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10 Attorneys for Plaintiffs THE PEOPLE OF THE STATE  
OF CALIFORNIA, acting by and through the  
Oakland City Attorney BARBARA J. PARKER, and  
11 CITY OF OAKLAND

12 [Additional Counsel Listed on Signature Page]

13  
14 **SUPERIOR COURT OF THE STATE OF CALIFORNIA**  
15 **COUNTY OF SAN FRANCISCO**  
16 **UNLIMITED JURISDICTION**

17 COORDINATION PROCEEDING  
SPECIAL TITLE [CRC 3.550(c)]

JUDICIAL COUNCIL COORDINATION  
PROCEEDING NO. 5310

18 **FUEL INDUSTRY CLIMATE CASES**

Case No.: CJC-24-005310

19 **THIS CASE RELATES TO:**

20  
21 *The People of the State of California, acting by*  
22 *and through the Oakland City Attorney Barbara*  
23 *J. Parker v. BP p.l.c. et al., Alameda Superior*  
24 *Court, Case No.: RG17875889*

25 THE PEOPLE OF THE STATE OF  
26 CALIFORNIA, acting by and through the  
Oakland City Attorney Barbara J. Parker, and  
27 CITY OF OAKLAND, a Municipal  
Corporation,

28 Plaintiffs,

**SECOND AMENDED COMPLAINT FOR:**

- (1) PUBLIC NUISANCE ON BEHALF OF THE PEOPLE OF THE STATE OF CALIFORNIA;
- (2) PUBLIC NUISANCE;
- (3) PRIVATE NUISANCE;
- (4) TRESPASS;
- (5) STRICT PRODUCTS LIABILITY – FAILURE TO WARN;
- (6) NEGLIGENT PRODUCTS LIABILITY – FAILURE TO WARN; and
- (7) NEGLIGENCE

**JURY TRIAL DEMANDED**

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vs.

BP P.L.C.; BP AMERICA INC.; CHEVRON CORPORATION; CHEVRON U.S.A. INC.; CONOCOPHILLIPS; CONOCOPHILLIPS COMPANY; PHILLIPS 66; PHILLIPS 66 COMPANY; EXXON MOBIL CORPORATION; EXXONMOBIL OIL CORPORATION; SHELL PLC; SHELL USA, INC.; SHELL OIL PRODUCTS COMPANY LLC; and DOES 1 through 10,

Defendants.

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1 Plaintiffs, the People of the State of California (“the People”), by and through Oakland City  
2 Attorney Barbara J. Parker, and the City of Oakland (“Oakland” or “City,” and together with the  
3 People, “Plaintiffs”),<sup>1</sup> bring this action against Defendants BP p.l.c.; BP America Inc.; Chevron  
4 Corporation; Chevron U.S.A. Inc.; ConocoPhillips; ConocoPhillips Company; Phillips 66; Phillips  
5 66 Company; Exxon Mobil Corporation; ExxonMobil Oil Corporation; Shell plc; Shell USA, Inc.;  
6 Shell Oil Products Company LLC; and Does 1 through 10 (collectively, “Defendants”), and allege  
7 as follows:

## 8 I. INTRODUCTION

9 1. The fossil fuel industry has known for decades, based on its own internal studies, that  
10 fossil fuels produce carbon dioxide and other greenhouse gas pollution that can have catastrophic  
11 consequences for the planet and its people. The industry took these internal scientific findings  
12 seriously, investing heavily to protect its own assets and infrastructure from rising seas, stronger  
13 storms, and other climate change impacts. But rather than warn consumers and the public, fossil fuel  
14 companies and their surrogates mounted a disinformation marketing campaign to discredit the  
15 scientific consensus on climate change; create doubt in the minds of consumers, the media, teachers,  
16 and the public about the climate change impacts of burning fossil fuels; and delay the energy  
17 economy’s transition to a lower-carbon future while maximizing profits.

18 2. This successful climate deception campaign had the purpose and effect of inflating  
19 and sustaining the market for fossil fuels, which drove up greenhouse gas emissions, accelerated  
20 global warming, and brought about devastating climate change impacts to Oakland and its  
21 Environmental Justice Communities (“EJ Communities”)<sup>2</sup> in particular. Plaintiffs are already

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22 <sup>1</sup> In this Complaint, the term ‘City’ refers to the City of Oakland, unless otherwise stated. The  
23 term “People” refers to the People of the State of California in Oakland unless otherwise stated.  
24 And “Oakland” refers to the area falling within the City’s geographic boundaries, excluding federal  
land, unless otherwise stated.

25 <sup>2</sup> The City and the People of Oakland use the term “EJ Communities” in line with  
26 recommendations from the California Environmental Justice Alliance. The term EJ Community  
27 refers to a low-income area that is disproportionately affected by environmental pollution and other  
28 hazards that can lead to negative health effects, exposure, or environmental degradation while also  
recognizing that, gaining equitable access to environmental benefits, investments, and other  
resources for low-income communities and communities of color is an important aspect of  
environmental justice. Dyett & Bhatia, *Oakland 2045 General Plan* “Oakland Environmental

1 enduring the effects of global warming-induced sea level rise, extreme precipitation and heat,  
2 wildfires, drought, and poor air quality. As a result of the fossil fuel industry’s lies and deceit, the  
3 City has paid millions of dollars to address climate change-induced impacts; and to protect its people,  
4 businesses, and infrastructure from a myriad of other climate change hazards.

5 3. Despite the clear harm to Oakland and other communities across the country,  
6 Defendants continue to peddle climate disinformation and attempt to mislead the public concerning  
7 the true environmental impacts of their fossil fuel products in order to maximize profits.

8 4. Plaintiffs bring this action against Defendants for creating, contributing to, and/or  
9 assisting in the creation of climate change-related harms in Oakland. As more fully alleged below,  
10 Defendants created, contributed to, and/or assisted in the creation of a nuisance; caused trespasses to  
11 occur on City-owned property; failed to adequately warn consumers, the City, and the public of the  
12 risks of climate change, climate change-related harms, and other dangers that Defendants knew  
13 would inevitably follow from the intended or reasonably foreseeable use of their products; and  
14 violated their duties of care to exercise due care in the marketing, sale, and/or labeling of their  
15 products and to act reasonably for the protection of the City and its residents and to avoid inflicting  
16 the injuries described herein.

17 5. Defendants are five of the largest publicly-owned fossil fuel companies in the world.  
18 Each Defendant funded, staffed, organized, and otherwise supported efforts to deceive the public and  
19 consumers—in and outside of Oakland—about the role of fossil fuel products in causing the global  
20 climate crisis.

21 6. The rate at which Defendants have extracted and sold fossil fuel products has  
22 exploded since the Second World War, which has driven a concurrent increase in carbon dioxide  
23 (“CO<sub>2</sub>”) and other emissions from those products. Fossil fuel emissions—especially CO<sub>2</sub>—are far  
24 and away the dominant driver of global warming.<sup>3</sup> The substantial majority of all anthropogenic

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26 Justice Element” 1-2 (September 26, 2023), [https://cao-94612.s3.us-west-2.amazonaws.com/documents/EJ-Element\\_Adopted-9.26.23\\_89907-C.M.S.pdf](https://cao-94612.s3.us-west-2.amazonaws.com/documents/EJ-Element_Adopted-9.26.23_89907-C.M.S.pdf).

27 <sup>3</sup> See Intergovernmental Panel on Climate Change (“IPCC”), *Summary for Policymakers in*  
28 *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I in the Sixth*

1 greenhouse gas emissions in history have occurred from the 1950s to the present, a period known as  
2 the “Great Acceleration.”<sup>4</sup> About three-quarters of all industrial CO<sub>2</sub> emissions in history have  
3 occurred since the 1960s,<sup>5</sup> and more than half have occurred since the late 1980s.<sup>6</sup> The annual rate  
4 of CO<sub>2</sub> emissions from extraction, production, and consumption of fossil fuels has increased  
5 substantially since 1990.<sup>7</sup>

6 7. Defendants have known for more than 50 years that greenhouse gas pollution from  
7 fossil fuel products would have significant adverse impacts on the Earth’s climate and sea levels.  
8 Armed with that knowledge, Defendants took steps to protect their own assets from climate harms  
9 and risks through immense internal investment in research, infrastructure improvements, and plans  
10 to exploit new business opportunities in a warming world.

11 8. But instead of warning the public of the known consequences flowing from the  
12 intended and foreseeable use of their products or representing those consequences truthfully,  
13 Defendants concealed and misrepresented the dangers of fossil fuels; disseminated false and  
14 misleading information about the existence, causes, and dangers of climate change; and aggressively  
15 promoted the profligate use of their products at ever-greater volumes without regard for the dangers  
16 of doing so. Since at least the late 1980s, Defendants have spent millions of dollars orchestrating a  
17 massive disinformation campaign to cast doubt on the science of climate change; to shuttle climate  
18 denialist theories into mainstream media and science despite the fact that their own scientists had  
19 already debunked those theories; and to conceal the role of fossil fuels in driving the climate crisis.  
20 More recently, Defendants have pivoted to a new strategy of commercial deception: greenwashing.  
21 Today, Defendants misleadingly exaggerate their investments in wind, solar, and other lower carbon  
22

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23 *Assessment Report* (2021), at 4–9, [https://www.ipcc.ch/report/ar6/wg1/downloads/report/  
24 IPCC\\_AR6\\_WGI\\_SPM.pdf](https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf).

25 <sup>4</sup> Will Steffen et al., *The Trajectory of the Anthropocene: The Great Acceleration*, 2 *The  
26 Anthropocene Review* 81, 81 (2015).

27 <sup>5</sup> R.J. Andres et al., *A Synthesis of Carbon Dioxide Emissions from Fossil-Fuel Combustion*, 9  
28 *Biogeosciences* 1845, 1851 (2012).

<sup>6</sup> *Ibid.*

<sup>7</sup> Global Carbon Project, *Global Carbon Budget 2021*,  
[https://www.globalcarbonproject.org/global/images/carbonbudget/Infographic\\_Emissions2021.pdf](https://www.globalcarbonproject.org/global/images/carbonbudget/Infographic_Emissions2021.pdf).

1 energy resources to encourage continued consumption of their products. Defendants also falsely  
2 advertise certain fossil fuel products as “green” or “clean,” while concealing the fact that those very  
3 same products are leading causes of climate change. Defendants individually and collectively played  
4 leadership roles in all of these campaigns, which were intended to and did target consumers,  
5 including those in Oakland.

6 9. All Defendants, individually and collectively, have substantially and measurably  
7 contributed to the People and the City’s climate crisis-related injuries. All Defendants’ actions in  
8 concealing the dangers of, and promoting false and misleading information about, their fossil fuel  
9 products have contributed substantially to consumer demand for fossil fuels and the consequent  
10 buildup of CO<sub>2</sub> in the atmosphere that drives global warming and its physical, environmental, and  
11 socioeconomic consequences, including those affecting Plaintiffs. Consequently, substantially more  
12 anthropogenic greenhouse gases have been emitted into the atmosphere than would have been  
13 emitted absent Defendants’ tortious and deceptive conduct. If not for Defendants’ tortious and  
14 deceptive conduct, the damaging consequences of climate change in Oakland would have been far  
15 less extreme than those currently occurring. Similarly, future harmful effects would also be far less  
16 damaging and costly—or could have been avoided entirely.

17 10. While Defendants have promoted and profited from the extraction and consumption  
18 of fossil fuels, Plaintiffs have spent, and will continue to spend, millions of dollars to recover from  
19 climate change-induced harms. Plaintiffs will have to fortify infrastructure against sea level rise and  
20 extreme precipitation and the attendant flooding. Plaintiffs will also have to undertake numerous  
21 other interventions that have and will become necessary to protect Oakland’s people and  
22 infrastructure from extreme heat, wildfires, drought, poor air quality, and other climate change  
23 hazards.

24 11. Sea levels are rising at rates unprecedented in the history of human civilization  
25 because of global warming.<sup>8</sup> The costs of dealing with global warming-induced sea level rise—already  
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27 <sup>8</sup> Gary Griggs et al., *Rising Seas in California: an update on sea-level rise science*, California  
28 Ocean Science Trust, at 8 (Apr. 2017) (“Rising Seas in California”), <http://www.opc.ca.gov/webmaster/ftp/docs/rising-seas-in-california-an-update-on-sea-level-rise-science.pdf>.



1 immense—will be staggering for the public entities that must protect their people and their coastlines.  
2 Projected sea level rise in Oakland, absent adaptation, could substantially impact coastal areas  
3 including low-lying coastal residences and businesses, and at the Port of Oakland, including but not  
4 limited to at the San Francisco Bay Oakland International Airport. The magnitude of the actions  
5 needed to abate harms from sea level rise, and the amount of property at risk, will increase as sea  
6 level rise rapidly accelerates. This threat to human safety and to public and private property is  
7 becoming more dire every day as global warming reaches ever more dangerous levels and sea level  
8 rise accelerates. The global warming-induced sea level rise from Defendants’ deceptive conduct is  
9 an irreversible condition on any relevant time scale: it will last hundreds or even thousands of years.  
10 Oakland must take abatement action now to protect public and private property from this looming  
11 threat by building costly sea level rise adaptation infrastructure.

12 12. Similarly, climate change causes more frequent and extreme weather events, extreme  
13 heat, drought, and wildfires, and reduced air quality, which damage public infrastructure and create  
14 cascading public health problems. Destructive and deadly atmospheric river events dropped record  
15 amounts of rainfall in Oakland during the winter of 2022–23, and are expected to become more  
16 frequent.<sup>9</sup> In August 2020, multiple days of record-breaking, triple-digit temperatures blanketed  
17 Oakland, and temperatures breached 110 degrees in September 2020. These extreme heat events  
18 caused power outages and heat-related illnesses. And during the Butte County Camp Fire, wildfire  
19 smoke caused Oakland’s Air Quality Index to exceed 150, “unhealthy,” for nearly two weeks,  
20 peaking at 256.<sup>10</sup> Finally, over 14 percent of Oakland’s population lives in either high or very high  
21 wildfire severity zones and an estimated 35 percent of Oakland’s critical facilities are located in  
22 wildfire risk areas.

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25 \_\_\_\_\_  
26 <sup>9</sup> See C. Patricola et al., *Future Changes in Extreme Precipitation Over the San Francisco Bay*  
*Area: Dependence on Atmospheric River and Extratropical Cyclone Events*, 36 *Weather and*  
*Climate Extremes* (June 2022), at 2, <https://doi.org/10.1016/j.wace.2022.100440>.

27 <sup>10</sup> F. K. Chow et al., *High-Resolution Smoke Forecasting for the 2018 Camp Fire in California*,  
103 *Bulletin of the American Meteorological Society* 1531 (June 24, 2022),  
28 <https://doi.org/10.1175/BAMS-D-20-0329.1>.

1           13. Defendants’ deceptive and tortious conduct was a substantial factor in bringing about  
2 all of these dire climate change impacts in Oakland, including: sea level rise, more frequent and  
3 extreme precipitation events and associated flooding, more frequent and intense heat waves along  
4 with exacerbation of localized “heat island” effects, degraded air quality, drought, and wildfires.

5           14. These consequences have and will continue to disproportionately impact Oakland’s  
6 EJ Communities, as climate change exacerbates existing environmental and public health stressors  
7 associated with socioeconomic and racial disparities. Oakland’s EJ Communities—who already  
8 suffer from higher rates of adverse health effects like asthma, cancer, and respiratory disease—will  
9 likely require greater public intervention to adapt to a warming world because they frequently lack  
10 the infrastructure to withstand the threats posed by climate change or the resources necessary to  
11 effectively adapt.

12           15. Defendants’ individual and collective conduct—including, but not limited to, their  
13 introduction of fossil fuel products into the stream of commerce while knowing but failing to warn  
14 of the threats those products posed to the world’s climate; their wrongful promotion of fossil fuel  
15 products, including the misrepresentation and concealment of known hazards associated with the  
16 intended use of those products; and their public deception campaigns designed to obscure the  
17 connection between fossil fuel products and global warming—was a direct and proximate cause of  
18 Plaintiffs’ injuries.

19           16. Accordingly, Plaintiffs bring this action against Defendants for public nuisance,  
20 private nuisance, trespass, failure to warn, and negligence. Plaintiffs respectfully request that this  
21 Court order Defendants to abate the nuisance they have created, contributed to, and/or assisted in the  
22 creation of, and that this Court use its equitable powers to order Defendants to mitigate future harm  
23 to the environment and people of Oakland attributable to Defendants’ unlawful actions, including,  
24 but not limited to, by granting preliminary and permanent equitable relief. Plaintiffs respectfully  
25 request that this Court order Defendants to pay damages.

26           17. Plaintiffs do not seek relief as to state-owned property and assets. Plaintiffs do not  
27 seek any remedy for harms or violations for which the State or State agencies have exclusive  
28 authority to recover damages or obtain injunctive relief.



1 Defendant is the agent of its parent Defendant. As agents, the subsidiaries of each non-resident  
2 Defendant conducted activities in California at the direction and for the benefit of its parent company.  
3 Specifically, the subsidiaries furthered each parent company's campaign of deception and denial  
4 through misrepresentations, omissions, and affirmative promotion of the company's fossil fuel  
5 products as safe with knowledge of the climate change-related harms that would result from the  
6 intended use of those products, all of which resulted in climate change-related injuries in Oakland  
7 and increased sales to the parent company. The subsidiaries' jurisdictional activities are properly  
8 attributed to each parent company and serve as a basis to assert jurisdiction over each of the non-  
9 resident Defendant parent companies.

10 ii. Through their various agreements with dealers, franchises, or otherwise,  
11 Defendants direct and control the branding, marketing, sales, promotions, image development,  
12 signage, and advertising of their branded fossil fuel products at their respectively branded gas stations  
13 in California, including point-of-sale advertising and marketing. Defendants dictate which grades  
14 and formulations of their gasoline may be sold at their respectively branded stations.

15 iii. Defendants, in coordination with trade organizations, conspired to conceal and  
16 misrepresent the known dangers of burning fossil fuels, to knowingly withhold material information  
17 regarding the consequences of using fossil fuel products, to spread knowingly false and misleading  
18 information to the public regarding the weight of climate science research, and to promote consumer  
19 demand for their fossil fuel products which they knew were harmful. Through their own actions and  
20 through their membership and participation in climate denialist front groups, each Defendant was  
21 and is a member of that conspiracy. Defendants committed substantial acts to further the conspiracy  
22 in California by making misrepresentations and misleading omissions to California consumers about  
23 the existence, causes, and effects of global warming; by affirmatively promoting Defendants' fossil  
24 fuel products as safe, with knowledge of the disastrous impacts that would result from the intended  
25 use of those products; and by failing to warn California consumers about the disastrous impacts of  
26 fossil fuel use. A substantial effect of the conspiracy has also and will also occur in Oakland, as the  
27 City and its residents have suffered and will suffer injuries from Defendants' wrongful conduct,  
28 including but not limited to the following: sea level rise, massive storms, flooding, extreme heat,

1 reduced air quality, wildfires, and other social and economic consequences of these environmental  
2 changes. Defendants knew or should have known based on information provided to them from their  
3 internal research divisions, affiliates, trade associations, and industry groups that their actions in  
4 California and elsewhere would result in these injuries in and to the City and its residents. Finally,  
5 the climate effects described herein are direct and foreseeable results of Defendants' conduct in  
6 furtherance of the conspiracy.

7 23. Venue is proper in Alameda County pursuant to Code of Civil Procedure sections 395  
8 and 395.5 because the injury giving rise to the claims alleged in this Complaint occurred in Alameda  
9 County.

10 24. Additionally, venue is also proper in San Francisco County for pre-trial purposes  
11 pursuant to the February 9, 2024 order from the Judicial Council of California and the March 11,  
12 2024 Order Designating Add-On Cases in Coordinated Proceedings issued by the Coordination  
13 Motion Judge. Those orders provide for the coordination of this and other actions into JCCP 5310,  
14 Fuel Industry Climate Cases in San Francisco County.

### 15 **III. PARTIES**

#### 16 **A. Plaintiffs**

17 25. Plaintiff, the People of the State of California, by and through the Oakland City  
18 Attorney Barbara J. Parker, brings this suit pursuant to Code of Civil Procedure section 731, and  
19 Civil Code sections 3479, 3480, 3491, and 3494, to abate the public nuisance caused by Defendants  
20 within Oakland.

21 26. Additional Plaintiff, the City of Oakland, is a municipal corporation organized and  
22 existing under and by virtue of the laws of the State of California. The City owns and manages  
23 property and structures that are threatened by climate change-related harms, including sea level rise,  
24 more frequent and extreme precipitation and heat events, poor air quality, drought, and wildfires.  
25 The City brings causes of action in its own name as the real party in interest for injuries it has  
26 suffered, pursuant to Code of Civil Procedure section 367 and Government Code section 23004(a).

1           **B. Defendants**

2           27. Defendants include some of the largest oil and gas companies in the world. When this  
3 complaint references an act or omission of Defendants, unless otherwise stated, such references  
4 should be interpreted to mean that the officers, directors, agents, employees, or representatives of  
5 Defendants committed or authorized such an act or omission, or failed to adequately supervise or  
6 properly control or direct their employees while engaged in the management, direction, operation or  
7 control of the affairs of Defendants, and did so while acting within the scope of their employment or  
8 agency.

9           28. **BP entities: BP P.L.C. and BP America Inc.**

10           i. Defendant **BP P.L.C.** is a multinational, vertically integrated energy and  
11 petrochemical public limited company, registered in England and Wales with its principal place of  
12 business in London, England. BP P.L.C. consists of three main operating segments: (1) exploration  
13 and production, (2) refining and marketing, and (3) “gas and low-carbon energy.” BP P.L.C. is the  
14 ultimate parent company of numerous subsidiaries, referred to collectively as the “BP Group,” which  
15 explore for and extract oil and gas worldwide; refine oil into fossil fuel products such as gasoline;  
16 and market and sell oil, gasoline, other refined petroleum products, and natural gas worldwide. BP  
17 P.L.C.’s subsidiaries explore for oil and natural gas under a wide range of licensing, joint  
18 arrangement, and other contractual agreements.

19           ii. BP P.L.C. controls and has controlled group-wide decisions about the quantity  
20 and rate of fossil fuel production and sales, including those of its subsidiaries. BP P.L.C. is the  
21 ultimate decisionmaker on fundamental decisions about the BP Group’s core business, i.e., the  
22 volume of group-wide fossil fuels to produce and market, including among BP P.L.C.’s subsidiaries.  
23 For instance, BP P.L.C. reported that, in 2016–17, it brought online thirteen major exploration and  
24 production projects. These contributed to a 12% increase in the BP Group’s overall fossil fuel product  
25 production. These projects were carried out by BP P.L.C.’s subsidiaries. Based on these projects, BP  
26 P.L.C. expected the BP Group to deliver to customers 900,000 barrels of new product per day by  
27 2021. BP P.L.C. further reported that in 2017 it sanctioned three new exploration projects in Trinidad,  
28 India, and the Gulf of Mexico.

1           iii.       BP P.L.C. controls and has controlled group-wide decisions, including those  
2 of its subsidiaries, related to marketing, advertising, climate change, and greenhouse gas emissions  
3 from its fossil fuel products, as well as communications strategies concerning climate change and  
4 the link between fossil fuel use and climate-related impacts on the environment and humans. BP  
5 P.L.C. makes decisions on production and use of fossil fuel reserves for the entire BP Group based  
6 on factors including climate change. BP P.L.C.'s Board of Directors is the company's highest  
7 decision-making body, with direct responsibility for the BP Group's policies concerning climate  
8 change policies. BP P.L.C.'s chief executive is responsible for maintaining the BP Group's system  
9 of internal control that governs the BP Group's business conduct. BP P.L.C.'s senior leadership  
10 directly oversees a carbon steering group, which manages climate-related matters and consists of two  
11 committees—both overseen directly by the board—focused on climate-related investments.

12           iv.       Defendant **BP America Inc.** is a wholly owned subsidiary of BP P.L.C. that  
13 acts on BP P.L.C.'s behalf and is subject to BP P.L.C.'s control. BP America Inc. is a vertically  
14 integrated energy and petrochemical company incorporated in the state of Delaware with its  
15 headquarters and principal place of business in Houston, Texas. BP America Inc. is registered to do  
16 business in California. BP America Inc. consists of numerous divisions and affiliates in all aspects  
17 of the fossil fuel industry, including exploration for and production of crude oil and natural gas;  
18 manufacture of petroleum products; and transportation, marketing, and sale of crude oil, natural gas,  
19 and petroleum products. BP America Inc. was formerly known as, did or does business as, is or was  
20 affiliated with, and/or is the successor in liability to Amoco Oil Company; Amoco Production  
21 Company; ARCO Products Company; BP Exploration & Oil, Inc.; BP Products North America Inc.;  
22 BP Amoco Corporation; BP Oil, Inc.; BP Oil Company; Sohio Oil Company; Standard Oil of Ohio  
23 (SOHIO); Standard Oil (Indiana); and Atlantic Richfield Company (a Pennsylvania Corporation)  
24 and its division, the Arco Chemical Company.

25           v.       Defendants BP P.L.C. and BP America, Inc., together with their predecessors,  
26 successors, parents, subsidiaries, affiliates, and divisions, are collectively referred to herein as "BP."

27           vi.       Plaintiffs' claims against BP arise out of and are related to the acts and  
28 omissions of BP in Oakland and elsewhere that caused or will cause injuries in Oakland.

1           vii.       BP has purposefully directed its tortious conduct toward Oakland by  
2 distributing, marketing, advertising, promoting, and supplying its fossil fuel products in Oakland,  
3 with knowledge that the intended use of those products for combustion have caused and will continue  
4 to cause climate change-related harms in Oakland, including Plaintiffs' injuries. BP's statements in  
5 Oakland, in California, and elsewhere made in furtherance of its campaign of deception about and  
6 denial of climate change, and BP's affirmative promotion of its fossil fuel products as safe with  
7 knowledge of how the intended use of those products would cause climate change-related harms,  
8 were designed to conceal and mislead consumers and the public, including the City and its residents,  
9 about the serious adverse consequences that would result from continued use of BP's products. That  
10 conduct was purposefully directed to reach Oakland and obscure the dangers of BP's fossil fuel  
11 products from Oakland and its residents such that use of BP's fossil fuel products in Oakland would  
12 not decline.

13           viii.       Over the last several decades and continuing to the present day, BP—  
14 especially BP P.L.C.—spent millions of dollars on radio, television, online, social media, and  
15 outdoor advertisements in the Oakland market related to its fossil fuel products. Since at least 1988  
16 and continuing to the present day, BP has advertised in print publications circulated widely to  
17 Oakland consumers, including but not limited to the following: *The Atlantic*, *Life*, *Newsweek*, *The*  
18 *New York Times*, *Sports Illustrated*, *Time*, *The Wall Street Journal*, and *The Washington Post*. As  
19 further detailed herein, these include advertisements containing false or misleading statements,  
20 misrepresentations, and/or material omissions obfuscating the connection between the production  
21 and use of BP's fossil fuel products and climate change, and/or misrepresenting BP's products or BP  
22 itself as environmentally friendly.

23           ix.       Significant quantities of BP's fossil fuel products are or have been transported,  
24 traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in California,  
25 including in Oakland, from which activities BP derives and has derived substantial revenue. BP  
26 conducts and controls, either directly or through franchise agreements, retail fossil fuel sales at gas  
27 station locations throughout Oakland and California, at which locations it promotes, advertises, and  
28 sells its fossil fuel products under its ARCO brand name. Among other operations, BP operates more



1 than 300 ARCO-licensed and branded gas stations in California, and distributes and markets  
2 petroleum-based lubricants marketed under the Castrol brand name throughout California. From  
3 2000 to 2013, BP also owned and operated an oil refinery in Carson, California. During the period  
4 relevant to this Complaint, BP sold a substantial percentage of all retail gasoline sold in California.  
5 BP's marketing and trading business maintains an office in Irvine, California. BP maintains an  
6 energy research center in San Diego, California.

7 x. BP also markets and sells other fossil fuel products, including engine lubricant  
8 and motor oils, to Oakland and California consumers under its Castrol brand name.

9 xi. BP historically directed its fossil fuel product advertising, marketing, and  
10 promotional campaigns to Oakland and California, including through maps that identified the  
11 locations of its service stations in California, including in Oakland. BP markets and advertises its  
12 fossil fuel products in Oakland to Oakland residents by maintaining an interactive website available  
13 to prospective customers by which it directs the City's residents to BP's nearby retail service stations  
14 and/or lubricant distributors.

15 xii. By BP's own description, its "retail stations in California serve more than  
16 640,000 customers every day."<sup>11</sup> BP claims to support 3,000 jobs in California, including at least  
17 1,400 BP employees, and has invested over \$100 million through vendors in California.

18 29. **Chevron entities: Chevron Corporation and Chevron U.S.A. Inc.**

19 i. Defendant **Chevron Corporation** is a multinational, vertically integrated  
20 energy and chemicals company incorporated in Delaware, with its global headquarters and principal  
21 place of business in San Ramon, California. Chevron Corporation, through its predecessor Standard  
22 Oil Company of California, has been registered to do business in California since 1926. Chevron  
23 Corporation was formerly known as, did or does business as, and/or is the successor in liability to  
24 Standard Oil Company of California (also known as "Socal"), Texaco Inc., and ChevronTexaco  
25 Corporation.

26  
27  
28 <sup>11</sup> BP, *Bp in California*, [https://www.bp.com/content/dam/bp/country-sites/en\\_us/united-states/home/documents/where-we-operate/states/bp%20in%20California.pdf](https://www.bp.com/content/dam/bp/country-sites/en_us/united-states/home/documents/where-we-operate/states/bp%20in%20California.pdf).

1           ii.       Chevron Corporation operates through a web of United States and  
2 international subsidiaries at all levels of the fossil fuel supply chain. Chevron Corporation and its  
3 subsidiaries' operations include, but are not limited to: exploration, development, production,  
4 storage, transportation, and marketing of crude oil and natural gas; refining crude oil into petroleum  
5 products and marketing those products; and manufacturing and marketing commodity  
6 petrochemicals, plastics for industrial uses, and fuel and lubricant additives.

7           iii.       Chevron Corporation controls and has controlled group-wide decisions about  
8 the quantity and rate of fossil fuel production and sales, including those of its subsidiaries. Chevron  
9 Corporation determines whether and to what extent its corporate holdings market, produce, and/or  
10 distribute fossil fuel products.

11           iv.       Chevron Corporation controls and has controlled group-wide decisions,  
12 including those of its subsidiaries, related to marketing, advertising, greenhouse gas emissions and  
13 climate change resulting from the company's fossil fuel products, and communications strategies  
14 concerning climate change and the link between fossil fuel use and climate-related impacts on the  
15 environment and humans. Overall accountability for climate change within Chevron Corporation lies  
16 with Chevron Corporation's Board of Directors and Executive Committee.

17           v.       Defendant **Chevron U.S.A. Inc.** is a wholly owned subsidiary of Chevron  
18 Corporation that acts on Chevron Corporation's behalf and is subject to Chevron Corporation's  
19 control. Chevron U.S.A. Inc. is a Pennsylvania corporation, with its principal place of business in  
20 San Ramon, California. Through its predecessors, Chevron U.S.A. Inc. has been registered to do  
21 business in California since 1965. Chevron U.S.A. Inc. was formerly known as, did or does business  
22 as, and/or is the successor in liability to Gulf Oil Corporation, Gulf Oil Corporation of Pennsylvania,  
23 Chevron Products Company, Chevron Chemical Company, and Chevron Chemical Company LLC.

24           vi.       Defendants Chevron Corporation and Chevron U.S.A. Inc., together with their  
25 predecessors, successors, parents, subsidiaries, affiliates, and divisions, are collectively referred to  
26 herein as "Chevron."

27           vii.       Plaintiffs' claims against Chevron arise out of and are related to the acts and  
28 omissions of Chevron in Oakland and elsewhere that caused and will cause injuries in Oakland.

1           viii.       Chevron has purposefully directed its tortious conduct toward Oakland by  
2 distributing, marketing, advertising, promoting, and supplying its fossil fuel products in Oakland,  
3 with knowledge that the intended use of those products for combustion has caused and will continue  
4 to cause climate change-related harms in Oakland, including Plaintiffs' injuries. Chevron's  
5 statements in Oakland, in California, and elsewhere, made in furtherance of its campaign of  
6 deception about and denial of climate change, and Chevron's affirmative promotion of its fossil fuel  
7 products as safe with knowledge of how the intended use of those products would cause climate  
8 change-related harms, were designed to conceal and mislead consumers and the public, including the  
9 City and its residents, about the serious adverse consequences that would result from continued use  
10 of Chevron's products. That conduct was purposefully directed to reach Oakland and obscure the  
11 dangers of Chevron's fossil fuel products from Oakland and its residents such that use of Chevron's  
12 fossil fuel products in Oakland would not decline.

13           ix.       Over the last several decades and continuing to the present day, Chevron spent  
14 millions of dollars on radio, television, online, social media, and outdoor advertisements in the  
15 Oakland market related to its fossil fuel products. Since at least 1970, and continuing to the present  
16 day, Chevron has advertised in print publications circulated widely to Oakland consumers, including  
17 but not limited to the following: *The Atlantic*, *Life*, *National Geographic*, *The New York Times*,  
18 *Sports Illustrated*, *Time Magazine*, *The Wall Street Journal*, and *The Washington Post*. As further  
19 detailed herein, these include advertisements containing false or misleading statements,  
20 misrepresentations, and/or material omissions obfuscating the connection between the production  
21 and use of Chevron's fossil fuel products and climate change, and/or misrepresenting Chevron's  
22 products or Chevron itself as environmentally friendly.

23           x.       Significant quantities of Chevron's fossil fuel products are or have been  
24 transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in  
25 Oakland, from which activities Chevron derives and has derived substantial revenue. Chevron  
26 conducts and controls, either directly or through franchise agreements, retail fossil fuel sales at gas  
27 station locations throughout Oakland and California, at which locations it promotes, advertises, and  
28 sells its fossil fuel products under its various brand names, including Chevron and Texaco. Chevron

1 operates over 1,500 Chevron-branded petroleum service stations in California. Chevron has owned  
2 and operated an oil refinery in Richmond, California, since 1902, and has owned and operated an oil  
3 refinery in El Segundo, California, since 1911. During the period relevant to this Complaint, Chevron  
4 sold a substantial percentage of all retail gasoline sold in California.

5 xi. Chevron historically directed its fossil fuel product advertising, marketing,  
6 and promotional campaigns to Oakland, including through maps that identified the locations of its  
7 service stations in California, including in Oakland. Chevron markets and advertises its fossil fuel  
8 products in Oakland to Oakland residents by maintaining an interactive website available to  
9 prospective customers by which it directs Oakland residents to Chevron's nearby retail service  
10 stations and/or lubricant distributors. Chevron markets and sells engine lubricants and motor oils to  
11 Oakland customers under its Delo, IsoClean, Techron, and Havoline brand names at retail outlets.

12 xii. Chevron offers a proprietary credit card known as the "Chevron Techron  
13 Advantage Credit Card," which allows consumers in Oakland and California to pay for gasoline and  
14 other products at Chevron-branded service stations, and which encourages Oakland and California  
15 consumers to use Chevron-branded service stations by offering various rewards, including discounts  
16 on gasoline purchases at Chevron service stations and cash rebates. Chevron further maintains two  
17 smartphone applications known as the "Chevron App" and the "Texaco App," both part of the  
18 "Chevron Texaco Rewards" program. The program offers Oakland and California consumers a  
19 cashless payment method for gasoline and other products at Chevron- and Texaco-branded service  
20 stations. Oakland and California consumers utilize the payment method by providing their credit  
21 card information through the application. Oakland and California consumers can also receive  
22 rewards, including discounts on gasoline purchases, by registering their personal identifying  
23 information in the apps and by using the applications to identify and activate gas pumps at Chevron  
24 and Texaco service stations during a purchase.

