, and has recognized increasingly severe consequences therefrom.

10. Defendants' production, promotion, marketing of fossil fuel products, simultaneous concealment of the known hazards of those products, and their championing of anti-science campaigns, actually and proximately caused Plaintiff's injuries.

11. Accordingly, the City brings a claim against Defendants for Public Nuisance, Strict Liability for Failure to Warn, Strict Liability for Design Defect, Negligent Design Defect, Negligent Failure to Warn, Trespass, and violations of the Maryland Consumer Protection Act, Md. Code Ann., Comm. L. § 13-301.

12. By this Complaint, the City seeks to ensure that the parties who have profited from externalizing the responsibility for sea level rise, extreme precipitation events, heatwaves, other results of the changing hydrologic regime caused by increasing temperatures, and associated consequences of those physical and environmental changes, bear the costs of those impacts on the City, rather than Plaintiff, local taxpayers, residents, or broader segments of the public. The City does not seek to impose liability on Defendants for their direct emissions of greenhouse gases and does not seek to restrain Defendants from engaging in their business operations.

II. PARTIES

A. Plaintiff

13. Plaintiff, the Mayor and City Council of Baltimore, brings this action as an exercise of its police power, which includes, but is not limited to, its power to prevent pollution of the Baltimore's property and waters, to prevent and abate nuisances, and to prevent and abate hazards to public health, safety, welfare, and the environment.

14. Baltimore is already experiencing sea level rise and associated impacts. Baltimore will experience significant additional sea level rise over the coming decades through at least the end of the century.[9]

15. The sea level rise impacts to Baltimore associated with an increase in average mean sea level height adjacent and near to Baltimore include, but are not limited to, increased inundation (permanent) and flooding (temporary) in natural and built environments with higher tides and intensified wave and storm surge events, and aggravated wave impacts, including erosion, damage, and destruction of built structures and infrastructure.

16. In addition, Baltimore is and will continue to be impacted by increased temperatures and disruptions to the hydrologic cycle. Baltimore is already experiencing a climatic and meteorological shift toward winters and springs with more extreme precipitation events contrasted by hotter, dryer, and longer summers. These changes have led to increased property damage, economic injuries, and impacts to public health. The City must spend substantial funds to plan for and respond to these phenomena, and to mitigate their secondary and tertiary impacts.

17. Compounding these environmental impacts are cascading social and economic impacts, which cause injuries to the City that will arise out of localized climate change-related conditions.

B. Defendants

18. Defendants are responsible for a substantial portion of the total greenhouse gases emitted since 1965. Defendants, individually and collectively, are responsible for extracting, refining, processing, producing, promoting, and marketing fossil fuel products, the normal and

[9] Union of Concerned Scientist, *When Rising Seas Hit Home*, 10–11 (April 2017), https://www.ucsusa.org/sites/default/files/attach/2017/07/when-rising-seas-hit-home-full-report.pdf

intended use of which has led to the emission of a substantial percentage of the total volume of greenhouse gases released into the atmosphere since 1965. Indeed, between 1965 and 2015, the named Defendants extracted from the earth enough fossil fuel materials (i.e. crude oil, coal, and natural gas) to account for more than one in every six tons of CO_2 and methane emitted worldwide. Accounting for their wrongful promotion and marketing activities, Defendants bear a dominant responsibility for global warming generally, and for the City's injuries in particular. Defendants' responsibility is even greater considering their production, marketing and promotion activities in the wholesale and retail markets for their products.

19. When reference in this Complaint is made to an act or omission of the Defendants, unless specifically attributed or otherwise stated, such references should be interpreted to mean that the officers, directors, agents, employees, or representatives of the Defendants committed or authorized such an act or omission, or failed to adequately supervise or properly control or direct their employees while engaged in the management, direction, operation or control of the affairs of Defendants, and did so while acting within the scope of their employment or agency.

20. **BP Entities**

a. BP P.L.C. is a multi-national, vertically integrated energy and petrochemical public limited company, registered in England and Wales with its principal place of business in London, England. BP P.L.C. consists of three main operating segments: (1) exploration and production, (2) refining and marketing, and (3) gas power and renewables. BP P.L.C. is the ultimate parent company of numerous subsidiaries, referred to collectively as the "BP Group," which explore for and extract oil and gas worldwide; refine oil into fossil fuel products such as gasoline; and market and sell oil, fuel, other refined petroleum products, and natural gas

worldwide. BP P.L.C.'s subsidiaries explore for oil and natural gas under a wide range of licensing, joint arrangement, and other contractual agreements.

b. BP P.L.C. controls and has controlled companywide decisions about the quantity and extent of fossil fuel production and sales, including those of its subsidiaries. BP P.L.C. is the ultimate decisionmaker on fundamental decisions about the BP Group's core business, *i.e.*, the level of companywide fossil fuels to produce, including production among BP P.L.C.'s subsidiaries. For instance, BP P.L.C. reported that in 2016-17 it brought online thirteen major exploration and production projects. These contributed to a 12 percent increase in the BP Group's overall fossil fuel product production. These projects were carried out by BP P.L.C.'s subsidiaries. Based on these projects, BP P.L.C. expects the BP Group to deliver to customers 900,000 barrels of new product per day by 2021. BP P.L.C. further reported that in 2017 it sanctioned three new exploration projects in Trinidad, India and the Gulf of Mexico.

c. BP P.L.C. controls and has controlled companywide decisions about the quantity and extent of fossil fuel production, including those of its subsidiaries. BP P.L.C. makes fossil fuel production decisions for the entire BP Group based on factors including climate change. BP P.L.C.'s Board is the highest decision-making body within the company, with direct responsibility for the BP Group's climate change policy. BP P.L.C.'s chief executive is responsible for maintaining the BP Group's system of internal control that governs the BP Group's business conduct. BP P.L.C. reviews climate change risks facing the BP Group through two executive committees—chaired by the Group chief executive, and one working group chaired by the executive vice president and Group chief of staff—as part of BP Group's established management structure, and directs Group-wide strategy and decisions regarding climate change.

d. BP America Inc., is a wholly-owned subsidiary of BP P.L.C. that acts on BP P.L.C.'s behalf and subject to BP P.L.C.'s control. BP America Inc. is a vertically integrated energy and petrochemical company incorporated in the State of Delaware with its headquarters and principal place of business in Houston, Texas. BP America Inc., consists of numerous divisions and affiliates in all aspects of the fossil fuel industry, including exploration for and production of crude oil and natural gas; manufacture of petroleum products; and transportation, marketing, and sale of crude oil, natural gas, and petroleum products. BP America Inc. has been qualified to do business in Maryland. BP America Inc. was formerly known as, did or does business as, and/or is the successor in liability to Amoco Corporation; Amoco Oil Company; ARCO Products Company; Atlantic Richfield Delaware Corporation; Atlantic Richfield Company (a Delaware Corporation); BP Exploration & Oil, Inc.; BP Products North America Inc.; BP Amoco Corporation; BP Amoco Plc; BP Oil, Inc.; BP Oil Company; Sohio Oil Company; Standard Oil of Ohio (SOHIO); Standard Oil (Indiana); The Atlantic Richfield Company (a Pennsylvania corporation) and its division, the Arco Chemical Company.

e. BP Products North America Inc. is a subsidiary of BP P.L.C. that acts on BP P.L.C.'s behalf and subject to BP P.L.C.'s control. BP Products North America Inc. is engaged in fossil fuel exploration, production, refining, and marketing. It is formed under the laws of Maryland and domiciled in Maryland. BP Products North America Inc. maintains its registered offices at 351 West Camden Street, Baltimore, Maryland, 21201.

f. Defendants BP P.L.C., BP America, Inc., and BP Products North America, Inc., are collectively referred to herein as "BP."

g. BP transacts and has transacted substantial fossil fuel-related business in Maryland. A substantial portion of BP's fossil fuel products are or have been extracted, refined,

transported, traded, distributed, marketed, manufactured, promoted, sold, and/or consumed in Maryland, from which BP derives and has derived substantial revenue. For example, BP operates a fossil fuel terminal in Curtis Bay, Maryland, with the capacity to store and distribute approximately 21,840,000 gallons of oil. Additionally, BP markets and/or has promoted and marketed gasoline and other fossil fuel products to consumers, including through at least 180 BP-branded petroleum service stations in Maryland.

21. **Crown Central Entities**

a. Crown Central Petroleum Corporation has been among the largest independent refiners and marketers of petroleum products in the United States. Crown Central Petroleum Corporation was incorporated in Maryland and had its principal place of business in Baltimore, Maryland. Crown Central Petroleum Corporation was formerly known as, did or does business as, and/or is the predecessor in liability to Crown Central LLC and Crown Central New Holdings, LLC. Crown Central LLC is incorporated in Maryland and has its principal offices in Baltimore, Maryland. Crown Central New Holdings LLC is incorporated in Maryland and has its principal offices in Baltimore, Maryland.

b. Defendants Crown Central Petroleum Corporation, Crown Central LLC, Crown Central New Holdings LLC, and their predecessors, successors, parents, subsidiaries, affiliates, and divisions are collectively referred to herein as "Crown Central."

c. Crown Central transacts and/or has transacted substantial fossil fuel-related business in Maryland. A substantial portion of Crown Central's fossil fuel products are or have been extracted, refined, transported, traded, distributed, marketed, manufactured, sold, and/or consumed in Maryland, from which Crown Central derives and has derived substantial revenue. For example, Crown Central marketed or markets gasoline and other fossil fuel products to

consumers in Maryland through over 100 Crown-branded petroleum service stations in Maryland.

22. **Chevron Entities**

a. Chevron Corporation is a multi-national, vertically integrated energy and chemicals company incorporated in the State of Delaware, with its global headquarters and principal place of business in San Ramon, California.

b. Chevron Corporation operates through a web of United States and international subsidiaries at all levels of the fossil fuel supply chain. Chevron Corporation's and its subsidiaries' operations consist of: 1) exploring for, developing, and producing crude oil and natural gas; 2) processing, liquefaction, transportation, and regasification associated with liquefied natural gas; 3) transporting crude oil by major international oil export pipelines; 4) transporting, storage, and marketing of natural gas; 5) refining crude oil into petroleum products; marketing of crude oil and refined products; 6) transporting crude oil and refined products by pipeline, marine vessel, motor equipment, and rail car; 7) basic and applied research in multiple scientific fields including chemistry, geology, and engineering; and 8) manufacturing and marketing of commodity petrochemicals, plastics for industrial uses, and fuel and lubricant additives.

c. Chevron Corporation controls and has controlled companywide decisions about the quantity and extent of fossil fuel production and sales, including those of its subsidiaries.

d. Chevron Corporation controls and has controlled companywide decisions related to climate change and greenhouse gas emissions from its fossil fuel products, including those of its subsidiaries.

e. Chevron U.S.A. Inc. is a Pennsylvania corporation with its principal place of business located in San Ramon, California. Chevron U.S.A. Inc. is qualified to do business in Maryland. Chevron U.S.A. Inc. is a wholly owned subsidiary of Chevron Corporation that acts on

Chevron Corporation's behalf and subject to Chevron Corporation's control. Chevron U.S.A. Inc. was formerly known as, and did or does business as, and/or is the successor in liability to Gulf Oil Corporation, Gulf Oil Corporation of Pennsylvania, Chevron Products Company, and Chevron Chemical Company.

f. "Chevron" as used hereafter, means collectively, Defendants Chevron Corporation and Chevron U.S.A. Inc., and their predecessors, successors, parents, subsidiaries, affiliates, and divisions.

g. Chevron transacts and has transacted substantial fossil fuel-related business in Maryland. A substantial portion of Chevron's fossil fuel products are or have been extracted, refined, transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in Maryland, from which Chevron derives and has derived substantial revenue. For example, Chevron owned and operated a petroleum and asphalt refinery and fossil fuel-product terminal in Baltimore directly and/or through its subsidiaries and predecessors-in-interest for a period spanning at least 1948 to 2003. Additionally, Chevron markets and/or has marketed gasoline and other fossil fuel products to consumers, including through Chevron-branded petroleum services stations in Maryland.

23. **Exxon Mobil Entities**

a. Exxon Mobil Corporation is a multi-national, vertically integrated energy and chemicals company incorporated in the State of New Jersey with its headquarters and principal place of business in Irving, Texas. Exxon Mobil Corporation is among the largest publicly traded international oil and gas companies in the world. Exxon Mobil Corporation was formerly known as, did or does business as, and/or is the successor in liability to ExxonMobil Refining and Supply Company, Exxon Chemical U.S.A., ExxonMobil Chemical Corporation, ExxonMobil Chemical

U.S.A., ExxonMobil Refining & Supply Corporation, Exxon Company, U.S.A., Exxon Corporation, and Mobil Corporation.

b. Exxon Mobil Corporation controls and has controlled companywide decisions about the quantity and extent of fossil fuel production and sales, including those of its subsidiaries. Exxon Mobil Corporation's 2017 Form 10-K filed with the United States Securities and Exchange Commission represents that its success, including its "ability to mitigate risk and provide attractive returns to shareholders, depends on [its] ability to successfully manage [its] overall portfolio, including diversification among types and locations of our projects."

c. Exxon Mobil Corporation controls and has controlled companywide decisions related to climate change and greenhouse gas emissions from its fossil fuel products, including those of its subsidiaries. Exxon Mobil Corporation's Board holds the highest level of direct responsibility for climate change policy within the company. Exxon Mobil Corporation's Chairman of the Board and Chief Executive Officer, its President and the other members of its Management Committee are actively engaged in discussions relating to greenhouse gas emissions and the risks of climate change on an ongoing basis. Exxon Mobil Corporation requires its subsidiaries to provide an estimate of greenhouse gas-related emissions costs in their economic projections when seeking funding for capital investments.

d. Exxonmobil Oil Corporation is wholly-owned subsidiary of Exxon Mobil Corporation that acts on Exxon Mobil Corporation's behalf and subject to Exxon Mobil Corporation's control. Exxonmobil Oil Corporation is incorporated in the State of New York with its principal place of business in Irving, Texas. Exxonmobil Oil Corporation is qualified to do business in Maryland. Exxon Mobil Oil Corporation was formerly known as, did or does business as, and/or is the successor in liability to Mobil Oil Corporation.

e. "Exxon" as used hereafter, means collectively Defendants Exxon Mobil Corporation and Exxonmobil Oil Corporation, and their predecessors, successors, parents, subsidiaries, affiliates, and divisions.

f. Exxon consists of numerous divisions and affiliates in all areas of the fossil fuel industry, including exploration for and production of crude oil and natural gas; manufacture of petroleum products; and transportation, promotion, marketing, and sale of crude oil, natural gas, and petroleum products. Exxon is also a major manufacturer and marketer of commodity petrochemical products.

g. Exxon transacts and has transacted substantial fossil fuel-related business in Maryland. A substantial portion of Exxon's fossil fuel products are or have been extracted, refined, transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in Maryland, from which Exxon derives and has derived substantial revenue. For example, Exxon directly and through its subsidiaries and/or predecessors in interest owned and operated an oil refinery in Baltimore from 1893 to the mid-1950s. In the mid-1950s, the facility was converted to a petroleum storage and marketing facility which Exxon operated until 1998. Additionally, Exxon markets or has marketed gasoline and other fossil fuel products to consumers, including through at least 250 Exxon-branded and at least 40 Mobil-branded petroleum service stations in Maryland. Exxon maintains an interactive website that allows consumers to locate Exxon-branded gas stations in Maryland.

24. **Shell Entities**

a. Royal Dutch Shell PLC is a vertically integrated, multinational energy and petrochemical company. Royal Dutch Shell PLC is incorporated in England and Wales, with its headquarters and principal place of business in the Hague, Netherlands. Royal Dutch Shell PLC

consists of over a thousand divisions, subsidiaries, and affiliates engaged in all aspects of the fossil fuel industry, including exploration, development, extraction, manufacturing, and energy production, transport, trading, marketing, and sales.

b. Royal Dutch Shell PLC controls and has controlled companywide decisions about the quantity and extent of fossil fuel production and sales, including those of its subsidiaries. Royal Dutch Shell PLC's Board of Directors determines whether and to what extent Shell subsidiary holdings around the globe produce Shell-branded fossil fuel products. For instance, in 2015, a Royal Dutch Shell PLC subsidiary employee admitted in a deposition that Royal Dutch Shell PLC's Board of Directors made the decision whether to drill a particular oil deposit off the coast of Alaska.

c. Royal Dutch Shell PLC controls and has controlled companywide decisions related to climate change and greenhouse gas emissions from its fossil fuel products, including those of its subsidiaries. Overall accountability for climate change within the Shell group of companies lies with Royal Dutch Shell PLC's Chief Executive Officer and Executive Committee. Additionally, in November 2017, Royal Dutch Shell PLC announced it would reduce the carbon footprint of "its energy products" by "around" half by 2050. Royal Dutch Shell PLC's effort is inclusive of all fossil fuel products produced under the Shell brand, including those of its subsidiaries. Royal Dutch Shell PLC's CEO stated that Royal Dutch Shell PLC would reduce the carbon footprint of its products, including those of its subsidiaries "by reducing the net carbon footprint of the full range of Shell emissions, from our operations and from the consumption of our products." Additionally, at least as early as 1988, Royal Dutch Shell PLC, by and through its subsidiaries, was researching companywide CO_2 emissions and concluded that the Shell group of companies accounted for "4% of the CO2 emitted worldwide from combustion," and that climatic

changes could compel the Shell group, as controlled by Royal Dutch Shell PLC, to "examine the possibilities of expanding and contracting [its] business accordingly."[10]

d. Shell Oil Company is a wholly owned subsidiary of Royal Dutch Shell PLC that acts on Royal Dutch Shell PLC's behalf and subject to Royal Dutch Shell PLC's control. Shell Oil Company is incorporated in Delaware and with its principal place of business in Houston, Texas. Shell Oil Company is qualified to do business in Maryland. Shell Oil Company was formerly known as, did or does business as, and/or is the successor in liability to Deer Park Refining LP, Shell Oil, Shell Oil Products, Shell Chemical, Shell Trading US, Shell Trading (US) Company, Shell Energy Services, Texaco Inc., The Pennzoil Company, Shell Oil Products Company LLC, Shell Oil Products Company, Star Enterprise, LLC, Star Enterprise LLC, and Pennzoil-Quaker State Company.

e. Royal Dutch Shell has purposefully directed, and purposefully directs fossil fuel products into Maryland, and has conducted substantial fossil fuel business in Maryland. In particular, Shell has marketed and continues to market gasoline and other fossil fuel products to consumers through over 200 Shell-branded petroleum service stations. Prior to March 2017, Royal Dutch Shell also solely operated two petroleum storage and distribution terminals in Baltimore in which it owned a 50 percent stake, at which it transferred and stored distillate oils, various grades of gasoline, liquid gasoline additives, and distillate products.

f. Defendants Royal Dutch Shell PLC, Shell Oil Company, and their predecessors, successors, parents, subsidiaries, affiliates, and divisions are collectively referred to as "Shell."

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[10] Shell Internationale Petroleum Maatschappij B.V., *The Greenhouse Effect* at 29 (1988) (prepared for Shell Environmental Conservation Committee).

g. Shell transacts and has transacted substantial fossil fuel-related business in Maryland. A substantial portion of Shell's fossil fuel products are or have been extracted, refined, transported, traded, distributed, promoted marketed, manufactured, sold, and/or consumed in Maryland, from which Shell derives and has derived substantial revenue.

25. **Citgo Petroleum Corporation ("Citgo")**

a. Citgo is a direct, wholly owned subsidiary of PDV America, Incorporated, which is a wholly owned subsidiary of PDV Holding, Incorporated. These organizations' ultimate parent is Petróleos de Venezuela, S.A. ("PDVSA"), an entity wholly owned by the Republic of Venezuela that plans, coordinates, supervises, and controls activities carried out by its subsidiaries. Citgo is incorporated in the State of Delaware and maintains its headquarters in Houston, Texas. Citgo is qualified to do business in Maryland.

b. Citgo controls and has controlled companywide decisions about the quantity and extent of fossil fuel production and sales, including those of its subsidiaries.

c. Citgo controls and has controlled companywide decisions related to climate change and greenhouse gas emissions from its fossil fuel products, including those of its subsidiaries.

d. Citgo and its subsidiaries are engaged in the refining, marketing, and transportation of petroleum products including gasoline, diesel fuel, jet fuel, petrochemicals, lubricants, asphalt, and refined waxes.

e. Citgo transacts and has transacted substantial fossil fuel-related business in Maryland. A substantial portion of Citgo's fossil fuel products are or have been extracted, refined, transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in Maryland, from which Citgo derives and has derived substantial revenue. For instance, the Citgo

Terminal at the Port of Baltimore distributes more than 430 million gallons of gasoline and diesel annually to retail service stations across the northeastern United States, including Maryland. The Citgo Terminal is also a major supplier of ethanol, a gasoline additive, to the mid-Atlantic region, including Maryland. Additionally, Citgo marketed or markets gasoline and other fossil fuel products to consumers in Maryland, including through approximately 160 Citgo-branded petroleum service stations in Maryland.

26. **ConocoPhillips Entities**

a. ConocoPhillips is a multinational energy company incorporated in the State of Delaware and with its principal place of business in Houston, Texas. ConocoPhillips consists of numerous divisions, subsidiaries, and affiliates that carry out ConocoPhillips's fundamental decisions related to all aspects of the fossil fuel industry, including exploration, extraction, production, manufacture, transport, and marketing.

b. ConocoPhillips controls and has controlled companywide decisions about the quantity and extent of fossil fuel production and sales, including those of its subsidiaries. ConocoPhillips' most recent annual report subsumes the operations of the entire ConocoPhillips group of subsidiaries under its name. Therein, ConocoPhillips represents that its value—for which ConocoPhillips maintains ultimate responsibility—is a function of its decisions to direct subsidiaries to explore for and produce fossil fuels: "Unless we successfully add to our existing proved reserves, our future crude oil, bitumen, natural gas and natural gas liquids production will decline, resulting in an adverse impact to our business." ConocoPhillips optimizes the ConocoPhillips group's oil and gas portfolio to fit ConocoPhillips' strategic plan. For example, in November 2016, ConocoPhillips announced a plan to generate $5 billion to $8 billion of proceeds over two years by optimizing its business portfolio, including its fossil fuel product business, to

focus on low cost-of-supply fossil fuel production projects that strategically fit its development plans.

c. ConocoPhillips controls and has controlled companywide decisions related to global warming and greenhouse gas emissions from its fossil fuel products, including those of its subsidiaries. For instance, ConocoPhillips' Board has the highest level of direct responsibility for climate change policy within the company. ConocoPhillips has developed and implements a corporate Climate Change Action Plan to govern climate change decision-making across all entities in the ConocoPhillips group.

d. ConocoPhillips Company is a wholly owned subsidiary of ConocoPhillips that acts on ConocoPhillips' behalf and subject to ConocoPhillips' control. ConocoPhillips Company is incorporated in Delaware and has its principal office in Bartlesville, Oklahoma. ConocoPhillips Company is qualified to do business in Maryland and has a registered agent for service of process in Maryland.

e. Louisiana Land & Exploration Co. is a wholly owned subsidiary of ConocoPhillips that acts on ConocoPhillips' behalf and subject to ConocoPhillips' control. Louisiana Land & Exploration Co. is incorporated in Maryland and has its principal office in New Orleans, Louisiana. Louisiana Land & Exploration Co. explores for, develops, and produces petroleum natural resources. Louisiana Land & Exploration Co. maintains a registered agent for service of process in Maryland.

f. Phillips 66 is a multinational energy and petrochemical company incorporated in Delaware and with its principal place of business in Houston, Texas. It encompasses downstream fossil fuel processing, refining, transport, and marketing segments that were formerly owned and/or controlled by ConocoPhillips.

g. Phillips 66 Company is a wholly owned subsidiary of Phillips 66 that acts on Phillips 66's behalf and subject to Phillips 66's control. Phillips 66 Company is incorporated in Delaware and has its principal office in Houston, Texas. Phillips 66 Company is qualified to do business in Maryland and has a registered agent for service of process in Maryland. Phillips 66 Company was formerly known as, did or does business as, and/or is the successor in liability to Phillips Petroleum Company, Conoco, Inc., Tosco Corporation, and Tosco Refining Co.

h. Defendants ConocoPhillips, ConocoPhillips Company, Louisiana Land & Exploration Co., Phillips 66, Phillips 66 Company, and their predecessors, successors, parents, subsidiaries, affiliates, and divisions are collectively referred to herein as "ConocoPhillips."

i. ConocoPhillips transacts and has transacted substantial fossil fuel-related business in Maryland. A substantial portion of ConocoPhillips's fossil fuel products are or have been extracted, refined, transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in Maryland, from which ConocoPhillips derives and has derived substantial revenue. For instance, ConocoPhillips marketed or markets gasoline and other fossil fuel products to consumers in Maryland, including through ConocoPhillips- and Phillips 66-branded petroleum service stations located in Maryland.

27. **Marathon Entities**

a. Marathon Oil Company is an energy company incorporated in the State of Ohio with its principal place of business in Houston, Texas. Marathon Oil Company is a corporate ancestor of Marathon Oil Corporation and Marathon Petroleum Company.

b. Marathon Oil Corporation is a multinational energy company incorporated in the State of Delaware and with its principal place of business in Houston, Texas. Marathon Oil Corporation consists of multiple subsidiaries and affiliates involved in the exploration for,

extraction, production, and marketing of fossil fuel products.

c. Marathon Petroleum Corporation is a multinational energy company incorporated in Delaware and with its principal place of business in Findlay, Ohio. Marathon Petroleum Corporation was spun off from the operations of Marathon Oil Corporation in 2011. It consists of multiple subsidiaries and affiliates involved in fossil fuel product refining, marketing, retail, and transport, including both petroleum and natural gas products.

d. Marathon Oil Corporation and Marathon Petroleum Corporation control and have controlled their companywide decisions about the quantity and extent of fossil fuel production and sales, including those of their subsidiaries.

e. Marathon Oil Corporation and Marathon Petroleum Corporation control and have controlled their companywide decisions about the quantity and extent of fossil fuel production, including those of their subsidiaries.

f. Speedway LLC is a wholly owned subsidiary of Marathon Petroleum Corporation that acts on Marathon Petroleum Corporation's behalf and subject to Marathon Petroleum Corporation's control. Speedway LLC is incorporated in the State of Delaware with its principal place of business in Enon, Ohio. Speedway LLC is qualified to do business in Maryland and has a registered agent for service of process in Maryland.

g. Defendants Marathon Oil Company, Marathon Oil Corporation, Marathon Petroleum Corporation, Speedway LLC, and their predecessors, successors, parents, subsidiaries, affiliates, and divisions, are collectively referred to as "Marathon."

h. Marathon transacts and has transacted substantial fossil fuel-related business in Maryland. A substantial portion of Marathon's fossil fuel products are or have been extracted, refined, transported, traded, distributed, promoted, marketed, manufactured, sold, and/or

consumed in Maryland, from which Marathon derives and has derived substantial revenue. For example, Marathon marketed or markets gasoline and other fossil fuel products to consumers in Maryland, including through over 25 Marathon- and Speedway-branded petroleum service stations in Maryland.

28. **Hess Corporation ("Hess")**

a. Hess is a global, vertically integrated petroleum exploration and extraction company incorporated in the State of Delaware with its headquarters and principal place of business in New York, New York. Hess is qualified to do business in Maryland and has a registered agent for service of process in Maryland. Hess was formerly known as, did or does business as, and/or is the successor in liability to Amerada Hess Corporation, WilcoHess LLC, Hess Oil Virgin Islands Corporation, Hess Energy Trading Company, LLC, and Hartree Partners, LP.

b. Hess is engaged in the exploration, development, production, transportation, purchase, marketing, and sale of crude oil and natural gas. Its oil and gas production operations are located primarily in the United States, Denmark, Equatorial Guinea, Malaysia, Thailand, and Norway. Prior to 2014, Hess also conducted extensive retail operations in its own name and through its subsidiaries.

c. Hess controls and has controlled companywide decisions about the quantity and extent of fossil fuel production and sales, including those of its subsidiaries.

d. Hess controls and has controlled companywide decisions related to climate change and greenhouse gas emissions from its fossil fuel products, including those of its subsidiaries.

e. Hess directs and has directed substantial fossil fuel-related business to Maryland. A substantial portion of Hess's fossil fuel products are or have been extracted, refined,

transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in Maryland, from which Hess derives and has derived substantial revenue. For example, Hess marketed or markets gasoline and other fossil fuel products to consumers in Maryland, including through petroleum service stations in Maryland.

29. **CONSOL Entities**

a. CNX Resources Corporation is a vertically integrated energy company that is or has been involved in coal mining, oil and natural gas exploration and production, fossil fuel product distribution, and fossil fuel product marketing. CNX Resources Corporation is incorporated in Delaware, with its principal place of business in Canonsburg, Pennsylvania. CNX Resources Corporation was formerly known as CONSOL Energy Inc. CONSOL Energy Inc. and its predecessors in interest mined and sold coal since the 1860s. In 2017, CNX Resources Corporation split its coal mining and related downstream operations into a new entity, also called CONSOL Energy Inc.

b. CONSOL Energy Inc. is incorporated in the state of Delaware, and with its principal place of business in Canonsburg, Pennsylvania. CONSOL Energy Inc. was formerly known as, did or does business as, and/or is the successor in liability to CNX Resources Corporation.

c. CNX Resources Corporation and CONSOL Energy Inc. control and have controlled their companywide decisions about the quantity and extent of fossil fuel production and sales, including those of their subsidiaries.

d. CNX Resources Corporation and CONSOL Energy Inc. control and have controlled their companywide decisions about the quantity and extent of fossil fuel production, including those of their subsidiaries.

e. CONSOL Marine Terminals LLC is a subsidiary of CONSOL Energy Inc. that acts on CONSOL Energy Inc.'s behalf and subject to CONSOL Energy Inc.'s control. CONSOL Marine Terminals LLC is incorporated in the State of Delaware and has its principal place of business in Canonsburg, Pennsylvania. CONSOL Marine Terminals LLC is qualified to do business in Maryland and has a registered agent for service of process in Maryland.

Defendants CNX Resources Corporation, CONSOL Energy Inc., CONSOL Marine Terminals LLC, and their predecessors, successors, parents, subsidiaries, affiliates, and divisions are collectively referred to herein as "CONSOL."

f. CONSOL transacts and has transacted substantial fossil fuel-related business in Maryland. A substantial portion of CONSOL's fossil fuel products are or have been extracted, refined, transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in Maryland, from which CONSOL derives and has derived substantial revenue. For instance, CONSOL owns and operates one of the largest coal export terminals on the Eastern Seaboard, located in the Port of Baltimore. In 2017, CONSOL shipped approximately 14.3 million tons of coal from its terminal in Baltimore, 53 percent of which came from CONSOL's own coal mines in Appalachia. From the terminal, CONSOL sells and/or distributes that coal into markets in Brazil, Germany, India, and South Korea, among others.

Relevant Non-Parties: Fossil Fuel Industry Associations

30. As set forth in greater detail below, each Defendant had actual knowledge that its fossil fuel products were hazardous. Defendants obtained knowledge of the hazards of their products independently and through their membership and involvement in trade associations.

31. Each Defendant's fossil fuel promotion and marketing efforts were assisted by the trade associations described below. Acting on behalf of the Defendants, the industry associations

engaged in a long-term course of conduct to misrepresent, omit, and conceal the dangers of Defendants' fossil fuel products.

a. **The American Petroleum Institute (API)**: API is a national trade association representing the oil and gas industry, formed in 1919. The following Defendants and/or their predecessors in interest are and/or have been API members at times relevant to this litigation: BP, Chevron, Crown Central, ExxonMobil, Shell, ConocoPhillips, Marathon, and Hess.[11]

b. **The Western States Petroleum Association (WSPA)**: WSPA is a trade association representing oil producers in Arizona, California, Nevada, Oregon, and Washington.[12] Membership has included, among other entities: BP, Chevron, Shell, ConocoPhillips, and ExxonMobil.[13]

c. **The American Fuel and Petrochemical Manufacturers (AFPM)** is a national association of petroleum and petrochemical companies, formerly known as the National Petroleum Refiners Association. At relevant times, its members included, but were not limited to, BP, Chevron, Citgo, Exxon Mobil, ConocoPhillips, Marathon, Shell, and Total.[14]

d. **U.S. Oil & Gas Association (USOGA)** is a national trade association representing oil and gas producers, formerly known as the Mid-Continent Oil & Gas Association. USOGA's membership has included BP, Chevron, Citgo, Exxon, Shell, Marathon,

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[11] American Petroleum Institute, *Members* (webpage) (accessed June 18, 2018), http://www.api.org/membership/members.

[12] Western States Petroleum Association, *About* (webpage) (accessed June 18, 2018), https://www.wspa.org/about.

[13] Western States Petroleum Association, *Member Companies* (webpage) (accessed June 18, 2018), https://www.wspa.org/about.

[14] American Fuel and Petrochemical Manufacturers, *Membership Directory* (webpage) (accessed June 18, 2018), https://www.afpm.org/membership-directory.

ConocoPhillips, and Hess.[15]

e. **Western Oil & Gas Association** was a California nonprofit trade association representing the oil and gas industries, consisting of over 75 member companies. Its members included companies and individual responsible for more than 65 percent of petroleum production and 90 percent of petroleum refining and marketing in the Western United States.[16] WOGA membership included, but was not limited to, Defendants Chevron, ConocoPhillips, Exxon, and Shell.[17] Other fossil fuel company members of WOGA included, but were not limited to, Champlin Petroleum Company (Anadarko)[18] and Reserve Oil & Gas Company.[19]

f. **The Information Council for the Environment (ICE)**: ICE was formed by coal companies and their allies, including Western Fuels Association and the National Coal Association. Associated companies included Pittsburg and Midway Coal Mining (Chevron), and Island Creek Coal Company (Occidental).

g. **The Global Climate Coalition (GCC)**: GCC was an industry group formed to oppose greenhouse gas emission reduction policies and the Kyoto Protocol. It was founded in 1989 shortly after the first Intergovernmental Panel on Climate Change meeting, and disbanded in 2001. Founding members included the National Association of Manufacturers, the National Coal Association, the Edison Electric Institute, and the United States Chamber of Commerce. The GCC's early individual corporate members included Amoco (BP), API, Chevron, Exxon, Ford,

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[15] *See, e.g.*, Louisiana Mid-Continent Oil & Gas Association, *Member Companies* (webpage) (accessed June 18, 2018), http://www.lmoga.com/members/member-companies.

[16] *Am. Petroleum Inst. v. Knecht*, 456 F. Supp. 889, 894 n.2 (C.D. Cal. 1978), *aff'd*, 609 F.2d 1306 (9th Cir. 1979).

[17] *Id.* at 894 n.3.

[18] Hereinafter, parenthetical references to Defendants indicate corporate ancestry and/or affiliation.

[19] *Am. Petroleum Inst. v. Knecht*, 456 F. Supp. at 894 n.3.

Shell Oil, Texaco (Chevron) and Phillips Petroleum (ConocoPhillips). Over its existence other members and funders included ARCO (BP), and the Western Fuels Association. The coalition also operated for several years out of the National Association of Manufacturers' offices.

III. AGENCY

32. At all times herein mentioned, each of the Defendants was the agent, servant, partner, aider and abettor, co-conspirator, and/or joint venturer of each of the remaining Defendants herein and was at all times operating and acting within the purpose and scope of said agency, service, employment, partnership, conspiracy, and joint venture and rendered substantial assistance and encouragement to the other Defendants, knowing that their conduct was wrongful and/or constituted a breach of duty.

IV. JURISDICTION AND VENUE

33. This Court has subject matter jurisdiction over this matter under § 1-501 of the Courts and Judicial Proceedings Article of the Maryland Code.

34. This Court has personal jurisdiction over Defendants because they either are domiciled in Maryland; were served with process in Maryland; are organized under the laws of Maryland; maintain their principal place of business in Maryland; transact business in Maryland; perform work in Maryland; contract to supply goods, manufactured products, or services in Maryland; caused tortious injury in Maryland; engage in persistent courses of conduct in Maryland; derive substantial revenue from manufactured goods, products, or services used or consumed in Maryland; and/or have interests in, use, or possess real property in Maryland.

35. Venue in this Court is proper because the City's causes of action arose in Baltimore and because at least one defendant conducts business there.

V. FACTUAL BACKGROUND

A. Global Warming—Observed Effects and Known Cause

36. Warming of the climate system is unequivocal. Since the 1960s, many of the observed changes to the climate system are unprecedented over decades to millennia. Globally, the atmosphere and ocean have warmed, sea level has risen, and the amounts of snow and ice have diminished, thereby altering hydrologic systems.[20] As a result, extreme weather events have increased, including, but not limited to, heat waves, droughts, and extreme precipitation events.[21]

37. Ocean and land surface temperatures have increased at a rapid pace during the late 20th and early 21st centuries:

a. 2016 was the hottest year on record by globally averaged surface temperatures, exceeding mid-20th century mean ocean and land surface temperatures by approximately 1.69°F.[22] Eight of the twelve months in 2016 were hotter by globally averaged surface temperatures than those respective months in any previous year. October, November, and December 2016 showed the second hottest average surface temperatures for those months, second only to temperatures recorded in 2015.[23]

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[20] IPCC, *Climate Change 2014: Synthesis Report*, *supra* note 3, at 40.

[21] *Id.* at 8.

[22] NOAA, *Global Climate Report—Annual 2017* (accessed July 5, 2018), https://www.ncdc.noaa.gov/sotc/global/201713; NASA, *NASA, NOAA Data Show 2016 Warmest Year on Record Globally* (press release) (Jan. 18, 2017), https://www.nasa.gov/press-release/nasa-noaa-data-show-2016-warmest-year-on-record-globally.

[23] *Id.*

b. The Earth's hottest month ever recorded was February 2016, followed immediately by the second hottest month on record, March 2016.[24]

c. The second hottest year on record by globally averaged surface temperatures was 2015, and the third hottest was 2017.[25]

d. The ten hottest years on record by globally averaged surface temperature have all occurred since 1998,[26] and sixteen of the seventeen hottest years have occurred since 2001.[27]

e. Each of the past three decades has been warmer by average surface temperature than any preceding decade on record.[28]

f. The period between 1983 and 2012 was likely the warmest 30-year period in the Northern Hemisphere since approximately 700 AD.[29]

38. The average global surface and ocean temperature in 2016 was approximately 1.7°F warmer than the 20th century baseline, which is the greatest positive anomaly observed since at least 1880.[30] The increase in hotter temperatures and more frequent positive anomalies during the Great Acceleration is occurring both globally and locally, including in Baltimore. The graph below

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[24] Jugal K. Patel, *How 2016 Became Earth's Hottest Year on Record*, N.Y. TIMES (Jan. 18, 2017), https://www.nytimes.com/interactive/2017/01/18/science/earth/2016-hottest-year-on-record.html.

[25] NOAA, *Global Climate Report—Annual 2017*, *supra* note 22.

[26] *Id.*

[27] NASA, *NASA, NOAA Data Show 2016 Warmest Year on Record Globally* (press release) (Jan. 18, 2017), https://www.nasa.gov/press-release/nasa-noaa-data-show-2016-warmest-year-on-record-globally.

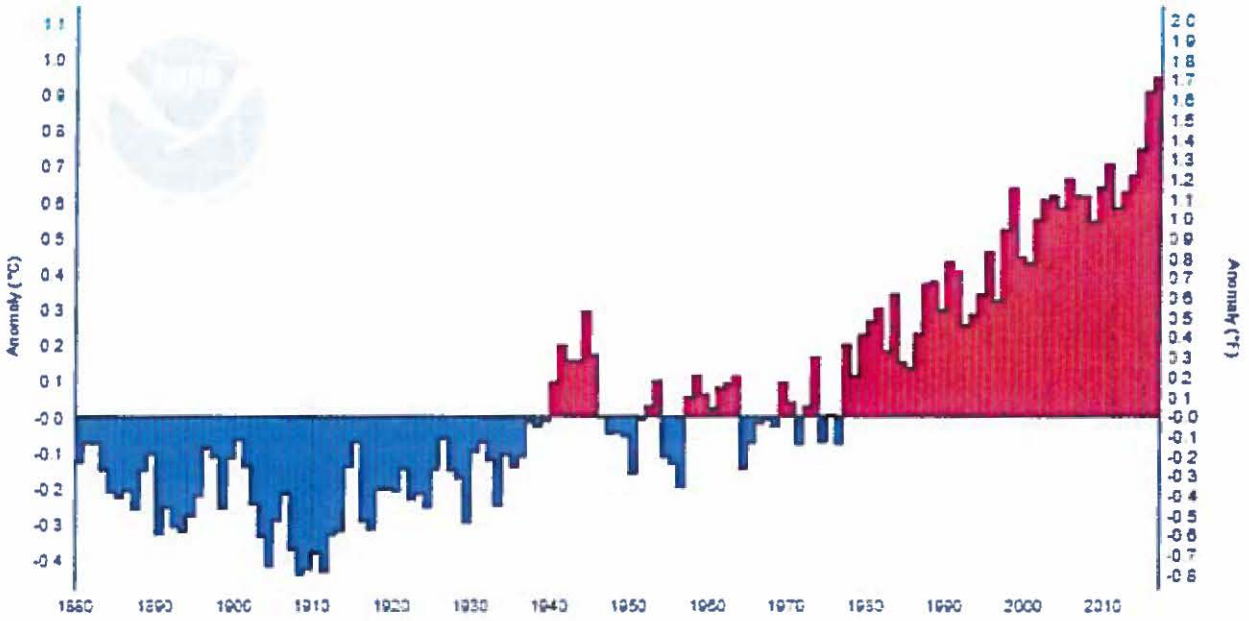
[28] IPCC, *IPCC Climate Change 2014: Synthesis Report*, *supra* note 3, at 2.

[29] *Id.*

[30] NOAA, National Centers for Environmental Information, *Climate at a Glance (Global Time Series)* (June 2017), https://www.ncdc.noaa.gov/cag/time-series/global/globe/land_ocean/ytd/12/1880-2016.

shows the increase in global land and ocean temperature anomalies since 1880, as measured against the 1910–2000 global average temperature.[31]

Fig. 1: Global Land and Ocean Temperature Anomalies, January–December



39. The mechanism by which human activity causes global warming and climate change is well established: ocean and atmospheric warming is overwhelmingly caused by anthropogenic greenhouse gas emissions.[32]

40. When emitted, greenhouse gases trap heat within the Earth's atmosphere that would otherwise radiate into space.

41. Greenhouse gases are largely byproducts of humans combusting fossil fuels to produce energy and using fossil fuels to create petrochemical products.

42. Human activity, particularly greenhouse gas emissions, is the primary cause of global warming and its associated effects on Earth's climate.

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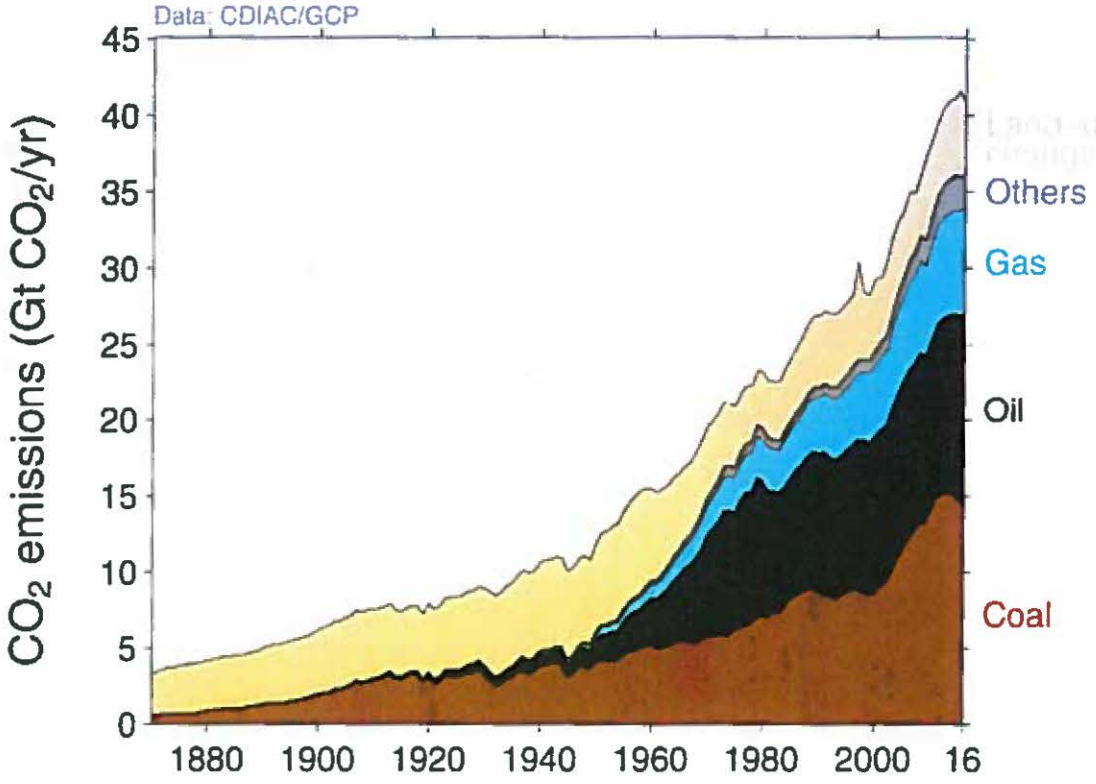
[31] *Id.*

[32] IPCC. *Climate Change 2014: Synthesis Report*, *supra* note 3. at 4.

43. Prior to World War II, most anthropogenic CO_2 emissions were caused by land-use practices, such as forestry and agriculture, which altered the ability of the land and global biosphere to absorb CO_2 from the atmosphere; the impacts of such activities on Earth's climate were relatively minor. Since the beginning of the Great Acceleration, however, both the annual rate and total volume of anthropogenic CO_2 emissions have increased enormously following the advent of major uses of oil, gas, and coal. The graph below shows that while CO_2 emissions attributable to forestry and other land-use change have remained relatively constant, total emissions attributable to fossil fuels have increased dramatically since the 1950s.[33]

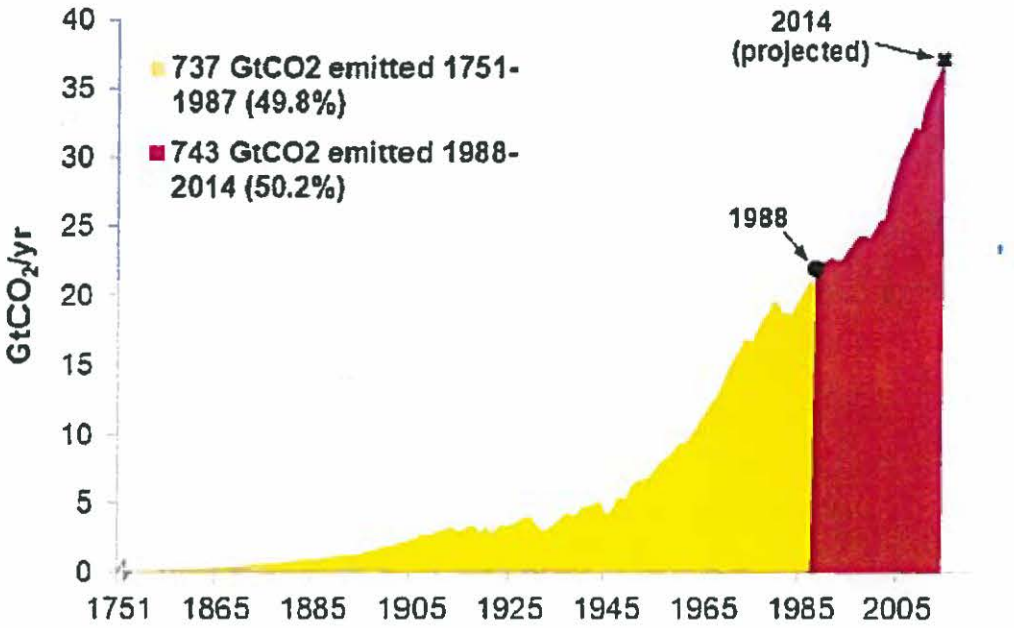
Fig. 2: Total Annual Carbon Dioxide Emissions by Source, 1860-2016



[33] Global Carbon Project, Global Carbon Budget 2017 (Nov. 13, 2017), http://www.globalcarbonproject.org/carbonbudget/17/files/GCP_CarbonBudget_2017.pdf (*citing* CDIAC; R.A. Houghton & Alexander A. Nassikas, *Global and Regional Fluxes of Carbon from Land Use and Land Cover Change 1850–2015*, 31 GLOBAL BIOCHEMICAL CYCLES 3, 456 (Feb. 2017)).

44. As human reliance on fossil fuels for industrial and mechanical processes has increased, so too have greenhouse gas emissions, especially of CO_2. The Great Acceleration is marked by a massive increase in the annual rate of fossil fuel emissions: more than half of all cumulative CO_2 emissions have occurred since 1988.[34] The rate of CO_2 emissions from fossil fuels and industry, moreover, has increased threefold since the 1960s, and by more than 60 percent since 1990.[35] The graph below illustrates the increasing rate of global CO_2 emissions since the industrial era began.[36]

Fig. 3: Cumulative Annual Anthropogenic Carbon Dioxide Emissions, 1751-2014



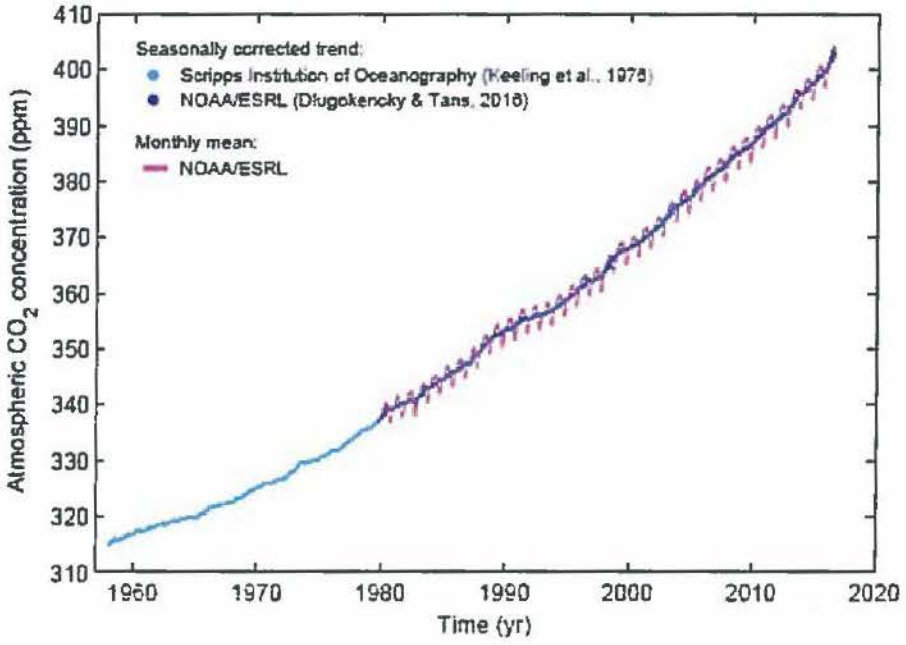
[34] R. J. Andres et al., *supra* note 6, at 1851.

[35] C. Le Quéré et al., *Global Carbon Budget 2016*, *supra* note 4, at 630 ("Global CO_2 emissions from fossil fuels and industry have increased every decade from an average of 3.1±0.2 GtC/yr in the 1960s to an average of 9.3±0.5 GtC/yr during 2006–2015").

[36] P. Frumhoff et al. *The Climate Responsibilities of Industrial Carbon Producers*, 132 CLIMATIC CHANGE 157, 164 (2015), https://link.springer.com/article/10.1007/s10584-015-1472-5.

45. Because of the increased use of fossil fuel products, concentrations of greenhouse gases in the atmosphere are now at a level unprecedented in at least 800,000 years.[37] The graph below illustrates the nearly 30 percent increase in atmospheric CO_2 concentration above pre-Industrial levels since 1960.[38]

Fig. 4: Atmospheric Carbon Dioxide Concentration in Parts Per Million, 1960–2015



B. Sea Level Rise—Known Causes and Observed Effects

46. Sea level rise is the physical consequence of (a) the thermal expansion of ocean waters as they warm; (b) increased mass loss from land-based glaciers that are melting as ambient air temperature increases; and (c) the shrinking of land-based ice sheets due to increasing ocean and air temperature.[39]

47. Of the increase in energy that has accumulated in the Earth's atmosphere between

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[37] IPCC, *Climate Change 2014: Synthesis Report*, supra note 3, at 4.

[38] C. Le Quéré et al., *Global Carbon Budget 2017*, 10 EARTH SYST. SCI. DATA 405, 408 (2018).

[39] NOAA, *Is Sea Level Rising?* (webpage) (last updated June 25, 2018) http://oceanservice.noaa.gov/facts/sealevel.html.

1971 and 2010, more than 90 percent is stored in the oceans.[40]

48. Anthropogenic forcing, in the form of greenhouse gas pollution largely from the production, use, and combustion of fossil fuel products, is the dominant cause of global mean sea level rise observed during the twentieth century, particularly since the Great Acceleration.[41]

49. Anthropogenic greenhouse gas pollution is the dominant factor in each of the independent causes of sea level rise, including the increase in ocean thermal expansion,[42] in glacier mass loss, and in more negative surface mass balance from the ice sheets.[43]

50. There is a well-defined relation between cumulative emissions of CO_2 and committed global mean sea level. This relation, moreover, holds proportionately for committed regional sea level rise.[44]

51. Nearly one hundred percent of the sea level rise from any projected greenhouse gas emissions scenario will persist for at least 10,000 years.[45] This owes to the long residence time of CO_2 in the atmosphere that sustains temperature increases, and inertia in the climate system.[46]

52. Anthropogenic greenhouse gas pollution caused the increased frequency and severity of extreme sea level events (temporary sea level height increases due to storm surges or extreme tides, exacerbated by elevated baseline sea level) observed during the Great

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[40] IPCC, *Climate Change 2014: Synthesis Report*, *supra* note 3, at 4.

[41] Aimée B. A. Slangen et al., *Anthropogenic Forcing Dominates Global Mean Sea-Level Rise Since 1970*, 6 NATURE CLIMATE CHANGE 701, 701 (2016).

[42] *Id.*

[43] *Id.*

[44] Peter U. Clark et al., *Consequences of Twenty-First-Century Policy for Multi-Millennial Climate and Sea-Level Change*, 6 NATURE CLIMATE CHANGE 360, 365 (2016).

[45] *Id.* at 361.

[46] *Id.* at 360.

Acceleration.[47] The incidence and magnitude of extreme sea level events has increased globally since 1970.[48] The impacts of such events, which generally occur with large storms, high tidal events, offshore low-pressure systems associated with high winds, or the confluence of any of these factors,[49] are exacerbated with higher average sea level, which functionally raises the baseline for the destructive impact of extreme weather and tidal events. Indeed, the magnitude and frequency of extreme sea level events can occur in the absence of increased intensity of storm events, given the increased average elevation from which flooding and inundation events begin. These effects, and others, significantly and adversely affect Plaintiff, with increased severity in the future.

53. Historic greenhouse gas emissions through 2000 alone will cause a global mean sea level rise of at least 7.4 feet.[50] Additional greenhouse gas emissions from 2001–2015 have caused approximately 10 additional feet of committed sea level rise. Even immediate and permanent cessation of all additional anthropogenic greenhouse gas emissions would not prevent the eventual inundation of land at elevations between current average mean sea level and 17.4 feet of elevation in the absence of adaptive measures.

54. The relationship between anthropogenic CO_2 emissions and committed sea level rise is nearly linear and always positive. For emissions, including future emissions, from the year 2001, the relation is approximately 0.25 inches of committed sea level rise per 1 $GtCO_2$ released. For the period 1965 to 2000, the relation is approximately 0.05 inches of committed sea level rose

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[47] IPCC, *Climate Change 2013: Summary for Policymakers*, 7, Table SPM.1, (2013), https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WGIAR5_SPM_brochure_en.pdf.

[48] IPCC, *Climate Change 2013: The Physical Science Basis*, Contribution of Working Group I to the Fifth Assessment Report of the IPCC, 290 (2013), http://www.climatechange2013.org/images/report/WG1AR5_ALL_FINAL.pdf.

[49] *Id.*

[50] Peter U. Clark et al., *supra* note 44, at 365.

per 1 $GtCO_2$ released. For the period 1965 to 2015, normal use of Defendants' fossil fuel products caused a substantial portion of committed sea level rise. Each and every additional unit of CO_2 emitted from the use of Defendants' fossil fuel products will add to the sea level rise already committed to the geophysical system.

55. Projected onshore impacts associated with rising sea temperature and water level include, but are not limited to, increases in flooding and erosion; increases in the occurrence, persistence, and severity of storm surges; infrastructure inundation; saltwater intrusion in groundwater; public and private property damage; and pollution associated with damaged wastewater infrastructure. All of these effects significantly and adversely affect Plaintiff.

56. Sea level rise has already taken grave tolls on inhabited coastlines. For instance, the U.S. National Oceanic and Atmospheric Administration ("NOAA") estimates that nuisance flooding occurs from 300 percent to 900 percent more frequently within U.S. coastal communities today than just 50 years ago.[51]

57. Nationwide, more than three quarters (76%) of flood days caused by high water levels from sea level rise between 2005 and 2014 (2,505 of the 3,291 flood days) would not have happened but for human-caused climate change. More than two-thirds (67%) of flood days since 1950 would not have happened without the sea level rise caused by increasing greenhouse gas emissions.[52]

58. Regional expressions of sea level rise will differ from the global mean, and are especially influenced by changes in ocean and atmospheric dynamics, as well as the gravitational,

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[51] NOAA, *Is Sea Level Rising?*, *supra* note 39.

[52] Climate Central, *Sea Level Rise Upping Ante on 'Sunny Day' Floods* (Oct. 17, 2016), http://www.climatecentral.org/news/climate-change-increases-sunny-day-floods-20784.

deformational, and rotational effects of the loss of glaciers and ice sheets.[53] Due to these effects, Baltimore will experience significantly greater absolute committed sea level rise than the global mean.[54]

59. Baltimore features 60 miles of waterfront land within four major watersheds. Relative sea level has risen at a rate of about 0.125 inches per year between 1902 and 2006, which is significantly higher than the global average of 0.08 inches per year.[55] Sea level in Maryland, including Baltimore, will continue to rise significantly. At the regional level, the State has been subsiding at a rate of approximately 1.5 mm per year.[56] This subsidence exacerbates the effects of relative sea level rise. By 2050, sea level along Maryland's coast could rise as high as 2.1 feet above sea level in 2000.[57]

60. Without Defendants' fossil fuel-related greenhouse gas pollution, current sea level rise would have been far less than the observed sea level rise to date.[58] Similarly, committed sea level rise that will occur in the future would also be far less.[59]

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[53] Peter U. Clark et al., *supra* note 44, at 364.

[54] *See id.*, Figure 3(c).

[55] City of Baltimore, *Disaster Preparedness and Planning Project* (Oct. 2013), http://www.baltimoresustainability.org/plans/disaster-preparedness-plan.

[56] City of Baltimore, *Disaster Preparedness and Planning Project*, *supra* note 55, at 99.

[57] Maryland Commission on Climate Change, *2015 Annual Report*, 13. (Dec. 2015), http://mde.maryland.gov/programs/Air/ClimateChange/MCCC/Publications/MCCC2015Report.pdf.

[58] *See, e.g.*, Robert E. Kopp et al., *Temperature-driven Global Sea-level Variability in the Common Era*, 113 PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES, E1434-E1441, E1438 (2016), http://www.pnas.org/content/113/11/E1434.full ("Counterfactual hindcasts with this model indicate is extremely likely (P=0.95) that less than about half of the observed 20th century GSL rise would have occurred in the absence of global warming.")

[59] Peter U. Clark et al., *supra* note 44, at 365 ("Our modelling suggests that the human carbon footprint of about [470 billion tons] by 2000 . . . has already committed Earth to a [global mean sea level] rise of ~1.7m (range of 1.2 to 2.2 m).").

C. High Temperatures and Heat Waves

61. Heatwaves are prolonged periods with excessive ambient temperatures, often (but not necessarily) defined with reference to historical temperatures at a given locale.

62. Average air temperatures in Maryland have increased by 1.8°F, and all model scenario projections indicate it will continue to rise. The average annual temperatures are projected to increase 3 to 8°F by 2100, and potentially higher in Baltimore.[60] As the Earth's surface temperature warms, there is not only an overall increase in average temperature but also more frequent periods of extreme heat, corresponding with less frequent periods of extreme cold.

63. The relationship between increased average temperatures and extreme weather is non-linear—even a small increase in average daily temperatures will correlate to a substantially larger number of extremely hot days over the course of each year. Because average daily surface temperatures have risen globally since at least the mid-20th century and are continuing to rise, the IPCC projects it is virtually certain (greater than 99 percent probability) that hot days and nights will become warmer and more frequent, and very likely (greater than 90 percent probability) that heat waves will become more frequent, over most land areas globally through the mid- to late-21st century.[61] The schematic at Figure 5 below, created by the IPCC, illustrates the relationship between increased mean surface temperatures from anthropogenic global warming and the occurrence of extreme temperatures.[62]

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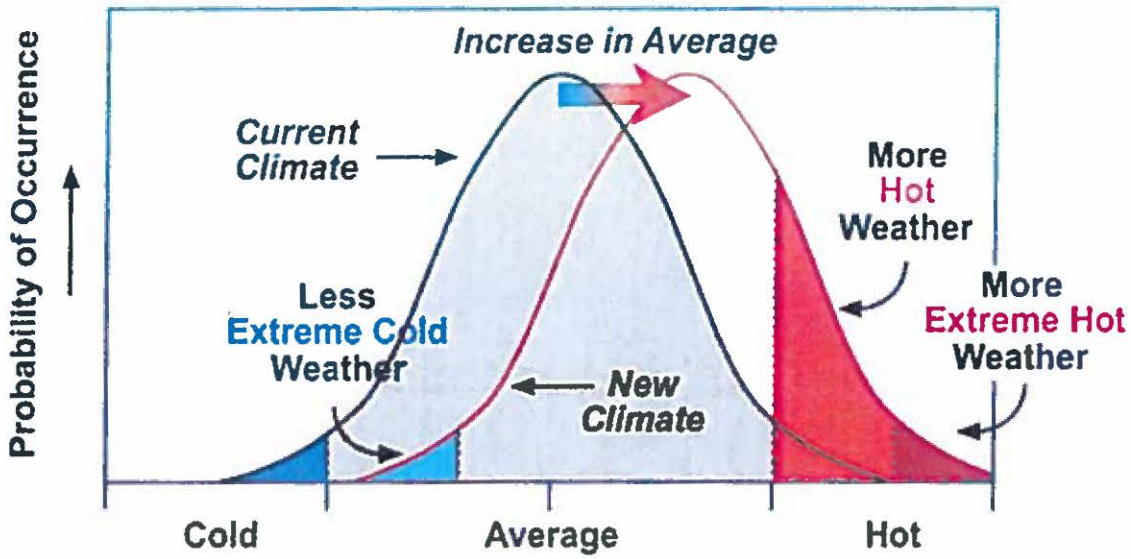
[60] City of Baltimore, *Disaster Preparedness and Planning Project*, *supra* note 55.

[61] IPCC, *Fourth Assessment Report: Climate Change 2007: Synthesis Report*, Table 3.2, https://www.ipcc.ch/publications_and_data/ar4/syr/en/mains3-3-5.html#table-3-2.

[62] IPCC, *Fourth Assessment Report: Climate Change 2007: Working Group I: The Physical Science Basis*, Box TS.5, Figure 1, https://www.ipcc.ch/publications_and_data/ar4/wg1/en/box-ts-5-figure-1.html.

Fig. 5: Schematic of Mean Temperature on Extreme Temperature Occurrence



64. Since as early as the 1950s, increases in the duration, intensity, and especially the frequency of heatwaves have been detected over many regions,[63] including the eastern United States.[64]

65. Record-breaking high temperatures are now outnumbering record lows by an average decadal ratio of 2:1 across the United States.[65] This represents an increase from approximately 1.09 high temperature records for every one low temperature record in the 1950s, and 1.36 high temperature records for every one low temperature record in the 1990s.[66]

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[63] S.E. Perkins-Kirkpatrick & P.B. Gibson, *Changes in Regional Heatwave Characteristics as a Function of Increasing Global Temperature*, SCIENTIFIC REPORTS 7:12256, 1 (2017).

[64] Noah. S. Diffenbaugh & Moestasim Ashfaq, *Intensification of Hot Extremes in the United States*, 37 Geophysical Research Letters L15701, 2 (2010).

[65] Gerald A. Meehl et al., *Relative Increase of Record High Maximum Temperatures Compared to Record Low Minimum Temperatures in the U.S.*, 36 GEOPHYSICAL RESEARCH LETTERS L23701, at 3 (2009).

[66] *See* Climate Signals, *Record High Temps vs. Record Low Temps* (webpage) (accessed June 27, 2018), http://www.climatesignals.org/data/record-high-temps-vs-record-low-temps.

66. The frequency of record high temperatures relative to record low temperatures will continue to increase with future anthropogenic global warming. For instance, under even a moderate rising emissions scenario, the ratio of record high maximum to record low minimum temperatures in the United States will continue to increase, reaching ratios of about 20:1 by 2050, and roughly 50:1 by 2100.[67]

67. Baltimore is particularly vulnerable to rising temperatures. Because of Baltimore's urban infrastructure, increased temperatures will add to the heat load of buildings and exacerbate existing urban heat islands adding to the risk of high ambient temperatures. On some summer days, air in urban areas can be up to 10°F warmer than in other areas.[68]

68. Baltimore is expected to experience a threefold increase in the average number of days exceeding 90 degrees by 2050.[69] By 2100, average annual temperatures in Baltimore are projected to increase by as much as 12°F.[70] Baltimore has already seen an increase in the number of heat waves, and it is projected that by the end of the century, as many as 95 percent of summer days could reach extreme maximum temperatures.[71] By contrast, an average of 60 percent of Baltimore's summer days met the maximum temperature extremes between the 1950s and 1970s.[72]

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[67] Gerald A. Meehl et al., *supra* note 65, at 3.

[68] City of Baltimore, *Disaster Preparedness and Planning Project*, *supra* note 55, at 84.

[69] *Baltimore Climate Action Plan*, 12 (Jan. 15, 2013), https://www.baltimoresustainability.org/wp-content/uploads/2015/12/BaltimoreClimateActionPlan.pdf.

[70] City of Baltimore, *Disaster Preparedness and Planning Project*, *supra* note 55, at 36.

[71] *Id.* at 84.

[72] *Id.*

D. Disruption to the Hydrologic Cycle—Known Causes and Observed Effects

69. The "hydrologic cycle" describes the temporal and spatial movement of water through oceans, land, and the atmosphere.[73] "Evapotranspiration" is the process by which water on the Earth's surface turns to vapor and is absorbed into the atmosphere. The vast majority of evapotranspiration is due to the sun's energy heating water molecules, resulting in evaporation.[74] Plants also draw water into the atmosphere from soil through transpiration. Volcanoes, sublimation (the process by which solid water changes to water vapor), and human activity also contribute to atmospheric moisture.[75] As water vapor rises through the atmosphere and reaches cooler air, it becomes more likely to condense and fall back to Earth as precipitation.

70. Upon reaching Earth's surface as precipitation, water may take several different paths. It can be reevaporated into the atmosphere; seep into the ground as soil moisture or groundwater; run off into rivers and streams; or stop temporarily as snowpack or ice. It is during these phases, when water is available at or near the Earth's surface, that water is captured for use by humans.

71. Anthropogenic global warming caused by Defendants' fossil fuel products is disrupting and will continue to disrupt the hydrologic cycle in Baltimore by changing evapotranspiration patterns.[76] As the lower atmosphere becomes warmer, evaporation rates have and will continue to increase, resulting in an increase in the amount of moisture circulating throughout the lower atmosphere. One observed consequence of higher water vapor concentrations

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[73] NASA Earth Observatory, *The Water Cycle* (webpage) (accessed June 27, 2018), https://earthobservatory.nasa.gov/Features/Water.

[74] *See* USGS, *The Water Cycle: Evaporation* (webpage) (accessed June 27, 2018), https://water.usgs.gov/edu/watercycleevaporation.html.

[75] NASA Earth Observatory, *supra* note 73.

[76] *Id.*

is a shift toward increased frequency of intense precipitation events, mainly over land areas. Furthermore, because of warmer temperatures, more precipitation is falling as rain rather than snow. These changes affect both the quantity and quality of water resources available to both human and ecological systems, including in Baltimore.

72. Maryland, including Baltimore, will see significant impacts to the hydrologic cycle due to rising temperatures. As the Earth's surface temperature has increased, so has evaporation.[77] For every 1.8°F of anthropogenic global warming, the atmosphere's capacity to hold water vapor increases by 7 percent.[78] Thus, anthropogenic global warming has increased substantially the total volume of water vapor in the atmosphere at any given time.[79] Extreme precipitation events occur when the air is almost completely saturated, so the occurrence of such events generally increase in intensity by 6 to 7 percent with each degree Celsius of increased temperature.[80]

73. The upward trend of heavy precipitation is particularly evident in the northeastern United States, including Maryland. Calculating maximum daily precipitation totals for consecutive five-year blocks from 1901 to 2016 revealed a significant increase over the eastern United States, especially in the Northeast (including Maryland), which saw a 27 percent increase since 1901.[81]

74. Because of anthropogenic global warming, Baltimore's hydrologic regime is shifting toward one characterized by more frequent and extreme precipitation events and associated flooding. These impacts will impact all sectors, and low-income communities will be

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[77] NASA Earth Observatory, *supra* note 73.

[78] IPCC, *Climate Change 2013: The Physical Science Basis*, *supra* note 48.

[79] NASA Earth Observatory, *supra* note 73.

[80] U.S. Global Change Research Program, *Climate Science Special Report*, Fourth National Climate Assessment, Vol. I, 210 (2017), https://science2017.globalchange.gov/downloads/CSSR2017_FullReport.pdf.

[81] *Id.* at 212.

particularly affected by flooding, extreme weather, and heat waves exacerbated by climate change.[82] These individual consequences of changes to the hydrologic regime are described below.

i. Extreme Precipitation and Flooding

75. A consequence of higher water vapor concentrations in the atmosphere is the increased frequency of intense precipitation events.[83] Moreover, a larger proportion of precipitation will fall in a shorter amount of time as compared to the historical average.[84] Extreme precipitation events (the upper 0.1 percent of daily rain events) have increased substantially over the past 100 years in the United States, by about 33 percent.[85] Extreme precipitation episodes in Maryland will become even more extreme as the climate changes.

76. Over the last century, average precipitation has increased by 10 percent in most of Maryland, and intense precipitation events have increased by 20 percent.[86] Heavy precipitation events (defined as rainfall equal to or greater than the historical 95th percentile) will significantly increase in frequency at least through the year 2100.[87]

77. Baltimore is vulnerable to tropical storms and hurricanes, which produce wind damage, riverine flooding, and inundation of shorelines and harbors. Although a combination of factors generally cause major hurricanes to weaken upon reaching the Mid-Atlantic coast, severe

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[82] Maryland Commission on Climate Change, *2015 Annual Report*, *supra* note 57, at 18.

[83] NASA Earth Observatory, *supra* note 73.

[84] *Id.*

[85] Pavel Ya. Groisman et al., *Trends in intense precipitation in the climate record*, 18 JOURNAL OF CLIMATE 1326, 1328 (2005).

[86] City of Baltimore, *Disaster Preparedness and Planning Project*, *supra* note 55, at 36.

[87] Xiang Gao et al., *21st Century Changes in U.S. Heavy Precipitation Frequency Based on Resolved Atmospheric Patterns*, MIT Joint Program on the Science and Policy of Global Change: Report 302, 15 (2016).

damage can and has occurred from less-than-major category hurricanes.[88] Flooding and property damage associated with tropical storms has worsened during the second half of the 20th century.[89]

78. Extreme precipitation events, including tropical storms and hurricanes, result in flood events separate from and additional to tidal influenced floods (i.e., storm surges). It is possible to have a storm surge coupled with a precipitation event.[90] In this way, sea level rise and extreme precipitation can interact to create even more extreme flooding events.

79. Baltimore is subject to flash floods, which occur when water flow from rainfall or snowmelt exceeds the capacity of the City's stormwater drainage system, especially in the vicinity of Jones Falls, Gywnns Falls, and Herring Run.

80. The consequences of increased precipitation and consequent flooding are already affecting Baltimore and the surrounding region. The City of Baltimore, surrounding municipalities in Baltimore County, and municipalities in nearby Howard County all experienced extreme rainfall and flooding during major storms in July 2016, and again in May 2018.

81. On July 30, 2016, nearly unprecedented torrential rain and flash-flooding hit the Baltimore area. During the storm, Howard County's Ellicott City, which borders Baltimore County and sits less than five miles from Baltimore, experienced more than six inches of rain in less than three hours.[91] Substantial portions of Baltimore also experienced more than four inches of rain over the same hours.[92] The deluge constituted a 1,000-year storm for the region, meaning the calculated likelihood of such a storm recurring in a given year were less than 0.1 percent. The

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[88] City of Baltimore, *Disaster Preparedness and Planning Project*, *supra* note 55, at 62–63.
[89] *Id.* at 36, 60–63.
[90] *Id.* at 116.
[91] National Weather Service, *Ellicott City Historic Rain and Flash Flood - July 30, 2016* (webpage) (Sept. 1, 2016), https://www.weather.gov/lwx/EllicottCityFlood2016.
[92] *Id.*

catastrophic rain caused severe flooding in Ellicott City's downtown, killing two people and causing an estimated $22.4 million in damages, including damages to 90 businesses, 107 residences, and approximately 170 automobiles.[93] A study commissioned by Howard County completed in June 2017 found that infrastructure improvements needed to prevent or mitigate major damage in future flooding would cost between $60 million and $85 million, including $35 million in immediately necessary measures.[94]

82. Less than two years later, on May 27, 2018, another 1,000-year storm hit the Baltimore area. During the storm, multiple rain gauges in Ellicott City measured approximately eight inches of rainfall in under three hours, Baltimore measured more than 3.5 inches of rain, and the city of Catonsville, which borders Baltimore, measured more than *ten* inches of rain.[95] The Federal Emergency Management Agency ("FEMA"), with the President's approval, issued a Major Disaster Declaration on July 2, 2018, stating that a major disaster existed in Baltimore and Howard Counties following the extreme rain and related severe flooding.[96]

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[93] Ava-joye Burnett, *Damage Estimate Near $22.4M After Flooding In Historic Ellicott City*, CBS BALTIMORE (Aug. 22, 2016), https://baltimore.cbslocal.com/2016/08/22/damage-estimate-near-22-4m-after-flooding-in-historic-ellicott-city; Ovetta Wiggins, Mary Hui & John Woodrow Cox, *Two dead after severe flash flood in Maryland*, WASHINGTON POST (July 31, 2016), https://www.washingtonpost.com/local/severe-flash-flood-strikes-ellicott-city-overturning-cars-and-destroying-businesses/2016/07/31/a8e50184-5720-11e6-831d-0324760ca856_story.html.

[94] *See, e.g.*, Luke Broadwater and Scott Dance, *Making Ellicott City safer would cost tens of millions—and it still might flood. Should the town be rebuilt?*, BALTIMORE SUN (June 1, 2018), http://www.baltimoresun.com/news/maryland/investigations/bs-md-ellicott-city-flood-next-steps-20180531-story.html.

[95] Tom Di Liberto, *Torrential rains bring epic flash floods in Maryland in late May 2018*, NOAA CLIMATE.GOV (May 31, 2018), https://www.climate.gov/news-features/event-tracker/torrential-rains-bring-epic-flash-floods-maryland-late-may-2018.

[96] FEMA, *President Donald J. Trump Approves Major Disaster Declaration for Maryland* (July 2, 2018), https://www.fema.gov/news-release/2018/07/02/president-donald-j-trump-approves-major-disaster-declaration-maryland.

83. Anthropogenic climate change will also increase winter precipitation in Baltimore including snow storms, ice storms, and freezing rain events.[97] Winter precipitation is projected to increase by approximately 40 percent with more precipitation falling as rain rather than snow.[98]

ii. Drought

84. Droughts are extended periods of dry weather caused by a reduction in the amount of precipitation relative to normal conditions over an extended period of time.[99]

85. As a result of anthropogenic global warming, Maryland's hydrologic regime is shifting toward one that is characterized by fluctuations between intense storms and droughts. Under this more episodic cycle, while winter and spring precipitation will likely increase, droughts lasting several weeks are more likely to occur during the summer.[100]

E. Public Health Impacts of Changes to the Hydrologic Cycle

86. The City has incurred and will continue to incur expenses in planning and preparing for, and treating, the public health impacts associated with anthropogenic global warming including, but not limited to, impacts associated with extreme weather, extreme heat, decreased air quality, and vector-borne illnesses.

87. Extreme heat-induced public health impacts in Baltimore will result in increased risk of heat-related illnesses (mild heat stress to fatal heat stroke) and the exacerbation of pre-existing conditions in the medically fragile, chronically ill, and otherwise vulnerable. Between 2000 and 2012, exposure to extreme heat events increased Baltimore residents' risk of

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[97] *Baltimore Climate Action Plan*, *supra* note 69, at 64.

[98] City of Baltimore, *Disaster Preparedness and Planning Project*, *supra* note 55, at 36.

[99] *Id.* at 76.

[100] Maryland Commission on Climate Change, *Global Warming and the Free State: Comprehensive Assessment of Climate Change Impacts in Maryland*, 2 (July 2008), http://www.mde.state.md.us/programs/Air/ClimateChange/Documents/FINAL-Chapt%202%20Impacts_web.pdf.

hospitalization for heart attack by 43 percent, compared to only an 11 percent increase for Maryland residents as a whole.[101]

88. Increased heat also intensifies the photochemical reactions that produce smog, ground-level ozone, and fine particulate matter ($PM_{2.5}$), which contribute to and exacerbate respiratory disease in children and adults. Increased heat and CO_2 enhance the growth of plants that produce pollen, which are associated with allergies. Also between 2000 and 2012, exposure to extreme heat events in Baltimore increased risk of hospitalization for asthma by 37 percent.[102]

89. In addition, the warming climate system will create disease-related public health impacts in Baltimore, including but not limited to, increased incidence of emerging and vector-borne diseases with migration of animal and insect disease vectors; physical and mental health impacts associated with severe weather events, such as flooding, when they cause population dislocation and infrastructure loss; exacerbation of existing respiratory disease, cardiovascular disease, and stroke as a result of heatwaves and increased average temperature; and respiratory distress, and exacerbation of existing disease.[103]

90. Public health impacts of these climatological changes are likely to be disproportionately borne by communities made vulnerable by their geographic location, and by racial and income disparities.

F. Attribution

91. "Carbon factors" analysis, devised by the International Panel on Climate Change

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[101] Maryland Institute for Applied Environmental Health, *Maryland Climate and Health Profile Report*, 28 (Apr. 2016), http://mde.maryland.gov/programs/Air/ClimateChange/MCCC/ARWG/MarylandClimateandHealthProfileReport.pdf.

[102] *Id.*

[103] City of Baltimore, *Disaster Preparedness and Planning Project*, *supra* note 55.

(IPCC), the United Nations International Energy Agency, and the U.S. Environmental Protection Agency, quantifies the amount of CO_2 emissions attributable to a unit of raw fossil fuel extracted from the Earth.[104] Emissions factors for oil, coal, liquefied natural gas, and natural gas are different for each material but are nevertheless known and quantifiable for each.[105] This analysis accounts for the use of Defendants' fossil fuel products, including non-combustion purposes that sequester CO_2 rather than emit it (e.g., production of asphalt).

92. Defendants' historical and current fossil fuel extraction and production records are publicly available in various fora. These include university and public library collections, company websites, company reports filed with the U.S. Securities and Exchange Commission, company histories, and other sources. The cumulative CO_2 and methane emissions attributable to Defendants' fossil fuel products were calculated by reference to such publicly available documents.

93. Cumulative carbon analysis allows an accurate calculation of net annual CO_2 and methane emissions attributable to each Defendant by quantifying the amount and type of fossil fuels products each Defendant extracted and placed into the stream of commerce, and multiplying those quantities by each fossil fuel product's carbon factor.

94. Defendants, through their extraction, promotion, marketing, and sale of their fossil fuel products, caused approximately 15 percent of global fossil fuel product-related CO_2 between 1965 and 2015, with contributions currently continuing unabated. This constitutes a substantial

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[104] *See* Richard Heede, *Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854-2010*, 122 CLIMATIC CHANGE 229, 232–33 (2014), https://link.springer.com/article/10.1007/s10584-013-0986-y.

[105] *See, e.g., id.*

portion of all such emissions in history, and the attendant historical, projected, and committed sea level rise and disruptions to the hydrologic cycle associated therewith.

95. By quantifying CO_2 and methane pollution attributable to Defendants by and through their fossil fuel products, ambient air and ocean temperature, sea level, and hydrologic cycle responses to those emissions are also calculable, and can be attributed to Defendants on an individual and aggregate basis. Individually and collectively, Defendants' extraction, sale, and promotion of their fossil fuel products are responsible for substantial increases in ambient (surface) temperature, ocean temperature, sea level, droughts, extreme precipitation events, heat waves, and other adverse impacts on Plaintiff described herein.

96. Anthropogenic CO_2 emissions from Defendants' products have caused a substantial portion of both observed and committed mean global sea level rise.[106]

97. Anthropogenic CO_2 emissions from Defendants' products have caused and will continue to cause increased frequency and severity of droughts.

98. Anthropogenic CO_2 emissions from Defendants' products have caused and will continue to cause increases in daily precipitation extremes over land.[107]

99. Anthropogenic CO_2 emissions from Defendants' products have caused and will continue to cause increased frequency and magnitude of maximum temperature extremes relative to the historical baseline.[108]

100. Defendants, through their extraction, promotion, marketing, and sale of their fossil fuel products, caused a substantial portion of both those emissions and the attendant historical,

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[106] Peter U. Clark et al., *supra* note 44, at 365.

[107] *See, e.g.*, E.M. Fischer & R. Knutti, *Anthropogenic Contribution to Global Occurrence of Heavy-Precipitation and High-Temperature Extremes*, 5 NATURE CLIMATE CHANGE 560, 560–64 (2015).

[108] *Id.*

projected, and committed sea level rise and other consequences of the resulting climatic changes described herein, including increased droughts and extreme weather events.

101. As explained above, this analysis considers only the volume of raw material actually extracted from the Earth by these Defendants. Many of these Defendants actually are responsible for far greater volumes of emissions because they also refine, manufacture, produce, market, promote, and sell—at both wholesale and retail—more fossil fuel products than they derive from the raw materials they extract. In addition to their own exploration and extraction activities, those Defendants purchase, refine, transport, and sell raw materials extracted by others.

102. In addition, considering the Defendants' lead role in promoting, marketing, and selling their fossil fuels products between 1965 and 2015; their efforts to conceal the hazards of those products from consumers; their promotion of their fossil fuel products despite knowing the dangers associated with those products; their dogged campaign against regulation of those products based on falsehoods, omissions, and deceptions; and their failure to pursue less hazardous alternatives available to them, Defendants, individually and together, have substantially and measurably contributed to the City's climate change-related injuries.

G. Defendants Went to Great Lengths to Understand, and Either Knew or Should Have Known About, the Dangers Associated with Extraction, Promotion, and Sale of Their Fossil Fuel Products.

103. By 1965, concern about the risks of anthropogenic greenhouse gas emissions reached the highest level of the United States' scientific community. In that year, President Lyndon B. Johnson's Science Advisory Committee Panel on Environmental Pollution reported that by the year 2000, anthropogenic CO_2 emissions would "modify the heat balance of the atmosphere to

such an extent that marked changes in climate . . . could occur."[109] President Johnson announced in a special message to Congress that "[t]his generation has altered the composition of the atmosphere on a global scale through . . . a steady increase in carbon dioxide from the burning of fossil fuels."[110]

104. These statements from the Johnson Administration, at a minimum, put Defendants on notice of the potentially substantial dangers to people, communities, and the planet associated with unabated use of their fossil fuel products. Moreover, Defendants had amassed a considerable body of knowledge on the subject through their own independent efforts.

105. A 1963 Conservation Foundation report of a conference of scientists referenced in the 1966 World Book Encyclopedia, as well as in presidential panel reports and other sources around that time, described many specific consequences of rising greenhouse gas pollution in the atmosphere. It warned that a doubling of carbon dioxide "could be enough to bring about immense flooding of lower portions of the world's land surface, resulting from increased melting of glaciers." The publication also asserted that "a continuing rise in the amount of atmospheric carbon dioxide is likely to be accompanied by a significant warming of the surface of the earth which by melting the polar ice caps would raise sea level and by warming the oceans would change considerably the distributions of marine species including commercial fisheries." It warned of the potential inundation of "many densely settled coastal areas, including the cities of New York and London" and the possibility of "wiping out the world's present commercial fisheries." The report,

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[109] President's Science Advisory Committee, *Restoring the Quality of Our Environment: Report of the Environmental Pollution Panel*, 9 (Nov. 1965), https://hdl.handle.net/2027/uc1.b4315678.

[110] President Lyndon B. Johnson, *Special Message to Congress on Conservation and Restoration of Natural Beauty* (Feb. 8, 1965), http://acsc.lib.udel.edu/items/show/292.

in fact, noted that "the changes in marine life in the North Atlantic which accompanied the temperature change have been very noticeable."[111]

106. But industry interest in carbon accumulation goes back at least to 1958. A review in that year of the American Petroleum Institute Smoke and Fumes Committee's Air Pollution Research Program by Charles Jones (the committee secretary and Shell executive) mentions a project focused on analyzing gaseous carbon data to determine the amount of carbon of fossil origin compared to the total amount.[112]

107. At that time API's stance was that "the petroleum industry supplies the fuel used by the automobile, and thus has a sincere interest in the solution to the problem of pollution from automobile exhaust," according to an API presentation at the 1958 National Conference on Air Pollution. API acknowledged the industry's responsibility in mitigating some of the negative impacts of its products, stating that the objective of its Smoke and Fumes committee was to "determine the causes and methods of control of objectional atmospheric pollution resulting from the production, manufacture, transportation, sale, and use of petroleum and its products."[113] In 1968, a Stanford Research Institute (SRI) report commissioned by the American Petroleum Institute (API) and made available to all its members, concluded, among other things:

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[111] The Conservation Foundation, *Implications of Rising Carbon Dioxide Content of the Atmosphere: A statement of trends and implications of carbon dioxide research reviewed at a conference of scientists* (Mar. 1963), https://babel.hathitrust.org/cgi/pt?id=mdp.39015004619030;view=1up;seq=5.

[112] Charles A. Jones, *A Review of the Air Pollution Research Program of the Smoke and Fumes Committee of the American Petroleum Institute, Journal of the Air Pollution Control Association* (1958), https://www.tandfonline.com/doi/pdf/10.1080/00966665.1958.10467854.

[113] C.A. Jones, *Sources of Air Pollution—Transportation (Petroleum)*, (Nov. 19, 1958), https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=xrcm0047.

> If the Earth's temperature increases significantly, a number of events might be expected to occur including the melting of the Antarctic ice cap, a rise in sea levels, warming of the oceans and an increase in photosynthesis. . . .
>
> It is clear that we are unsure as to what our long-lived pollutants are doing to our environment; however, there seems to be no doubt that the potential damage to our environment could be severe. . . . [T]he prospect for the future must be of serious concern.[114]

108. In a supplement to the 1968 report prepared for API in 1969, authors Robinson and Robbins projected that based on current fuel usage atmospheric CO_2 concentrations would reach 370 ppm by 2000[115]—almost exactly what it turned out to be (369.34 ppm, according to data from NASA).[116] The report also draws the connection between the rising concentration and the use of fossil fuels stating that "balance between environmental sources and sinks has been disturbed by the emission to the atmosphere of additional CO_2 from the increased combustion of carbonaceous fuels" and that it seemed "unlikely that the observed rise in atmospheric CO_2 has been due to changes in the biosphere." The authors warn repeatedly of the temptations and consequences of ignoring CO_2 as a problem and pollutant:

> CO2 is so common and such an integral part of all our activities that air pollution regulations typically state that CO2 emissions are not to be considered as pollutants. This is perhaps fortunate for our present mode of living, centered as it is around carbon combustion. However, this seeming necessity, the CO2 emission, is the only air pollutant, as we shall see, that has been shown to be of global importance as a factor that could change man's environment on the basis of a long period of scientific investigation.[117]

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[114] Elmer Robinson & R.C. Robbins, *Sources, Abundance, and Fate of Gaseous Atmospheric Pollutants*, Stanford Research Institute (Feb. 1968), https://www.smokeandfumes.org/documents/document16.

[115] Elmer Robinson & R.C. Robbins, *Sources, Abundance, and Fate of Gaseous Atmospheric Pollutants Supplement*, Stanford Research Institute (June 1969).

[116] NASA Goddard Institute for Space Studies, *Global Mean CO_2 Mixing Ratios (ppm): Observations*, https://data.giss.nasa.gov/modelforce/ghgases/Fig1A.ext.txt (accessed June 16, 2018).

[117] Elmer Robinson & R.C. Robbins, *supra* note 115.

109. In 1969, Shell memorialized an on-going 18-month project to collect ocean data from oil platforms to develop and calibrate environmental forecasting theories related to predicting wave, wind, storm, sea level, and current changes and trends.[118] Several Defendants and/or their predecessors in interest participated in the project, including Esso Production Research Company (ExxonMobil), Mobil Research and Development Company (ExxonMobil), Pan American Petroleum Corporation (BP), Gulf Oil Corporation (Chevron), Texaco Inc. (Chevron), and the Chevron Oil Field Research Company.

110. In a 1970 report from the Engineering Division of Imperial Oil (Exxon), the author H.R. Holland stated: "Since pollution means disaster to the affected species, the only satisfactory course of action is to prevent it—to maintain the addition of foreign matter at such levels that it can be diluted, assimilated or destroyed by natural processes—to protect man's environment from man." He also noted that "a problem of such size, complexity and importance cannot be dealt with on a voluntary basis." CO_2 was listed as an air pollutant in the document.[119]

111. In 1972, API members, including Defendants, received a status report on all environmental research projects funded by API. The report summarized the 1968 SRI report describing the impact of fossil fuel products, including Defendants', on the environment, including global warming and attendant consequences. Defendants and/or their predecessors in interest that received this report include, but were not limited to: American Standard of Indiana (BP), Asiatic (Shell), Ashland (Marathon), Atlantic Richfield (BP), British Petroleum (BP), Chevron Standard of California (Chevron), Cities Service (Citgo), Esso Research (ExxonMobil), Ethyl (formerly

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[118] M.M. Patterson, *An Ocean Data Gathering Program for the Gulf of Mexico*, Society of Petroleum Engineers (1969), https://www.onepetro.org/conference-paper/SPE-2638-MS.

[119] H.R. Holland, *Pollution is Everybody's Business*, Imperial Oil (1970), https://www.desmogblog.com/sites/beta.desmogblog.com/files/DeSmogBlog-Imperial%20Oil%20Archive-Pollution-Everyone-Business-1970.pdf

affiliated with Esso, which was subsumed by ExxonMobil), Getty (ExxonMobil), Gulf (Chevron, among others), Humble Standard of New Jersey (ExxonMobil/Chevron/BP), Marathon, Mobil (ExxonMobil), Pan American (BP), Shell, Standard of Ohio (BP), Texaco (Chevron), Union (Chevron), Skelly (ExxonMobil), Colonial Pipeline (ownership has included BP, Citgo, ExxonMobil, and Chevron entities, among others), Continental (ConocoPhillips), Dupont (former owner of Conoco), Phillips (ConocoPhillips), and Caltex (Chevron). [120] Other members of the fossil fuel industry that received the report include, but were not limited to, Sun (Sunoco), Rock Island (Koch Industries), Signal (Honeywell), Great Northern, Edison Electric Institute (representing electric utilities), Bituminous Coal Research (coal industry research group), Mid-Continent Oil & Gas Association (presently the U.S. Oil & Gas Association, a national trade association), Western Oil & Gas Association, National Petroleum Refiners Association (presently the American Fuel and Petrochemical Manufacturers Association, a national trade association), and Champlin (Anadarko), among others.[121]

112. In a 1977 presentation and again in a 1978 briefing, Exxon scientists warned the Exxon Corporation Management Committee that CO_2 concentrations were building in the Earth's atmosphere at an increasing rate, that CO_2 emissions attributable to fossil fuels were retained in the atmosphere, and that CO_2 was contributing to global warming.[122] The report stated:

> There is general scientific agreement that the most likely manner in which mankind is influencing the global climate is through carbon dioxide release from the burning of fossil fuels . . . [and that] Man has a time window of five to ten years before the

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[120] American Petroleum Institute, *Environmental Research, A Status Report*, Committee for Air and Water Conservation (Jan. 1972), http://files.eric.ed.gov/fulltext/ED066339.pdf.

[121] *Id.*

[122] Memo from J.F. Black to F.G. Turpin, *The Greenhouse Effect*, Exxon Research and Engineering Company (June 6, 1978), http://www.climatefiles.com/exxonmobil/1978-exxon-memo-on-greenhouse-effect-for-exxon-corporation-management-committee.

> need for hard decisions regarding changes in energy strategies might become critical.[123]

One presentation slide read: "Current scientific opinion overwhelmingly favors attributing atmospheric carbon dioxide increase to fossil fuel combustion."[124] The report also warned that "a study of past climates suggests that if the earth does become warmer, more rainfall should result. But an increase as large as 2°C would probably also affect the distribution of the rainfall." Moreover, the report concluded that "doubling in CO_2 could increase average global temperature 1°C to 3°C by 2050 A.D. (10°C predicted at poles)."[125]

113. Thereafter, Exxon engaged in a research program to study the environmental fate of fossil fuel-derived greenhouse gases and their impacts, which included publication of peer-reviewed research by Exxon staff scientists and the conversion of a supertanker into a research vessel to study the greenhouse effect and the role of the oceans in absorbing anthropogenic CO_2. Much of this research was shared in a variety of fora, symposia, and shared papers through trade associations and directly with other Defendants.

114. Exxon scientists made the case internally for using company resources to build corporate knowledge about the impacts of the promotion, marketing, and consumption of Defendants' fossil fuel products. Exxon climate researcher Henry Shaw wrote in 1978: "The rationale for Exxon's involvement and commitment of funds and personnel is based on our need to assess the possible impact of the greenhouse effect on Exxon business. Exxon must develop a credible scientific team that can critically evaluate the information generated on the subject and be

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[123] *Id.*

[124] *Id.*

[125] *Id.*

able to carry bad news, if any, to the corporation."[126] Moreover, Shaw emphasized the need to collaborate with universities and government to more completely understand what he called the "CO_2 problem."[127]

115. In 1979, API and its members, including Defendants, convened a Task Force to monitor and share cutting edge climate research among the oil industry. The group was initially called the CO_2 and Climate Task Force, but changed its name to the Climate and Energy Task Force in 1980 (hereinafter referred to as "API CO_2 Task Force"). Membership included senior scientists and engineers from nearly every major U.S. and multinational oil and gas company, including Exxon, Mobil (ExxonMobil), Amoco (BP), Phillips (ConocoPhillips), Texaco (Chevron), Shell, Sunoco, Sohio (BP), as well as Standard Oil of California (BP) and Gulf Oil (Chevron), among others. The Task Force was charged with assessing the implications of emerging science on the petroleum and gas industries and identifying where reductions in greenhouse gas emissions from Defendants' fossil fuel products could be made.[128]

116. In 1979, API sent its members a background memo related to the API CO_2 and Climate Task Force's efforts, stating that CO_2 concentrations were rising steadily in the atmosphere, and predicting when the first clear effects of climate change might be felt.[129]

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[126] Henry Shaw, *Memo to Edward David Jr. on the "Greenhouse Effect"*, Exxon Research and Engineering Company (Dec. 7, 1978), http://insideclimatenews.org/sites/default/files/documents/Credible%20Scientific%20Team%201978%20Letter.pdf.

[127] *Id.*

[128] American Petroleum Institute, *AQ-9 Task Force Meeting Minutes* (Mar. 18, 1980), http://insideclimatenews.org/sites/default/files/documents/AQ-9%20Task%20Force%20Meeting%20%281980%29.pdf (AQ-9 refers to the "CO_2 and Climate" Task Force).

[129] Neela Banerjee, *Exxon's Oil Industry Peers Knew About Climate Dangers in the 1970s, Too*, INSIDE CLIMATE NEWS (Dec. 22, 2015), https://insideclimatenews.org/news/22122015/exxon-mobil-oil-industry-peers-knew-about-climate-change-dangers-1970s-american-petroleum-institute-api-shell-chevron-texaco.

117. Also in 1979, Exxon scientists advocated internally for additional fossil fuel industry-generated atmospheric research in light of the growing consensus that consumption of fossil fuel products was changing the Earth's climate:

> We should determine how Exxon can best participate in all these [atmospheric science research] areas and influence possible legislation on environmental controls. It is important to begin to anticipate the strong intervention of environmental groups and be prepared to respond with reliable and credible data. It behooves [Exxon] to start a very aggressive defensive program in the indicated areas of atmospheric science and climate because there is a good probability that legislation affecting our business will be passed. Clearly, it is in our interest for such legislation to be based on hard scientific data. The data obtained from research on the global damage from pollution, e.g., from coal combustion, will give us the needed focus for further research to avoid or control such pollutants.[130]

118. That same year, Exxon Research and Engineering reported that: "The most widely held theory [about increasing CO_2 concentration] is that the increase is due to fossil fuel combustion, increasing CO_2 concentration will cause a warming of the earth's surface, and the present trend of fossil fuel consumption will cause dramatic environmental effects before the year 2050."[131] According to the report, "ecological consequences of increased CO_2" to 500 ppm (1.7 times 1850 levels) could mean: "a global temperature increase of 3°F"; "the southwest states would be hotter, probably by more than 3°F, and drier"; "most of the glaciers in the North Cascades and Glacier National Park would be melted"; "there would be less of a winter snow pack in the Cascades, Sierras, and Rockies, necessitating a major increase in storage reservoirs"; "marine life would be markedly changed"; and "maintaining runs of salmon and steelhead and other subarctic

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[130] Henry Shaw, Exxon, *Memo to H.N. Weinberg about "Research in Atmospheric Science"*, Exxon Inter-Office Correspondence (Nov. 19, 1979), https://insideclimatenews.org/sites/default/files/documents/Probable%20Legislation%20Memo%20(1979).pdf.

[131] W.L. Ferrall, Exxon, *Memo to R.L. Hirsch about "Controlling Atmospheric CO_2"*, Exxon Research and Engineering Company (Oct. 16, 1979), http://insideclimatenews.org/sites/default/files/documents/CO2%20and%20Fuel%20Use%20Projections.pdf.

species in the Columbia River system would become increasingly difficult."[132] With a doubling of the 1860 CO_2 concentration, "ocean levels would rise four feet" and "the Arctic Ocean would be ice free for at least six months each year, causing major shifts in weather patterns in the northern hemisphere."[133]

119. Further, the report stated that unless fossil fuel use was constrained, there would be "noticeable temperature changes" associated with an increase in atmospheric CO_2 from about 280 parts per million before the Industrial Revolution to 400 parts per million by the year 2010.[134] Those projections proved remarkably accurate—atmospheric CO_2 concentrations surpassed 400 parts per million in May 2013, for the first time in millions of years.[135] In 2015, the annual average CO_2 concentration rose above 400 parts per million, and in 2016 the annual low surpassed 400 parts per million, meaning atmospheric CO_2 concentration remained above that threshold all year.[136]

120. In 1980, API's CO_2 Task Force members discussed the oil industry's responsibility to reduce CO_2 emissions by changing refining processes and developing fuels that emit less CO_2. The minutes from the Task Force's February 29, 1980, meeting included a summary of a presentation on "The CO_2 Problem" given by Dr. John Laurmann, which identified the "scientific consensus on the potential for large future climatic response to increased CO_2 levels" as a reason for API members to have concern with the "CO_2 problem" and informed attendees that there was

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[132] *Id.*

[133] *Id.*

[134] *Id.*

[135] Nicola Jones, *How the World Passed a Carbon Threshold and Why It Matters*, YALE ENVIRONMENT 360 (Jan. 26, 2017), http://e360.yale.edu/features/how-the-world-passed-a-carbon-threshold-400ppm-and-why-it-matters.

[136] *Id.*

"strong empirical evidence that rise [in CO_2 concentration was] caused by anthropogenic release of CO_2, mainly from fossil fuel combustion."[137] Moreover, Dr. Laurmann warned that the amount of CO_2 in the atmosphere could double by 2038, which he said would likely lead to a 2.5°C (4.5°F) rise in global average temperatures with "major economic consequences." He then told the Task Force that models showed a 5°C (9°F) rise by 2067, with "globally catastrophic effects."[138] A taskforce member and representative of Texaco (Chevron) leadership present at the meeting posited that the API CO_2 Task Force should develop ground rules for energy release of fuels and the cleanup of fuels as they relate to CO_2 creation.

121. In 1980, the API CO_2 Task Force also discussed a potential area for investigation: alternative energy sources as a means of mitigating CO_2 emissions from Defendants' fossil fuel products. These efforts called for research and development to "Investigate the Market Penetration Requirements of Introducing a New Energy Source into World Wide Use." Such investigation was to include the technical implications of energy source changeover, research timing, and requirements.[139]

122. By 1980, Exxon's senior leadership had become intimately familiar with the greenhouse effect and the role of CO_2 in the atmosphere. In that year, Exxon Senior Vice President and Board member George Piercy questioned Exxon researchers on the minutiae of the ocean's role in absorbing atmospheric CO_2, including whether there was a net CO_2 flux out of the ocean into the atmosphere in certain zones where upwelling of cold water to the surface occurs, because Piercy evidently believed that the oceans could absorb and retain higher concentrations of CO_2

[137] American Petroleum Institute, *AQ-9 Task Force Meeting Minutes* (Mar. 18, 1980), *supra* note 128.
[138] *Id.*
[139] *Id.*

than the atmosphere.[140] This inquiry aligns with Exxon supertanker research into whether the ocean would act as a significant CO_2 sink that would sequester atmospheric CO_2 long enough to allow unabated emissions without triggering dire climatic consequences. As described below, Exxon eventually scrapped this research before it produced enough data from which to derive a conclusion.[141]

123. Also in 1980, Imperial Oil Limited (a Canadian ExxonMobil subsidiary) reported to managers and environmental staff at multiple affiliated Esso and Exxon companies that increases in fossil fuel usage aggravates CO_2 in the atmosphere. Noting that the United Nations was encouraging research into the carbon cycle, Imperial reported that "[t]echnology exists to remove CO_2 from [fossil fuel power plant] stack gases but removal of only 50 percent of the CO_2 would double the cost of power generation."

124. Exxon scientist Roger Cohen warned his colleagues in a 1981 internal memorandum that "future developments in global data gathering and analysis, along with advances in climate modeling, may provide strong evidence for a delayed CO_2 effect of a truly substantial magnitude," and that under certain circumstances it would be "very likely that we will unambiguously recognize the threat by the year 2000."[142] Cohen had expressed concern that the memorandum mischaracterized potential effects of unabated CO_2 emissions from Defendants'

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[140] Neela Banerjee, *More Exxon Documents Show How Much It Knew About Climate 35 Years Ago*, INSIDE CLIMATE NEWS (Dec. 1, 2015), https://insideclimatenews.org/news/01122015/documents-exxons-early-co2-position-senior-executives-engage-and-warming-forecast.

[141] Neela Banerjee et al., *Exxon Believed Deep Dive into Climate Research Would Protect Its Business*, INSIDE CLIMATE NEWS (Sept. 17, 2015), https://insideclimatenews.org/news/16092015/exxon-believed-deep-dive-into-climate-research-would-protect-its-business.