25 30. **ConocoPhillips entities: ConocoPhillips, ConocoPhillips Company, Phillips 66,**  
26 **and Phillips 66 Company**

27 i. Defendant **ConocoPhillips** is a multinational energy company incorporated in  
28 Delaware, with its principal place of business in Houston, Texas. ConocoPhillips consists of

1 numerous divisions, subsidiaries, and affiliates that execute ConocoPhillips' fundamental decisions  
2 related to all aspects of fossil fuel production, including exploration, extraction, production,  
3 manufacture, transport, and marketing.

4 ii. ConocoPhillips controls and has controlled group-wide decisions about the  
5 quantity and rate of fossil fuel production and sales, including those of its subsidiaries.  
6 ConocoPhillips determines whether and to what extent its corporate holdings market, produce, and/or  
7 distribute fossil fuel products. ConocoPhillips' most recent annual report to the Securities and  
8 Exchange Commission ("SEC") subsumes the operations of ConocoPhillips' subsidiaries under its  
9 name. In ConocoPhillips' Form 10-K filed with the SEC for Fiscal Year 2022, the company  
10 represents that its value—for which ConocoPhillips maintains ultimate responsibility—is a function  
11 of its decisions to direct subsidiaries to develop crude oil, bitumen, natural gas, and natural gas  
12 liquids from ConocoPhillips' reserves into fossil fuel products and to explore for and replace those  
13 reserves with more fossil fuels: "Unless we successfully develop resources, the scope of our business  
14 will decline, resulting in an adverse impact to our business. . . . If we are not successful in replacing  
15 the resources we produce with good prospects for future organic development or through  
16 acquisitions, our business will decline."

17 iii. ConocoPhillips optimizes the ConocoPhillips group's oil and gas portfolio to  
18 fit ConocoPhillips' strategic plan. For example, ConocoPhillips' 10-K in 2022 summarizes the  
19 "continued development of onshore assets" in the United States and new exploration activities in  
20 Alaska, Canada, the North Sea, and elsewhere. Similarly, in November 2016, ConocoPhillips  
21 announced a plan to generate \$5 billion to \$8 billion of proceeds over two years by optimizing its  
22 business portfolio, including its fossil fuel product business, to focus on low cost-of-supply fossil  
23 fuel production projects that strategically fit its development plans.

24 iv. ConocoPhillips controls and has controlled group-wide decisions, including  
25 those of its subsidiaries, related to marketing, advertising, climate change and greenhouse gas  
26 emissions from its fossil fuel products, and communications strategies concerning climate change and  
27 the link between fossil fuel use and climate-related impacts on the environment and communities. For  
28 instance, ConocoPhillips' board has the highest level of direct responsibility for climate change

1 policy within the company. ConocoPhillips has developed and purportedly implements a corporate  
2 Climate Change Action Plan to govern climate change decision-making across all entities in the  
3 ConocoPhillips group.

4 v. Defendant **ConocoPhillips Company** is a wholly owned subsidiary of  
5 ConocoPhillips that acts on ConocoPhillips' behalf and is subject to ConocoPhillips' control.  
6 ConocoPhillips Company is incorporated in Delaware, with its principal place of business in  
7 Houston, Texas, and has been registered to do business in California since 1947. ConocoPhillips  
8 Company was formerly known as, did or does business as, and/or is the successor in liability to  
9 Phillips Petroleum Company.

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

14 vii. Defendant **Phillips 66 Company** is a wholly owned subsidiary of Phillips 66  
15 that acts on Phillips 66's behalf and is subject to Phillips 66's control. Phillips 66 Company is  
16 incorporated in Delaware, with its principal place of business in Houston, Texas, and has been  
17 registered to do business in California since 2011. Phillips 66 Company had been registered since  
18 1964 under a different name, Phillips Chemical Company, which was a wholly owned subsidiary of  
19 the Phillips Petroleum Company. Phillips Chemical Company changed its name to Phillips 66  
20 Company in 1985, and that iteration of Phillips 66 Company was terminated in 1991. Phillips 66  
21 Company was formerly known as, did or does business as, and/or is the successor in liability to  
22 Phillips Petroleum Company; Phillips Chemical Company; Conoco, Inc.; Tosco Corporation; and  
23 Tosco Refining Co.

24 viii. Defendants ConocoPhillips, ConocoPhillips Company, Phillips 66, and  
25 Phillips 66 Company, as well as their predecessors, successors, parents, subsidiaries, affiliates, and  
26 divisions, are collectively referred to herein as "ConocoPhillips."  
27  
28

1           ix.           Plaintiffs' claims against ConocoPhillips arise out of and are related to the  
2 acts and omissions of ConocoPhillips in Oakland and elsewhere that caused and will cause injuries  
3 in Oakland.

4           x.           ConocoPhillips has purposefully directed its tortious conduct toward Oakland  
5 by distributing, marketing, advertising, promoting, and supplying its fossil fuel products in Oakland,  
6 with knowledge that the intended use of those products for combustion has caused and will continue  
7 to cause climate change-related harms in Oakland, including Plaintiffs' injuries. ConocoPhillips'  
8 statements in Oakland, in California, and elsewhere made in furtherance of its campaign of deception  
9 about and denial of climate change, and ConocoPhillips' affirmative promotion of its fossil fuel  
10 products as safe with knowledge of how the intended use of those products would cause climate  
11 change-related harms, were designed to conceal and mislead consumers and the public, including the  
12 City and its residents, about the serious adverse consequences that would result from continued use  
13 of ConocoPhillips' products. That conduct was purposefully directed to reach Oakland and obscure  
14 the dangers of ConocoPhillips' fossil fuel products from Oakland and its residents such that use of  
15 ConocoPhillips' fossil fuel products in Oakland would not decline.

16           xi.           Over the last several decades and continuing to the present day,  
17 ConocoPhillips spent millions of dollars on radio, television, online, social media, and outdoor  
18 advertisements in the Oakland market related to its fossil fuel products. Since at least 1970, and  
19 continuing to the present day, ConocoPhillips has advertised in print publications circulated widely  
20 to Oakland consumers, including but not limited to the following: *The Atlantic*, *Life*, *National*  
21 *Geographic*, *Newsweek*, *The New York Times*, *People*, *Sports Illustrated*, *Time Magazine*, *The Wall*  
22 *Street Journal*, and *The Washington Post*. As further detailed herein, these include advertisements  
23 containing false or misleading statements, misrepresentations, and/or material omissions obfuscating  
24 the connection between the production and use of ConocoPhillips' fossil fuel products and climate  
25 change, and/or misrepresenting ConocoPhillips' products or ConocoPhillips itself as  
26 environmentally friendly.

1           xii.       Significant quantities of ConocoPhillips' fossil fuel products are or have been  
2 transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in  
3 California, from which activities ConocoPhillips derives and has derived substantial revenue.

4           xiii.       ConocoPhillips conducts and controls, either directly or through franchise  
5 agreements, retail fossil fuel sales at gas station locations throughout Oakland and California, at  
6 which locations it promotes, advertises, and sells its fossil fuel products under its various brand  
7 names, including Conoco, Phillips 66, and 76. ConocoPhillips also markets and sells to California  
8 customers at retail outlets engine lubricants and motor oils under its Phillips 66, Kendall, and Red  
9 Line brand names. ConocoPhillips operates hundreds of 76-branded petroleum service stations  
10 throughout California, including in Oakland. During the period relevant to this Complaint,  
11 ConocoPhillips sold a substantial percentage of all retail gasoline sold in California.

12           xiv.       ConocoPhillips does substantial fossil fuel product-related business in  
13 Oakland, and a substantial quantity of its fossil fuel products are extracted, refined, transported,  
14 traded, distributed, marketed, and/or sold in California. For instance, ConocoPhillips owns and/or  
15 operates oil and natural gas terminals in Richmond and Los Angeles, California; owns and operates  
16 oil refineries in Arroyo Grande, Colton, and Wilmington, California; and distributes ConocoPhillips  
17 fossil fuel products throughout California, including Oakland. Phillips 66 also owns and operates oil  
18 refineries in Rodeo, Santa Maria, and Los Angeles, California. All of these refineries were owned  
19 and operated by ConocoPhillips and its predecessors-in-interest from 1997 to 2012.

20           xv.       ConocoPhillips has historically directed its fossil fuel product advertising,  
21 marketing, and promotional campaigns to Oakland, including through maps identifying its services  
22 throughout Oakland and California. ConocoPhillips markets and advertises its fossil fuel products in  
23 Oakland to Oakland residents by maintaining an interactive website available to prospective  
24 customers by which it directs Oakland and California residents to ConocoPhillips' nearby retail  
25 service stations. ConocoPhillips offers a proprietary credit card known as the "76 Credit Card,"  
26 which allows consumers in Oakland and California to pay for gasoline and other products at 76-  
27 branded service stations, and which encourages Oakland and California consumers to use 76-branded  
28 service stations by offering various rewards, including discounts on gasoline purchases at 76-branded



1 service stations and cash rebates. ConocoPhillips further maintains a nationwide smartphone  
2 application known as the “Fuel Forward App.” The application offers Oakland and California  
3 consumers a cashless payment method for gasoline and other products at 76-branded service stations.  
4 Oakland and California consumers utilize the payment method by providing their credit card  
5 information through the application. Oakland and California consumers can also apply for a 76 Credit  
6 Card through the application. By registering their personal identifying information in the application  
7 and by using the application to identify and activate gas pumps at 76-branded service stations,  
8 Oakland and California consumers can receive additional rewards, such as further discounts on  
9 ConocoPhillips gasoline purchases.

10 31. **Exxon entities: Exxon Mobil Corporation and ExxonMobil Oil Corporation**

11 i. Defendant **Exxon Mobil Corporation** is a New Jersey corporation  
12 headquartered in Spring, Texas, and has been registered to do business in California since 1972.  
13 Exxon Mobil Corporation is a multinational, vertically integrated energy and chemical company and  
14 one of the largest publicly traded international oil and gas companies in the world. Exxon Mobil  
15 Corporation was formerly known as, did or does business as, and/or is the successor in liability to  
16 Exxon Corporation; ExxonMobil Refining and Supply Company; Exxon Chemical U.S.A.;  
17 ExxonMobil Chemical Corporation; ExxonMobil Chemical U.S.A.; ExxonMobil Refining & Supply  
18 Corporation; Exxon Company, U.S.A.; Standard Oil Company of New Jersey; and Mobil  
19 Corporation.

20 ii. Defendant **ExxonMobil Oil Corporation** is a wholly owned subsidiary of  
21 Exxon Mobil Corporation, acts on Exxon Mobil Corporation’s behalf, and is subject to Exxon Mobil  
22 Corporation’s control. ExxonMobil Oil Corporation is a New York corporation headquartered in  
23 Spring, Texas, and has been registered to do business in California since 1959. ExxonMobil Oil  
24 Corporation was formerly known as, did or does business as, and/or is the successor in liability to  
25 Mobil Oil Corporation. ExxonMobil Oil Corporation is engaged in the business of oil and natural  
26 gas production, refining, marketing, and distribution.

27 iii. Exxon Mobil Corporation controls and has controlled group-wide decisions  
28 about the quantity and rate of fossil fuel production and sales, including those of its subsidiaries.

1 Exxon Mobil Corporation’s 2022 Form 10-K filed with the SEC represents that its success, including  
2 its “ability to mitigate risk and provide attractive returns to shareholders, depends on [its] ability to  
3 successfully manage [its] overall portfolio, including diversification among types and locations of  
4 [its] projects, products produced, and strategies to divest assets.” Exxon Mobil Corporation  
5 determines whether and to what extent its subsidiaries market, produce, and/or distribute fossil fuel  
6 products. For example, on October 11, 2023, Exxon Mobil Corporation announced its acquisition of  
7 Pioneer Natural Resources in a press release that referred to the corporate family generally as  
8 “ExxonMobil.”

9           iv.           Exxon Mobil Corporation controls and has controlled group-wide decisions,  
10 including those of its subsidiaries, related to marketing, advertising, greenhouse gas emissions and  
11 climate change resulting from the company’s fossil fuel products, and communications strategies  
12 concerning climate change and the link between fossil fuel use and climate-related impacts on the  
13 environment and humans. Exxon Mobil Corporation’s Board holds the highest level of direct  
14 responsibility for climate change policy. Exxon Mobil Corporation’s Chairman of the Board and  
15 Chief Executive Officer, its President, and the other members of its Management Committee have  
16 been actively engaged in discussions relating to greenhouse gas emissions and the risks of climate  
17 change on an ongoing basis. Exxon Mobil Corporation requires its subsidiaries, when seeking  
18 funding for capital investments, to provide estimates of project costs related to greenhouse gas  
19 emissions.

20           v.           Defendants Exxon Mobil Corporation, ExxonMobil Oil Corporation, and their  
21 predecessors, successors, parents, subsidiaries, affiliates, and divisions, are collectively referred to  
22 herein as “Exxon.”

23           vi.           Plaintiffs’ claims against Exxon arise out of and are related to the acts and  
24 omissions of Exxon in Oakland and elsewhere that caused and will cause injuries in Oakland.

25           vii.          Exxon consists of numerous divisions and affiliates in all areas of the fossil  
26 fuel industry, including exploration for and production of crude oil and natural gas; manufacture of  
27 petroleum products; and transportation, promotion, marketing, and sale of crude oil, natural gas, and  
28

1 petroleum products. Exxon is also a major manufacturer and marketer of commodity petrochemical  
2 products.

3           viii.       Exxon has purposefully directed its tortious conduct toward Oakland by  
4 distributing, marketing, advertising, promoting, and supplying its fossil fuel products in Oakland,  
5 with knowledge that the intended use of those products for combustion has caused and will continue  
6 to cause climate change-related harms in Oakland, including Plaintiffs' injuries. Exxon's statements  
7 in Oakland, in California and elsewhere, made in furtherance of its campaign of deception about and  
8 denial of climate change, and Exxon's affirmative promotion of its fossil fuel products as safe with  
9 knowledge of how the intended use of those products would cause climate change-related harms,  
10 were designed to conceal and mislead consumers and the public, including the City and its residents,  
11 about the serious adverse consequences that would result from continued use of Exxon's products.  
12 That conduct was purposefully directed to reach Oakland and obscure the dangers of Exxon's fossil  
13 fuel products from Oakland and its residents such that use of Exxon's fossil fuel products in Oakland  
14 would not decline.

15           ix.       Over the past several decades and continuing to the present day, Exxon spent  
16 millions of dollars on radio, television, online, social media, and outdoor advertisements in the  
17 Oakland market related to its fossil fuel products. Since at least 1972, and continuing to the present  
18 day, Exxon has advertised its fossil fuel products in print publications circulated widely to Oakland  
19 consumers, including but not limited to: *The Atlantic*, *Life*, *National Geographic*, *The New York*  
20 *Times*, *People*, *Sports Illustrated*, *Time*, *The Wall Street Journal*, and *The Washington Post*. As  
21 further detailed herein, these include advertisements containing false or misleading statements,  
22 misrepresentations, and/or material omissions designed to hide the connection between the  
23 production and use of Exxon's fossil fuel products and climate change, and/or misrepresenting  
24 Exxon's products or Exxon itself as environmentally friendly.

25           x.       Significant quantities of Exxon's fossil fuel products are or have been  
26 transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in  
27 Oakland and in California, from which activities Exxon derives and has derived substantial revenue.  
28 Exxon owns and operates a petroleum storage and transport facility in the San Ardo Oil Field in San

1 Ardo, California. Exxon and its predecessors owned and operated an oil refinery in Torrance,  
2 California from 1966 to 2016, shortly after an explosion disabled the refinery. Exxon Co. USA, an  
3 ExxonMobil subsidiary, operated a petroleum refinery in Benicia, California, from 1968 to 2000.  
4 Exxon also—both directly and through its subsidiaries and/or predecessors-in-interest—has supplied  
5 substantial quantities of fossil fuel products to California, including in Oakland, during the period  
6 relevant to this Complaint. Currently, Exxon promotes, markets, and sells gasoline and other fossil  
7 fuel products to California consumers through approximately 600 Exxon- and Mobil-branded  
8 petroleum service stations in California. During the period relevant to this Complaint, Exxon sold a  
9 substantial percentage of all retail gasoline in California. Exxon also markets and sells petroleum  
10 products, including engine lubricants and motor oils sold under the “Mobil 1” brand name, to  
11 Oakland customers through local retailers.

12 xi. Exxon historically directed its fossil fuel product advertising, marketing, and  
13 promotional campaigns to Oakland and California residents, including through maps that identify  
14 the locations of its service stations in California, including in Oakland. To this day, Exxon continues  
15 to market and advertise its fossil fuel products in Oakland to Oakland residents by maintaining an  
16 interactive website available to prospective customers that directs Oakland and California residents  
17 to Exxon’s nearby retail service stations and lubricant distributors. Further, Exxon promotes its  
18 products in Oakland and California by regularly updating and actively promoting its mobile device  
19 application, “Exxon Mobil Rewards+,” throughout Oakland and California, which encourages  
20 Oakland and California users to consume fuel at Exxon stations in Oakland and California in  
21 exchange for rewards on every fuel purchase.

22 32. **Shell Entities: Shell plc, Shell USA, Inc., and Shell Oil Products Company LLC**

23 i. Defendant **Shell plc** (formerly Royal Dutch Shell PLC) is a vertically  
24 integrated multinational energy and petrochemical company. Shell plc is incorporated in England  
25 and Wales, with its headquarters and principal place of business in The Hague, Netherlands. Shell  
26 plc is the ultimate parent company of numerous divisions, subsidiaries, and affiliates, referred to  
27 collectively as the “Shell Group,” that engage in all aspects of fossil fuel production, including  
28

1 exploration, development, extraction, manufacturing and energy production, transport, trading,  
2 marketing, and sales.

3           ii.       Shell plc controls and has controlled group-wide decisions about the quantity  
4 and extent of fossil fuel production and sales, including those of its subsidiaries. Shell plc's Board  
5 of Directors determines whether and to what extent Shell subsidiary holdings around the globe  
6 produce Shell-branded fossil fuel products.

7           iii.       Shell plc controls and has controlled group-wide decisions, including those of  
8 its subsidiaries, related to marketing, advertising, greenhouse gas emissions and climate change  
9 resulting from the company's fossil fuel products, and communications strategies concerning climate  
10 change and the link between fossil fuel use and climate-related impacts on the environment and  
11 humans. Overall accountability for climate change within the Shell Group lies with Shell plc's Chief  
12 Executive Officer and Executive Committee. For instance, at least as early as 1988, Shell plc, through  
13 its predecessors and subsidiaries, was researching company-wide CO<sub>2</sub> emissions and concluded that  
14 the Shell Group accounted for 4% of the CO<sub>2</sub> emitted worldwide from combustion, and that climatic  
15 changes could compel the Shell Group, as controlled by Shell plc, to examine the possibilities of  
16 expanding and contracting its business accordingly.

17           iv.       Defendant **Shell USA, Inc.** (formerly Shell Oil Company) is a wholly owned  
18 subsidiary of Shell plc that acts on Shell plc's behalf and is subject to Shell plc's control. Shell USA,  
19 Inc. is incorporated in Delaware, with its principal place of business in Houston, Texas. Shell USA,  
20 Inc. has been registered to do business in California since 1949. Shell USA, Inc. was formerly known  
21 as, did or does business as, and/or is the successor in liability to Shell Oil Company; Shell Oil; Deer  
22 Park Refining LP; Shell Oil Products US; Shell Chemical LP; Shell Trading (US) Company; Shell  
23 Energy Resources Company; Shell Energy Services Company, L.L.C.; The Pennzoil Company; and  
24 Pennzoil-Quaker State Company.

25           v.       Defendant **Shell Oil Products Company LLC** is a wholly owned subsidiary  
26 of Shell USA, Inc., that acts on Shell USA, Inc.'s behalf and is subject to Shell USA, Inc.'s control.  
27 Shell Oil Products Company LLC is incorporated in Delaware, with its principal place of business  
28 in Houston, Texas, and has been registered to do business in California since 2001. Shell Oil Products

1 Company LLC was formerly known as, did or does business as, and/or is the successor in liability to  
2 Shell Oil Products Company, which was a Delaware corporation that converted to a limited liability  
3 company in 2001.

4 vi. Defendants Shell plc, Shell USA, Inc., Shell Oil Products Company LLC, and  
5 their predecessors, successors, parents, subsidiaries, affiliates, and divisions are collectively referred  
6 to herein as “Shell.”

7 vii. Plaintiffs’ claims against Shell arise out of and are related to the acts and  
8 omissions of Shell in Oakland and elsewhere that caused and will cause injuries in Oakland.

9 viii. Shell has purposefully directed its tortious conduct toward Oakland by  
10 distributing, marketing, advertising, promoting, and supplying its fossil fuel products in Oakland,  
11 with knowledge that the intended use of those products for combustion has caused and will continue  
12 to cause climate change-related harms in Oakland, including Plaintiffs’ injuries. Shell’s statements  
13 in Oakland, in California, and elsewhere made in furtherance of its campaign of deception about and  
14 denial of climate change, and Shell’s affirmative promotion of its fossil fuel products as safe with  
15 knowledge of how the intended use of those products would cause climate change-related harms,  
16 were designed to conceal these harms and mislead consumers and the public, including the City and  
17 its residents, about the serious adverse consequences that would result from continued use of Shell’s  
18 products. That conduct was purposefully directed to reach Oakland and obscure the dangers of  
19 Shell’s fossil fuel products from Oakland and its residents such that use of Shell’s fossil fuel products  
20 in Oakland would not decline.

21 ix. Over the last several decades and continuing to the present day, Shell spent  
22 millions of dollars on radio, television, online, social media, and outdoor advertisements in the  
23 Oakland market related to its fossil fuel products. Since at least 1970, and continuing to the present  
24 day, Shell has advertised its fossil fuel products in print publications circulated widely to California  
25 consumers, including but not limited to the following: *The Atlantic*, *The Economist*, *Life*, *National*  
26 *Geographic*, *Newsweek*, *The New York Times*, *Sports Illustrated*, *Time Magazine*, *The Wall Street*  
27 *Journal*, and *The Washington Post*. As further detailed herein, these include advertisements  
28 containing false or misleading statements, misrepresentations, and/or material omissions obfuscating

1 the connection between the production and use of Shell's fossil fuel products and climate change,  
2 and/or misrepresenting Shell's products or Shell itself as environmentally friendly.

3 x. Significant quantities of Shell's fossil fuel products are or have been  
4 transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in  
5 California, including in Oakland, from which activities Shell derives and has derived substantial  
6 revenue. Shell conducts and controls, either directly or through franchise agreements, retail fossil  
7 fuel sales at gas station locations throughout California, including in California, at which locations  
8 it promotes, advertises, and sells its fossil fuel products under its Shell brand name. Shell operates  
9 over 1,000 Shell-branded petroleum service stations in California. During the period relevant to this  
10 Complaint, Shell sold a substantial percentage of all retail gasoline sold in California. Shell also  
11 supplies, markets, and promotes its Pennzoil line of lubricants at retail and service stations  
12 throughout California. From 1924 to 1992, Shell owned and operated an oil refinery in Carson,  
13 California, where it now owns and operates the property as a distribution facility for petroleum and  
14 petroleum products throughout Southern California. From 1915 to 2020, Shell owned and operated  
15 an oil refinery in Martinez, California. From 1998-2007, Shell owned and operated an oil refinery in  
16 Wilmington, California. From 1998 to 2005, Shell owned and operated an oil refinery in Bakersfield,  
17 California.

18 xi. Shell historically directed its fossil fuel product advertising, marketing, and  
19 promotional campaigns to Oakland and California, including through maps that identified the  
20 locations of its service stations in California, including in Oakland. Shell markets and advertises its  
21 fossil fuel products in Oakland to Oakland residents by maintaining an interactive website available  
22 to prospective customers by which it directs Oakland residents to Shell's nearby retail service  
23 stations. Shell offers a proprietary credit card known as the "Shell Fuel Rewards Card," which allows  
24 consumers in Oakland and in California to pay for gasoline and other products at Shell-branded  
25 service stations, and which encourages consumers to use Shell-branded gas stations by offering  
26 various rewards, including discounts on gasoline purchases. Shell further maintains a smartphone  
27 application known as the "Shell US App" that offers Oakland and California consumers a cashless  
28 payment method for gasoline and other products at Shell-branded service stations. Oakland and

1 California consumers utilize the payment method by providing their credit card information through  
2 the application. Oakland and California consumers can also receive rewards, including discounts on  
3 gasoline purchases, by registering their personal identifying information in the Shell US App and  
4 using the application to identify and activate gas pumps at Shell service stations during a purchase.

5 **C. Doe Defendants**

6 33. The true names and capacities, whether individual, corporate, associate, or otherwise  
7 of Defendants Does 1 through 10, inclusive, are unknown to Plaintiffs, who therefore sue said  
8 Defendants by such fictitious names pursuant to Code of Civil Procedure section 474. Plaintiffs are  
9 informed and believe, and on that basis allege, that each of the fictitiously named Defendants is  
10 responsible in some manner for the acts and occurrences herein alleged, and that Plaintiffs' harms  
11 were caused by such Defendants.

12 **D. Relevant Non-Parties: Defendants' Agents and Front Groups**

13 34. As detailed below, each Defendant had actual knowledge, or should have known, that  
14 its fossil fuel products were hazardous in that the intended use of the fossil fuel products for  
15 combustion would substantially contribute to climate change and result in harms to Plaintiffs.  
16 Defendants obtained knowledge of the hazards of their products independently and through their  
17 membership and involvement in trade associations.

18 35. Defendants employed, financed, and participated in several industry-created front  
19 groups to serve their mission of flooding the markets with climate change disinformation and  
20 denialism. These organizations, acting on behalf of and under Defendants' supervision and control,  
21 assisted the deception campaign by implementing public advertising and outreach campaigns to  
22 discredit climate science, funding scientists to cast doubt upon climate science and upon the extent  
23 to which climate change is caused by human activity. In sum, Defendants, through their front groups,  
24 engaged in a significant marketing campaign that misrepresented and concealed the dangers of their  
25 fossil fuel products with the aim of protecting or enhancing sales of these products to consumers,  
26 including consumers in California. Defendants actively supervised, facilitated, consented to, and/or  
27 directly participated in the misleading messaging of these front groups, from which Defendants  
28 profited significantly, including in the form of increased sales in California.



1                   36.     **The American Petroleum Institute (“API”)**

2                   i.           API is a national trade association representing the oil and gas  
3 industry, created in 1919. With more than 600 members, API is the country’s largest oil trade  
4 association. API’s purpose is to advance its members’ collective business interests, which includes  
5 increasing consumer consumption of oil and gas for the financial profit of Defendants and other oil  
6 and gas companies. Among other functions, API also coordinates members of the petroleum  
7 industry, gathers information of interest to the industry, and disseminates that information to its  
8 members. Acting on behalf of and under the supervision and control of Defendants, API has, since  
9 at least 1988, participated in and led several coalitions, front groups, and organizations that have  
10 promoted disinformation about the climate impacts of fossil fuel products to consumers—including,  
11 but not limited to, the Global Climate Coalition, Partnership for a Better Energy Future, Coalition  
12 for American Jobs, Alliance for Energy and Economic Growth, and Alliance for Climate Strategies.  
13 These front groups were formed to promote climate disinformation and advocacy from a purportedly  
14 objective source, when in fact these groups were financed and controlled by Defendants and other  
15 oil and gas companies. Defendants have benefited from the spread of this disinformation because,  
16 among other things, it has ensured a thriving consumer market for oil and gas, resulting in substantial  
17 profits for Defendants. In effect, API acts and has acted as a marketing arm for its member  
18 companies, including Defendants. Over the last several decades, API has spent millions of dollars  
19 on television, newspaper, radio, social media, and internet advertisements in the California market.

20                  ii.           Member companies participate in API strategy, governance, and  
21 operation through their membership dues and by contributing company officers and other personnel  
22 to API boards, committees, and task forces. Defendants have collectively steered the policies and  
23 trade practices of API through membership, Executive Committee roles, and/or providing budgetary  
24 funding for API. Defendants have used their control over and involvement in API to develop and  
25 execute a long-term advertising and communications campaign centered on climate change  
26 denialism. The goal of the campaign was to influence consumer demand for Defendants’ fossil fuel  
27 products. Defendants directly controlled, supervised, and participated in API’s misleading messaging  
28 regarding climate change. That conduct directly impacted California, as Defendants worked with

1 API to create and disseminate misleading advertisements that distinctly promote consumption of  
2 fossil fuel products in California.

3           iii.           All Defendants and/or their predecessors-in-interest have been key  
4 API members at all times relevant to this Complaint. All Defendants are currently members of API.  
5 Executives from Exxon, Shell, Chevron, ConocoPhillips, and BP have served on the API Executive  
6 Committee and/or as API Chairman, serving as corporate officers. For example, Exxon's CEO served  
7 on API's Executive Committee, including as President and Chairman, for 21 of the 29 years between  
8 1991 and 2020. Multiple high-level executives from Exxon, such as Presidents, Vice Presidents,  
9 CEOs, COOs, and Chairmans, served on API's Board in each year between 1994–2002. BP's CEO  
10 served as API's Chairman in 1988, 1989, and 1998. Multiple high-level executives from BP served  
11 on API's Board of Directors between 1994–2002. The Chairman and CEO of BP's predecessor  
12 ARCO served as API treasurer in 1998 and Chairman in 1999. Chevron's CEO served as API  
13 Chairman in 1994, 1995, 1997, 1998, 2003, and 2012. In 2002, Chevron's CEO served as API  
14 treasurer. Chairman and CEO of Chevron's predecessor Texaco served as API Board Chairman in  
15 2001, and as treasurer in 1999. Multiple high-level executives from Chevron served on API's Board  
16 of Directors in each year between 1994–2002. Shell's President served as API treasurer in 1997 and  
17 sat on the Board's executive committee from at least 2005–2006. Multiple high-level Shell  
18 executives served on API's Board of Directors between 1994–2002. ConocoPhillips Chairman and  
19 CEO was API Chairman from 2016–2018, and currently serves on API's executive committee. In  
20 2020, API elected Phillips 66 Chairman and CEO to serve a two-year term as its Board President,  
21 and Phillips 66's current President and CEO is on the API Board's executive committee. Multiple  
22 high-level ConocoPhillips executives served on API's Board of Directors between 1994–2002.

23           iv.           Relevant information was shared among API and Defendants and  
24 Defendants' predecessors-in-interest through the following: (1) API's distribution of information to  
25 its members, and/or (2) participation of Defendants' officers and other personnel, and those of  
26 Defendants' predecessors-in-interest, on API boards, committees, and task forces. This includes  
27 representatives of Exxon, Chevron, BP, Shell and ConocoPhillips sitting on both API's Committee  
28 for Air and Water Conservation and a special advisory group to API's Committee for Public Affairs,

1 which worked together to develop research reports on air emissions and other environmental topics.  
2 Different representatives of Exxon, Chevron, BP, Shell and ConocoPhillips rotated in and out of  
3 these positions throughout the time periods discussed in this complaint. In addition, representatives  
4 from Chevron and Exxon chaired API's Engineering and Technical Research Committee, and  
5 representatives from BP and Exxon chaired API's Health and Biological Research Committee, also  
6 developing research documents. Different representatives of Exxon, Chevron, BP, Shell and  
7 ConocoPhillips rotated in and out of these positions throughout the time periods discussed in this  
8 complaint.<sup>12</sup>

9 37. **The Information Council for the Environment ("ICE")** was formed by coal  
10 companies and their allies, including Western Fuels Association and the National Coal  
11 Association. Associated companies included Pittsburg and Midway Coal Mining (Chevron).

12 38. **The Global Climate Coalition ("GCC")** was an industry group formed to preserve  
13 and expand consumer demand for fossil fuels by publicly casting doubt on climate science and  
14 opposing greenhouse gas emission reduction initiatives. The GCC was founded in 1989 in reaction  
15 to the first meeting of the Intergovernmental Panel on Climate Change ("IPCC"), the United Nations  
16 body for assessing the science related to climate change, and to NASA scientist James Hansen's  
17 presentation to the Senate Committee on Energy and Natural Resources, in which Hansen  
18 emphasized that climate change was already happening and would lead to dire consequences if left  
19 unaddressed. The GCC disbanded in or around 2001. Founding members included API, Shell Oil  
20 Company (currently, Shell); Texaco, Inc. (currently, Chevron); Amoco (currently, BP); ARCO  
21 (owned by BP at the time); and Phillips Petroleum Company (currently, ConocoPhillips). Tom  
22 Lambrix, director of government relations for Phillips Petroleum, was the first chairman of the GCC.  
23 Exxon was also a corporate member of the GCC over the course of the GCC's existence. The GCC  
24 Board of Directors was composed of high-level executives from the fossil fuel industry: in 1994, for  
25 instance, the GCC Board was composed of executives from API, Exxon, Phillips Petroleum  
26

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27 <sup>12</sup> American Petroleum Institute, Comm. For Air and Water Conservation & Comm. On Public  
28 Affairs, *Environmental Research: A Status Report (1972)* (listing members of relevant committees  
and their fossil fuel company affiliations), <https://files.eric.ed.gov/fulltext/ED066339.pdf>.

1 Company (ConocoPhillips), and Texaco (Chevron).<sup>13</sup> In 1995, GCC’s Board of Directors included  
2 high-level executives from Texaco (Chevron), American Petroleum Institute, ARCO, and Phillips  
3 Petroleum Company.<sup>14</sup>

#### 4 IV. FACTUAL BACKGROUND

##### 5 A. Defendants Are Responsible for Causing and Accelerating Climate Change.

6 39. The atmosphere and oceans are warming, sea level is rising, snow and ice cover is  
7 diminishing, oceans are acidifying, and hydrogeologic systems have been altered, among other  
8 environmental changes.<sup>15</sup> These changes are directly harming people’s health, lives, lifestyles, and  
9 livelihoods, including in Oakland. According to the IPCC, the evidence that humans are causing this  
10 warming of the Earth is unequivocal.<sup>16</sup>

11 40. The mechanism by which human activity causes global warming and climate  
12 disruption is equally well-established: ocean and atmospheric warming is overwhelmingly caused  
13 by anthropogenic greenhouse gas emissions.<sup>17</sup> Over the past few decades, greenhouse gas emission  
14 rates have exceeded those predicted under previous “worst case” global emissions scenarios.

15 41. When used as intended to produce energy and create petrochemical products, fossil  
16 fuels release greenhouse gases, including CO<sub>2</sub> and methane, which trap atmospheric heat and  
17 increase global temperatures. Carbon dioxide is by far the most important greenhouse gas because  
18 combustion of massive amounts of fossil fuels has released hundreds of billions of tons of CO<sub>2</sub> into  
19 the atmosphere.

20 42. Prior to World War II, most anthropogenic CO<sub>2</sub> emissions were caused by land-use  
21 practices, such as forestry and agriculture, which altered the capacity of the land and global biosphere

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22  
23 <sup>13</sup> 1994 GCC Board Member List and Background Information, Climate Investigations Center,  
<https://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1994-board-member-list-general-info/>.