[142] Roger W. Cohen, *Exxon Memo to W. Glass about possible "catastrophic" effect of CO_2*, Exxon Inter-Office Correspondence (Aug. 18, 1981), http://www.climatefiles.com/exxonmobil/1981-exxon-memo-on-possible-emission-consequences-of-fossil-fuel-consumption.

fossil fuel products: ". . . it is distinctly possible that the . . . [Exxon Planning Division's] scenario will produce effects which will indeed be catastrophic (at least for a substantial fraction of the world's population)."[143]

125. In 1981, Exxon's Henry Shaw, the company's lead climate researcher at the time, prepared a summary of Exxon's current position on the greenhouse effect for Edward David Jr., president of Exxon Research and Engineering, stating in relevant part:

- "Atmospheric CO_2 will double in 100 years if fossil fuels grow at 1.4%/a[2].
- 3°C global average temperature rise and 10°C at poles if CO_2 doubles.
  - Major shifts in rainfall/agriculture
  - Polar ice may melt"[144]

126. In 1982, another report prepared for API by scientists at the Lamont-Doherty Geological Observatory at Columbia University recognized that atmospheric CO_2 concentration had risen significantly compared to the beginning of the industrial revolution from about 290 parts per million to about 340 parts per million in 1981 and acknowledged that despite differences in climate modelers' predictions, all models indicated a temperature increase caused by anthropogenic CO_2 within a global mean range of 4° C (7.2°F). The report advised that there was scientific consensus that "a doubling of atmospheric CO_2 from [ ] pre-industrial revolution value would result in an average global temperature rise of (3.0 ± 1.5)°C [5.4 ± 2.7°F]." It went further, warning that "[s]uch a warming can have serious consequences for man's comfort and survival since patterns of aridity and rainfall can change, the height of the sea level can increase considerably and the world food supply can be affected."[145] Exxon's own modeling research

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[143] *Id.*

[144] Henry Shaw, *Exxon Memo to E. E. David, Jr. about "CO_2 Position Statement"*, Exxon Inter-Office Correspondence (May 15, 1981), https://insideclimatenews.org/sites/default/files/documents/Exxon%20Position%20on%20CO2%20%281981%29.pdf.

[145] American Petroleum Institute, *Climate Models and CO_2 Warming: A Selective Review and Summary*, Lamont-Doherty Geological Observatory (Columbia University) (Mar. 1982),

confirmed this, and the company's results were later published in at least three peer-reviewed scientific papers.[146]

127. Also in 1982, Exxon's Environmental Affairs Manager distributed a primer on climate change to a "wide circulation [of] Exxon management . . . intended to familiarize Exxon personnel with the subject."[147] The primer also was "restricted to Exxon personnel and not to be distributed externally."[148] The primer compiled science on climate change available at the time, and confirmed fossil fuel combustion as a primary anthropogenic contributor to global warming. The report estimated a CO_2 doubling around 2090 based on Exxon's long-range modeled outlook. The author warned that "uneven global distribution of increased rainfall and increased evaporation" were expected to occur, and that "disturbances in the existing global water distribution balance would have dramatic impact on soil moisture, and in turn, on agriculture."[149] Moreover, the melting of the Antarctic ice sheet could result in global sea level rise of five feet which would "cause flooding on much of the U.S. East Coast, including the State of Florida and Washington, D.C."[150] Indeed, it warned that "there are some potentially catastrophic events that must be considered," including sea level rise from melting polar ice sheets. It noted that some

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https://assets.documentcloud.org/documents/2805626/1982-API-Climate-Models-and-CO2-Warming-a.pdf.

[146] *See* Roger W. Cohen, *Exxon Memo summarizing findings of research in climate modeling*, Exxon Research and Engineering Company (Sept. 2, 1982), https://insideclimatenews.org/sites/default/files/documents/%2522Consensus%2522%20on%20CO2%20Impacts%20(1982).pdf (discussing research articles).

[147] M. B. Glaser, *Exxon Memo to Management about "CO_2 'Greenhouse' Effect"*, Exxon Research and Engineering Company (Nov. 12, 1982), http://insideclimatenews.org/sites/default/files/documents/1982%20Exxon%20Primer%20on%20CO2%20Greenhouse%20Effect.pdf.

[148] *Id.*

[149] *Id.*

[150] *Id.*

scientific groups were concerned "that once the effects are measurable, they might not be reversible."[151]

128. In a summary of Exxon's climate modeling research from 1982, Director of Exxon's Theoretical and Mathematical Sciences Laboratory Roger Cohen wrote that "the time required for doubling of atmospheric CO_2 depends on future world consumption of fossil fuels." Cohen concluded that Exxon's own results were "consistent with the published predictions of more complex climate models" and "in accord with the scientific consensus on the effect of increased atmospheric CO_2 on climate."[152]

129. At the fourth biennial Maurice Ewing Symposium at the Lamont-Doherty Geophysical Observatory in October 1982, attended by members of API, Exxon Research and Engineering Company, the Observatory's president E.E. David delivered a speech titled: "Inventing the Future: Energy and the CO_2 'Greenhouse Effect.'"[153] His remarks included the following statement: "[F]ew people doubt that the world has entered an energy transition away from dependence upon fossil fuels and toward some mix of renewable resources that will not pose problems of CO_2 accumulation." He went on, discussing the human opportunity to address anthropogenic climate change before the point of no return:

> It is ironic that the biggest uncertainties about the CO_2 buildup are not in predicting what the climate will do, but in predicting what people will do. . . .[It] appears we still have time to generate the wealth and knowledge we will need to invent the transition to a stable energy system.

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[151] *Id.*

[152] Roger W. Cohen, *Exxon Memo summarizing findings of research in climate modeling*, Exxon Research and Engineering Company (Sept. 2, 1982). https://insideclimatenews.org/sites/default/files/documents/%2522Consensus%2522%20on%20CO2%20Impacts%20(1982).pdf.

[153] E. E. David, Jr., *Inventing the Future: Energy and the CO_2 Greenhouse Effect: Remarks at the Fourth Annual Ewing Symposium, Tenafly, NJ* (1982), http://sites.agu.org/publications/files/2015/09/ch1.pdf.

130. Throughout the early 1980s, at Exxon's direction, Exxon climate scientist Henry Shaw forecasted emissions of CO_2 from fossil fuel use. Those estimates were incorporated into Exxon's 21st century energy projections and were distributed among Exxon's various divisions. Shaw's conclusions included an expectation that atmospheric CO_2 concentrations would double in 2090 per the Exxon model, with an attendant 2.3–5.6° F average global temperature increase. Shaw compared his model results to those of the EPA, the National Academy of Sciences, and the Massachusetts Institute of Technology, indicating that the Exxon model predicted a longer delay than any of the other models, although its temperature increase prediction was in the mid-range of the four projections.[154]

131. During the 1980s, many Defendants formed their own research units focused on climate modeling. The API, including the API CO_2 Task Force, provided a forum for Defendants to share their research efforts and corroborate their findings related to anthropogenic greenhouse gas emissions.[155]

132. During this time, Defendants' statements express an understanding of their obligation to consider and mitigate the externalities of unabated promotion, marketing, and sale of their fossil fuel products. For example, in 1988, Richard Tucker, the president of Mobil Oil, presented at the American Institute of Chemical Engineers National Meeting, the premier educational forum for chemical engineers, where he stated:

> [H]umanity, which has created the industrial system that has transformed civilities, is also responsible for the environment, which sometimes is at risk because of unintended consequences of industrialization. . . . Maintaining the health of this

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[154] Neela Banerjee, *More Exxon Documents Show How Much It Knew About Climate 35 Years Ago*, *supra* note 140.

[155] Neela Banerjee, *Exxon's Oil Industry Peers Knew About Climate Dangers in the 1970s, Too*, *supra* note 129.

> life-support system is emerging as one of the highest priorities. . . . [W]e must all be environmentalists.
>
> The environmental covenant requires action on many fronts . . . the low-atmosphere ozone problem, the upper-atmosphere ozone problem and the greenhouse effect, to name a few. . . . Our strategy must be to reduce pollution before it is ever generated—to prevent problems at the source.
>
> Prevention means engineering a new generation of fuels, lubricants and chemical products. . . . Prevention means designing catalysts and processes that minimize or eliminate the production of unwanted byproducts. . . . Prevention on a global scale may even require a dramatic reduction in our dependence on fossil fuels—and a shift towards solar, hydrogen, and safe nuclear power. It may be possible that—just possible—that the energy industry will transform itself so completely that observers will declare it a new industry. . . . Brute force, low-tech responses and money alone won't meet the challenges we face in the energy industry.[156]

133. Also in 1988, the Shell Greenhouse Effect Working Group issued a confidential internal report, "The Greenhouse Effect," which acknowledged global warming's anthropogenic nature: "Man-made carbon dioxide released into and accumulated in the atmosphere is believed to warm the earth through the so-called greenhouse effect." The authors also noted the burning of fossil fuels as a primary driver of CO2 buildup and warned that warming could "create significant changes in sea level, ocean currents, precipitation patterns, regional temperature and weather." They further pointed to the potential for "direct operational consequences" of sea level rise on "offshore installations, coastal facilities and operations (e.g. platforms, harbours, refineries, depots)."[157]

134. Similar to early warnings by Exxon scientists, the Shell report notes that "by the time the global warming becomes detectable it could be too late to take effective countermeasures

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[156] Richard E. Tucker, *High Tech Frontiers in the Energy Industry: The Challenge Ahead*, AIChE National Meeting (Nov. 30, 1988), https://hdl.handle.net/2027/pur1.32754074119482?urlappend=%3Bseq=522.

[157] Greenhouse effect working group, *The Greenhouse Effect*, Shell Internationale Petroleum (May 1988), https://www.documentcloud.org/documents/4411090-Document3.html#document/p9/a411239.

to reduce the effects or even to stabilise the situation." The authors mention the need to consider policy changes on multiple occasions, noting that "the potential implications for the world are . . . so large that policy options need to be considered much earlier" and that research should be "directed more to the analysis of policy and energy options than to studies of what we will be facing exactly."

135. In 1989, Esso Resources Canada (ExxonMobil) commissioned a report on the impacts of climate change on existing and proposed natural gas facilities in the Mackenzie River Valley and Delta, including extraction facilities on the Beaufort Sea and a pipeline crossing Canada's Northwest Territory.[158] It reported that "large zones of the Mackenzie Valley could be affected dramatically by climatic change" and that "the greatest concern in Norman Wells [oil town in North West Territories, Canada] should be the changes in permafrost that are likely to occur under conditions of climate warming."[159] The report concluded that, in light of climate models showing a "general tendency towards warmer and wetter climate," operation of those facilities would be compromised by increased precipitation, increase in air temperature, changes in permafrost conditions, and significantly, sea level rise and erosion damage.[160] The authors recommended factoring these eventualities into future development planning and also warned that "a rise in sea level could cause increased flooding and erosion damage on Richards Island."

136. In 1991, Shell produced a film called "Climate of Concern." The film advises that while "no two [climate change projection] scenarios fully agree, . . . [they] have each prompted the same serious warning. A warning endorsed by a uniquely broad consensus of scientists in their

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[158] *See* Stephen Lonergan & Kathy Young, *An Assessment of the Effects of Climate Warming on Energy Developments in the Mackenzie River Valley and Delta, Canadian Arctic*, 7 ENERGY EXPLORATION & EXPLOITATION 359–81 (1989).

[159] *Id.* at 369, 376.

[160] *Id.* at 360, 377–78.

report to the UN at the end of 1990." The warning was an increasing frequency of abnormal weather, and of sea level rise of about one meter over the coming century. Shell specifically described the impacts of anthropogenic sea level rise on tropical islands, "barely afloat even now, . . . [f]irst made uninhabitable and then obliterated beneath the waves. Wetland habitats destroyed by intruding salt. Coastal lowlands suffering pollution of precious groundwater." It warned of "greenhouse refugees," people who abandoned homelands inundated by the sea, or displaced because of catastrophic changes to the environment. The video concludes with a stark admonition: "Global warming is not yet certain, but many think that the wait for final proof would be irresponsible. Action now is seen as the only safe insurance."[161]

137. The fossil fuel industry was at the forefront of carbon dioxide research for much of the latter half of the 20th century. They developed cutting edge and innovative technology and worked with many of the field's top researchers to produce exceptionally sophisticated studies and models. For instance, in the mid-nineties Shell began using scenarios to plan how the company could respond to various global forces in the future. In one scenario published in a 1998 internal report, Shell paints an eerily prescient scene:

> In 2010, a series of violent storms causes extensive damage to the eastern coast of the U.S. Although it is not clear whether the storms are caused by climate change, people are not willing to take further chances. The insurance industry refuses to accept liability, setting off a fierce debate over who is liable: the insurance industry or the government. After all, two successive IPCC reports since 1993 have reinforced the human connection to climate change... Following the storms, a coalition of environmental NGOs brings a class-action suit against the US government and fossil-fuel companies on the grounds of neglecting what scientists (including their own) have been saying for years: that something must be done. A social reaction to the use of fossil fuels grows, and individuals become 'vigilante environmentalists' in the same way, a generation earlier, they had become fiercely

[161] Jelmer Mommers, *Shell Made a Film About Climate Change in 1991 (Then Neglected To Heed Its Own Warning)*, DE CORRESPONDENT (Feb. 27, 2017), https://thecorrespondent.com/6285/shell-made-a-film-about-climate-change-in-1991-then-neglected-to-heed-its-own-warning.

> anti-tobacco. Direct-action campaigns against companies escalate. Young consumers, especially, demand action.

138. Fossil fuel companies did not just consider climate change impacts in scenarios. In the mid-1990s, ExxonMobil, Shell, and Imperial Oil (ExxonMobil) jointly undertook the Sable Offshore Energy Project in Nova Scotia. The project's own Environmental Impact Statement declared: "The impact of a global warming sea-level rise may be particularly significant in Nova Scotia. The long-term tide gauge records at a number of locations along the N.S. coast have shown sea level has been rising over the past century. . . . For the design of coastal and offshore structures, an estimated rise in water level, due to global warming, of 0.5 m [1.64 feet] may be assumed for the proposed project life (25 years)."[162]

139. Climate change research conducted by Defendants and their industry associations frequently acknowledged uncertainties in their climate modeling—those uncertainties, however, were merely with respect to the magnitude and timing of climate impacts resulting from fossil fuel consumption, not that significant changes would eventually occur. The Defendants' researchers and the researchers at their industry associations harbored little doubt that climate change was occurring and that fossil fuel products were, and are, the primary cause.

140. Despite the overwhelming information about the threats to people and the planet posed by continued unabated use of their fossil fuel products, Defendants failed to act as they reasonably should have to mitigate or avoid those dire adverse impacts. Defendants instead adopted the position, as described below, that the absence of meaningful regulations on the consumption of their fossil fuel products was the equivalent of a social license to continue the

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[162] ExxonMobil, Sable Project, Development Plan, *Volume 3—Environmental Impact Statement* Ch 4: Environmental Setting, 4-77, http://soep.com/about-the-project/development-plan-application.

unfettered pursuit of profits from those products. This position was an abdication of Defendants' responsibility to consumers and the public, including Plaintiff, to act on their unique knowledge of the reasonably foreseeable hazards of unabated production and consumption of their fossil fuel products.

H. Defendants Did Not Disclose Known Harms Associated with the Extraction, Promotion, and Consumption of Their Fossil Fuel Products, and Instead Affirmatively Acted to Obscure Those Harms and Engaged in a Concerted Campaign to Evade Regulation.

141. By 1988, Defendants had amassed a compelling body of knowledge about the role of anthropogenic greenhouse gases, and specifically those emitted from the normal use of Defendants' fossil fuel products, in causing global warming, disruptions to the hydrologic cycle, extreme precipitation and drought, heatwaves, and associated consequences for human communities and the environment. On notice that their products were causing global climate change and dire effects on the planet, Defendants were faced with the decision of whether to take steps to limit the damages their fossil fuel products were causing and would continue to cause for virtually every one of Earth's inhabitants, including the people of Maryland, and the City of Baltimore and its inhabitants.

142. Defendants at any time before or thereafter could and reasonably should have taken any number of steps to mitigate the damages caused by their fossil fuel products, and their own comments reveal an awareness of what some of these steps may have been. Defendants should have made reasonable warnings to consumers, the public, and regulators of the dangers known to Defendants of the unabated consumption of their fossil fuel products, and they should have taken reasonable steps to limit the potential greenhouse gas emissions arising out of their fossil fuel products.

143. But several key events during the period 1988–1992 appear to have prompted Defendants to change their tactics from general research and internal discussion on climate change to a public campaign aimed at evading regulation of their fossil fuel products and/or emissions therefrom. These include:

a. In 1988, National Aeronautics and Space Administration (NASA) scientists confirmed that human activities were actually contributing to global warming.[163] On June 23 of that year, NASA scientist James Hansen's presentation of this information to Congress engendered significant news coverage and publicity for the announcement, including coverage on the front page of the New York Times.

b. On July 28, 1988, Senator Robert Stafford and four bipartisan co-sponsors introduced S. 2666, "The Global Environmental Protection Act," to regulate CO_2 and other greenhouse gases. Four more bipartisan bills to significantly reduce CO_2 pollution were introduced over the following ten weeks, and in August, U.S. Presidential candidate George H.W. Bush pledged that his presidency would "combat the greenhouse effect with the White House effect."[164] Political will in the United States to reduce anthropogenic greenhouse gas emissions and mitigate the harms associated with Defendants' fossil fuel products was gaining momentum.

c. In December 1988, the United Nations formed the Intergovernmental Panel on Climate Change (IPCC), a scientific panel dedicated to providing the world's

[163] *See* Peter C. Frumhoff et al., *The Climate Responsibilities of Industrial Carbon Producers*, 132 CLIMATIC CHANGE 161 (2015).

[164] N.Y. TIMES, *The White House and the Greenhouse* (May 9, 1998), http://www.nytimes.com/1989/05/09/opinion/the-white-house-and-the-greenhouse.html.

governments with an objective, scientific analysis of climate change and its environmental, political, and economic impacts.

d. In 1990, the IPCC published its First Assessment Report on anthropogenic climate change,[165] in which it concluded that (1) "there is a natural greenhouse effect which already keeps the Earth warmer than it would otherwise be," and (2) that

> emissions resulting from human activities are substantially increasing the atmospheric concentrations of the greenhouse gases carbon dioxide, methane, chlorofluorocarbons (CFCs) and nitrous oxide. These increases will enhance the greenhouse effect, resulting on average in an additional warming of the Earth's surface. The main greenhouse gas, water vapour, will increase in response to global warming and further enhance it.[166]

The IPCC reconfirmed these conclusions in a 1992 supplement to the First Assessment report.[167]

e. The United Nations began preparation for the 1992 Earth Summit in Rio de Janeiro, Brazil, a major, newsworthy gathering of 172 world governments, of which 116 sent their heads of state. The Summit resulted in the United Nations Framework Convention on Climate Change (UNFCCC), an international environmental treaty providing protocols for future negotiations aimed at "stabiliz[ing] greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."[168]

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[165] *See* IPCC, *Reports*, http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml.

[166] IPCC, *Climate Change: The IPCC Scientific Assessment*, "Policymakers Summary" (1990), http://www.ipcc.ch/ipccreports/far/wg_I/ipcc_far_wg_I_spm.pdf.

[167] IPCC, *1992 IPCC Supplement to the First Assessment Report* (1992), http://www.ipcc.ch/publications_and_data/publications_ipcc_90_92_assessments_far.shtml.

[168] United Nations, *United Nations Framework Convention on Climate Change*, Article 2 (1992), https://unfccc.int/resource/docs/convkp/conveng.pdf.

144. These world events marked a shift in public discussion of climate change, and the initiation of international efforts to curb anthropogenic greenhouse emissions—developments that had stark implications for, and would have diminished the profitability of, Defendants' fossil fuel products.

145. But rather than collaborating with the international community by acting to forestall, or at least decrease, their fossil fuel products' contributions to global warming, sea level rise, disruptions to the hydrologic cycle, and associated consequences to Baltimore and other communities, Defendants embarked on a decades-long campaign designed to maximize continued dependence on their products and undermine national and international efforts to rein in greenhouse gas emissions.

146. Defendants' campaign, which focused on concealing, discrediting, and/or misrepresenting information that tended to support restricting consumption of (and thereby decreasing demand for) Defendants' fossil fuel products, took several forms. The campaign enabled Defendants to accelerate their business practice of exploiting fossil fuel reserves, and concurrently externalize the social and environmental costs of their fossil fuel products. These activities stood in direct contradiction to Defendants' own prior recognition that the science of anthropogenic climate change was clear and that the greatest uncertainties involved responsive human behavior, not scientific understanding of the issue.

147. Defendants took affirmative steps to conceal, from Plaintiff and the general public, the foreseeable impacts of the use of their fossil fuel products on the Earth's climate and associated harms to people and communities. Defendants embarked on a concerted public relations campaign to cast doubt on the science connecting global climate change to fossil fuel products and greenhouse gas emissions, in order to influence public perception of the existence of anthropogenic

global warming and sea level rise, disruptions to weather cycles, extreme precipitation and drought, and associated consequences. The effort included promoting their hazardous products through advertising campaigns and the initiation and funding of climate change denialist organizations, designed to influence consumers to continue using Defendants' fossil fuel products irrespective of those products' damage to communities and the environment.

148. For example, in 1988, Joseph Carlson, an Exxon public affairs manager, described the "Exxon Position," which included among others, two important messaging tenets: (1) "[e]mphasize the uncertainty in scientific conclusions regarding the potential enhanced Greenhouse Effect"; and (2) "[r]esist the overstatement and sensationalization [sic] of potential greenhouse effect which could lead to noneconomic development of non-fossil fuel resources."[169]

149. A 1994 Shell report entitled "The Enhanced Greenhouse Effect: A Review of the Scientific Aspects" by Royal Dutch Shell environmental advisor Peter Langcake stands in stark contrast to the company's 1988 report on the same topic. Whereas before, the authors recommended consideration of policy solutions early on, Langcake warned of the potentially dramatic "economic effects of ill-advised policy measures." While the report recognized the IPCC conclusions as the mainstream view, Langcake still emphasized scientific uncertainty, noting, for example, that "the postulated link between any observed temperature rise and human activities has to be seen in relation to natural variability, which is still largely unpredictable." The Group position is stated clearly in the report: "Scientific uncertainty and the evolution of energy systems indicate

[169] Joseph M. Carlson, *Exxon Memo on "The Greenhouse Effect"* (Aug. 3, 1988), https://assets.documentcloud.org/documents/3024180/1998-Exxon-Memo-on-the-Greenhouse-Effect.pdf.

that policies to curb greenhouse gas emissions beyond 'no regrets' measures could be premature, divert resources from more pressing needs and further distort markets."[170]

150. In 1991, for example, the Information Council for the Environment ("ICE"), whose members included affiliates, predecessors and/or subsidiaries of Defendants, including Pittsburg and Midway Coal Mining (Chevron) and Island Creek Coal Company (Occidental), launched a national climate change science denial campaign with full-page newspaper ads, radio commercials, a public relations tour schedule, "mailers," and research tools to measure campaign success. Included among the campaign strategies was to "reposition global warming as theory (not fact)." Its target audience included older less-educated males who are "predisposed to favor the ICE agenda, and likely to be even more supportive of that agenda following exposure to new info."[171]

151. An implicit goal of ICE's advertising campaign was to change public opinion and avoid regulation. A memo from Richard Lawson, president of the National Coal Association asked members to contribute to the ICE campaign with the justification that "policymakers are prepared to act [on global warming]. Public opinion polls reveal that 60% of the American people already believe global warming is a serious environmental problem. Our industry cannot sit on the sidelines in this debate."[172]

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[170] P. Langcake, *The Enhanced Greenhouse Effect: A review of the Scientific Aspects*, (Dec. 1994), https://www.documentcloud.org/documents/4411099-Document11.html#document/p15/a411511.

[171] Union of Concerned Scientists, *Deception Dossier #5: Coal's "Information Council on the Environment" Sham* (1991), http://www.ucsusa.org/sites/default/files/attach/2015/07/Climate-Deception-Dossier-5_ICE.pdf.

[172] Naomi Oreskes, *My Facts Are Better Than Your Facts: Spreading Good News About Global Warming* (2010), in Peter Howlett et al., *How Well Do Facts Travel?: The Dissemination of Reliable Knowledge*, 136–66, Cambridge University Press (2011).

152. The following images are examples of ICE-funded print advertisements challenging the validity of climate science and intended to obscure the scientific consensus on anthropogenic climate change and induce political inertia to address it.[173]

Fig. 6: Information Council for the Environment Advertisements

153. In 1996, Exxon released a publication called "Global Warming: Who's Right? Facts about a debate that's turned up more questions than answers." In the publication's preface, Exxon CEO Lee Raymond inaccurately stated that "taking drastic action immediately is unnecessary since many scientists agree there's ample time to better understand the climate system." The subsequent article described the greenhouse effect as "unquestionably real and definitely a good thing," while ignoring the severe consequences that would result from the influence of the increased CO_2 concentration on the Earth's climate. Instead, it characterized the greenhouse effect as simply "what makes the earth's atmosphere livable." Directly contradicting their own internal reports and peer-reviewed science, the article ascribed the rise in temperature

[173] Union of Concerned Scientists, *supra* note 171, at 47–49.

since the late 19th century to "natural fluctuations that occur over long periods of time" rather than to the anthropogenic emissions that Exxon and other scientists had confirmed were responsible. The article also falsely challenged the computer models that projected the future impacts of unabated fossil fuel product consumption, including those developed by Exxon's own employees, as having been "proved to be inaccurate." The article contradicted the numerous reports circulated among Exxon's staff, and by the API, by stating that "the indications are that a warmer world would be far more benign than many imagine . . . moderate warming would reduce mortality rates in the US, so a slightly warmer climate would be more healthful." Raymond concluded his preface by attacking advocates for limiting the use of his company's fossil fuel products as "drawing on bad science, faulty logic, or unrealistic assumptions"—despite the important role that Exxon's own scientists had played in compiling those same scientific underpinnings.[174]

154. API published an extensive report in the same year warning against concern over CO_2 buildup and any need to curb consumption or regulate the industry. The introduction stated that "there is no persuasive basis for forcing Americans to dramatically change their lifestyles to use less oil." The authors discouraged the further development of certain alternative energy sources, writing that "government agencies have advocated the increased use of ethanol and the electric car, without the facts to support the assertion that either is superior to existing fuels and technologies" and that "policies that mandate replacing oil with specific alternative fuel technologies freeze progress at the current level of technology, and reduce the chance that innovation will develop better solutions." The paper also denied the human connection to climate change, by falsely stating that no "scientific evidence exists that human activities are significantly

[174] Exxon Corp., *Global Warming: Who's Right?* (1996), https://www.documentcloud.org/documents/2805542-Exxon-Global-Warming-Whos-Right.html.

affecting sea levels, rainfall, surface temperatures or the intensity and frequency of storms." The report's message was clear: "Facts don't support the arguments for restraining oil use."[175]

155. In a speech presented at the World Petroleum Congress in Beijing in 1997 at which many of the Defendants were present, Exxon CEO Lee Raymond reiterated these views. This time, he presented a false dichotomy between stable energy markets and abatement of the marketing, promotion, and sale of fossil fuel products known to Defendants to be hazardous. He stated:

> Some people who argue that we should drastically curtail our use of fossil fuels for environmental reasons . . . my belief [is] that such proposals are neither prudent nor practical. With no readily available economic alternatives on the horizon, fossil fuels will continue to supply most of the world's and this region's energy for the foreseeable future.
>
> Governments also need to provide a stable investment climate...They should avoid the temptation to intervene in energy markets in ways that give advantage to one competitor over another or one fuel over another.
>
> We also have to keep in mind that most of the greenhouse effects comes from natural sources . . . Leaping to radically cut this tiny sliver of the greenhouse pie on the premise that it will affect climate defies common sense and lacks foundation in our current understanding of the climate system.
>
> Let's agree there's a lot we really don't know about how climate will change in the 21st century and beyond . . . It is highly unlikely that the temperature in the middle of the next century will be significantly affected whether policies are enacted now or 20 years from now. It's bad public policy to impose very costly regulations and restrictions when their need has yet to be proven.[176]

156. Imperial Oil (ExxonMobil) CEO Robert Peterson falsely denied the established connection between Defendants' fossil fuel products and anthropogenic climate change in the Summer 1998 Imperial Oil Review, "A Cleaner Canada:"

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[175] Sally Brain Gentille et al., *Reinventing Energy: Making the Right Choices, American Petroleum Institute* (1996), http://www.climatefiles.com/trade-group/american-petroleum-institute/1996-reinventing-energy.

[176] Lee R. Raymond, *Energy—Key to growth and a better environment for Asia-Pacific nations*, World Petroleum Congress (Oct. 13, 1997), https://assets.documentcloud.org/documents/2840902/1997-Lee-Raymond-Speech-at-China-World-Petroleum.pdf.

> [T]his issue [referring to climate change] has absolutely nothing to do with pollution and air quality. Carbon dioxide is not a pollutant but an essential ingredient of life on this planet . . . .[T]he question of whether or not the trapping of 'greenhouse gases will result in the planet's getting warmer . . . has no connection whatsoever with our day-to-day weather.
>
> There is absolutely no agreement among climatologists on whether or not the planet is getting warmer, or, if it is, on whether the warming is the result of man-made factors or natural variations in the climate. . . .I feel very safe in saying that the view that burning fossil fuels will result in global climate change remains an unproved hypothesis.[177]

157. Mobil (ExxonMobil) paid for a series of "advertorials," advertisements located in the editorial section of the New York Times and meant to look like editorials rather than paid ads. These ads discussed various aspects of the public discussion of climate change and sought to undermine the justifications for tackling greenhouse gas emissions as unsettled science. The 1997 advertorial below[178] argued that economic analysis of emissions restrictions was faulty and inconclusive and therefore a justification for delaying action on climate change.

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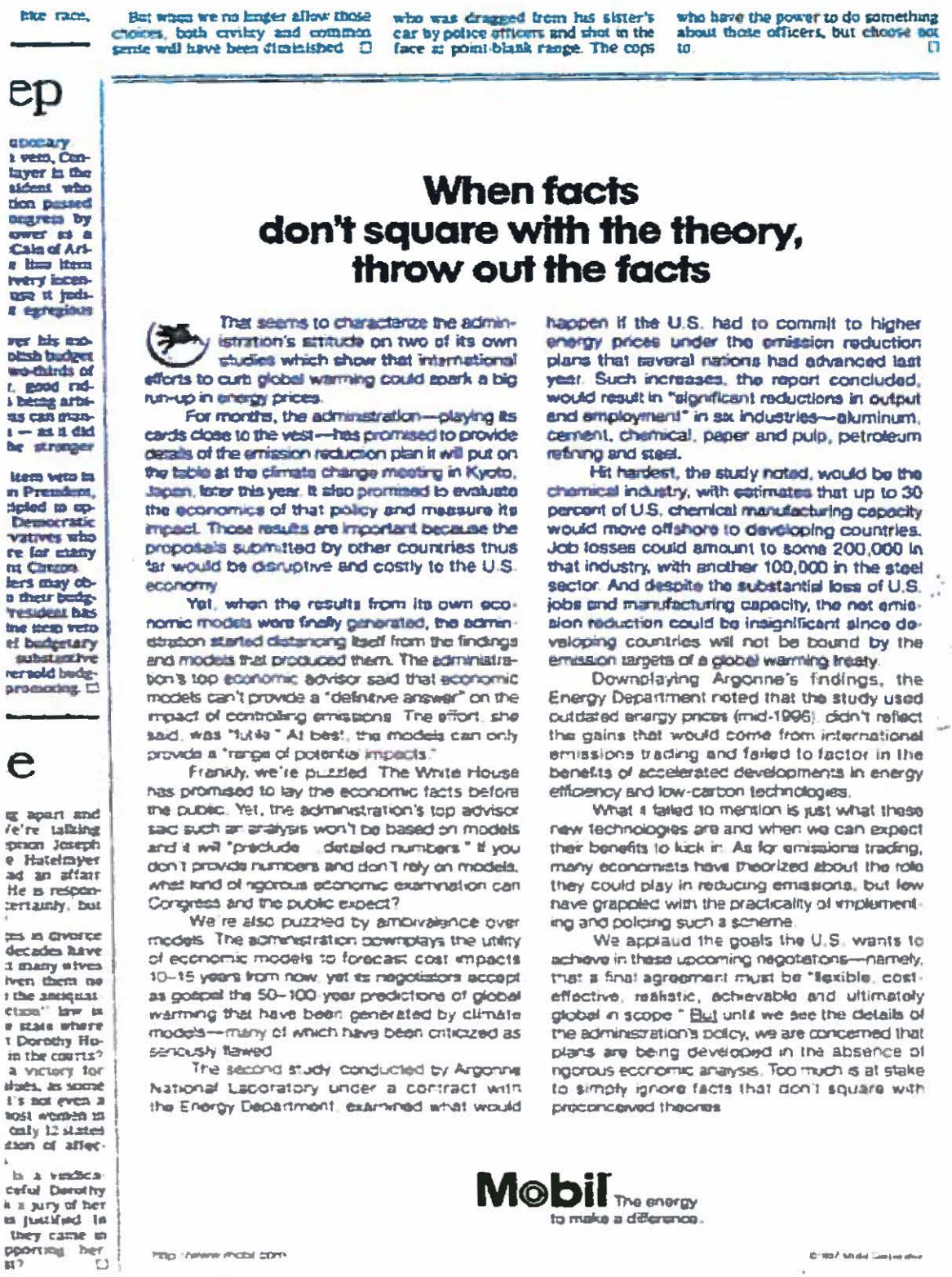
[177] Robert Peterson, *A Cleaner Canada* in *Imperial Oil Review* (1998), http://www.documentcloud.org/documents/2827818-1998-Imperial-Oil-Robert-Peterson-A-Cleaner-Canada.html.

[178] Mobil, *When Facts Don't Square with the Theory, Throw Out the Facts*, N.Y. TIMES, A31 (Aug. 14, 1997), https://www.documentcloud.org/documents/705550-mob-nyt-1997-aug-14-whenfactsdontsquare.html.

Fig. 7: 1997 Mobil Editorial



bite race.

But when we no longer allow those choices, both civility and common sense will have been diminished. □

who was dragged from his sister's car by police officers and shot in the face at point-blank range. The cops who have the power to do something about those officers, but choose not to. □

ep

e

When facts don't square with the theory, throw out the facts

That seems to characterize the administration's attitude on two of its own studies which show that international efforts to curb global warming could spark a big run-up in energy prices.

For months, the administration—playing its cards close to the vest—has promised to provide details of the emission reduction plan it will put on the table at the climate change meeting in Kyoto, Japan, later this year. It also promised to evaluate the economics of that policy and measure its impact. Those results are important because the proposals submitted by other countries thus far would be disruptive and costly to the U.S. economy.

Yet, when the results from its own economic models were finally generated, the administration started distancing itself from the findings and models that produced them. The administration's top economic advisor said that economic models can't provide a "definitive answer" on the impact of controlling emissions. The effort, she said, was "futile." At best, the models can only provide a "range of potential impacts."

Frankly, we're puzzled. The White House has promised to lay the economic facts before the public. Yet, the administration's top advisor says such an analysis won't be based on models and it will "preclude ... detailed numbers." If you don't provide numbers and don't rely on models, what kind of rigorous economic examination can Congress and the public expect?

We're also puzzled by ambivalence over models. The administration downplays the utility of economic models to forecast cost impacts 10–15 years from now, yet its negotiators accept as gospel the 50–100 year predictions of global warming that have been generated by climate models—many of which have been criticized as seriously flawed.

The second study conducted by Argonne National Laboratory under a contract with the Energy Department, examined what would happen if the U.S. had to commit to higher energy prices under the emission reduction plans that several nations had advanced last year. Such increases, the report concluded, would result in "significant reductions in output and employment" in six industries—aluminum, cement, chemical, paper and pulp, petroleum refining and steel.

Hit hardest, the study noted, would be the chemical industry, with estimates that up to 30 percent of U.S. chemical manufacturing capacity would move offshore to developing countries. Job losses could amount to some 200,000 in that industry, with another 100,000 in the steel sector. And despite the substantial loss of U.S. jobs and manufacturing capacity, the net emission reduction could be insignificant since developing countries will not be bound by the emission targets of a global warming treaty.

Downplaying Argonne's findings, the Energy Department noted that the study used outdated energy prices (mid-1996), didn't reflect the gains that would come from international emissions trading and failed to factor in the benefits of accelerated developments in energy efficiency and low-carbon technologies.

What it failed to mention is just what these new technologies are and when we can expect their benefits to kick in. As for emissions trading, many economists have theorized about the role they could play in reducing emissions, but few have grappled with the practicality of implementing and policing such a scheme.

We applaud the goals the U.S. wants to achieve in these upcoming negotiations—namely, that a final agreement must be "flexible, cost-effective, realistic, achievable and ultimately global in scope." But until we see the details of the administration's policy, we are concerned that plans are being developed in the absence of rigorous economic analysis. Too much is at stake to simply ignore facts that don't square with preconceived theories.

Mobil The energy to make a difference.

http://www.mobil.com

158. In 1998, API, on behalf of Defendants, among other fossil fuel companies and organizations supported by fossil fuel corporate grants, developed a Global Climate Science Communications Plan that stated that unless "climate change becomes a non-issue . . . there may be no moment when we can declare victory for our efforts." Rather, API proclaimed that "[v]ictory will be achieved when . . . average citizens 'understand' (recognize) uncertainties in climate science; [and when] recognition of uncertainties becomes part of the 'conventional wisdom.'"[179] The multi-million-dollar, multi-year proposed budget included public outreach and the dissemination of educational materials to schools to "begin to erect a barrier against further efforts to impose Kyoto-like measures in the future"[180]—a blatant attempt to disrupt international efforts, pursuant to the UNFCCC, to negotiate a treaty that curbed greenhouse gas emissions.

159. Soon after, API distributed a memo to its members identifying public agreement on fossil fuel products' role in climate change as its highest priority issue.[181] The memorandum illuminates API's and Defendants' concern over the potential regulation of Defendants' fossil fuel products: "Climate is at the center of the industry's business interests. Policies limiting carbon emissions reduce petroleum product use. That is why it is API's highest priority issue and defined as 'strategic.'"[182] Further, the API memo stresses many of the strategies that Defendants individually and collectively utilized to combat the perception of their fossil fuel products as hazardous. These included:

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[179] Joe Walker. *E-mail to Global Climate Science Team, attaching the Draft Global Science Communications Plan* (Apr. 3, 1998), https://assets.documentcloud.org/documents/784572/api-global-climate-science-communications-plan.pdf.

[180] *Id.*

[181] Committee on Oversight and Government Reform, *Allegations of Political Interference with Government Climate Change Science*, at 51 (Mar. 19, 2007), https://ia601904.us.archive.org/25/items/gov.gpo.fdsys.CHRG-110hhrg37415/CHRG-110hhrg37415.pdf.

[182] *Id.*

a. Influencing the tenor of the climate change "debate" as a means to establish that greenhouse gas reduction policies like the Kyoto Protocol were not necessary to responsibly address climate change;

b. Maintaining strong working relationships between government regulators and communications-oriented organizations like the Global Climate Coalition, the Heartland Institute, and other groups carrying Defendants' message minimizing the hazards of the unabated use of their fossil fuel products and opposing regulation thereof;

c. Building the case for (and falsely dichotomizing) Defendants' positive contributions to a "long-term approach" (ostensibly for regulation of their products) as a reason for society to reject short term fossil fuel emissions regulations, and engaging in climate change science uncertainty research; and

d. Presenting Defendants' positions on climate change in domestic and international forums, including by preparing rebuttals to IPCC reports.

160. Additionally, Defendants mounted a campaign against regulation of their business practices in order to continue placing their fossil fuel products into the stream of commerce, despite their own knowledge and the growing national and international scientific consensus about the hazards of doing so. These efforts came despite Defendants' recent recognition that "risks to nearly every facet of life on Earth . . . could be avoided only if timely steps were taken to address climate change."[183]

[183] Neela Banerjee, *Exxon's Oil Industry Peers Knew About Climate Dangers in the 1970s, Too*, *supra* note 129.

161. The Global Climate Coalition (GCC), on behalf of Defendants and other fossil fuel companies, funded advertising campaigns and distributed material to generate public uncertainty around the climate debate, with the specific purpose of preventing U.S. adoption of the Kyoto Protocol, despite the leading role that the U.S. had played in the Protocol negotiations.[184] Despite an internal primer stating that various "contrarian theories" [i.e., climate change skepticism] do not "offer convincing arguments against the conventional model of greenhouse gas emission-induced climate change," GCC excluded this section from the public version of the backgrounder and instead funded efforts to promote some of those same contrarian theories over subsequent years.[185]

162. A key strategy in Defendants' efforts to discredit scientific consensus on climate change and the IPCC was to bankroll scientists who, although accredited, held fringe opinions that were even more questionable given the sources of their research funding. These scientists obtained part or all of their research budget from Defendants directly or through Defendant-funded organizations like API,[186] but they frequently failed to disclose their fossil fuel industry underwriters.[187]

163. Creating a false sense of disagreement in the scientific community (despite the consensus that its own scientists, experts, and managers had previously acknowledged) has had an

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[184] *Id.*

[185] Gregory J. Dana, *Memo to AIAM Technical Committee Re: Global Climate Coalition (GCC)—Primer on Climate Change Science—Final Draft*, Association of International Automobile Manufacturers (Jan. 18, 1996), http://www.webcitation.org/6FyqHawb9.

[186] *E.g.*, Willie Soon & Sallie Baliunas, *Proxy Climatic and Environmental Changes of the Past 1000 Years*, 23 CLIMATE RESEARCH 88, 105 (Jan. 31, 2003), http://www.int-res.com/articles/cr2003/23/c023p089.pdf.

[187] *E.g.*, Newsdesk, *Smithsonian Statement: Dr. Wei-Hock (Willie) Soon*, SMITHSONIAN (Feb. 26, 2015), http://newsdesk.si.edu/releases/smithsonian-statement-dr-wei-hock-willie-soon.

evident impact on public opinion. A 2007 Yale University-Gallup poll found that while 71 percent of Americans personally believed global warming was happening, only 48 percent believed that there was a consensus among the scientific community, and 40 percent believed there was a lot of disagreement among scientists over whether global warming was occurring.[188]

164. 2007 was the same year the IPCC published its Fourth Assessment Report, in which it concluded that "there is *very high confidence* that the net effect of human activities since 1750 has been one of warming."[189] The IPCC defined "very high confidence" as at least a 9 out of 10 chance.[190]

165. Defendants borrowed pages out of the playbook of prior denialist campaigns. A "Global Climate Science Team" ("GCST") was created that mirrored a front group created by the tobacco industry, known as The Advancement of Sound Science Coalition, whose purpose was to sow uncertainty about the fact that cigarette smoke is carcinogenic. The GCST's membership included Steve Milloy (a key player on the tobacco industry's front group), Exxon's senior environmental lobbyist; an API public relations representative; and representatives from Chevron and Southern Company that drafted API's 1998 Communications Plan. There were no scientists on the "Global Climate Science Team." GCST developed a strategy to spend millions of dollars manufacturing climate change uncertainty. Between 2000 and 2004, Exxon donated $110,000 to Milloy's efforts and another organization, the Free Enterprise Education Institute and $50,000 to

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[188] *American Opinions on Global Warming: A Yale/Gallup/Clearvision Poll*, Yale Program on Climate Change Communication (July 31, 2007), http://climatecommunication.yale.edu/publications/american-opinions-on-global-warming.

[189] IPCC, *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (2007), https://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf.

[190] *Id.*

the Free Enterprise Action Institute, both registered to Milloy's home address.[191]

166. Defendants by and through their trade association memberships, worked directly, and often in a deliberately obscured manner, to evade regulation of the emissions resulting from use of their fossil fuel products.

167. Defendants have funded dozens of think tanks, front groups, and dark money foundations pushing climate change denial. These include the Competitive Enterprise Institute, the Heartland Institute, Frontiers for Freedom, Committee for a Constructive Tomorrow, and Heritage Foundation. From 1998 to 2014 ExxonMobil spent almost $31 million funding numerous organizations misrepresenting the scientific consensus that Defendants' fossil fuel products were causing climate change, sea level rise, and injuries to Baltimore, among other coastal communities.[192] Several Defendants have been linked to other groups that undermine the scientific basis linking Defendants' fossil fuel products to climate change and sea level rise, including the Frontiers of Freedom Institute and the George C. Marshall Institute.

168. Exxon acknowledged its own previous success in sowing uncertainty and slowing mitigation through funding of climate denial groups. In its 2007 Corporate Citizenship Report, Exxon declared: "In 2008, we will discontinue contributions to several public policy research groups whose position on climate change could divert attention from the important discussion on how the world will secure the energy required for economic growth in an environmentally

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[191] Seth Shulman et al., *Smoke, Mirrors & Hot Air: How ExxonMobil Uses Big Tobacco's Tactics to Manufacture Uncertainty on Climate Science*, Union of Concerned Scientists, 19 (Jan. 2007), http://www.ucsusa.org/sites/default/files/legacy/assets/documents/global_warming/exxon_report.pdf.

[192] ExxonSecrets.org, *ExxonMobil Climate Denial Funding 1998–2014* (accessed June 27, 2018), http://exxonsecrets.org/html/index.php.

responsible manner."[193] Despite this pronouncement, Exxon remained financially associated with several such groups after the report's publication.

169. Defendants could have contributed to the global effort to mitigate the impacts of greenhouse gas emissions by, for example delineating practical technical strategies, policy goals, and regulatory structures that would have allowed them to continue their business ventures while reducing greenhouse gas emissions and supporting a transition to a lower carbon future. Instead, Defendants undertook a momentous effort to evade international and national regulation of greenhouse gas emissions to enable them to continue unabated fossil fuel production.

170. As a result of Defendants' tortious, false and misleading conduct, reasonable consumers of Defendants' fossil fuel products and policy-makers have been deliberately and unnecessarily deceived about: the role of fossil fuel products in causing global warming, sea level rise, disruptions to the hydrologic cycle, and increased extreme precipitation, heatwaves, and drought; the acceleration of global warming since the mid-20th century and the continuation thereof; and about the fact that the continued increase in fossil fuel product consumption that creates severe environmental threats and significant economic costs for coastal communities, including Baltimore. Reasonable consumers and policy makers have also been deceived about the depth and breadth of the state of the scientific evidence on anthropogenic climate change, and in particular, about the strength of the scientific consensus demonstrating the role of fossil fuels in causing both climate change and a wide range of potentially destructive impacts, including sea level rise, disruptions to the hydrologic cycle, extreme precipitation, heatwaves, drought, and associated consequences.

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[193] ExxonMobil, *2007 Corporate Citizenship Report* (Dec. 31, 2007), http://www.documentcloud.org/documents/2799777-ExxonMobil-2007-Corporate-Citizenship-Report.html.

I. In Contrast to Their Public Statements, Defendants' Internal Actions Demonstrate Their Awareness of and Intent to Profit from the Unabated Use of Fossil Fuel Products.

171. In contrast to their public-facing efforts challenging the validity of the scientific consensus about anthropogenic climate change, Defendants' acts and omissions evidence their internal acknowledgement of the reality of climate change and its likely consequences. These actions include, but are not limited to, making multi-billion-dollar infrastructure investments for their own operations that acknowledge the reality of coming anthropogenic climate-related change. These investments included (among others), raising offshore oil platforms to protect against sea level rise; reinforcing offshore oil platforms to withstand increased wave strength and storm severity; and developing and patenting designs for equipment intended to extract crude oil and/or natural gas in areas previously unreachable because of the presence of polar ice sheets.[194]

172. For example, in 1973 Exxon obtained a patent for a cargo ship capable of breaking through sea ice[195] and for an oil tanker[196] designed specifically for use in previously unreachable areas of the Arctic.

173. In 1974, Chevron obtained a patent for a mobile arctic drilling platform designed to withstand significant interference from lateral ice masses,[197] allowing for drilling in areas with increased ice flow movement due to elevated temperature.

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[194] Amy Lieberman & Suzanne Rust, *Big Oil braced for global warming while it fought regulations*, L.A. TIMES (Dec. 31, 2015), http://graphics.latimes.com/oil-operations.

[195] Patents, *Icebreaking cargo vessel*, Exxon Research Engineering Co. (Apr. 17, 1973), https://www.google.com/patents/US3727571.

[196] Patents, *Tanker vessel*, Exxon Research Engineering Co. (July 17, 1973), https://www.google.com/patents/US3745960.

[197] Patents, *Arctic offshore platform*, Chevron Research & Technology Co. (Aug. 27, 1974), https://www.google.com/patents/US3831385.

174. That same year, Texaco (Chevron) worked toward obtaining a patent for a method and apparatus for reducing ice forces on a marine structure prone to being frozen in ice through natural weather conditions,[198] allowing for drilling in previously unreachable Arctic areas that would become seasonally accessible.

175. Shell obtained a patent similar to Texaco's (Chevron) in 1984.[199]

176. In 1989, Norske Shell, Royal Dutch Shell's Norwegian subsidiary, altered designs for a natural gas platform planned for construction in the North Sea to account for anticipated sea level rise. Those design changes were ultimately carried out by Shell's contractors, adding substantial costs to the project.[200]

a. The Troll field, off the Norwegian coast in the North Sea, was proven to contain large natural oil and gas deposits in 1979, shortly after Norske Shell was approved by Norwegian oil and gas regulators to operate a portion of the field.

b. In 1986, the Norwegian parliament granted Norske Shell authority to complete the first development phase of the Troll field gas deposits, and Norske Shell began designing the "Troll A" gas platform, with the intent to begin operation of the platform in approximately 1995. Based on the very large size of the gas deposits in the Troll field, the Troll A platform was projected to operate for approximately 70 years.

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[198] Patents, *Mobile, arctic drilling and production platform*, Texaco Inc. (Feb. 26, 1974), https://www.google.com/patents/US3793840.

[199] Patents, *Arctic offshore platform*, Shell Oil Co. (Jan. 24, 1984), https://www.google.com/patents/US4427320.

[200] *Greenhouse Effect: Shell Anticipates a Sea Change*, N.Y. TIMES (Dec. 20, 1989), http://www.nytimes.com/1989/12/20/business/greenhouse-effect-shell-anticipates-a-sea-change.html.

c. The platform was originally designed to stand approximately 100 feet above sea level—the amount necessary to stay above waves in a once-in-a-century strength storm.

d. In 1989, Shell engineers revised their plans to increase the above-water height of the platform by 3–6 feet, specifically to account for higher anticipated average sea levels and increased storm intensity due to global warming over the platform's 70-year operational life.[201]

e. Shell projected that the additional 3–6 feet of above-water construction would increase the cost of the Troll A platform by as much as $40 million.

J. Defendants' Actions Prevented the Development of Alternatives That Would Have Eased the Transition to a Less Fossil Fuel Dependent Economy.

177. The harms and benefits of Defendants' conduct can be balanced in part by weighing the social benefit of extracting and burning a unit of fossil fuels against the costs that a unit of fuel imposes on society, known as the "social cost of carbon" or "SCC."

178. Because climatic responses to atmospheric temperature increases are non-linear, and because greenhouse gas pollution accumulates in the atmosphere, some of which does not dissipate for potentially thousands of years (namely CO_2), there is broad agreement that the SCC increases as emissions rise, and as the climate warms. Relatedly, as atmospheric CO_2 levels and surface temperature increase, the costs of remediating any individual environmental injury—for example infrastructure to mitigate sea level rise, and changes to agricultural processes—also increase. In short, each additional ton of CO_2 emitted into the atmosphere will have a greater net social cost as emissions increase, and each additional ton of CO_2 will have a greater net social cost

[201] *Id.*; Amy Lieberman & Suzanne Rust, *Big Oil Braced for Global Warming While It Fought Regulations*, *supra* note 194.

as global warming accelerates.

179. A critical corollary of the non-linear relationship between atmospheric CO_2 concentrations and the SCC is that delayed efforts to curb those emissions have increased environmental harms and increased the magnitude and cost to remediate harms that have already occurred or are locked in by previous emissions. Therefore, Defendants' campaign to obscure the science of climate change and to expand the extraction and use of fossil fuels greatly increased and continues to increase the harms and rate of harms suffered by the City and its residents.