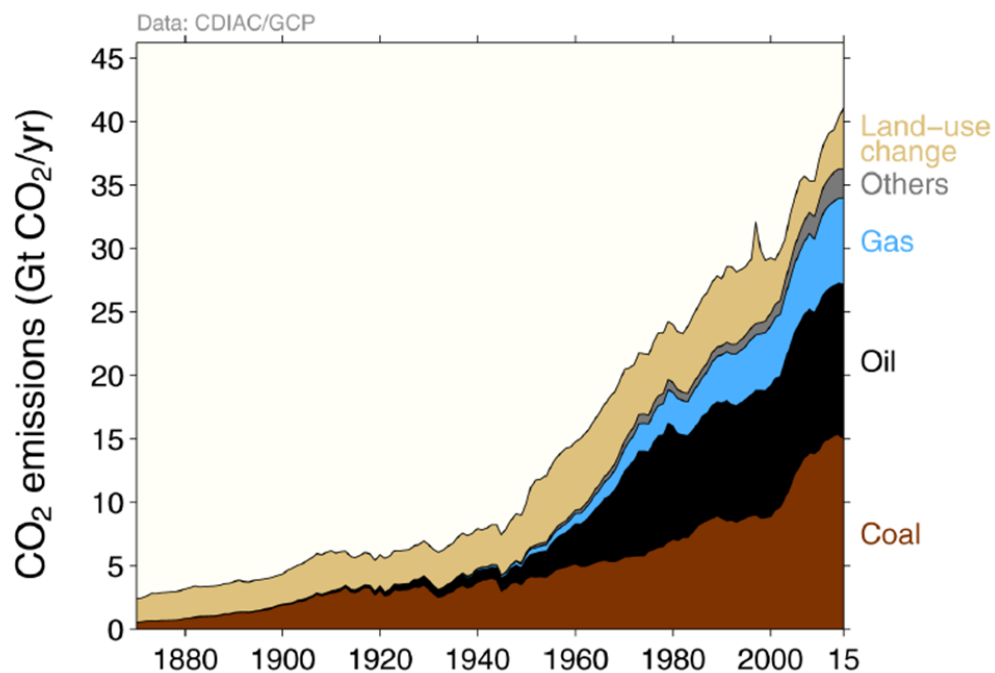
24 <sup>14</sup> 1995 GCC IRS 1024 and Attachments, Climate Investigations Center (1995),  
25 <https://www.documentcloud.org/documents/5798254-GCC-IRS-1023#document/p17>.

26 <sup>15</sup> IPCC, *Global Carbon and Other Biogeochemical Cycles and Feedbacks*, in *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I in the Sixth Assessment Report* 688 (2021).

27 <sup>16</sup> IPCC, *Climate Change 2021: The Physical Science Basis*, at v, 4, 41, 63, 150, 425, 506  
(2021), [https://report.ipcc.ch/ar6/wg1/IPCC\\_AR6\\_WGI\\_FullReport.pdf](https://report.ipcc.ch/ar6/wg1/IPCC_AR6_WGI_FullReport.pdf).

28 <sup>17</sup> *Id.* at 41.

1 to absorb and sequester CO<sub>2</sub> from the atmosphere. Those activities did not significantly alter  
 2 atmospheric CO<sub>2</sub> concentrations, and their impacts on Earth's climate were relatively minor. Since  
 3 that time, however, both the annual rate and total volume of anthropogenic CO<sub>2</sub> emissions have  
 4 increased enormously following the dramatic rise of the combustion of oil, gas, and coal. The graph  
 5 below shows that while CO<sub>2</sub> emissions attributable to forestry and other land-use changes have  
 6 remained relatively constant, total emissions attributable to fossil fuels have increased dramatically  
 7 since the 1950s.<sup>18</sup>



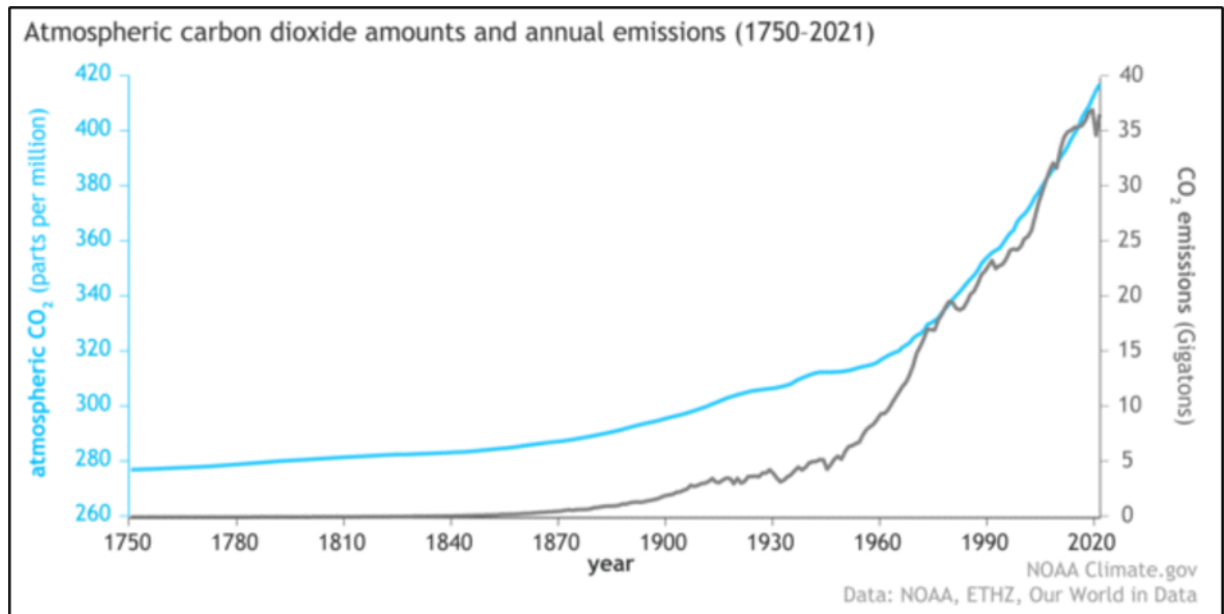
**Figure 1: Total Annual Carbon Dioxide Emissions by Source, 1860-2015:**

22 43. This acceleration of fossil fuel emissions has led to a correspondingly sharp rise in  
 23 atmospheric concentration of CO<sub>2</sub>. Since 1960, the concentration of CO<sub>2</sub> in the atmosphere has  
 24

25 <sup>18</sup> Global Carbon Project, *Global Carbon Budget 2016* (Nov. 14, 2016),  
 26 [www.globalcarbonproject.org/carbonbudget/16/files/GCP\\_CarbonBudget\\_2016.pdf](http://www.globalcarbonproject.org/carbonbudget/16/files/GCP_CarbonBudget_2016.pdf), citing  
 27 CDIAC; R.A. Houghton et al., *Carbon emissions from land use and land-cover change* (2012),  
 28 <http://www.biogeosciences.net/9/5125/2012/bg-9-5125-2012.html>; Louis Giglio et al., Analysis of  
 daily, monthly, and annual burned area using the fourth-generation global fire emissions database  
 (2013), <http://onlinelibrary.wiley.com/doi/10.1002/jgrg.20042/abstract>; C. Le Quéré et al., Global  
 Carbon Budget 2016, *Earth Syst. Sci. Data* 8 (2016), <http://www.earth-syst-sci-data.net/8/605/2016/>.

1 spiked from under 320 parts per million (“ppm”) to approximately 427 ppm.<sup>19</sup> The concentration of  
2 atmospheric CO<sub>2</sub> has also been accelerating. From 1960 to 1970, atmospheric CO<sub>2</sub> increased by an  
3 average of approximately 0.9 ppm per year.<sup>20</sup>

4 44. The graph below indicates the tight nexus between the sharp increase in emissions  
5 from the combustion of fossil fuels and the steep rise of atmospheric concentrations of CO<sub>2</sub>.



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**Figure 2: Atmospheric CO<sub>2</sub> Concentration and Annual Emissions**<sup>21</sup>

16  
17  
18 45. The increase in atmospheric CO<sub>2</sub> caused by fossil fuel combustion has been clearly  
19 documented and measured, and the ratio of different carbon isotopes in the atmosphere indicates that  
20 fossil fuel combustion is the overwhelming source of the increased concentration.<sup>22</sup>

21  
22  
23  
24 <sup>19</sup> *Trends in Atmospheric Carbon Dioxide: Full Record*, GLOBAL MONITORING LABORATORY, <https://gml.noaa.gov/ccgg/trends/mlo.html>.

25 <sup>20</sup> *Trends in Atmospheric Carbon Dioxide: Growth Rate*, GLOBAL MONITORING LABORATORY <https://gml.noaa.gov/ccgg/trends/gr.html>.

26 <sup>21</sup> Rebecca Lindsey, *Climate Change: Atmospheric Carbon Dioxide*, CLIMATE.GOV (May 12, 2023), <https://www.climate.gov/news-features/understanding-climate/climate-change-atmospheric-carbon-dioxide>.

27 <sup>22</sup> *The Data: What Carbon-14 Tells Us*, GLOBAL MONITORING LABORATORY, <https://gml.noaa.gov/ccgg/isotopes/c14tellsus.html>.

1           46.     Because of the increased burning of fossil fuel products, concentrations of greenhouse  
2 gases in the atmosphere are now at an unprecedented level, one not seen in at least three million  
3 years.<sup>23</sup>

4           47.     The result has been dramatic planetary warming. Ocean and land surface temperatures  
5 have increased at a rapid pace during the late 20th and early 21st centuries:

6           i.       2023 was the hottest year on record by globally averaged surface  
7 temperatures, exceeding mid-20th century mean ocean and land surface temperatures by  
8 approximately 2.12° F. Each month in 2023 was one of the seven hottest by globally averaged surface  
9 temperatures of those respective months in any previous year. June, July, August, September,  
10 October, November, and December 2023 were all the hottest average surface temperatures for those  
11 months.<sup>24</sup>

12           ii.      The second hottest year on record by globally averaged surface temperatures  
13 was 2016, and the third hottest was 2020.<sup>25</sup>

14           iii.     The ten hottest years on record by globally averaged surface temperature have  
15 all occurred since 2014.<sup>26</sup>

16           48.     The average global surface and ocean temperature in 2023 was approximately 2.12° F  
17 warmer than the 20th century baseline, which is the greatest positive anomaly observed since at least  
18 1850.<sup>27</sup> The increase in hotter temperatures and more frequent positive anomalies during the Great  
19 Acceleration is occurring both globally and locally, including in Oakland. The graph below shows  
20  
21  
22

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23           <sup>23</sup> *More CO<sub>2</sub> than ever before in 3 million years, shows unprecedented computer simulation,*  
24 SCIENCE DAILY (Apr. 3, 2019),  
<https://www.sciencedaily.com/releases/2019/04/190403155436.htm>.

25           <sup>24</sup> NOAA National Center for Environmental Information, NOAA, Annual 2023 Global  
26 Climate Report (Jan. 2024), [https://www.ncei.noaa.gov/access/monitoring/monthly-  
report/global/202313](https://www.ncei.noaa.gov/access/monitoring/monthly-report/global/202313).

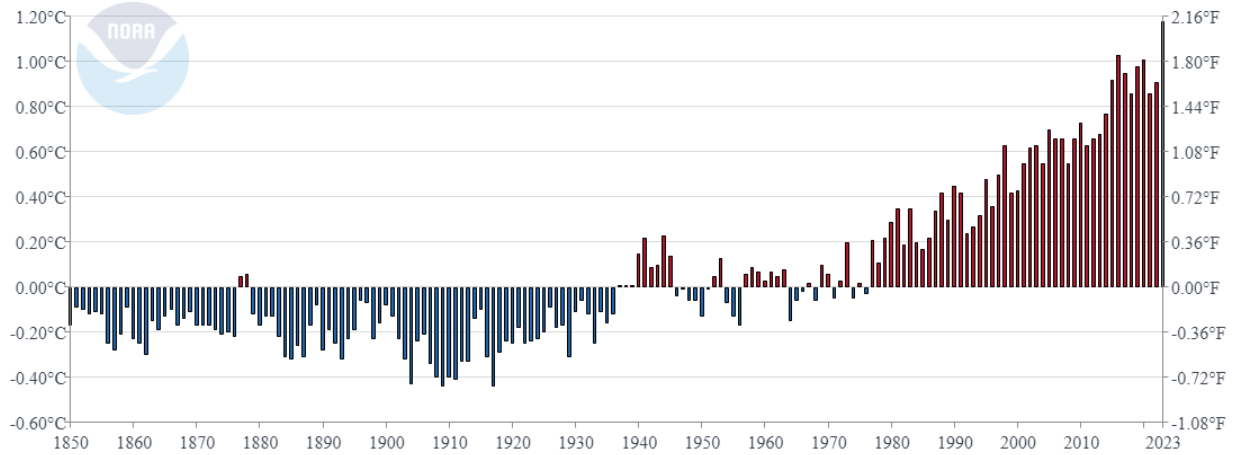
26           <sup>25</sup> *Ibid.*

27           <sup>26</sup> *Ibid.*

28           <sup>27</sup> NOAA National Center for Environmental Information, NOAA, Annual 2023 Global  
Climate Report (Jan. 2024), [https://www.ncei.noaa.gov/access/monitoring/monthly-  
report/global/202313](https://www.ncei.noaa.gov/access/monitoring/monthly-report/global/202313).

1 the increase in global land and ocean temperature anomalies since 1850, as measured against the  
2 1901–2000 global average temperature.<sup>28</sup>

3 **Global Land and Ocean**  
4 January-December Temperature Anomalies



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11 **Figure 3: Global Land and Ocean Temperature Anomalies, January – December**

12  
13 49. California has already experienced 2.5 ° F of warming since 1895. And this warming  
14 has accelerated, with seven of the past eight years setting records for warmest year on record.<sup>29</sup>

15 50. As greenhouse gases accumulate in the atmosphere, the Earth radiates less energy  
16 back to space. This accumulation and associated disruption of the Earth’s energy balance have  
17 myriad environmental and physical consequences, including, but not limited to, the following:

18 i. Warming of the Earth’s average surface temperature, both locally and  
19 globally, and increased frequency and intensity of heat waves.

20 ii. Sea level rise, due to the thermal expansion of warming ocean waters and  
21 runoff from melting glaciers and ice sheets.

22 iii. Changes to the global climate generally, bringing about longer droughts and  
23 dry periods interspersed with fewer and more severe periods of precipitation, and associated impacts  
24 to the quantity and quality of water resources available to both human and ecological systems.

25  
26  
27 <sup>28</sup> See *id.*

28 <sup>29</sup> Cal. Office of Environmental Health Hazard Assessment, *Air temperatures*,  
<https://oehha.ca.gov/climate-change/epic-2022/changes-climate/air-temperatures>.



1           iv.           Increased frequency and intensity of extreme weather events due to increases  
2 in evaporation, evapotranspiration, and precipitation, a consequence of the warming atmosphere’s  
3 increased ability to hold moisture.

4           v.           Adverse impacts on human health associated with extreme weather, extreme  
5 heat, worsening air quality, and vector-borne illnesses.

6           vi.           Flooding and inundation of land and infrastructure, increased erosion, higher  
7 wave run-up and tides, increased frequency and severity of storm surges, saltwater intrusion, rising  
8 groundwater levels, and other impacts of higher sea levels.

9           vii.          Ocean acidification, primarily due to the increased uptake of atmospheric  
10 carbon dioxide by the oceans.

11          51.          Changes to terrestrial and marine ecosystems, and consequent impacts on the  
12 populations and ranges of flora and fauna.

13                   **B.          Defendants Either Knew or Should Have Known the Dangers Associated with**  
14                   **Their Fossil Fuel Products.**

15          52.          For decades, Defendants have known that their fossil fuel products pose risks of  
16 “severe” and even “catastrophic” impacts on the global climate through the work and warnings of  
17 their own scientists and/or through trade associations such as API. Defendants consistently  
18 researched or funded research into significant issues relevant to fossil fuels, and were aware of  
19 significant scientific reports on climate change science and impacts at the time they were issued.  
20 Thus, Defendants developed a sophisticated understanding of climate change that far exceeded the  
21 knowledge of the public, ordinary consumers, and the City. Yet each Defendant decided to continue  
22 its conduct and commit itself to massive fossil fuel production. This was a deliberate decision to  
23 place company profits ahead of human safety and well-being, and to foist onto the public the costs  
24 of abating and adapting to the public nuisance of global warming.

25          53.          Although concealed at the time, the industry’s knowledge was later uncovered by  
26 journalists at *Inside Climate News* and the *Los Angeles Times*, among others.<sup>30</sup> In 1954, geochemist  
27

28                   <sup>30</sup> See discussion *infra* ¶¶ 147–50.

1 Harrison Brown and his colleagues at the California Institute of Technology wrote to API, informing  
2 the trade association that preliminary measurements of natural archives of carbon in tree rings  
3 indicated that fossil fuels had caused atmospheric carbon dioxide levels to increase by about 5% since  
4 1840.<sup>31</sup> API provided those scientists funding for various research projects, and measurements of  
5 carbon dioxide continued for at least one year and possibly longer, although the results were never  
6 published or otherwise made available to the public.<sup>32</sup> In 1957, H.R. Brannon of Humble Oil  
7 Company (predecessor-in-interest to Exxon) measured an increase in atmospheric carbon dioxide  
8 attributable to fossil fuels, similar to—and in agreement with—that measured by Harrison Brown.<sup>33</sup>

9         54. In 1959, API organized a centennial celebration of the American oil industry at  
10 Columbia University in New York City.<sup>34</sup> High-level representatives of Defendants were in  
11 attendance. One of the keynote speakers was nuclear physicist Edward Teller. Teller warned the  
12 industry that “a temperature rise corresponding to a 10[%] increase in carbon dioxide will be  
13 sufficient to melt the icecap and submerge . . . [a]ll the coastal cities.” Teller added that since “a  
14 considerable percentage of the human race lives in coastal regions, I think that this chemical  
15 contamination is more serious than most people tend to believe.”<sup>35</sup> Following his speech, Teller was  
16 asked to “summarize briefly the danger from increased carbon dioxide content in the atmosphere in  
17 this century.” He responded that “there is a possibility the icecaps will start melting and the level of  
18 the oceans will begin to rise.”<sup>36</sup>

19         55. In 1965, the president of API, Frank Ikard, relayed the findings of a recent report to  
20 leaders of the fossil fuel industry at API’s annual meeting, saying, “[o]ne of the most important  
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22 <sup>31</sup> See Benjamin Franta, *Early Oil Industry Knowledge of CO<sub>2</sub> and Global Warming*, 8 *Nature*  
23 *Climate Change* 1024, 1024–25 (2018).

24 <sup>32</sup> *Ibid.*

25 <sup>33</sup> *Ibid.*; H.R. Brannon, Jr. et al., *Radiocarbon Evidence on the Dilution of Atmospheric and*  
26 *Oceanic Carbon by Carbon from Fossil Fuels* (1957) 38 *Am. Geophysical Union Transactions*  
27 643, 644–46.

28 <sup>34</sup> See Allan Nevins & Robert G. Dunlop, *Energy and Man: A Symposium* (Appleton-Century-  
Crofts, New York 1960). See also Franta, *Early Oil Industry Knowledge of CO<sub>2</sub> and Global*  
*Warming* at 1024–25.

<sup>35</sup> Edward Teller, *Energy Patterns of the Future*, in *Energy and Man: A Symposium* 53–72  
(1960).

<sup>36</sup> *Id.* at 70.

1 predictions of the report is that carbon dioxide is being added to the earth's atmosphere by the burning  
2 of coal, oil, and natural gas at such a rate that by the year 2000 the heat balance will be so modified  
3 as possibly to cause marked changes in climate beyond local or even national efforts," and quoting  
4 the report's finding that "the pollution from internal combustion engines is so serious, and is growing  
5 so fast, that an alternative nonpolluting means of powering automobiles, buses, and trucks is likely  
6 to become a national necessity."<sup>37</sup>

7           56. Thus, by 1965, Defendants and their predecessors-in-interest were aware that the  
8 scientific community had found that fossil fuel products, if used profligately, would cause global  
9 warming by the end of the century, and that such global warming would have wide-ranging and  
10 costly consequences.

11           57. In 1968, API received a report from the Stanford Research Institute, which it had  
12 hired to assess the state of research on environmental pollutants, including carbon dioxide.<sup>38</sup> The  
13 assessment endorsed the findings of President Johnson's Scientific Advisory Council from three  
14 years prior, stating that carbon dioxide emissions were "almost certain" to produce "significant"  
15 temperature increases by 2000, and that these emissions were almost certainly attributable to fossil  
16 fuels. The report warned of "major changes in the earth's environment" and a "rise in sea levels,"  
17 and concluded: "there seems to be no doubt that the potential damage to our environment could be  
18 severe." The scientists warned of "melting of the Antarctic ice cap" and informed API that "[p]ast  
19 and present studies of CO<sub>2</sub> are detailed and seem to explain adequately the present state of CO<sub>2</sub> in  
20 the atmosphere." What was missing, the scientists said, was work on "air pollution technology and  
21 . . . systems in which CO<sub>2</sub> emissions would be brought under control."<sup>39</sup>

22           58. In 1969, the Stanford Research Institute delivered a supplemental report on air  
23 pollution to API, projecting with alarming particularity that atmospheric CO<sub>2</sub> concentrations would  
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25           <sup>37</sup> Ikard, *Meeting the Challenges of 1966*, in Proceedings of the American Petroleum Institute  
26 (1965) at 13, available at <https://www.documentcloud.org/documents/5348130-1965-API-Proceedings>.

27           <sup>38</sup> Elmer Robinson & R.C. Robbins, *Sources, Abundance, and Fate of Gaseous Atmospheric*  
28 *Pollutants*, Stanford Rsch. Inst. (Feb. 1968), available at  
<https://www.smokeandfumes.org/documents/document16>.

<sup>39</sup> *Id.* at 108, 112.

1 reach 370 parts per million (“ppm”) by 2000.<sup>40</sup> This projection turned out to almost exactly match  
2 the actual CO<sub>2</sub> concentrations measured in 2000 of 369.64 ppm.<sup>41</sup> The report explicitly connected  
3 the rise in CO<sub>2</sub> levels to the combustion of fossil fuels, finding it “unlikely that the observed rise in  
4 atmospheric CO<sub>2</sub> has been due to changes in the biosphere.”

5  
6 59. By virtue of their membership and participation in API at that time, Defendants  
7 received or should have received the Stanford Research Institute reports and were on notice of their  
8 conclusions.

9  
10 60. In 1972, API members—including Defendants—received a status report on all  
11 environmental research projects funded by API. The report summarized the 1968 SRI report  
12 describing the impact of fossil fuel products—including Defendants’—on the environment, including  
13 global warming and its attendant consequences. Defendants and/or their predecessors-in-interest that  
14 received this report included but were not limited to: American Standard of Indiana (BP), Asiatic  
15 (Shell), Atlantic Richfield (BP), British Petroleum (BP), Chevron Standard of California (Chevron),  
16 Esso Research (Exxon), Ethyl (formerly affiliated with Esso, which was subsumed by Exxon), Getty  
17 (Exxon), Gulf (Chevron, among others), Humble Standard of New Jersey (Exxon, Chevron, BP),  
18 Mobil (Exxon), Pan American (BP), Shell, Standard of Ohio (BP), Texaco (Chevron), Union  
19 (Chevron), Skelly (Exxon), Colonial Pipeline (ownership has included BP, Exxon, and Chevron  
20 entities, among others), Continental (ConocoPhillips), Dupont (former owner of Conoco), Phillips  
21 (ConocoPhillips), and Caltex (Chevron).<sup>42</sup>

22  
23 61. In 1977, James Black of Exxon gave a presentation to Exxon executives on the  
24 “greenhouse effect,” which was summarized in an internal memo the following year. Black reported  
25 that “[t]here is general scientific agreement that the most likely manner in which mankind is  
26 influencing the global climate is through carbon dioxide release from the burning of fossil fuels.” He

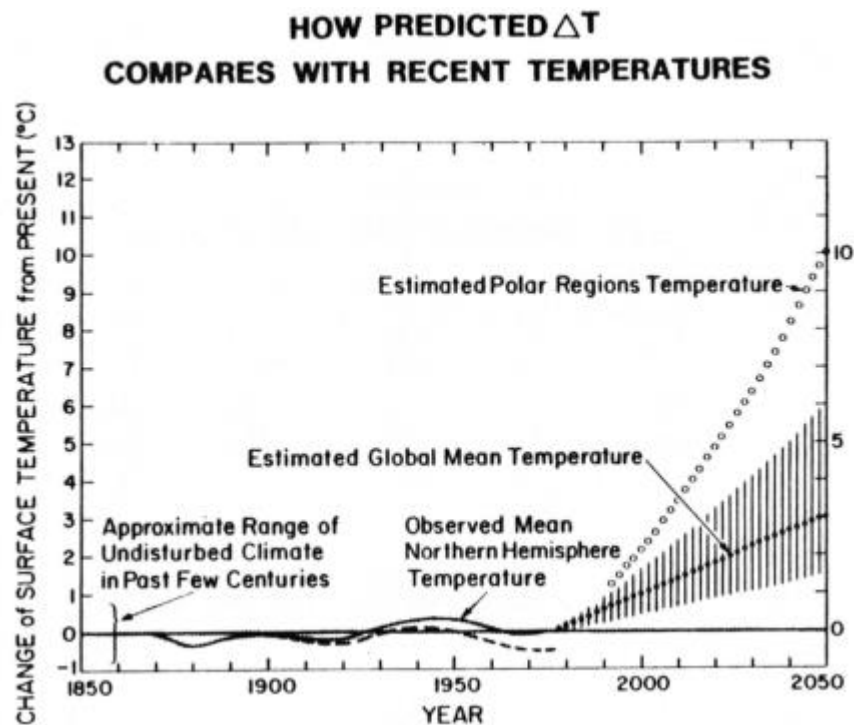
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27 <sup>40</sup> Elmer Robinson & R.C. Robbins, *Sources, Abundance, and Fate of Gaseous Atmospheric*  
28 *Pollutants Supplement*, Stanford Rsch. Inst. (June 1969).

<sup>41</sup> NASA Goddard Institute for Space Studies, *Global Mean CO<sub>2</sub> Mixing Ratios (ppm):*  
*Observations*, <https://data.giss.nasa.gov/modelforce/ghgases/Fig1A.ext.txt>.

<sup>42</sup> American Petroleum Institute, *Committee for Air and Water Conservation, Environmental*  
*Research: A Status Report* (Jan. 1972), <http://files.eric.ed.gov/fulltext/ED066339.pdf>.

1 noted that “current scientific opinion overwhelmingly favors attributing atmospheric carbon dioxide  
2 increase to fossil fuel consumption,” and relayed that doubling atmospheric carbon dioxide would,  
3 according to the best climate model available, “produce a mean temperature increase of about 2 °C  
4 to 3 °C [3.6 °F to 5.4 °F] over most of the earth,” with two to three times as much warming at the  
5 poles.<sup>43</sup> Black also reported that “[p]resent thinking holds that man has a time window of five to ten  
6 years before the need for hard decisions regarding changes in energy strategies might become  
7 critical.”<sup>44</sup> The figure below, reproduced from Black’s memo, illustrates Exxon’s understanding of  
8 the timescale and magnitude of global warming that its products would cause.



22 **Figure 4: Future Global Warming Predicted Internally by Exxon in 1977**<sup>45</sup>

24 <sup>43</sup> J.F. Black, Exxon Research and Engineering Co., memorandum to F.G. Turpin, Exxon  
25 Research and Engineering Co. re The Greenhouse Effect (June 6, 1978) at 2, 23, available at  
26 <https://www.documentcloud.org/documents/2805568-1978-Exxon-Presentation-on-GreenhouseEffect>.

27 <sup>44</sup> *Id.* at 2.

28 <sup>45</sup> *Id.* at 26. The company predicted global warming of 1°C to 3°C (33.8 °F to 37.4 °F) by 2050,  
with 10 °C (50 °F) warming in polar regions. The difference between the lower dashed and solid  
curves prior to 1977 represents global warming that Exxon believed may already have been  
occurring. *Ibid.*

1           62. Also in 1977, Henry Shaw of the Exxon Research and Engineering Technology  
2 Feasibility Center attended a meeting of scientists and governmental officials in Atlanta, Georgia, on  
3 developing research programs to study carbon dioxide and global warming. Shaw’s internal memo  
4 to Exxon’s John W. Harrison reported that “[t]he climatic effects of carbon dioxide release may be  
5 the primary limiting factor on energy production from fossil fuels[.]”<sup>46</sup>

6           63. In 1979, an internal Exxon memorandum stated, “The most widely held theory [about  
7 the increase in CO<sub>2</sub> concentration in the atmosphere] is that: The increase is due to fossil fuel  
8 combustion; [i]ncreasing CO<sub>2</sub> concentration will cause a warming of the earth’s surface; [and t]he  
9 present trend of fossil fuel consumption will cause dramatic environmental effects before the year  
10 2050. . . . The potential problem is great and urgent.” The memo added that, if limits were not placed  
11 on fossil fuel production,

12           Noticeable temperature changes would occur around 2010 as the [CO<sub>2</sub>] concentration  
13 reaches 400 ppm. Significant climatic changes occur around 2035 when the concentration  
14 approaches 500 ppm. A doubling of the pre-industrial concentration [i.e., 580 ppm]  
occurs around 2050. The doubling would bring about dramatic changes in the world’s  
environment[.]<sup>47</sup>

15 Those projections proved remarkably accurate. Annual average atmospheric CO<sub>2</sub> concentrations  
16 surpassed 400 ppm in 2015 for the first time in millions of years.<sup>48</sup> Given the lag time between  
17 greenhouse gas emissions and atmospheric CO<sub>2</sub> concentrations, limiting the CO<sub>2</sub> concentration in  
18 the atmosphere to 440 ppm, or a 50% increase over preindustrial levels, which the Exxon memo said  
19 was “assumed to be a relatively safe level for the environment,” would require fossil fuel emissions  
20 to peak in the 1990s and non-fossil energy systems to be rapidly deployed. Eighty percent of fossil  
21 fuel resources, the memo calculated, would have to be left in the ground to avoid doubling  
22

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25 <sup>46</sup> Henry Shaw, *Environmental Effects of Carbon Dioxide*, *Climate Investigations Ctr.* (Oct. 31,  
1977), <https://www.industrydocuments.ucsf.edu/docs/tpwl0228>.

26 <sup>47</sup> W.L. Ferrall, Exxon Research and Engineering Co., memorandum to Dr. R.L. Hirsch re  
Controlling Atmospheric CO<sub>2</sub> (Oct. 16, 1979), at 1–2, 5, available at  
27 <https://www.industrydocuments.ucsf.edu/docs/mqwl0228>.

28 <sup>48</sup> Nicola Jones, *How the World Passed a Carbon Threshold and Why It Matters*, *Yale Env’t*  
360 (Jan. 26, 2017), <https://e360.yale.edu/features/how-the-world-passed-a-carbon-threshold-400ppm-and-why-it-matters>.

1 atmospheric carbon dioxide concentrations. Certain fossil fuels, such as shale oil, could not be  
2 substantially exploited at all.<sup>49</sup>

3 64. But instead of disclosing to consumers any aspects of these research findings, in  
4 November 1979, according to internal correspondence, Exxon urged “a very aggressive defensive  
5 program in . . . atmospheric science and climate” to “anticipate the strong intervention of  
6 environmental groups.”<sup>50</sup> It urged an expanded research effort to “prepare[] for, and [get] ahead of  
7 the government in making the public aware of pollution problems.”<sup>51</sup>

8 65. In 1979, API and its members, including Defendants, convened a Task Force to  
9 monitor and share cutting edge climate research among the oil industry. The group was initially  
10 called the CO<sub>2</sub> and Climate Task Force, but changed its name to the Climate and Energy Task Force  
11 in 1980 (hereinafter referred to as “API CO<sub>2</sub> Task Force”). API kept and distributed meeting minutes  
12 to Task Force members. Membership included senior scientists and engineers from nearly every  
13 major U.S. and multinational oil and gas company, including Exxon, Mobil (Exxon), Amoco (BP),  
14 Phillips (ConocoPhillips), Texaco (Chevron), Shell, Sunoco, Sohio (BP) as well as Standard Oil of  
15 California (Chevron) and Gulf Oil (Chevron, among others). The Task Force was charged with  
16 assessing the implications of emerging science on the petroleum and gas industries and identifying  
17 where reductions in greenhouse gas emissions from Defendants’ fossil fuel products could be made.<sup>52</sup>

18 66. In 1979, a paper prepared by API for the Task Force asserted that CO<sub>2</sub> concentrations  
19 were rising, and predicted that, although global warming would occur, it would likely go undetected  
20 until approximately the year 2000 because its effects were being temporarily masked by a natural  
21 cooling trend.<sup>53</sup>

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23 <sup>49</sup> W.L. Ferrall, *Controlling Atmospheric CO<sub>2</sub>*, *supra* note 47, at 3, 6–7.

24 <sup>50</sup> H. Shaw memorandum to H.N. Weinberg re Research in Atmospheric Science (Nov. 19,  
1979) at 2, available at <https://www.industrydocuments.ucsf.edu/docs/yqwl0228>.

25 <sup>51</sup> *Id.* at 1–2.

26 <sup>52</sup> American Petroleum Institute, AQ-9 Task Force Meeting Minutes (March 18, 1980),  
<http://insideclimatenews.org/sites/default/files/documents/AQ-9%20Task%20Force%20Meeting%20%281980%29.pdf> (AQ-9 refers to the “CO<sub>2</sub> and Climate”  
Task Force).

27 <sup>53</sup> R.J. Campion memorandum to J.T. Burgess re Comments on The API’s Background Paper  
28 on CO<sub>2</sub> Effects (Sept. 6, 1979), available at <https://www.industrydocuments.ucsf.edu/docs/lqwl0228>.

1           67. In 1980, the Task Force invited Dr. J.A. Laurman, a “recognized expert in the field of  
2 CO<sub>2</sub> and climate,” to make a presentation to its members.<sup>54</sup> The meeting lasted for seven hours and  
3 included a “complete technical discussion” of global warming caused by fossil fuels, including “the  
4 scientific basis and technical evidence of CO<sub>2</sub> buildup, impact on society, methods of modeling and  
5 their consequences, uncertainties, policy implications, and conclusions that can be drawn from  
6 present knowledge.” Attendees to the presentation included scientists and executives from API,  
7 Texaco (a predecessor to Chevron), Exxon, and SOHIO (a predecessor to BP), and the minutes of  
8 the meeting were distributed to the entire Task Force. Dr. Laurman’s written presentation informed  
9 the Task Force that there was a “Scientific Consensus on the Potential for Large Future Climatic  
10 Response to Increased CO<sub>2</sub> Levels.” He further informed the Task Force in his presentation that,  
11 though the exact temperature increases were difficult to predict, the “physical facts agree on the  
12 probability of large effects 50 years away.” He warned the Task Force of a 2.5 °C [4.5 °F] global  
13 temperature rise by 2038, which would likely have “MAJOR ECONOMIC CONSEQUENCES,”  
14 and a 5 °C [9 °F] rise by 2067, which would likely produce “GLOBALLY CATASTROPHIC  
15 EFFECTS.” He also suggested that, despite uncertainty, “THERE IS NO LEEWAY” in the time for  
16 acting.<sup>55</sup>

17           68. At this presentation, API minutes show that the API CO<sub>2</sub> Task Force discussed topics  
18 including “the technical implications of energy source changeover” and “ground rules for energy  
19 release of fuels and the cleanup of fuels as they relate to CO<sub>2</sub> creation.” The Task Force also discussed  
20 a potential area for investigation: alternative energy sources as a means of mitigating CO<sub>2</sub> emissions  
21 from Defendants’ fossil fuel products. These efforts called for research and development to  
22 “Investigate the Market Penetration Requirements of Introducing a New Energy Source into World  
23 Wide Use.” Such investigation was to include the technical implications of energy source  
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26 <sup>54</sup> J. J. Nelson, American Petroleum Institute, letter to AQ-9 Task Force re The CO<sub>2</sub> Problem;  
Addressing Research Agenda Development (Mar. 18, 1980) at 2, available at  
<https://www.industrydocuments.ucsf.edu/docs/gffl0228>.

27 <sup>55</sup> CO<sub>2</sub> and Climate Task Force, Minutes of Meeting, at 1–2 & Attachment B, available at  
28 <http://insideclimatenews.org/sites/default/files/documents/AQ-9%20Task%20Force%20Meeting%20%281980%29.pdf>.



1 changeover, research timing, and requirements. The Task Force even asked the question “what is the  
2 50 year future of fossil fuels?”<sup>56</sup>

3 69. In 1980, a Canadian Esso (Exxon) company reported to managers and staff at  
4 affiliated Esso and Exxon companies that there was “no doubt” that fossil fuels were aggravating the  
5 build-up of CO<sub>2</sub> in the atmosphere, and that “[t]echnology exists to remove CO<sub>2</sub> from stack gases  
6 but removal of only 50% of the CO<sub>2</sub> would double the cost of power generation.”<sup>57</sup>

7 70. In December 1980, an Exxon manager distributed a memorandum on the “CO<sub>2</sub>  
8 Greenhouse Effect” attributing future buildup of carbon dioxide to fossil fuel use, and explaining  
9 that internal calculations indicated that atmospheric carbon dioxide could double by around 2060,  
10 “most likely” resulting in global warming of approximately 3.0 ± 1.5°C (2.7 to 8.1 °F).<sup>58</sup> Calculations  
11 predicting a lower temperature increase, such as 0.25 °C (0.45 °F), were “not held in high regard by  
12 the scientific community[.]” The memo also reported that such global warming would cause  
13 “increased rainfall[] and increased evaporation,” which would have a “dramatic impact on soil  
14 moisture, and in turn, on agriculture” and other “serious global problems[.]” The memo called for  
15 “society” to pay the bill, estimating that some adaptive measures would cost no more than “a few  
16 percent” of gross national product.<sup>59</sup> Shaw also reported that Exxon had studied various responses  
17 for avoiding or reducing a carbon dioxide build-up, including “stopping all fossil fuel combustion at  
18 the 1980 rate” and “investigat[ing] the market penetration of non-fossil fuel technologies.” The  
19 memo estimated that such non-fossil energy technologies “would need about 50 years to penetrate  
20 and achieve roughly half of the total [energy] market.”<sup>60</sup> The memo included the Figure below, which  
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23 <sup>56</sup> *Ibid.*

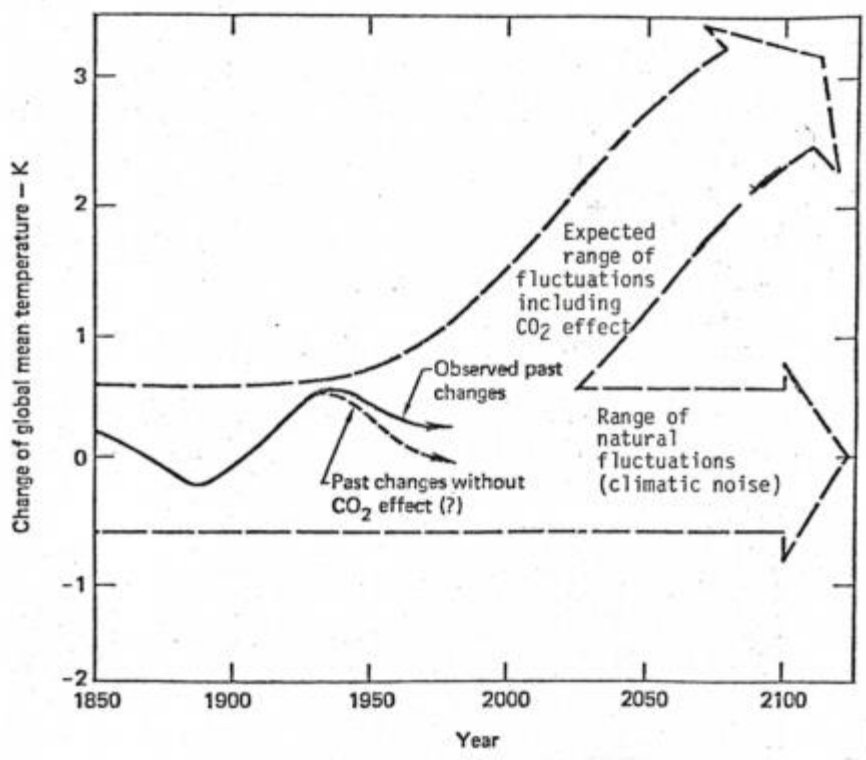
24 <sup>57</sup> Imperial Oil Ltd., Review of Environmental Protection Activities for 1978–1979 (Aug. 6,  
25 1980) at 2, available at <http://www.documentcloud.org/documents/2827784-1980-ImperialOil-Review-of-Environmental.html#document/>.

26 <sup>58</sup> Henry Shaw memorandum to T.K. Kett re Exxon Research and Engineering Company’s  
27 Technological Forecast: CO<sub>2</sub> Greenhouse Effect (Dec. 18, 1980) at 3,  
<https://www.documentcloud.org/documents/2805573-1980-Exxon-Memo-Summarizing-Current-Models-And.html>.

28 <sup>59</sup> *Id.* at 3–5.

<sup>60</sup> *Id.* at 5–6.

1 illustrates global warming anticipated by Exxon as well as the company's understanding that  
2 significant global warming would occur before exceeding the range of natural variability.



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**Figure 5: Future Global Warming Predicted Internally by Exxon in 1980**<sup>61</sup>

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17 71. In February 1981, Exxon's Contract Research Office prepared and distributed a  
18 "Scoping Study on CO<sub>2</sub>" to the leadership of Exxon Research and Engineering Company.<sup>62</sup> The  
19 study reviewed Exxon's carbon dioxide research and considered whether to expand its research on  
20 carbon dioxide or global warming further. It recommended against expanding those research areas  
21 because Exxon's current research programs were sufficient for achieving the company's goals of  
22 closely monitoring federal research, building credibility and public relations value, and developing  
23 in-house expertise regarding CO<sub>2</sub> and global warming, and noted that Exxon employees were  
24

25  
26 <sup>61</sup> *Id.* at 12. The company anticipated a doubling of carbon dioxide by around 2060 and that the  
oceans would delay the warming effect by a few decades, leading to approximately 3 °C (37.4 °F)  
warming by the end of the century.

27 <sup>62</sup> G.H. Long, Exxon Research and Engineering Co., letter to P.J. Lucchesi et al. re  
28 Atmospheric CO Scoping Study (Feb. 5, 1981), available at  
<https://www.industrydocuments.ucsf.edu/docs/yxf10228>.

1 actively monitoring and keeping the company apprised of outside research developments, including  
2 those on climate modeling and “CO<sub>2</sub>-induced effects.” In discussing “options for reducing CO<sub>2</sub>  
3 build-up in the atmosphere,” the study noted that although capturing CO<sub>2</sub> from flue gases (i.e.,  
4 exhaust gas produced by combustion) was technologically possible, the cost was high, and “energy  
5 conservation or shifting to renewable energy sources[] represent the only options that might make  
6 sense.”<sup>63</sup>

7 72. Exxon scientist Roger Cohen warned his colleagues in a 1981 internal memorandum  
8 that “future developments in global data gathering and analysis, along with advances in climate  
9 modeling, may provide strong evidence for a delayed CO<sub>2</sub> effect of a truly substantial magnitude,”  
10 and that under certain circumstances it would be “very likely that we will unambiguously recognize  
11 the threat by the year 2000.”<sup>64</sup> Cohen had expressed concern that the memorandum understated the  
12 potential effects of reckless CO<sub>2</sub> emissions from Defendants’ fossil fuel products, saying, “it is  
13 distinctly possible” that CO<sub>2</sub> emissions “will later produce effects which will indeed be catastrophic  
14 (at least for a substantial fraction of the earth’s population).”<sup>65</sup>

15 73. Also in 1981, Exxon’s Henry Shaw, the company’s lead climate researcher at the  
16 time, prepared a summary of Exxon’s current position on the greenhouse effect for Edward David  
17 Jr., president of Exxon Research and Engineering Company, stating in relevant part:

- 18 • “Atmospheric CO<sub>2</sub> will double in 100 years if fossil fuels grow at 1.4% [per  
19 year].
- 20 • 3°C global average temperature rise and 10°C at poles if CO<sub>2</sub> doubles.
  - 21 ○ Major shifts in rainfall/agriculture
  - 22 ○ Polar ice may melt”<sup>66</sup>

23 74. Thus, by 1981, Exxon and other fossil fuel companies were actively monitoring all  
24 aspects of CO<sub>2</sub> and global warming research, and Exxon had recognized that a shift away from fossil

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24 <sup>63</sup> *Ibid.*

25 <sup>64</sup> R.W. Cohen memorandum to W. Glass (Aug. 18, 1981), available at  
26 [http://www.climatefiles.com/exxonmobil/1981-exxon-memo-on-possible-emissionconsequences-  
of-fossil-fuel-consumption](http://www.climatefiles.com/exxonmobil/1981-exxon-memo-on-possible-emissionconsequences-of-fossil-fuel-consumption).

27 <sup>65</sup> *Ibid.*

28 <sup>66</sup> Henry Shaw, Exxon Memo to E. E. David, Jr. about “CO<sub>2</sub>Position Statement”, Exxon Inter-  
Office Correspondence (May 15, 1981), [https://www.climatefiles.com/exxonmobil/co2-research-  
program/1981-internal-exxon-co2-position-statement/](https://www.climatefiles.com/exxonmobil/co2-research-program/1981-internal-exxon-co2-position-statement/).

1 fuels and towards renewable energy sources would be necessary to avoid a large CO<sub>2</sub> buildup in the  
2 atmosphere and resultant global warming.

3 75. In 1982, another API-commissioned report showed the average increase in global  
4 temperature from a doubling of atmospheric concentrations of CO<sub>2</sub> and projected, based upon  
5 computer modeling, global warming of between 2 °C and 3.5 °C [3.6 °F to 6.3 °F]. The report  
6 projected potentially “serious consequences for man’s comfort and survival,” and noted that “the  
7 height of the sea level can increase considerably.”<sup>67</sup> Exxon’s own modeling research confirmed  
8 this.<sup>68</sup> In a 1982 internal memorandum, Exxon’s Corporate Research and Science Laboratories  
9 acknowledged a “clear scientific consensus,” based on computer modeling, that “a doubling of  
10 atmospheric CO<sub>2</sub> from its pre-industrial revolution value would result in an average global  
11 temperature rise of (3.0 ± 1.5) °C [2.7 °F to 8.1 °F].”<sup>69</sup> The memo continued: “There is unanimous  
12 agreement in the scientific community that a temperature increase of this magnitude would bring  
13 about significant changes in the earth’s climate, including rainfall distribution and alterations in the  
14 biosphere.”

15 76. Also in 1982, Exxon’s Environmental Affairs Manager distributed a primer on  
16 climate change to a “wide circulation [of] Exxon management . . . intended to familiarize Exxon  
17 personnel with the subject.”<sup>70</sup> The primer also was “restricted to Exxon personnel and not to be  
18 distributed externally.”<sup>71</sup> The primer compiled science on climate change available at the time, and  
19 confirmed fossil fuel combustion as a primary anthropogenic contributor to global warming. The  
20 report estimated a CO<sub>2</sub> doubling around 2090 based on Exxon’s long-range modeled outlook. The

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22 <sup>67</sup> American Petroleum Institute, *Climate Models and CO<sub>2</sub> Warming: A Selective Review and*  
23 *Summary* (Mar. 1982) at 4, [https://www.climatefiles.com/trade-group/americanpetroleum-](https://www.climatefiles.com/trade-group/americanpetroleum-institute/api-climate-models-and-co2-warming-a-selective-review-and-summary/)  
[institute/api-climate-models-and-co2-warming-a-selective-review-and-summary/](https://www.climatefiles.com/trade-group/americanpetroleum-institute/api-climate-models-and-co2-warming-a-selective-review-and-summary/).

24 <sup>68</sup> See Roger W. Cohen, Exxon Research and Engineering Co., memorandum to A.M. Natkin,  
25 Office of Science and Technology, Exxon Corp. (Sept. 2, 1982), available at  
[https://www.climatefiles.com/exxonmobil/1982-exxon-memo-summarizing-climate-modelingand-](https://www.climatefiles.com/exxonmobil/1982-exxon-memo-summarizing-climate-modelingand-co2-greenhouse-effect-research/)  
[co2-greenhouse-effect-research/](https://www.climatefiles.com/exxonmobil/1982-exxon-memo-summarizing-climate-modelingand-co2-greenhouse-effect-research/).

26 <sup>69</sup> *Id.* at 1.

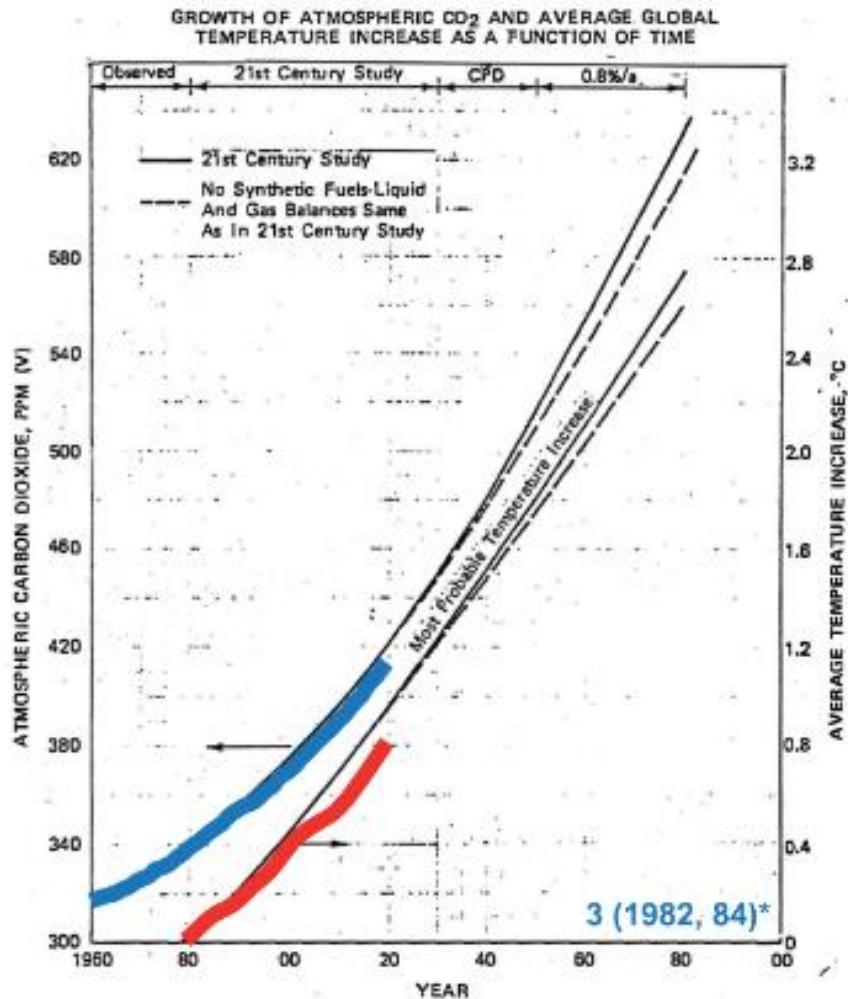
27 <sup>70</sup> M. B. Glaser, Exxon Memo to Management about “CO<sub>2</sub> ‘Greenhouse’ Effect”, Exxon  
28 Research and Engineering Company (Nov. 12, 1982), available at  
[http://insideclimatenews.org/sites/default/files/documents/1982%20Exxon%20Primer%20on%20CO](http://insideclimatenews.org/sites/default/files/documents/1982%20Exxon%20Primer%20on%20CO2%20Greenhouse%20Effect.pdf)  
[2%20Greenhouse%20Effect.pdf](http://insideclimatenews.org/sites/default/files/documents/1982%20Exxon%20Primer%20on%20CO2%20Greenhouse%20Effect.pdf).

<sup>71</sup> *Ibid.*

1 author warned that the melting of the Antarctic ice sheet could result in global sea level rise of five  
2 feet which would “cause flooding on much of the U.S. East Coast, including the State of Florida and  
3 Washington, D.C.”<sup>72</sup> Indeed, it warned that “there are some potentially catastrophic events that must  
4 be considered,” including sea level rise from melting polar ice sheets. It noted that some scientific  
5 groups were concerned “that once the effects are measurable, they might not be reversible.”<sup>73</sup>

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<sup>72</sup> *Ibid.*

<sup>73</sup> *Ibid.*



**Figure 6: Exxon’s Internal Prediction of Future CO<sub>2</sub> Increase and Global Warming from 1982<sup>74</sup>**

The report recommended studying “soil erosion, salinization, or the collapse of irrigation systems” in order to understand how society might be affected and might respond to global warming, as well as “[h]ealth effects” and “stress associated with climate related famine or migration[.]”<sup>75</sup> The report again estimated that undertaking “[s]ome adaptive measures” (not all of them) would cost “a few percent of the gross national product estimated in the middle of the next century” (gross national

<sup>74</sup> *Id.* at 7. The company predicted a doubling of atmospheric carbon dioxide concentrations above preindustrial levels by around 2090 (left curve), with a temperature increase of more than 2 °C over the 1979 level (right curve).

<sup>75</sup> *Id.* at 14.

1 product was \$25,640 billion in 2022).<sup>76</sup> To avoid such impacts, the report discussed a scientific  
2 analysis which studied energy alternatives and requirements for introducing them into widespread  
3 use, and which recommended that “vigorous development of non-fossil energy sources be initiated  
4 as soon as possible.”<sup>77</sup> The primer also noted that the analysis indicated that other greenhouse gases  
5 related to fossil fuel production, such as methane (which is a more powerful greenhouse gas than  
6 CO<sub>2</sub>), “may significantly contribute to a global warming,” and that concerns over CO<sub>2</sub> would be  
7 reduced if fossil fuel use were decreased due to “high price, scarcity, [or] unavailability.”<sup>78</sup>  
8 “Mitigation of the ‘greenhouse effect’ would require major reductions in fossil fuel combustion,” the  
9 primer stated.<sup>79</sup> The primer was widely distributed to Exxon leadership.

10 77. In September 1982, the Director of Exxon’s Theoretical and Mathematical Sciences  
11 Laboratory, Roger Cohen, wrote Alvin Natkin of Exxon’s Office of Science and Technology to  
12 summarize Exxon’s internal research on climate modeling.<sup>80</sup> Cohen reported:

13 [O]ver the past several years a clear scientific consensus has emerged regarding the  
14 expected climatic effects of increased atmospheric CO<sub>2</sub>. The consensus is that a  
15 doubling of atmospheric CO<sub>2</sub> from its pre-industrial revolution value would result  
16 in an average global temperature rise of  $(3.0 \pm 1.5) ^\circ\text{C}$  [ $(37.4 \pm 34.7) ^\circ\text{F}$ ]. . . . The  
17 temperature rise is predicted to be distributed nonuniformly over the earth, with  
18 above-average temperature elevations in the polar regions and relatively small  
19 increases near the equator. There is unanimous agreement in the scientific  
community that a temperature increase of this magnitude would bring about  
significant changes in the earth’s climate, including rainfall distribution and  
alterations of the biosphere. The time required for doubling of atmospheric CO<sub>2</sub>  
depends on future world consumption of fossil fuels.

20 Cohen described Exxon’s own climate modeling experiments, reporting that they produced “a global  
21 averaged temperature increase that falls well within the range of the scientific consensus,” were  
22 “consistent with the published predictions of more complex climate models,” and were “also in  
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24 <sup>76</sup> *Ibid.*; see Fed. Reserve Bank of St. Louis, Gross National Product (updated Mar. 30, 2023),  
available at <https://fred.stlouisfed.org/series/GNPA>.

25 <sup>77</sup> M.B. Glaser, CO<sub>2</sub> “Greenhouse” Effect, *supra* note 70, at 18.

26 <sup>78</sup> *Id.* at 18, 29.

27 <sup>79</sup> *Id.* at 2.

28 <sup>80</sup> Roger W. Cohen, Exxon Research and Engineering Co., memorandum to A.M. Natkin,  
Exxon Corp. Office of Science and Technology (Sept. 2, 1982), available at  
<https://www.climatefiles.com/exxonmobil/1982-exxon-memo-summarizing-climate-modelingand-co2-greenhouse-effect-research/>.

1 agreement with estimates of the global temperature distribution during a certain prehistoric period  
2 when the earth was much warmer than today.” “In summary,” Cohen wrote, “the results of our  
3 research are in accord with the scientific consensus on the effect of increased atmospheric CO<sub>2</sub> on  
4 climate.”

5 78. In October 1982, at the fourth biennial Maurice Ewing Symposium at the  
6 Lamont- Doherty Geophysical Observatory, which was attended by members of API and Exxon  
7 Research and Engineering Company, the Observatory’s president E.E. David delivered a speech  
8 titled, “Inventing the Future: Energy and the CO<sub>2</sub> ‘Greenhouse Effect.’”<sup>81</sup> His remarks included  
9 the following statement: “[i]t is ironic that the biggest uncertainties about the CO<sub>2</sub> buildup are  
10 not in predicting what the climate will do, but in predicting what people will do.”<sup>82</sup>  
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12 79. Throughout the early 1980s, at Exxon’s direction, Exxon climate scientist Henry  
13 Shaw forecasted emissions of CO<sub>2</sub> from fossil fuel use. Those estimates were incorporated into  
14 Exxon’s twenty-first century energy projections and were distributed among Exxon’s various  
15 divisions. Shaw’s conclusions included an expectation that atmospheric CO<sub>2</sub> concentrations would  
16 double in 2090 per the Exxon model, with an attendant 2.3–5.6°F average global temperature  
17 increase.<sup>83</sup>

18 80. During the 1980s, many Defendants formed their own research units focused on  
19 climate modeling. API, including the API CO<sub>2</sub> Task Force, provided a forum for Defendants to share  
20 their research efforts and corroborate their findings related to anthropogenic greenhouse gas  
21 emissions.<sup>84</sup>  
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23 <sup>81</sup> Dr. E.E. David, Jr., President, Exxon Research and Engineering Co., Remarks at the Fourth  
24 Annual Ewing Symposium, Tenafly, NJ, ClimateFiles (Oct. 26, 1982), available at  
<http://www.climatefiles.com/exxonmobil/inventing-future-energy-co2-greenhouse-effect>.

<sup>82</sup> *Ibid.*

25 <sup>83</sup> Neela Banerjee, *More Exxon Documents Show How Much It Knew About Climate 35 Years*  
26 *Ago*, Inside Climate News (Dec. 1, 2015), [https://insideclimatenews.org/news/01122015/  
documents-exxons-early-co2-position-senior-executives-engage-and-warming-forecast/](https://insideclimatenews.org/news/01122015/documents-exxons-early-co2-position-senior-executives-engage-and-warming-forecast/).

27 <sup>84</sup> Neela Banerjee, *Exxon’s Oil Industry Peers Knew About Climate Dangers in the 1970s, Too*,  
28 Inside Climate News (Dec. 22, 2015), [https://insideclimatenews.org/news/22122015/  
exxon-mobil-oil-industry-peers-knew-aboutclimate-change-dangers-1970s-american-petroleum-  
institute-api-shell-chevron-texaco/](https://insideclimatenews.org/news/22122015/exxon-mobil-oil-industry-peers-knew-aboutclimate-change-dangers-1970s-american-petroleum-institute-api-shell-chevron-texaco/).



1           81. During this time, Defendants’ statements expressed an understanding of their  
2 obligation to consider and mitigate the externalities of reckless promotion, marketing, and  
3 consumption of their fossil fuel products. For example, in 1988, Richard Tucker, the president of  
4 Mobil Oil, presented at the American Institute of Chemical Engineers National Meeting, the premier  
5 educational forum for chemical engineers, where he stated:

6           [H]umanity, which has created the industrial system that has transformed  
7 civilization, is also responsible for the environment, which sometimes is at  
8 risk because of unintended consequences of industrialization. . . .  
Maintaining the health of this life-support system is emerging as one of the  
highest priorities. . . . [W]e must all be environmentalists.

9           The environmental covenant requires action on many fronts . . . the low-  
10 atmosphere ozone problem, the upper-atmosphere ozone problem and the  
11 greenhouse effect, to name a few. . . . Our strategy must be to reduce  
pollution before it is ever generated—to prevent problems at the source.

12           Prevention means engineering a new generation of fuels, lubricants and  
13 chemical products. . . . Prevention means designing catalysts and processes  
14 that minimize or eliminate the production of unwanted byproducts. . . .  
15 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  
16 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.<sup>85</sup>

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18           82. In 1987, Shell published an internal “brief for companies of the Royal Dutch/Shell  
19 Group” titled “Air pollution: an oil industry perspective.” In this report, the company described the  
20 greenhouse effect as occurring “largely as a result of burning fossil fuels and deforestation.”<sup>86</sup> Shell  
21 further acknowledged the “concern that further increases in carbon dioxide levels could cause  
22 climatic changes, notably a rise in overall temperature, having major environmental, social and  
23 economic consequences.”<sup>87</sup>

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25 <sup>85</sup> Richard E. Tucker, *High Tech Frontiers in the Energy Industry: The Challenge Ahead*, AIChE  
26 National Meeting (Nov. 30, 1988), available at  
<https://hdl.handle.net/2027/pur1.32754074119482?urlappend=%3Bseq=528>.

27 <sup>86</sup> Shell Briefing Service, *Air pollution: an oil industry perspective* (1987), at 4, available at  
<https://www.documentcloud.org/documents/24359057-shell-briefing-service-air-pollution-an-oil-industry-perspective-nr1-1987>.

28 <sup>87</sup> *Id.* at 5.

1           83. In 1988, the Shell Greenhouse Effect Working Group issued a confidential internal  
2 report, “The Greenhouse Effect,” which acknowledged global warming’s anthropogenic nature:  
3 “Man-made carbon dioxide, released into and accumulated in the atmosphere, is believed to warm  
4 the earth through the so-called greenhouse effect.” The authors also noted the burning of fossil fuels  
5 as a primary driver of CO<sub>2</sub> buildup and warned that warming could “create significant changes in sea  
6 level, ocean currents, precipitation patterns, regional temperature and weather.” They further pointed  
7 to the potential for “direct operational consequences” of sea level rise on “offshore installations,  
8 coastal facilities and operations (e.g. platforms, harbors, refineries, depots).”<sup>88</sup>

9           84. Similar to early warnings by Exxon scientists, the Shell report noted that “by the  
10 time the global warming becomes detectable it could be too late to take effective countermeasures to  
11 reduce the effects or even to stabilise the situation.” The authors mentioned the need to consider policy  
12 changes on multiple occasions, noting that “the potential implications for the world are . . . so large  
13 that policy options need to be considered much earlier” and that research should be “directed more  
14 to the analysis of policy and energy options than to studies of what we will be facing exactly.”<sup>89</sup>

15           85. Defendants also meticulously examined plausible scenarios if they failed to act in the  
16 face of their internal knowledge. For instance, Shell evaluated in a 1989 internal confidential  
17 planning document the issue of “climate change – the greenhouse effect, global warming,” which  
18 the document identified as “the most important issue for the energy industry.”<sup>90</sup> The document  
19 compared a scenario in which society “addresses the potential problem” with one in which it does  
20 not. Acknowledging that “[c]hanging emission levels ... and changing atmospheric CO<sub>2</sub>  
21 concentration has been likened to turning around a VLCC [very large crude carrier],” even  
22 “substantial efforts” by 2010 would have “hardly any impact on CO<sub>2</sub> concentration.” In later years,  
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25           <sup>88</sup> Shell Internationale Petroleum, Greenhouse Effect Working Group, *The Greenhouse Effect*  
26 (May 1988) at 1, 27, available at [https://www.documentcloud.org/documents/4411090-  
Document3.html#document/p9/a411239](https://www.documentcloud.org/documents/4411090-Documents3.html#document/p9/a411239).

27           <sup>89</sup> *Id.* at 1, 6.

28           <sup>90</sup> Shell, *Scenarios 1989–2010: Challenge and Response* (Oct. 1989), at 33, available at  
[https://www.documentcloud.org/documents/23735737-1989-oct-confidential-shell-group-planning-  
scenarios-1989-2010-challenge-and-response-disc-climate-refugees-and-shift-to-non-fossil-fuels](https://www.documentcloud.org/documents/23735737-1989-oct-confidential-shell-group-planning-scenarios-1989-2010-challenge-and-response-disc-climate-refugees-and-shift-to-non-fossil-fuels).

1 however, the impacts are “strikingly different;” early efforts “will not prevent the problem arising,  
2 but ... could mitigate the problem.” The document described the consequences of failing to address  
3 the problem right away:

4         These seem small changes but they mask more dramatic temperature changes which  
5         would take place at temperate latitudes. There would be more violent weather –  
6         more storms, more droughts, more deluges. Mean sea level would rise at least 30  
7         cm. Agricultural patterns would be most dramatically changed. Something as  
8         simple as a moderate change in rainfall pattern disrupts eco-systems, and many  
9         species of trees, plants, animals and insects would not be able to move and adapt.

10         The changes would, however, most impact on humans. In earlier times, man was  
11         able to respond with his feet. Today, there is no place to go because people already  
12         stand there. Perhaps those in industrial countries could cope with a rise in sea level  
13         (the Dutch examples) but for poor countries such defences are not possible. The  
14         potential refugee problem ... could be unprecedented. Africans would push into  
15         Europe, Chinese into the Soviet Union, Latins into the United States, Indonesians  
16         into Australia. Boundaries would count for little – overwhelmed by the numbers.  
17         Conflicts would abound. Civilization could prove a fragile thing.<sup>91</sup>

18         86. In another 1989 confidential internal planning document, Shell anticipated that  
19         “public/media pressures” to “adopt[] environmental programmes” such as “much tighter targets for  
20         CO<sub>2</sub> emissions” could prompt “effective consumer responses” that “will lead to intense and  
21         unpredictable pressures on business.”<sup>92</sup> The scenario envisioned that “[c]oncerns about global  
22         warming and depletion will depress production of fossil fuels, their market share declining as  
23         renewables are actively promoted,” given that “[w]here there can be real consumer choice it will be  
24         a dominant force, especially where interest is heightened by obvious environmental impact.”<sup>93</sup>

25         87. In yet another scenario published in a 1998 internal report, Shell paints an eerily  
26         prescient scene:

27         In 2010, a series of violent storms causes extensive damage to the eastern coast of  
28         the U.S. Although it is not clear whether the storms are caused by climate change,

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29         <sup>91</sup> *Id.* at 36.

30         <sup>92</sup> See Shell UK, *UK Scenarios 1989* (Nov. 1989), at 31, 34, available at  
31         <https://embed.documentcloud.org/documents/24359062-snippets-of-confidential-shell-uk-november-1989-scenarios>.

32         <sup>93</sup> *Id.* at 34.

1 people are not willing to take further chances. The insurance industry refuses to  
2 accept liability, setting off a fierce debate over who is liable: the insurance industry  
3 or the government. After all, two successive IPCC reports since 1993 have  
4 reinforced the human connection to climate change . . . Following the storms, a  
5 coalition of environmental NGOs brings a class-action suit against the US  
6 government and fossil-fuel companies on the grounds of neglecting what scientists  
7 (including their own) have been saying for years: that something must be done. A  
8 social reaction to the use of fossil fuels grows, and individuals become ‘vigilante  
9 environmentalists’ in the same way, a generation earlier, they had become fiercely  
10 anti-tobacco. Direct-action campaigns against companies escalate. Young  
11 consumers, especially, demand action.<sup>94</sup>

88. Climate change research conducted by Defendants and their industry associations  
frequently acknowledged uncertainties in their climate modeling. Those uncertainties, however, were  
largely with respect to the magnitude and timing of climate impacts resulting from fossil fuel  
consumption, not with respect to whether significant changes would eventually occur. 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. As Ken Croasdale, a  
senior researcher for Exxon’s subsidiary Imperial Oil, stated to an audience of engineers in 1991,  
greenhouse gases are rising “due to the burning of fossil fuels. Nobody disputes this fact.”<sup>95</sup>

**C. Despite Their Early Knowledge of the Real and Grave Threats Posed by the  
Consumption of Fossil Fuel Products, Defendants Affirmatively Acted to  
Obscure Those Harms and Engaged in a Campaign To Deceptively Protect and  
Expand the Use of Their Fossil Fuel Products.**

89. Despite the overwhelming evidence about the threats to people and the planet posed  
by continued use of their fossil fuel products amassed leading up to and throughout the 1980s,  
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 they had a license to  
continue the unfettered pursuit of profits from those products—including by intentionally misleading  
and deceiving the public regarding these threats.

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<sup>94</sup> Royal Dutch/Shell Group, Group Scenarios 1998–2020 115, 122 (1998),  
<http://www.documentcloud.org/documents/4430277-27-1-Compiled.html>.

<sup>95</sup> Jerving et al., *Special Report: What Exxon Knew About Global Warming’s Impact on the Arctic*, L.A. Times (Oct. 10, 2015), <https://www.latimes.com/business/la-na-advexxon-arctic-20151011-story.html>.

1           90.     Exxon has all but admitted to these decisions. In a secretly recorded video from 2021,  
2 an Exxon executive stated:

3           Did we aggressively fight against some of the science? Yes.

4           Did we join some of these shadow groups to work against some of the early efforts? Yes,  
5 that's true. There's nothing illegal about that.

6           We were looking out for our investments. We were looking out for our shareholders.<sup>96</sup>

7           91.     On notice that their products were causing global climate change and dire effects on  
8 the planet, Defendants could and should have issued reasonable warnings to consumers and the  
9 public of the dangers known of consuming of their fossil fuel products. Instead, Defendants engaged  
10 in advertising and communications campaigns intended to promote consumer demand for their fossil  
11 fuel products by downplaying the harms and risks of global warming. Initially, the campaigns tried  
12 to show that global warming was not occurring. More recently, the campaigns have sought to  
13 minimize the risks and harms from global warming. The deception campaigns have had the purpose  
14 and effect of inflating and sustaining the market for fossil fuels, which—in turn—drove up  
15 greenhouse gas emissions, accelerated global warming, delayed the energy economy's transition to  
16 a lower-carbon future, and brought about climate change harms to Oakland.

17           92.     Defendants' conduct was an abdication and contravention of their responsibility to  
18 consumers and the public, including Plaintiffs, to act on their unique knowledge of the reasonably  
19 foreseeable hazards of reckless production and promotion of their fossil fuel products. Had  
20 Defendants acted responsibly to issue reasonable warnings instead of engaging in a disinformation  
21 campaign, consumers would have acted sooner and faster to reduce their fossil fuel consumption and  
22 stimulate demand for non-carbon energy alternatives whose use does not imperil the Earth. This  
23 process is now stutteringly underway, but was wrongfully delayed by Defendants' deception and  
24 continued downplaying of the reality and severity of climate change—and of fossil fuels' role in  
25 causing it.

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27           <sup>96</sup> Jeff Brady, *Exxon Lobbyist Caught on Video Talking About Undermining Biden's Climate*  
28 *Push*, NPR (July 1, 2021), <https://www.npr.org/2021/07/01/1012138741/exxon-lobbyist-caught-on-video-talks-about-undermining-bidens-climate-push>.

1           93.       Several key events during the period between 1988 and 1992 prompted Defendants  
2 to pivot from researching and discussing climate change internally to affirmatively deceiving  
3 consumers and the public about the climatic dangers of fossil fuels. As climate change—and the role  
4 of fossil fuels in causing it—became an increasingly prominent concern, Defendants realized that  
5 accurate consumer and public understanding of the dangers of fossil fuels would pose a paramount  
6 threat to their business model, their assets, and their profits. Key events that precipitated the shift  
7 from research to deception included the following:

8           i.           In 1988, National Aeronautics and Space Administration (“NASA”) scientists  
9 confirmed that human activities were actually contributing to global warming.<sup>97</sup> On June 23 of that  
10 year, NASA scientist James Hansen’s presentation of this information to Congress engendered  
11 significant news coverage and publicity for the announcement, including coverage on the front page  
12 of *The New York Times*.