180. The consequences of delayed action on climate change, exacerbated by Defendants' actions, already have drastically increased the cost of mitigating further harm. Had concerted action begun even as late as 2005, an annual 3.5 percent reduction in CO_2 emissions to lower atmospheric CO_2 to 350 ppm by the year 2100 would have restored earth's energy balance[202] and halted future global warming, although such efforts would not forestall committed sea level rise already locked in.[203] If efforts do not begin until 2020, however, a 15 percent annual reduction will be required to restore the Earth's energy balance by the end of the century.[204] Earlier steps to reduce emissions would have led to smaller—and less disruptive—measures needed to mitigate the impacts of fossil fuel production.

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[202] "Climate equilibrium" is the balance between Earth's absorption of solar energy and its own energy radiation. Earth is currently out of equilibrium due to the influence of anthropogenic greenhouse gases, which prevent radiation of energy into space. Earth therefore warms and move back toward energy balance. Reduction of global CO_2 concentrations to 350 ppm is necessary to re-achieve energy balance, if the aim is to stabilize climate without further global warming and attendant sea level rise. *See* James Hansen et al., *Assessing "Dangerous Climate Change:" Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature*, 8 PLOS ONE 1, 4-5 (Dec. 3, 2013), http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0081648.

[203] James Hansen et al., *Assessing "Dangerous Climate Change:" Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature*, *supra* note 202, at 10.

[204] *Id.*

181. The costs of inaction and the opportunities to confront anthropogenic climate change and sea level rise caused by normal consumption of their fossil fuel products, were not lost on Defendants. In a 1997 speech by John Browne, Group Executive for BP America, at Stanford University, Browne described Defendants' and the entire fossil fuel industry's responsibility and opportunities to reduce use of fossil fuel products, reduce global CO_2 emissions, and mitigate the harms associated with the use and consumption of such products:

> A new age demands a fresh perspective of the nature of society and responsibility.
>
> We need to go beyond analysis and to take action. It is a moment for change and for a rethinking of corporate responsibility. . . .
>
> [T]here is now an effective consensus among the world's leading scientists and serious and well informed people outside the scientific community that there is a discernible human influence on the climate, and a link between the concentration of carbon dioxide and the increase in temperature.
>
> The prediction of the IPCC is that over the next century temperatures might rise by a further 1 to 3.5 degrees centigrade [1.8°—6.3° F], and that sea levels might rise by between 15 and 95 centimetres [5.9 and 37.4 inches]. Some of that impact is probably unavoidable, because it results from current emissions. . . .
>
> [I]t would be unwise and potentially dangerous to ignore the mounting concern.
>
> The time to consider the policy dimensions of climate change is not when the link between greenhouse gases and climate change is conclusively proven ... but when the possibility cannot be discounted and is taken seriously by the society of which we are part. . . .
>
> We [the fossil fuel industry] have a responsibility to act, and I hope that through our actions we can contribute to the much wider process which is desirable and necessary.
>
> BP accepts that responsibility and we're therefore taking some specific steps.
>
> To control our own emissions.
>
> To fund continuing scientific research.
>
> To take initiatives for joint implementation.

To develop alternative fuels for the long term.

And to contribute to the public policy debate in search of the wider global answers to the problem.[205]

182. Despite Defendants' knowledge of the foreseeable, measurable harms associated with the unabated consumption and use of their fossil fuel products, and despite the existence and Defendants' knowledge of technologies and practices that could have helped to reduce the foreseeable dangers associated with their fossil fuel products, Defendants continued to market and promote heavy fossil fuel use, dramatically increasing the cost of abatement. At all relevant times, Defendants were deeply familiar with opportunities to reduce the use of their fossil fuel products, reduce global CO_2 emissions associated therewith, and mitigate the harms associated with the use and consumption of such products. Examples of that recognition include, but are not limited to the following:

a. In 1963, Esso (Exxon Mobil) obtained multiple patents on technologies for fuel cells, including on the design of a fuel cell and necessary electrodes,[206] and on a process for increasing the oxidation of a fuel, specifically methanol, to produce electricity in a fuel cell.[207]

b. In 1970, Esso (Exxon Mobil) obtained a patent for a "low-polluting engine and drive system" that used an interburner and air compressor to reduce pollutant emissions, including CO_2 emissions, from gasoline combustion engines (the system

[205] John Browne, *BP Climate Change Speech to Stanford*, Climate Files (May 19, 1997), http://www.climatefiles.com/bp/bp-climate-change-speech-to-stanford.

[206] Patents, *Fuel cell and fuel cell electrodes*, Exxon Research Engineering Co. (Dec. 31, 1963), https://www.google.com/patents/US3116169.

[207] Patents, *Direct production of electrical energy from liquid fuels*, Exxon Research Engineering Co. (Dec. 3, 1963), https://www.google.com/patents/US3113049.

also increased the efficiency of the fossil fuel products used in such engines, thereby lowering the amount of fossil fuel product necessary to operate engines equipped with this technology).[208]

183. Defendants could have made major inroads to mitigate Plaintiff's injuries through technology by developing and employing technologies to capture and sequester greenhouse gases emissions associated with conventional use of their fossil fuel products. Defendants had knowledge dating at least back to the 1960s, and indeed, internally researched and perfected many such technologies. For instance:

a. The first patent for enhanced oil recovery technology, a process by which CO_2 is captured and reinjected into oil deposits, was granted to an ARCO (BP) subsidiary in 1952.[209] This technology could have been further developed as a carbon capture and sequestration technique;

b. Phillips Petroleum Company (ConocoPhillips) obtained a patent in 1966 for a "Method for recovering a purified component from a gas" outlining a process to remove carbon from natural gas and gasoline streams;[210] and

c. In 1973, Shell was granted a patent for a process to remove acidic gases, including CO_2, from gaseous mixtures.

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[208] Patents, *Low-polluting engine and drive system*, Exxon Research Engineering Co. (May 16, 1970), https://www.google.com/patents/US3513929.

[209] James P. Meyer, *Summary of Carbon Dioxide Enhanced Oil Recovery (CO_2EOR) Injection Well Technology*, American Petroleum Institute, page 1, http://www.api.org/~/media/Files/EHS/climate-change/Summary-carbon-dioxide-enhanced-oil-recovery-well-tech.pdf.

[210] Patents, *Method for recovering a purified component from a gas*, Phillips Petroleum Co (Jan. 11, 1966), https://www.google.com/patents/US3228874.

184. Despite this knowledge, Defendants' later forays into the alternative energy sector were largely pretenses. For instance, in 2001, Chevron developed and shared a sophisticated information management system to gather greenhouse gas emissions data from its explorations and production to help regulate and set reduction goals.[211] Beyond this technological breakthrough, Chevron touted "profitable renewable energy" as part of its business plan for several years and launched a 2010 advertising campaign promoting the company's move towards renewable energy. Despite all this, Chevron rolled back its renewable and alternative energy projects in 2014.[212]

185. Similarly, ConocoPhillips' 2012 Sustainable Development report declared developing renewable energy a priority in keeping with their position on sustainable development and climate change.[213] Their 10-K filing from the same year told a different story: "As an independent E&P company, we are solely focused on our core business of exploring for, developing and producing crude oil and natural gas globally."[214]

186. Likewise, while Shell orchestrated an entire public relations campaign around energy transitions towards net zero emissions, a fine-print disclaimer in its 2016 net-zero pathways report reads: "We have no immediate plans to move to a net-zero emissions portfolio over our investment horizon of 10–20 years."[215]

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[211] Chevron, *Chevron Introduces New System to Manage Energy Use* (press release) (Sept. 25, 2001), https://www.chevron.com/stories/chevron-introduces-new-system-to-manage-energy-use.

[212] Benjamin Elgin, *Chevron Dims the Lights on Green Power*, BLOOMBERG (May 29, 2014), https://www.bloomberg.com/news/articles/2014-05-29/chevron-dims-the-lights-on-renewable-energy-projects.

[213] ConocoPhillips, *Sustainable Development* (2013), http://www.conocophillips.com/sustainable-development/Documents/2013.11.7%201200%20Our%20Approach%20Section%20Final.pdf.

[214] ConocoPhillips, Form 10-K, U.S. Securities and Exchange Commission (Dec. 31, 2012), https://www.sec.gov/Archives/edgar/data/1163165/000119312513065426/d452384d10k.htm.

[215] *Energy Transitions Towards Net Zero Emissions* (NZE), Shell (2016).

187. BP, appearing to abide by the representations Lord Browne made in his speech described in paragraph 152, above, engaged in a rebranding campaign to convey an air of environmental stewardship and renewable energy to its consumers. This included renouncing its membership in the GCC in 2007, changing its name from "British Petroleum" to "BP" while adopting the slogan "Beyond Petroleum," and adopting a conspicuously green corporate logo. However, BP's self-touted "alternative energy" investments during this turnaround included investments in natural gas, a fossil fuel, and in 2007 the company reinvested in Canadian tar sands, a particularly high-carbon source of oil.[216] The company ultimately abandoned its wind and solar assets in 2011 and 2013, respectively, and even the "Beyond Petroleum" moniker in 2013.[217]

188. After posting a $10 billion quarterly profit, Exxon in 2005 stated that "We're an oil and gas company. In times past, when we tried to get into other businesses, we didn't do it well. We'd rather re-invest in what we know."[218]

189. Even if Defendants did not adopt technological or energy source alternatives that would have reduced use of fossil fuel products, reduced global greenhouse gas pollution, and/or mitigated the harms associated with the use and consumption of such products, Defendants could have taken other practical, cost-effective steps to reduce the use of their fossil fuel products, reduce global greenhouse gas pollution associated therewith, and mitigate the harms associated with the use and consumption of such products. These alternatives could have included, among other measures:

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[216] Fred Pearce, *Greenwash: BP and the Myth of a World 'Beyond Petroleum,'* THE GUARDIAN, (Nov. 20, 2008), https://www.theguardian.com/environment/2008/nov/20/fossilfuels-energy.

[217] Javier E. David, *'Beyond Petroleum' No More? BP Goes Back to Basics*, CNBC (Apr. 20, 2013), http://www.cnbc.com/id/100647034.

[218] James R. Healy, *Alternate Energy Not in Cards at ExxonMobil*, USA TODAY (Oct. 28, 2005), https://usatoday30.usatoday.com/money/industries/energy/2005-10-27-oil-invest-usat_x.htm.

a. Accepting scientific evidence on the validity of anthropogenic climate change and the damages it will cause people, communities, including Plaintiff, and the environment. Mere acceptance of that information would have altered the debate from *whether* to combat climate change and sea level rise to *how* to combat it; and avoided much of the public confusion that has ensued over nearly 30 years, since at least 1988;

b. Forthrightly communicating with Defendants' shareholders, banks, insurers, the public, regulators and Plaintiff about the global warming and sea level rise hazards of Defendants' fossil fuel products that were known to Defendants, would have enabled those groups to make material, informed decisions about whether and how to address climate change and sea level rise vis-à-vis Defendants' products;

c. Refraining from affirmative efforts, whether directly, through coalitions, or through front groups, to distort public debate, and to cause many consumers and business and political leaders to think the relevant science was far less certain that it actually was;

d. Sharing their internal scientific research with the public, and with other scientists and business leaders, so as to increase public understanding of the scientific underpinnings of climate change and its relation to Defendants' fossil fuel products;

e. Supporting and encouraging policies to avoid dangerous climate change, and demonstrating corporate leadership in addressing the challenges of transitioning to a low-carbon economy;

f. Prioritizing alternative sources of energy through sustained investment and research on renewable energy sources to replace dependence on Defendants' inherently hazardous fossil fuel products;

g. Adopting their shareholders' concerns about Defendants' need to protect their businesses from the inevitable consequences of profiting from their fossil fuel products. Over the period of 1990-2015, Defendants' shareholders proposed hundreds of resolutions to change Defendants' policies and business practices regarding climate change. These included increasing renewable energy investment, cutting emissions, and performing carbon risk assessments, among others.

190. Despite their knowledge of the foreseeable harms associated with the consumption of Defendants' fossil fuel products, and despite the existence and fossil fuel industry knowledge of opportunities that would have reduced the foreseeable dangers associated with those products, Defendants wrongfully and falsely promoted, campaigned against regulation of, and concealed the hazards of use of their fossil fuel products.

K. Defendants Caused Plaintiff's Injuries.

191. Defendants individually and collectively extracted a substantial percentage of all raw fossil fuels extracted globally since 1965. Defendants individually and collectively manufactured, promoted, marketed, and sold a substantial percentage of all fossil fuel products ultimately used and combusted. Defendants played a leadership role in campaigns to deny the link between their products and the adverse effects of fossil fuel emissions, avoid regulation, and lessen the carbon footprint affecting the world climate system.

192. CO_2 emissions attributable to fossil fuels that Defendants extracted from the Earth and injected into the market are responsible for a substantial percentage of greenhouse gas pollution since 1965.

193. Defendants' individual and collective conduct, including, but not limited to, their extraction, refining, and/or formulation of fossil fuel products; their introduction of fossil fuel products into the stream of commerce; their wrongful promotion of their fossil fuel products and concealment of known hazards associated with use of those products; and their failure to pursue less hazardous alternatives available to them; is a substantial factor in causing the increase in global mean temperature and consequent increase in global mean sea surface height and disruptions to the hydrologic cycle, including, but not limited to, more frequent and extreme droughts, more frequent and extreme precipitation events, increased frequency and severity of heat waves and extreme temperatures, and the associated consequences of those physical and environmental changes, since 1965.

194. Defendants have actually and proximately caused the sea levels to rise, increased the destructive impacts of storm surges, increased coastal erosion, exacerbated the onshore impact of regular tidal ebb and flow, disrupted the hydrologic cycle, caused increased frequency and severity of drought, caused increased frequency and severity of extreme precipitation events, caused increased frequency and severity of heat waves, and caused consequent social and economic injuries associated with the aforementioned physical and environmental impacts, among other impacts, resulting in inundation, destruction, and/or other interference with Plaintiff's property and citizenry.

195. The City has already incurred, and will foreseeably continue to incur, injuries, and damages due to anthropogenic global warming, including sea level rise and associated impacts, increased frequency and severity of extreme precipitation events, increased frequency and severity of drought, increased frequency and severity of heat waves and extreme temperatures, and

consequent social and economic injuries associated with those physical and environmental changes, all of which have been caused and/or exacerbated by Defendants' conduct.

196. Baltimore has experienced significant sea level rise and associated impacts over the last half century attributable to Defendants' conduct.[219] Warming-related sea level rise has already increased the likelihood of extreme floods in Baltimore by approximately 20 percent.[220] Even if all carbon emissions were to cease, Baltimore would still experience greater future committed sea level rise due to the "locked in" greenhouse gases already emitted.[221] The City will suffer greater overall sea level rise than the global average.[222]

197. Baltimore is particularly vulnerable to the impacts of sea level rise because of its substantial and densely developed coastline and substantial low-lying areas. The port and waterfront are extremely important assets to the City, providing an abundance of jobs as well as some of the City's strongest property tax base. Baltimore's Inner Harbor is a prominent tourist destination attracting more than 20 million visitors each year. Sea level rise will present short- and long-term challenges to the Inner Harbor, along with other waterfront communities. The figure below delineates the extent of flood impacts of 100- and 500-year storms superimposed on 3-foot, 5-foot, and 7-foot sea level rise scenarios.

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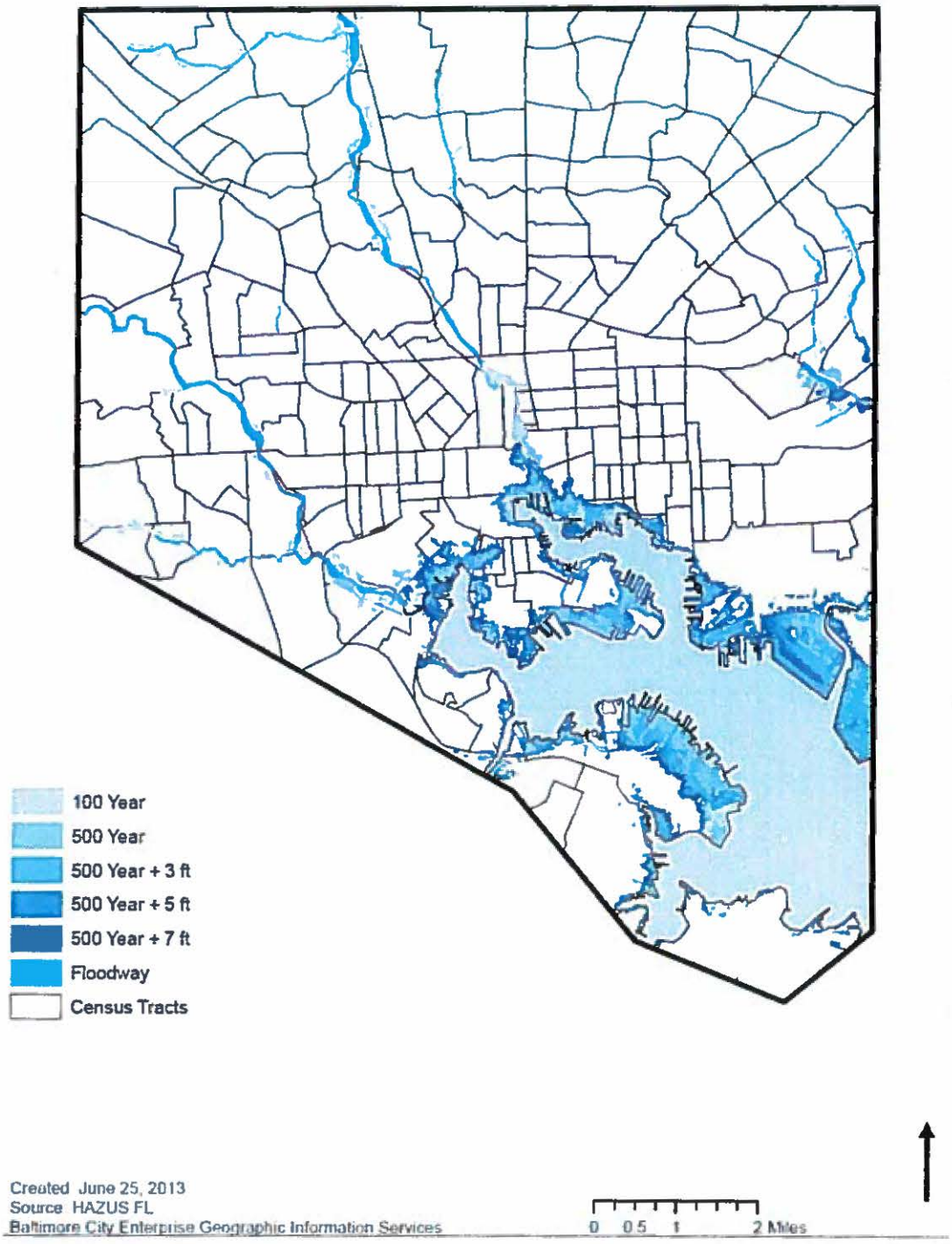
[219] *See* City of Baltimore, Disaster Preparedness and Planning Project, *supra* note 55, at 36.

[220] Climate Central, *Maryland and the Surging Sea*, 14 (Sept. 2014), http://sealevel.climatecentral.org/uploads/ssrf/MD-Report.pdf.

[221] Peter U. Clark et al., *supra* note 44, at 365.

[222] *See id.* at 364.

Fig. 8: Baltimore Storm Inundation Projections



198. Based on NOAA's highest sea level rise scenario, within 80 years, floods breaking today's records would be expected once a year in Baltimore, according to a 2014 analysis by

Climate Central.[223] There is also a higher than 4 in 5 chance of flooding above nine feet in Baltimore by 2100 under the high sea level rise scenario.[224] The same study also found climate change-related sea level rise has already increased the likelihood of extreme floods in and around Baltimore by at least 20 percent.[225]

199. Sea level rise endangers City property and infrastructure, causing coastal flooding of low-lying areas, erosion, and storm surges. Several critical City assets and roadways, including highways, rail lines, emergency response facilities, waste water facilities, and power plants, have suffered and/or will suffer injuries due to sea level rise and associated flooding expected by the end of this century. Federal Emergency Management Agency estimates an additional 36 to 58 percent increase in annual storm damage costs for every one-foot rise in sea level and a 102 to 200 percent increase in damage costs for a three-foot increase.[226]

200. The map below depicts critical infrastructure in FEMA flood zones in Baltimore's Fells Point neighborhood and other neighborhoods surrounding the harbor under current conditions. Sea level rise will exacerbate the vulnerability of this critical infrastructure to storm surges and flooding.

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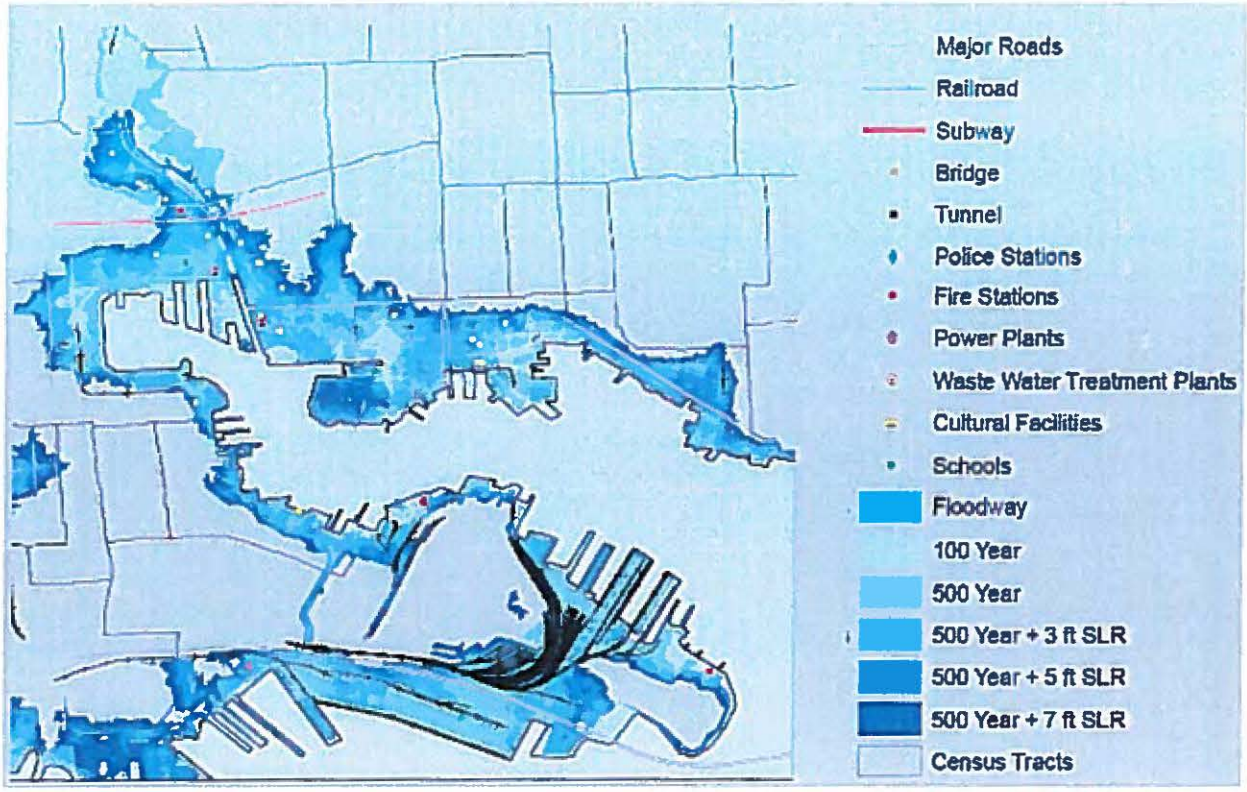
[223] Ben Strauss et al., *Maryland and the Surging Sea*, Climate Central (Sept. 2014), 13, http://sealevel.climatecentral.org/uploads/ssrf/MD-Report.pdf.

[224] *Id.*

[225] *Id.* at 14.

[226] Maryland Commission on Climate Change, *2015 Annual Report*, *supra* note 57, at 13.

Fig. 9: Critical Baltimore Infrastructure Threatened by Storm Inundation



201. Furthermore, the City has and will continue to experience injuries due to changes to the hydrologic cycle caused by Defendants' conduct. Changes to the hydrologic cycle, including more frequent and intense precipitation events and associated floods, have caused and will continue to cause the City multiple significant injuries, including, but not limited to, infrastructure damage; disruption to electrical and communications utilities within Baltimore; interference with the use and enjoyment of City-owned public property; and the financial, manpower, and other costs to the City of planning for climatic changes and of responding to acute injuries to assets within Baltimore. For example, increased flooding, higher temperatures, and elevated freeze-thaw cycles will significantly increase the costs of maintaining, replacing and repairing roads.[227]

[227] Maryland Commission on Climate Change, *2015 Annual Report*, *supra* note 57, at 13.

202. Several locations within Baltimore are subject to repetitive damage from flood events. Most recently, during and following the severe rains of May 27, 2018, Baltimore experienced a severe flood event that required first responders to rescue 20 people, including several trapped aboard public transit.[228] The flooding damaged City infrastructure, interrupted utility service, and causes local business to evacuate and close. Increased extreme precipitation events will increase flood events in Baltimore.[229] As the torrential rain and associated flooding that struck Baltimore, Baltimore County, and Ellicott City in 2016 and again in 2018 demonstrate, *see* paragraphs 80–82, *supra*, extreme precipitation is a present threat to Baltimore and the surrounding region.

203. Flood-associated damages have been and will be exacerbated by anthropogenic climate change, requiring the City to expend increased resources on retrofitting storm water infrastructure, emergency response, and/or implement policy measures such as managed retreat.

204. Heavy rains can also exceed the capacity of the City's storm water and sewer systems, resulting in overflows that eventually pour into Baltimore's waterways and harbor and pose serious health and environmental risks. Increased extreme participation events from anthropogenic climate change will exacerbate this environmental and health issue, requiring the City to expend additional resources to retrofit its storm water and waste water systems.

205. Winter storms also have caused and will cause substantial injury to infrastructure and properties in Baltimore. Freezing rain and ice can weigh down power lines, cause branches to break, and cause trees to break or become uprooted. Downed trees and power lines may disrupt

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[228] Colin Campbell, *Flooding prompts rescues, evacuations through Baltimore region*, BALTIMORE SUN (May 27, 2018), http://www.baltimoresun.com/news/weather/bs-md-ci-jones-falls-flooding-20180527-story.html.

[229] City of Baltimore, *Disaster Preparedness and Planning Project*, *supra* note 55, at 44.

traffic, hinder emergency response vehicles, and necessitate costly cleanup and disposal of debris. Damage to power lines or communication towers has the potential to cause electrical and communication disruptions for residents, businesses, and critical facilities. In addition to lost revenues, downed power lines present a threat to personal safety. Furthermore, downed wires have been known to spark fires.[230]

206. Over the past decade, Baltimore has experienced several strong winter storms that have disrupted regular activities and caused a number of automobile accidents and power outages.[231]

207. Climate change also increases Baltimore's risk of summer droughts, resulting in additional injuries to the City. While the City does not anticipate water shortage problems in the short-term, summer droughts have impacted and will impact City services and costs of maintaining City property, for example by interfering with urban greening efforts (tree plantings) and increasing costs of irrigation.

208. Increased extreme temperatures and heat waves put stress on Baltimore's electricity grid, as increased electricity is required for cooling thereby increasing the likelihood of power brownouts and blackouts. Increased temperatures also pose health risks for residents. Baltimore is forecasted to see an increase from an average of eight excessive heat days per summer to 45 such excessive heat days by 2050, resulting in 27 additional deaths per summer without adaptive and preventative measures.[232]

209. Public health impacts associated with anthropogenic climate change have injured and will continue to cause injury to the City. Extreme heat-induced public health impacts in the

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[230] *Id.* at 136.

[231] *Id.* at 73.

[232] Maryland Commission on Climate Change, *2015 Annual Report*, *supra* note 57, at 17.

City will result in increased risk of heat-related illnesses (mild heat stress to fatal heat stroke) and the exacerbation of pre-existing conditions in the medically fragile, chronically ill, and vulnerable. Increased extreme temperatures and heat waves has and will contribute to and exacerbate, allergies, respiratory disease, and other health issues in children and adults.

210. The City has incurred and will incur expenses in planning and preparing for, treating and responding to, and educating residents about the public health impacts associated with anthropogenic global warming including, but not limited to, impacts associated with extreme weather, extreme heat, vector borne illnesses, and sea level rise.

211. Anthropogenic climate change-related impacts on public, industrial, commercial, and residential assets within Baltimore have caused and will continue to cause injuries to the City, either directly, or through secondary and tertiary impacts that cause the City to expend resources in responding to these impacts, to lose revenue due to decreased economic activity in Baltimore, and to suffer other injuries.

212. The City has and is planning, at significant expense, adaptation strategies to address climate change related impacts, including, but not limited to, development of a Climate Adaptation Plan and Disaster Planning and Preparedness Project.[233] Additionally, the City has incurred and will incur significant expense in educating and engaging the public on climate change issues, and to promote and implement policies to mitigate and adapt to climate change impacts, including promoting energy and water efficiency and renewable energy.[234] Implementation of these planning and outreach processes will come at a substantial cost to the City.

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[233] Baltimore Office of Sustainability, "Baltimore & Climate Change" (accessed June 6, 2018) https://www.baltimoresustainability.org/baltimore-climate-change.

[234] *See Baltimore Climate Adaptation Plan*, 24–25 (Jan. 15, 2013), https://www.baltimoresustainability.org/wp-content/uploads/2015/12/BaltimoreClimateActionPlan.pdf.

213. As a direct and proximate result of the acts and omissions of the Defendants' alleged herein, the City has incurred and will incur significant expenses related to planning for and predicting future sea level rise-related and hydrologic cycle change-related injuries to its real property, improvements thereon, municipal infrastructure, and citizens, and other community assets in order to preemptively mitigate and/or prevent injuries to itself and its citizens.

214. As a direct and proximate result of Defendants' acts and omissions alleged herein, Maryland has incurred and will continue to incur sea level rise-related and hydrologic regime change-related injuries and harms. These include, but are not limited to, infrastructural repair, planning costs, and response costs to flooding and other acute incidents.

215. As a direct and proximate result of Defendants' acts and omissions alleged herein, Plaintiff's real property has been and/or will be inundated by sea water, and extreme precipitation, among other climate-change related intrusions, causing injury and damages thereto and to improvements thereon, and preventing free passage on, use of, and normal enjoyment of that real property, or permanently destroying it.

216. But for Defendants' conduct, Plaintiff would have suffered no or far less serious injuries and harms than they have endured, and foreseeably will endure, due to anthropogenic sea level rise, increased temperatures, disruption of the hydrologic cycle, and associated consequences of those physical and environmental changes.

217. Defendants' conduct as described herein is therefore an actual, substantial, and proximate cause of Plaintiff's sea level rise-related and hydrologic regime change-related injuries.

VI. CAUSES OF ACTION

FIRST CAUSE OF ACTION

(Public Nuisance)

(Against All Defendants)

218. Plaintiff Mayor and City Council of Baltimore realleges each and every allegation contained above, as though set forth herein in full.

219. Defendants, individually and in concert with each other, by their affirmative acts and omissions, have created, contributed to, and/or assisted in creating, conditions that significantly interfere with rights general to the public, including the public health, public safety, the public peace, the public comfort, and the public convenience.

220. The nuisance created and contributed to by Defendants is substantial and unreasonable. It has caused, continues to cause, and will continue to cause far into the future, significant harm to the community as alleged herein, and that harm outweighs any offsetting benefit. The health and safety of Baltimoreans is a matter of great public interest and of legitimate concern to the City and the entire state.

221. Defendants specifically created, contributed to, and/or assisted, and/or were a substantial contributing factor in the creation of the public nuisance by, *inter alia*:

a. Controlling every step of the fossil fuel product supply chain, including the extraction of raw fossil fuel products, including crude oil, coal, and natural gas from the Earth; the refining and marketing of those fossil fuel products, and the placement of those fossil fuel products into the stream of commerce;

b. Affirmatively and knowingly promoting the sale and use of fossil fuel products which Defendants knew to be hazardous and knew would cause or exacerbate

global warming and related consequences, including, but not limited to, sea level rise, drought, extreme precipitation events, and extreme heat events;

c. Affirmatively and knowingly concealing the hazards that Defendants knew would result from the normal use of their fossil fuel products by misrepresenting and casting doubt on the integrity of scientific information related to climate change;

d. Disseminating and funding the dissemination of information intended to mislead customers, consumers, and regulators regarding known and foreseeable risk of climate change and its consequences, which follow from the normal, intended use of Defendants' fossil fuel products;

e. Affirmatively and knowingly campaigning against the regulation of their fossil fuel products, despite knowing the hazards associated with the normal use of those products, in order to continue profiting from use of those products by externalizing those known costs onto people, the environment, and communities, including the City; and failing to warn the public about the hazards associated with the use of fossil fuel products.

222. Because of their superior knowledge of fossil fuel products, and their position controlling the extraction, refining, development, marketing, and sale of fossil fuel products, Defendants were in the best position to prevent the nuisance, but failed to do so, including by failing to warn customers, retailers, regulators, public officials, or the City of the risks posed by their fossil fuel products, and failing to take any other precautionary measures to prevent or mitigate those known harms.

223. The public nuisance caused, contributed to, maintained, and/or participated in by Defendants has caused and/or imminently threatens to cause special injury to the City. The public

nuisance has also caused and/or imminently threatens to cause substantial injury to real and personal property directly owned by the City for the cultural, historic, and economic benefit of the Baltimore's residents, and for their health, safety, and general welfare.

224. The seriousness of rising sea levels, more frequent and extreme drought, more frequent and extreme precipitation events, increased frequency and severity of heat waves and extreme temperatures, and the associated consequences of those physical and environmental changes, is extremely grave and outweighs the social utility of Defendants' conduct because, *inter alia*,

a. interference with the public's rights due to sea level rise, more frequent and extreme drought, more frequent and extreme precipitation events, increased frequency and severity of heat waves and extreme temperatures, and the associated consequences of those physical and environmental changes as described above, is expected to become so regular and severe that it will cause material deprivation of and/or interference with the use and enjoyment of public and private property in the City;

b. the ultimate nature of the harm is the destruction of real and personal property, loss of public cultural, historic, and economic resources, and damage to the public health, safety, and general welfare, rather than mere annoyance;

c. the interference borne is the loss of property, infrastructure, and public resources within the City, which will actually be borne by the City's citizens as loss of use of public and private property and infrastructure; loss of cultural, historic, and economic resources; damage to the public health, safety, and general welfare; and diversion of tax dollars away from other public services to the mitigation of and/or adaptation to climate change impacts;

d. Plaintiff's property, which serves myriad uses including residential, infrastructural, commercial, historic, cultural, and ecological, is not suitable for regular inundation, flooding, and/or other physical or environmental consequences of anthropogenic global warming;

e. the social benefit of placing fossil fuels into the stream of commerce is outweighed by the availability of other sources of energy that could have been placed into the stream of commerce that would not have caused anthropogenic climate change and its physical and environmental consequences as described herein; Defendants, and each of them, knew of the external costs of placing their fossil fuel products into the stream of commerce, and rather than striving to mitigate those externalities, Defendants instead acted affirmatively to obscure them from public consciousness;

f. the cost to society of each ton of greenhouse gases emitted into the atmosphere increases as total global emissions increase, so that unchecked extraction and consumption of fossil fuel products is more harmful and costly than moderated extraction and consumption; and

g. it was practical for Defendants, and each of them, considering their extensive knowledge of the hazards of placing fossil fuel products into the stream of commerce and extensive scientific engineering expertise, to develop better technologies and to pursue and adopt known, practical, and available technologies, energy sources, and business practices that would have mitigated greenhouse gas pollution and eased the transition to a lower carbon economy.

225. Defendants' conduct also constitutes a nuisance *per se* because it independently violates other applicable statutes. As set forth below, Defendants' conduct violates the Maryland Consumer Protection Act.

226. Defendants' actions were, at the least, a substantial contributing factor in the unreasonable violation of public rights enjoyed by the City and its residents as set forth above, because Defendants knew or should have known that their conduct would create a continuing problem with long-lasting significant negative effects on the rights of the public, and absent Defendants' conduct the violations of public rights described herein would not have occurred, or would have been less severe.

227. Defendants' wrongful conduct as set forth herein was committed with actual malice. Defendants had actual knowledge that their products were defective and dangerous and were and are causing and contributing to the nuisance complained of, and acted with conscious disregard for the probable dangerous consequences of their conduct's and products' foreseeable impact upon the rights of others, including the City of Baltimore and its residents. Therefore, the City requests an award of punitive damages in an amount reasonable, appropriate, and sufficient to punish these Defendants for the good of society and deter Defendants from ever committing the same or similar acts.

228. Baltimore seeks an order that provides for abatement of the public nuisance Defendants have created, enjoins Defendants from creating future common-law nuisances, and awards Baltimore damages in an amount to be determined at trial. Baltimore pursues these remedies in its sovereign capacity for the benefit of the general public.

SECOND CAUSE OF ACTION

(Private Nuisance)

(Against All Defendants)

229. Plaintiff Mayor and City Council of Baltimore realleges each and every allegation contained above, as though set forth herein in full.

230. Plaintiff owns, occupies, and manages extensive real property within the City of Baltimore's borders, which has been and will continue to be injured rising sea levels, higher sea level, more frequent and extreme drought, more frequent and extreme precipitation events, increased frequency and severity of heat waves and extreme temperatures, and the associated consequences of those physical and environmental changes.

231. Defendants, and each of them, by their acts and omission, have created and contributed to conditions on Plaintiff's property, and permitted those conditions to persist, which substantially and unreasonably interfere with Plaintiff's use and enjoyment of such property for the public benefit and welfare, and which materially diminishes the value of such property for its public purposes, by increasing sea levels, causing more frequent and extreme drought, causing more frequent and extreme precipitation events, causing increased frequency and severity of heat waves and extreme temperatures, and the associated consequences of those physical and environmental changes.

232. Plaintiff has not consented to Defendants' conduct in creating the unreasonably injurious conditions on its real property or to the associated harms of that conduct.

233. The seriousness of rising sea levels, higher sea level, more frequent and extreme drought, more frequent and extreme precipitation events, increased frequency and severity of heat waves and extreme temperatures, and the associated consequences of those physical and

environmental changes, is extremely grave and outweighs the social utility of Defendants' conduct because, *inter alia*,

a. interference with the public's rights due to sea level rise, more frequent and extreme drought, more frequent and extreme precipitation events, increased frequency and severity of heat waves and extreme temperatures, and the associated consequences of those physical and environmental changes as described above, is expected to become so regular and severe that it will cause material deprivation of and/or interference with the use and enjoyment of public and private property in the City;

b. the ultimate nature of the harm is the destruction of real and personal property, loss of public cultural, historic, and economic resources, and damage to the public health, safety, and general welfare, rather than mere annoyance;

c. the interference borne is the loss of property, infrastructure, and public resources within the City, which will actually be borne by the City's citizens as loss of use of public and private property and infrastructure; loss of cultural, historic, and economic resources; damage to the public health, safety, and general welfare; and diversion of tax dollars away from other public services to the mitigation of and/or adaptation to climate change impacts;

d. Plaintiff's property, which serves myriad uses including residential, infrastructural, commercial, historic, cultural, and ecological, is not suitable for regular inundation, flooding, and/or other physical or environmental consequences of anthropogenic global warming;

e. the social benefit of placing fossil fuels into the stream of commerce is outweighed by the availability of other sources of energy that could have been placed into the

stream of commerce that would not have caused anthropogenic climate change and its physical and environmental consequences as described herein; Defendants, and each of them, knew of the external costs of placing their fossil fuel products into the stream of commerce, and rather than striving to mitigate those externalities, Defendants instead acted affirmatively to obscure them from public consciousness;

f. the cost to society of each ton of greenhouse gases emitted into the atmosphere increases as total global emissions increase, so that unchecked extraction and consumption of fossil fuel products is more harmful and costly than moderated extraction and consumption; and

g. it was practical for Defendants, and each of them, considering their extensive knowledge of the hazards of placing fossil fuel products into the stream of commerce and extensive scientific engineering expertise, to develop better technologies and to pursue and adopt known, practical, and available technologies, energy sources, and business practices that would have mitigated greenhouse gas pollution and eased the transition to a lower carbon economy.

234. Defendants' conduct was a direct and proximate cause of Plaintiff's injuries, and a substantial factor in the harms suffered by Plaintiff as described in this Complaint.

235. Defendants' acts and omissions as alleged herein are indivisible causes of Mayor and City Council of Baltimore's injuries and damage as alleged herein, because, *inter alia*, it is not possible to determine the source of any particular individual molecule of CO_2 in the atmosphere attributable to anthropogenic sources because such greenhouse gas molecules do not bear markers that permit tracing them to their source, and because greenhouse gasses quickly diffuse and comingle in the atmosphere.

236. Wherefore, Plaintiff prays for relief as set forth below.

THIRD CAUSE OF ACTION

(Strict Liability Failure to Warn)

(Against All Defendants)

237. Plaintiff Mayor and City Council of Baltimore realleges each and every allegation contained above, as though set forth herein in full.

238. Defendants, and each of them, at all times had a duty to issue adequate warnings to the City, the public, consumers, and public officials of the reasonably foreseeable or knowable severe risks posed by their fossil fuel products.

239. Defendants knew or should have known, based on information passed to them from their internal research divisions and affiliates and/or from the international scientific community, of the climate effects inherently caused by the normal use and operation of their fossil fuel products, including the likelihood and likely severity of global warming, global and local sea level rise, more frequent and extreme drought, more frequent and extreme precipitation events, increased frequency and severity of heat waves and extreme temperatures, and the associated consequences of those physical and environmental changes, including the City's harms and injuries described herein.

240. Defendants knew or should have known, based on information passed to them from their internal research divisions and affiliates and/or from the international scientific community, that the climate effects described herein rendered their fossil fuel products dangerous, or likely to be dangerous, when used as intended or in a reasonably foreseeable manner.

241. Throughout the times at issue, Defendants breached their duty of care by failing to adequately warn any consumers or any other party of the climate effects that inevitably flow from the intended use of their fossil fuel products.

242. Throughout the times at issue, Defendants individually and in concert widely disseminated marketing materials, refuted the scientific knowledge generally accepted at the time, advanced pseudo-scientific theories of their own, and developed public relations materials that prevented reasonable consumers from recognizing the risk that fossil fuel products would cause grave climate changes, undermining and rendering ineffective any warnings that Defendants may have also disseminated.

243. Given the grave dangers presented by the climate effects that inevitably flow from the normal use of fossil fuel products, a reasonable extractor, manufacturer, formulator, seller, or other participant responsible for introducing fossil fuel products into the stream of commerce, would have warned of those known, inevitable climate effects.

244. Defendants' conduct was a direct and proximate cause of Plaintiff's injuries and a substantial factor in the harms suffered by Plaintiff as alleged herein.

245. As a direct and proximate result of Defendants' and each of their acts and omissions, Mayor and City Council of Baltimore has sustained and will sustain substantial expenses and damages set forth in this Complaint, including damage to publicly owned infrastructure and real property, and injuries to public resources that interfere with the rights of the City and residents.

246. Defendants' acts and omissions as alleged herein are indivisible causes of Mayor and City Council of Baltimore's injuries and damage as alleged herein, because, *inter alia*, it is not possible to determine the source of any particular individual molecule of CO_2 in the atmosphere attributable to anthropogenic sources because such greenhouse gas molecules do not bear markers that permit tracing them to their source, and because greenhouse gasses quickly diffuse and comingle in the atmosphere.

247. Defendants' wrongful conduct as set forth herein was committed with actual malice. Defendants had actual knowledge that their products were defective and dangerous and that they had not provided reasonable and adequate warnings against those known dangers, and acted with conscious disregard for the probable dangerous consequences of their conduct's and products' foreseeable impact upon the rights of others, including the City of Baltimore. Therefore, the City requests an award of punitive damages in an amount reasonable, appropriate, and sufficient to punish these Defendants for the good of society and deter Defendants from ever committing the same or similar acts.

248. Wherefore, Plaintiff prays for relief as set forth below.

FOURTH CAUSE OF ACTION

(Strict Liability for Design Defect)

(Against All Defendants)

249. Plaintiff Mayor and City Council of Baltimore realleges each and every allegation contained above, as though set forth herein in full.

250. Defendants, and each of them, extracted raw fossil fuel products, including crude oil, coal, and natural gas from the Earth and placed those fossil fuel products into the stream of commerce; and owed a duty to all persons whom Defendants' fossil fuel products might foreseeably harm, including Plaintiff, not to market any product which is unreasonably dangerous for its intended or reasonably foreseeable uses.

251. Defendants, and each of them, extracted, refined, formulated, designed, packaged, distributed, tested, constructed, fabricated, analyzed, recommended, merchandised, advertised, promoted, and/or sold fossil fuel products, which were intended by Defendants, and each of them, to be burned for energy, refined into petrochemicals, and refined and/or incorporated into petrochemical products including but not limited to fuels and plastics.

252. Defendants, and each of them, heavily marketed, promoted, and advertised fossil fuel products and their derivatives, which were sold or used by their respective affiliates and subsidiaries. Defendants' received direct financial benefit from their affiliates' and subsidiaries' sales of fossil fuel products. Defendants' roles as promoters and marketers were integral to their respective businesses and a necessary factor in bringing fossil fuel products and their derivatives to the consumer market, such that Defendants had control over, and a substantial ability to influence, the manufacturing and distribution processes of their affiliates and subsidiaries.

253. Throughout the time at issue, fossil fuel products have not performed as safely as an ordinary consumer would expect them to, and have been unreasonably dangerous for their intended, foreseeable, and ordinary use, because greenhouse gas emissions from their use cause numerous global and local changes to Earth's climate. In particular, ordinary consumers did not expect that:

a. fossil fuel products are the primary cause of global warming since the dawn of the industrial revolution, and by far the primary cause of global warming acceleration in the 20th and 21st centuries;

b. fossil fuel products would cause acceleration of sea level rise since the beginning of the 20th century;

c. normal and/or foreseeable use of fossil fuel products would cause more frequent and extreme drought;

d. normal and/or foreseeable use of fossil fuel products would cause more frequent and extreme precipitation events;

e. normal and/or foreseeable use of fossil fuel products would cause increased frequency and severity of heat waves and extreme temperatures;

f. normal and/or foreseeable use of fossil fuel products would cause other injurious changes to the environment as alleged herein;

g. by increasing sea level rise and increasing the severity and intensity of droughts, extreme precipitation events, heat waves, and the associated consequences of those physical and environmental changes, fossil fuel products cause damage to publicly and privately-owned infrastructure and buildings, including homes;

h. the social cost of each ton of CO_2 emitted into the atmosphere increases as total global emissions increase, so that unchecked extraction and consumption of fossil fuel products is more harmful and costly than moderated extraction and consumption; and

i. for these reasons and others, the unmitigated use of fossil fuel products present significant threats to the environment and human health and welfare.

254. Throughout the times at issue, Defendants individually and in concert widely disseminated marketing materials, refuted the scientific knowledge generally accepted at the time, advanced pseudo-scientific theories of their own, and developed public relations materials, among other public messaging efforts, that prevented reasonable consumers from forming an expectation that fossil fuel products would cause grave climate changes, including those described herein.

255. The above-described defects were beyond the knowledge of an ordinary consumer, and neither the City nor any ordinary consumer could have avoided the harm caused by Defendants' defective fossil fuel products by the exercise of reasonable care.

256. Defendants' individual and aggregate fossil fuel products were defective at the time of manufacture, and reached the consumer in a condition substantially unchanged from the time of manufacture; and were used in the manner in which they were intended to be used, or in a

manner foreseeable to Defendants and each of them, by individual and corporate consumers; the result of which was the addition of CO_2 emissions to the global atmosphere with attendant global and local consequences.

257. As a direct and proximate result of Defendants' and each of their acts and omissions, Plaintiff Mayor and City Council of Baltimore has sustained and will sustain substantial expenses and damages set forth in this Complaint, including damage to publicly owned infrastructure and real property, and injuries to public resources that interfere with the rights of the City and residents.

258. Defendants' acts and omissions as alleged herein are indivisible causes of Mayor and City Council of Baltimore's injuries and damage as alleged herein, because, *inter alia*, it is not possible to determine the source of any particular individual molecule of CO_2 in the atmosphere attributable to anthropogenic sources because such greenhouse gas molecules do not bear markers that permit tracing them to their source, and because greenhouse gasses quickly diffuse and comingle in the atmosphere.

259. Defendants' wrongful conduct as set forth herein was committed with actual malice. Defendants had actual knowledge that their products were defective and dangerous when use as intended or in a foreseeable manner, and acted with conscious disregard for the probable dangerous consequences of their conduct's and products' foreseeable impact upon the rights of others, including the City of Baltimore. Therefore, the City requests an award of punitive damages in an amount reasonable, appropriate, and sufficient to punish these Defendants for the good of society and deter Defendants from ever committing the same or similar acts.

260. Wherefore, Plaintiff prays for relief as set forth below.

FIFTH CAUSE OF ACTION

(Negligent Design Defect)

(Against All Defendants)

261. Plaintiff Mayor and City Council of Baltimore realleges each and every allegation contained above, as though set forth herein in full.

262. Defendants knew or should have known of the climate effects inherently caused by the normal use and operation of their fossil fuel products, including the likelihood and likely severity of global and local sea level rise, more frequent and extreme drought, more frequent and extreme precipitation events, increased frequency and severity of heat waves and extreme temperatures, and the associated consequences of those physical and environmental changes, and including injuries to Plaintiff, its citizens, and its natural resources, as described herein.

263. Defendants, collectively and individually, had a duty to use due care in developing, designing, testing, inspecting, and distributing their fossil fuel products. That duty obligated Defendants collectively and individually to, *inter alia*, prevent defective products from entering the stream of commerce, and prevent reasonably foreseeable harm that could have resulted from the ordinary and/or reasonably foreseeable use of Defendants' products.

264. Defendants, and each of them, breached their duty of due care by, *inter alia*:

a. allowing fossil fuel products to enter the stream of commerce, despite knowing them to be defective due to their inevitable propensity to cause sea level rise, more frequent and extreme drought, more frequent and extreme precipitation events, increased frequency and severity of heat waves and extreme temperatures, and the associated consequences of those physical and environmental changes;

b. failing to act on the information and warnings they received from their own internal research staff, as well as from the international scientific community, that the

unabated extraction, promotion, and sale of their fossil fuel products would result in material dangers to the public, including the City of Baltimore and its citizens and natural resources;

c. failing to take actions including, but not limited to, pursuing and adopting known, practical, and available technologies, energy sources, and business practices that would have mitigated greenhouse gas pollution caused by Defendants' fossil fuel products and eased the transition to a lower carbon economy; shifting to non-fossil fuel products, and researching and/or offering technologies to mitigate CO_2 emissions in conjunction with sale and distribution of their fossil fuel products; and pursuing other available alternatives that would have prevented or mitigated the injuries to Plaintiff, its citizens, and its natural resources caused by global warming and associated physical and environmental consequences, that Defendants, and each of them, knew or should have foreseen would inevitably result from use of Defendants' fossil fuel products;

d. engaging in a campaign of disinformation regarding global warming and the climatic effects of fossil fuel products that prevented customers, consumers, regulators, and the general public from staking steps to mitigate the inevitable consequences of fossil fuel consumption, and incorporating those consequences into either short-term decisions or long-term planning.

265. Defendants' individual and collective acts and omissions were actual, substantial causes of sea level rise, more frequent and extreme drought, more frequent and extreme precipitation events, increased frequency and severity of heat waves and extreme temperatures, and the associated consequences of those physical and environmental changes, including harms

and injuries set forth herein to Plaintiff, its citizens, and its natural resources, as sea levels would not have risen to the levels that caused those injuries, and prevailing climatic and meteorological regimes would not have been disrupted to a magnitude that caused those injuries, but for Defendants' introduction of their fossil fuel products into the stream of commerce.