13           ii.          On July 28, 1988, Senator Robert Stafford and four bipartisan co-sponsors  
14 introduced S. 2666, “The Global Environmental Protection Act,” to regulate CO<sub>2</sub> and other  
15 greenhouse gases. Three more bipartisan bills to significantly reduce CO<sub>2</sub> pollution were introduced  
16 over the following ten weeks, and in August, U.S. Presidential candidate George H.W. Bush pledged  
17 that his presidency would combat the greenhouse effect with “the White House effect.”<sup>98</sup> Political  
18 will in the United States to reduce anthropogenic greenhouse gas emissions and mitigate the harms  
19 associated with Defendants’ fossil fuel products was gaining momentum.

20           iii.         In December 1988, the United Nations formed the IPCC, a scientific panel  
21 dedicated to providing the world’s governments with an objective, scientific analysis of climate  
22 change and its environmental, political, and economic impacts.  
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26           <sup>97</sup> See Frumhoff et al., *The Climate Responsibilities of Industrial Carbon Producers*, 132  
27 Climatic Change 157, 161 (2015), <http://dx.doi.org/10.1007/s10584-015-1472-5>.

28           <sup>98</sup> N.Y. Times Editorial Board, *The White House and the Greenhouse*, N.Y. Times (May 9,  
1989), <http://www.nytimes.com/1989/05/09/opinion/the-white-house-and-thegreenhouse.html>.

1           iv.           In 1990, the IPCC published its First Assessment Report on anthropogenic  
2 climate change,<sup>99</sup> which concluded that (1) “there is a natural greenhouse effect which already keeps  
3 the Earth warmer than it would otherwise be,” and (2) that

4                           emissions resulting from human activities are substantially increasing the  
5 atmospheric concentrations of the greenhouse gases carbon dioxide, methane,  
6 chlorofluorocarbons (CFCs) and nitrous oxide. These increases will enhance  
7 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.<sup>100</sup>

8 The IPCC reconfirmed those conclusions in a 1992 supplement to the First Assessment Report.<sup>101</sup>

9           v.           The United Nations held the 1992 Earth Summit in Rio de Janeiro, Brazil, a  
10 major, newsworthy gathering of 172 world governments, of which 116 sent their heads of state. The  
11 Summit resulted in the United Nations Framework Convention on Climate Change (“UNFCCC”),  
12 an international environmental treaty providing protocols for future negotiations aimed at  
13 “stabiliz[ing] greenhouse gas concentrations in the atmosphere at a level that would prevent  
14 dangerous anthropogenic interference with the climate system.”<sup>102</sup>

16           94.       But rather than issuing warnings commensurate with their own understanding of the  
17 risks posed by the expected and intended uses of fossil fuel products, Defendants embarked on a  
18 decades-long series of campaigns designed to perpetuate and maximize continued dependence on  
19 fossil fuel products.

20           95.       Defendants’ campaigns focused on concealing, discrediting, and/or misrepresenting  
21 information that tended to support decreasing consumption of fossil fuels, thereby preserving and  
22 inflating demand for Defendants’ products and staving off the transition to a low-carbon economy.  
23

24  
25 <sup>99</sup> See IPCC, Reports, [ipcc.ch/reports](http://ipcc.ch/reports).

26 <sup>100</sup> IPCC, Climate Change: The IPCC Scientific Assessment xi (1990),  
<https://www.ipcc.ch/report/climate-change-the-ipcc-1990-and-1992-assessments>.

27 <sup>101</sup> IPCC, 1992 IPCC Supplement to the First Assessment Report (1992),  
<https://www.ipcc.ch/report/climate-change-the-ipcc-1990-and-1992-assessments>.

28 <sup>102</sup> United Nations, United Nations Framework Convention on Climate Change art. 2 (1992),  
<https://unfccc.int/resource/docs/convkp/conveng.pdf>.

1 The campaigns enabled Defendants to accelerate their business practice of exploiting fossil fuel  
2 reserves and to concurrently externalize the social and environmental costs of their fossil fuel  
3 products. Those activities directly contradicted Defendants’ internal recognition that the science of  
4 anthropogenic climate change was clear and that profligate consumption of fossil fuels would result  
5 in dire consequences for the planet and communities like Oakland’s.  
6

7 96. In 1988, Joseph Carlson, an Exxon public affairs manager, stated in an internal memo  
8 that Exxon “is providing leadership through API in developing the petroleum industry position” on  
9 “the greenhouse effect.”<sup>103</sup> He then went on to describe the “Exxon Position,” which included two  
10 important messaging tenets among others: (1) “[e]mphasize the uncertainty in scientific conclusions  
11 regarding the potential enhanced Greenhouse Effect”; and (2) “[r]esist the overstatement and  
12 sensationalization [sic] of potential greenhouse effect which could lead to noneconomic development  
13 of nonfossil fuel resources.”<sup>104</sup>  
14

15 97. Reflecting on his time as an Exxon consultant in the 1980s, Professor Martin Hoffert,  
16 a former New York University physicist who researched climate change, expressed regret over  
17 Exxon’s “climate science denial program campaign” in his sworn testimony before Congress:

18 [O]ur research [at Exxon] was consistent with findings of the United Nations  
19 Intergovernmental Panel on Climate Change on human impacts of fossil fuel burning,  
20 which is that they are increasingly having a perceptible influence on Earth’s climate.  
21 . . . If anything, adverse climate change from elevated CO<sub>2</sub> is proceeding faster than  
22 the average of the prior IPCC mild projections and fully consistent with what we knew  
23 back in the early 1980’s at Exxon. . . . I was greatly distressed by the climate science  
24 denial program campaign that Exxon’s front office launched around the time I  
stopped working as a consultant—but not collaborator—for Exxon. The  
advertisements that Exxon ran in major newspapers raising doubt about climate  
change were contradicted by the scientific work we had done and continue to do.  
Exxon was publicly promoting views that its own scientists knew were wrong, and  
we knew that because we were the major group working on this.<sup>105</sup>

25 <sup>103</sup> Memorandum from Joseph M. Carlson, The Greenhouse Effect (Aug. 3, 1988), available at  
26 [https://assets.documentcloud.org/documents/3024180/1998-Exxon-Memo-on-the-Greenhouse-  
Effect.pdf](https://assets.documentcloud.org/documents/3024180/1998-Exxon-Memo-on-the-Greenhouse-Effect.pdf).

27 <sup>104</sup> *Ibid.*

28 <sup>105</sup> Examining the Oil Industry’s Efforts to Suppress the Truth About Climate Change,  
Hearing Before the Subcomm. on Civil Rights and Civil Liberties of the Comm. on Oversight and



1  
2 98. Likewise, Shell “shaped a series of influential industry-backed publications that  
3 downplayed or omitted key risks; emphasized scientific uncertainties; and pushed for more fossil  
4 fuels, particularly coal.”<sup>106</sup> In 1992, for instance, Shell had released a publication for wide external  
5 distribution purporting to describe the “Basic Scientific Facts” of the “Potential Augmented  
6 Greenhouse Effect.”<sup>107</sup> This document downplayed the scientific consensus (that Shell internally  
7 acknowledged) by referring to the “relatively few established scientific fundamentals” regarding the  
8 causes of climate change.<sup>108</sup> It also misleadingly suggested that a “particular cause” of global  
9 warming was “difficult” to identify, even though Shell had identified the use of its products as a  
10 significant contributor to the greenhouse effect in the previous decade.<sup>109</sup> For example, in 1985, a  
11 Shell UK environmental scientist published an article laying out the scientific fact that “[b]urning of  
12 fossil fuels which have taken millions of years to form has effectively upset the balance [of the  
13 Carbon Cycle] leading to an increase in CO2 in the atmosphere.”<sup>110</sup>

15 99. A 1994 Shell report entitled “The Enhanced Greenhouse Effect: A Review of the  
16 Scientific Aspects” similarly emphasized scientific uncertainty, noting, for example, that “the  
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21 Reform, 116th Cong. 7–8 (Oct. 23, 2019) (statement of Martin Hoffert, Former Exxon Consultant,  
22 Professor Emeritus, Physics, N.Y. University), [https://oversight.house.gov/legislation/hearings/  
examining-the-oil-industry-s-efforts-to-suppress-the-truth-about-climate-change](https://oversight.house.gov/legislation/hearings/examining-the-oil-industry-s-efforts-to-suppress-the-truth-about-climate-change).

23 <sup>106</sup> Matthew Green, *Lost Decade: How Shell Downplayed Early Warnings Over Climate  
Change*, DESMOG (Mar. 31, 2023), [https://www.desmog.com/2023/03/31/lost-decade-how-shell-  
downplayed-early-warnings-over-climate-change/](https://www.desmog.com/2023/03/31/lost-decade-how-shell-downplayed-early-warnings-over-climate-change/).

24 <sup>107</sup> Jan Kuyper, Shell Group Planning, Business Environment Occasional Paper, Potential  
25 Augmented Greenhouse Effect: Basic Scientific Facts (Sept. 1992), at 3, available at  
[https://www.documentcloud.org/documents/24359060-1992-internal-shell-group-planning-report-  
potential-augmented-greenhouse-effect-and-depletion-of-the-ozone-layer](https://www.documentcloud.org/documents/24359060-1992-internal-shell-group-planning-report-potential-augmented-greenhouse-effect-and-depletion-of-the-ozone-layer).

26 <sup>108</sup> *Id.* at 5.

27 <sup>109</sup> *Ibid.*

28 <sup>110</sup> T.G. Wilkinson, *Why and How to Control Energy Pollution: Can Harmonisation Work?*, 8  
Conservation & Recycling 7, 19 (1985), [https://www.documentcloud.org/documents/24359067-  
1985-03-why-and-how-to-control-energy-pollution-by-tg-wilkinson-shell](https://www.documentcloud.org/documents/24359067-1985-03-why-and-how-to-control-energy-pollution-by-tg-wilkinson-shell).

1 postulated link between any observed temperature rise and human activities has to be seen in relation  
2 to natural variability, which is still largely unpredictable.”<sup>111</sup>

3 100. In 1996, Exxon released a publication called “Global Warming: Who’s Right? Facts  
4 about a debate that’s turned up more questions than answers.” In the publication’s preface, Exxon  
5 CEO Lee Raymond inaccurately stated that “taking drastic action immediately is unnecessary since  
6 many scientists agree there’s ample time to better understand the climate system.” The publication  
7 described the greenhouse effect as “unquestionably real and definitely a good thing,” while ignoring  
8 the severe consequences that would result from the influence of the increased CO<sub>2</sub> concentration on  
9 the Earth’s climate. Instead, it characterized the greenhouse effect as simply “what makes the earth’s  
10 atmosphere livable.” Directly contradicting Exxon’s own internal knowledge and peer-reviewed  
11 science, the publication ascribed the rise in temperature since the late nineteenth century to “natural  
12 fluctuations that occur over long periods of time” rather than to the anthropogenic emissions that  
13 Exxon itself and other scientists had confirmed were responsible. The publication also baselessly  
14 challenged the computer models that projected the future impacts of fossil fuel product consumption,  
15 including those developed by Exxon’s own employees, as having been “proved to be inaccurate.”  
16 The publication contradicted the numerous reports prepared by and circulated among Exxon’s staff,  
17 and by API, stating that “the indications are that a warmer world would be far more benign than  
18 many imagine . . . moderate warming would reduce mortality rates in the US, so a slightly warmer  
19 climate would be more healthful.” Raymond concluded his preface by criticizing the basis for  
20 reducing consumption of his company’s fossil fuel products as “drawing on bad science, faulty logic,  
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27 <sup>111</sup> P. Langcake, Shell Internationale Petroleum, *The Enhanced Greenhouse Effect: A Review of the*  
28 *Scientific Aspects* (Dec. 1994), available at <https://www.documentcloud.org/documents/4411099-Document11.html#document/p15/a411511>.

1 or unrealistic assumptions”—despite the important role that Exxon’s own scientists had played in  
2 compiling those same scientific underpinnings.<sup>112</sup>

3 101. Imperial Oil (Exxon) CEO Robert Peterson incorrectly denied the established  
4 connection between Defendants’ fossil fuel products and anthropogenic climate change in the  
5 Summer 1998 Imperial Oil Review, “A Cleaner Canada:”  
6

7 [T]his issue [referring to climate change] has absolutely nothing to do with pollution  
8 and air quality. Carbon dioxide is not a pollutant but an essential ingredient of life on  
9 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.

10 There is absolutely no agreement among climatologists on whether or not the planet  
11 is getting warmer, or, if it is, on whether the warming is the result of man-made factors  
12 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.<sup>113</sup>

13 102. Exxon and Mobil (Exxon) paid for a series of “advertorials,” advertisements located  
14 in the editorial section of *The New York Times* and meant to look like editorials rather than paid ads.  
15 These ads discussed various aspects of the public discussion of climate change and sought to  
16 undermine the justifications for tackling greenhouse gas emissions as unsettled science. For example,  
17 the 1993 Mobil advertorial below argued that “what’s wrong with so much of the global warming  
18 rhetoric” is “[t]he lack of solid scientific data,” and quoted a purportedly neutral scientific expert  
19 who insisted that ““there is a large amount of empirical evidence suggesting that the apocalyptic  
20 vision is in error and that the highly touted greenhouse disaster is most improbable.””<sup>114</sup> It also quoted  
21 another purportedly neutral scientist who asserted that “the net impact [of a modest warming] may  
22 yet be beneficial.”  
23

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25 <sup>112</sup> Exxon Corp., *Global Warming: Who’s Right?* (1996), available at  
<https://www.documentcloud.org/documents/2805542-Exxon-Global-Warming-Whos-Right.html>.

26 <sup>113</sup> Robert Peterson, *A Cleaner Canada in Imperial Oil Review* (1998), available at  
27 <https://www.desmogblog.com/sites/beta.desmogblog.com/files/A%20Cleaner%20Canada%20Imperial%20Oil.pdf>.

28 <sup>114</sup> Mobil, *Apocalypse No*, N.Y. Times, A19 (Feb. 25, 1993), available at  
<https://www.documentcloud.org/documents/357243-1993-2-25-mob-nyt-apocalypse-no>.

# Apocalypse no

For the first half of 1992, America was inundated by the media with dire predictions of global warming catastrophes, all of which seemed to be aimed at heating up the rhetoric from the Earth Summit in Rio de Janeiro last June.

Unfortunately, the media hype proclaiming that the sky was falling did not properly portray the consensus of the scientific community. After the Earth Summit, there was a noticeable lack of evidence of the sky actually falling and subsequent colder than normal temperatures across the country cooled the warming hysteria as well.

Everybody, of course, remembers the Earth Summit and the tons of paper used up in reporting on it—paper now buried in landfills around the world. But few people ever heard of a major document issued at the same time and called the "Heidelberg Appeal." The reason? It just didn't make "news."

Perhaps that is because the Appeal urged Summit attendees to avoid making important environmental decisions based on "pseudo-scientific arguments or false and non-relevant data."

The Heidelberg Appeal was issued initially by some 264 scientists from around the world, including 52 Nobel Prize winners. Today, the Appeal carries the signatures of more than 2,300 scientists—65 of them Nobel Prize winners—from 79 countries. If nothing else, its message is illustrative of what's wrong with so much of the global warming rhetoric. The lack of solid scientific data.

Scientists can agree on certain facts pertaining to global warming. First, the greenhouse effect is a natural phenomenon; it accounts for the moderate temperature that makes our planet habitable. Second, the concentration of greenhouse gases (mainly carbon dioxide) has increased and there has been a slight increase in global temperatures over the past century. Finally, if present trends continue, carbon dioxide levels will double over the next 50 to 100 years.

Controversy arises when trying to link past changes in temperatures to increased concen-

trations of greenhouse gases. And it arises again when climate prediction models are used to conclude Earth's temperature will climb drastically in the next century and—based on such models—to propose policy decisions that could drastically affect the economy.

According to Arizona State University climatologist Dr. Robert C. Balling in his book, *The Heated Debate* (San Francisco: Pacific Research Institute for Public Policy, 1992), until knowledge of the interplay between oceans and the atmosphere improves, "model predictions must be treated with considerable caution." Moreover, models don't simulate the complexity of clouds, nor do they deal adequately with sea ice, snow or changes in intensity of the sun's energy.

And they don't stand up to reality testing. Comparing actual temperatures over the last 100 years against model calculations, the models predicted temperature increases higher than those that actually occurred. Moreover, most of the earth's temperature increase over the last century occurred before 1940. Yet, the real build-up in man-made CO<sub>2</sub> didn't occur until after 1940. Temperatures actually fell between 1940 and 1970.

Sifting through such data, Dr. Balling has concluded, "there is a large amount of empirical evidence suggesting that the apocalyptic vision is in error and that the highly touted greenhouse disaster is most improbable."

Other scientists have an even more interesting viewpoint. Notes atmospheric physicist S. Fred Singer, president of the Washington, D.C.-based Science & Environmental Policy Project, "the net impact [of a modest warming] may well be beneficial."

All of which would seem to suggest that the jury's still out on whether drastic steps to curb CO<sub>2</sub> emissions are needed. It would seem that the phenomenon—and its impact on the economy—are important enough to warrant considerably more research before proposing actions we may later regret.

Perhaps the sky isn't falling, after all.



Figure 7: 1993 Mobil Advertorial

1           103. The first of those purportedly neutral scientific experts, Robert C. Balling,  
2 acknowledged five years after the advertorial ran that he had received \$408,000 in research funding  
3 from the fossil fuel industry over the past decade, including from Exxon.<sup>115</sup> The second, S. Fred  
4 Singer, was not a climatologist, and had previously been funded by tobacco companies to spread  
5 doubt about the scientific claim that exposure to second-hand smoke causes cancer.<sup>116</sup>  
6

7           104. Many other Exxon and Mobil advertorials falsely or misleadingly characterized the  
8 state of climate science research to the readership of *The New York Times*' op-ed page. A sample of  
9 these untruthful statements includes:

- 10           • “We don’t know enough about the factors that affect global warming and the degree  
11 to which—if any—that man-made emissions (namely, carbon dioxide) contribute to  
12 increases in Earth’s temperature.”<sup>117</sup>
- 13           • “[G]reenhouse-gas emissions, which have a warming effect, are offset by another  
14 combustion product—particulates—which leads to cooling.”<sup>118</sup>
- 15           • “Even after two decades of progress, climatologists are still uncertain how—or even  
16 if—the buildup of man-made greenhouse gases is linked to global warming. It could  
17 be at least a decade before climate models will be able to link greenhouse warming  
18 unambiguously to human actions. Important answers on the science lie ahead.”<sup>119</sup>
- 19           • “[I]t is impossible for scientists to attribute the recent small surface temperature  
20 increases to human causes.”<sup>120</sup>
- 21           • “Within a decade, science is likely to provide more answers on what factors affect  
22 global warming, thereby improving our decision-making. We just don’t have this

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21           <sup>115</sup> DeSmog, *Robert C. Balling, Jr.*, <https://www.desmog.com/robert-c-balling-jr/>.

22           <sup>116</sup> Naomi Oreskes & Erik M. Conway, *Merchants of Doubt: How a Handful of Scientists  
Obscured the Truth on Issues from Tobacco Smoke to Global Warming*, 150–54 (Bloomsbury  
Press, 1st ed. 2011).

23           <sup>117</sup> Mobil, *Climate Change: A Prudent Approach*, N.Y. Times (Nov. 13, 1997), available at  
24 [https://www.documentcloud.org/documents/705548-mob-nyt-1997-11-13-  
climateprudentapproach.html](https://www.documentcloud.org/documents/705548-mob-nyt-1997-11-13-climateprudentapproach.html).

25           <sup>118</sup> Mobil, *Less Heat, More Light on Climate Change*, N.Y. Times (July 18, 1996), available at  
<https://www.documentcloud.org/documents/705544-mob-nyt-1996-jul-18-lessheatmorelight.html>.

26           <sup>119</sup> Mobil, *Climate Change: Where We Come Out*, N.Y. Times (Nov. 20, 1997), available at  
[https://www.documentcloud.org/documents/705549-mob-nyt-1997-11-20-  
ccwherewecomeout.html](https://www.documentcloud.org/documents/705549-mob-nyt-1997-11-20-ccwherewecomeout.html).

27           <sup>120</sup> ExxonMobil, *Unsettled Science* (Mar. 23, 2000), reproduced in  
28 [https://www.theguardian.com/environment/2021/nov/18/the-forgotten-oil-ads-that-told-us-climate-  
change-was-nothing](https://www.theguardian.com/environment/2021/nov/18/the-forgotten-oil-ads-that-told-us-climate-change-was-nothing).

1 information today. Answers to questions about climate change will require more  
2 reliable measurements of temperature at many places on Earth, better understanding  
3 of clouds and ocean currents along with greater computer power.”<sup>121</sup>

4 105. A quantitative analysis of Exxon’s climate communications between 1989 and 2004  
5 found that, while 83% of the company’s peer-reviewed papers and 80% of its internal documents  
6 acknowledged the reality and human origins of climate change, 81% of its advertorials  
7 communicated doubt about those conclusions.<sup>122</sup> Exxon’s tendency to contradict its own peer-  
8 reviewed research in statements meant for lay audiences also appeared at a year-to-year scale. Based  
9 on this “statistically significant” discrepancy between internal and external communications, the  
10 authors concluded that “ExxonMobil misled the public.”<sup>123</sup>

11 106. Defendants also worked jointly through industry and front groups such as API, ICE,  
12 and the GCC to fund, conceive, plan, and carry out sustained and widespread campaigns of denial  
13 and disinformation about the existence of climate change and their products’ contribution to it,  
14 despite their own knowledge and the growing national and international scientific consensus about  
15 the hazards of doing so. The campaigns included a long-term pattern of direct misrepresentations  
16 and material omissions to consumers, as well as a plan to influence consumers indirectly by affecting  
17 public opinion through the mass dissemination of misleading research. Although Defendants were  
18 competitors in the marketplace, they combined and collaborated with each other and with industry  
19 and front groups such as API, ICE, and the GCC on these public campaigns to misdirect and stifle  
20 public knowledge in order to inflate consumer demand for fossil fuels. The efforts included  
21 promoting hazardous fossil fuel products through advertising campaigns that failed to warn of the  
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25 <sup>121</sup> Mobil, *Science: What We Know and Don’t Know*, (1997), reproduced in  
26 [https://www.theguardian.com/environment/2021/nov/18/the-forgotten-oil-ads-that-told-us-climate-  
change-was-nothing](https://www.theguardian.com/environment/2021/nov/18/the-forgotten-oil-ads-that-told-us-climate-change-was-nothing).

27 <sup>122</sup> Geoffrey Supran & Naomi Oreskes, *Assessing ExxonMobil’s Climate Change  
Communications (1977–2014)*, 12 *Env’tl. Research Letters*, IOP Publishing Ltd. 12 (2017),  
28 <https://iopscience.iop.org/article/10.1088/1748-9326/aa815f/pdf>.

<sup>123</sup> *Ibid.*

1 existential risks associated with the use of those products, and that were designed to influence  
2 consumers to continue using Defendants’ fossil fuel products irrespective of those products’ damage  
3 to communities and the environment.

4           107. One of the key organizations formed by Defendants to coordinate the fossil fuel  
5 industry’s response to the world’s growing awareness of climate change was the International  
6 Petroleum Industry Environmental Conservation Association (“IPIECA”). In 1987, the IPIECA  
7 formed a “Working Group on Global Climate Change” chaired by Duane LeVine, Exxon’s manager  
8 for science and strategy development. The Working Group also included Brian Flannery from Exxon,  
9 Leonard Bernstein from Mobil, Terry Yosie from API, and representatives from BP, Shell, and  
10 Texaco (Chevron). In 1990, the Working Group sent a strategy memo created by LeVine to hundreds  
11 of oil companies around the world, including Defendants. This memo explained that, to forestall a  
12 global shift away from burning fossil fuels for energy, the industry should emphasize uncertainties  
13 in climate science and the need for further research.<sup>124</sup>

14  
15  
16           108. In 1991, the Information Council for the Environment (“ICE”), whose members  
17 included affiliates, predecessors and/or subsidiaries of Defendants, launched a national climate  
18 change science denial campaign with full-page newspaper ads, radio commercials, a public relations  
19 tour schedule, “mailers,” and research tools to measure campaign success. Included among the  
20 campaign strategies was to “reposition global warming as theory (not fact).” Its target audience  
21 included older less-educated males who are “predisposed to favor the ICE agenda, and likely to be  
22 even more supportive of that agenda following exposure to new info.”<sup>125</sup>

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26 <sup>124</sup> Benjamin A. Franta, *Big Carbon’s Strategic Response to Global Warming, 1950–2020*, at  
140 (2022), <https://purl.stanford.edu/hq437ph9153>.

27 <sup>125</sup> Union of Concerned Scientists, *Deception Dossier #5: Coal’s “Information Council on the*  
28 *Environment” Sham* (1991), [http://www.ucsusa.org/sites/default/files/attach/2015/07/Climate-Deception-Dossier-5\\_ICE.pdf](http://www.ucsusa.org/sites/default/files/attach/2015/07/Climate-Deception-Dossier-5_ICE.pdf).

1 109. A goal of ICE’s advertising campaign was to change public opinion and consumer  
 2 perceptions of climate risk. A memo from Richard Lawson, president of the National Coal  
 3 Association, a predecessor to the National Mining Association, warned, “Public opinion polls reveal  
 4 that 60% of the American people already believe global warming is a serious environmental problem.  
 5 Our industry cannot sit on the sidelines in this debate.”<sup>126</sup>

7 110. The following images are examples of ICE-funded print advertisements challenging  
 8 the validity of climate science and intended to obscure the scientific consensus on anthropogenic  
 9 climate change in order to inflate consumer demand for fossil fuels.<sup>127</sup>



21 **Figure 8: Information Council for the Environment Advertisements**

22 111. The Global Climate Coalition (“GCC”), on behalf of Defendants and other fossil fuel  
 23 companies, spent millions of dollars on deceptive advertising campaigns and misleading material to  
 24

25 <sup>126</sup> Naomi Oreskes, *My Facts Are Better Than Your Facts: Spreading Good News About Global*  
 26 *Warming* (2010), in Peter Howlett et al., *How Well Do Facts Travel?: The Dissemination of*  
 27 *Reliable Knowledge* 136–66 (Cambridge University Press, 2011).

28 <sup>127</sup> Union of Concerned Scientists, *Deception Dossier #5: Coal’s “Information Council on the*  
*Environment” Sham at 47–49* (1991), [http://www.ucsusa.org/sites/default/files/attach/2015/07/Climate-Deception-Dossier-5\\_ICE.pdf](http://www.ucsusa.org/sites/default/files/attach/2015/07/Climate-Deception-Dossier-5_ICE.pdf).



1 discredit climate science and generate public uncertainty around the climate debate, and thereby  
2 inflate consumer demand for fossil fuels.<sup>128</sup> The GCC operated between 1989 and 2001. Its founding  
3 members included Defendants Exxon, Shell, Phillips Petroleum Company (ConocoPhillips), and  
4 API. Defendants BP and Chevron also participated as members of the GCC. William O’Keefe,  
5 former president of the GCC, was also a former executive of API.<sup>129</sup> GCC’s position on climate  
6 change contradicted decades of its members’ internal scientific reports by asserting that natural  
7 trends, not human combustion of fossil fuels, were responsible for rising global temperatures:  
8

9       The GCC believes that the preponderance of the evidence indicates that most, if not all, of  
10 the observed warming is part of [a] natural warming trend which began approximately 400  
11 years ago. If there is an anthropogenic component to this observed warming, the GCC  
believes that it must be very small and must be superimposed on a much larger natural  
warming trend.<sup>130</sup>

12       112. The GCC’s promotion of overt climate change skepticism also contravened its  
13 internal assessment that such theories lacked scientific support. In December 1995, the GCC’s  
14 Science and Technology Advisory Committee (“GCC-STAC”), whose members included employees  
15 of Mobil Oil Corporation (an Exxon predecessor) and API, drafted a primer on the science of global  
16 warming for GCC members. The primer concluded that the GCC’s contrarian theories “do not offer  
17 convincing arguments against the conventional model of greenhouse gas emission-induced climate  
18 change.” However, the GCC excluded this section from the publicly released version of the report.<sup>131</sup>  
19 Nonetheless, for years afterward, the GCC and its members continued to tout their contrarian theories  
20 about global warming, even though the GCC had admitted internally these arguments were invalid.  
21 Between 1989 and 1998, the GCC spent \$13 million on one ad campaign to obfuscate the public’s  
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23       <sup>128</sup> *Ibid.*

24       <sup>129</sup> Jeff Nesmith, *Industry Promotes Skeptical View of Global Warming*, Cox News Service  
25 (May 28, 2003), [http://www.heatisonline.org/contentserver/objecthandlers/index.cfm  
?ID=4450&Method=Full](http://www.heatisonline.org/contentserver/objecthandlers/index.cfm?ID=4450&Method=Full).

26       <sup>130</sup> Global Climate Coalition, *Global Climate Coalition: An Overview 2* (Nov. 1996),  
[http://www.climatefiles.com/denial-groups/global-climatecoalition-collection/1996-global-climate-  
coalition-overview/](http://www.climatefiles.com/denial-groups/global-climatecoalition-collection/1996-global-climate-coalition-overview/).

27       <sup>131</sup> Memorandum from Gregory J. Dana, Assoc. of Int’l Auto. Mfrs., to AIAM Technical  
28 Committee, *Global Climate Coalition (GCC) - Primer on Climate Change Science - Final Draft*  
(Jan. 18, 1996), <http://www.webcitation.org/6FyqHawb9>.

1 understanding of climate science and undermine its trust in climate scientists.<sup>132</sup> For example, the  
2 GCC distributed a video to hundreds of journalists, which claimed that carbon dioxide emissions  
3 would increase crop production and feed the hungry people of the world.<sup>133</sup>

4 113. In a 1994 public report, the GCC stated that “observations have not yet confirmed  
5 evidence of global warming that can be attributed to human activities,” and that “[t]he claim that  
6 serious impacts from climate change have occurred or will occur in the future simply has not been  
7 proven.”<sup>134</sup> In 1995, the GCC published a booklet called “Climate Change: Your Passport to the  
8 Facts,” which stated, “While many warnings have reached the popular press about the consequences  
9 of a potential man-made warming of the Earth’s atmosphere during the next 100 years, there remains  
10 no scientific evidence that such a dangerous warming will actually occur.”<sup>135</sup>

12 114. In 1997, William O’Keefe, chairman of the GCC and executive vice president of API,  
13 falsely wrote in a *Washington Post* op-ed, “[c]limate scientists don’t say that burning oil, gas, and  
14 coal is steadily warming the earth.”<sup>136</sup> This statement contradicted the established scientific  
15 consensus as well as Defendants’ own knowledge. Yet Defendants did nothing to correct the public  
16 record, and instead continued to fund the GCC’s anti-scientific climate skepticism.

18 115. In addition to publicly spreading false and misleading information about the climate  
19 science consensus, the GCC also sought to undermine credible climate science from within the IPCC.

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21 <sup>132</sup> Wendy E. Franz, Kennedy School of Government, Harvard University, *Science, Skeptics*  
22 *and Non-State Actors in the Greenhouse*, ENRP Discussion Paper E-98-18 13 (Sept. 1998),  
[https://www.belfercenter.org/sites/default/files/legacy/files/Science%20Skeptics%20and%20Non-](https://www.belfercenter.org/sites/default/files/legacy/files/Science%20Skeptics%20and%20Non-State%20Actors%20in%20the%20Greenhouse%20-%20E-98-18.pdf)  
[State%20Actors%20in%20the%20Greenhouse%20-%20E-98-18.pdf](https://www.belfercenter.org/sites/default/files/legacy/files/Science%20Skeptics%20and%20Non-State%20Actors%20in%20the%20Greenhouse%20-%20E-98-18.pdf).

23 <sup>133</sup> The Center for Media and Democracy, *Global Climate Coalition*, Source Watch,  
[http://www.sourcewatch.org/index.php/Global\\_Climate\\_Coalition](http://www.sourcewatch.org/index.php/Global_Climate_Coalition).

24 <sup>134</sup> GCC, *Issues and Options: Potential Global Climate Change*, Climate Files (1994),  
[http://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1994-potential-](http://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1994-potential-global-climate-change-issues)  
25 [global-climate-change-issues](http://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1994-potential-global-climate-change-issues).

26 <sup>135</sup> GCC, *Climate Change: Your Passport to the Facts*, Climate Files (1995),  
[http://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1995-climate-](http://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1995-climate-change-facts-passport)  
27 [change-facts-passport](http://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1995-climate-change-facts-passport).

28 <sup>136</sup> William O’Keefe, *A Climate Policy*, *The Washington Post* (July 5, 1997),  
[https://www.washingtonpost.com/archive/opinions/1997/07/05/a-climate-policy/6a11899a-c020-](https://www.washingtonpost.com/archive/opinions/1997/07/05/a-climate-policy/6a11899a-c020-4d59-a185-b0e7eebf19cc/)  
[4d59-a185-b0e7eebf19cc/](https://www.washingtonpost.com/archive/opinions/1997/07/05/a-climate-policy/6a11899a-c020-4d59-a185-b0e7eebf19cc/).

1 After becoming a reviewer of IPCC’s Second Assessment Report in 1996, the GCC used its position  
2 to accuse the convening author of a key chapter in the Report of modifying its conclusions. The GCC  
3 claimed that the author, climatologist Ben Santer, had engaged in “scientific cleansing” that  
4 “understate[d] uncertainties about climate change causes and effect . . . to increase the apparent  
5 scientific support for attribution of changes to climate to human activities.”<sup>137</sup> The GCC also  
6 arranged to spread the accusation among reporters, editors of scientific journals, and even the op-ed  
7 page of the *Wall Street Journal*.<sup>138</sup> This effort “was widely perceived to be an attempt on the part of  
8 the GCC to undermine the credibility of the IPCC.”<sup>139</sup>

10 116. In the late 1990s, Defendants shifted away from openly denying anthropogenic  
11 warming toward peddling a subtler form of climate change skepticism. Defendants became alarmed  
12 by significant legal judgments Big Tobacco now faced as a result of decades spent publicly denying  
13 the health risks of smoking cigarettes, with a Shell employee explaining that the company “didn’t  
14 want to fall into the same trap as the tobacco companies who have become trapped in all their lies.”<sup>140</sup>  
15 Defendants began to shift their communications strategy, claiming they had accepted climate science  
16 all along.<sup>141</sup> Several large fossil fuel companies, including BP and Shell, left the GCC (although all  
17 Defendants remained members of API).<sup>142</sup> At this point in time, Defendants publicly claimed to  
18 accept the reality that the climate is changing (or Earth is warming) and that climate change is  
19 primarily caused by human activities.  
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23 <sup>137</sup> Franz, *supra* note 132, at 14.

24 <sup>138</sup> Naomi Oreskes & Erik Conway, *Merchants of Doubt: How a Handful of Scientists*  
25 *Obscured the Truth on Issues from Tobacco Smoke to Global Warming*, New York: Bloomsbury  
26 Press 205–13 (2011). *See also* S. Fred Singer, *Climate Change and Consensus*, *Science* vol. 271,  
no. 5249 (Feb. 2, 1996); Frederick Seitz, *A Major Deception on 'Global Warming'*, *Wall Street*  
*Journal* (June 12, 1996).

27 <sup>139</sup> Franz, *supra* note 132, at 15.

28 <sup>140</sup> Nathaniel Rich, *Losing Earth: A Recent History*, London: Picador 186 (2020).

<sup>141</sup> Franta, *Big Carbon’s Strategic Response to Global Warming, 1950–2020* at 170.

<sup>142</sup> *Id.* at 177.

1           117. Despite the shift in official public messaging, Defendants surreptitiously continued to  
2 organize and fund programs designed to deceive the public about the weight and veracity of the  
3 climate science consensus. In 1998, API convened a Global Climate Science Communications Team  
4 (“GCSCT”) whose members included representatives from Exxon, Chevron, and API. There were  
5 no scientists on the “Global Climate Science Communications Team.” Steve Milloy (a key player  
6 in the tobacco industry’s deception campaign) and his organization, The Advancement of Sound  
7 Science Coalition (“TASSC”), were founding members of the GCSCT. TASSC was a fake grassroots  
8 citizen group created by the tobacco industry to sow uncertainty by discrediting the scientific link  
9 between exposure to second-hand cigarette smoke and increased rates of cancer and heart disease.  
10 Philip Morris launched TASSC on the advice of its public relations firm, which advised Philip Morris  
11 that the tobacco company itself would not be a credible voice on the issue of smoking and public  
12 health. TASSC, through API and with the approval of Defendants, also became a front group for the  
13 fossil fuel industry beyond its roll in GCSCT, using the same tactics it had honed while operating on  
14 behalf of tobacco companies to spread doubt about climate science. Although TASSC posed as a  
15 grassroots group of concerned citizens, it received significant funding from Defendants. For  
16 example, between 2000 and 2004, Exxon donated \$50,000 to Milloy’s Advancement of Sound  
17 Science Center; and an additional \$60,000 to the Free Enterprise Education Institute and \$50,000 to  
18 the Free Enterprise Action Institute, both of which were registered to Milloy’s home address.<sup>143</sup> The  
19 GCSCT, including TASSC, represented a continuation of Defendants’ concerted actions to sow  
20 doubt and confusion about climate change in order to inflate consumer demand for fossil fuels.  
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24           118. The GCSCT continued Defendants’ efforts to expand the market for fossil fuels by  
25 convincing the public that the scientific basis for climate change was in doubt. The multi-million-  
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27 <sup>143</sup> Union of Concerned Scientists, *Smoke, Mirrors & Hot Air: How ExxonMobil Uses Big*  
28 *Tobacco’s Tactics to Manufacture Uncertainty on Climate Science* (July 16, 2007),  
<https://www.ucsusa.org/resources/smoke-mirrors-hot-air>.

1 dollar, multi-year plan, among other elements, sought to: (a) “[d]evelop and implement a national  
2 media relations program to inform the media about uncertainties in climate science to generate  
3 national, regional, and local media coverage on the scientific uncertainties”; (b) “[d]evelop a global  
4 climate science information kit for media including peer-reviewed papers that undercut the  
5 ‘conventional wisdom’ on climate science”; (c) “[p]roduce . . . a steady stream of op-ed columns”;  
6 and (d) “[d]evelop and implement a direct outreach program to inform and educate members of  
7 Congress . . . and school teachers/students about uncertainties in climate science”<sup>144</sup>—a blatant  
8 attempt to deceive consumers and the public in order to ensure a continued and unimpeded market  
9 for their fossil fuel products.  
10

11           119. Exxon, Chevron, and API directed and contributed to the development of the plan,  
12 which plainly set forth the criteria by which the contributors would know when their efforts to  
13 manufacture doubt had been successful. “Victory,” they wrote, “will be achieved when . . . average  
14 citizens ‘understand’ (recognize) uncertainties in climate science” and “recognition of uncertainties  
15 becomes part of the ‘conventional wisdom.’”<sup>145</sup> In other words, the plan was part of Defendants’  
16 goal to use disinformation to plant doubt about the reality of climate change in an effort to inflate  
17 consumer demand for their fossil fuel products and their large profits.  
18

19           120. In furtherance of the strategies described in these memoranda, Defendants made  
20 misleading statements to consumers about climate change, the relationship between climate change  
21 and their fossil fuel products, and the urgency of the problem. Defendants made these statements in  
22 public fora and in advertisements published in newspapers and other media with substantial  
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27 <sup>144</sup> Email from Joe Walker to Global Climate Science Team, Draft Global Climate Science  
28 Communications Plan (Apr. 3, 1998), [https://assets.documentcloud.org/documents/784572/api-  
global-climate-science-communications-plan.pdf](https://assets.documentcloud.org/documents/784572/api-global-climate-science-communications-plan.pdf).

<sup>145</sup> *Ibid.*

1 circulation to Oakland and California, including publications such as *The New York Times*, *The Wall*  
2 *Street Journal*, and *The Washington Post*.

3 121. Another key strategy in Defendants' efforts to discredit scientific consensus on  
4 climate change and the IPCC was to bankroll unqualified or unscrupulous scientists to advance fringe  
5 conclusions about the causes and effects of climate change. These scientists obtained part or all of  
6 their research budget from Defendants directly or through Defendant-funded organizations like  
7 API.<sup>146</sup> During the early- to mid-1990s, Exxon directed some of this funding to Dr. Fred Seitz, Dr.  
8 Fred Singer, and/or Seitz and Singer's Science and Environmental Policy Project ("SEPP") in order  
9 to launch repeated attacks on mainstream climate science and IPCC conclusions, even as Exxon  
10 scientists participated in the IPCC.<sup>147</sup> Seitz and Singer were not climate scientists. Rather, they and  
11 SEPP had previously been paid by the tobacco industry to create doubt in the public mind about the  
12 hazards of smoking.<sup>148</sup>

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15 122. Industry-funded scientists frequently failed to disclose their fossil fuel industry  
16 underwriters.<sup>149</sup> At least one industry-funded scientist, Dr. Wei-Hock Soon, contractually agreed to  
17 allow donors to review his research before publication, and his housing institution agreed not to  
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21 <sup>146</sup> E.g., Willie Soon & Sallie Baliunas, Proxy Climatic and Environmental Changes of the Past  
22 1000 Years, 23 *Climate Rsch.* 88, 105 (Jan. 31, 2003), <http://www.int-res.com/articles/cr2003/23/c023p089.pdf>.

23 <sup>147</sup> Union of Concerned Scientists, *Smoke, Mirrors & Hot Air: How ExxonMobil Uses Big*  
24 *Tobacco's Tactics to Manufacture Uncertainty on Climate Science*, Jan. 2007, available at  
[http://www.ucsusa.org/assets/documents/global\\_warming/exxon\\_report.pdf](http://www.ucsusa.org/assets/documents/global_warming/exxon_report.pdf); <http://www.exxonsecrets.org/html/orgfactsheet.php?id=65>

25 <sup>148</sup> Union of Concerned Scientists, *Smoke, Mirrors & Hot Air: How ExxonMobil Uses Big*  
26 *Tobacco's Tactics to Manufacture Uncertainty on Climate Science*, Jan. 2007, available at  
[http://www.ucsusa.org/assets/documents/global\\_warming/exxon\\_report.pdf](http://www.ucsusa.org/assets/documents/global_warming/exxon_report.pdf); <http://www.exxonsecrets.org/html/orgfactsheet.php?id=65>.

27 <sup>149</sup> E.g., *Smithsonian Statement: Dr. Wei-Hock (Willie) Soon*, *Smithsonian* (Feb. 26, 2015),  
28 <https://web.archive.org/web/20181105223030/https://www.si.edu/newsdesk/releases/smithsonian-statement-dr-wei-hock-willie-soon>

1 disclose the funding arrangement without prior permission from his fossil fuel donors.<sup>150</sup> Between  
2 2001 and 2012, various fossil fuel interests, including Exxon and API, paid Soon over \$1.2 million.<sup>151</sup>  
3 “Dr. Soon, in correspondence with his corporate funders, described many of his scientific papers as  
4 ‘deliverables’ that he completed in exchange for their money.”<sup>152</sup> His Defendant-funded research  
5 includes articles in scientific journals accusing the IPCC of overstating the negative environmental  
6 effects of carbon dioxide emissions and arguing that the sun is responsible for recent climate trends.  
7 Soon was the lead author of a 2003 article that argued that the climate had not changed significantly.  
8 The article was widely promoted by other denial groups funded by Exxon, including via “Tech  
9 Central Station,” a website supported by Exxon.<sup>153</sup> Soon published other bogus “research” in 2009,  
10 attributing global warming to solar activity, for which Exxon paid him \$76,106.<sup>154</sup> This 2009 grant  
11 was made several years after Exxon had publicly committed not to fund global warming deniers.<sup>155</sup>

12 123. Defendants intended for the papers of authors they funded to be distributed to and  
13 relied on by consumers when buying Defendants’ products, including by consumers in Oakland.

14 124. Defendants have also funded dozens of think tanks, front groups, and dark money  
15 foundations pushing climate change denial. These include the Competitive Enterprise Institute, the  
16 Heartland Institute, Frontiers for Freedom, Committee for a Constructive Tomorrow, and Heritage  
17 Foundation. According to the Union of Concerned Scientists, from 1998 to 2017, Exxon spent over  
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21 <sup>150</sup> Union of Concerned Scientists, Climate Deception Dossier #1: Dr. Wei-Hock Soon’s  
22 Smithsonian Contracts, (July 2015), <https://www.ucsusa.org/sites/default/files/attach/2015/07/The-Climate-Deception-Dossiers.pdf>  
23 [<https://perma.cc/JL2V-XYGL>] & [https://s3.amazonaws.com/ucs-documents/global-warming/Climate-Deception-Dossier-1\\_Willie-Soon.pdf](https://s3.amazonaws.com/ucs-documents/global-warming/Climate-Deception-Dossier-1_Willie-Soon.pdf).

24 <sup>151</sup> Justin Gillis & John Schwartz, Deeper Ties to Corporate Cash for Doubtful Climate  
25 Researcher, *New York Times* (Feb. 21, 2015), available at  
<https://www.nytimes.com/2015/02/22/us/ties-to-corporate-cash-for-climate-change-researcher-Wei-Hock-Soon.html?mcubz=1>.

26 <sup>152</sup> *Id.*

27 <sup>153</sup> *Smoke, Mirrors & Hot Air*, *supra* note 147, at 13–14.

28 <sup>154</sup> <https://www.documentcloud.org/documents/682765-willie-soon-foia-grants-chart-02-08-2011.html>.

<sup>155</sup> [http://www.socialfunds.com/shared/reports/1211896380\\_ExxonMobil\\_2007\\_Corporate\\_Citizenship\\_Report.pdf](http://www.socialfunds.com/shared/reports/1211896380_ExxonMobil_2007_Corporate_Citizenship_Report.pdf).

1 \$36 million funding numerous organizations misrepresenting the scientific consensus<sup>156</sup> that fossil  
2 fuel products were causing climate change, sea level rise, and injuries to Oakland, among other  
3 communities. Several Defendants have been linked to other groups that undermine the scientific  
4 basis linking fossil fuel products to climate change and sea level rise, including the Frontiers of  
5 Freedom Institute and the George C. Marshall Institute.

6  
7 125. Philip Cooney, an attorney at API from 1996 to 2001, testified at a 2007  
8 Congressional hearing that it was “typical” for API to fund think tanks and advocacy groups that  
9 minimized fossil fuels’ role in causing climate change.<sup>157</sup>

10 126. Creating a false perception of disagreement in the scientific community (despite the  
11 consensus that its own scientists, experts, and managers had previously acknowledged) disrupted  
12 vital channels of communication between scientists and the public. A 2007 Yale University-Gallup  
13 poll found that only 48% of Americans believed that there was a consensus among the scientific  
14 community that global warming was happening, and 40% believed there was a lot of disagreement  
15 among scientists over whether global warming was occurring.<sup>158</sup> Eight years later, a 2015 Yale-  
16 George Mason University poll found that “[o]nly about one in ten Americans understands that nearly  
17 all climate scientists (over 90%) are convinced that human-caused global warming is happening, and  
18 just half . . . believe a majority do.”<sup>159</sup> Further, it found that 33% of Americans believe that climate

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21 <sup>156</sup> Union of Concerned Scientists, ExxonMobil Foundation & Corporate Giving to Climate  
22 Change Denier & Obstructionist Organizations (1998–2017), available at  
23 <https://www.ucsusa.org/sites/default/files/attach/2019/ExxonMobil-Worldwide-Giving-1998-2017.pdf>.

24 <sup>157</sup> *Allegations of Political Interference with Government Climate Change Science: Hearing*  
25 *Before the Comm. on Oversight and Government Reform*, 110th Cong. 324 (Mar. 19, 2007)  
(statement of Philip A. Cooney), <https://www.govinfo.gov/content/pkg/CHRG-110hhrg37415/html/CHRG-110hhrg37415.htm>.

26 <sup>158</sup> American Opinions on Global Warming: A Yale/Gallup/Clearvision Poll, Yale Program on  
27 Climate Change Communication (July 31, 2007), <http://climatecommunication.yale.edu/publications/american-opinions-on-global-warming>.

28 <sup>159</sup> Leiserowitz, et al., *Climate Change in the American Mind* (Yale Program on Climate  
Change Comm. & Geo. Mason U., Ctr. for Climate Change Comm eds., Oct. 2015),



1 change is mostly due to natural causes, compared to the 97% of peer-reviewed papers that  
2 acknowledge that global warming is real and at least partly human-caused.<sup>160</sup> The lack of progress,  
3 and even regress, in the public understanding of climate science over this period—during which  
4 Defendants professed to accept the conclusions of mainstream climate science—testifies to the  
5 success of Defendants’ deception campaign in thwarting dissemination of accurate scientific  
6 expertise to the public regarding the effects fossil fuel consumption.  
7

8           127. As a result of Defendants’ tortious, false, and misleading conduct, consumers of  
9 Defendants’ fossil fuel products in Oakland as elsewhere, have been deliberately and unnecessarily  
10 deceived about: the role of fossil fuel products in causing global warming, sea level rise, disruptions  
11 to the hydrologic cycle, and increased extreme precipitation, heat waves, drought, and other  
12 consequences of the climate crisis; the acceleration of global warming since the mid-twentieth  
13 century and the continuation thereof; and the fact that the continued increase in fossil fuel  
14 consumption creates severe environmental threats and significant economic costs for coastal  
15 communities, including Oakland. Consumers in Oakland and elsewhere have also been deceived  
16 about the depth and breadth of the state of the scientific evidence on anthropogenic climate change  
17 and, in particular, about the strength of the scientific consensus demonstrating the role of fossil fuels  
18 in causing both climate change and a wide range of potentially destructive impacts, including sea  
19 level rise, disruptions to the hydrologic cycle, extreme precipitation, heat waves, drought, and  
20 associated consequences.  
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27 <https://climatecommunication.yale.edu/wp-content/uploads/2015/11/Climate-Change-American-Mind-October-20151.pdf>.

28 <sup>160</sup> *Id.* at 7.

1           **D. In Contrast to Their Public Misrepresentations About the Risks of Climate**  
2           **Change, Defendants' Internal Actions Demonstrate Their Awareness of and**  
3           **Intent to Profit from Uses of Fossil Fuel Products They Knew Were**  
4           **Hazardous.**

5           128. In contrast to their public-facing efforts challenging the validity of the scientific  
6           consensus about anthropogenic climate change, Defendants' acts and omissions evidence their  
7           internal acknowledgement of the reality of climate change and its likely consequences. Those actions  
8           include, but are not limited to, making multi-billion-dollar infrastructure investments for their own  
9           operations that acknowledge the reality of coming anthropogenic climate-related change. Those  
10          investments included (among others): raising offshore oil platforms to protect against sea level rise;  
11          reinforcing offshore oil platforms to withstand increased wave strength and storm severity;  
12          developing technology and infrastructure to extract, store, and transport fossil fuels in a warming  
13          arctic environment; and developing and patenting designs for equipment intended to extract crude  
14          oil and/or natural gas in areas previously unreachable because of the presence of polar ice sheets.<sup>161</sup>

15          129. For example, oil and gas reserves in the Arctic that were not previously reachable due  
16          to sea ice are becoming increasingly reachable as sea ice thins and melts due to climate change.<sup>162</sup> In  
17          1973, Exxon obtained a patent for a cargo ship capable of breaking through sea ice<sup>163</sup> and for an oil  
18          tanker<sup>164</sup> designed specifically for use in previously unreachable areas of the Arctic.

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24          <sup>161</sup> Lieberman & Rust.

25          <sup>162</sup> Henderson & Loe, *The Prospects and Challenges for Arctic Oil Development*, Oxford  
26          Institute for Energy Studies (Nov. 2014) p. 1, available at  
27          [https://www.oxfordenergy.org/publications/the-prospects-and-challenges-for-arctic-](https://www.oxfordenergy.org/publications/the-prospects-and-challenges-for-arctic-oildevelopment/)  
28          [oildevelopment/](https://www.oxfordenergy.org/publications/the-prospects-and-challenges-for-arctic-oildevelopment/).

29          <sup>163</sup> ExxonMobil Research Engineering Co., Patent US3727571A: Icebreaking cargo vessel  
30          (granted Apr. 17, 1973), <https://www.google.com/patents/US3727571>.

31          <sup>164</sup> ExxonMobil Research Engineering Co., Patent US3745960A: Tanker vessel (granted July  
32          17, 1973), <https://www.google.com/patents/US3745960>.

1           130. In 1974, Chevron obtained a patent for a mobile arctic drilling platform designed to  
2 withstand significant interference from lateral ice masses,<sup>165</sup> allowing for drilling in areas with  
3 increased ice floe movement due to elevated temperature.

4           131. That same year, Texaco (Chevron) worked toward obtaining a patent for a method  
5 and apparatus for reducing ice forces on a marine structure prone to being frozen in ice through  
6 natural weather conditions,<sup>166</sup> allowing for drilling in previously unreachable Arctic areas that would  
7 become seasonally accessible.  
8

9           132. In 1984, Shell obtained a patent for an Arctic offshore platform adapted for  
10 conducting operations in the Beaufort Sea, an area that was previously unreachable due to ice.<sup>167</sup>

11           133. As described below, in 1989, Norske Shell, Royal Dutch Shell's Norwegian  
12 subsidiary, altered designs for a natural gas platform planned for construction in the North Sea to  
13 account for anticipated sea level rise. Those design changes were ultimately carried out by Shell's  
14 contractors, adding substantial costs to the project.<sup>168</sup>  
15

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

19           ii. In 1986, the Norwegian parliament granted Norske Shell authority to complete  
20 the first development phase of the Troll field gas deposits, and Norske Shell began designing the  
21 "Troll A" gas platform, with the intent to begin operation of the platform in approximately 1995.  
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24 <sup>165</sup> Chevron Research & Technology Co., Patent US3831385A: Arctic offshore platform  
(granted Aug. 27, 1974), <https://www.google.com/patents/US3831385>.

25 <sup>166</sup> Texaco Inc., Patent US3793840A: Mobile, arctic drilling and production platform (granted  
Feb. 26, 1974), <https://www.google.com/patents/US3793840>.

26 <sup>167</sup> Shell Oil Co., Patent US4427320A: Arctic offshore platform (granted Jan. 24, 1984),  
<https://www.google.com/patents/US4427320>.

27 <sup>168</sup> Greenhouse Effect: Shell Anticipates a Sea Change, N.Y. Times (Dec. 20, 1989),  
28 [http://www.nytimes.com/1989/12/20/business/greenhouse-effect-shell-anticipates-a-sea-  
change.html](http://www.nytimes.com/1989/12/20/business/greenhouse-effect-shell-anticipates-a-sea-change.html).

1 Based on the very large size of the gas deposits in the Troll field, the Troll A platform was projected  
2 to operate for approximately 70 years.

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

5           iv.           In 1989, Shell engineers revised their plans to increase the above-water height  
6 of the platform by 3 to 6 feet, specifically to account for higher anticipated average sea levels and  
7 increased storm intensity due to global warming over the platform’s 70-year operational life.<sup>169</sup>

8           v.           Shell projected that the additional 3 to 6 feet of above-water construction  
9 would increase the cost of the Troll A platform by as much as \$40 million.

10  
11           134.   In 1989, Esso Resources Canada (Exxon) commissioned a report on the impacts of  
12 climate change on existing and proposed natural gas facilities in the Mackenzie River Valley and  
13 Delta, including extraction facilities on the Beaufort Sea and a pipeline crossing Canada’s Northwest  
14 Territory.<sup>170</sup> It reported that “large zones of the Mackenzie Valley could be affected dramatically by  
15 climatic change” and that “the greatest concern in Norman Wells [oil town in North West Territories,  
16 Canada] should be the changes in permafrost that are likely to occur under conditions of climate  
17 warming.”<sup>171</sup> The report concluded that, in light of climate models showing a “general tendency  
18 towards warmer and wetter climate,” operation of those facilities would be compromised by  
19 increased precipitation, increase in air temperature, changes in permafrost conditions, and,  
20 significantly, sea level rise and erosion damage.<sup>172</sup> The authors recommended factoring those  
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25           <sup>169</sup> *Id.*; Lieberman & Rust.

26           <sup>170</sup> See Stephen Lonergan & Kathy Young, *An Assessment of the Effects of Climate Warming  
27 on Energy Developments in the Mackenzie River Valley and Delta, Canadian Arctic*, 7 *Energy  
28 Exploration & Exploitation* 359–81 (1989).

<sup>171</sup> *Id.* at 369, 376.

<sup>172</sup> *Id.* at 360, 377–78.

1 eventualities into future development planning and also warned that “a rise in sea level could cause  
2 increased flooding and erosion damage on Richards Island.”

3 135. In the mid-1990s, Exxon, Shell, and Imperial Oil (Exxon) jointly undertook the Sable  
4 Offshore Energy Project in Nova Scotia. The project’s own Environmental Impact Statement  
5 declared, “The impact of a global warming sea level rise may be particularly significant in Nova  
6 Scotia. The long-term tide gauge records at a number of locations along the N.S. coast have shown  
7 sea level has been rising over the past century. . . . For the design of coastal and offshore structures,  
8 an estimated rise in water level, due to global warming, of 0.5 m [1.64 feet] may be assumed for the  
9 proposed project life (25 years).”<sup>173</sup>

11 **E. Defendants Slowed the Development of Alternative Energy Sources and**  
12 **Knowingly Exacerbated the Costs of Adapting to and Mitigating the Adverse**  
13 **Impacts of the Climate Crisis.**

14 136. As greenhouse gas pollution accumulates in the atmosphere, some of which does not  
15 dissipate for potentially thousands of years (namely CO<sub>2</sub>), climate changes and consequent adverse  
16 environmental changes compound, and their frequencies and magnitudes increase. As those adverse  
17 environmental changes compound and their frequencies and magnitudes increase, so too do the  
18 physical, environmental, economic, and social injuries that result from them.

19 137. By sowing doubt about the future consequences of unrestricted fossil fuel  
20 consumption, Defendants’ deception campaign successfully delayed the transition to alternative  
21 energy sources, which Defendants forecasted could penetrate half of a competitive energy market in  
22 50 years if allowed to develop unimpeded. This delay caused emission of huge amounts of avoidable  
23 greenhouse gases, and has increased the magnitude and cost to address environmental harms,  
24 including in Oakland, that have already occurred or are locked in by previous emissions.  
25

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28 <sup>173</sup> ExxonMobil, Sable Project Development Plan, vol. 3, Environmental Impact Statement  
(Feb. 1996), at 4-77.

1           138. Knowledge of full extent of the risks associated with the routine use of fossil fuel  
2 products is material to consumers’ decisions to purchase and use those products. Had consumer  
3 demand to transition away from fossil fuels—and the market for affordable, reliable sources of clean  
4 energy—developed earlier, the subsequent impacts of climate change could have been avoided or  
5 mitigated.  
6

7           139. As with cigarettes, history demonstrates that when consumers are made aware of the  
8 extent of the harmful effects or qualities of the products they purchase, they often choose to stop  
9 purchasing them, to reduce their purchases, or to make different purchasing decisions. This  
10 phenomenon holds especially true when products have been shown to harm public health or the  
11 environment. For example, increased consumer awareness of the role of pesticides in harming human  
12 health, worker health, and the environment has spurred a growing market for food grown organically  
13 and without the use of pesticides. With access to information about how their food is grown,  
14 consumers have demanded healthier choices, and the market has responded.  
15

16           140. A consumer who received accurate information that fossil fuel use was a primary  
17 driver of drastic climate change, and about the extent of the resultant dangers to the environment and  
18 to public health, likely would have decreased their use of fossil fuel products and/or demanded lower-  
19 carbon transportation options. Indeed, recent studies and surveys have found that consumers with  
20 substantial awareness of climate change are largely willing “to change their consumption habits . . .  
21 to help reduce the impacts of climate change.”<sup>174</sup> If consumers were aware of what Defendants knew  
22 about climate change when Defendants knew it, consumers might have opted to avoid or minimize  
23 airplane travel; avoid or combine car travel trips; carpool; switch to more fuel-efficient vehicles,  
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26           <sup>174</sup> The Conference Board, Changes in Consumers’ Habits Related to Climate Change May  
27 Require New Marketing and Business Models (Oct. 26, 2022), available at  
28 <https://www.conference-board.org/topics/consumers-attitudes-sustainability/changes-in-consumer-habits-related-to-climate-change>.

1 hybrid vehicles, or electric vehicles; demand more charging infrastructure for electric vehicles; use  
2 a car-sharing service; seek transportation alternatives all or some of the time, if and when available  
3 (e.g., public transportation, biking, or walking); electrify houses and office buildings, or adopt any  
4 combination of these choices. In addition, informed consumers often attempt to contribute toward  
5 solving environmental problems by supporting companies that they perceive to be developing  
6 “green” or more environmentally friendly products.<sup>175</sup>  
7

8 141. Defendants have been aware for decades that clean energy presents a feasible  
9 alternative to fossil fuels. In 1980, Exxon forecasted that non-fossil fuel energy sources, if pursued,  
10 could penetrate half of a competitive energy market in approximately 50 years.<sup>176</sup> This internal  
11 estimate was based on extensive modeling within the academic community, including research  
12 conducted by the Massachusetts Institute of Technology’s David Rose, which concluded that a  
13 transition to non-fossil energy could be achieved in around 50 years. Exxon circulated an internal  
14 memo approving of Rose’s conclusions, stating they were “based on reasonable assumptions.”<sup>177</sup> But  
15 instead of pursuing a clean energy transition or warning consumers about the dangers of burning  
16 fossil fuels, Defendants chose to deceive consumers to preserve Defendants’ profits and assets. As a  
17 result, much time has been lost during which consumers and market forces would have spurred a  
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21 <sup>175</sup> See, e.g., Leiserwitz et al., Program on Climate Change Communication, Yale University,  
22 and Center for Climate Change Communication, George Mason University, Consumer Activism on  
23 Global Warming, September 2021 (2021), available at [https://climatecommunication.yale.edu/wp-](https://climatecommunication.yale.edu/wp-content/uploads/2021/12/consumer-activism-onglobal-warming-september-2021.pdf)  
24 [content/uploads/2021/12/consumer-activism-onglobal-warming-september-2021.pdf](https://climatecommunication.yale.edu/wp-content/uploads/2021/12/consumer-activism-onglobal-warming-september-2021.pdf). About a third  
of American consumers surveyed report “reward[ing] companies that are taking steps to reduce  
global warming by buying their products” and “punish[ing] companies that are opposing steps to  
reduce global warming by not buying their products,” *id.* at 3.

25 <sup>176</sup> Shaw & McCall, Exxon Research and Engineering Company’s Technological Forecast:  
CO2 Greenhouse Effect (Dec. 18, 1980) at 5, available at  
26 [https://www.climatefiles.com/exxonmobil/1980-exxon-memo-on-the-co2-greenhouse-effect-](https://www.climatefiles.com/exxonmobil/1980-exxon-memo-on-the-co2-greenhouse-effect-andcurrent-programs-studying-the-issue/)  
[andcurrent-programs-studying-the-issue/](https://www.climatefiles.com/exxonmobil/1980-exxon-memo-on-the-co2-greenhouse-effect-andcurrent-programs-studying-the-issue/).

27 <sup>177</sup> Exxon Research and Engineering Company, Coordination and Planning Division, CO<sub>2</sub>  
Greenhouse Effect: A Technical Review (Apr. 1, 1982) at 17–18, available at  
28 [https://www.climatefiles.com/exxonmobil/1982-memo-to-exxon-management-about-co2-](https://www.climatefiles.com/exxonmobil/1982-memo-to-exxon-management-about-co2-greenhouse-effect/)  
[greenhouse-effect/](https://www.climatefiles.com/exxonmobil/1982-memo-to-exxon-management-about-co2-greenhouse-effect/).

1 societal transition away from fossil fuels, which would have reduced or eliminated entirely the  
2 harmful effects of climate change in Oakland.

3 142. By casting doubt upon the scientific consensus on climate change, Defendants  
4 deceived consumers about the relationship between consumption of fossil fuels and climate change,  
5 and the magnitude of the threat posed by fossil fuel use. Consumers equipped with complete and  
6 accurate knowledge about the climate and the public health effects of continued consumption of  
7 fossil fuels would have likely formed a receptive customer base for clean energy alternatives decades  
8 before such demand in fact developed. Instead, Defendants' campaign of deception allowed them to  
9 exploit public uncertainty to reap substantial profits.  
10

11 143. The delayed emergence of a scalable market for non-fossil fuel energy is attributable  
12 to consumers' ignorance of the reality and severity of the climatic consequences associated with  
13 normal use of fossil fuels caused by Defendants' deception. The societal transition to a low-carbon  
14 economy would have been far cheaper had Defendants issued reasonable warnings about the dangers  
15 of runaway consumption of fossil fuels of which they were aware.  
16

17 144. Despite Defendants' knowledge of the foreseeable, measurable, and significant harms  
18 associated with the unrestrained consumption and use of their fossil fuel products, and despite  
19 Defendants' knowledge of technologies and practices that could have helped to reduce the  
20 foreseeable dangers associated with their fossil fuel products, Defendants continued to misleadingly  
21 and wrongfully market and promote heavy fossil fuel use and mounted a campaign to obscure the  
22 connection between their fossil fuel products and the climate crisis, dramatically increasing the cost  
23 of abatement. This campaign was intended to and did reach and influence Oakland consumers, along  
24 with consumers elsewhere.  
25

26 145. At all relevant times, Defendants were deeply familiar with opportunities to reduce  
27 the use of their fossil fuel products and associated global greenhouse emissions, mitigate the harms  
28



1 associated with the use and consumption of their products, and promote development of alternative,  
2 clean energy sources. Examples of that recognition include, but are not limited to, the following:

3 i. In 1961, Phillips Petroleum Company filed a patent application for a method  
4 to purify gas, among other things, because “natural gas containing gasoline hydrocarbons can contain  
5 undesirable amounts of sulfur and other compounds such as carbon dioxide which are undesirable in  
6 the finished gasoline product.”<sup>178</sup>

8 ii. In 1963, Esso (Exxon) obtained multiple patents on technologies for fuel  
9 cells,<sup>179</sup> including on the design of a fuel cell and necessary electrodes,<sup>180</sup> and on a process for  
10 increasing the oxidation of a fuel, specifically methanol, to produce electricity in a fuel cell.<sup>181</sup>

11 iii. In 1970, Esso (Exxon) obtained a patent for a “low-polluting engine and drive  
12 system” that used an interburner and air compressor to reduce pollutant emissions, including CO<sub>2</sub>  
13 emissions, from gasoline combustion engines (the system also increased the efficiency of the fossil  
14 fuel products used in such engines, thereby lowering the amount of fossil fuel product necessary to  
15 operate engines equipped with this technology).<sup>182</sup>

17 iv. In 1980, Imperial Oil wrote in its “Review of Environmental Protection  
18 Activities for 1978–79”: “There is no doubt that increases in fossil fuel usage and decreases in forest  
19 cover are aggravating the potential problem of increased CO<sub>2</sub> in the atmosphere. Technology exists  
20

23 <sup>178</sup> Phillips Petroleum Co., Patent US3228874A: Method for recovering a purified component  
24 from a gas (filed Aug. 22, 1961), <https://patents.google.com/patent/US3228874>.

25 <sup>179</sup> Fuel cells use the chemical energy of hydrogen or other fuels to produce electricity. *See* U.S.  
26 Dep’t of Energy, *Fuel Cells*, <https://www.energy.gov/eere/fuelcells/fuel-cells>.

26 <sup>180</sup> ExxonMobil Research Engineering Co., Patent US3116169A: Fuel cell and fuel cell  
27 electrodes (granted Dec. 31, 1963), <https://www.google.com/patents/US3116169>.

27 <sup>181</sup> ExxonMobil Research Engineering Co., Patent US3113049A: Direct production of electrical  
28 energy from liquid fuels (granted Dec. 3, 1963), <https://www.google.com/patents/US3113049>.

28 <sup>182</sup> ExxonMobil Research Engineering Co., Patent US3513929A: Low-polluting engine and  
drive system (granted May 26, 1970), <https://www.google.com/patents/US3513929>.

1 to remove CO<sub>2</sub> from stack gases but removal of only 50% of the CO<sub>2</sub> would double the cost of power  
2 generation.”<sup>183</sup>

3 v. A 1987 company briefing Shell produced on “Synthetic Fuels and Renewable  
4 Energy” noted that while “immediate prospects” were “limited,” “nevertheless it is by pursuing  
5 commercial opportunities now and in the near future that the valuable experience needed for further  
6 development will be gained.” The brief also noted that “the task of replacing oil resources is likely  
7 to become increasingly difficult and expensive and there will be a growing need to develop lean,  
8 convenient alternatives. Initially these will supplement and eventually replace valuable oil products.  
9 Many potential energy options are as yet unknown or at very early stages of research and  
10 development. New energy sources take decades to make a major global contribution. Sustained  
11 commitment is therefore needed during the remainder of this century to ensure that new technologies  
12 and those currently at a relatively early stage of development are available to meet energy needs in  
13 the next century.”<sup>184</sup>

16 vi. A 1989 article in a publication from Exxon Corporate Research for company  
17 use only stated: “CO<sub>2</sub> emissions contribute about half the forcing leading to a potential enhancement  
18 of the Greenhouse Effect. Since energy generation from fossil fuels dominates modern CO<sub>2</sub>  
19 emissions, strategies to limit CO<sub>2</sub> growth focus near term on energy efficiency and long term on  
20 developing alternative energy sources. Practiced at a level to significantly reduce the growth of  
21 greenhouse gases, these actions would have substantial impact on society and our industry—near-

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26 <sup>183</sup> Imperial Oil Ltd., Review of Environmental Protection Activities for 1978–1979 2 (Aug. 6,  
27 1980), [http://www.documentcloud.org/documents/2827784-1980-Imperial-Oil-Review-of-  
28 Environmental.html#document/p2](http://www.documentcloud.org/documents/2827784-1980-Imperial-Oil-Review-of-Environmental.html#document/p2).

<sup>184</sup> Synthetic Fuels and Renewable Energy, Shell Service Briefing, no. 2, 1987,  
<https://assets.documentcloud.org/documents/4411089/Document2.pdf>.

1 term from reduced demand for current products, long term from transition to entirely new energy  
2 systems.”<sup>185</sup>

3 146. Defendants could have taken practical, cost-effective steps to mitigate the risks posed  
4 by fossil fuel products. Those alternatives could have included, among other measures:

5 a) Acknowledging and sharing the validity of scientific evidence on  
6 anthropogenic climate change and the damages it will cause people, communities, and the  
7 environment. Acceptance of that evidence along with associated warnings and actions would have  
8 progressed the agenda from determining *whether* to combat climate change and sea level rise to  
9 deciding *how* to combat it; avoided much of the public confusion that has ensued over more than 30  
10 years, since at least 1988; and contributed to an earlier and quicker transition to energy sources  
11 compatible with minimizing catastrophic climatic consequences.