266. As a direct and proximate result of Defendants' and each of their acts and omissions, Plaintiff Mayor and City Council of Baltimore has sustained and will sustain substantial expenses and damages set forth in this Complaint, including damage to publicly owned infrastructure and real property, and injuries to public resources that interfere with the rights of the City and residents.

267. Defendants' acts and omissions as alleged herein are indivisible causes of Mayor and City Council of Baltimore's injuries and damage as alleged herein, because, *inter alia*, it is not possible to determine the source of any particular individual molecule of CO_2 in the atmosphere attributable to anthropogenic sources because such greenhouse gas molecules do not bear markers that permit tracing them to their source, and because greenhouse gasses quickly diffuse and comingle in the atmosphere.

268. Defendants' wrongful conduct as set forth herein was committed with actual malice. Defendants had actual knowledge that their products were defective and dangerous when used as intended or in a foreseeable manner, and acted with conscious disregard for the probable dangerous consequences of their conduct's and products' foreseeable impact upon the rights of others, including the City. Therefore, the City requests an award of punitive damages in an amount reasonable, appropriate, and sufficient to punish these Defendants for the good of society and deter Defendants from ever committing the same or similar acts.

269. Wherefore, Plaintiff prays for relief as set forth below.

SIXTH CAUSE OF ACTION

(Negligent Failure to Warn)

(Against All Defendants)

270. Plaintiff Mayor and City Council of Baltimore realleges each and every allegation contained above, as though set forth herein in full.

271. Defendants, and each of them, at all times had a duty to issue adequate warnings to Plaintiff, the public, consumers, and public officials of the reasonably foreseeable or knowable severe risks posed by their fossil fuel products.

272. Defendants knew or should have known, based on information passed to them from their internal research divisions and affiliates and/or from the international scientific community, of the climate effects inherently caused by the normal use and operation of their fossil fuel products, including the likelihood and likely severity of global warming, global and local sea level rise, more frequent and extreme drought, more frequent and extreme precipitation events, increased frequency and severity of heat waves and extreme temperatures, and the associated consequences of those physical and environmental changes, including the City's harms and injuries described herein.

273. Defendants knew or should have known, based on information passed to them from their internal research divisions and affiliates and/or from the international scientific community, that the climate effects described herein rendered their fossil fuel products dangerous, or likely to be dangerous, when used as intended or in a reasonably foreseeable manner.

274. Throughout the times at issue, Defendants breached their duty of care by failing to adequately warn any consumers or any other party of the climate effects that inevitably flow from the intended or foreseeable use of their fossil fuel products.

275. Throughout the times at issue, Defendants individually and in concert widely disseminated marketing materials, refuted the scientific knowledge generally accepted at the time, advanced pseudo-scientific theories of their own, and developed public relations materials that prevented reasonable consumers from recognizing the risk that fossil fuel products would cause grave climate changes, undermining and rendering ineffective any warnings that Defendants may have also disseminated.

276. Given the grave dangers presented by the climate effects that inevitably flow from the normal or foreseeable use of fossil fuel products, a reasonable extractor, manufacturer, formulator, seller, or other participant responsible for introducing fossil fuel products into the stream of commerce, would have warned of those known, inevitable climate effects.

277. Defendants' conduct was a direct and proximate cause of the City's injuries and a substantial factor in the harms suffered by the City as alleged herein.

278. As a direct and proximate result of Defendants' and each of their acts and omissions, Plaintiff Mayor and City Council of Baltimore has sustained and will sustain substantial expenses and damages set forth in this Complaint, including damage to publicly owned infrastructure and real property, and injuries to public resources that interfere with the rights of the City and its residents.

279. Defendants' acts and omissions as alleged herein are indivisible causes of Mayor and City Council of Baltimore's injuries and damage as alleged herein, because, *inter alia*, it is not possible to determine the source of any particular individual molecule of CO_2 in the atmosphere attributable to anthropogenic sources because such greenhouse gas molecules do not bear markers that permit tracing them to their source, and because greenhouse gasses quickly diffuse and comingle in the atmosphere.

280. Defendants' wrongful conduct as set forth herein was committed with actual malice. Defendants had actual knowledge that their products were defective and dangerous and that they had not provided reasonable and adequate warnings against those known dangers, and acted with conscious disregard for the probable dangerous consequences of their conduct's and products' foreseeable impact upon the rights of others, including the City of Baltimore. Therefore, the City requests an award of punitive damages in an amount reasonable, appropriate, and sufficient to punish these Defendants for the good of society and deter Defendants from ever committing the same or similar acts.

281. Wherefore, Plaintiff prays for relief as set forth below.

SEVENTH CAUSE OF ACTION

(Trespass)

(Against All Defendants)

282. Plaintiff Mayor and City Council of Baltimore realleges each and every allegation contained above, as though set forth herein in full.

283. Plaintiff owns, leases, occupies, and/or controls real property throughout the City.

284. Defendants, and each of them, have intentionally, recklessly, or negligently caused flood waters, extreme precipitation, saltwater, and other materials, to enter the City's real property, by extracting, refining, formulating, designing, packaging, distributing, testing, constructing, fabricating, analyzing, recommending, merchandising, advertising, promoting, marketing, and/or selling fossil fuel products, knowing those products in their normal or foreseeable operation and use would cause global and local sea levels to rise, more frequent and extreme droughts to occur, more frequent and extreme precipitation events to occur, increased frequency and severity of heat waves and extreme temperatures, and the associated consequences of those physical and environmental changes.

285. The Mayor and City Council of Baltimore did not give permission for Defendants, or any of them, to cause floodwaters, extreme precipitation, saltwater, and other materials to enter its property as a result of the use of Defendants' fossil fuel products.

286. The Mayor and City Council of Baltimore has been and continues to be actually injured and continues to suffer damages as a result of Defendants and each of their having caused flood waters, extreme precipitation, saltwater, and other materials, to enter its real property, by *inter alia* submerging real property owned by the City, causing flooding and increased water table which has invaded and threatens to invade real property owned by the City and rendered it unusable, causing storm surges and heightened waves which have invaded and threatened to invade real property owned by the City, and in so doing rendering the City's property unusable.

287. Defendants' and each Defendant's introduction of their fossil fuel products into the stream of commerce was a substantial factor in causing the harms and injuries to City's public and private real property as alleged herein.

288. Defendants' acts and omissions as alleged herein are indivisible causes of Mayor and City Council of Baltimore's injuries and damage as alleged herein, because, *inter alia*, it is not possible to determine the source of any particular individual molecule of CO_2 in the atmosphere attributable to anthropogenic sources because such greenhouse gas molecules do not bear markers that permit tracing them to their source, and because greenhouse gasses quickly diffuse and comingle in the atmosphere.

289. Defendants' wrongful conduct as set forth herein was committed with actual malice. Defendants had actual knowledge that their products were defective and dangerous, and acted with conscious disregard for the probable dangerous consequences of their conduct's and products' foreseeable impact upon the rights of others, including the City of Baltimore. Therefore,

the City requests an award of punitive damages in an amount reasonable, appropriate, and sufficient to punish these Defendants for the good of society and deter Defendants from ever committing the same or similar acts.

290. Wherefore, Plaintiff prays for relief as set forth below.

EIGHTH CAUSE OF ACTION

(Consumer Protection Act)

(Against All Defendants)

291. Plaintiff Mayor and City Council of Baltimore realleges each and every allegation contained above, as though set forth herein in full.

292. Maryland's Consumer Protection Act ("CPA") forbids any business from engaging in "any unfair or deceptive trade practice," including making any "[f]alse, falsely disparaging, or misleading oral or written statement, visual description, or other representation of any kind which has the capacity, tendency, or effect of deceiving or misleading consumers." Md. Comm. L. § 13-301(1). It also prohibits fraud-based deception, including "[d]eception, fraud, false pretense, false premise, misrepresentation, or knowing concealment, suppression, or omission of any material fact with the intent that a consumer rely on the same in connection with" the sale of any consumer goods or services. *Id.* § 13-301(9).

293. The CPA authorizes a private right of action for "any person . . . to recover for injury or loss sustained . . . as a result of" an unfair or deceptive trade practice. Md. Comm. L. § 13-408(a). "Person" is in turn defined to include a "corporation . . . or any other legal or commercial entity." Md. Comm. L. § 13-101(h).

294. All Defendants are "persons" as defined under the CSA, and are required to comply with the provisions of the CSA in their marketing, promotion, sale, and distribution of fossil fuel products.

295. Throughout all times at issue, Defendants and each of them violated the CSA by engaging in the deceptive marketing and promotion of their products both by (1) making false and misleading statements regarding the known severe risks posed by their fossil fuel products that had the capacity, tendency, or effect of misleading consumers and by (2) making false representations and misleading omissions of material fact regarding the known severe risks posed by their fossil fuel with the intent that consumers would rely on those representations. In particular, Defendants engaged in deceptive marketing and promotion of their products by, *inter alia* disseminating misleading marketing materials and publications refuting the scientific knowledge generally accepted at the time, advancing pseudo-scientific theories of their own, and developing public relations materials that prevented reasonable consumers from recognizing the risk that fossil fuel products would cause grave climate changes, undermining and rendering ineffective any warnings that Defendants may have separately disseminated.

296. The various false and misleading material omissions by Defendants rendered even their apparently truthful statements about their fossil fuel products' effects on climate false and misleading, because those statements were materially incomplete. At the time Defendants disseminated their false and misleading statements or caused such statements to be made or disseminated, they knowingly failed to include material facts regarding the risks and benefits of their fossil fuel products, and intended that recipients of their marketing messages would rely upon such omissions.

297. By reason of Defendants' foregoing deception, misrepresentations, and omissions of material fact, Defendants obtained income, profits, and other benefits it would not otherwise have obtained.

298. By reason of that same conduct, the City of Baltimore incurred harm and was damaged in ways it would not otherwise have been, as sort forth herein.

VII. PRAYER FOR RELIEF

The Plaintiff, the **MAYOR AND CITY COUNCIL OF BALTIMORE**, seeks judgment against these Defendants for:

1. Compensatory damages in an amount according to proof;
2. Equitable relief, including abatement of the nuisances complained of herein;
3. Civil penalties for each violation of the Maryland Consumer Protection Act;
4. Reasonable attorneys' fees as permitted by law;
5. Punitive damages;
6. Disgorgement of profits;
7. Costs of suit; and
8. For such and other relief as the court may deem proper.

MAYOR AND CITY COUNCIL OF BALTIMORE

By its Attorneys,

Dated: July 20, 2018 By: _____

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Attorneys for the Mayor and City Council of Baltimore

REQUEST FOR JURY TRIAL

Plaintiff hereby demands a jury trial on all causes of action for which a jury is available under the law.

MAYOR AND CITY COUNCIL OF BALTIMORE

By its Attorneys,

Dated: July 20, 2018 By: _____

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Attachment B

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND
(Northern Division)

MAYOR AND CITY COUNCIL OF BALTIMORE **Plaintiff,** **v.** **BP P.L.C.; BP AMERICA, INC.; BP PRODUCTS NORTH AMERICA INC.; CROWN CENTRAL PETROLEUM CORPORATION; CROWN CENTRAL LLC; CROWN CENTRAL NEW HOLDINGS LLC; CHEVRON CORP.; CHEVRON U.S.A., INC., EXXON MOBIL CORP.; EXXONMOBIL OIL CORPORATION; ROYAL DUTCH SHELL PLC; SHELL OIL COMPANY; CITGO PETROLEUM CORP.; CONOCOPHILLIPS; CONOCOPHILLIPS COMPANY; LOUISIANA LAND & EXPLORATION CO.; PHILLIPS 66; PHILLIPS 66 COMPANY; MARATHON OIL COMPANY; MARATHON OIL CORPORATION; MARATHON PETROLEUM CORPORATION; SPEEDWAY LLC; HESS CORP.; CNX RESOURCES CORPORATION; CONSOL ENERGY INC.; CONSOL MARINE TERMINALS LLC,** **Defendants.**	**CASE NO.:** **NOTICE OF REMOVAL BY DEFENDANTS CHEVRON CORPORATION AND CHEVRON U.S.A., INC.** **[Removal from the Circuit Court for Baltimore City]** **Action Filed: July 20, 2018**

TO THE CLERK OF THE ABOVE-TITLED COURT AND TO PLAINTIFF THE MAYOR AND CITY COUNCIL OF BALTIMORE AND ITS COUNSEL OF RECORD:

PLEASE TAKE NOTICE THAT Defendants Chevron Corp. and Chevron U.S.A., Inc. (collectively, "the Chevron Parties"), remove this action—with reservation of all defenses and rights—from the Circuit Court for Baltimore City, Case No. 24-C-18-004219, to the United States

District Court for the District of Maryland pursuant to 28 U.S.C. §§ 1331, 1334, 1441(a), 1442, 1452, and 1367(a), and 43 U.S.C. § 1349(b).

This Court has original federal question jurisdiction under 28 U.S.C. § 1331, because the Complaint arises under federal laws and treaties, and presents substantial federal questions as well as claims that are completely preempted by federal law. This Court has supplemental jurisdiction under 28 U.S.C. § 1367(a) over any claims over which it does not have original federal question jurisdiction because they form part of the same case or controversy as those claims over which the Court has original jurisdiction. As set forth below, removal is proper pursuant to 28 U.S.C. §§ 1441, 1442, 1446, and 1452, and 43 U.S.C. § 1349(b).

In addition, the Complaint is legally without merit, and, at the appropriate time, Defendants will move to dismiss Plaintiff's claims pursuant to Rule 12 of the Federal Rules of Civil Procedure.

Through its Complaint, the Mayor and City Council of Baltimore calls into question longstanding decisions by the Federal Government regarding, among other things, national security, national energy policy, environmental protection, development of outer continental shelf lands, the maintenance of a national petroleum reserve, mineral extraction on federal lands (which has produced billions of dollars for the Federal Government), and the negotiation of international agreements bearing on the development and use of fossil fuels. Many of the Defendants have contracts with the Federal Government to develop and extract minerals from federal lands and to sell fuel and associated products to the Federal Government for the Nation's defense. The gravamen of the Complaint seeks either to undo all of those Federal Government policies or to extract "compensation" and force Defendants to relinquish the profits they obtained by having contracted with the Federal Government or relied upon national policies to develop fossil fuel resources.

In the Complaint's view, a state court, on petition by a city, may regulate the nationwide—and indeed, worldwide—economic activity of key sectors of the American economy, those that supply the fuels that power production and innovation, keep the lights on, and that form the basic materials from which innumerable consumer, technological, and medical devices are themselves fashioned. Though nominally asserted under state law, the Complaint puts at issue long-established federal statutory, regulatory, and constitutional issues and frameworks, and it seeks to hold a small number of oil and gas companies—who themselves are responsible for a mere fraction of global greenhouse gas emissions—liable for the alleged effects of *global* warming, including sea level rise, droughts, and extreme precipitation caused by greenhouse gas emissions from countless nonparties.

This case is about *global* emissions. Plaintiff alleges that the worldwide use of fossil fuels "plays a direct and substantial role in the unprecedented rise in emissions of greenhouse gas pollution," which "is the main driver of the gravely dangerous changes occurring to the global climate." Compl. ¶ 2. Importantly, however, Plaintiff's claims are not limited to harms caused by fossil fuels extracted, sold, marketed, or used in Maryland. Instead, their claims depend on Defendants' nationwide and global activities, as well as the activities of billions of fossil fuel consumers, including not only entities such as the U.S. government and military, but also hospitals, schools, manufacturing facilities, and individual households.

This lawsuit implicates bedrock federal-state divisions of responsibility, and appropriates to itself the direction of such federal spheres as nationwide economic development, international relations, and America's national security. Reflecting the substantial and uniquely federal interests posed by greenhouse gas claims like these, the Supreme Court, the Ninth Circuit, and several

federal district courts have recognized that causes of action of the types asserted here are governed by federal common law, *not* state law.

The Complaint has no basis in law and is inconsistent with serious attempts to address important issues of national and international policy. Accordingly, Plaintiff's Complaint should be heard in this federal forum to protect the national interest by its prompt dismissal.

I. TIMELINESS OF REMOVAL

1. Plaintiff, the Mayor and City Council of Baltimore, filed a Complaint against the Chevron Parties and other named Defendants in the Circuit Court for Baltimore County, Maryland, Case No. 24-C-18-004219, on July 20, 2018. A copy of all process, pleadings, or orders in the possession of the Chevron Parties is attached as Exhibit A to the Declaration of Tonya Kelly Cronin, filed concurrently herewith.

2. This notice of removal is timely under 28 U.S.C. § 1446(b) because it is filed fewer than 30 days after receipt by the Chevron Parties of a copy of the initial pleading setting forth the claims for relief upon which this action is based. 28 U.S.C. § 1446(b). The Chevron Parties have not yet been served as of this date. *See* Kelly Decl. ¶ 2. The consent of the other defendants is not required because removal does not proceed "solely under 28 U.S.C. § 1441." 28 U.S.C. § 1446(b)(2)(A). The Chevron Parties have removed this action to federal court on several bases, including, for example, 28 U.S.C. § 1442(a)(1) and 28 U.S.C. § 1452. Further, consent is not required from any defendant that has not been served. *See* 28 U.S.C. § 1446(b)(2)(A); *HBCU Pro Football, LLC v. New Vision Sports Properties, LLC*, 2010 WL 2813459, at *2 (D. Md. July 14, 2010) ("Defendants . . . who are unserved when the removal petition is filed need not join

it." (quoting *Getty Oil Corp. v. Ins. Co. of N. America*, 841 F.2d 1254, 1262 n.9. (4th Cir. 1988) (alterations in original))).[1]

II. SUMMARY OF ALLEGATIONS AND GROUNDS FOR REMOVAL

3. Plaintiff is the Mayor and City Council of Baltimore, Maryland. Plaintiff brings claims against Defendants for alleged injuries relating to climate change, including damages and injunctive relief from injuries suffered from "global warming" and other "changes occurring to the global climate," including sea level rise, storms, heatwaves, drought, extreme precipitation, and other natural phenomena. *See, e.g.*, Compl. ¶¶ 2, 8. Plaintiff asserts the following claims on behalf of itself: public nuisance; private nuisance; strict liability for failure to warn; strict liability for design defect; negligent design defect; negligent failure to warn; trespass; and violation of the Consumer Protection Act. In addition to compensatory and punitive damages, Plaintiff seeks the "disgorgement of profits," as well as "[e]quitable relief, including abatement of the nuisances complained of" in the Complaint (Compl., Prayer for Relief).

4. The Chevron Parties will deny that any Maryland court has personal jurisdiction and will deny any liability as to Plaintiff's claims. The Chevron Parties expressly reserve all rights in this regard. For purposes of meeting the jurisdictional requirements for removal only, however, the Chevron Parties submit that removal is proper on at least eight independent and alternative grounds.

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[1] In filing this Notice of Removal, the Chevron Parties do not waive, and expressly preserve any right, defense, affirmative defense, or objection, including, without limitation, personal jurisdiction, insufficient process, and/or insufficient service of process. A number of Defendants contend that personal jurisdiction in Maryland is lacking over them, and these Defendants will move to dismiss for lack of personal jurisdiction at the appropriate time. *See, e.g.*, *Carter v. Bldg. Material & Const. Teamsters' Union Local 216*, 928 F. Supp. 997, 1000–01 (N.D. Cal. 1996) ("A petition for removal affects only the forum in which the action will be heard; it does not affect personal jurisdiction.") (citing *Morris & Co. v. Skandinavia Ins. Co.,* 279 U.S. 405, 409 (1929)).

5. ***First***, the action is removable under 28 U.S.C. § 1441(a) and 28 U.S.C. § 1331 because Plaintiff's claims, to the extent that such claims exist, implicate uniquely federal interests and are governed by federal common law, and not state common law. *See Nat'l Farmers Union Ins. Cos. v. Crow Tribe of Indians*, 471 U.S. 847, 850 (1985). Federal common law applies in those few areas of the law that so implicate "uniquely federal interests" that application of state law is affirmatively inappropriate. *See, e.g.*, *Boyle v. United Techs. Corp.*, 487 U.S. 500, 504, 507 (1988); *Am. Elec. Power Co., Inc. v. Connecticut*, 564 U.S. 410, 424 (2011) ("*AEP*") ("borrowing the law of a particular State would be inappropriate"). Plaintiff's claims, to the extent they exist at all, arise under federal common law, not state law, and are properly removed to this Court.

6. ***Second***, removal is authorized under 28 U.S.C. § 1441(a) and 28 U.S.C. § 1331 because the action necessarily raises disputed and substantial federal questions that a federal forum may entertain without disturbing a congressionally approved balance of responsibilities between the federal and state judiciaries. *See Grable & Sons Metal Prods., Inc. v. Darue Eng'g & Mfg.*, 545 U.S. 308 (2005). In fact, the causes of action as alleged in the Complaint attack federal policy decisions and threaten to upset longstanding federal-state relations, second-guess policy decisions made by Congress and the Executive Branch, and skew divisions of responsibility set forth in federal statutes and the United States Constitution. Additionally, the action necessarily raises disputed and substantial federal questions that implicate the federal regulatory scheme for protecting and preserving the "navigable waters of the United States." *See* 33 U.S.C. § 403; 33 U.S.C. § 426i; *see also Grable*, 545 U.S. at 314.

7. ***Third***, removal is authorized under 28 U.S.C. § 1441(a) and 28 U.S.C. § 1331 because Plaintiff's claims are completely preempted by the Clean Air Act and/or other federal statutes and the United States Constitution, which provide an exclusive federal remedy for

plaintiffs seeking stricter regulations regarding the nationwide and worldwide greenhouse gas emissions put at issue in the Complaint.

8. ***Fourth***, this Court has original jurisdiction over this lawsuit and removal is proper pursuant to the Outer Continental Shelf Lands Act ("OCSLA"), because this action "aris[es] out of, or in connection with (A) any operation conducted on the outer Continental Shelf which involves exploration, development, or production of the minerals, or the subsoil or seabed of the outer Continental Shelf, or which involves rights to such minerals." 43 U.S.C. § 1349(b); *see also Tenn. Gas Pipeline v. Houston Cas. Ins. Co.*, 87 F.3d 150, 155 (5th Cir. 1996).

9. ***Fifth***, Defendants are authorized to remove this action under 28 U.S.C. § 1442(a)(1) because, assuming the truth of Plaintiff's allegations, they were "acting under" a federal officer; they can assert colorable federal defenses; and a causal nexus exists between their actions and federal authority. *See Ripley v. Foster Wheeler LLC*, 841 F.3d 207, 209–10 (4th Cir. 2016)

10. ***Sixth***, removal is authorized under 28 U.S.C. § 1441(a) and 28 U.S.C. § 1331 because Plaintiff's claims are based on alleged injuries to and/or conduct on federal enclaves. As such, Plaintiff's claims arise under federal-question jurisdiction and are removable to this Court. *See* U.S. Const., art. I, § 8, cl. 17; *Jones v. John Crane-Houdaille, Inc.*, 2012 WL 1197391, at *1 (D. Md. Apr. 6, 2012) ("A suit based on events occurring in a federal enclave ... must necessarily arise under federal law and implicates federal question jurisdiction under § 1331.").

11. ***Seventh*****,** removal is authorized under 28 U.S.C. § 1452(a) and 28 U.S.C. § 1334(b) because Plaintiff's state-law claims are related to cases under Title 11 of the United States Code. Plaintiff alleges that Defendants (improperly defined by Plaintiff to include the conduct of Defendants' respective subsidiaries and affiliates, *see, e.g.*, Compl ¶¶ 22(b)–(f), 150, 183(a), 252)

engaged in conduct constituting a public nuisance over many decades. Because Plaintiff's claims are predicated on historical activities of Defendants, including predecessor companies and companies that they may have acquired or with which they may have merged, and because there are hundreds, if not thousands, of non-joined necessary and indispensable parties, there are many other Title 11 cases that may be related. *See In re Celotex Corp.*, 124 F.3d 619 (4th Cir. 1997).

12. ***Eighth, and finally***, Plaintiff's claims fall within the Court's original admiralty jurisdiction under 28 U.S.C. § 1333, and are removable under 28 U.S.C. § 1441(a), for that reason alone. *See Jerome B. Grubart, Inc. v. Great Lakes Dredge & Dock Co.*, 513 U.S. 527 (1995).

13. For the convenience of the Court and all parties, Defendants will address each of these grounds in additional detail. Should Plaintiff challenge this Court's jurisdiction, Defendants will further elaborate on these grounds and will not be limited to the specific articulations in this Notice.

III. THIS COURT HAS FEDERAL-QUESTION JURISDICTION BECAUSE PLAINTIFF'S CLAIMS ARISE, IF AT ALL, UNDER FEDERAL COMMON LAW

14. This action is removable because Plaintiff's claims, to the extent that such claims exist, necessarily are governed by federal common law, and not state common law. 28 U.S.C. § 1331 grants federal courts original jurisdiction over "'claims founded upon federal common law as well as those of a statutory origin.'" *Nat'l Farmers Union*, 471 U.S. at 850 (quoting *Illinois v. City of Milwaukee*, 406 U.S. 91, 100 (1972) ("*Milwaukee I*")). As the Fourth Circuit has explained, it is "established that there is a body of federal common law by which a public nuisance in one state which infringes upon the environmental and ecological rights of another state may be abated." *Comm. for Consideration of Jones Falls Sewage Sys. v. Train*, 539 F.2d 1006, 1008 (4th Cir. 1976).

As Plaintiff's claims arise under federal common law, this Court has federal-question jurisdiction and removal is proper.

15. Though "[t]here is no federal *general* common law," *Erie R. Co. v. Tompkins*, 304 U.S. 64, 78 (1938) (emphasis added), federal common law continues to exist, and to govern, in a few subject areas in which there are "uniquely federal interests," *Boyle*, 487 U.S. at 504. *See generally* Henry J. Friendly, *In Praise of* Erie—*and the New Federal Common Law*, 39 N.Y.U. L. Rev. 383 (1964). Such uniquely federal interests will require the application of federal common law where, for example, the issue is one that by its nature, is "'within national legislative power'" and there is "a demonstrated need for a federal rule of decision" with respect to that issue. *AEP*, 564 U.S. at 421 (citation omitted). Federal common law therefore applies, in the post-*Erie* era, in those discrete areas in which application of state law would be inappropriate and would contravene federal interests. *Boyle*, 487 U.S. at 504–07. The decision that federal common law applies to a particular issue thus inherently reflects a determination that state law does *not* apply. *See City of Milwaukee v. Illinois & Michigan*, 451 U.S. 304, 312 n.7 (1981) ("*Milwaukee II*") ("[I]f federal common law exists, it is because state law cannot be used."); *Resolution Tr. Corp. v. Everhart*, 37 F.3d 151, 154 (4th Cir. 1994) ("Federal common law is appropriately made … where there is a significant conflict between some federal policy or interest and the use of state law."); *Nat'l Audubon Soc'y v. Dep't of Water*, 869 F.2d 1196, 1204 (9th Cir. 1988).

16. Courts have applied federal common law to global warming-based tort claims because it applies to "'subjects within the national legislative power where Congress has so directed or where the basic scheme of the Constitution so demands.'" *Native Vill. of Kivalina v. ExxonMobil Corp.*, 696 F.3d 849, 855 (9th Cir. 2012) (quoting *AEP*, 564 U.S. at 421) (further citation and internal quotation marks omitted). Although Congress sometimes affirmatively

directs the application of federal common law, "[m]ore often, federal common law develops when courts must consider *federal* questions that are not answered by statutes." *Id*. (emphasis added). Given that claims asserting injuries from global warming have an intrinsic interstate and transnational character, such claims inherently raise federal questions and fall within the settled rule that federal common law governs "the general subject of environmental law and specifically includes ambient or interstate air and water pollution." *Id.* at 855; *see also id.* ("federal common law can apply to transboundary pollution suits" such as the plaintiff's); *AEP*, 564 U.S. at 421 ("Environmental protection is undoubtedly an area within national legislative power, [and] one in which federal courts may fill in statutory interstices."); *Massachusetts v. EPA*, 549 U.S. 497, 498 (2007) ("The sovereign prerogatives to force reductions in greenhouse gas emissions, to negotiate emissions treaties with developing countries, and (in some circumstances) to exercise the police power to reduce motor-vehicle emissions are now lodged in the Federal Government.").

17. Moreover, two courts addressing nearly identical claims have recently held that these claims arise under federal common law. *California v. BP P.L.C.*, 2018 WL 1064293, at *2 (N.D. Cal. Feb. 27, 2018) ("*California*") (holding that "Plaintiffs' nuisance claims—which address the national or international geophysical phenomenon of global warming—are necessarily governed by federal common law"); *City of New York v. BP P.L.C.*, 2018 WL 3475470, at *4 ("*City of New York*") (S.D.N.Y. July 19, 2018) ("[T]he City's claims are ultimately based on the 'transboundary' emission of greenhouse gases, indicating that these claims arise under federal common law … .").

18. The conclusion that federal common law governs an issue rests, not on a discretionary choice between federal law and state law, but on a determination that the issue is so distinctively federal in nature that application of state law to the issue would risk impairing

uniquely federal interests. *Boyle*, 487 U.S. at 506–07; *see also, e.g.*, *Caltex Plastics, Inc. v. Lockheed Martin Corp*., 824 F.3d 1156, 1159–60 (9th Cir. 2016) (liability of defense contractor to third party under government contract for weapons systems implicated "uniquely federal interests" in national security that would be impaired if disparate state-law rules were applied); *Everhart*, 37 F.3d at 154 ("Federal common law is appropriately made … where there is a significant conflict between some federal policy or interest and the use of state law."). In *California*, the court addressed nearly identical claims and held that "[i]f ever a problem cried out for a uniform and comprehensive solution, it is the geophysical problem described by the complaints, a problem centuries in the making (and studying) with causes ranging from volcanoes, to wildfires, to deforestation to stimulation of other greenhouse gases—and, most pertinent here, to the combustion of fossil fuels." 2018 WL 1064293, at *3; *see also City of New York*, 2018 WL 3475470, at *4 (S.D.N.Y. July 19, 2018) ("[C]laims … based on the 'transboundary' emission of greenhouse gases … require a uniform standard of decision.").

19. Although Plaintiff purports to style its nuisance and other common law claims as arising under state law, the question of whether a particular common law claim is controlled by federal common law rather than state law is itself a question of law that is governed by federal law as set forth in *Erie* and its progeny. While Plaintiff contends that its claims arise under Maryland law, the question of which state, if any, may apply its law to address global climate-change issues is a question that is itself a matter of federal law, given the paramount federal interest in avoiding conflicts of law in connection with ambient air and water. Moreover, the law is well settled that, in determining whether a case arises under federal law and is properly removable, the Plaintiff's proffered position on a question of law is not entitled to any deference but is instead subject to independent and *de novo* review by the court. *See, e.g.*, *Mayes v. Rapoport*, 198 F.3d 457, 460

(4th Cir. 1999) ("We review de novo questions of subject matter jurisdiction, including those relating to the propriety of removal.").

20. Because global warming occurs only as the result of the undifferentiated accumulated emissions of all emitters in the world over an extended period of time, any judgment as to the reasonableness of particular emissions, or as to their causal contribution to the overall phenomenon of global warming, inherently requires an evaluation at an interstate and, indeed, transnational level. Thus, even assuming that state tort law may properly address local source emissions within that specific state, the imposition of tort liability for Defendants' alleged unreasonable contributions to *global* warming would require an over-arching consideration of *all* of the emissions traceable to the extraction and sale of Defendants' products in each of the states, and, in fact, in the more than 180 nations of the world. Given the Federal Government's exclusive authority over foreign affairs and foreign commerce, and its preeminent authority over interstate commerce, tort claims concerning global warming directly implicate uniquely federal interests, and a "patchwork of fifty different answers to the same fundamental global issue would be unworkable." *California*, 2018 WL 1064293, at *3; *see also City of New York*, 2018 WL 3475470, at *7 ("[T]he immense and complicated problem of global warming requires a comprehensive solution that weighs the global benefits of fossil fuel use with the gravity of the impending harms."). Indeed, the Supreme Court expressly held in *AEP* that in cases like this, "borrowing the law of a particular State would be inappropriate." 564 U.S. at 422. Such global warming-related tort claims, to the extent they exist, are therefore governed by federal common law. *Kivalina*, 696 F.3d at 855–56; *California*, 2018 WL 1064293, at *3; *City of New York*, 2018 WL 3475470, at *3.

21. Under the principles set forth above, Plaintiff's claims are governed by federal common law. The gravamen of Plaintiff's claims is that "production and use of Defendants' fossil

fuel products plays a direct and substantial role in the unprecedented rise in emissions of greenhouse gas pollution" which "is the main driver of the gravely dangerous changes occurring to the global climate." Compl. ¶ 2; *see, e.g.*, *id.* ¶¶ 44–45, 49, 92, 96–100, 221, 239, 253, 276, 284. Plaintiff's Complaint alleges that Defendants are responsible for "more than one in every six tons of carbon dioxide and methane emitted worldwide," *id.* ¶ 18, and that "greenhouse gas pollution is the dominant factor in each of the independent causes of [global] sea level rise," *id.* ¶ 49; *see also id.* ¶ 96–100, and other natural phenomena, such as drought, extreme precipitation, and heatwaves, *id.* ¶¶ 74, 170, 193–95, 213–17, 221(b), 224, 233, 253, 264(a), 272, 284. As is evident from the term "global warming" itself, both the causes and the injuries Plaintiff identifies are not constrained to particular sources, cities, counties, or even states, but rather implicate inherently national and international interests, including treaty obligations and federal and international regulatory schemes. *See id.* ¶ 3 n.4 (describing other sources of emissions); ¶ 7 (effectively acknowledging that 85% of CO_2 emissions allegedly caused by persons other than Defendants); ¶ 96 (CO_2 emissions cause "*global* sea level rise") (emphasis added); *see, e.g.*, *Massachusetts*, 549 U.S. at 509, 523–24 (describing Senate rejection of the Kyoto Protocol because emissions-reduction targets did not apply to "heavily polluting nations such as China and India," and EPA's determination that predicted magnitude of future Chinese and Indian emissions "offset any marginal domestic decrease"); *AEP*, 564 U.S. at 427–29 (describing regulatory scheme of the Clean Air Act and role of the EPA); *see also* The White House, Statement by President Trump on the Paris Climate Accord (June 1, 2017), *available at* https://www.whitehouse.gov/the-press-office/2017/06/01/statement-president-trump-paris-climate-accord (announcing United States' withdrawal from Paris Climate Accord based on financial burdens, energy restrictions, and failure to impose proportionate restrictions on Chinese emissions).

22. Indeed, the Complaint itself demonstrates that the unbounded nature of greenhouse gas emissions, diversity of sources, and magnitude of the attendant consequences have catalyzed myriad federal and international efforts to understand and address such emissions. *See, e.g.*, Compl. ¶ 143. The paramount federal interest in addressing the worldwide effect of greenhouse gas emissions is manifested in the regulatory scheme set forth in the Clean Air Act as construed in *Massachusetts v. EPA*. *See AEP*, 564 U.S. at 427–29. Federal legislation regarding greenhouse gas emissions reflects the understanding that "[t]he appropriate amount of regulation in any particular greenhouse gas-producing sector cannot be prescribed in a vacuum: as with other questions of national or international policy, informed assessment of competing interests is required. Along with the environmental benefit potentially achievable, our Nation's energy needs and the possibility of economic disruption must weigh in the balance." *Id.* at 427. As a "question[] of national or international policy," the question of how to address greenhouse gas emissions that underlies the requested relief at the heart of Plaintiff's claims implicates inherently federal concerns and is therefore governed by federal common law. *See id.*; *see also Milwaukee II*, 451 U.S. at 312 n.7 ("[I]f federal common law exists, it is because state law cannot be used."). Because common law claims that rest on injuries allegedly caused by global warming implicate uniquely federal interests, such claims (to the extent they exist at all) must necessarily be governed by federal common law. This Court therefore has original jurisdiction over this action.

IV. THE ACTION IS REMOVABLE BECAUSE IT RAISES DISPUTED AND SUBSTANTIAL FEDERAL ISSUES

23. "Except as otherwise expressly provided by Act of Congress, any civil action brought in a State court of which the district courts of the United States have original jurisdiction, may be removed … to the district court of the United States for the district and division embracing the place where such action is pending." 28 U.S.C. § 1441(a). Federal district courts, in turn,

"have original jurisdiction of all civil actions arising under the Constitution, laws, or treaties of the United States." 28 U.S.C. § 1331. The Supreme Court has held that suits apparently alleging only state-law causes of action nevertheless "arise under" federal law if the "state-law claim[s] necessarily raise a stated federal issue, actually disputed and substantial, which a federal forum may entertain without disturbing any congressionally approved balance of federal and state judicial responsibilities." *Grable*, 545 U.S. at 314. Applying this test "calls for a common-sense accommodation of judgment to the kaleidoscopic situations that present a federal issue." *Id.* at 313.

24. Plaintiff's Complaint attempts to undermine and supplant federal regulation of greenhouse gas emissions and hold a national industry responsible for the alleged consequences of rising ocean levels and hydrologic cycle disruptions such as drought, extreme precipitation, heatwaves, and wildfires that are allegedly caused by global climate change. There is no question that Plaintiff's claims raise "federal issues, actually disputed and substantial," for which federal jurisdiction would not upset "any congressionally approved balance of federal and state judicial responsibilities." *Id.* at 314.

25. The issues of greenhouse gas emissions, global warming, hydrologic cycle disruption, and sea level rise are not unique to Baltimore City, the State of Maryland, or even the United States. Yet the Complaint attempts to supplant decades of national energy, economic development, and federal environmental protection and regulatory policies by prompting a Maryland state court to take control over an entire industry and its interstate commercial activities, and impose massive damages contrary to the federal regulatory scheme.

26. Collectively as well as individually, Plaintiff's causes of action depend on the resolution of disputed and substantial federal questions in light of complex national considerations.

For example, the Complaint's first and second causes of action both seek relief for an alleged nuisance. Indeed, "the scope and limitations of a complex federal regulatory framework are at stake in this case. And disposition of whether that framework may give rise to state law claims as an initial matter will ultimately have implications for the federal docket one way or the other." *Bd. of Comm'rs of Se. La. Flood Protection Auth. v. Tenn. Gas Pipeline Co*, 850 F.3d 714, 723 (5th Cir. 2017) (cert. petition pending) ("*Flood Protection Authority*").

27. Under federal law, federal agencies must "assess both the costs and benefits of [an] intended regulation and, recognizing that some costs and benefits are difficult to quantify, propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs." Executive Order 12866, 58 Fed. Reg. 190. Under Maryland law, were it to apply, nuisance claims require a plaintiff to prove that the defendant's conduct is "unreasonable," which depends upon whether "in view of the circumstances of the case," a nuisance amounts to a "derogation of the rights" of the plaintiff. *Wietzke v. Chesapeake Conference Ass'n*, 421 Md. 355, 376 (2011). Plaintiff alleges that Defendants, through their national and, indeed, global activities, "created, contributed to, and/or assisted, and/or were a substantial contributing factor in the creation of the public nuisance by, *inter alia*, … caus[ing] or exacerbate[ing] global warming and related consequences, including, but not limited to, sea level rise, drought, extreme precipitation events, and extreme heat events." Compl. ¶ 221. Plaintiff alleges that "[t]he seriousness of rising sea levels, more frequent and extreme drought, more frequent and extreme precipitation events, increased frequency and severity of heat waves and extreme temperatures, and the associated consequences of those physical and environmental changes, is extremely grave, and outweighs the social utility of Defendants' conduct." *Id.* ¶¶ 224, 233.

28. But Congress has directed a number of federal agencies to regulate Defendants' conduct, and thus to engage in the same analysis of benefits and impacts that Plaintiff would have the state court undertake. Indeed, federal agencies have performed these cost-benefit analyses. *See, e.g.*, Final Carbon Pollution Standards for New, Modified and Reconstructed Power Plants, 80 Fed. Reg. at 64683–84 (EPA considering the impacts of "wildfire" and "extreme precipitation events," such as "droughts, floods, hurricanes, and major storms"). The benefits and harms of Defendants' conduct are broadly distributed throughout the Nation, to all residents as well as all state and government entities. Given this diffuse and broad impact, Congress has acted through a variety of federal statutes—primarily, but not exclusively, the Clean Air Act—to strike the balance between energy extraction and production and environmental protections. *See* Clean Air Act, 42 U.S.C. § 7401(c) (Congressional statement that the goal of the Clean Air Act is "to encourage or otherwise promote reasonable Federal, State, and local governmental actions … for pollution prevention"); *see also, e.g.*, Energy Reorganization Act of 1974, 42 U.S.C. § 5801 (Congressional purpose to "develop, and increase the efficiency and reliability of use of, all energy sources" while "restoring, protecting, and enhancing environmental quality"); Mining and Minerals Policy Act, 30 U.S.C. § 1201 (Congressional purpose to encourage "economic development of domestic mineral resources" balanced with "environmental needs"); Surface Mining Control and Reclamation Act, 30 U.S.C. § 1201 (Congressional findings that coal mining operations are "essential to the national interest" but must be balanced by "cooperative effort[s] … to prevent or mitigate adverse environmental effects").

29. The question of whether the federal agencies charged by Congress to balance energy and environmental needs for the entire Nation have struck that balance in an appropriate way is "inherently federal in character" and gives rise to federal question jurisdiction. *Buckman*

Co. v. Plaintiffs' Legal Comm., 531 U.S. 341, 347 (2001); *see also Pet Quarters, Inc. v. Depository Trust & Clearing Corp.*, 559 F.3d 772, 779 (8th Cir. 2009) (affirming federal question jurisdiction where claims implicated federal agency's acts implementing federal law); *Bennett v. Southwest Airlines Co.*, 484 F.3d 907, 909 (7th Cir. 2007) (federal removal under *Grable* appropriate where claims were "a collateral attack on the validity of" agency action under a highly reticulated regulatory scheme). Adjudicating these claims in federal court is appropriate because the relief sought by Plaintiff would necessarily alter the regulatory regime designed by Congress, impacting residents of the Nation far outside the state court's jurisdiction. *See, e.g.*, *Grable*, 545 U.S. at 312 (claims that turn on substantial federal questions "justify resort to the experience, solicitude, and hope of uniformity that a federal forum offers on federal issues"); *West Virginia ex rel. McGraw v. Eli Lilly & Co.*, 476 F. Supp. 2d 230, 234 (E.D.N.Y. 2007) (removal under *Grable* is appropriate where state common law claims implicate "an intricate federal regulatory scheme … requiring some degree of national uniformity in interpretation").

30. The Complaint also calls into question Federal Government decisions to contract with Defendants for the extraction, development, and sale of fossil fuel resources on federal lands. Such national policy decisions have expanded fossil fuel production and use, and produced billions of dollars in revenue to the federal treasury. Available, affordable energy is fundamental to economic growth and prosperity generally, as well as to national security and other issues that have long been the domain of the Federal Government. Yet, Plaintiff's claims require a determination that the complained-of conduct—the lawful activity of placing fossil fuels into the stream of interstate and foreign commerce—is unreasonable, and that determination raises a policy question that, under the Constitution and the applicable statutes, treaties, and regulations, is a federal question. *See Nance v. Baltimore Am. Mortg. Corp.*, 2010 WL 4291579, at *1 (D. Md.

Oct. 29, 2010) (holding that removal jurisdiction existed over case that implicated the Home Ownership and Equity Protection Act, not because it created a federal cause of action but because "the interpretation of the relevant [federal] provision lies at the heart of Plaintiffs' claim. This is wholly sufficient to establish federal question jurisdiction and make removal of this action proper."). The cost-benefit analysis required by the claims asserted in the Complaint would thus necessarily entail a usurpation by the state court of the federal regulatory structure of an essential, national industry. "The validity of [Plaintiff's] claims would require that conduct subject to an extensive federal permitting scheme is in fact subject to implicit restraints that are created by state law." *Flood Control Authority*, 850 F.3d at 724; *see also Bader Farms, Inc. v. Monsanto Co.*, 2017 WL 633815, at *3 (E.D. Mo. Feb. 16, 2017) ("Count VII is in a way a collateral attack on the validity of APHIS's decision to deregulate the new seeds"); *Bennett*, 484 F.3d at 909 (holding that federal removal is proper under *Grable* "when the state proceeding amounted to a collateral attack on a federal agency's action"). Indeed, the "inevitable result of such suits," if successful, is that Defendants "would have to change" their federally regulated "methods of doing business and controlling pollution to avoid the threat of ongoing liability." *Ouellette*, 479 U.S. at 495.

31. Plaintiff's claims also necessarily implicate substantial federal questions by seeking to hold Defendants liable for compensatory and punitive damages, as well as injunctive relief, based on allegations that Defendants have waged a "campaign to obscure the science of climate change" and "disseminat[ed] and fund[ed] the dissemination of information intended to mislead … regulators," which Plaintiff alleges defrauded and interfered with federal decision-making, thereby "delay[ing] efforts to curb those emissions." Compl. ¶ 179; *see also id.* ¶¶ 177–90, 221–28.

32. To show causation, Plaintiff must establish that federal regulators were misled *and* would have adopted different energy and climate policies absent the alleged misrepresentations. Such a liability determination would require a court to construe federal regulatory decision-making standards, and determine how federal regulators would have applied those standards under counterfactual circumstances. *See id.* ¶ 161 (arguing that Global Climate Coalition "on behalf of Defendants" sought to "prevent[] U.S. adoption of the Kyoto Protocol"); *see also Flood Protection Authority*, 850 F.3d at 723 (finding necessary and disputed federal issue in plaintiffs' state-law tort claims because they could not "be resolved without a determination whether multiple federal statutes create a duty of care that does not otherwise exist under state law").

33. Plaintiff's Complaint, which seeks to hold Defendants liable for "[p]unitive damages" and requests "[d]isgorgement of profits" through their businesses of manufacturing, producing, and/or promoting the sale of fossil fuel products, (*e.g.*, Compl., Prayer for Relief)—despite Defendants' uncontested compliance with state and federal law—necessarily implicates numerous other disputed and substantial federal issues. Beyond the strictly jurisdictional character of the points addressed above and herein, it is notable that this litigation places at issue multiple significant federal issues, including but not limited to: (1) whether Defendants can be held liable consistent with the First Amendment for, purportedly, "championing … anti-science campaigns" that Plaintiff alleges deceived federal agencies (*id*. ¶ 10); (2) whether a state court may hold Defendants liable for conduct that was global in scale (production of fossil fuels), that allegedly produced effects that are global in scale (increased CO_2 levels and rising sea levels), and on that basis, order Defendants to modify their conduct on a global scale (abating rising sea levels), consistent with the constitutional principles limiting the jurisdictional and geographic reach of state law and guaranteeing due process; (3) whether fossil fuel *producers* may be held liable,

consistent with the Due Process Clause, for climate change when it is the combustion of fossil fuels—including by Plaintiff and the People of Maryland themselves—that leads to the release of greenhouse gases into the atmosphere; (4) whether a state may impose liability under state common law when the Supreme Court has held that the very same *federal* common law claims are displaced by federal statute, and notwithstanding the commonsense principle that "[i]f a federal common law cause of action has been extinguished by Congressional displacement, it would be incongruous to allow it to be revived *in any form*," *Kivalina*, 696 F.3d at 857 (emphasis added); (5) whether a state court may regulate and burden on a global scale the sale and use of what federal policy has deemed an essential resource, consistent with the United States Constitution's Commerce Clause and foreign affairs doctrine, as well as other constitutional principles; (6) whether a state court may review and assess the validity of acts of foreign states in enacting and enforcing their own regulatory frameworks; and (7) whether a state court may determine the ability to sue based on alleged damages to land, such as coastal property and interstate highways (*see* Compl. ¶¶ 197, 199), which depends on the interpretation of federal laws relating to the ownership and control of property.

34. Plaintiff's Complaint also raises substantial federal issues because the asserted claims intrude upon both foreign policy and carefully balanced regulatory considerations at the national level, including the foreign affairs doctrine. Plaintiff seeks to govern extraterritorial conduct and encroach on the foreign policy prerogative of the Federal Government's Executive Branch as to climate change treaties. "There is, of course, no question that at some point an exercise of state power that touches on foreign relations must yield to the National Government's policy, given the 'concern for uniformity in this country's dealings with foreign nations' that animated the Constitution's allocation of the foreign relations power to the National Government

in the first place." *Am. Ins. Assoc. v. Garamendi*, 539 U.S. 396, 413 (2003). Yet, this is the precise nature of Plaintiff's action brought in state court. *See United States v. Belmont*, 301 U.S. 324, 331 (1937) ("The external powers of the United States are to be exercised without regard to state laws or policies… [I]n respect of our foreign relations generally, state lines disappear."); *Hines v. Davidowitz*, 312 U.S. 52, 63 (1941) ("Our system of government … requires that federal power in the field affecting foreign relations be left entirely free from local interference."). Indeed, Plaintiff's Complaint takes issue with multiple federal decisions, threatening to upend the Federal Government's longstanding energy and environmental policies and "compromis[ing] the very capacity of the President to speak for the Nation with one voice in dealing with other governments" on the issue of climate change. *Garamendi*, 539 U.S. at 424.

35. Through its action, Plaintiff seeks to regulate greenhouse gas emissions worldwide, far beyond the borders of the United States. This is premised, in part, according to Plaintiff, on Defendants' purported campaign to undermine national and international efforts, like the Kyoto Protocol, to rein in greenhouse gas emissions. Compl. ¶¶ 158, 161. Plaintiff alleges that its injuries are caused by global weather phenomena, such as increases in the Earth's ambient temperatures, ocean temperature, sea level, and extreme storm events, and that Defendants are a substantial contributing factor to such climate change as a result of their collective operations on a worldwide basis, which Plaintiff claims accounts for more than one-sixth of total global greenhouse gas emissions. *Id.* ¶¶ 18, 193–94. But "[n]o State can rewrite our foreign policy to conform to its own domestic policies. Power over external affairs is not shared by the States; it is vested in the national government exclusively. It need not be so exercised as to conform to State laws or State policies, whether they be expressed in constitutions, statutes, or judicial decrees." *United States v. Pink*, 315 U.S. 203, 233–34 (1942). States have no authority to impose remedial schemes or

regulations to address what are matters of foreign affairs. *Al Shimari v. CACI Int'l, Inc.*, 679 F.3d 205, 231 (4th Cir. 2012) ("[T]he federal government has exclusive power over foreign affairs, and … states have very little authority in this area."). Yet Plaintiff seeks to replace international negotiations and Congressional and Executive decisions with its own preferred foreign policy, using the ill-suited tools of Maryland common law and private litigation in a state court. Even when *states* (as opposed to the *City* of Baltimore here) have made similar efforts, enacting laws seeking to supplant or supplement foreign policy, the Supreme Court has held that state law can play no such role. *See Crosby v. Nat'l Foreign Trade Council*, 530 U.S. 363, 375–81 (2000); *Garamendi*, 539 U.S. at 420–24.

36. Plaintiff's claims depend on the resolution of substantial, disputed federal questions relating to rising levels of navigable waters of the United States that Plaintiff alleges were caused by Defendants' extraction, processing, promotion, and consumption of global energy resources. Among other assertions, Plaintiff claims the sea level rise will affect the port and waterfront of Baltimore—both navigable waters of the United States. *See* Compl. ¶ 196–97. These claims raise federal questions as Congress has given the Army Corps of Engineers ("the Corps"), which has a District office in Baltimore, jurisdiction to regulate navigable waters of the United States. *See* 33 U.S.C. § 403; *see also, e.g.*, 33 U.S.C. § 426i. Adjudication of Plaintiff's claims will require the Court to evaluate Plaintiff's claims of injury related to a rise in levels of the "navigable waters" and whether the remedy Plaintiff seeks is consistent with federal action. This, in turn, will require interpretation of an extensive web of federal statutes and regulations. *See, e.g.*, 33 C.F.R. § 320.4(a)(1)–(2); 33 U.S.C. § 408(a). Accordingly, Plaintiff's claims provide a basis for federal jurisdiction because they present federal issues that are (1) "necessarily raise[d]," (2) "actually disputed," (3) "substantial," and (4) capable of resolution in federal court "without

disturbing any congressionally approved balance of federal and state judicial responsibilities." *Grable*, 545 U.S. at 314.