12 b) Forthrightly communicating with Defendants’ shareholders, consumers,  
13 insurers, the public, and the City and warning them about the global warming hazards of Defendants’  
14 fossil fuel products that were known to Defendants, which would have enabled those groups to make  
15 material, informed decisions about whether and how to address climate change and sea level rise vis-  
16 à-vis Defendants’ products—including whether and how much to invest in alternative clean energy  
17 sources compared to fossil fuels;

18 c) Refraining from affirmative efforts, whether directly, through coalitions, or  
19 through front groups, to distort public consumer awareness of the climatic dangers of fossil fuels,  
20 and to cause many consumers and business leaders to think the relevant science was far less certain  
21 that it actually was; and  
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27 <sup>185</sup> Brian Flannery, Greenhouse Science, Connections: Corporate Research, Exxon Research  
28 and Engineering Company (Fall 1989), <http://www.climatefiles.com/exxonmobil/1989-exxon-mobil-article-technologys-place-marketing-mix>.

1           d)       Sharing their internal scientific research with consumers and the public, and  
2 with other scientists and business leaders, to increase public understanding of the scientific  
3 underpinnings of climate change and its relation to Defendants' fossil fuel products.

4           **F.       Defendants' Deceit Only Recently Came to Light, and Their Misconduct Is**  
5           **Ongoing.**

6           147.   Beginning in 2015, journalists began to uncover mounting evidence of Defendants'  
7 campaign of deception. In September 2015, journalists at *Inside Climate News* reported that Exxon  
8 had sophisticated knowledge of the causes and consequences of climate change and the role its  
9 products played in causing climate change as far back as the 1970s.<sup>186</sup> These journalists uncovered  
10 Exxon's superior knowledge through an exhaustive investigation of thousands of archived  
11 documents and through interviews with former Exxon employees.

12           148.   Between October and December 2015, several journalists at the Energy and  
13 Environment Reporting Project at Columbia University's Graduate School of Journalism and *The*  
14 *Los Angeles Times* also exposed the fact that Exxon and other members of the fossil fuel industry  
15 had superior knowledge of the causes and consequences of climate change and the role their products  
16 played in causing climate change as far back as the 1970s.<sup>187</sup>

17           149.   In November 2017, the Center for International Environmental Law issued a report  
18 revealing that Defendants had superior knowledge of the causes and consequences of climate change  
19 and the role fossil fuel products played in causing climate change since the 1970s.<sup>188</sup>

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23           <sup>186</sup> Neela Banerjee et al., *Exxon: The Road Not Taken*, InsideClimate News (Sept. 16, 2015),  
<https://insideclimatenews.org/content/Exxon-The-Road-Not-Taken>.

24           <sup>187</sup> The *Los Angeles Times* published a series of three articles between October and December  
25 2015. See Katie Jennings et al., *How Exxon went from leader to skeptic on climate change*  
26 *research*, *L.A. Times* (Oct. 23, 2015), <https://graphics.latimes.com/exxon-research>; Sara Jerving et  
27 al., *What Exxon knew about the Earth's melting Arctic*, *L.A. Times* (Oct. 9, 2015),  
<https://www.latimes.com/nation/la-na-what-exxon-knew-20151009-story.html>; Amy Lieberman &  
28 Susanne Rust, *Big Oil braced for global warming while it fought regulations*, *L.A. Times* (Dec. 31,  
2015), <https://graphics.latimes.com/oil-operations>.

<sup>188</sup> Caroll Muffett & Steven Feit, *Smoke and Fumes: The Legal and Evidentiary Basis for Holding*  
*Big Oil Accountable for the Climate Crisis*, *Ctr. for Int'l Env'tl. Law* 10 (2017),  
<https://www.ciel.org/reports/smoke-and-fumes>.

1           150. In September 2023, the *Wall Street Journal* reported that Exxon worked “behind  
2 closed doors” to sow public doubt about climate change. The article was based on “documents  
3 reviewed by the Journal, which haven’t been previously reported.”<sup>189</sup>

4           151. The fact that Defendants and their proxies knowingly provided incomplete and  
5 misleading information to the public, including Oakland consumers, only recently became  
6 discoverable due to, among other things:

7           i. Defendants’ above-described deception campaign, which continues to this  
8 day;

9           ii. Defendants’ concealment and misrepresentations regarding the fact that their  
10 products cause catastrophic harms; and

11           iii. the fact that Defendants used front groups such as API, the GCC, and ICE to  
12 obscure their involvement in these actions, which put Plaintiffs off the trail of inquiry.

13           152. Moreover, Defendants’ tortious misconduct—in the form of misrepresentations,  
14 omissions, and deceit—began decades ago and continues to this day. Now, rather than engaging in  
15 outright denials of the existence of climate change, Defendants deflect attention from their role in  
16 causing climate change by falsely portraying fossil fuel products as environmentally friendly,  
17 climate-friendly, or otherwise less environmentally damaging than those products really are.

18           153. Defendants have continued to mislead the public about the impact of fossil fuel  
19 products on climate change through “greenwashing.” Through recent advertising campaigns and  
20 public statements in California and/or intended to reach California, including but not limited to online  
21 advertisements and social media posts, Defendants falsely and misleadingly portray these products  
22 as “green,” and Defendants portray themselves as climate-friendly energy companies that are deeply  
23 engaged in finding solutions to climate change. In reality, Defendants continue to primarily, and  
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27           <sup>189</sup> Christopher M. Matthews & Collin Eaton, *Inside Exxon’s Strategy to Downplay Climate*  
28 *Change*, THE WALL STREET J. (Sept. 14, 2023, 5:30 AM ET), <https://www.wsj.com/business/energy-oil/exxon-climate-change-documents-e2e9e6af>.

1 overwhelmingly, invest in, develop, promote, and profit from fossil fuel products and heavily market  
2 those products to consumers, with full knowledge that those products will continue to exacerbate  
3 increasingly dire climate change harms.

4 154. Defendants' greenwashing exploits consumers' current concerns about climate  
5 change and their newfound desire to purchase "green" products and spend their consumer dollars on  
6 products and businesses that are taking substantial and effective measures to combat climate change.  
7 Defendants' false advertisements are likely to mislead the public, including Oakland consumers by  
8 giving the impression that in purchasing Defendants' fossil fuel products, consumers are supporting  
9 genuine, substantial, and effective measures to mitigate climate change through these companies'  
10 alleged investments in clean energy. Defendants' greenwashing ultimately attempts to persuade  
11 consumers to continue purchasing Defendants' products, including fossil fuel products.

12 155. As described above, Defendants, directly and/or through membership in other  
13 organizations, continue to misrepresent their own activities, the fact that their products cause climate  
14 change, and the danger presented by climate change. Exemplars of Defendants' continuing  
15 misrepresentations, omissions, and deceit follow below.

16 156. As recently as June 2018, a post on the official Shell blog stated: "the potential extent  
17 of change in the climate itself could now be limited. In other words, the prospect of runaway climate  
18 change might have passed."<sup>190</sup> However, this statement is not supported by valid scientific research,  
19 and was and is contradicted by various studies.<sup>191</sup>  
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23 <sup>190</sup> David Hone, Has Climate Change Run Its Course?, Shell Climate Change Blog (June 14,  
24 2018), <https://blogs.shell.com/2018/06/14/has-climate-change-run-its-course>.

25 <sup>191</sup> See, e.g., Fiona Harvey, Carbon Emissions from Warming Soils Could Trigger Disastrous  
26 Feedback Loop, The Guardian (Oct. 5, 2017), <https://www.theguardian.com/environment/2017/oct/05/carbon-emissions-warming-soils-higher-than-estimated-signalling-tipping-points>; Jonathan  
27 Watts, Domino-Effect of Climate Events Could Move Earth into a 'Hothouse' State, The Guardian  
28 (Aug. 7, 2018), <https://www.theguardian.com/environment/2018/aug/06/domino-effect-of-climate-events-could-push-earth-into-a-hothouse-state>; Fiona Harvey, 'Tipping Points' Could Exacerbate Climate Crisis, Scientists Fear, The Guardian (Oct. 9, 2018), <https://www.theguardian.com/environment/2018/oct/09/tipping-points-could-exacerbate-climate-crisis-scientists-fear>.

1           157. In March 2018, Chevron issued a report entitled “Climate Change Resilience: A  
2 Framework for Decision Making,” which misleadingly stated that “[t]he IPCC Fifth Assessment  
3 Report concludes that there is warming of the climate system and that warming is due in part to  
4 human activity.”<sup>192</sup> In reality, the Fifth Assessment report concluded that “[i]t is *extremely likely*  
5 [defined as 95–100% probability] that human influence has been the *dominant cause* of the observed  
6 warming since the mid-20th century.”<sup>193</sup>  
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8           158. Despite this fact, in April 2017, Chevron CEO and Chairman of the Board John  
9 Watson said on a podcast, “There’s no question there’s been some warming; you can look at the  
10 temperatures data and see that. The question and debate is around how much, and how much is  
11 caused by humans.”<sup>194</sup>  
12

13           159. Similarly, ConocoPhillips’ “Climate Change Position” as it appeared on the  
14 company’s website through 2020 stated that human activity is “contributing to” climate change and  
15 emphasizes “uncertainties,” even though the science is clear: “ConocoPhillips recognizes that human  
16 activity, including the burning of fossil fuels, is contributing to increased concentrations of  
17 greenhouse gases in the atmosphere that can lead to adverse changes in global climate. . . . While  
18 uncertainties remain, we continue to manage greenhouse gas emissions in our operations and to  
19 integrate climate change related activities and goals into our business planning.”<sup>195</sup>  
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21           160. On May 27, 2015, at Exxon’s annual shareholder meeting, then-CEO Rex Tillerson  
22 misleadingly downplayed global warming’s risks by stating that climate models used to predict

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23           <sup>192</sup> Chevron, Climate Change Resilience: A Framework for Decision Making 20 (Mar. 2018),  
24 <https://www.chevron.com/-/media/shared-media/documents/climate-change-resilience.pdf>.

25           <sup>193</sup> IPCC, Summary for Policymakers: Working Group I Contribution to the Fifth Assessment  
26 Report 17 (2013), [https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5\\_SPM\\_FINAL.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_SPM_FINAL.pdf).

26           <sup>194</sup> Columbia Energy Exchange Podcast, John Watson, CEO, Chevron (Apr. 10, 2017),  
27 <https://www.energypolicy.columbia.edu/us-energy-markets-policy>.

27           <sup>195</sup> ConocoPhillips, Climate Change Position (Oct. 28, 2020),  
28 <https://web.archive.org/web/20201028115814/https://www.conocophillips.com/sustainability/integrating-sustainability/sustainable-development-governance/policies-positions/climate-change-position/>.

1 future impacts were unreliable: “What if everything we do it turns out our models are lousy, and we  
2 don’t get the effects we predict? Mankind has this enormous capacity to deal with adversity, and  
3 those solutions will present themselves as those challenges become clear.”<sup>196</sup> But as noted above, in  
4 1982 Exxon’s scientific staff stated, based upon the climate models, that there was a “clear scientific  
5 consensus” with respect to the level of projected future global warming and starting shortly thereafter  
6 Exxon relied upon the projections of climate models, including its own climate models, in order to  
7 protect its own business assets. Tillerson’s statement reached consumers because it was reported in  
8 the press, including in California,<sup>197</sup> as is common when fossil fuel company CEOs make statements  
9 regarding climate change and as Exxon had reason to know would occur.

10 161. Until approximately early 2017, Exxon’s website continued to emphasize the  
11 “uncertainty” of global warming science and impacts: “current scientific understanding provides  
12 limited guidance on the likelihood, magnitude, or time frame” of events like temperature extremes  
13 and sea level rise.<sup>198</sup> Exxon’s insistence on crystal-ball certainty was clear misdirection, since Exxon  
14 knew that the fundamentals of climate science were well settled and showed global warming to  
15 present a clear and present danger.<sup>199</sup>

16 162. Until approximately early 2016, API’s website referred to global warming as  
17 “possible man-made warming” and claimed that the human contribution is “uncertain.” API  
18 removed this statement from its web site in 2016 when journalistic investigations called attention to  
19 API’s misleading statements on global warming and its participation in the climate change Task  
20 Force during the late 1970s and early 1980s.

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22 <sup>196</sup> Dallas Morning News, Exxon CEO: Let’s Wait for Science to Improve Before Solving  
23 Problem of Climate Change (May 27, 2015),  
24 [https://www.dallasnews.com/business/energy/2015/05/28/  
exxon-ceo-let-s-wait-for-science-to-improve-before-solving-problem-of-climate-change](https://www.dallasnews.com/business/energy/2015/05/28/exxon-ceo-let-s-wait-for-science-to-improve-before-solving-problem-of-climate-change).

25 <sup>197</sup> See, e.g., David Koenig, Exxon shareholders to vote on climate change, fracking, San Diego  
26 Union-Tribune, May 27, 2015, [http://www.sandiegouniontribune.com/news/2015/may/27/exxon-  
shareholders-to-vote-on-climate-change/](http://www.sandiegouniontribune.com/news/2015/may/27/exxon-shareholders-to-vote-on-climate-change/)

26 <sup>198</sup> Formerly found at [http://corporate.exxonmobil.com/en/current-issues/climate-  
policy/meeting-global-needs/managing-climate-change-business-risks](http://corporate.exxonmobil.com/en/current-issues/climate-policy/meeting-global-needs/managing-climate-change-business-risks).

27 <sup>199</sup> See IPCC, Climate Change 2014, Impacts, Adaptation, and Vulnerability, Summary for  
28 Policymakers, available at [http://www.ipcc.ch/pdf/assessment-  
report/ar5/wg2/ar5\\_wgII\\_spm\\_en.pdf](http://www.ipcc.ch/pdf/assessment-report/ar5/wg2/ar5_wgII_spm_en.pdf).



1           163. Defendants bombard the public and consumers with the following advertisements,  
2 although these are a mere sliver of Defendants’ extensive campaigns. Defendants’ advertisements,  
3 directed at consumers, follow Defendants’ substantial early knowledge of global warming’s severe  
4 risks and impacts, and follow a decades-long campaign of misleading statements on global warming  
5 that primed the pump for massive use of their fossil fuel products.

6           a) Exxon’s “Lights Across America” website advertisement states that natural  
7 gas is “helping dramatically reduce America’s emissions”<sup>200</sup> even though natural gas is a fossil fuel  
8 causing widespread planetary warming and harm to coastal cities like Oakland and the use of natural  
9 gas competes with wind and solar, which have no greenhouse gas emissions.

10           b) In 2017, Shell’s CEO promoted massive fossil fuel use by stating that the  
11 fossil fuel industry could play a “crucial role” in lifting people out of poverty.<sup>201</sup> A Shell website  
12 promotion states: “We are helping to meet the world’s growing energy demand while limiting  
13 CO<sub>2</sub> emissions, by delivering more cleaner-burning natural gas.”<sup>202</sup>

14           c) BP touts natural gas on its website as “a vital lower carbon energy source” and  
15 as playing a “crucial role” in a transition to a lower carbon future.<sup>203</sup> BP promotes continued massive  
16 fossil fuel use as enabling two billion people to be lifted out of poverty.<sup>204</sup>

17           d) Chevron’s website implores the public that “we produce safe, reliable energy  
18 products for people around the world.”<sup>205</sup> Chevron also promotes massive use of fossil fuels as the  
19 key to lifting people out of poverty: “Reliable and affordable energy is necessary for improving  
20 standards of living, expanding the middle class and lifting people out of poverty. Oil and natural gas  
21

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22           <sup>200</sup> [https://www.youtube.com/watch?v=tMu1CBjXfq4&list=PLlrXlIHj7zayYGaExfTp\\_](https://www.youtube.com/watch?v=tMu1CBjXfq4&list=PLlrXlIHj7zayYGaExfTp_B4t6gqTtkGf9A&index=6)  
23 [B4t6gqTtkGf9A&index=6](https://www.youtube.com/watch?v=tMu1CBjXfq4&list=PLlrXlIHj7zayYGaExfTp_B4t6gqTtkGf9A&index=6) (at 0:46).

24           <sup>201</sup> Shell CEO speech (Mar. 9, 2017), available at <http://www.shell.com/media/speeches-and-articles/2017/deliver-today-prepare-for-tomorrow.html>.

25           <sup>202</sup> Shell United States, Transforming Natural Gas, <http://www.shell.us/energy-and-innovation/transforming-natural-gas.html>.

26           <sup>203</sup> <https://www.bp.com/content/dam/bp/en/corporate/pdf/sustainability-report/group-reports/bp-sustainability-report-2016.pdf>; <http://www.bp.com/energytransition/shifting-towards-gas.html>.

27           <sup>204</sup> BP energy outlook, <http://www.bp.com/en/global/corporate/energy-economics/energy-outlook.html>.

28           <sup>205</sup> Chevron, Products and Services, <https://www.chevron.com/operations/products-services>.

1 will continue to fulfill a significant portion of global energy demand for decades to come – even in  
2 a carbon-constrained scenario.”<sup>206</sup> A prior Chevron advertisement still available on the web promotes  
3 Chevron fossil fuels on a massive scale by stating that “our lives demand oil.”<sup>207</sup>

4 e) ConocoPhillips promotes its fossil fuel products by stating that it “responsibly  
5 suppl[ies] the energy that powers modern life.”<sup>208</sup> Similarly, ConocoPhillips has the following  
6 advertising slogan on its website: “Providing energy to improve quality of life.”<sup>209</sup>

7 **G. The People of the State of California in Oakland and the City of Oakland Have**  
8 **Suffered, Are Suffering, and Will Suffer Injuries from Defendants’ Tortious**  
9 **Conduct.**

10 164. Defendants’ individual and collective conduct—including but not limited to: their  
11 failure to warn of the threats their fossil fuel products posed to the world’s climate; their wrongful  
12 promotion of fossil fuel products by concealing known hazards associated with the use of those  
13 products; and their public deception campaigns designed to obscure the connection between their  
14 products and climate change and its environmental, physical, social, and economic consequences—  
15 is a direct and proximate cause that brought about or helped bring about climate change and  
16 consequent harms to Plaintiffs. Such harms include: sea level rise and attendant flooding; increased  
17 frequency and intensity of heat events; drought, wildfires, and poor air quality from wildfires beyond  
18 Oakland’s borders; increased frequency and intensity of extreme precipitation events; and the  
19 cascading social, economic, health, and other consequences of these environmental changes. These  
20 adverse impacts will continue to increase in frequency and severity in Oakland and  
21 disproportionately impact Environmental Justice Communities there. Low-income and minority  
22 residents are more susceptible to a variety of climate impacts because their homes are often unable  
23 to protect them from the urban heat island effect (explained further below), wildfire smoke, and  
24 extreme precipitation and because they are already impacted by environmental pollutants in their

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25 <sup>206</sup> Chevron, managing climate change risks, <https://www.chevron.com/corporate-responsibility/climate-change/managing-climate-risk>.

26 <sup>207</sup> Chevron TV ad (2009), *available at* <https://www.youtube.com/watch?v=-KyjTGMVTkA>.

27 <sup>208</sup> ConocoPhillips, the changing energy landscape, <http://www.conocophillips.com/who-we-are/our-company/spirit-values/responsibility/Pages/the-changing-energy-landscape.aspx>.

28 <sup>209</sup> ConocoPhillips, Producing energy, <http://www.conocophillips.com/what-we-do/producing-energy/Pages/default.aspx>.

1 neighborhoods. Defendants' conduct was a substantial factor in bringing about the aforementioned  
2 environmental changes which have caused and will cause Plaintiffs to suffer severe harms and losses.

3 165. For the People, the harms and losses caused by Defendants' conduct include, but are  
4 not limited to, the following: potentially severe health impacts, lost access to public spaces, damage  
5 to critical utilities, damage to private property, and transit disruptions or failures.

6 166. For the City, the harms and losses caused by Defendants' conduct include, but are not  
7 limited to, the following: injury to City-owned or -operated facilities and property deemed critical  
8 for operations, utility services, and other assets that are essential to community health, safety, and  
9 well-being; increased costs for responding to poor air quality, increasingly frequent and intense  
10 weather events, including extreme heat, sea level rise, storms and associated flooding, and extreme  
11 precipitation events; damage to property and public health impacts from wildfires; and increased  
12 planning and preparation costs for community adaptation and resilience to climate change's effects.

13 167. Plaintiffs have incurred, and will foreseeably continue to incur, as a result of  
14 Defendants' deceptive conduct as described in this Complaint, injuries caused by the exacerbated  
15 climate crisis. As a result of Defendants' wrongful conduct, Plaintiffs have experienced, are  
16 experiencing, and will continue to experience significant adverse impacts, including, but not limited  
17 to, those described below.

18 **1. Sea Level Rise**

19 168. Climate change caused by Defendants' conduct results in sea level rise due to at least  
20 two phenomena: (1) by causing the melting of ice sheets and glaciers, and (2) by warming seawater,  
21 which consequently expands.

22 169. The San Francisco Bay Area has experienced significant sea level rise over the last  
23 half century attributable to Defendants' conduct. Plaintiffs will experience additional, significant,  
24 and dangerous sea level rise before 2100,<sup>210</sup> and the increases will continue and accelerate. Sea levels  
25

26  
27 <sup>210</sup> Adusumilli et al. (CA Ocean Protection Council Sea Level Rise Science Task Force),  
28 DRAFT: State of California Sea Level Rise Guidance: 2024 Science and Policy Update, California  
Ocean Science Trust (January 2024) p. 95, <https://opc.ca.gov/wp-content/uploads/2024/01/SLR-Guidance-DRAFT-Jan-2024-508.pdf>.

1 in the San Francisco Bay Area have already risen 8 inches in the last 100 years.<sup>211</sup> According to sea  
2 level rise scenarios, the San Francisco Bay is projected to experience a 12–24-inch rise in sea level  
3 by 2050, and an 84-inch rise in sea level by 2100.<sup>212</sup>

4 170. Oakland is bordered to the west by more than 20 miles of San Francisco Bay  
5 coastline.<sup>213</sup> As a bayfront city with an active commercial shipping seaport, international airport, and  
6 many residents living in low-lying areas, rising sea levels already affect Oakland in numerous ways.  
7 Oakland experiences periodic coastal flooding of low-lying shorelines, loss of valuable saltwater  
8 marshes, saltwater impacts to infrastructure, and increased exposure to toxic substances in the soil  
9 due to rising groundwater.<sup>214</sup>

10 171. The rising sea level is not the only factor that contributes to inundation on land. Sea  
11 level rise’s effects are exacerbated when there is heavy precipitation or high tides. The City’s 2021–  
12 2026 Local Hazard Mitigation Plan couples estimates of sea level rise with the expectation that  
13 storms, precipitation, and tides will exacerbate the impacts, so it uses an estimate of 48 inches of sea  
14 level rise by 2050 and 108 inches of sea level rise by 2100 to project flooding impacts in Oakland.<sup>215</sup>

15 **a. Harms to the People of the State of California in Oakland**

16 172. Sea level rise will cause flooding in various parts of Oakland, affecting the public in  
17 numerous ways.

18 173. While flooding at the coastline is directly caused by sea level rise, inland flooding is  
19 caused by the combination of sea level rise and rainfall. When the sea level is high, it is harder to  
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21 <sup>211</sup> Cal. 4th Climate Change Assessment, San Francisco Bay Area Regional Report at 31 (Jan.  
22 2019), [https://www.energy.ca.gov/sites/default/files/2019-11/Reg\\_Report-SUM-CCCA4-2018-005\\_SanFranciscoBayArea\\_ADA.pdf](https://www.energy.ca.gov/sites/default/files/2019-11/Reg_Report-SUM-CCCA4-2018-005_SanFranciscoBayArea_ADA.pdf).

23 <sup>212</sup> Bay Conservation and Development Commission, “Adapting to Rising Tides Bay Area:  
24 Regional Sea Level Rise Vulnerability and Adaptation Study” (March 2020), at 1-13,  
[https://www.adaptingtorisingtides.org/wp-content/uploads/2020/03/ARTBayArea\\_Main\\_Report\\_Final\\_March2020\\_ADA.pdf](https://www.adaptingtorisingtides.org/wp-content/uploads/2020/03/ARTBayArea_Main_Report_Final_March2020_ADA.pdf).

25 <sup>213</sup> Dyett & Bhatia, *Oakland 2045 General Plan* (“Oakland Safety Element”) (Sept. 26, 2023),  
26 at 2-20, [https://cao-94612.s3.us-west-2.amazonaws.com/documents/Safety-Element\\_Adopted-9.26.23\\_89907-C.M.S-1.pdf](https://cao-94612.s3.us-west-2.amazonaws.com/documents/Safety-Element_Adopted-9.26.23_89907-C.M.S-1.pdf).

27 <sup>214</sup> Tetra Tech, *City of Oakland 2021–2026 Hazard Mitigation Plan* (“Oakland Hazard  
28 Mitigation Plan”), 12-1 (July 2021), [https://cao-94612.s3.us-west-2.amazonaws.com/documents/2021-07-01\\_OaklandHMP\\_AdoptedFinal.pdf](https://cao-94612.s3.us-west-2.amazonaws.com/documents/2021-07-01_OaklandHMP_AdoptedFinal.pdf).

<sup>215</sup> *Id.* at 12-2.

1 discharge excess stormwater into the Bay, resulting in inland urban flooding during storms.  
2 Similarly, when sea levels rise, creeks and channels are not able to release excess precipitation into  
3 the Bay. Excess water will overwhelm their banks and flood adjacent areas. Areas once considered  
4 to be outside of the floodplain have begun to experience periodic coastal and/or urban flooding.<sup>216</sup>  
5 While some creeks and coastal infrastructure already flood when large rainstorms coincide with high  
6 tides, rising sea levels will increasingly cause flooding during smaller rainfall events.<sup>217</sup> Flooding  
7 greatly impacts the comfortable enjoyment of life and property by impeding access to public spaces  
8 and damaging private property including residences, businesses, and community resource centers.

9 174. Tidal marshes, which act as a natural buffer to flooding, dissipate wave energy,  
10 improve water quality, and provide ecological habitat, are highly sensitive to sea levels. Many  
11 marshes including those along the Martin Luther King Jr. Regional Shoreline face permanent  
12 inundation and will be lost under accelerated sea level rise, which will exacerbate the danger of  
13 flooding to public and private property.

14 175. As sea levels rise, so will groundwater levels. Long before coastal floodwaters  
15 overtop the shoreline, low-lying areas in Oakland could flood from below by emergent groundwater.  
16 Emergent groundwater can cause soil contamination to migrate to the surface, mobilizing toxic  
17 liquids and waste from previously contaminated sites.<sup>218</sup> Rising groundwater can also increase the  
18 risk of liquefaction during a seismic event.<sup>219</sup> More than half of Oakland’s census tracts score in the  
19 80<sup>th</sup> percentile or higher for groundwater threats. These census tracts are generally located closer to  
20 the waterfront.<sup>220</sup> These impacts put the public at risk of health impacts from exposure to  
21 contaminated soil and loss of critical utilities like sewer systems and clean drinking water.

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24 <sup>216</sup> *Id.* at 12-1.

25 <sup>217</sup> *Id.* at 12-2.

26 <sup>218</sup> Dyett & Bhatia, *supra* note 213, at 2-20.

27 <sup>219</sup> Christine L. May et al., *Shallow Groundwater Response to Sea-Level Rise: Alameda, Marin,*  
28 *San Francisco, and San Mateo Counties* at 9 (2022), [https://www.sfei.org/sites/default/files/  
biblio\\_files/Shallow%20Groundwater\\_Sea%20Level%20Rise\\_Pathways\\_SFEI\\_2022\\_v2\\_2.pdf](https://www.sfei.org/sites/default/files/biblio_files/Shallow%20Groundwater_Sea%20Level%20Rise_Pathways_SFEI_2022_v2_2.pdf).

<sup>220</sup> Dyett & Bhatia, *Oakland 2045 General Plan* “Oakland Environmental Justice Element” 3-  
10 (September 26, 2023), [https://cao-94612.s3.us-west-2.amazonaws.com/documents/EJ-  
Element\\_Adopted-9.26.23\\_89907-C.M.S.pdf](https://cao-94612.s3.us-west-2.amazonaws.com/documents/EJ-Element_Adopted-9.26.23_89907-C.M.S.pdf).

1           176. Low-lying areas including residential neighborhoods, the Port of Oakland, the  
2 Coliseum sports complex, San Francisco Bay Oakland International Airport (“OAK”), rail lines, and  
3 a wastewater treatment plant are especially at risk of flooding.<sup>221</sup> Damage to these critical facilities  
4 will greatly impede the public’s comfortable enjoyment of life and property by limiting the ability to  
5 travel, receive goods, and benefit from important utilities.

6           177. Accelerated sea level rise is causing and will continue to cause inundation of the  
7 City’s public property and private property located in Oakland. Precipitation and tidal impacts,  
8 coupled with sea level rise, could result in a 48-inch rise by 2050, which would flood areas of  
9 Oakland where 429 people currently live and containing 157 buildings. Of the directly affected  
10 residents, 53% are people of color and 55% live in households with income below \$50,000.<sup>222</sup> The  
11 buildings include 137 critical facilities such as transportation, water, sewer, and power infrastructure.

12           178. In the EJ Community of West Oakland alone, if sea level rise reaches 84 inches, a  
13 zone that currently includes at least ten facilities important to the public will be inundated. This will  
14 prevent public access to and use of two schools, five places of faith, the East Bay Municipal Water  
15 District Wastewater Treatment Facility, and numerous natural gas and electrical lines.<sup>223</sup> Flooding  
16 in West Oakland will greatly impact its residents’ ability to safely live, work, learn, and pray in their  
17 neighborhood.

18           179. In another EJ Community in East Oakland, the Columbia Gardens neighborhood is  
19 one example of the multiple types of flooding that Oakland residents are subject to. During heavy  
20 rainfall events, the neighborhood experiences regular flooding due to overtopping along an adjacent  
21 drainage channel. And during high Bay water level events such as high tides or extreme storms, the  
22 neighborhood experiences flooding due to water overtopping San Leandro Creek. The neighborhood  
23 also has only one major egress road into and out of it, 98<sup>th</sup> Avenue, which is low-lying and  
24 particularly vulnerable to severe flooding. If and when 98<sup>th</sup> Avenue floods, Columbia Gardens  
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26           <sup>221</sup> Oakland Resiliency Playbook at 24, <https://cao-94612.s3.us-west-2.amazonaws.com/documents/OAK061006.pdf>.

27           <sup>222</sup> Oakland Hazard Mitigation Plan, *supra* note 214, at Tables 12-2 and 12-3.

28           <sup>223</sup> *Adapting to Rising Tides: Bay Area (2020)*, *supra* note 212, at G-27.

1 residents are trapped. Given the location, it is also likely that this neighborhood will experience rising  
2 groundwater levels.

3 180. The injuries Columbia Gardens experiences due to flooding are especially severe  
4 because its residents are predominantly Black and Latinx and low-income, with a median annual  
5 household income of \$40,000. These are communities that are more likely to lack resources to  
6 respond to or recover from major climate disasters.

7 181. The City has evaluated projects to address flood risk in Columbia Gardens including  
8 deepening the drainage channel, creating flood walls and green infrastructure, and improving the  
9 shoreline of San Leandro Creek. These improvements are estimated to cost over \$8.6 million. The  
10 most effective solution would be to acquire the properties adjacent to the shoreline and use the  
11 properties to expand the San Leandro Creek floodplain. This adaptation measure would be extremely  
12 costly.

13 182. The impacts of sea level rise on the Port of Oakland will affect millions of people  
14 who rely on the airport transportation hub and critical goods arriving through the Port's shipping  
15 terminal.

16 183. The San Francisco Bay Oakland International Airport ("OAK") serves over 11  
17 million people per year and is expected to grow to accommodate 20 million passengers per year over  
18 the next decade. It provides commercial airline and general aviation services for passengers, handles  
19 over half of the Bay Area region's domestic freight and airmail, and serves a critical role in the region  
20 during emergency response. OAK is the fifth busiest airport for passengers in California and the third  
21 largest for cargo, handling about 1.4 billion pounds of freight a year. Airport facilities include  
22 commercial and general aviation runways, passenger and air cargo facilities, aircraft hangars, a fuel  
23 tank farm, a control tower, and a perimeter dike that provides flood protection for the site.<sup>224</sup>

24 184. OAK is surrounded by the San Francisco Bay, and thus is at great risk of damage  
25 from the climate change harms Defendants have caused, including sea level rise. OAK is within the  
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27 <sup>224</sup> Port of Oakland Sea Level Rise Assessment, 34 (July 1, 2019),  
28 [https://www.portoakland.com/files/PDF/Task%207\\_20190709%20Port%20Oak%20SLR%20As  
smt\\_Rev2.pdf](https://www.portoakland.com/files/PDF/Task%207_20190709%20Port%20Oak%20SLR%20As%20smt_Rev2.pdf).

1 Federal Emergency Management Agency Special Flood Hazard Area and is over the 99th percentile  
2 for FEMA’s National Risk Index, indicating that it is at very high risk for natural hazards.<sup>225</sup>

3 185. OAK maintains pump houses throughout the airport property to keep the land drained  
4 of sea water. At one foot of sea level rise, the shoreline along Doolittle Drive, the main roadway  
5 providing access to the airport, is overtopped during extreme storm events, exposing most of the  
6 North Field to flooding. Once exposed to extreme flood conditions, OAK may experience operational  
7 delays, temporary closures, and/or damage to sensitive assets and facilities.<sup>226</sup> Three feet of sea level  
8 rise would flood most of the airport’s runways.<sup>227</sup> Due to this risk of flooding from precipitation,  
9 high tides, and sea level rise, OAK has undertaken significant infrastructure projects to protect its  
10 assets, including a dike improvement project which has costed \$30 million in phase 1.

11 186. The Port of Oakland is currently the eighth busiest container port in the United States.  
12 The Port is the only deep-water container port in Northern California which can accommodate large,  
13 heavily loaded ships, and services more than 99% of the containerized goods for Northern  
14 California.<sup>228</sup> The Port’s Maritime business operation oversees 1,300 acres of seaport facilities,  
15 including shipping berths and container storage areas. The Oakland Middle Harbor shoreline of the  
16 Maritime area is also the location of two Port-operated community parks and a subtidal restoration  
17 site.<sup>229</sup>

18 187. Beginning with one foot of sea level rise, areas of the Port’s marine terminal including  
19 buildings, utilities, and access roads are at risk of inundation with increasingly severe impacts as sea  
20 level rise increases.<sup>230</sup> One foot of sea level rise also exposes waterfront properties and roadways  
21 along Jack London Square, Embarcadero, and in the Oakland Airport Business Park—including a  
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23 <sup>225</sup> *Oakland Alameda Multi-Hazard Adaptation and Community Benefits Project* (Dec. 2023),  
24 Attachment A at 1, [https://oakland.legistar.com/LegislationDetail.aspx?  
ID=6495682&GUID=74BFAF6B-DF28-4B04-8C6E-017CEACDE34B](https://oakland.legistar.com/LegislationDetail.aspx?ID=6495682&GUID=74BFAF6B-DF28-4B04-8C6E-017CEACDE34B) Attachment A.

25 <sup>226</sup> Port of Oakland Sea Level Rise Assessment (2019), *supra* note 224, at 39.

26 <sup>227</sup> See Bay Shoreline Flood Explorer, <https://explorer.adaptingtorisingtides.org/learn>.

27 <sup>228</sup> Port of Oakland, Oakland Harbor Turning Basins Widening Draft Environmental Impact  
28 Report (Oct. 2023), Executive Summary at 1, [https://www.oaklandseaport.com/wp-  
content/uploads/2023/10/OHTBW-Draft-EIR\\_Executive-Summary.pdf](https://www.oaklandseaport.com/wp-content/uploads/2023/10/OHTBW-Draft-EIR_Executive-Summary.pdf).

<sup>229</sup> Port of Oakland Sea Level Rise Assessment (2019), *supra* note 224, at 11.

<sup>230</sup> *Id.* at 16.