37. Plaintiff's claims also require the Court to evaluate the exercise of federal authority over many prior years. For example, the Corps has considered potential impacts of sea-level change in its planning activities since 1986. *See, e.g.*, U.S. Army Corps of Engineers, Eng'g Circular 1105-2-186: Planning Guidance on the Incorporation of Sea Level Rise Possibilities in Feasibility Studies (Apr. 21, 1989); U.S. Army Corps of Engineers, Technical Letter 1100-2-1, Procedures to Evaluate Sea Level Change: Impacts, Responses and Adaptation (June 30, 2014). And the Corps is currently evaluating a "long-term restoration effort" of the Chesapeake Bay, including efforts to "pursue, design and construct restoration and protection projects to enhance the resiliency of the Chesapeake Bay and its aquatic ecosystems against the impacts of coastal storm erosion, coastal flooding, more intense and more frequent storms, and sea level rise." U.S. Army Corps of Engineers, Chesapeake Bay Comprehensive Water Resources and Restoration Plan: State of Maryland (June 2018). But Plaintiff's nuisance claims are grounded on alleged past and future "[s]ea level rise," which Plaintiff alleges "endangers City property and infrastructure, causing coastal flooding of low-lying areas, erosion, and storm surges." Compl. ¶ 199. Because Plaintiff alleges that the comprehensive regulatory scheme Congress established to address these very issues failed to prevent its injuries, its Complaint challenges—and necessarily requires evaluation of—a federal regulatory scheme and the adequacy of past federal decision making under that scheme. This gives rise to federal question jurisdiction. *See Bd. Of Comm'rs of Se. La. Flood Prot. Auth.-E. v. Tenn. Gas Pipeline Co., L.L.C.*, 850 F.3d 714, 724 (5th Cir. 2017) (in the context of comprehensive regulatory scheme, nuisance claims amount to "a collateral attack … premised on the notion that the scheme provides inadequate protection" (brackets omitted));

Pet Quarters, Inc. v. Depository Trust and Clearing Corp., 559 F.3d 772, 779 (8th Cir. 2009) (complaint "presents a substantial federal question because it directly implicates actions taken by" a federal agency); *McKay v. City and Cty. of San Francisco*, 2016 WL 7425927, at *4 (N.D. Cal. Dec. 23, 2016) (denying remand and ruling that federal jurisdiction lies under *Grable* because state-law claims were "tantamount to asking the Court to second guess the validity of the FAA's decision"); *Bader Farms, Inc.*, 2017 WL 633815, at *3.

V. THE ACTION IS REMOVABLE BECAUSE IT IS COMPLETELY PREEMPTED BY FEDERAL LAW

38. This Court also has original jurisdiction over this lawsuit because Plaintiff requests relief that would alter or amend the rules regarding nationwide—and even worldwide—regulation of greenhouse gas emissions. This action is completely preempted by federal law.

39. The Supreme Court has held that a federal court will have jurisdiction over an action alleging only state-law claims where "the extraordinary pre-emptive power [of federal law] converts an ordinary state common law complaint into one stating a federal claim for purposes of the well-pleaded complaint rule." *Metro. Life Ins. Co. v. Taylor*, 481 U.S. 58, 65 (1987).

40. For the reasons set forth above, litigating in state court the inherently transnational activity challenged by these complaints would inevitably intrude on the foreign affairs power of the federal government and is completely preempted. *See Garamendi*, 539 U.S. at 418 ("[S]tate action with more than incidental effect on foreign affairs is preempted, even absent any affirmative federal activity in the subject area of the state [action], and hence without any showing of conflict."); *see also California v. Gen. Motors Corp.,* 2007 WL 2726871, at *14 (N.D. Cal. Sept. 17, 2007) (dismissing claims against automakers because the federal government "ha[s] made foreign policy determinations regarding the United States' role in the international concern about

global warming," and a "global warming nuisance tort would have an inextricable effect on … foreign policy").

41. In addition, Plaintiff's claims are preempted by the Clean Air Act. A state cause of action is preempted under this "complete preemption" doctrine where a federal statutory scheme "provide[s] the exclusive cause of action for the claim asserted and also set[s] forth procedures and remedies governing that cause of action." *Beneficial Nat'l Bank v. Anderson*, 539 U.S. 1, 8 (2003). It also requires a determination that the state-law cause of action falls within the scope of the federal cause of action, including where it "duplicates, supplements, or supplants" that cause of action. *Aetna Health Inc. v. Davila*, 542 U.S. 200, 209 (2004). A federal court addressing nearly identical claims recently found that the Clean Air Act displaced these claims. *City of New York*, 2018 WL 3475470, at *6 (S.D.N.Y. July 19, 2018) ("[T]he Clean Air Act displaces claims arising from damages caused by domestic greenhouse gas emissions because Congress has expressly delegated these issues to the EPA.").

42. Both requirements for complete preemption are present here. Among other things, Plaintiff's Complaint seeks an "abatement" of a nuisance it alleges Defendants have caused—namely, a rise in sea levels, an increase in the frequency and intensity of flooding, and an increase in the intensity and frequency of storms and storm-related damages. As such, it seeks regulation of greenhouse gas emissions far beyond the borders of Maryland and even the borders of the United States. This can be accomplished only by a nationwide and global reduction in the emission of greenhouse gases. Even assuming that such relief can be ordered against Defendants for their production and sale of fossil fuels, which are then combusted by others at a rate Plaintiff claims causes the alleged injuries, this claim must be decided in federal court because Congress has created a cause of action by which a party can seek the creation or modification of nationwide

emission standards by petitioning the Environmental Protection Agency ("EPA"). That federal cause of action was designed to provide the exclusive means by which a party can seek nationwide emission regulations. Because Plaintiff's state causes of action would "duplicate[], supplement[], or supplant[]" that exclusive federal cause of action, they are completely preempted.

A. The Clean Air Act Provides the Exclusive Cause of Action for Challenging EPA Rulemakings.

43. The Clean Air Act permits private parties, as well as state and municipal governments, to challenge EPA rulemakings (or the absence of such) and to petition the EPA to undertake new rulemakings. *See*, *e.g.*, 5 U.S.C. § 553(e); 42 U.S.C. §§ 7604, 7607. The Fourth Circuit has observed that the Clean Air Act preempts such state common law nuisance cases because "[i]f courts across the nation were to use the vagaries of public nuisance doctrine to overturn the carefully enacted rules governing airborne emissions, it would be increasingly difficult for anyone to determine what standards govern. Energy policy cannot be set, and the environment cannot prosper, in this way." *N.C. ex rel. Cooper v. Tenn Valley Auth.*, 615 F.3d 291, 298 (4th Cir. 2010).

44. The Clean Air Act provides the exclusive cause of action for regulation of nationwide emissions. The Act establishes a system by which federal and state resources are deployed to "protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population." 42 U.S.C. § 7401(b)(1). At the heart of this system are the emission standards set by the EPA. Specific Clean Air Act provisions authorize or require emission standards to be set if certain findings are made, and such standards must comport with the statutory criteria set by Congress, consistent with the dual goals of the Act. Under the Clean Air Act, "emissions have been extensively regulated nationwide." *N.C. ex rel. Cooper v. Tenn Valley Auth.*, 615 F.3d at 298. Regulation of greenhouse

gas emissions, including carbon dioxide, is governed by the Clean Air Act, *see Massachusetts*, 549 U.S. at 528-29, and EPA has regulated these emissions under the Act, *see, e.g.*, 40 C.F.R. §§ 51.166(b)(1)(i), 52.21(b)(1)(i) (regulation of greenhouse gases through the Act's prevention of significant deterioration of air quality permitting program); 77 Fed. Reg. 62,624 (Oct. 15, 2012) (regulation of greenhouse gas emissions from light-duty motor vehicles); 81 Fed. Reg. 73,478 (Oct. 25, 2016) (regulation of greenhouse gas emissions from medium- and heavy-duty engines and motor vehicles).

45. Congress manifested a clear intent that judicial review of Clean Air Act matters must take place in federal court. 42 U.S.C. § 7607(b).

46. This congressionally mandated statutory and regulatory scheme is thus the "exclusive" means for seeking the nationwide regulation of greenhouse gas emissions and "set[s] forth procedures and remedies" for that relief, *Beneficial Nat'l Bank*, 539 U.S. at 8, irrespective of the savings clauses applicable to some other types of claims.

B. Plaintiff's Asserted State-Law Causes of Action Duplicate, Supplement, and/or Supplant the Federal Cause of Action.

47. Plaintiff asks the Court to order Defendants to "abate nuisances" alleged to have caused "the increase in global mean temperature and consequent increase in global mean sea surface height and disruptions to the hydrologic cycle, including, but not limited to, more frequent and extreme droughts, more frequent and extreme precipitation events, increased frequency and severity of heat waves and extreme temperatures, and the associated consequences of those physical and environmental changes, since 1965." Compl. ¶ 13, 193; *see also id.*, Prayer for Relief (requesting "[e]quitable relief, including abatement of the nuisances complained of herein").

48. According to Plaintiff's own allegations, the alleged nuisances can be abated only by a global—or at the very least national—reduction in greenhouse gas emissions. *See* Compl. ¶ 235 ("[I]t is not possible to determine the source of any particular individual molecule of CO_2 in the atmosphere attributable to anthropogenic sources because such greenhouse gas molecules do not bear markers that permit tracing them to their source, and because greenhouse gases quickly diffuse and comingle in the atmosphere."); *id.* ¶ 94 (describing "global" greenhouse gas emissions relating to fossil fuel products). Indeed, Plaintiff's allegations purport to show that Defendants "undertook a momentous effort to evade *international* and *national* regulation of greenhouse gas emissions"—*not* state or local regulations. *Id.* ¶ 169 (emphases added); *see also id.* ¶ 145 ("Defendants embarked on a decades-long campaign designed to … undermine national and international efforts like the Kyoto Protocol to rein in greenhouse gas emissions."); *id.* ¶ 143 (acknowledging, *inter alia*, federal legislative efforts to regulate CO_2 and other greenhouse gases that allegedly "prompted Defendants to change their tactics … to a public campaign aimed at evading regulation"); *id.* ¶¶ 158, 159(a), 161, (describing alleged efforts to encourage the United States to reject the international Kyoto Protocol).

49. Plaintiff's state-law tort claims are effectively an end-run around a petition for a rulemaking regarding greenhouse gas emissions because they seek to regulate nationwide emissions that Plaintiff concedes conform to the EPA's emission standards. *See, e.g.*, *San Diego Bldg. Trades Council v. Garmon*, 359 U.S. 236, 247 (1959); *Cipollone v. Liggett Grp., Inc*., 505 U.S. 504, 539 (1992). The claims would require precisely the cost-benefit analysis of emissions that the EPA is charged with undertaking and would directly interfere with the EPA's determinations. *See supra* ¶¶ 27–28. Because Congress has established a clear and detailed

process by which a party can petition the EPA to establish stricter nationwide emissions standards, Plaintiff's claims are completely preempted by the Clean Air Act.

50. Congress has provided an exclusive statutory remedy for the regulation of greenhouse gas emissions which provides federal procedures and remedies for that cause of action. Because Plaintiff's claims fall within the scope of the federal cause of action, Plaintiff's claims are completely preempted by federal law and this Court has federal-question jurisdiction.

VI. THE ACTION IS REMOVABLE UNDER THE OUTER CONTINENTAL SHELF LANDS ACT

51. This Court also has original jurisdiction pursuant to the Outer Continental Shelf Lands Act ("OCSLA"). 43 U.S.C. § 1349(b); *see Tenn. Gas Pipeline*, 87 F.3d at 155. This action "aris[es] out of, or in connection with (A) any operation conducted on the outer Continental Shelf which involves exploration, development, or production of the minerals, or the subsoil or seabed of the outer Continental Shelf, or which involves rights to such minerals." 43 U.S.C. § 1349(b); *In re Deepwater Horizon*, 745 F.3d 157, 163 (5th Cir. 2014) ("th[e] language [of § 1349(b)(1)] [i]s straightforward and broad"). The outer continental shelf ("OCS") includes all submerged lands that belong to the United States but are not part of any State. 43 U.S.C. §§ 1301, 1331.

52. The breadth of federal jurisdiction granted by OCSLA reflects the Act's "expansive substantive reach." *See EP Operating Ltd. P'ship v. Placid Oil Co.*, 26 F.3d 563, 569 (5th Cir. 1994). "OCSLA was passed … to establish federal ownership and control over the mineral wealth of the OCS and to provide for the development of those natural resources." *Id*. at 566. "[T]he efficient exploitation of the minerals of the OCS … was … a primary purpose for OCSLA." *Amoco Prod. Co. v. Sea Robin Pipeline Co.*, 844 F.2d 1202, 1210 (5th Cir. 1988). Indeed, OCSLA declares it "to be the policy of the United States that … the outer Continental Shelf … should be made available for expeditious and orderly development." 43 U.S.C. § 1332(3). It further provides

that "since exploration, development, and production of the minerals of the outer Continental Shelf will have significant impacts on coastal and non-coastal areas of the coastal States … such States, and through such States, affected local governments, are entitled to an opportunity to participate, *to the extent consistent with the national interest*, in the policy and planning decisions made by the Federal Government relating to exploration for, and development and production of, minerals of the outer Continental Shelf." *Id.* § 1332(4) (emphasis added).

53. When enacting Section 1349(b)(1), "Congress intended for the judicial power of the United States to be extended to the entire range of legal disputes that it knew would arise relating to resource development on the [OCS]." *Laredo Offshore Constructors, Inc. v. Hunt Oil. Co.*, 754 F.2d 1223, 1228 (5th Cir. 1985). Consistent with Congress' intent, courts repeatedly have found OCSLA jurisdiction where resolution of the dispute foreseeably could affect the efficient exploitation of minerals from the OCS.[2] *See, e.g.*, *EP Operating*, 26 F.3d at 569–70; *United Offshore v. S. Deepwater Pipeline*, 899 F.2d 405, 407 (5th Cir. 1990).

54. OCSLA jurisdiction exists even if the Complaint pleads no substantive OCSLA claims. *See, e.g.*, *In re Deepwater Horizon*, 745 F.3d at 163. The Court, moreover, may look beyond the facts alleged in the Complaint to determine that OCSLA jurisdiction exists. *See, e.g.*, *Plains Gas Solutions, LLC v. Tenn. Gas Pipeline Co., LLC*, 46 F. Supp. 3d 701, 703 (S.D. Tex. 2014); *St. Joe Co. v. Transocean Offshore Deepwater Drilling Inc.*, 774 F. Supp. 2d 596, 2011

[2] As stated in 43 U.S.C. § 1333(a)(1): "The Constitution and laws and civil and political jurisdiction of the United States are extended to the subsoil and seabed of the outer Continental Shelf and to all artificial islands, and all installations and other devices permanently or temporarily attached to the seabed … for the purpose of exploring for, developing, or producing resources therefrom … to the same extent as if the outer Continental Shelf were an area of exclusive Federal jurisdiction located within a State … ."

A.M.C. 2624, 2640 (D. Del. 2011) (citing *Amoco Prod. Co. v. Sea Robin Pipeline Co.*, 844 F.2d 1202, 1205 (5th Cir. 1998)).

55. Under OCSLA, the Department of Interior administers an extensive federal leasing program aiming to develop and exploit the oil and gas resources of the federal Continental Shelf. 43 U.S.C. § 1334 *et seq.* Pursuant to this authority, the Department of Interior "administers more than 5,000 active oil and gas leases on nearly 27 million OCS acres. In FY 2015, production from these leases generated $4.4 billion in leasing revenue … [and] provided more than 550 million barrels of oil and 1.35 trillion cubic feet of natural gas, accounting for about sixteen percent of the Nation's oil production and about five percent of domestic natural gas production." Statement of Abigail Ross Hopper, Director, Bureau of Ocean Energy Management, Before the House Committee on Natural Resources (Mar. 2, 2016), *available at* https://www.boem.gov/FY2017-Budget-Testimony-03-01-2016. Certain Defendants here, of course, participate very substantially in the federal OCS leasing program. For example, from 1947 to 1995, Chevron U.S.A., Inc. produced 1.9 billion barrels of crude oil and 11 billion barrels of natural gas from the federal outer continental shelf in the Gulf of Mexico alone. U.S. Dep't of Int., Minerals Mgmt. Serv., Gulf of Mex. Region, Prod. by Operator Ranked by Vol. (1947–1995), *available at* https://www.data.boem.gov/Production/Files/Rank%20File%20Gas%201947%20-%201995.pdf. In 2016, Chevron U.S.A. produced more than 49 million barrels of crude oil and 50 million barrels of natural gas from the outer continental shelf on the Gulf of Mexico. U.S. Dep't of Int., Bureau of Safety & Envtl. Enf't, Gulf of Mex. Region, Prod. by Operator Ranked by Vol. (2016), *available at* https://www.data.boem.gov/Production/Files/Rank%20File%20Gas%202016.pdf. Numerous other Defendants conduct, and have for decades conducted, similar oil and gas operations on the federal OCS; indeed, Defendants and their affiliated companies presently hold approximately

32.95% of all outer continental shelf leases. *See* Bureau of Ocean Energy Management, Lease Owner Information, *available at* https://www.data.boem.gov/Leasing/LeaseOwner/Default.aspx. For example, certain BP companies and Exxon Mobil currently own lease interests in, and the BP companies operate, "one of the largest deepwater producing fields in the Gulf of Mexico," which is capable of producing up to 250,000 barrels of oil per day. *See* Thunder Horse Field Fact Sheet, *available at* http://www.bp.com/content/dam/bp-country/en_us/PDF/Thunder_Horse_Fact_Sheet_6_14_2013.pdf. And as noted on the BP website, production from this and other OCS activities will continue into the future. *Id.* ("BP intends to sustain its leading position as an active participant in all facets of the Deepwater US Gulf of Mexico—as an explorer, developer, and operator."). A substantial portion of the national consumption of fossil fuel products stems from production on federal lands, as approved by Congress and Executive Branch decision-makers.

56. The Complaint itself makes clear that a substantial part of Plaintiff's claims "'arise[] out of, or in connection with," Defendants' "operation[s] 'conducted on the outer Continental Shelf" that involve "the exploration and production of minerals." *In re Deepwater Horizon*, 745 F.3d at 163. Plaintiff, in fact, challenges *all of* Defendants' "extraction … of coal, oil, and natural gas" activities, *e.g.*, Compl. ¶¶ 3, 18, a substantial quantum of which arise from outer continental shelf operations, *see* Ranking Operator by Oil, Bureau of Ocean Energy Mgmt., *available at* https://www.data.boem.gov/Main/HtmlPage.aspx?page=rankOil (documenting Chevron's oil and natural gas production on the federal outer continental shelf from 1947 to 2017). Plaintiff alleges that emissions have risen due to increased outer continental shelf extraction technologies. *See, e.g.*, Compl. ¶¶ 172–73 (discussing arctic offshore drilling equipment and patents which may be relevant to conduct near Alaskan outer continental shelf). And Plaintiff challenges energy projects that occurred in Canadian waters. Compl. ¶¶ 135, 138. Defendants

conduct similar activity in American waters and many of the emissions Plaintiff challenges necessarily arise from the use of fossil fuels extracted from the OCS.

57. The relief sought also arises out of and impacts OCS extraction and development. *See, e.g.*, Compl., Prayer for Relief (seeking damages designed to cripple the energy industry and equitable relief that would no doubt rein in extraction, including that on the OCS). And "any dispute that alters the progress of production activities on the OCS threatens to impair the total recovery of the federally-owned minerals from the reservoir or reservoirs underlying the OCS. Congress intended such a dispute to be within the grant of federal jurisdiction contained in § 1349." *Amoco Prod. Co.*, 844 F.2d at 1211.

VII. THE ACTION IS REMOVABLE UNDER THE FEDERAL OFFICER REMOVAL STATUTE

58. The Federal Officer Removal statute allows removal of an action against "any officer (or any person acting under that officer) of the United States or of any agency thereof … for or relating to any act under color of such office." 28 U.S.C. § 1442(a)(1). A party seeking removal under section 1442 must establish "(1) it is a federal officer or a person acting under that officer, (2) a colorable federal defense; and (3) the suit is for an act under color of office, which requires a causal nexus between the charged conduct and asserted official authority." *Ripley*, 841 F.3d at 209–10 (internal citations, quotation marks, and alterations omitted). All three elements are satisfied here for the Chevron Parties and many other Defendants, which have engaged in activities pursuant to the directions of federal officers that, assuming the truth of Plaintiff's allegations, have a causal nexus to Plaintiff's claims, and which have colorable federal defenses to Plaintiff's claims. Among other things, Defendants have acted pursuant to government mandates and contracts, performed functions for the U.S. military, and engaged in activities on federal lands pursuant to federal leases.

59. First, Defendants "acted under" a federal officer because "the government exert[ed] some 'subjection, guidance, or control,'" over Defendants' actions and because Defendants "engage[d] in an effort 'to assist, or to help carry out, the duties or tasks of the federal superior.'" *Sawyer v. Foster Wheeler LLC*, 860 F.3d 249, 255 (4th Cir. 2017) (quoting *Watson v. Philip Morris Cos.*, 551 U.S. 142, 151–52 (2007)).

60. Second, assuming the truth of Plaintiff's allegations, there is a causal nexus between Defendants' alleged actions, taken pursuant to a federal officer's direction, and Plaintiff's claims. In *Sawyer*, the Fourth Circuit held removal proper where a military contractor, sued for failing to warn about asbestos in military equipment, showed extensive evidence of federal control over its activities. This included "highly detailed ship specifications and military specifications provided by the Navy," where the Navy exercised "intense direction and control … over all written documentation to be delivered with" the equipment, deviations from which "were not acceptable." *Id.* at 253. Here, Plaintiff's causation and damages allegations depend on the activities of Defendants over the past decades—many of which were undertaken at the direction of, and under close supervision and control by, federal officials.

61. To take only one example, the Chevron Parties and other Defendants have long explored for and produced minerals, oil and gas on federal lands pursuant to leases governed by the OCSLA as described above. *E.g.*, Kelly Decl., Exs. B, C. In doing so, those Defendants were "'acting under' a federal 'official'" within the meaning of Section 1442(a)(1). *Watson v. Philip Morris Cos., Inc.*, 551 U.S. 142, 153 (2007). Under OCSLA, the Department of Interior is charged with "manag[ing] access to, and … receiv[ing] a fair return for, the energy and mineral resources of the Outer Continental Shelf." Statement of Walter Cruickshank, Deputy Director, Bureau of Ocean Energy Management, Before The Committee On Natural Resources, July, 6, 2016,

available at https://www.boem.gov/Congressional-Testimony-Cruickshank-07062016/. To fulfill this statutory obligation, the Interior officials maintain and administer the OCS leasing program, under which parties such as Defendants are required to conduct exploration, development and production activities that, "in the absence of a contract with a private firm, the Government itself would have had to perform." *Watson*, 551 U.S. at 154.

62. OCS leases obligate lessees like Defendants to "develop[] … the leased area" diligently, including carrying out exploration, development and production activities approved by Department of Interior officials for the express purpose of "maximiz[ing] the ultimate recovery of hydrocarbons from the leased area." Ex. C § 10. Indeed, for decades Defendants' OCSLA leases have instructed that "[t]he Lessee *shall comply* with all applicable regulations, orders, written instructions, and the terms and conditions set forth in this lease" and that "[a]fter due notice in writing, the Lessee *shall conduct* such OCS mining activities at such rates as the Lessor may require in order that the Leased Area or any part thereof may be properly and timely developed and produced in accordance with sound operating principles." Ex. B § 10 (emphasis added). All drilling takes place "in accordance with an approved exploration plan (EP), development and production plan (DPP) or development operations coordination document (DOCD) [as well as] approval conditions"—all of which must undergo extensive review and approval by federal authorities, and all of which further had to conform to "diligence" and "sound conservation practices." Ex. C §§ 9, 10. Federal officers further have reserved the rights to control the rates of mining (Ex. B § 10) and to obtain "prompt access" to facilities and records (Ex. B § 11, Ex. C § 12). The government also maintains certain controls over how the leased oil/gas/minerals are disposed of once they are removed from the ground, as by preconditioning the lease on a right of first refusal to purchase all materials "[i]n time of war or when the President of the United States

shall so prescribe" (Ex. B § 14, Ex. C § 15(d)), and mandating that 20% of all crude and natural gas produced pursuant to drilling leases be offered "to small or independent refiners" (Ex. C § 15(c)). The Federal Treasury has reaped enormous financial benefits from those policy decisions in the form of statutory and regulatory royalty regimes that have resulted in billions of dollars of revenue to the Federal Government.

63. Certain Defendants have also engaged in the exploration and production of fossil fuels pursuant to agreements with federal agencies. For example, in June 1944, the Standard Oil Company (a Chevron predecessor) and the U.S. Navy entered into a contract "to govern the joint operation and production of the oil and gas deposits … of the Elk Hills Reserve," a strategic petroleum reserve maintained by the Navy. *Chevron U.S.A., Inc. v. United States*, 116 Fed. Cl. 202, 205 (Fed. Cl. 2014). "The Elk Hills Naval Petroleum Reserve (NPR-1) … was originally established in 1912 to provide a source of liquid fuels for the armed forces during national emergencies." GAO Fact Sheet, Naval Petroleum Reserves – Oil Sales Procedures and Prices at Elk Hills, April Through December 1986 (Jan. 1987) ("GAO Fact Sheet"), *available at* http://www.gao.gov/assets/90/87497.pdf. In response to the OPEC oil embargo in 1973–74, the Naval Petroleum Reserves Production Act of 1976 (Public Law 94-258, April 5, 1976) was enacted, which "authorized and directed that NPR-1 be produced at the maximum efficient rate for 6 years." *Id.* In 1977, Congress "transferred the Navy's interests and management obligations to [the Department of Energy]," and Chevron continued its interest in the joint operation until 1997. *Id.* That contract governing Standard's rights shows the Federal Government's "full and absolute" power and "complete control" over fossil fuel exploration, production, and sales at the reserve:

- The plan was designed to "[a]fford [the] Navy a means of acquiring *complete control over* the development of the entire Reserve *and the production of oil therefrom*." Ex. D, Recitals § 6(d)(i) (emphases added).
- "[The] Navy shall, subject to the provisions hereof, have the exclusive control over the exploration, prospecting development and operation of the Reserve[.]" Ex. D § 3(a).
- "[The] Navy shall have *full and absolute power* to determine from time to time the rate of prospecting and development on, and the quantity and rate of production from, the Reserve, and may from time to time shut in wells on the Reserve if it so desires." Ex. D § 4(a) (emphasis added).
- "[A]ll exploration, prospecting, development, and producing operations on the Reserve" occurred "under the supervision and direction of an Operating Committee" tasked with "supervis[ing]" operations and "requir[ing] the use of sound oil field engineering practices designed to achieve the maximum economic recovery of oil from the reserve." Ex. D § 3(b). In the event of disagreement, "such matter shall be referred to the Secretary of the Navy for determination; and his decision in each such instance shall be final and binding upon Navy and Standard." Ex. D § 9(a).
- The Navy retained ultimate and even "absolute" discretion to suspend production, decrease the minimum amount of production per day that Standard was entitled to receive, or increase the rate of production. Ex. D §§ 4(b), 5(d)(1).

The contract demonstrates that Defendants' activities under federal officers went far beyond simple compliance with the law or participation in a regulated industry.

64. Defendants also have supplied motor vehicle fuels under agreements with the Federal Government, including the Armed Forces. For instance, CITGO Petroleum Corporation

("CITGO") was a party to fuel supply agreements with the Navy Exchange Service Command ("NEXCOM"), which is a department of the Naval Supply Systems Command of the U.S. Navy. Among other things, NEXCOM sells goods and services at a savings to active duty military, retirees, reservists, and their families. Starting in approximately 1988 through approximately 2012, pursuant to its agreements with NEXCOM, CITGO supplied CITGO branded gasoline and diesel fuel to NEXCOM for service stations operated by NEXCOM on Navy bases located in a number of states across the country. The NEXCOM agreements contained detailed fuel specifications, and CITGO complied with these government specifications in supplying the fuel to NEXCOM. CITGO also contracted with NEXCOM to provide demolition, site preparation, design, construction, and related financing services to build new gasoline service stations on Navy bases in the 1990s.

65. As discussed above, these and other federal activities are encompassed in Plaintiff's Complaint. *See supra* ¶¶ 51–64. Plaintiff alleges that the drilling and mining operations Defendants performed led to the sale of fossil fuels—including to the Federal Government—which led to the release of greenhouse gases by end-users—including to the Federal Government. Furthermore, the oil and gas Defendants extracted—which the Federal Government (i) reserved the right to buy in total in the event of a time of war or whenever the President so prescribed and (ii) has purchased from Defendants to fuel its military operations—is the very same oil and gas that Plaintiff alleges is a "defective" product giving rise to strict liability. Accordingly, Plaintiff seeks to hold Defendants liable for the very activities Defendants performed under the control of a federal official, and thus the nexus element has been satisfied.

66. Third, Defendants intend to raise numerous meritorious federal defenses, including preemption, *see Prince v. Sears Holdings Corp.*, 848 F.3d 173, 179 (4th Cir. 2017), the government

contractor defense, *see Boyle v. United Techs. Corp.*, 487 U.S. 500 (1988); *Sawyer*, 860 F.3d at 255–56, and others. In addition, Plaintiff's claims are barred by the United States Constitution, including the Commerce and Due Process clauses, as well as the First Amendment and the foreign affairs doctrine. These and other federal defenses are more than colorable. *See Willingham v. Morgan*, 395 U.S. 402, 407 (1969) (a defendant invoking section 1442(a)(1) "need not win his case before he can have it removed"). Accordingly, removal under Section 1442 is proper.

VIII. THE ACTION IS REMOVABLE BECAUSE THIS CASE ARISES FROM ACTS ARISING FROM MULTIPLE FEDERAL ENCLAVES

67. This Court also has original jurisdiction under the federal enclave doctrine. The Constitution authorizes Congress to "exercise exclusive legislation in all cases whatsoever" over all places purchased with the consent of a state "for the erection of forts, magazines, arsenals, dock-yards, and other needful buildings." U.S. Const., art. I, § 8, cl. 17. "A suit based on events occurring in a federal enclave … must necessarily arise under federal law and implicates federal question jurisdiction under § 1331." *Jones*, 2012 WL 1197391, at *1. This Court has denied a motion to remand where plaintiff's claims "ar[o]se out of work performed by [defendant] at [a] Government enclave." *Norair Eng'g Corp. v. URS Fed. Servs., Inc.*, 2016 WL 7228861, at *3 (D. Md. Dec. 14, 2016). The "key factor" in determining whether a federal court has federal enclave jurisdiction "is the location of the plaintiff's injury or where the specific cause of action arose." *Sparling v. Doyle*, 2014 WL 2448926, at *3 (W.D. Tex. May 30, 2014); *see also Fung v. Abex Corp.*, 816 F. Supp. 569, 571 (N.D. Cal. 1992) ("Failure to indicate the federal enclave status and location of the exposure will not shield plaintiffs from the consequences of this federal enclave status."); *Bd. of Comm'rs of Se. La. Flood Protection Auth.-E. v. Tenn. Gas Pipeline Co., LLC*, 29 F. Supp. 3d 808, 831 (E.D. La. 2014) (noting that defendants' "conduct" or "the damage complained of" must occur on a federal enclave). Federal jurisdiction is available if some of the

events or damages alleged in the complaint occurred on a federal enclave. *See Stokes v. Adair*, 265 F.2d 662, 665–66 (4th Cir. 1959) (district court had jurisdiction where "exclusive jurisdiction over [the location of the alleged injury had been] ceded by [the] state to the United States").

68. Three requirements exist for land to be a federal enclave: (1) the United States must have acquired the land from a state; (2) the state legislature must have consented to the jurisdiction of the Federal Government; and (3) the United States must have accepted jurisdiction. *Wood v. Am. Crescent Elevator Corp.*, No. 11-397, 2011 WL 1870218, at *2 (E.D. La. May 16, 2011).

69. Upon information and belief, the Federal Government owns federal enclaves in the area at issue where Plaintiff's "damage complained of" allegedly occurs. *Tenn. Gas Pipeline*, 29 F. Supp. 3d at 831. Indeed, Plaintiff broadly alleges injuries to huge swaths of the City, *see* Compl. ¶¶ 196–205, and "[f]ailure to indicate the federal enclave status and location of the exposure will not shield plaintiffs from the consequences of this federal enclave status," *Fung*, 816 F. Supp. at 571.

70. On information and belief, Defendants maintain or maintained oil and gas operations on military bases or other federal enclaves such that the Complaint, which bases the claims on the "extracting, refining, processing, producing, promoting and[/or] marketing of fossil fuel products" (Compl. ¶ 18), arises under federal law. *See, e.g.*, *Humble Pipe Line Co. v. Waggoner*, 376 U.S. 369, 372 (1964) (noting that the United States exercises exclusive jurisdiction over oil and gas rights within Barksdale Air Force Base in Louisiana); *see also Mississippi River Fuel Corp. v. Cocreham*, 390 F.2d 34, 35 (5th Cir. 1968) (on Barksdale AFB, "the reduction of fugitive oil and gas to possession and ownership[] takes place within the exclusive jurisdiction of the United States"). Indeed, as of 2000, approximately 14% of the National Wildlife Refuge

System "had oil or gas activities on their land," and these activities were spread across 22 different states. *See* GAO, *U.S. Fish and Wildlife Service: Information on Oil and Gas Activities in the National Wildlife Refuge* (Oct. 30, 2001), *available at* http://www.gao.gov/new.items/d0264r.pdf. Furthermore, Chevron and its predecessor companies for many years engaged in production activities on the Elk Hills Reserve—a strategic oil reserve maintained by the Naval Department—pursuant to a joint operating agreement with the Navy. *See Chevron U.S.A.*, 116 Fed. Cl. at 205. Pursuant to that agreement, Standard Oil "operat[ed] the lands of Navy and Standard in the Reserve." Ex. D at 4.

71. In addition, the Complaint relies upon conduct occurring in the District of Columbia—itself a federal enclave, *see, e.g.*, *Collier v. District of Columbia*, 46 F. Supp. 3d 6 (D.D.C. 2014); *Hobson v. Hansen*, 265 F. Supp. 902, 930 (D.D.C. 1967)—as a basis for Plaintiff's claims. Indeed, Plaintiff complains that Defendants' supposedly wrongful conduct included their memberships in various "trade association[s]," and providing funding to "think tanks," which allegedly had the effect of "evad[ing] regulation" of fossil fuel products by "deceiv[ing]" policymakers about the role of fossil fuel products in causing global warming. Compl. ¶¶ 166–167, 170. The Complaint also points to Defendants' purported funding of "lobbyist[s]" to influence legislation and legislative priorities. Here, too, "some of the[] locations" giving rise to Plaintiff's claims "are federal enclaves," further underscoring the presence of federal jurisdiction. *Bell*, 2012 WL 1110001, at *2. As the Ninth Circuit contemplated in *Jacobson v. U.S. Postal Serv.*, 993 F.2d 649, 657 (9th Cir. 1992), free speech placed at issue in a federal enclave falls under the jurisdiction of the federal courts. *Id.* (observing that newspaper vendors were required to obtain permits pursuant to a federal statute to sell newspapers in front of U.S. post office locations, which the Court deemed to be "within the federal enclave"). Because Plaintiff claims that Defendants'

speech within the federal enclave of the District of Columbia was, among other alleged causes, the basis of its injury, and because Plaintiff complains of damages allegedly occurring on federal enclaves, this Court is the only forum suited to adjudicate the merits of this dispute.

IX. THE ACTION IS REMOVABLE UNDER THE BANKRUPTCY REMOVAL STATUTE

72. The Bankruptcy Removal Statute allows removal of "any claim or cause of action in a civil action other than a proceeding before the United States Tax Court or a civil action by a governmental unit to enforce such governmental unit's police or regulatory power, to the district court for the district where such civil action is pending, if such district court has jurisdiction of such claim or cause of action under section 1334 of this title."[3] 28 U.S.C. § 1452(a). Section 1334, in turn, provides that "the district courts shall have original but not exclusive jurisdiction of all civil proceedings, arising under Title 11, or arising in or related to cases under title 11" of the United States Code. 28 U.S.C. § 1334(b). The Fourth Circuit has emphasized that "'related to' jurisdiction is to be 'broadly interpreted.'" *In re A.H. Robins Co., Inc.*, 86 F.3d 364, 372 (4th Cir. 1996). An action is thus "related to" a bankruptcy case if it "could conceivably have any effect on the estate being administered in bankruptcy." *In re Celotex Corp.*, 124 F.3d at 625. Where a Chapter 11 plan has been confirmed, there must be a "close nexus" between the post-

[3] Removal is also sought under the numerous other statutes and theories set forth herein that make removal to this Court appropriate. Indeed, this Court has "original but not exclusive jurisdiction of all civil proceedings, arising under Title 11, or arising in or related to cases under title 11" of the United States Code. 28 U.S.C. § 1334(b). Nonetheless, the Chevron Parties recognize that Local Rule 103.5(d) states that "[r]emovals under 28 U.S.C. § 1452 or § 1441 in cases related to bankruptcy cases should be filed with the Bankruptcy Clerk" and that, pursuant to Local Rule 402 (incorporating 28 U.S.C. § 157(a)), "all cases . . . related to cases under Title 11 shall be deemed to be referred to the bankruptcy judges of this District." However, in light of the numerous other grounds for removal to this Court, as noted above, removal is properly sought in this Court, and it is appropriate for the Court to withdraw any applicable reference to the bankruptcy court and require this matter to proceed solely in this Court. *See, e.g.*, *Houck v. Substitute Tr. Servs., Inc.*, 791 F.3d 473, 481 (4th Cir. 2015); *Kelly v. Schlossberg*, 2018 WL 3142021, at *5 (D. Md. June 27, 2018).

confirmation case and the bankruptcy plan for related-to jurisdiction to exist. *Valley Historic Ltd. P'ship v. Bank of New York*, 486 F.3d 831, 836 (4th Cir. 2007). "Practically speaking, under this inquiry matters that affect the interpretation, implementation, consummation, execution, or administration of the confirmed plan will typically have the requisite close nexus." *Id.* at 836–37 (brackets and citation omitted).

73. Plaintiff's claims are purportedly predicated on historical activities of Defendants, including predecessor companies, subsidiaries, and companies that Defendants may have acquired or with which they may have merged, as well as numerous unnamed but now bankrupt entities. Indeed, Plaintiff explicitly premises its theories of liability on the actions of Defendants' subsidiaries. *See, e.g.*, Compl ¶ 252.[4] Because there are hundreds of non-joined necessary and indispensable parties, there are many other Title 11 cases that may be related. Indeed, the related climate-change cases that Plaintiff's counsel recently filed on behalf of other cities and counties already generated bankruptcy court proceedings. *See*, *e.g.*, *In re Peabody Energy Corp.*, 2017 WL 4843724, Case No. 16-42529 (Bankr. E.D. Mo. Oct.24, 2017) (holding that the plaintiffs' state-law claims were discharged when Peabody emerged from bankruptcy in March 2017); *In re Arch Coal, Inc.*, Case No. 16-40120, Dkt. 1615 (Bankr. E.D. Mo. Nov. 21 2017) (stipulation providing that any action in the Peabody bankruptcy proceedings that results in dismissal of any of the plaintiffs' claims against Peabody will require dismissal of claims against Arch). Accordingly, Plaintiff's broad claim has the required close nexus with Chapter 11 plans to support federal

[4] To the extent Plaintiff seeks to hold Defendants liable for the conduct of their subsidiaries, affiliates or other related entities, such attempts are improper. *See, e.g.*, *Todd v. Xoom Energy Maryland, LLC*, 2016 WL 727108, at *11 n.10 (D. Md. Feb. 22, 2016) ("[M]ere ownership of a subsidiary does not justify the imposition of liability on the parent.").

jurisdiction. *Celotex*, 124 F.3d at 625; *see also In re Dow Corning Corp.*, 86 F.3d 482, 493–94 (6th Cir. 1996).

74. As just one example of how Plaintiff's historical allegations have created a "close nexus" with a Chapter 11 plan, one of Chevron's current subsidiaries, Texaco Inc., filed for bankruptcy in 1987. *In re Texaco Inc.*, 87 B 20142 (Bankr. S.D.N.Y. 1987). The Chapter 11 plan, which was confirmed in 1988, bars certain claims against Texaco arising prior to March 15, 1988. *Id.* Dkt. 1743. Plaintiff's Complaint alleges that Texaco, as well as unnamed Chevron "predecessors" and "subsidiaries," engaged in culpable conduct prior to March 15, 1988, and it attributes this conduct to defendant "Chevron." *See* Compl. ¶¶ 18–19, 111, 115, 120, 174. Plaintiff's claims against Chevron thus are at least partially barred by Texaco's confirmed Chapter 11 plan to the extent that the claims relate to Texaco's conduct prior to 1988. Accordingly, even though Texaco's Chapter 11 plan has been confirmed and consummated, Plaintiff's claim has a "close nexus" to the plan to support federal jurisdiction. *See In re Wilshire Courtyard*, 729 F.3d 1279, 1292–93 (9th Cir. 2013) (federal court had "'related to' subject matter jurisdiction … despite the fact that the Plan transactions have been long since consummated").

75. Finally, Plaintiff's action is primarily one to protect its "pecuniary interest." *See City & Cnty. of San Francisco v. PG&E Corp.*, 433 F.3d 1115, 1124 (9th Cir. 2006). As demonstrated by Plaintiff's request for billions of dollars in compensatory damages, "punitive damages," and "disgorgement of profits" (*see, e.g.*, Compl. ¶¶ 227, 247, 259, 268, 280, 289, Prayer for Relief), this action is primarily pecuniary in nature. *See also id.* ¶¶ 16 ("The City must spend substantial funds to plan for and respond to these [climate change-related] phenomena, and to mitigate their secondary and tertiary impacts."), 210 (alleging that "[t]he City has incurred and will incur expenses in planning and preparing for, treating and responding to, and educating

residents about the public health impacts associated with anthropogenic global warming"), 212 (alleging that "[t]he City has and is planning, at significant expense, adaptation strategies to address climate change related impacts," and that "the City has incurred and will incur significant expense in educating and engaging the public on climate change issues, and to promote and implement policies to mitigate and adapt to climate change impacts, including promoting energy and water efficiency and renewable energy"), 213 (alleging that the City "has incurred and will incur significant expenses related to planning for and predicting future sea level rise-related and hydrologic cycle change-related injuries to its real property, improvements thereon, municipal infrastructure, and citizens, and other community assets in order to preemptively mitigate and/or prevent injuries to itself and its citizens"). These allegations make clear that Plaintiff's action is primarily brought to fill the City's coffers by reaping a financial windfall. *See PG&E Corp.*, 433 F.3d at 1125 n.11.

X. THE ACTION IS REMOVABLE BECAUSE PLAINTIFF'S CLAIMS FALL WITHIN THE COURT'S ADMIRALTY JURISDICTION

76. Finally, Plaintiff's claims are removable because they fall within the Court's original admiralty jurisdiction. The Constitution extends the federal judicial power "to all Cases of admiralty and maritime Jurisdiction." U.S. Const. Art. III, § 2. "Congress has embodied that power in a statute giving federal district courts 'original jurisdiction [over] … [a]ny civil case of admiralty or maritime jurisdiction[.]" *Jerome B. Grubart, Inc. v. Great Lakes Dredge & Dock Co.*, 513 U.S. 527, 531 (1995) (alterations in original). "The admiralty and maritime jurisdiction of the United States extends to and includes cases of injury or damage, to person or property, caused by a vessel on navigable waters, *even though the injury or damage is done or consummated on land*." 46 U.S.C. § 30101(a) (emphasis added).

77. The alleged injuries have occurred on the navigable waters. Plaintiff alleges that several Defendants' production and sale of fossil fuels occur on and/or over the navigable waters of the United States. *See, e.g.*, Compl. ¶ 22(b) ("Chevron Corporation's and its subsidiaries' operations consist of … transporting crude oil and refined products by … marine vessel … ."). Beyond that, Plaintiff alleges that the tort arises from production of fossil fuels, including worldwide extraction, a significant portion of which takes place on "mobile offshore drilling unit[s]" that operate in navigable waters. *See In re Oil Spill by the Oil Rig Deepwater Horizon in the Gulf of Mexico, on April 20, 2010*, 808 F. Supp. 2d 943, 949 (E.D. La. 2011). "Under clearly established law," a floating drilling platform is "a vessel, not a fixed platform," *id*., and "[o]il and gas drilling on navigable waters aboard a vessel is recognized to be maritime commerce," *Theriot v. Bay Drilling Corp.*, 783 F.2d 527, 538–39 (5th Cir. 1986). Moreover, Defendants' fossil fuel extraction is connected to maritime activity because, according to Plaintiff's Complaint, it has the "potential to disrupt maritime commerce" by damaging ports. *Grubart*, 513 U.S. at 538; *see* Compl. ¶ 197 (alleging that rising seas will inundate Baltimore's port). Because Plaintiff's claims fall within the Court's admiralty jurisdiction, they are removable under 28 U.S.C. §§ 1441 and 1333.

XI. THIS COURT HAS JURISDICTION AND REMOVAL IS PROPER

78. Based on the foregoing allegations from the Complaint, and others not specifically described herein, this Court has original jurisdiction over this action under 28 U.S.C. § 1331. Accordingly, removal of this action is proper under 28 U.S.C. §§ 1334, 1441, 1442, 1452, and 1446, as well as 43 U.S.C. § 1349(b).

79. The United States District Court for the District of Maryland is the appropriate venue for removal pursuant to 28 U.S.C. § 1441(a) because it embraces the place where Plaintiff

originally filed this case, in the Circuit Court for Baltimore City, Maryland. *See* 28 U.S.C. § 84(a); 28 U.S.C. § 1441(a). Pursuant to Local Rule 501.2, the action should be assigned to the Northern Division of this Court.

80. All defendants that have been properly joined and served (or purported to be served) have consented to the removal of the action, *see* Kelly Decl., ¶ 4, and there is no requirement that any party not properly joined and served consent. *See HBCU Pro Football, LLC v. New Vision Sports Properties, LLC*, 2010 WL 2813459, at *2 (D. Md. July 14, 2010); 28 U.S.C. § 1446(b)(2)(A) (requiring consent only from "all defendants who have been properly joined and served").[5] Copies of all process, pleadings, and orders from the state-court action being removed to this Court that Chevron has been able to obtain from the Circuit Court and other defendants and which are in the possession of Chevron are attached hereto as Exhibit A to the Kelly Declaration. Pursuant to 28 U.S.C. § 1446(a), this constitutes "a copy of all process, pleadings, and orders" received by the Chevron Parties in the action.

81. Upon filing this Notice of Removal, Defendants will furnish written notice to Plaintiff's counsel, and will file and serve a copy of this Notice with the Clerk of the Circuit Court for Baltimore City, pursuant to 28 U.S.C. § 1446(d).

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[5] In addition, the consent of all defendants is not required for bankruptcy removal under 28 U.S.C. § 1452 and federal officer removal. *See Creasy v. Coleman Furniture Corp.*, 763 F.2d 656, 660 (4th Cir. 1985) ("Under the bankruptcy removal statute, … any one party has the right to remove the state court action without the consent of the other parties."); *Joyner v. A.C. & R. Insulation Co.*, 2013 WL 877125, at *2 n.4 (D. Md. Mar. 7, 2013) ("Although, as a general matter, all defendants must join in or consent to the removal of an action to federal court, that requirement does not apply when the case is removed under the federal officer removal statute … ." (citation omitted)).

Accordingly, Defendants remove to this Court the above action pending against them in the Circuit Court for Baltimore City, Maryland.

Respectfully submitted,

Dated: July 31, 2018

/s/ Tonya Kelly Cronin

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CERTIFICATE OF SERVICE

I hereby certify that the foregoing document was filed through the ECF system on the 31st day of July 2018. Additionally, I certify that on the 31st day of July 2018, a copy of the foregoing document was sent via e-mail and first-class mail to the following counsel of record for Plaintiff Mayor and City Council of Baltimore:

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/s/ Tonya Kelly Cronin

Attachment C

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND

MAYOR AND CITY COUNCIL OF BALTIMORE,
Plaintiff,

v.

BP P.L.C., et al.,
Defendants.

Civil Action No. ELH-18-2357

MEMORANDUM OPINION

In this Memorandum Opinion, the Court determines whether a suit concerning climate change was properly removed from a Maryland state court to federal court.

The Mayor and City Council of Baltimore (the "City") filed suit in the Circuit Court for Baltimore City against twenty-six multinational oil and gas companies. *See* ECF 42 (Complaint). The City alleges that defendants have substantially contributed to greenhouse gas pollution, global warming, and climate change by extracting, producing, promoting, refining, distributing, and selling fossil fuel products (*i.e.*, coal, oil, and natural gas), while simultaneously deceiving consumers and the public about the dangers associated with those products. *Id*. ¶¶ 1–8. As a result of such conduct, the City claims that it has sustained and will sustain "climate change-related injuries." *Id.* ¶ 102. According to the City, the injuries from "[a]nthropogenic (human-caused) greenhouse gas pollution," *id.* ¶ 3, include a rise in sea level along Maryland's coast, as well as an increase in storms, floods, heatwaves, drought, extreme precipitation, and other conditions. *Id.* ¶ 8.

The Complaint asserts eight causes of action, all founded on Maryland law: public nuisance (Count I); private nuisance (Count II); strict liability for failure to warn (Count III); strict liability

for design defect (Count IV); negligent design defect (Count V); negligent failure to warn (Count VI); trespass (Count VII); and violations of the Maryland Consumer Protection Act, Md. Code (2013 Repl. Vol., 2019 Supp.), Com. Law §§ 13–101 to 13–501 (Count VIII). *Id*. ¶¶ 218–98. The City seeks monetary damages, civil penalties, and equitable relief. *Id*.

Two of the defendants, Chevron Corp. and Chevron U.S.A., Inc. (collectively, "Chevron"), timely removed the case to this Court. ECF 1 (Notice of Removal).[1] Asserting a battery of grounds for removal, Chevron underscores that the case concerns "*global* emissions" (*id.* at 3) with "uniquely federal interests" (*id.* at 6) that implicate "bedrock federal-state divisions of responsibility[.]" *Id.* at 3.

The eight grounds for removal are as follows: (1) the case is removable under 28 U.S.C. § 1441(a) and § 1331, because the City's claims are governed by federal common law, not state common law; (2) the action raises disputed and substantial issues of federal law that must be adjudicated in a federal forum; (3) the City's claims are completely preempted by the Clean Air Act ("CAA"), 42 U.S.C. § 7401 *et seq*., and/or other federal statutes and the Constitution; (4) this Court has original jurisdiction under the Outer Continental Shelf Lands Act ("OCSLA"), 43 U.S.C. § 1349(b); (5) removal is authorized under the federal officer removal statute, 28 U.S.C. § 1442(a)(1); (6) this Court has federal question jurisdiction under 28 U.S.C. § 1331 because the City's claims are based on alleged injuries to and/or conduct on federal enclaves; (7) removal is authorized under 28 U.S.C. § 1452(a) and 28 U.S.C. § 1334(b), because the City's claims are

[1] Chevron alleged that no other defendants had been served prior to the removal. ECF 28 (Chevron's Statement in Response to Standing Order Concerning Removal). The Notice of Removal was timely. *See* 28 U.S.C. § 1446(b) (defendant must remove within thirty days after service). And, because the action was not removed "solely under section 1441(a)," the consent of the other defendants was not required. *See* 28 U.S.C. § 1446(b)(2)(A) ("When a civil action is removed solely under section 1441(a), all defendants who have been properly joined and served must join in or consent to the removal of the action.").

related to federal bankruptcy cases; and (8) the City's claims fall within the Court's original admiralty jurisdiction under 28 U.S.C. § 1333. ECF 1 at 6–12, ¶¶ 5–12.

Thereafter, the City filed a motion to remand the case to state court, pursuant to 28 U.S.C. § 1447(c). ECF 111. The motion is supported by a memorandum of law (ECF 111-1) (collectively, "Remand Motion"). Defendants filed a joint opposition to the Remand Motion (ECF 124, "Opposition"), along with three supplements containing numerous exhibits. ECF 125; ECF 126; ECF 127.[2] The City replied. ECF 133.

Defendants also filed a conditional motion to stay the execution of any remand order. ECF 161. They ask that, in the event the Court grants the City's Remand Motion, the Court issue an order staying execution of the remand for thirty days to allow them to appeal the ruling. *Id*. at 1–2. The City initially opposed that motion (ECF 162), but subsequently stipulated to the requested stay. ECF 170. This Court accepted the parties' stipulation by Consent Order of April 22, 2019. ECF 171.

No hearing is necessary to resolve the Remand Motion. *See* Local Rule 105.6. For the reasons that follow, I conclude that removal was improper. Therefore, I shall grant the Remand Motion. However, I shall stay execution of the remand for thirty days, in accordance with the parties' joint stipulation and the Court's prior Order.

[2] The following defendants did not join in the Opposition to the City's Remand Motion: Crown Central Petroleum Corp.; Louisiana Land & Exploration Co.; Phillips 66 Co.; Marathon Oil Co.; and Marathon Oil Corp. *See* ECF 124; ECF 42. However, it appears that three of these defendants were not properly named in the Complaint. *See* ECF 14 (Local Rule 103.3 Disclosure Statement by Louisiana Land and Exploration Co. LLC, stating that defendant Louisiana Land & Exploration Co. no longer exists); ECF 40 (Local Rule 103.3 Disclosure Statement by Crown Central LLC and Crown Central New Holdings LLC, stating that defendant Crown Central Petroleum Corp. no longer exists); ECF 108 (Local Rule 103.3 Disclosure Statement by Phillips 66 does not identify Phillips 66 Co.).

I. Discussion

A. The Contours of Removal

This matter presents a primer on removal jurisdiction; defendants rely on the proverbial "laundry list" of grounds for removal. I begin by outlining the general contours of removal jurisdiction and then turn to the specific bases for removal on which defendants rely.

District courts of the United States are courts of limited jurisdiction and possess only the "power authorized by Constitution and statute." *Exxon Mobil Corp. v. Allapattah Servs., Inc.*, 545 U.S. 546, 552 (2005) (citation omitted); *see Home Buyers Warranty Corp. v. Hanna*, 750 F.3d 727, 432 (4th Cir. 2014). They "may not exercise jurisdiction absent a statutory basis . . . ." *Exxon Mobil Corp*, 545 U.S. at 552. Indeed, a federal court must presume that a case lies outside its limited jurisdiction unless and until jurisdiction has been shown to be proper. *United States v. Poole*, 531 F.3d 263, 274 (4th Cir. 2008) (citing *Kokkonen v. Guardian Life Ins. Co.*, 511 U.S. 375, 377 (1994)).

Under § 28 U.S.C. § 1441, the general removal statute, "any civil action brought in a State court of which the district courts of the United States have original jurisdiction" may be "removed by the defendant or the defendants, to the district court of the United States for the district and division embracing the place where such action is pending." *Id.* § 1441(a). Congress has conferred jurisdiction on the federal courts in several ways. Of relevance here, to provide a federal forum for plaintiffs who seek to vindicate federal rights, Congress has conferred on the district courts original jurisdiction over civil actions that arise under the Constitution, laws, or treaties of the United States. *See* U.S. Const. art. III, § 2 ("The Judicial Power shall extend to all Cases, in Law and Equity, arising under this Constitution, the Laws of the United States, and Treaties made . . .");

see also 28 U.S.C. § 1331; *Exxon Mobil Corp.*, 545 U.S. at 552. This is sometimes called federal question jurisdiction.[3]

The burden of demonstrating jurisdiction and the propriety of removal rests with the removing party. *See McBurney v. Cuccinelli*, 616 F.3d 393, 408 (4th Cir. 2010); *Robb Evans & Assocs. v. Holibaugh*, 609 F.3d 359, 362 (4th Cir. 2010); *Dixon v. Coburg Dairy, Inc.*, 369 F.3d 811, 816 (4th Cir. 2004) (en banc). Therefore, "[i]f a plaintiff files suit in state court and the defendant seeks to adjudicate the matter in federal court through removal, it is the defendant who carries the burden of alleging in his notice of removal and, if challenged, demonstrating the court's jurisdiction over the matter." *Strawn v. AT & T Mobility LLC*, 530 F.3d 293, 296 (4th Cir. 2008). And, if "a case was not properly removed, because it was not within the original jurisdiction" of the federal court, then "the district court must remand [the case] to the state court from which it was removed." *Franchise Tax Bd. of Cal. v. Constr. Laborers Vacation Trust*, 463 U.S. 1, 8 (1983) (citing 28 U.S.C. § 1447(c)).

Courts are required to construe removal statutes narrowly. *Shamrock Oil & Gas Corp. v. Sheets*, 313 U.S. 100, 108–09 (1941). This is because "the removal of cases from state to federal

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[3] In addition, "Congress . . . has granted district courts original jurisdiction in civil actions between citizens of different States, between U.S. citizens and foreign citizens, or by foreign states against U.S. citizens," so long as the amount in controversy exceeds $75,000. *Exxon Mobil Corp.*, 545 U.S. at 552; *see* 28 U.S.C. § 1332. Diversity jurisdiction "requires complete diversity among parties, meaning that the citizenship of *every* plaintiff must be different from the citizenship of *every* defendant." *Cent. W. Va. Energy Co., Inc. v. Mountain State Carbon, LLC*, 636 F.3d 101, 103 (4th Cir. 2011) (emphasis added); *see Strawbridge v. Curtiss*, 7 U.S. 267 (1806). Under 28 U.S.C. § 1367(a), district courts are also granted "supplemental jurisdiction over all other claims that are so related to claims in the action within [the courts'] original jurisdiction that they form part of the same case or controversy under Article III of the United States Constitution."

Although defendants do not argue otherwise, the Court observes that removal of this case was not based on diversity jurisdiction. Presumably, this is because BP Products North America Inc. is domiciled in Maryland. ECF 42, ¶ 20(e); *see* 28 U.S.C. § 1332; 28 U.S.C. § 1441(b).

court raises significant federalism concerns." *Barbour v. Int'l Union*, 640 F.3d 599, 605 (4th Cir. 2011) (en banc), *abrogated in part on other grounds by* the Federal Courts Jurisdiction and Venue Clarification Act of 2011, Pub. L. No. 112-63, 125 Stat. 758 (2011); *see also Mulcahey v. Columbia Organic Chems. Co.*, 29 F.3d 148, 151 (4th Cir. 1994) ("Because removal jurisdiction raises significant federalism concerns, [courts] must strictly construe removal jurisdiction.") (citing *Shamrock*, 313 U.S. at 108–09). Thus, "any doubts" about removal must be "resolved in favor of state court jurisdiction." *Barbour*, 640 F.3d at 617; *see also Cohn v. Charles*, 857 F. Supp. 2d 544, 547 (D. Md. 2012) ("Doubts about the propriety of removal are to be resolved in favor of remanding the case to state court.").

Defendants assert a host of grounds for removal; four of their eight grounds are premised on federal question jurisdiction under 28 U.S.C. § 1331. These grounds are as follows: (1) the City's public nuisance claim is necessarily governed by federal common law; (2) the City's claims raise disputed and substantial issues of federal law; (3) the City's claims are completely preempted by the Clean Air Act, 42 U.S.C. § 7401 *et seq.*, and the foreign affairs doctrine; and (4) the City's claims are based on conduct or injuries that occurred on federal enclaves. ECF 1, ¶¶ 5–7; ECF 124 at 8–49. I shall address each of these arguments in turn and then consider defendants' alternative bases for removal.

As alternative grounds, defendants assert that this Court has original jurisdiction under the OCSLA, 43 U.S.C. § 1349(b); removal is authorized under the federal officer removal statute, 28 U.S.C. § 1442(a)(1); removal is authorized under 28 U.S.C. § 1452(a) and 28 U.S.C. § 1334(b) because the City's claims are related to bankruptcy cases; and the City's claims fall within the Court's original admiralty jurisdiction under 28 U.S.C. § 1333.

B. Federal Question Jurisdiction

Article III of the United States Constitution provides: "The judicial Power shall extend to all Cases, in Law and Equity, arising under . . . the Laws of the United States." U.S. Const. art. III, § 2, cl. 1. Section 1331 of 28 U.S.C. grants federal district courts "original jurisdiction of all civil actions arising under the Constitution, laws, or treaties of the United States." "Article III 'arising under' jurisdiction is broader than federal question jurisdiction under [28 U.S.C. § 1331]." *Verlinden B.V. v. Cent. Bank of Nigeria*, 461 U.S. 480, 495 (1983). Although Congress has the power to prescribe the jurisdiction of federal courts under U.S. Const. art. I, § 8, cl. 9, it "may not expand the jurisdiction of the federal courts beyond the bounds established by the Constitution." *Verlinden*, 461 U.S. at 491.

The "propriety" of removal on the basis of federal question jurisdiction "depends on whether the claims 'aris[e] under' federal law." *Pinney v. Nokia, Inc.*, 402 F.3d 430, 441 (4th Cir. 2005) (citation omitted). And, when jurisdiction is based on a claim "arising under the Constitution, treaties or laws of the United States," the case is "removable without regard to the citizenship or residence of the parties." 28 U.S.C. § 1441(b).

A case "'aris[es] under' federal law in two ways." *Gunn v. Minton*, 568 U.S. 251, 257 (2013); *see Beneficial Nat'l Bank v. Anderson*, 539 U.S. 1, 8 (2003). First, and most commonly, "a case arises under federal law when federal law creates the cause of action asserted." *Gunn*, 568 U.S. at 257; *see also Am. Well Works Co. v. Layne & Bowler Co.*, 241 U.S. 257, 260 (1916) (stating that a "suit arises under the law that creates the cause of action"). Second, a claim is deemed to arise under federal law for purposes of § 1331 when, although it finds its origins in state law, "the plaintiff's right to relief necessarily depends on resolution of a substantial question of federal law."

Empire Healthchoice Assurance Inc. v. McVeigh, 547 U.S. 677, 690 (2006); *see Franchise Tax Bd.*, 463 U.S. at 13.

This latter set of circumstances arises only in a "'special and small category' of cases." *Gunn*, 568 U.S. at 258 (quoting *Empire Healthchoice*, 547 U.S. at 699). Specifically, jurisdiction exists under this category only when "a federal issue is: (1) necessarily raised, (2) actually disputed, (3) substantial, and (4) capable of resolution in federal court without disrupting the federal-state balance approved by Congress." *Id.*; *see Grable & Sons Metal Prods., Inc. v. Darue Eng'g & Mfg.*, 545 U.S. 308, 313–14 (2005); *Christianson v. Colt Indus. Operating Corp.*, 486 U.S. 800, 808 (1988); *Flying Pigs, LLC v. RRAJ Franchising, LLC*, 757 F.3d 177, 181 (4th Cir. 2014).

The "presence or absence of federal question jurisdiction is governed by the 'well-pleaded complaint rule,' which provides that federal jurisdiction exists only when a federal question is presented on the face of the plaintiff's properly pleaded complaint." *Rivet v. Regions Bank of La.*, 522 U.S. 470, 475 (1998) (citation omitted); *see Pressl v. Appalachian Power Co.*, 842 F.3d 299, 302 (4th Cir. 2016). This "makes the plaintiff the master of [its] claim," because in drafting the complaint, the plaintiff may "avoid federal jurisdiction by exclusive reliance on state law." *Caterpillar Inc. v. Williams*, 482 U.S. 386, 392 (1987); *see Pinney*, 402 F.3d at 442.

However, even when a well-pleaded complaint sets forth a state law claim, there are instances when federal law "is a necessary element" of the claim. *Christianson*, 486 U.S. at 808. Under certain circumstances, such a case may be removed to federal court. The *Pinney* Court explained, 402 F.3d at 442 (internal citation omitted):

> Under the substantial federal question doctrine, 'a defendant seeking to remove a case in which state law creates the plaintiff's cause of action must establish two elements: (1) that the plaintiff's right to relief necessarily depends on a question of federal law, and (2) that the question of federal law is substantial.' If the defendant

> fails to establish either of these elements, the claim does not arise under federal law pursuant to the substantial federal question doctrine, and removal cannot be justified under this doctrine.

(internal citations omitted).

A case may also be removed from state court to federal court based on the doctrine of complete preemption. The complete preemption doctrine is a "corollary of the well-pleaded complaint rule." *Metro. Life Ins. Co. v. Taylor*, 481 U.S. 58, 63 (1987); *see In re Blackwater Sec. Consulting, LLC*, 460 F.3d 576, 584 (4th Cir. 2006). The Supreme Court has explained: "When [a] federal statute *completely* pre-empts [a] state-law cause of action, a claim which comes within the scope of that cause of action, even if pleaded in terms of state law, is in reality based on federal law." *Beneficial*, 539 U.S. at 8 (emphasis added). Therefore, federal question jurisdiction is satisfied "when a federal statute wholly displaces the state-law cause of action through *complete* pre-emption." *Id.* (emphasis added); *see also Vaden v. Discover Bank*, 556 U.S. 49, 61 (2009); *Aetna Health Inc. v. Davila*, 542 U.S. 200, 207–08 (2004).

Complete preemption is a jurisdictional doctrine that "'converts an ordinary state common-law complaint into one stating a federal claim for purposes of the well-pleaded complaint rule."' *Caterpillar Inc.*, 482 U.S. at 393 (quoting *Metro. Life Ins.*, 481 U.S. at 65); *see Pinney*, 402 F.3d at 449. But, to remove an action on the basis of complete preemption, a defendant must show that Congress intended for federal law to provide the "exclusive cause of action" for the claim asserted. *Beneficial*, 539 U.S. at 9; *see also Barbour*, 640 F.3d at 631.

Moreover, it is "settled law that a case may not be removed to federal court on the basis of a federal defense, *including the defense of pre-emption,* even if the defense is anticipated in the plaintiff's complaint, and even if both parties concede that the federal defense is the only question truly at issue." *Caterpillar Inc.*, 482 U.S. at 393 (emphasis added); *see Vaden*, 556 U.S. at 60.

Therefore, in examining the well pleaded allegations in the complaint for purposes of removal, the court must "ignore potential defenses." *Beneficial*, 539 U.S. at 6. Put another way, when preemption is a defense, it "does not appear on the face of a well-pleaded complaint, and, therefore, does not authorize removal to federal court." *Metro. Life Ins.*, 481 U.S. at 63; *see Pinney*, 402 F.3d at 449.

Defendants seem to conflate complete preemption with the defense of ordinary preemption. *See Caterpillar Inc*., 482 U.S. at 392. The "existence of a federal defense normally does not create statutory 'arising under' jurisdiction, and 'a defendant [generally] may not remove a case to federal court unless the *plaintiff's* complaint establishes that the case 'arises under' federal law.'" *Davila*, 542 U.S. at 207 (internal citations omitted).

"Federal law may preempt state law under the Supremacy Clause in three ways—by 'express preemption,' by 'field preemption,' or by 'conflict preemption.'" *Anderson v. Sara Lee Corp.*, 508 F.3d 181, 191 (4th Cir. 2007) (citation omitted); *see also Decohen v. Capital One, N.A.*, 703 F.3d 216, 223 (4th Cir. 2012). These three types of preemption, however, are forms of "ordinary preemption" that serve only as federal defenses to a state law claim. *Lontz v. Tharp*, 413 F.3d 435, 441 (4th Cir. 2005); *see Wurtz v. Rawlings Co., LLC*, 761 F.3d 232, 238 (2d Cir. 2014). As one federal court recently explained: "The doctrine of complete preemption should not be confused with ordinary preemption, which occurs when there is the defense of 'express preemption,' 'conflict preemption,' or 'field preemption' to state law claims." *Meade v. Avant of Colorado, LLC*, 307 F. Supp. 3d 1134, 1140 (D. Colo. 2018). Unlike the doctrine of complete preemption, these forms of preemption do not appear on the face of a well-pleaded complaint and therefore they do not support removal. *Lontz*, 413 F.3d at 440; *Wurtz*, 761 F.3d at 238.

Ordinary preemption "regulates the interplay between federal and state laws when they conflict or appear to conflict . . . ." *Decohen*, 703 F.3d at 222. "[S]tate law is naturally preempted to the extent of any conflict with a federal statute," *Crosby v. Nat'l Foreign Trade Council*, 530 U.S. 363, 372 (2000), because the Supremacy Clause of the Constitution, U.S. Const. art. VI, cl. 2, provides that a federal enactment is superior to a state law. As a result, pursuant to the Supremacy Clause, "[w]here state and federal law 'directly conflict,' state law must give way." *PLIVA, Inc. v. Mensing*, 564 U.S. 604, 617 (2011) (citation omitted); *see also Merck Sharp & Dohme Corp. v. Albrecht*, ___ U.S. ___, 2019 WL 2166393, at *8 (May 20, 2019) (discussing impossibility or conflict preemption, and reiterating that "'state laws that conflict with federal law are without effect,'" but noting that the "'possibility of impossibility [is] not enough'") (citations omitted); *Mutual Pharm. Co., Inc. v. Bartlett*, 570 U.S. 472, 480 (2013). In *Drager v. PLIVA USA, Inc.*, 741 F.3d 470 (4th Cir. 2014), the Fourth Circuit stated: "The Supreme Court has held that state and federal law conflict when it is impossible for a private party to simultaneously comply with both state and federal requirements.[] In such circumstances, the state law is preempted and without effect." *Id*. at 475. [4]

"Federal preemption of state law under the Supremacy Clause – including state causes of action – is 'fundamentally . . . a question of congressional intent.'" *Cox v. Duke Energy, Inc.*, 876 F.3d 625, 635 (4th Cir. 2017) (quoting *English v. Gen. Elec. Co.*, 496 U.S. 72, 79 (1990)); *see also Beneficial*, 539 U.S. at 9. Congress manifests its intent in three ways: (1) when Congress explicitly defines the extent to which its enactment preempts state law (express preemption); (2) when state

[4] In his concurrence in *Albrecht*, Justice Thomas observed that a defense based on conflict preemption fails as a matter of law in the absence of a statute, regulations, or other agency action "with the force of law that would have prohibited [the defendant] from complying with its alleged state-law duties. . . ." 2019 WL 2166393, at *12.

law "regulates conduct in a field that Congress intended the Federal Government to occupy exclusively" (field preemption); and (3) when state law "actually conflicts with federal law" (conflict or impossibility preemption). *English*, 496 U.S. at 78–79.

1. Federal Common Law

Defendants first argue that federal question jurisdiction exists because the City's public nuisance claim implicates "uniquely federal interests" and thus "is governed by federal common law." ECF 124 at 9–11. According to defendants, the federal government has a unique interest both in promoting fossil fuel production and in crafting multilateral agreements with foreign nations to address global warming. *Id*. at 16. Therefore, they insist that federal common law supports removal. *Id*.

The City counters that this argument is no more than an ordinary preemption defense. ECF 111-1 at 9. In effect, argues the City, defendants contend that federal common law applies to any cause of action "touching on climate change, such that state law claims under any theory have been obliterated . . . ." ECF 111-1 at 8. In the City's view, federal common law does not provide a proper basis for removal. *Id*. I agree.

It is true that federal question jurisdiction exists over claims "founded upon" federal common law. *Illinois v. City of Milwaukee*, 406 U.S. 91, 100 (1972) (stating that 28 U.S.C. § 1331 "will support claims founded upon federal common law as well as those of a statutory origin"). It is also true, however, that the presence of federal question jurisdiction is governed by the well-pleaded complaint rule. *Rivet*, 522 U.S. at 475. The well-pleaded complaint rule is plainly not satisfied here because the City does not plead any claims under federal law. *See* ECF 42.

Defendants' assertion that the City's public nuisance claim under Maryland law is in fact "governed by federal common law" is a cleverly veiled preemption argument. *See Boyle v. United*

Tech. Corp., 487 U.S. 500, 504 (1988) (finding that a state law claim against a federal government contractor that involved "uniquely federal interests" was governed exclusively by federal common law and, thus, state law was preempted); *Int'l Paper Co. v. Ouellette*, 479 U.S. 481, 488 (1987) (stating that if a case "should be resolved by reference to federal common law … state common law [is] preempted"); *see also Merkel v. Fed. Exp. Corp*., 886 F. Supp. 561, 564–65 (N.D. Miss. 1995) (stating that if "plaintiff's claims are governed by federal common law," as defendant argued to support removal, "then [defendant] is entitled to assert the defense of preemption against the plaintiff's state law claims"). Unfortunately for defendants, ordinary preemption does not allow the Court to treat the City's public nuisance claim as if it had been pleaded under federal law for jurisdictional purposes. *See Franchise Tax Bd*., 463 U.S. at 14.

As indicated, unlike ordinary preemption, complete preemption *does* "'convert[] an ordinary state common-law complaint into one stating a federal claim for purposes of the well-pleaded complaint rule.'" *Caterpillar Inc.*, 482 U.S. at 393 (quoting *Metro. Life Ins.*, 481 U.S. at 65); *see Lontz*, 413 F.3d at 439 (noting that the complete preemption doctrine is the only "exception" to the well-pleaded complaint rule); *Goepel v. Nat'l Postal Mail Handlers Union*, 36 F.3d 306, 311–12 (3d Cir. 1994) ("[T]he only state claims that are 'really' federal claims and thus removable to federal court are those that are preempted completely by federal law.") (citations omitted); *see also Hannibal v. Fed. Exp. Corp*., 266 F. Supp. 2d 466, 469 (E.D. Va. 2003) (observing that, where the defendant argued that removal was proper because the plaintiff's contract claim was governed exclusively by federal common law, "the Defendant is attempting to argue that federal common law completely preempts the Plaintiff's state breach of contract claim"). But, defendants do not argue that the City's public nuisance claim is completely preempted by federal common law. Rather, they contend only that the City's claims are

completely preempted by the Clean Air Act and the foreign affairs doctrine. *See* ECF 124 at 43–48.

As I see it, defendants' assertion that federal common law supports removal is without merit, even if construed as a complete preemption argument.

Two district judges in the Northern District of California considered the matter of removal in cases similar to the one sub judice. They reached opposing conclusions as to removal.

In *County of San Mateo v. Chevron Corp.*, 294 F. Supp. 3d 934 (N.D. Cal. 2018), plaintiffs lodged tort claims against fossil fuel producers for injuries stemming from climate change. *Id*. at 937. Judge Chhabria expressly determined that "federal common law does not govern plaintiffs' claims" and thus the cases "should not have been removed to federal court on the basis of federal common law . . . ." *Id*. He considered almost every ground for removal that has been asserted here, and rejected each one. He concluded that removal was not warranted under the doctrine of complete preemption, *id.*, or on the basis of *Grable* jurisdiction, *id.* at 938, or under the Outer Continental Shelf Lands Act, *id.*, or because two of the defendants had earlier bankruptcy proceedings. *Id.* at 939. An appeal is pending. *See County of Marin v. Chevron Corp*., Appeal No. 18-15503 (9th Cir. Mar. 27, 2018).

Conversely, in *California v. BP P.L.C.*, Civ. No. WHA-16-6011, 2018 WL 1064293 (N.D. Cal. Feb. 27, 2018), *appeal docketed sub. nom.*, *City of Oakland v. BP, P.L.C.*, No. 18-16663 (9th Cir. Sept. 4, 2018), Judge Alsup ruled in favor of removal. I pause to review that opinion and to elucidate my point of disagreement.

The State of California and the cities of Oakland and San Francisco asserted public nuisance claims against energy producers – many of whom are defendants in this action – for injuries stemming from climate change. *Id*. at *1. The plaintiffs alleged that the defendants

produced and sold fossil fuels while simultaneously deceiving the public regarding the dangers of global warming and the benefits of fossil fuels. *Id*. at *1, 4. After the defendants removed the action to federal court, the plaintiffs moved to remand. *Id*. Although the plaintiffs' public nuisance claims were pleaded under California law, the court found that federal question jurisdiction existed because the claims were "necessarily governed by federal common law." *Id*. at *2.

The court reasoned that "a uniform standard of decision is necessary to deal with the issues raised" in the suits, in light of the "worldwide predicament . . . ." *Id.* at *3. The court explained, *id.*: "A patchwork of fifty different answers to the same fundamental global issue would be unworkable." Further, the court observed that the plaintiffs' claims "depend on a global complex of geophysical cause and effect involving all nations of the planets," and that "the transboundary problem of global warming raises exactly the sort of federal interests that necessitate a uniform solution." *Id*. at *3, 5. Accordingly, the court denied the plaintiffs' motion to remand. *Id*. at *5.

The court's reasoning was well stated and presents an appealing logic. Nevertheless, the court did not find that the plaintiffs' state law claims fell within either of the carefully delineated exceptions to the well-pleaded complaint rule – *i.e*., that they were completely preempted by federal law or necessarily raised substantial, disputed issues of federal law. *See Gunn*, 568 U.S. at 257–58; *Caterpillar Inc.*, 482 U.S. at 393. Instead, the court looked beyond the face of the plaintiffs' well-pleaded complaint and authorized removal because it found that the plaintiffs' public nuisance claims were "governed by federal common law." *BP*, 2018 WL 1064293, at *5. But, the ruling is at odds with the firmly established principle that ordinary preemption does not give rise to federal question jurisdiction. *See Caterpillar Inc.*, 482 U.S. at 393; *Marcus v. AT & T Corp*., 138 F.3d 46, 53–54 (2d Cir. 1998) (rejecting the defendants' argument that federal common law provided a basis for removal of plaintiff's state law claims where federal common

law did not completely preempt plaintiff's claims); *Hannibal*, 266 F. Supp. 2d at 469 (holding that federal common law did not support removal where it did not completely preempt the plaintiff's state law claim).

Indeed, the ruling has been harshly criticized by at least one law professor. *See* Gil Seinfeld, *Climate Change Litigation in the Federal Courts: Jurisdictional Lessons from California v. BP*, 117 Mich. L. Rev. Online 25, 32–35 (2018) (asserting that the decision "disregards" and "transgresses the venerable rule that the plaintiff is the master of her complaint," including whether "to eschew federal claims in favor of ones grounded in state law alone"; stating that the case is "best understood as a complete preemption case" because that is the "only doctrine that is … capable of justifying the holding"; observing that the district court's application of the preemption doctrine was "unorthodox," as congressional intent was "out of the picture"; and stating that the ruling "is out of step with prevailing doctrine").

Defendants also rely on *City of New York v. BP P.L.C.*, 325 F. Supp. 3d 466 (S.D.N.Y. 2018), *appeal docketed*, No. 18-2188 (2d Cir. July 26, 2018), to support their argument that federal common law provides an independent basis for removal. There, the plaintiffs brought claims for nuisance and trespass under state law against oil companies for producing and selling fossil fuel products that contributed to global warming. *Id*. at 468. In their motion to dismiss the complaint, the defendants argued that the plaintiffs' claims were governed by federal common law rather than state law. *Id*. at 470. After concluding that the plaintiffs' claims were "ultimately based on the 'transboundary' emission of greenhouse gases," the court agreed. *Id*. at 472 (citing *BP*, 2018 WL 1064293, at *3). Significantly, however, the court did not consider whether this finding conferred federal question jurisdiction because the plaintiffs originally filed their complaint in federal court

based on diversity jurisdiction. *See id*. Accordingly, this case is of no help to defendants here, at the threshold jurisdictional stage.

In sum, defendants have framed their argument to allege that federal common law governs the City's public nuisance claim. In actuality, however, they present a veiled complete preemption argument. As noted, complete preemption occurs only when Congress intended for federal law to provide the "exclusive cause of action" for the claim asserted. *Beneficial*, 539 U.S. at 9; *see also Barbour,* 640 F.3d at 631. Defendants have not shown that any federal common law claim for public nuisance is available to the City here, and case law suggests that any such federal common law claim has been displaced by the Clean Air Act. *See Am. Elec. Power Co. v. Connecticut* ("*AEP*"), 564 U.S. 410, 424 (2011) (holding that the CAA displaced plaintiffs' federal common law claim for public nuisance against power plants seeking abatement of their carbon dioxide emissions); *Native Village of Kivalina v. Exxonmobil Corp*., 696 F.3d 849, 857–58 (9th Cir. 2012) (holding that the CAA displaced the plaintiffs' federal common law claim for public nuisance seeking damages for past greenhouse gas emissions).

It may be true that the City's public nuisance claim is not viable under Maryland law. But, this Court need not – and, indeed, cannot – make that determination. The well-pleaded complaint rule confines the Court's inquiry to the face of the Complaint and demands the conclusion that no federal question jurisdiction exists over the City's public nuisance claim, which is founded on Maryland law. *See Caterpillar Inc.*, 482 U.S. at 392. Authorizing removal on the basis of a preemption defense hijacks this rule and, in turn, enhances federal judicial power at the expense of plaintiffs and state courts. In the absence of any controlling authority, I decline to endorse such an extension of removal jurisdiction.

2. Disputed, Substantial Federal Interests

Defendants next assert that, even if removal is not appropriate on the basis of federal common law, removal is nonetheless proper because the City's claims raise substantial and disputed federal issues. ECF 124 at 27.

As noted, there is a "slim category" of cases in which federal question jurisdiction exists even though the claim "finds its origins in state rather than federal law." *Gunn*, 568 U.S. at 258. A state law claim falls within this category of jurisdiction, often referred to as *Grable* jurisdiction because of the Supreme Court's seminal opinion on the topic in *Grable & Sons Metal Prods., Inc. v. Darue Eng'g & Mfg*., 545 U.S. 308 (2005), only when four requirements are satisfied. "That is, federal jurisdiction over a state law claim will lie if a federal issue is: (1) necessarily raised, (2) actually disputed, (3) substantial, and (4) capable of resolution in federal court without disrupting the federal-state balance approved by Congress." *Id*.; *see Grable*, 545 U.S. at 313–14. The Supreme Court has emphasized that courts are to be cautious in exercising jurisdiction of this type because it lies at "the outer reaches of § 1331." *Merrell Dow Pharm. Inc. v. Thompson*, 478 U.S. 804, 810 (1986).

Defendants contend that *Grable* jurisdiction exists because the City's claims raise a host of federal issues. ECF 124 at 28–39. For example, they assert that the City's claims "intrude upon both foreign policy and carefully balanced regulatory considerations at the national level, including the foreign affairs doctrine." ECF 1 at 21–22, ¶ 34. Further, they assert that the City's claims "have a significant impact on foreign affairs," "require federal-law-based cost-benefit analyses," "amount to a collateral attack on federal regulatory oversight of energy and the environment," "implicate federal issues related to the navigable waters of the United States," and "implicate

federal duties to disclose." ECF 124 at 28–39. Accordingly, defendants argue that *Grable* jurisdiction supports removal. *Id*.

I begin by considering whether any of these issues are "necessarily raised" by the City's claims, as required for *Grable* jurisdiction. *See Gunn*, 568 U.S. at 258; *Grable*, 545 U.S. at 314. "A federal question is 'necessarily raised' for purposes of § 1331 only if it is a 'necessary element of one of the well-pleaded state claims.'" *Burrell v. Bayer Corp*., 918 F.3d 372, 381 (4th Cir. 2019) (quoting *Franchise Tax Bd*., 463 U.S. at 13). It is not enough that "federal law becomes relevant only by way of a defense to an obligation created entirely by state law." *Franchise Tax Bd*., 463 U.S. at 13. Rather, "a plaintiff's right to relief for a given claim necessarily depends on a question of federal law only when *every* legal theory supporting the claim requires the resolution of a federal issue." *Flying Pigs, LLC*, 757 F.3d at 182 (quoting *Dixon*, 369 F.3d at 816).

Defendants first argue that the City's claims have a "significant impact" on foreign affairs. ECF 124 at 28. They assert that addressing climate change has been the subject of international negotiations for decades and that the City's claims "seek to supplant these international negotiations and Congressional and Executive branch decisions, using the ill-suited tools of Maryland law and private state-court litigation." *Id*. at 30. Thus, according to defendants, the City's claims raise substantial federal issues and removal is proper. *Id*. at 28.

Climate change is certainly a matter of serious national and international concern. But, defendants do not actually identify any foreign policy that is implicated by the City's claims, much less one that is necessarily raised. *See* ECF 124 at 31. They merely point out that climate change "*has* been the subject of international negotiations for decades," as most recently evidenced by the adoption of the Paris Agreement in 2016. *Id*. at 29, 31 (emphasis added). Putting aside the fact that President Trump has announced his intention to withdraw the United States from the Paris

Agreement, defendants' generalized references to foreign policy wholly fail to demonstrate that a federal question is "essential to resolving" the City's state law claims. *Burrell*, 918 F.3d at 383; *see also President Trump Announces U.S. Withdrawal from the Paris Climate Accord*, WhiteHouse.gov (June 1, 2017), https://www.whitehouse.gov/articles/president-trump-announces-u-s-withdrawal-paris-climate-accord/.

Defendants' next argument for *Grable* jurisdiction is slightly more specific, but nonetheless misses the mark. They assert that the City's nuisance claims require the same cost-benefit analysis of fossil fuels that federal agencies conduct and, thus, that adjudicating these claims will require a court to interpret various federal regulations. ECF 124 at 34. Further, defendants contend that, because the City's nuisance claims seek a different balancing of social harms and benefits than that struck by Congress, they "amount to a collateral attack on federal regulatory oversight of energy and the environment." *Id*. at 35.

The City's nuisance claims are based on defendants' extraction, production, promotion, and sale of fossil fuel products without warning consumers and the public of their known risks. *See* ECF 42, ¶¶ 218–36. The City does not rely on any federal statutes or regulations in asserting its nuisance claims; in fact, it nowhere even alleges that defendants violated any federal statutes or regulations. Rather, it relies exclusively on state nuisance law, which prohibits "substantial and unreasonable" interferences with the use and enjoyment of property. *Washington Suburban Sanitary Comm'n v. CAE-Link Corp*., 330 Md. 115, 125, 622 A.2d 745, 750 (1993); *see also Burley v. City of Annapolis*, 182 Md. 307, 312, 34 A.2d 603, 605 (1943) (stating that a public nuisance is one that "has[s] a common effect and produce[s] a common damage"). Although federal laws and regulations governing energy production and air pollution may supply potential defenses, federal law is plainly not an element of the City's state law nuisance claims.

Moreover, the City does not seek to modify any regulations, laws, or treaties, or to establish national or global standards for greenhouse gas emissions. Rather, as the City observes, it seeks damages and abatement of the nuisance within Baltimore. ECF 111-1 at 32 (citing ECF 42, ¶¶ 12, 228).[5]

Nor is removal proper because the City's claims amount to a "collateral attack on the federal regulatory scheme." ECF 124 at 35. Indeed, defendants do not identify any regulation or statute that is actually attacked by the City's claims. Rather, defendants make only vague references to a "comprehensive regulatory scheme." *Id*. The mere existence of a federal regulatory regime, however, does not confer federal question jurisdiction over a state cause of action. *See Pinney*, 402 F.3d at 449 (finding that a "connection between the federal scheme regulating wireless telecommunications and the [plaintiffs'] state claims" was not enough to establish federal question jurisdiction).

In addition, defendants contend that the City's public nuisance claim "implicate[s] federal issues related to the navigable waters of the United States." ECF 124 at 37. They assert that a necessary element of the City's theory of causation is the rising sea levels and that, to assess whether defendants' conduct is the proximate cause of the sea level rise, a court will have to evaluate the adequacy of the federal infrastructure in place to protect navigable waters. *Id.* Further, defendants argue that the equitable relief sought by the City will require approval of the U.S. Army Corps of Engineers ("Army Corps") and will require a court to interpret an extensive web of regulations issued by the Army Corps governing the construction of structures on navigable waters. *Id*. at 35.

[5] The City asserts in its Remand Motion that it does not seek to enjoin any party. ECF 111-1 at 32. But, in its Complaint it does seek to "enjoin" defendants from "creating future common-law nuisances." ECF 42, ¶ 228.

The argument, although creative, would lead the court into unchartered waters. The Complaint does not challenge the adequacy of any federal action taken over navigable waters, and the requested relief nowhere mentions the construction or modification of any infrastructure on navigable waters. *See* ECF 42, ¶¶ 218–28. That the City's hypothetical remedy *might* include some construction of infrastructure on navigable waters, and thus require the approval of the Army Corps, does not mean that an issue of federal law is necessarily raised by the City's claims. *See K2 Am. Corp. v. Roland Oil & Gas, LLC*, 653 F.3d 1024, 1032 (9th Cir. 2011) (stating that, where the plaintiff brought an action seeking ownership of an oil and gas lease, "[t]he mere fact that the Secretary of the Interior must approve oil and gas leases does not raise a federal question").

Finally, defendants assert that the City's claims "implicate" federal duties to disclose because their alleged deception of federal regulators is "central to [the City's] allegations." ECF 124 at 39. And, because federal law governs claims of fraud on federal agencies, defendants argue that the City's claims "give rise to federal questions." *Id*.

This argument rests on a mischaracterization of the City's claims. The Complaint does not allege that defendants violated any duties to disclose imposed by federal law. Rather, it alleges that defendants breached various duties under state law by, *inter alia*, failing to warn consumers, retailers, regulators, public officials, and the City of the risks posed by their fossil fuel products. *See, e.g.,* ECF 42, ¶¶ 221–22, 241, 259. These duties, imposed by state law, exist separate and apart from any duties to disclose imposed by federal law. *See, e.g.*, *Gourdine v. Crews*, 405 Md. 722, 738–54, 955 A.2d 769, 779–89 (2008) (describing duty in failure to warn cases); *Owens-Illinois, Inc. v. Zenobia*, 325 Md. 420, 446–48, 601 A.2d 633, 645–47 (1992). Thus, I reject defendants' attempt to inject a federal issue into the City's state law public nuisance claim where one simply does not exist.

To be sure, there are federal *interests* in addressing climate change. Defendants have failed to establish, however, that a federal *issue* is a "necessary element" of the City's state law claims. *Franchise Tax Bd.*, 463 U.S. at 13. Accordingly, even without considering the remaining requirements for *Grable* jurisdiction, I reject defendants' assertion that this action falls within the "special and small category" of cases in which federal question jurisdiction exists over a state law claim. *Empire Healthchoice*, 547 U.S. at 699.

3. Complete Preemption

Defendants contend that removal is proper because the City's claims are completely preempted by both the foreign affairs doctrine and the Clean Air Act. ECF 124 at 43–44. The Court has previously addressed preemption principles. As noted, federal question jurisdiction exists "when a federal statute wholly displaces the state-law cause of action through complete pre-emption.[]" *Beneficial*, 539 U.S. at 8.

To remove an action on the basis of complete preemption, a defendant must show that Congress intended for federal law to provide the "exclusive cause of action" for the claim asserted. *Id.* at 9; *see also Barbour*, 640 F.3d at 631. The Fourth Circuit recognizes a presumption against complete preemption that may only be rebutted in the rare circumstances where "federal law 'displace[s] entirely any state cause of action.'" *Lontz*, 413 F.3d at 440 (quoting *Franchise Tax Bd.*, 463 U.S. at 23).

Complete preemption is rare. To my knowledge, the Supreme Court has, in fact, found complete preemption in regard to only three statutes. *See Beneficial*, 539 U.S. at 10–11 (National Bank Act); *Metro. Life Ins.*, 481 U.S. at 66–67 (ERISA § 502(a)); *Avco Corp. v. Aero Lodge No. 735, Int'l Ass'n of Machinists*, 390 U.S. 557, 560 (1968) (Labor Management Relations Act § 301). This is unsurprising because the doctrine represents a significant departure from the general rule

that the plaintiff is "the master" of its claim, and it "may avoid federal jurisdiction by exclusive reliance on state law." *Caterpillar Inc.*, 482 U.S. at 392; *see also Lontz*, 413 F.3d at 441 (noting that complete preemption "undermines the plaintiff's traditional ability to plead under the law of his choosing").

Defendants first argue that the City's claims are completely preempted by the foreign affairs doctrine, because "litigating in state court the inherently transnational activity challenged by the Complaint would inevitably intrude on the foreign affairs power of the federal government." ECF 124 at 44. I disagree.

The federal government has the exclusive authority to act on matters of foreign policy. *Crosby*, 530 U.S. at 380; *United States v. Pink*, 315 U.S. 203, 233 (1942). Accordingly, state laws that conflict with the federal government's foreign policy are preempted. In *Am. Ins. Ass'n v. Garamendi*, 539 U.S. 396 (2003), the Court said: "There is, of course, no question that at some point an exercise of state power that touches on foreign relations must yield to the National Government's policy, given the 'concern for uniformity in this country's dealings with foreign nations' that animated the Constitution's allocation of the foreign relations power to the National Government in the first place." *Id*. at 413 (quoting *Banco Nacional de Cuba v. Sabbatino*, 376 U.S. 398, 427, n.25 (1964)); *see Crosby*, 530 U.S. at 380; *Gingery v. City of Glendale*, 831 F.3d 1222, 1228 (9th Cir. 2016).

But, defendants' reliance on this principle, often referred to as the "foreign affairs doctrine," *Gingery*, 831 F.3d at 1228, is inapposite in the complete preemption context. As indicated, complete preemption occurs only when Congress intended for federal law to provide the "exclusive cause of action" for the claim asserted. *Beneficial*, 539 U.S. at 9; *see also Barbour*, 640 F.3d at 631. That does not exist here. That is, there is no congressional intent regarding the

preemptive force of the judicially-crafted foreign affairs doctrine, and the doctrine obviously does not supply any substitute causes of action. Therefore, I am not convinced by defendants' argument that the City's claims are completely preempted by the foreign affairs doctrine.

Defendants also assert that the City's claims are completely preempted by the Clean Air Act. ECF 124 at 44–48. They contend that the Clean Air Act provides the exclusive cause of action for regulating nationwide emissions and that permitting the City's state law claims against out-of-state sources would pose an obstacle to the objectives of Congress. *Id*.

The CAA was enacted in 1963. Clean Air Act, Pub. L. No. 88–206, 77 Stat. 392–401 (1963). Among other purposes, the CAA aims "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population[.]" 42 U.S.C. § 7401(b)(1). It is an expansive statute separated into six Titles. It addresses pollution from stationary sources (Title I, 42 U.S.C. §§ 7401–7431, 7470–7479, 7491–7492, 7501–7515); pollution from moving sources (Title II, 42 U.S.C. §§ 7521–7554, 7571–7574, 7581–7590); noise pollution and acid rain control (Title IV, 42 U.S.C. §§ 7641–7642 and 7651–7651o); and stratospheric ozone protection (Title VI, 42 U.S.C. §§ 7671–7671q). Title III contains general provisions, including definitions, citizen suits, and other administrative matters, and Title V governs permits.

It is true, as defendants point out, that the Clean Air Act provides for private enforcement. Specifically, it creates a federal private right of action "against any person ... who is alleged to have violated ... or to be in violation of (A) an emission standard or limitation under this chapter or (B) an order issued by the Administrator or a State with respect to such a standard or limitation." 42 U.S.C. § 7604(a)(1). The CAA also creates a federal private right of action against the

Environmental Protection Agency "where there is alleged a failure … to perform any act or duty under this chapter which is not discretionary." 42 U.S.C. § 7604(a)(2).

Fatal to defendants' argument, however, is the absence of any indication that Congress intended for these causes of action in the CAA to be the exclusive remedy for injuries stemming from air pollution. *See Beneficial*, 539 U.S. at 9 (stating that complete preemption occurs "[o]nly if Congress intended [the statute] to provide the exclusive cause of action"). To the contrary, the CAA contains a savings clause that specifically preserves other causes of action. That provision states, in relevant part, 42 U.S.C. § 7604(e):

> Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any emission standard or limitation or to seek any other relief (including relief against the Administrator or a State agency). Nothing in this section or in any other law of the United States shall be construed to prohibit, exclude, or restrict any State, local, or interstate authority from--
>
> > (1) bringing any enforcement action or obtaining any judicial remedy or sanction in any State or local court, or
> >
> > (2) bringing any administrative enforcement action or obtaining any administrative remedy or sanction in any State or local administrative agency, department or instrumentality,
>
> against the United States, any department, agency, or instrumentality thereof, or any officer, agent, or employee thereof under State or local law respecting control and abatement of air pollution.

The CAA also includes the following provision regarding state regulation of hazardous air pollutants, 42 U.S.C. § 7412(r)(11):

> Nothing in this subsection shall preclude, deny or limit any right of a State or political subdivision thereof to adopt or enforce any regulation, requirement, limitation or standard (including any procedural requirement) that is more stringent than a regulation, requirement, limitation or standard in effect under this subsection or that applies to a substance not subject to this subsection.

The language of these provisions unequivocally demonstrates that "Congress did not intend the federal causes of action under [the Clean Air Act] 'to be exclusive.'" *County of San Mateo*, 294 F. Supp. 3d at 938 (quoting *Beneficial*, 539 U.S. at 9 n.5); *see also Her Majesty the Queen in*

Right of the Province of Ontario v. City of Detroit, 874 F.2d 332, 342–43 (6th Cir. 1989) (holding that the plaintiffs' claims for violation of state air pollution standards were not completely preempted by the CAA because the CAA's savings clause "clearly indicates that Congress did not wish to abolish state control"). Accordingly, I conclude that the CAA does not completely preempt the City's claims.

In sum, I disagree with defendants' contention that removal is proper on the grounds that the City's state law claims are completely preempted by the foreign affairs doctrine and the CAA. However, this Memorandum Opinion does not foreclose the defense of preemption in state court. *See In re Blackwater Sec. Consulting, LLC*, 460 F.3d at 590 (holding that "the district court's finding that complete preemption did not create federal removal jurisdiction will have no preclusive effect on a subsequent state-court defense of federal preemption").

4. Federal Enclaves

Defendants offer one final theory for federal question jurisdiction. That is, they contend that the City's claims arise under federal law because they are based on events that occurred on military bases and other federal enclaves. ECF 124 at 53.

The parameters of this contention are unclear, and defendants eschew mention of any controlling authority. Indeed, defendants only support their argument with a few cases from various district courts, most of which are unpublished. The Court's research reveals, however, that this theory of federal question jurisdiction arises from Article I, Section 8, Clause 17 of the United States Constitution. *See, e.g., Willis v. Craig*, 555 F.2d 724, 726 (9th Cir. 1977); *Mater v. Holley*, 200 F.2d 123 (5th Cir. 1952). In relevant part, that section provides:

> Congress shall have Power … to exercise exclusive legislation in all cases whatsoever, over the [District of Columbia], and to exercise like authority over all places purchased by the consent of the legislature of the state in which the [place is

> located], for the erection of forts, magazines, arsenals, dockyards, and other needful buildings.

U.S. Const. art. I, § 8, cl. 17.

This provision grants the federal government exclusive legislative jurisdiction over lands obtained pursuant to this clause, or "enclaves." In *Surplus Trading Co. v. Cook*, 281 U.S. 647 (1930), the Court said: "It has long been settled that where lands for such a purpose are purchased by the United States with the consent of the State legislature, the jurisdiction theretofore residing in the state passes, in virtue of the constitutional provision, to the United States, thereby making the jurisdiction of the latter the sole jurisdiction." *Id*. at 652; *see Akin v. Ashland Chem. Co.*, 156 F.3d 1030, 1034 (10th Cir. 1998).

Courts have held that federal question jurisdiction exists over claims that arise on federal enclaves. *See Stokes v. Adair*, 265 F.2d 662, 666 (4th Cir. 1959); *see also Durham v. Lockheed Martin Corp*., 445 F.3d 1247, 1250 (9th Cir. 2006) ("Federal courts have federal question jurisdiction over tort claims that arise on 'federal enclaves.'") (citations omitted); *Akin*, 156 F.3d at 1034 ("Personal injury actions which arise from incidents occurring in federal enclaves may be removed to federal district court as a part of federal question jurisdiction."); *Willis*, 555 F.2d at 726; *Mater*, 200 F.2d at 124; *Hall v. Coca-Cola Co.*, Civ. No. MSD-18-0244, 2018 WL 4928976, at *2–3 (E.D. Va. Oct. 11, 2018); *Federico v. Lincoln Military Hous.*, 901 F. Supp. 2d 654, 664 (E.D. Va. 2012). The general reasoning of these courts is that any claim that arises on a federal enclave is necessarily a creature of federal law because, quite simply, there is no other law. *See Mater*, 200 F.2d at 124 ("[A]ny law existing in territory over which the United States has exclusive sovereignty must derive its authority and force from the United States and is for that reason federal law."); *Hall*, 2018 WL 4928976, at *2.

Defendants argue that federal question jurisdiction exists because "[s]ome" of them maintain production operations and sell fossil fuels on military bases and other federal enclaves. ECF 124 at 53. Specifically, they assert: "Standard Oil Co. (Chevron's predecessor) operated Elk Hills Naval Petroleum Reserve, a federal enclave, for most of the twentieth century." *Id*. In addition, they allege that defendant CITGO distributed gasoline and diesel under contracts with the Navy to multiple Naval installations. *Id*. at 54. Finally, defendants contend that federal enclave jurisdiction exists because the City alleges tortious conduct, such as lobbying activities, that occurred in the District of Columbia. *Id*.

At the outset, I reject defendants' argument that removal is proper because some of the allegedly tortious conduct occurred in the District of Columbia. Congress established a code and a local court system for the District of Columbia and, in doing so, "divested the federal courts of jurisdiction over local matters." *Andrade v. Jackson*, 401 A.2d 990, 992 (D.C. 1979) (observing that, in establishing a unified local court system under the Court Reform Act of 1973, "Congress divested the federal courts of jurisdiction over local matters, restricting those courts to those matters generally viewed as federal business"); D.C. Code § 11-501 (2012) (civil jurisdiction of the United States District Court for the District of Columbia); D.C. Code § 11-921 (2012) (civil jurisdiction of the Superior Court for the District of Columbia). *See also Palmore v. United States*, 411 U.S. 389, 408–09 (1973) (explaining that Congress established the local court system for the District of Columbia so that Article III courts can be "devoted to matters of national concern"); *McEachin v. United States*, 432 A.2d 1212, 1215 (D.C. 1981). That a claim is based on conduct that occurred in the District of Columbia, therefore, does not *ipso facto* make it a federal claim over which federal question jurisdiction lies. Rather, it must arise under federal law – as distinct

from the local law of the District of Columbia or that of another state – to fall within the scope of federal question jurisdiction.

Defendants' contention that federal question jurisdiction exists because CITGO and Chevron's predecessor, Standard Oil, conducted fossil fuel operations on federal enclaves is also without merit. As the dearth of case law illustrates, courts have only relied on this "federal enclave" theory to exercise federal question jurisdiction in limited circumstances. Specifically, courts have only found that claims arise on federal enclaves, and thus fall within federal question jurisdiction, when all or most of the pertinent events occurred there. *See, e.g.*, *Stokes*, 265 F.2d at 665–66 (finding jurisdiction existed over a personal injury suit where the injury occurred at a U.S. Army post); *Mater*, 200 F.2d at 124 (holding that the district court had jurisdiction over plaintiff's claim for personal injuries sustained on a military base); *Norair Eng'g Corp. v. URS Fed. Servs., Inc*., Civ. No. RDB-16-1440, 2016 WL 7228861, at *3 (D. Md. Dec. 14, 2016) (finding removal proper where plaintiff's cause of action arose out of work performed exclusively on a federal enclave); *see also In re High-Tech Emp. Antitrust Litig.*, 856 F. Supp. 2d 1103, 1125 (N.D. Cal. 2012) (stating that federal jurisdiction exists in federal enclave cases "when the locus in which the claim arose is the federal enclave itself"); *Totah v. Bies*, Civ. No. CW-10-05956, 2011 WL 1324471, at *2 (N.D. Cal. Apr. 6, 2011) (upholding removal where the "substance and consummation of the tort" occurred on a federal enclave).

Those circumstances do not exist here. The City seeks relief for conduct that occurred globally over a fifty-year period – that is, defendants' contribution to global warming through their extraction, production, and sale of fossil fuel products. ECF 42, ¶¶ 5–7, 18, 20, 191. The Complaint does not contain any allegations concerning defendants' conduct on federal enclaves and, in fact, it expressly defines the scope of injury to exclude any federal territory. *Id*. ¶¶ 1 n.2,

195–217. Accordingly, it cannot be said that federal enclaves were the "locus" in which the City's claims arose merely because one of the twenty-six defendants, and the predecessor of another defendant, conducted some operations on federal enclaves for some unspecified period of time. *See County of San Mateo*, 294 F. Supp. 3d at 939 (finding no federal enclave jurisdiction over plaintiffs' claim against oil companies for injuries stemming from climate change "since federal land was not the 'locus in which the claim arose'") (quoting *In re High-Tech*, 856 F. Supp. 2d at 1125); *see also Washington v. Monsanto Co*., 274 F. Supp. 3d 1125, 1132 (W.D. Wash. 2017) (stating that, "because [plaintiff] avowedly does not seek relief for contamination of federal territories, none of its claims arise on federal enclaves"); *Bd. of Comm'rs of the Se. La. Flood Prot. Auth. v. Tenn. Gas Pipeline Co*., 29 F. Supp. 3d 808, 831 (E.D. La. 2014) (finding no enclave jurisdiction where plaintiff stipulated that it would not seek damages for injuries sustained in federal wildlife reserve).

As the City observes, ECF 111-1 at 49, under Maryland law, when events giving rise to a suit occur in multiple jurisdictions, generally "the place of the tort is considered to be the place of injury." *Philip Morris Inc. v. Angeletti*, 358 Md. 689, 745, 752 A.2d 200, 231 (2000); *see also Johnson v. Oroweat Foods Co.*, 785 F.2d 503, 511 (4th Cir. 1986). Here, the claims appear to arise in Baltimore, where the City allegedly suffered and will suffer harm.

I conclude that removal is not warranted on the ground that the City's claims arose on federal enclaves.

C. Alternative Bases for Removal

I turn to the defendants' alternative bases for removal.

1. Outer Continental Shelf Lands Act

Defendants argue that removal is proper because the Court has jurisdiction over the City's claims under the Outer Continental Shelf Lands Act ("OCSLA"), 43 U.S.C. §§ 1331–1356b (2012). ECF 124 at 49. Specifically, defendants assert that this case falls within the jurisdictional grant of the OCSLA because they produce a substantial volume of oil and gas on the Outer Continental Shelf ("OCS") and the City's claims arise out of those operations. *Id*. at 50.

The OCSLA provides, in pertinent part: "The subsoil and seabed of the outer Continental Shelf appertain to the United States and are subject to its jurisdiction, control, and power of disposition …" 43 U.S.C. § 1332(a). The OCSLA contains a jurisdictional grant which states:

> [T]he district courts of the United States shall have jurisdiction of cases and controversies arising out of, or in connection with ... any operation conducted on the outer Continental Shelf which involves exploration, development, or production of the minerals, of the subsoil and seabed of the outer Continental Shelf, or which involves rights to such minerals …

43 U.S.C. § 1349(b)(1).

The Fifth Circuit has found that the OCSLA jurisdictional grant is "broad" and requires only a "'but-for' connection" between the cause of action and the OCS operation. *In re Deepwater Horizon*, 745 F.3d 157, 163 (5th Cir. 2014) (quoting *Hufnagel v. Omega Serv. Indus., Inc*., 182 F.3d 340, 350 (5th Cir. 1999)); *see also Barker v. Hercules Offshore, Inc*., 713 F.3d 208, 213 (5th Cir. 2013). The Fifth Circuit has also said: "A plaintiff does not need to expressly invoke OCSLA in order for it to apply." *Barker*, 713 F.3d at 213 (upholding removal where OCSLA jurisdiction existed even though the plaintiff did not specifically invoke it). Defendants do not cite to cases from any other circuit courts applying the OCSLA jurisdictional grant, and this Court is only aware of one. *See Shell Oil Co. v. F.E.R.C*., 47 F.3d 1186, 1192 (D.C. Cir. 1995) (summarily finding that OCSLA jurisdiction existed over action brought by operator of oil pipeline on OCS

challenging FERC order ruling that pipeline was required to provide oil company with access and transportation services).

Even under a "broad" reading of the OCSLA jurisdictional grant endorsed by the Fifth Circuit, defendants fail to demonstrate that OCSLA jurisdiction exists. *In re Deepwater Horizon*, 745 F.3d at 163 (citations omitted). Defendants were not sued merely for producing fossil fuel products, let alone for merely producing them on the OCS. Rather, the City's claims are based on a broad array of conduct, including defendants' failure to warn consumers and the public of the known dangers associated with fossil fuel products, all of which occurred globally. *See* ECF 42, ¶¶ 5–7, 18, 20, 191. And, defendants offer no basis to enable this Court to conclude that the City's claims for injuries stemming from climate change would not have occurred but for defendants' extraction activities on the OCS. *See County of San Mateo*, 294 F. Supp. 3d at 938–39 (finding that removal under the OCSLA was not warranted where, even though some of the activities that caused the plaintiffs' climate change related injuries stemmed from operations on the OCS, defendants failed to show that the plaintiffs' causes of action would not have accrued but for their activities on the OCS); *see also Matte v. Mobile Expl. & Prod. North Am. Inc.*, Civ. No. BWA-18-7446, 2018 WL 5023729, at *4–5 (E.D. La. Oct. 17, 2018) (no OCSLA jurisdiction where defendants failed to show that plaintiff's injury, leukemia as a result of benzene exposure, would not have occurred but for his three-month employment on the OCS, where plaintiff alleged that he was exposed to benzene for seven years); *Hammond v. Phillips 66 Co*., Civ. No. KS-14-0119, 2015 WL 630918, at *4 (S.D. Miss. Feb. 12, 2015). *Cf. In re Deepwater Horizon*, 745 F.3d at 163–64 (finding the but for test satisfied where Louisiana sued defendants for pollution damage to its waters and coastline caused by a massive oil spill and it was "undeniable that the oil and other contaminants would not have entered into the State of Louisiana's territorial waters but for

[defendants'] drilling and exploration operation" on the OCS) (internal quotation marks and citation omitted).

Accordingly, I am satisfied that the OCSLA does not support removal.

2. Federal Officer Removal

Defendants assert that this action is removable under the federal officer removal statute, 28 U.S.C. § 1442, because the City "bases liability on activities undertaken at the direction of the federal government." ECF 124 at 56.

In relevant part, the federal officer removal statute authorizes the removal of cases commenced in state court against "any officer (or any person acting under that officer) of the United States or of any agency thereof, in an official or individual capacity, for or relating to any act under color of such office…" 28 U.S.C. § 1442(a)(1) (2012). The Supreme Court has explained:

> The [federal officer] removal statute's "basic" purpose is to protect the Federal Government from the interference with its "operations" that would ensue were a State able, for example, to "arrest" and bring "to trial in a State court for an alleged offense against the law of the State," "officers and agents" of the Federal Government "acting … within the scope of their authority."

Watson v. Philip Morris Co., 551 U.S. 142, 150 (2007) (quoting *Willingham v. Morgan*, 395 U.S. 402, 406 (1969)); *see also Maryland v. Soper*, 270 U.S. 9, 32 (1926) ("The constitutional validity of the section rests on the right and power of the United States to secure the efficient execution of its laws and to prevent interference therewith, due to possible local prejudice…").

A defendant who seeks to remove a case under § 1442(a)(1) must satisfy three elements. *Sawyer v. Foster Wheeler LLC*, 860 F.3d 249, 254 (4th Cir. 2017) (citations omitted). First, it must show that it was an officer of the United States or "acting under" a federal officer within the meaning of the statute. *Id*. (citing *Watson*, 551 U.S. at 147). Second, it must raise "a colorable

federal defense." *Id.* (citing *Jefferson County v. Acker*, 527 U.S. 423, 431 (1999)). Finally, it must establish that the charged conduct was carried out "for or relating to" the asserted official authority. *Id.* (citing 28 U.S.C. § 1442(a)(1)); *see Mesa v. California*, 489 U.S. 121, 139 (1989); *Texas v. Kleinert*, 855 F.3d 305, 311–12 (5th Cir. 2017), *cert. denied*, ___ U.S. ___, 138 S. Ct. 642 (2018).

This is, of course, a civil case. But, by analogy, in a criminal case, to establish that an act arises "under color of such office", the removing defendant "must 'show[ ] a "causal connection" between the charged conduct and asserted official authority.'" *Kleinert*, 855 F.3d at 312 (quoting *Willingham*, 395 U.S. at 409). "'It must appear that the prosecution . . . arise[s] out of the acts done by [the officer] under color of federal authority and in enforcement of federal law . . . .'" *Id.* (alterations in original) (quoting *Mesa*, 489 U.S. at 132–33).

Moreover, invocation of the federal officer removal statute must be "predicated on the allegation of a colorable federal defense by the defendant officer. *Mesa*, 489 U.S. at 129; *see also North Carolina v. Cisneros*, 947 F.2d 1135, 1139 (4th Cir. 1991); *North Carolina v. Ivory*, 906 F.2d 999, 1001 (4th Cir. 1990). A court must construe the defendant's alleged facts as "if those facts were true." *Ivory*, 906 F.2d at 1002. But, the factual allegations must "support" a defense." *Cisneros*, 947 F.2d at 1139 (quoting *Ivory*, 906 F.2d at 1001) (emphasis omitted). That is, they must enable a court to conclude that the "colorable" defense is plausible. *See United States v. Todd*, 245 F.3d 691, 693 (8th Cir. 2001); *Kleinert*, 855 F.3d at 313; *cf. Jefferson Cty.*, 527 U.S. at 432 ("[R]equiring a 'clearly sustainable defense' rather than a colorable defense would defeat the purpose of the removal statue").

Defendants rely on three relationships with the federal government to support their argument that the federal officer removal statute authorizes removal of this action. First, they point out that the predecessor of defendant Chevron, Standard Oil, extracted oil for the United States

Navy. ECF 1, ¶ 63; ECF 2-4 (Unit Plan Contract of 06/19/1944 between Navy Department and Standard Oil). In addition, defendant CITGO had fuel supply agreements with the Navy between 1988 and 2012. ECF 1, ¶ 64. Finally, defendants assert that their operations on the OCS were regulated by a leasing program developed by the Secretary of the Interior to promote the development of OCS resources. *Id*. ¶ 61; ECF 2-3 (boilerplate lease issued by the Department of the Interior pursuant to the OCSLA). By contracting with the government to perform these vital services, defendants argue, they were "acting under" federal officials. ECF 124 at 62.

Even assuming that the first two requirements for removal under § 1442 are satisfied, defendants have failed plausibly to assert that the third requirement for removal under this statute is met – *i.e.*, that the charged conduct was carried out "for or relating to" the alleged official authority. 28 U.S.C. §1442(a)(1); *Sawyer*, 860 F.3d at 257–58. Defendants have been sued for their contribution to climate change by producing, promoting, selling, and concealing the dangers of fossil fuel products. *See* ECF 42, ¶¶ 1, 221, 241, 253, 263. They have not shown that a federal officer controlled their total production and sales of fossil fuels, nor is there any indication that the federal government directed them to conceal the hazards of fossil fuels or prohibited them from providing warnings to consumers.

Defendants claim only that the federal government purchased oil and gas from one of the twenty-six defendants, and the predecessor of another defendant, and broadly regulated defendants' extraction on the OCS. Case law makes clear that this attenuated connection between the wide array of conduct for which defendants have been sued and the asserted official authority is not enough to support removal under § 1442(a)(1). *See County of San Mateo*, 294 F. Supp. 3d at 939 (finding that defendants failed to show a "causal nexus" between the work performed under federal direction and the plaintiffs' claims for injuries stemming from climate change because the

plaintiffs' claims were "based on a wider range of conduct"); *In re Wireless Tel*., 327 F. Supp. 2d 554, 562–63 (D. Md. 2004) (holding that phone manufacturers could not remove pursuant to § 1442(a)(1) where plaintiffs' claims were largely based on their failure to provide warnings to consumers and the manufacturers did not show that the government prohibited them from providing additional safeguards or information to consumers); *Ryan v. Dow Chem. Co*., 781 F. Supp. 934, 950 (E.D.N.Y. 1992) (finding that defendants could not remove case pursuant to § 1442(a)(1) where they were "being sued for formulating and producing a product all of whose components were developed without direct government control and all of whose methods of manufacture were determined by the defendants"). *Cf. Sawyer*, 860 F.3d at 258 (finding a sufficient connection between the charged conduct and the asserted official authority where the plaintiffs alleged that defendant failed to warn them of asbestos in the boilers it manufactured for the Navy and the Navy dictated the content of the warnings on defendant's boilers).

Therefore, even assuming, *arguendo*, that the defendants were "acting under" federal officials on these occasions and can assert a colorable defense, removal based on the federal officer removal statute is not proper because defendants have failed to plausibly assert that the acts for which they have been sued were carried out "for or relating to" the alleged federal authority. 28 U.S.C. §1442(a)(1); *Sawyer*, 860 F.3d at 254.

3. Bankruptcy Removal Statute

Defendants maintain that the bankruptcy removal statute, 28 U.S.C. § 1452, permits removal. ECF 124 at 64. That statute provides, in relevant part:

> A party may remove any claim or cause of action in a civil action other than ... a civil action by a governmental unit to enforce such governmental unit's police or regulatory power, to the district court for the district where such civil action is pending, if such district court has jurisdiction of such claim or cause of action under section 1334 of this title.

28 U.S.C. § 1452(a). Section 1334, in turn, grants district courts original but not exclusive jurisdiction "of all civil proceedings … arising in or related to cases under title 11." *Id*. § 1334(b).

According to defendants, this action falls within the Court's original jurisdiction under § 1334 because it is "related to countless bankruptcy cases." ECF 124 at 64. Specifically, they claim that this action is related to bankruptcy proceedings involving the predecessor of defendant Chevron, Texaco, whose Chapter 11 plan was confirmed in 1987. *Id*. at 65. Defendants also assert that Texaco's Chapter 11 plan bars "certain claims" against it arising before March 15, 1988, and, because the City seeks to hold defendant Chevron liable for Texaco's culpable conduct before that date, the adjudication of the City's claims would affect the interpretation or administration of the plan. *Id*. In addition, defendants argue that this case is related to the bankruptcy proceedings of other companies in the fossil fuel industry, such as Peabody Energy. *Id*. Therefore, defendants posit that this case falls within the Court's "related to" jurisdiction and was properly removed under § 1452. *Id*. at 64–65.

The City contends, however, that this action does not fall within the Court's original jurisdiction under § 1334 because it is not related to any bankruptcy proceedings. ECF 111-1 at 59–60. In addition, the City argues that this action is exempt from removal under § 1452 because it represents an exercise of its police and regulatory powers. *Id*. at 56–58.

The Court first considers whether this action is "related to" a bankruptcy proceeding and, thus, subject to removal under the bankruptcy removal statute. 28 U.S.C. § 1334(b); 28 U.S.C. § 1452(a) ("A party may remove … if such district court has jurisdiction of such claim or cause of action under section 1334 of this title."). The "close nexus" test determines the scope of a court's "related to" jurisdiction in the post-confirmation context. *Valley Historic Ltd. P'ship v. Bank of N.Y.*, 486 F.3d 831, 836 (4th Cir. 2007). That is, for "related to" jurisdiction to exist after a Chapter

11 plan is confirmed, "the claim must affect an integral aspect of the bankruptcy process – there must be a close nexus to the bankruptcy plan or proceeding." *Id*. at 836 (quoting *In re Resorts Int'l, Inc*., 372 F.3d 154, 166–67 (3d Cir. 2004)); *see also In re Wilshire Courtyard*, 729 F.3d 1279, 1287 (9th Cir. 2013).

Under this inquiry, "[m]atters that affect the interpretation, implementation, consummation, execution, or administration of the confirmed plan will typically have the requisite close nexus." *Valley Historic*, 486 F.3d at 836–37 (quoting *In re Resorts Int'l*, 372 F.3d at 167). As the Fourth Circuit explained, the "close nexus" requirement "insures that the proceeding serves a bankruptcy administration purpose on the date the bankruptcy court exercises that jurisdiction." *Id*. at 837. *See also In re Pegasus Gold Corp.*, 394 F.3d 1189, 1194 (9th Cir. 2005) (adopting the "close nexus" test for post-confirmation "related to" jurisdiction because it "recognizes the limited nature of post-confirmation jurisdiction but retains a certain flexibility").

Defendants fail to demonstrate that there is a "close nexus" between this action and any bankruptcy proceedings. The only bankruptcy plan that defendants identify was confirmed more than thirty years ago and, although defendants assert that the plan bars "certain claims against [Texaco] arising before March 15, 1988," they do not explain how the City's recently filed claims implicate this provision. ECF 124 at 65. At most, defendants have only established that some day a question *might* arise as to whether a previous bankruptcy discharge precludes the enforcement of a portion of the judgment in this case against defendant Chevron. This remote connection does not bring this case within the Court's "related to" jurisdiction. 28 U.S.C. 1334(b); *see In re Ray*, 624 F.3d 1124, 1135 (9th Cir. 2010) (holding that the bankruptcy court did not have "related to" jurisdiction over breach of contract action that "could have existed entirely apart from the

bankruptcy proceeding and did not necessarily depend upon resolution of a substantial question of bankruptcy law").

Moreover, even assuming, *arguendo*, that this action is within the Court's bankruptcy jurisdiction, it is exempt from removal under § 1452 as an exercise of the City's police or regulatory powers.

To my knowledge, the Fourth Circuit has not considered the parameters of the police or regulatory exception to removal under § 1452. It has, however, construed the phrase "police or regulatory power" in the automatic stay provision of the bankruptcy code. *See Safety-Kleen, Inc. (Pinewood) v. Wyche*, 274 F.3d 846, 865 (4th Cir. 2001). That section, in relevant part, exempts from the automatic stay "the commencement or continuation of an action or proceeding by a governmental unit … to enforce such governmental unit's … power and regulatory power, including the enforcement of a judgment other than a money judgment…" 11 U.S.C. § 362(b)(4). Because "[t]he language of the police and regulatory power exceptions in the automatic stay context and in the removal context is virtually identical, and the purpose behind each exception is the same," it is proper to look to judicial interpretation of § 362 for guidance in applying the exception in the removal context. *City & Cty. of San Francisco v. PG & E Corp*., 433 F.3d 1115, 1123 (9th Cir. 2006), *cert denied*, 549 U.S. 882 (2006); *see also In re Methyl Tertiary Butyl Ether ("MTBE") Prods. Liab. Litig.*, 488 F.3d 112, 132 (2d Cir. 2007) (looking to judicial interpretations of § 362(b)(4) for guidance in defining the parameters of a governmental unit's police or regulatory power in the context of § 1452).

The Fourth Circuit looks to the "purpose of the law that the state seeks to enforce" to determine whether an action is an exercise of a governmental entity's police and regulatory power. *Safety-Kleen*, 274 F.3d at 865. In *Safety-Kleen*, it explained the inquiry as follows:

> If the purpose of the law is to promote "public safety and welfare," or to "effectuate public policy," then the exception applies. On the other hand, if the purpose of the law relates "to the protection of the government's pecuniary interest in the debtor's property," or to "adjudicate private rights," then the exception is inapplicable.

Id. (citations omitted). This inquiry is an objective one. *Id*. The court examines "the purpose of the law that the state seeks to enforce rather than the state's intent in enforcing the law in a particular case." *Id*.

The City asserts claims against defendants for injuries stemming from climate change. It brings this action on behalf of the public to remedy and prevent environmental damage, punish wrongdoers, and deter illegal activity. As other courts have recognized, such an action falls squarely within the police or regulatory exception to § 1452. *See County of San Mateo*, 294 F. Supp. 3d at 939 (holding that suits against oil companies for injuries stemming from climate change were exempt from bankruptcy removal statute because they were "aimed at protecting the public safety and welfare and brought on behalf of the public"); *MTBE*, 488 F.3d at 133 (finding that the police power exception prevented the removal of states' claims against corporations that manufactured and distributed gasoline containing MTBE because "the clear goal of these proceedings is to remedy and prevent environmental damage with potentially serious consequences for public health, a significant area of state policy"). *See also Safety-Kleen*, 274 F.3d at 866 (holding that a state environmental agency's attempt to enforce financial assurance requirements was within the regulatory exception because "the regulations serve to promote environmental safety in the design and operation of hazardous waste facilities").

That the relief sought by the City includes a monetary judgment does not alter this conclusion. In *Safety-Kleen*, the Fourth Circuit reasoned: "The fact that one purpose of the law is to protect the state's pecuniary interest does not necessarily mean that the exception is inapplicable. Rather, we must determine the *primary* purpose of the law that the state is attempting to enforce."

274 F.3d at 865. *See also MTBE*, 488 F.3d at 133–34 (rejecting defendants' argument that the police power exception to § 1452 did not apply to suit brought by governmental units for environmental damage merely because they sought money damages).

Accordingly, I reject defendants' argument that removal of this case is proper under § 1452.

4. Admiralty Jurisdiction

Defendants assert that admiralty jurisdiction supports removal of this action. The contention is premised on the fact that, according to defendants, the Complaint alleges injury based on their offshore oil and gas drilling from vessels. ECF 124 at 67.

The Constitution extends the federal judicial power "to all Cases of admiralty and maritime Jurisdiction." U.S. Const. art. III, § 2. Congress codified this power in a statute, 28 U.S.C. § 1333, which grants federal district courts "original jurisdiction, exclusive of the courts of the States, of … [a]ny civil case of admiralty or maritime jurisdiction, saving to suitors in all cases all other remedies to which they are otherwise entitled." *Id*. § 1333(1); *see Jerome B. Grubart, Inc. v. Great Lakes Dredge & Dock Co*., 513 U.S. 527, 531 (1995). The latter portion of this jurisdictional grant, often referred to as the "saving to suitors" clause, is a "grant to state courts of *in personam* jurisdiction, concurrent with admiralty courts." *Lewis v. Lewis & Clark Marine, Inc.*, 531 U.S. 438, 445 (2001) (citations omitted).

The City argues that admiralty claims brought in state court are not removable under 28 U.S.C. § 1441 absent some other jurisdictional basis, such as diversity or federal question jurisdiction. ECF 111-1 at 62. Further, it maintains that, even if admiralty jurisdiction *does* supply an independent basis for removal, this action does not fall within the Court's admiralty jurisdiction

because it satisfies neither the "location" test nor the "connection to maritime activity" test articulated by the Supreme Court. *Id*. at 63–64 (citing *Grubart*, 513 U.S. at 534).

The scope of removal jurisdiction over admiralty claims has generated significant confusion over the years. *See* 14A Charles Alan Wright, Arthur R. Miller & Edward H. Cooper, *Federal Practice and Procedure: Jurisdiction* § 3674 (4th ed. 2013) ("Whether an admiralty or maritime matter instituted in a state court falls within the removal jurisdiction of the federal courts is a question that has been beset by confusion and uncertainty over the years, some of which continues to this day.").

To my knowledge, most of the courts that have considered the issue have concluded that admiralty claims are not removable absent an independent basis for federal jurisdiction, such as diversity. *See Cassidy v. Murray*, 34 F. Supp. 3d 579, 583 (D. Md. 2014); *Forde v. Hornblower N.Y., LLC*, 243 F. Supp. 3d 461, 467–68 (S.D.N.Y. 2017) (noting that "the overwhelming majority of district courts" have held that admiralty claims are not removable absent another basis for jurisdiction); *Langlois v. Kirby Inland Marine, LP*, 139 F. Supp. 3d 804, 809–10 (M.D. La. 2015) (citing over forty cases for the proposition that a "growing chorus of district courts that have concluded that the [the 2011 amendment to § 1441] did not upset the long-established rule that general maritime law claims, saved to suitors, are not removable to federal court, absent some basis for original federal jurisdiction other than admiralty"). *See also* 14A Wright & Miller, *supra*, § 3674 (4th ed. Supp. 2019) (noting that a majority of courts have found that admiralty jurisdiction does not independently support removal). But, as defendants point out, some courts have held otherwise. *See Ryan v. Hercules Offshore, Inc*., 945 F. Supp. 2d 772, 777–78 (S.D. Tex. 2013) (holding that admiralty claims are freely removable); *see also Exxon Mobil Corp. v. Starr Indem. & Liab. Co*., Civ. No. NFA-14-1147, 2014 WL 2739309, at *2 (S.D. Tex. June 17, 2014),

remanded on other grounds on reconsideration, 2014 WL 4167807 (S.D. Tex. Aug. 20, 2014); *Carrigan v. M/V AMC Ambassador*, Civ. No. EW-13-3208, 2014 WL 358353, at *2 (S.D. Tex. Jan. 31, 2014).

In my view, this Court need not weigh in on this admittedly complicated issue. I find safe harbor in the view that, even if admiralty jurisdiction *does* provide an independent basis for removal, this case is outside the Court's admiralty jurisdiction.

As to a tort claim, a party seeking to invoke federal admiralty jurisdiction pursuant to 28 U.S.C. §1333(1) must satisfy two tests: the "location test" and the "maritime connection" test. *Grubart*, 513 U.S. at 534, 538. To satisfy the location test, a plaintiff must show that the tort at issue "occurred on navigable water," or if the injury was suffered on land, that it was "caused by a vessel on navigable water" within the meaning of the Admiralty Extension Act. *Id*. at 534 (citing former 46 U.S.C. § 30101(a) (2012)). To satisfy the maritime connection test, a plaintiff must show that the case has "a potentially disruptive impact on maritime commerce" and that the "general character of the activity giving rise to the incident shows a substantial relationship to traditional maritime activity." *Id*. (internal quotation marks and citations omitted).

The Court's analysis begins and ends with the location test. Defendants do not dispute that the City's injuries occurred on land; they argue only that the location test is satisfied because the City's injuries were caused by vessels on navigable waters within the meaning of the Admiralty Extension Act, 46 U.S.C. § 30101(a). ECF 124 at 69.

The Admiralty Extension Act provides, in relevant part, 46 U.S.C. § 30101(a):

> The admiralty and maritime jurisdiction of the United States extends to and includes cases of injury or damage, to person or property, caused by a vessel on navigable waters, even though the injury or damage is done or consummated on land.

The statute broadened the reach of admiralty jurisdiction to include claims for injuries suffered on land that are caused by vessels. *See id*. Congress passed the Admiralty Extension Act "specifically to overrule or circumvent" a line of Supreme Court cases that had "refused to permit recovery in admiralty even where a ship or its gear, through collision or otherwise, caused damage to persons ashore or to bridges, docks, or other shore-based property." *Victory Carriers, Inc. v. Law*, 404 U.S. 202, 209 (1971); *see also Louisville & N.R. Co. v. M/V Bayou Lacombe*, 597 F.2d 469, 472 (5th Cir. 1979) ("As a result of the Act, a plaintiff is no longer precluded from suing in admiralty when a vessel collides with a land structure, such as a bridge.").

Not all torts involving vessels on navigable waters fall within the Admiralty Extension Act, however. Rather, the Act requires that an injury on land be proximately caused by a vessel or its appurtenances. *Grubart*, 513 U.S. at 536 (holding that the terms "caused by" in the Admiralty Extension Act require proximate causation); *see also Pryor v. Am. President Lines*, 520 F.2d 974, 979 (4th Cir. 1975) (holding that "a ship or its appurtenances must proximately cause an injury on shore" to fall within admiralty jurisdiction), *cert. denied*, 423 U.S. 1055 (1976); *Adamson v. Port of Bellingham*, 907 F.3d 1122, 1131–32 (9th Cir. 2018) (holding that the Admiralty Extension Act applies only when an injury on land is proximately caused by a vessel or its appurtenances, not those performing acts for the vessel); *Scott v. Trump Ind., Inc*., 337 F.3d 939, 943 (7th Cir. 2003); *Egorov, Puchinsky, Afanasiev & Juring v. Terriberry, Carroll & Yancey*, 183 F.3d 453, 456 (5th Cir. 1999) (stating that "the [Admiralty Extension] Act means the vessel and her appurtenances, and does not include those performing actions for the vessel") (citations omitted).

Even if mobile drilling platforms qualify as "vessels" in admiralty, defendants have failed to demonstrate that the City's injuries were "caused by a vessel on navigable waters," within the meaning of the Admiralty Extension Act. 46 U.S.C. § 30101(a). The City nowhere alleges that

defendants' mobile drilling platforms or their appurtenances caused its injuries. Indeed, the Complaint does not mention any mobile drilling platforms or other vessels. Rather, the City alleges that defendants' worldwide production, wrongful promotion, and sale of fossil fuel products caused its environmental disruptions and their associated impacts.

That some unspecified portion of defendants' production occurred on these vessels, as defendants assert, does not mean that the vessels *themselves* caused the City's injuries, much less proximately caused them. *See Pryor*, 520 F.2d at 982 (finding vessel did not cause plaintiff's injuries on land "[b]ecause it is not conceptually possible to charge the ship with having caused the defective packaging …"). Thus, it cannot be said that the City's injuries were "caused by a vessel on navigable waters," within the meaning of the Admiralty Extension Act. 46 U.S.C. § 30101(a).

II. Conclusion

For the reasons stated above, I conclude that the case was not properly removed to federal court. Therefore, the case must be remanded to the Circuit Court for Baltimore City, pursuant to 28 U.S.C. § 1447(c).

As stipulated by the parties, the Court will stay execution of an order to remand for thirty days.

An Order follows.

Date: June 10, 2019.

/s/
Ellen Lipton Hollander
United States District Judge

Attachment D

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND

MAYOR AND CITY COUNCIL OF BALTIMORE,
Plaintiff,

v.

BP P.L.C., et al.,
Defendants.

Civil Action No. ELH-18-2357

MEMORANDUM

In this Memorandum, I address defendants' motion to stay the Court's Order (ECF 173) remanding this case to the Circuit Court for Baltimore City. *See* ECF 173 ("Remand Order"). Defendants seek the stay pending resolution by the United States Court of Appeals for the Fourth Circuit of their appeal of the Remand Order. Defendants' motion (ECF 183) is supported by a memorandum of law (ECF 183-1) (collectively, "Motion to Stay"). Plaintiff, the Mayor and City Council of Baltimore (the "City"), opposes the Motion to Stay. ECF 186. Defendants have replied. ECF 187.

No hearing is necessary to resolve the Motion to Stay. *See* Local Rule 105.6. For the reasons that follow, I shall deny the Motion to Stay.

I. Factual and Procedural Background

On July 20, 2018, the City filed suit in the Circuit Court for Baltimore City against twenty-six multinational oil and gas companies. ECF 42 (Complaint). The City alleges that defendants have substantially contributed to greenhouse gas pollution, global warming, and climate change by extracting, producing, promoting, refining, distributing, and selling fossil fuel products (*i.e.*, coal, oil, and natural gas), while simultaneously deceiving consumers and the public about the

dangers associated with those products. *Id.* ¶¶ 1–8. As a result of such conduct, the City claims that it has sustained and will sustain several injuries, including a rise in sea level along Maryland's coast, as well as an increase in storms, floods, heatwaves, drought, extreme precipitation, and other conditions. *Id.* ¶ 8.

The Complaint contains eight causes of action, all founded on Maryland law: public nuisance (Count I); private nuisance (Count II); strict liability for failure to warn (Count III); strict liability for design defect (Count IV); negligent design defect (Count V); negligent failure to warn (Count VI); trespass (Count VII); and violations of the Maryland Consumer Protection Act, Md. Code (2013 Repl. Vol., 2019 Supp.), Com. Law §§ 13–101 to 13–501 (Count VIII). ECF 42 ¶¶ 218–98. The City seeks monetary damages, civil penalties, and equitable relief. *Id.*

Two of the defendants, Chevron Corp. and Chevron U.S.A., Inc. (collectively, "Chevron"), timely removed the case to this Court. ECF 1 (Notice of Removal). They asserted the following eight grounds for removal: (1) the case is removable under 28 U.S.C. § 1441(a) and § 1331, because the City's claims are governed by federal common law, not state common law; (2) the action raises disputed and substantial issues of federal law that must be adjudicated in a federal forum; (3) the City's claims are completely preempted by the Clean Air Act ("CAA"), 42 U.S.C. § 7401 *et seq.*, and/or other federal statutes and the Constitution; (4) this Court has original jurisdiction under the Outer Continental Shelf Lands Act ("OCSLA"), 43 U.S.C. § 1349(b); (5) removal is authorized under the federal officer removal statute, 28 U.S.C. § 1442(a)(1); (6) this Court has federal question jurisdiction under 28 U.S.C. § 1331 because the City's claims are based on alleged injuries to and/or conduct on federal enclaves; (7) removal is authorized under 28 U.S.C. § 1452(a) and 28 U.S.C. § 1334(b), because the City's claims are related to federal bankruptcy

cases; and (8) the City's claims fall within the Court's original admiralty jurisdiction under 28 U.S.C. § 1333. ECF 1 at 6–12, ¶¶ 5–12.

Thereafter, the City filed a motion to remand the case to state court, pursuant to 28 U.S.C. § 1447(c). ECF 111. The motion was supported by a memorandum of law (ECF 111-1) (collectively, "Remand Motion"). Defendants filed a joint opposition to the Remand Motion (ECF 124, "Opposition"), along with three supplements containing numerous exhibits. ECF 125; ECF 126; ECF 127. The City replied. ECF 133.

While the City's Remand Motion was pending, defendants filed a conditional motion to stay the execution of any order to remand. ECF 161. They asked that, in the event this Court grants the City's Remand Motion, the Court issue an order staying execution of the remand for thirty days to allow time to appeal the ruling. *Id.* at 1–2. The City initially opposed that motion (ECF 162), but subsequently stipulated to the requested stay. ECF 170. This Court accepted the parties' stipulation by Consent Order of April 22, 2019. ECF 171.

In a Memorandum Opinion (ECF 172) and Order (ECF 173) of June 10, 2019, I granted the City's Remand Motion. After consideration of all eight bases for removal relied on by defendants, I concluded that removal was improper. *See* ECF 172. However, in accordance with the parties' joint stipulation (ECF 170) and the Court's prior Order (ECF 171), I stayed execution of the Remand Order for thirty days. ECF 173.

On June 13, 2019, defendants filed a Notice of Appeal of the Remand Order to the United States Court of Appeals for the Fourth Circuit. ECF 178. Then, on June 23, 2019, defendants filed the Motion to Stay currently pending before this Court. ECF 183. Defendants ask this Court to stay execution of the remand until their appeal is resolved by the Fourth Circuit, arguing that their appeal "presents substantial legal questions on which Defendants are likely to succeed." ECF

183 ¶ 3. In the alternative, they ask the Court to extend the current stay until this Court resolves their Motion to Stay and, should the Court deny the Motion, until the Fourth Circuit resolves the Motion to Stay. *Id.* ¶ 4.

That same day, the City stipulated to a partial extension of the current stay. ECF 184. That is, the City agreed to stay the execution of the remand "through and including this Court's resolution of Defendants' Motion to Extend the Stay Pending Appeal, and if that motion is denied, through the resolution of Defendants' anticipated Motion to Stay in the U.S. Court of Appeals for the Fourth Circuit." ECF 184 at 2. This Court accepted the parties' joint stipulation by Consent Order of June 24, 2019. ECF 185.

However, the City opposes the defendants' Motion to Stay pending resolution of the merits of the appeal of the remand. ECF 186. It argues that defendants are unlikely to succeed on the merits of the appeal, that defendants would not suffer irreparable harm absent a stay, and that a stay would delay resolution of its claims. *Id.* at 4–17.

II. Discussion

A stay is "'an exercise of judicial discretion' and '[t]he propriety of its issue is dependent upon the circumstances of the particular case.'" *Nken v. Holder*, 556 U.S. 418, 433 (2009) (quoting *Virginia Ry. Co. v. United States*, 272 U.S. 658, 672 (1926)). The party requesting a stay bears the burden of showing that a stay is warranted. *Id.* at 433–34. When evaluating a motion to stay, courts consider four factors: "(1) whether the stay applicant has made a strong showing that he is likely to succeed on the merits; (2) whether the applicant will be irreparably injured absent a stay, (3) whether issuance of the stay will substantially injure the other parties interested in the proceeding; and (4) where the public interest lies." *Id.* at 434; *see Hilton v. Braunskill*, 481 U.S. 770, 776 (1987); *Nero v. Mosby*, No. MJG-16-1288, 2017 WL 1048259, at *1 (D. Md. Mar. 20,

2017); *Realvirt, LLC v. Lee*, 220 F. Supp. 3d 704, 705 (E.D. Va. 2016). The first two factors are the "most critical." *Nken*, 556 U.S. at 434.

The Court begins with the first factor – the defendants' likelihood of success on the merits of their appeal. *Nken*, 556 U.S. at 434. Defendants assert that their appeal presents substantial legal questions, particularly whether removal was proper because the City's claims "necessarily arise under federal common law." ECF 183-1 at 2. They point out that other district courts in similar cases have reached different conclusions on this issue. *Id.* at 2, 5–9. Thus, according to defendants, the first factor supports the issuance of a stay pending resolution of the appeal. *Id.*

The Court agrees that the removal of this case based on the application of federal law presents a complex and unsettled legal question, as evidenced by the diverging opinions reached by other district courts that have considered the issue. *Compare California v. BP P.L.C.*, No. WHA-16-6011, 2018 WL 1064293, at *5 (N.D. Cal. Feb. 27, 2018) (upholding removal of plaintiffs' public nuisance claims against fossil fuel companies because, "though pled as state-law claims, [they] depend on a global complex of geophysical cause and effect involving all nations of the planet" and, thus, "are governed by federal common law"), *appeal docketed sub. nom.*, *City of Oakland v. BP, P.L.C.*, No. 18-16663 (9th Cir. Sept. 4, 2018), *with County of San Mateo v. Chevron Corp.*, 294 F. Supp. 3d 934, 937–39 (N.D. Cal. 2018) (remanding plaintiffs' tort claims against oil companies relating to global warming because removal was not supported by federal common law or any of the other bases relied upon by defendants), *appeal docketed sub. nom.*, *County of Marin v. Chevron Corp.*, No. 18-15503 (9th Cir. Mar. 27, 2018), *and Rhode Island v. Chevron Corp.*, No. WES-18-0395, 2019 WL 3282007, at *2–3 (D.R.I. July 22, 2019) (same). But, of course, this issue does not support a stay pending resolution of defendants' appeal if it is not actually presented on appeal. And, as the City points out, a remand based on a finding of lack

of subject matter jurisdiction—like that issued by this Court—is typically not subject to appellate review. *See* ECF 173.

The scope of appellate review over remand orders is "substantially limited" by 28 U.S.C. § 1447(d). *Powerex Corp. v. Reliant Energy Servs., Inc.*, 551 U.S. 224, 229 (2007). That section provides: "An order remanding a case to the State court from which it was removed is not reviewable on appeal or otherwise, except that an order remanding a case to the State court from which it was removed pursuant to section 1442 [federal officer removal] or 1443 [civil rights cases] of this title shall be reviewable by appeal or otherwise." 28 U.S.C. § 1447(d). This statute generally prohibits appellate review of remand orders based on a district court's lack of subject matter jurisdiction. *Powerex*, 551 U.S. at 230; *see In re Norfolk S. Ry. Co.*, 756 F.3d 282, 287 (4th Cir. 2014); *In re Blackwater Sec. Consulting, LLC*, 460 F.3d 576, 585 (4th Cir. 2006) (finding that § 1447(d) prohibited appellate review of remand order because "the reasoning behind the district court's remand order in this case indicate[d] the court's belief that it lacked subject matter jurisdiction upon removal").

The purpose of the prohibition on appellate review of remand orders in § 1447(d) is to avoid "prolonged litigation on threshold nonmerits questions." *Powerex*, 551 U.S. at 237. This rule is strict; it bars review "even if the remand order is manifestly, inarguably erroneous," *In re Norfolk S.*, 756 F.3d at 287, and even if the "erroneous remand[] has undesirable consequences" for federal interests, *Powerex*, 551 U.S. at 237.

Defendants seek to avoid the force of § 1447(d) through reliance on one of their grounds for removal – the federal officer removal statute, 28 U.S.C. § 1442. ECF 183-1 at 4–5. They point out that § 1447(d) expressly exempts cases removed under § 1442 from the general prohibition on

appellate review of remand orders.[1] *Id.*; *see Northrop Grumman Tech. Servs., Inc. v. DynCorp Int'l LLC*, 865 F.3d 181, 186 n.4 (4th Cir. 2017) ("Although orders remanding cases to state court generally are not reviewable on appeal, we may review such an order when, as here, the removal was made pursuant to the federal officer removal statute, 28 U.S.C. § 1442.") (citing 28 U.S.C. § 1447(d)). So, defendants' argument goes, because this ground for removal is subject to appellate review, *all* of their other grounds for removal are also subject to appellate review—including the complex legal question presented by removal of the case based on the application of federal common law. ECF 183-1 at 4–5.

But, case law suggests otherwise. The Fourth Circuit has concluded that, when a case that was removed on several grounds is remanded, appellate jurisdiction of the remand extends only to those bases for removal that are reviewable. *See Lee v. Murraybey*, 487 F. App'x 84, 85 (4th Cir. 2012) ("To the extent that the district court concluded it lacked subject matter jurisdiction under removal provisions other than § 1443 [removal in civil rights cases], we dismiss the appeal."); *Noel v. McCain*, 538 F.2d 633, 635 (4th Cir. 1976) (holding that appellate jurisdiction of a remand extended to the issue of whether removal was proper under § 1443—because § 1447(d) authorized such review—but did not extend to the issue of whether removal was proper based on federal question jurisdiction). The majority of other circuits have reached the same conclusion. *See Jacks v. Meridian Res. Co.*, 701 F.3d 1224, 1229 (8th Cir. 2012) (holding that remand of case was subject to appellate review only to the extent it was based on the federal officer removal statute); *Patel v. Del Taco, Inc.*, 446 F.3d 996, 998 (9th Cir. 2006); *Alabama v. Conley*, 245 F.3d 1292, 1293 n.1

[1] There are a few other exceptions to § 1447(d)'s bar on appellate review of remand orders. *See* 14C Charles Alan Wright et al., *Federal Practice & Procedure: Jurisdiction and Related Matters* § 3740 (4th ed. 2018) (outlining the exceptions to the no-appeal rule for remand orders); *see also Powerex*, 551 U.S. at 237; *In re Norfolk S.*, 756 F.3d at 287. Defendants do not identify any other exception that is applicable here, and this Court is aware of none.

(11th Cir. 2001); *Davis v. Glanton*, 107 F.3d 1044, 1047 (3d Cir. 1997); *State Farm Mut. Auto. Ins. Co. v. Baasch*, 644 F.2d 94, 96–97 (2d Cir. 1981); *but see Mays v. City of Flint, Mich.*, 871 F.3d 437, 442 (6th Cir. 2017) (holding that § 1447(d) authorized review of district court's decision on the propriety of federal officer removal and this jurisdiction "also encompasses review of the district court's decision on the alternative ground for removal under [federal question jurisdiction]"); *Decatur Hosp. Auth. v. Aetna Health, Inc.*, 854 F.3d 292, 296 (5th Cir. 2017) (same); *Lu Junhong v. Boeing Co.*, 792 F.3d 805, 811 (7th Cir. 2015) (Easterbrook, J.) (". . . once an appeal of a remand 'order' has been authorized by statute, the court of appeals may consider all of the legal issues entailed in the decision to remand").

Accordingly, in this case, only the issue of federal officer removal would be subject to review on defendants' appeal of the remand. Defendants have not demonstrated a substantial likelihood of success on the merits of this issue, or even that removal of this case under the federal officer removal statute raises a complex, serious legal question. They merely recite the same arguments outlined in their Notice of Removal and opposition to the City's Remand Motion. *See* ECF 1 at 34–40; ECF 124 at 56–64; ECF 183-1 at 5–7.

This Court considered defendants' arguments at length and rejected them in its Memorandum Opinion of June 10, 2019. ECF 172 at 34–37. And, courts that have addressed the removal of similar cases under the federal officer removal statute have reached the same conclusion. *See County of San Mateo v. Chevron Corp.*, 294 F. Supp. 3d at 939 ("Nor was there a reasonable basis for federal officer removal, because the defendants have not shown a 'causal nexus' between the work performed under federal direction and the plaintiffs' claims, which are based on a wider range of conduct.") (citations omitted); *Rhode Island v. Chevron Corp.*, 2019 WL 3282007, at *5 (finding federal officer removal statute did not support removal of plaintiff's

suit against fossil fuel producers because "[d]efendants cannot show the alleged promotion and sale of fossil fuels abetted by a sophisticated misinformation campaign were 'justified by [their] federal duty'") (quoting *Mesa v. California*, 489 U.S. 121, 131–32 (1989)). That this issue may be subject to appellate review, therefore, does not support the issuance of a stay pending appeal.

In any event, defendants have not demonstrated that any of the remaining three factors support a stay pending resolution of their appeal of the Remand Order. Thus, even if the Remand Order *is* subject to appellate review in its entirety, I am satisfied that such a stay is not warranted.

The second factor courts consider in evaluating a motion to stay is whether the applicant will be irreparably injured absent a stay. *Nken*, 556 U.S. at 434. Defendants argue that this factor supports a stay pending appeal because an immediate remand would render their appeal meaningless and would undermine the right to a federal forum provided by the federal officer removal statute. ECF 183-1 at 12–14. They assert that federal courts are "uniquely qualified" to address the issues raised in this case and, further, that proceeding with litigation in state court would cost them significant time and money. *Id.* at 13.

Defendants' arguments are unavailing. Absent a stay, their appeal would only be rendered moot in the unlikely event that a final judgment is reached in state court before the resolution of their appeal.[2] This speculative harm does not constitute an irreparable injury. *See Rose v. Logan*, No. RDB-13-3592, 2014 WL 3616380, at *3 (D. Md. July 21, 2014) ("An appeal being rendered moot does not itself constitute irreparable injury."); *see also Nken*, 556 U.S. at 434–35 ("[S]imply

[2] The Court notes that defendants acknowledge—and, in fact, elsewhere rely on—the likelihood of a prompt resolution on appeal. Specifically, in support of their argument that a stay would not harm the City, defendants assert that state court proceedings "will be delayed only briefly" because, "pursuant to the Fourth Circuit's Briefing Order, the appeal will be fully briefed no later than September of this year." ECF 183-1 at 15. Given defendants' own expectation of a speedy appellate process, and particularly in a case of this size, their professed concern of a final judgment being reached in state court before resolution of their appeal seems disingenuous.

showing some possibility of irreparable injury fails to satisfy the second factor.") (citation and internal quotation marks omitted); *Brea Union Plaza I, LLC v. Toys R Us, Inc.*, No. MHL-18-0419, 2018 WL 3543056, at *5 (E.D. Va. July 23, 2018) (finding this factor did not support a stay because the purported harm was "entirely speculative").

Nor have defendants shown that the cost of proceeding with litigation in state court would cause them to suffer irreparable injury. *See Renegotiation Bd. v. Bannercraft Clothing Co.*, 415 U.S. 1, 24 (1974) ("Mere litigation expense, even substantial and unrecoupable cost, does not constitute irreparable injury."); *Long v. Robinson*, 432 F.2d 977, 980 (4th Cir. 1970) ("[M]ere injuries, however substantial, in terms of money, time and energy necessarily expended in the absence of a stay, are not enough.") (citation omitted); *Broadway Grill, Inc. v. Visa Inc.*, No. PJH-16-4040, 2016 WL 6069234, at *2 (N.D. Cal. Oct. 17, 2016) (finding no irreparable harm because the injury of having to litigate in state and federal court is "a not-uncommon result given the limited jurisdiction of federal courts"). And, I disagree with defendants' assertion that federal courts are "uniquely qualified" to address the issues presented by this case; our state courts are well equipped to handle complex cases.[3]

The last two factors call for "assessing the harm to the opposing party and weighing the public interest." *Nken*, 556 U.S. at 435. Where, as here, a government body is the party opposing the stay, "[t]hese factors merge." *Id.* According to defendants, these considerations support the issuance of a stay because it would avoid costly, potentially wasteful litigation in state court. ECF 183-1 at 14. They also argue that a stay would delay proceedings in state court "only briefly" and, thus, would not prejudice the City. *Id.* at 15.

[3] The Court notes that many federal judges have previously served as state court judges.

I disagree. This case is in its earliest stages and a stay pending appeal would further delay litigation on the merits of the City's claims. This favors denial of a stay, particularly given the seriousness of the City's allegations and the amount of damages at stake. Further, even if the remand is vacated on appeal, the interim proceedings in state court may well advance the resolution of the case in federal court. After all, the parties will have to proceed with the filing of responsive pleadings or preliminary motions, regardless of the forum.

To be sure, defendants may seek, and the state court may issue, a stay pending the Fourth Circuit's resolution of the appeal of the remand. However, defendants have not met their burden of demonstrating that *this* Court should issue a stay pending appeal. Accordingly, I shall deny the defendants' Motion to Stay.

III. Conclusion

For the reasons stated above, I shall deny the defendants' Motion to Stay the case until such time as the Fourth Circuit resolves the merits of defendants' appeal of the Remand Order. However, in accordance with the parties' joint stipulation (ECF 184) and the Court's Order approving the stipulation (ECF 185), I will extend the stay of the Remand Order pending resolution of defendants' anticipated appeal of this Order to the Fourth Circuit.

An Order follows.

Date: July 31, 2019.

/s/
Ellen Lipton Hollander
United States District Judge

Attachment E

FILED: October 1, 2019

UNITED STATES COURT OF APPEALS
FOR THE FOURTH CIRCUIT

No. 19-1644
(1:18-cv-02357-ELH)

MAYOR AND CITY COUNCIL OF BALTIMORE

Plaintiff - Appellee

v.

BP P.L.C.; BP AMERICA, INC.; BP PRODUCTS NORTH AMERICA, INC.; CROWN CENTRAL LLC; CROWN CENTRAL NEW HOLDINGS LLC; CHEVRON CORP.; CHEVRON U.S.A. INC.; EXXON MOBIL CORP.; EXXONMOBIL OIL CORPORATION; ROYAL DUTCH SHELL, PLC; SHELL OIL COMPANY; CITGO PETROLEUM CORP.; CONOCOPHILLIPS; CONOCOPHILLIPS COMPANY; PHILLIPS 66; MARATHON OIL COMPANY; MARATHON OIL CORPORATION; MARATHON PETROLEUM CORPORATION; SPEEDWAY LLC; HESS CORP.; CNX RESOURCES CORPORATION; CONSOL ENERGY, INC.; CONSOL MARINE TERMINALS LLC

Defendants - Appellants

and

LOUISIANA LAND & EXPLORATION CO.; PHILLIPS 66 COMPANY; CROWN CENTRAL PETROLEUM CORPORATION

Defendants

CHAMBER OF COMMERCE OF THE UNITED STATES OF AMERICA

Amicus Supporting Appellant

NATIONAL LEAGUE OF CITIES; U. S. CONFERENCE OF MAYORS; INTERNATIONAL MUNICIPAL LAWYERS ASSOCIATION; PUBLIC CITIZEN, INC.; SHELDON WHITEHOUSE; EDWARD J. MARKEY; STATE OF MARYLAND; STATE OF CALIFORNIA; STATE OF CONNECTICUT; STATE OF NEW JERSEY; STATE OF NEW YORK; STATE OF OREGON; STATE OF RHODE ISLAND; STATE OF VERMONT; STATE OF WASHINGTON; MARIO J. MOLINA; MICHAEL OPPENHEIMER; BOB KOPP; FRIEDERIKE OTTO; SUSANNE C. MOSER; DONALD J. WUEBBLES; GARY GRIGGS; PETER C. FRUMHOFF; KRISTINA DAHL; NATURAL RESOURCES DEFENSE COUNCIL; ROBERT BRULLE; CENTER FOR CLIMATE INTEGRITY; CHESAPEAKE CLIMATE ACTION NETWORK; JUSTIN FARRELL; BEN FRANTA; STEPHAN LEWANDOWSKY; NAOMI ORESKES; GEOFFREY SUPRAN; UNION OF CONCERNED SCIENTISTS

Amici Supporting Appellee

O R D E R

Upon review of submissions relative to the motion for stay pending appeal, the court denies the motion.

Entered at the direction of Judge Wynn with the concurrence of Chief Judge Gregory and Judge Diaz.

For the Court

/s/ Patricia S. Connor, Clerk