1 fire department—to extreme storm flooding because nearly the entire shoreline will be overtopped.<sup>231</sup>  
2 Inundation of the fire department and roadways in that area would endanger the local community’s  
3 safety.<sup>232</sup>

4 188. Sea level rise, storm surges, and flooding cause by climate change threaten not only  
5 the physical infrastructure and property of the City and its citizens, but also the safety, lives, daily  
6 way of life, sense of community, and security of Oakland residents. A severe storm surge coupled  
7 with higher sea levels caused by global warming could occur at any time, potentially resulting in the  
8 loss of life and extensive damage to public and private property. The risk of catastrophic sea level  
9 rise harm to the City and its citizens will increase, just as rising sea levels will continue to cause  
10 regular damage, the longer concrete action is not taken to abate the harms and effects of sea level  
11 rise.

12 189. Building and redeveloping infrastructure to protect Oakland and its residents from sea  
13 level rise will cost millions or potentially billions of dollars.

14 **b. Harms to the City of Oakland**

15 190. The City of Oakland has had to and will have to incur costs to respond to the many  
16 injuries Oakland residents face from sea level rise caused by Defendants’ conduct. It has allocated  
17 millions of dollars to building flood-mitigation structures such as those planned for the Columbia  
18 Gardens neighborhood.

19 191. The City also has had to and will have to build shoreline resiliency into several City-  
20 owned sites due to the damages caused by Defendants’ conduct. In one example, Estuary Park, which  
21 is bordered by the Bay and the Lake Merritt Estuary, needs significant renovation to be able to  
22 withstand sea level rise. The southern shore requires reconstruction as a gravel pocket beach to  
23 provide a resilient shoreline that will not be washed away as the sea level rises. This beach will be  
24 contained on the east and west by armored rock—also known as rip-rap—again, to help the shoreline  
25 withstand rising sea levels and higher tides. Remaining existing grouted and non-engineered rip-rap  
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27 <sup>231</sup> *Id.* at 22.

28 <sup>232</sup> *Ibid.*

1 and rubble around the shoreline will be replaced with engineered rock retaining walls. Most of the  
2 park needs to be elevated to prevent estimated flooding and a long-term adaptation strategy could  
3 require replacing entire buildings. For the Estuary Park Project, so far, the City has allocated millions  
4 of dollars to begin the design process for these adaptations, and many millions more will be needed  
5 to complete the design and then construct the needed upgrades.

## 6 **2. Extreme Heat**

7 192. Climate change attributable to Defendants' conduct has increased and will continue  
8 to increase average temperatures and the frequency and severity of extreme heat events in Oakland.  
9 By 2050, California is projected to warm by between 4.4 and 5.8 °F in daily maximum average  
10 temperature, an indicator of extreme temperature shifts.<sup>233</sup> By 2100, California's average  
11 temperatures could increase by 8.8 °F, if not more.<sup>234</sup> In the San Francisco Bay Area, average annual  
12 temperatures are currently projected to increase by up to 7.2 °F by 2100.<sup>235</sup>

13 193. Oakland's historically temperate climate means that many buildings and residences  
14 are not outfitted with air conditioners. Thus, during heat waves, temperatures inside buildings are  
15 often higher than outside temperatures, and are likely to stay elevated for longer periods of time. This  
16 creates dangerous health conditions for the buildings' residents.

17 194. Extreme heat causes public health impacts for the people of Oakland. In extreme heat,  
18 evaporation is slowed and the body must work extra hard to maintain a normal temperature. The  
19 body can become overworked in this effort which can lead to death. Extreme heat can cause heat  
20 exhaustion, in which the body becomes dehydrated, resulting in an imbalance of electrolytes.  
21 Without intervention, heat exhaustion can lead to collapse and heatstroke, which occurs when  
22 perspiration cannot occur and the body overheats. Without intervention, heatstroke can lead to  
23 disorientation, confusion, coma, and death. Extreme heat events not only cause direct health impacts

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25 <sup>233</sup> Cal. 4th Climate Change Assessment, Statewide Summary Report at 23 (Jan. 2019),  
26 [https://www.energy.ca.gov/sites/default/files/2019-11/Statewide\\_Reports-SUM-CCCA4-2018-013\\_Statewide\\_Summary\\_Report\\_ADA.pdf](https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf).

27 <sup>234</sup> *Ibid.*

28 <sup>235</sup> Cal. 4th Climate Change Assessment, San Francisco Bay Area Regional Report (Jan. 2019),  
at 14, [https://www.energy.ca.gov/sites/default/files/2019-11/Reg\\_Report-SUM-CCCA4-2018-005\\_SanFranciscoBayArea\\_ADA.pdf](https://www.energy.ca.gov/sites/default/files/2019-11/Reg_Report-SUM-CCCA4-2018-005_SanFranciscoBayArea_ADA.pdf).

1 like dehydration, heat stroke, and heat exhaustion, but also exacerbate pre-existing or underlying  
2 health conditions such as cardiovascular conditions, respiratory illnesses, diabetes, and mental health  
3 conditions.<sup>236</sup> Individuals who lack shelter are particularly vulnerable to heat related illnesses.

4 195. Heat ranks among the deadliest of all climate hazards in California, and heat waves  
5 in cities are projected to cause two to three times more heat-related deaths by mid-century.

6 **a. Harms to the People of the State of California in Oakland**

7 196. Oakland has experienced record-breaking high temperatures multiple times over the  
8 past several years. In September 2022, the City’s emergency services received heat-related  
9 emergency calls for five days in a row. In September 2020, outdoor temperatures breached 110  
10 degrees in the interior of Oakland and 90 degrees along the coast. In August 2020, a prolonged heat  
11 wave blanketed the Bay Area for almost a week with widespread, record-breaking temperatures and  
12 multiple days of triple-digit highs inland. In June 2019, multiple daily temperature records were  
13 broken causing multiple power outages, which caused heat-related illnesses and posed a significant  
14 public health risk for people reliant on power for air conditioning and medical devices. Also in June  
15 2019, the City’s emergency services received eleven heat-related emergency calls in one day, an  
16 unprecedented number. Tens of thousands of people across the region lost power.<sup>237</sup> Two individuals  
17 in the Bay Area drowned while attempting to cool down.<sup>238</sup>

18 197. The annual average maximum temperature in Oakland has warmed by 5.0 °F and  
19 there has been an increase in the duration of heat waves.<sup>239</sup>

20 198. As with most climate change impacts, the impacts from extreme heat events are and  
21 will continue to be felt disproportionately by EJ Communities in Oakland. Factors such as race,  
22 income, and age influence vulnerability to extreme heat. People of color in Oakland are more likely  
23 to live in neighborhoods that experience the “urban heat island effect” in which materials such as  
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25 <sup>236</sup> *Id.* at 13.2.4.

26 <sup>237</sup> See Ashley McBride & Gwendolyn Wu, *Excessive heat in Bay Area is breaking records—*  
*and BART*, S.F. Chronicle (June 11, 2019), <https://www.sfchronicle.com/bayarea/article/Record-setting-temperatures-concern-Bay-Area-13964987.php>.

27 <sup>238</sup> See Jay Barmann, *Two Drowning Deaths in Two Days Amid Bay Area Heatwave*, SFist  
(June 12, 2019), <https://sfist.com/2019/06/12/two-drownings-crissy-field-east-bay/>.

28 <sup>239</sup> Oakland Hazard Mitigation Plan, *supra* note 214, at 13-4.

1 asphalt and concrete absorb the heat. Radiation from the sun is absorbed by these surfaces during the  
2 day and is re-radiated at night, raising ambient temperatures. Urban heat islands have higher  
3 nighttime temperatures than neighboring areas. Waste heat from air conditioners, vehicles,  
4 generators and other equipment also contributes to the urban heat island effect. There is a dangerous  
5 feedback loop of heat created when extreme heat days overload the electrical grid causing power  
6 shutoffs, which then cause businesses to turn on generators, which then emit even more heat and  
7 pollution into the surrounding neighborhoods. In Oakland, diesel generators that exacerbate extreme  
8 heat and cause air pollution are concentrated in EJ Communities. When temperatures rise above  
9 80 °F, it could be 5 °F hotter in the city’s industrial flatlands than in the Oakland Hills due to the  
10 urban heat island effect.<sup>240</sup>

11 199. Local hotspots in Oakland that will have increased heat exposure include parts of  
12 Fruitvale/South Kennedy, the Coliseum Industrial Complex, Frick/Bancroft Business area,  
13 Castlemont, Oak Knolls-Golf Links/Chabot Park, Webster, and the OAK area.<sup>241</sup>

14 200. Oakland’s air quality is also expected to worsen as extreme heat events increase in  
15 frequency and intensity. Heat accelerates the development of ground-level ozone. Ground-level  
16 ozone, the main ingredient of smog, is created through a chemical reaction between sunlight, nitrogen  
17 oxide, and volatile organic compounds. Smog is a harmful air pollutant because of its effects on  
18 people and the environment. Smog is most likely to reach unhealthy levels on hot sunny days in  
19 urban environments and can be transported long distances by wind.

20 201. Air quality is closely associated with public health. Exposure to pollutants increases  
21 rates of allergies, bronchitis, asthma attacks and other respiratory illnesses, heart disease and other  
22 cardiovascular illnesses, and is an environmental risk factor connected to premature birth and low  
23 birth weight, mental health conditions, and many cancers.

24 202. Extreme heat events often occur at the same time as wildfires that send smoke  
25 throughout the Bay Area and compound dangers associated with low air quality, as residents without  
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27 <sup>240</sup> *Id.* at 13-5.

28 <sup>241</sup> Oakland Safety Element, *supra* note 213, at 2-15.

1 air conditioning must keep their windows closed to prevent smoke from entering their homes, which  
2 contributes to unsafe indoor temperatures.

3 203. A major aspect of the City’s response to extreme heat hazards, among climate change-  
4 inflicted hazards, has been to create, expand, or enhance “Resilience Hubs” where residents can take  
5 shelter from climate change related hazards. Resilience Hubs offer a place for residents to go when  
6 there are power shutoffs or losses, extreme heat, flooding, or bad air quality. For many Oaklanders,  
7 especially those who are low-income, unhoused, medically dependent, elderly, or who have  
8 disabilities, loss of electricity can be life-threatening. Resilience Hubs are outfitted with backup  
9 generators, air-conditioners and heating, and updated air filtration systems.

10 204. For example, the City has allocated public funds to create the West Oakland  
11 Resilience Hub and Lincoln Square Resilience Hub, but Resilience Hubs (and other adaptation  
12 resources) are needed in many more neighborhoods in Oakland. The Lincoln Square Resilience Hub  
13 has an estimated construction cost of \$40–50 million. It is designed to provide critical resources to  
14 the community during weather emergencies and disruptions including cooling and warming  
15 facilities, clean air for poor air quality days, back-up power from solar panels for charging phones  
16 and medical devices during power outages, a distribution point for emergency information, and a  
17 commercial kitchen, restrooms, and showers for displaced people.

18 205. Additional facilities around Oakland have had resilience components added in the  
19 form of improved air filtration systems, renewable energy systems, microgrids, and electrification  
20 including at libraries, senior centers, and recreation centers.<sup>242</sup> The City is undertaking a complete  
21 inventory of public-facing municipal buildings to identify additional spaces that can serve as  
22 Resilience Hubs.<sup>243</sup> City facilities in EJ Communities in East and West Oakland are being prioritized  
23 for resilience improvements where residents face a high pollution burden. The City has also created  
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27 <sup>242</sup> Resilient Oakland Communities Through City Facility Improvements, <https://cao-94612.s3.us-west-2.amazonaws.com/documents/Resilience-Hub-Flyer-3.pdf>.

28 <sup>243</sup> City of Oakland, 2023 ECAP Progress Update (May 9, 2023), at 6, <https://cao-94612.s3.us-west-2.amazonaws.com/documents/2023-ECAP-Progress-Update.pdf>.

1 a supply of portable air filters available at numerous public buildings to provide air filtration  
2 capabilities citywide.<sup>244</sup>

3 206. To address the impacts of the urban heat island effect, Oakland’s Department of  
4 Public Works is also finalizing a 50-year Urban Forest Plan, which is a strategy to maintain existing  
5 trees in a changing climate while equitably expanding canopy coverage. The Department of Public  
6 Works has planted trees in EJ Communities including Columbia Gardens, DeFremery Park, and Lion  
7 Creek.<sup>245</sup>

8 **b. Harms to the City of Oakland**

9 207. The City of Oakland has had to and will have to incur costs to respond to the many  
10 injuries Oakland residents face from extreme heat caused by Defendants’ conduct. It has committed  
11 millions of dollars to create, expand, and enhance Resiliency Hubs, planning for future Resiliency  
12 Hubs, and other adaptation strategies discussed above.

13 208. Additionally, the City’s own buildings have been impacted by unsafe conditions  
14 caused by extreme heat. In one example, on several days in June and September 2019, temperatures  
15 on certain office floors inside City Hall not used by the public reached 90 degrees. City staff had to  
16 create cooling stations in cooler spaces in the building where employees could take breaks and  
17 hydrate. The City has incurred and will incur costs to retrofit its buildings with updated air-  
18 conditioning and air-filtration systems to keep its employees safe as extreme heat days become more  
19 frequent.

20 **3. Wildfires and drought**

21 209. Climate change attributable to Defendants’ conduct has caused and will continue to  
22 cause an accelerated increase in the risk, occurrence, and intensity of wildfires in California, resulting  
23 in wildfire-related injuries to the City and the People of Oakland. Wildfire has always been an  
24 essential element of California’s ecology, but climate change is leading to disruptions in the state’s  
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<sup>244</sup> Resilient Oakland Communities, *supra* note 242.

28 <sup>245</sup> 2023 ECAP Progress Update, *supra* note 243, at 7.

1 natural temperature and precipitation patterns that previously helped maintain wildfires' beneficial  
2 role and historical locations and scale.

3 210. Both the severity and intensity of wildfires in California are increasing as a result of  
4 climate change. California's wildfire season is beginning earlier in the year and ending later.<sup>246</sup> Since  
5 2015, California has experienced 12 of the 20 largest, 7 of the 20 deadliest, and 15 of the 20 most  
6 destructive wildfires in the state's history.<sup>247</sup> Warmer temperatures, variable snowpack, and earlier  
7 snowmelt caused by climate change make for longer and more intense dry seasons, leaving forests  
8 more susceptible to severe fire. More extreme precipitation leads to higher density of vegetation,  
9 which serves as dried out fuel for fires during dry seasons.

10 **a. Harms to the People of the State of California in Oakland**

11 211. Wildfires within Oakland and throughout the western United States have severe and  
12 pervasive health impacts on Oakland residents. The public health impacts of wildfires include  
13 difficulty breathing, odor, and reduced visibility. Smoke and air pollution from wildfires can be a  
14 health hazard, especially for vulnerable populations including children, the elderly, and those with  
15 respiratory and cardiovascular diseases.<sup>248</sup>

16 212. Wildfire smoke is comprised of both gaseous and hazardous pollutants, water vapor,  
17 and particulate matter that is particularly harmful if inhaled. Short-term health impacts from smoke  
18 inhalation include cough, headaches, eye and skin irritation, and aggravation of respiratory and  
19 cardiovascular illnesses, and long-term impacts include adverse birth outcomes, cognitive  
20 conditions, and asthma.<sup>249</sup> People experiencing homelessness and populations with pre-existing  
21 conditions are especially vulnerable to these impacts. Oakland has an increasingly large population  
22 of unsheltered people, with 1,147 unhoused people per 100,000 residents as of 2022.

24 <sup>246</sup> Office of Resilience and Capital Planning, San Francisco Department of Public Health, &  
25 Department of Emergency Management, *The Heat and Air Quality Resilience Plan* (May 2023), at  
19–20, <https://onesanfrancisco.org/sites/default/files/inline-files/HAQR-230522.pdf>.

26 <sup>247</sup> *Id.* at 19.

27 <sup>248</sup> *Id.* at 15.2.5.

28 <sup>249</sup> F. K. Chow et al., *High-Resolution Smoke Forecasting for the 2018 Camp Fire in California*, 103 *Bulletin of the American Meteorological Society* 1531 (June 24, 2022), at 19, available at <https://doi.org/10.1175/BAMS-D-20-0329.1>.

1           213. In one example, the EJ Community in Columbia Gardens and others nearby in East  
2 Oakland are more severely impacted by wildfire smoke than the general population because the  
3 neighborhood is adjacent to the I-880 freeway which causes increased exposure to pollutants and  
4 extremely high levels of asthma. The stretch of I-880 near Columbia Gardens sees on average  
5 200,000 vehicle trips per day. When the existing pollution load is increased even more by wildfire  
6 smoke, individuals with asthma suffer the most.

7           214. In Oakland, wildfire risk is primarily in the Wildland Urban Interface (“WUI”) where  
8 combustible vegetation poses a threat to combustible structures, and vice versa. The Oakland Hills  
9 present a complex wildfire environment that pose a significant risk to public and firefighter safety  
10 and the built and natural environment. Oakland is one of the highest risk areas in the country for  
11 devastating WUI fires and is the location of one of the most destructive wildfires in California  
12 history, the 1991 Tunnel Fire.<sup>250</sup>

13           215. The California Department of Forestry and Fire Protection has designated over 10,000  
14 acres of land in Oakland as being in a Very High Fire Hazard Severity Zone, representing 22 percent  
15 of Oakland’s land area.<sup>251</sup> Over 13 percent of Oakland’s population lives in either high or very high  
16 wildfire severity zones and an estimated 35 percent of the critical facilities in Oakland are located in  
17 wildfire risk areas.<sup>252</sup> Over twenty-two thousand buildings are located in the moderate to very high  
18 wildfire severity zone, representing an estimated \$13 trillion in property value. The City owns 419  
19 parcels within this zone, including 152 categorized as urban or residential. Much of Oakland’s  
20 building stock is made of wood and was built before modern day standards were created for buildings  
21 in fire hazard severity zones.<sup>253</sup>

22           216. Wildfires endanger human life, structures, and natural resources. Additionally,  
23 wildfires can lead to ancillary impacts such as landslides in steep ravine areas and flash flooding due  
24 to the build-up of water-repellent top soil and increased silt in local watersheds that reduces capacity  
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26           <sup>250</sup> Oakland Hazard Mitigation Plan, *supra* note 214, at 15.2.3.

27           <sup>251</sup> Oakland Safety Element, *supra* note 213, at at 2-6.

28           <sup>252</sup> *Id.* at 15.7.

<sup>253</sup> Oakland Hazard Mitigation Plan, *supra* note 214, at 15.77.



1 in streams. Climate change has caused an increase in wildfires that burn hotter and for longer  
2 durations that can bake soils, especially those high in clay content, thus increasing the  
3 imperviousness of the ground. This condition is sometimes referred to as scorched earth. This  
4 devastation increases the runoff generated by storm events, thus increasing the chance of flooding  
5 and soil erosion. Wildfires can also contaminate reservoirs and destroy transmission lines.<sup>254</sup>

6 217. The City has taken aggressive steps and incurred substantial costs to limit wildfire  
7 risk. Its Vegetation Management Unit inspects properties and homes in the Very High Fire Hazard  
8 Severity Zone to ensure that they comply with fire codes and reduce the amount of fuel or  
9 combustible vegetation that could contribute to the spread, growth, and intensity of wildfires.<sup>255</sup>

10 218. Oakland Firefighters and inspectors conduct 25,000 vegetation inspections in the  
11 Very High Fire Severity Zone annually. The City removes dying trees along Skyline Boulevard, a  
12 major evacuation corridor, and the Oakland Department of Transportation has implemented parking  
13 restrictions on narrow streets in the High Fire Severity Zone with enhanced enforcement on Red Flag  
14 Days.<sup>256</sup>

15 219. Anthropogenic global warming caused by Defendants' deceptive conduct has also  
16 increased the likelihood, frequency, and duration of extreme droughts in California, which  
17 exacerbates the threat of wildfires. The Oakland area has experienced eight significant multi-year  
18 droughts in the last 20 years (from 2000 to 2020), amounting to a severe drought every five to six  
19 years on average.<sup>257</sup>

20 220. Drought affects Oaklanders' health and safety, by increasing the risk of wildfires and  
21 potentially causing health problems related to low water flows, or dust.<sup>258</sup>

22 221. Drought has severe environmental impacts including damage to plants, animals,  
23 wildlife habitat, and air and water quality. Wildlife habitat may be degraded through the loss of  
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25 <sup>254</sup> Oakland Hazard Mitigation Plan, *supra* note 214, at 15.2.8.

26 <sup>255</sup> City of Oakland, Wildfire District Inspections,  
<https://www.oaklandca.gov/services/wildfire-district-inspections>.

27 <sup>256</sup> 2023 ECAP Progress Update, *supra* note 243, at 6.

28 <sup>257</sup> Oakland Hazard Mitigation Plan, *supra* note 214, at 8-8.

<sup>258</sup> *Id.* at 8-9.

1 wetlands, lakes and vegetation. The degradation of landscape quality, including increased soil  
2 erosion, may lead to a more permanent loss of biological productivity.<sup>259</sup>

3 **b. Harms to the City of Oakland**

4 222. The City of Oakland has had to and will have to incur costs to respond to the  
5 many injuries Oakland residents face from wildfires and drought caused by Defendants' deceptive  
6 conduct. It has committed millions of dollars to wildfire risk reduction projects and other adaptation  
7 strategies discussed above.

8 223. Oakland is developing a Vegetation Management Plan to reduce fire hazard on 1,924  
9 acres of City-owned land and 308 miles of roadway designated in the Very High Fire Hazard Severity  
10 Zone. The plan estimates that vegetation management implementation could cost \$75–\$7500 *per*  
11 *acre* depending on the management technique, ranging from monitoring and cutting grass to  
12 prescribed burns and brush removal.

13 224. The City of Oakland owns approximately 100 lots in the High and Very High Fire  
14 Severity Zone, all of which are at risk of damage from wildfires. Oakland Fire Department's Fire  
15 Prevention Bureau eliminates hazardous vegetation at these lots every year and contracts with a goat  
16 grazer to eliminate hazards on 80 large City properties including King Estate Open Space Park and  
17 Shepherd Canyon Park.

18 **4. More Frequent and Extreme Precipitation**

19 225. Extreme precipitation events, with heavy rainfall falling over a small area, are a  
20 substantial threat in Oakland and will continue to increase in frequency and severity as a result of  
21 climate change attributable to Defendants' deceptive conduct alleged herein. Recent estimates show  
22 that climate change will result in storms in the Bay Area that release up to 37% more precipitation  
23 by the year 2100.<sup>260</sup> Warmer global temperatures lead to storm systems being able to hold a higher  
24 volume of water, which is then released as increasingly unprecedented levels of precipitation. More  
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26 <sup>259</sup> *Id.* at 8-10.

27 <sup>260</sup> Christina M. Patricola, et al, *Future changes in extreme precipitation over the San*  
28 *Francisco Bay Area: Dependence on atmospheric river and extratropical cyclone events*, 36  
*Weather & Climate Extremes* 1 (2022), <https://doi.org/10.1016/j.wace.2022.100440>.

1 frequent and extreme precipitation events caused by climate change compound Oakland's  
2 vulnerability to storm surges and sea level rise.

3 226. Much of California's winter precipitation arrives in the form of "atmospheric rivers,"  
4 which are fed by long streams of water vapor transported from the Pacific Ocean. Atmospheric rivers  
5 can produce extremely heavy precipitation over multiple days, and their frequency is expected to  
6 increase in the Western US due to climate change.<sup>261</sup> The amount of precipitation associated with  
7 each of these storms in the Bay Area is expected to increase by up to 17% by 2050 and by up to 37%  
8 by 2100.<sup>262</sup> These extreme precipitation events cause destructive flooding and flash-flooding.

9 **a. Harms to the People of the State of California in Oakland**

10 227. In Oakland, many storm drains flow into natural creeks meandering through  
11 residential areas. Short streams and steep watersheds emptying onto lowlands in heavily populated  
12 areas may produce large volumes of water in short periods, and damage can be severe. Oakland's  
13 watershed consists of 15 main creeks, over 30 tributaries, Lake Merritt and the Oakland Estuary.<sup>263</sup>

14 228. Several neighborhoods in Oakland already experience regular flooding during the  
15 now common atmospheric rivers. These neighborhoods include the EJ Communities in West  
16 Oakland and the East Oakland flatlands, which have a high proportion of minority and low-income  
17 residents who are also disproportionately impacted by many other climate change hazards.

18 229. There are numerous hazards associated with flood events in Oakland. Floods can  
19 cause emergency conditions such as power, water, and gas outages; disrupt transportation routes and  
20 delivery of critical supplies; damage homes, buildings, and roads; and cause severe environmental  
21 problems, including landslides and mudslides, which require emergency response and recovery  
22 efforts by the City. Roads that are blocked or damaged can isolate residents and prevent access  
23 throughout Oakland, including for emergency service providers needing to get to vulnerable  
24 populations or to make repairs to critical infrastructure. Flooding from severe storms can back up  
25 storm drainage and sewer systems, causing localized urban flooding. When sewer systems are backed

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26  
27 <sup>261</sup> *Id.* at 2.

<sup>262</sup> *Id.* at 12.

28 <sup>263</sup> Oakland Hazard Mitigation Plan, *supra* note 214, at 10-6.

1 up, wastewater may spill into the Bay, rivers, and streams. Culverts can be blocked by debris from  
2 flood events, also causing additional urban flooding.

3 230. Between December 26, 2022, and January 16, 2023, the Bay Area was hit with nine  
4 consecutive atmospheric rivers. In Oakland, this atmospheric river weather event resulted in over 18  
5 inches of rain over 23 days, the equivalent of over 69 percent of the average annual rainfall. The City  
6 proclaimed a local emergency and activated its Emergency Operations Center. Flooding from this  
7 unprecedented storm caused disruptions for the general public in numerous ways including impeding  
8 transit and damaging private property. Massive flooding caused a 40-square-foot sinkhole on the  
9 access road to the Oakland Zoo. The Zoo was closed to the public for 35 days and pre-purchased  
10 tickets had to be refunded.<sup>264</sup>

11 231. A few months later, in March 2023, extreme precipitation caused flooding on a  
12 section of the I-50 freeway that runs through the Laurel and Fruitvale neighborhoods. The state  
13 transportation agency Caltrans closed the freeway for roughly 10 hours because the road was  
14 inundated.<sup>265</sup> The closure resulted in drivers turning their vehicles around on the freeway and driving  
15 up onramps into oncoming traffic to avoid the floodwaters.<sup>266</sup>

16 232. The extent of flooding associated with a 1% annual probability of occurrence (100-  
17 year flood) is a commonly used metric to assess vulnerability and risk in flood-prone communities.  
18 In Oakland there are at least 1,241 residents living within the hazard zone of a 100-year flood.<sup>267</sup> A  
19 majority of those residents are low-income people of color, who are also impacted by other climate  
20 harms and environmental hazards. There are 307 buildings within the flood hazard area, including  
21 258 residential buildings and 94 critical facilities including a City building, a library, a police station,  
22 and two education facilities.

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24 <sup>264</sup> Lena Howland, *Oakland Zoo reopens after 40-ft sinkhole caused by winter storms forces*  
25 *35-day closure*, ABC7 News (Feb. 3, 2023), [https://abc7news.com/oakland-zoo-reopening-](https://abc7news.com/oakland-zoo-reopening-flooding-sinkhole-bay-area-storm-damage-closure/12767043/)  
26 [flooding-sinkhole-bay-area-storm-damage-closure/12767043/](https://abc7news.com/oakland-zoo-reopening-flooding-sinkhole-bay-area-storm-damage-closure/12767043/).

27 <sup>265</sup> Jose Feroso, *Caltrans prepares for potential flooding of Oakland highways*, Oaklandside  
(March 14, 2023), [https://oaklandside.org/2023/03/14/caltrans-prepares-for-potential-flooding-of-](https://oaklandside.org/2023/03/14/caltrans-prepares-for-potential-flooding-of-oakland-highways/)  
28 [oakland-highways/](https://oaklandside.org/2023/03/14/caltrans-prepares-for-potential-flooding-of-oakland-highways/).

<sup>266</sup> *Ibid.*

<sup>267</sup> Oakland Hazard Mitigation Plan, *supra* note 214, at Tables 10-7 & 10-8.

1           233. The City is undertaking several projects to address the hazard of flooding due to  
2 extreme precipitation including shoring up creeks to prevent overflows and expanding storm drain  
3 capacity. The Oakland Public Works Department provides emergency sandbags and plastic sheeting  
4 to Oakland residents and business owners to help divert runoff away from buildings and to help  
5 prevent flooding and mudslides.<sup>268</sup> The City has implemented an “Adopt a Drain” program in which  
6 residents are eligible to borrow City tools and supplies to clear debris from storm drains before major  
7 storms.<sup>269</sup>

8           **b. Harms to the City of Oakland**

9           234. The City has borne, and will continue to bear, the costs of constructing, maintaining,  
10 and upgrading water infrastructure, including flood management infrastructure, and otherwise  
11 responding to the damage caused by extreme storms and flooding. The City has been called to  
12 respond to numerous landslides, road closures, and potholes as a result of extreme precipitation and  
13 flooding caused by Defendants’ deceptive conduct. Oakland’s Department of Transportation  
14 (“OakDOT”) is charged with addressing issues affecting the City’s rights-of-way such as landslide  
15 restoration, sinkhole repair, stabilization of roads, construction of retaining walls, creekbank repair,  
16 and emergency repaving. Oakland’s Department of Public Works maintains over 13,000 storm drains  
17 and is charged with addressing overflowing storm drains.<sup>270</sup>

18           235. In one example, during the January 2023 atmospheric river, OakDOT responded to  
19 29 requests for assessment and identified six roadways requiring permanent repairs. There were eight  
20 road closures—three were caused by flooding, two by landslides, one by a downed tree, and two by  
21 erosion. The City has incurred substantial costs to respond to road closures and complete repairs.

22           236. Also during the January 2023 atmospheric river, the City doubled its shelter capacity  
23 in West Oakland to provide up to 100 people with beds and extended shelter hours. The City also  
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27 <sup>268</sup> Preparing for Oakland Winter Storms, at “Emergency Sandbags and Plastic Sheetting,”  
<https://www.oaklandca.gov/topics/winter-storms>.

28 <sup>269</sup> *Id.* at “Adopt a Drain.”

<sup>270</sup> *Ibid.*

1 opened an additional emergency shelter for families including pets who needed respite from the  
2 extreme weather.<sup>271</sup>

3 237. Winter storms are known to damage asphalt and exacerbate existing potholes on  
4 Oakland’s streets. For example, during the January 2023 winter storms, there were 369 requests for  
5 service related to potholes or roadway depressions, higher than in the three previous years combined.  
6 In January 2019, another year with a major atmospheric river event, there were 543 pothole-related  
7 service requests. The City commenced a “Pothole Blitz” to focus OakDOT’s personnel on filling  
8 potholes.

9 238. Extreme precipitation also causes increased incidents of fallen trees and landslides  
10 that the City must address.

11 **5. EJ Communities Experience Compounded Impacts from Climate**  
12 **Change**

13 239. Oakland’s EJ Communities are hit first and worst by the climate crisis. The  
14 disproportionate impact from climate change on these communities is caused by their vulnerability  
15 to multiple climate change harms compounded with racial discrimination, poverty, disability,  
16 housing insecurity, linguistic isolation, poor air quality from nearby freeways and industrial  
17 activities, and other factors. These vulnerabilities make EJ Communities in Oakland less able to  
18 adapt to or recover from climate change impacts and make adapting to the climate crisis more critical  
19 and more expensive for these communities. For EJ Communities in Oakland, the climate crisis  
20 caused by Defendants’ deceptive conduct has resulted in an urgent public health crisis.

21 240. For example, many West Oakland and East Oakland neighborhoods are located near  
22 the shoreline, so they are more likely to be impacted by inundation from sea level rise and associated  
23 rising groundwater levels. They are also located close to Oakland’s historical industrial zone meaning  
24 that there is a higher likelihood of toxic contaminants in the soil that will leech up with high  
25 groundwater levels. Because these areas of Oakland are flat and often near creeks or estuaries that

26  
27 <sup>271</sup> *City of Oakland Declares a Local State of Emergency and Continues to Provide Resources*  
28 *to Community Members Impacted by Winter Storm*, at “Increased Shelter Capacity” (Jan 4, 2023),  
<https://www.oaklandca.gov/news/city-of-oakland-declares-a-local-state-of-emergency-and-continues-to-provide-resources-to-community-members-impacted-by-the-winter-storm>.

1 may overflow, they are also vulnerable to flooding from extreme precipitation. Finally, these  
2 neighborhoods are also often subject to the urban heat island effect because of the lack of tree cover  
3 and green space, making them hotter and more polluted than other neighborhoods in Oakland.

4 241. East and West Oakland are composed largely of low-income communities living in  
5 older houses that do not have air conditioning, modern air filtration systems, back-up power, or  
6 sufficient insulation. Thus, they are severely impacted during extreme heat days, power shut-offs,  
7 and days with low air quality due to wildfires. These residents need City-provided Resilience Hubs  
8 close to their homes so that they have a place to retreat to when their own homes are unsafe.

9 242. People living in these communities are less likely to have the resources to repair their  
10 homes when there is flooding and will rely on City resources like shelters and relocation programs  
11 at disproportionately high rates.

12 243. Worsening climate change impacts due to Defendants' deceptive conduct, including  
13 prolonged drought, unpredictable weather patterns, fires, and flooding, are already straining and  
14 disrupting agricultural resources and food supply chains, which also exacerbate local food  
15 insecurity.<sup>272</sup>

16 244. Climate change harms caused by Defendants' tortious conduct are particularly severe  
17 for unhoused individuals. Unhoused individuals experience elevated levels of exposure to  
18 environmental stressors such as high heat, poor air quality, and flooding. In the event of a climate  
19 emergency, unhoused populations may lack a secure place to shelter and they are often more difficult  
20 to reach via emergency alert systems. The climate crisis increases the need for public services to  
21 shelter unhoused individuals during flooding and extreme weather events and to provide medical  
22 treatment when they experience heat-related illnesses and asthma attacks from polluted air.

23 245. The City has spent millions of dollars to adapt to climate change and address the  
24 damages climate change has caused so far, and the City will need to spend hundreds of millions or  
25 billions more in the years to come.

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<sup>272</sup> Oakland Safety Element, *supra* note 213, at 2-15.





1 or any public park, square, street, or highway, so as to interfere with the comfortable enjoyment of  
2 life and property, and therefore constitute a nuisance.

3 251. Defendants, and each of them, substantially created, caused, contributed to, or  
4 assisted in the creation of these and other climate change-related conditions in Oakland by, among  
5 other things, affirmatively and deceptively promoting the sale and use of fossil fuel products in  
6 Oakland and elsewhere for uses that Defendants knew or should have known would cause or  
7 exacerbate climate change and its impacts in Oakland—all while concealing and misrepresenting  
8 those product risks from consumers and the public. The affirmative misconduct also includes  
9 disseminating and funding the dissemination of information intended to mislead consumers and the  
10 public regarding the known and foreseeable risks of climate change and its consequences. It also  
11 includes other efforts to increase fossil fuel consumption and delay the transition from fossil fuels  
12 toward renewable energy.

13 252. Defendants’ nuisance-creating conduct included, but was not limited to, making  
14 untruthful, deceptive, and/or misleading environmental marketing claims, explicit and implied, in  
15 violation of Cal. Bus. & Prof. Code section 17580.5. The People are within the class of persons that  
16 statute seeks to protect. Defendants’ misleading environmental marketing claims include, but are not  
17 limited to, deceptively marketing fossil fuel products claimed to be “low carbon,” “emissions-  
18 reducing,” “clean” and/or “green,” or otherwise environmentally beneficial or benign when in reality  
19 those products contribute to climate change and are harmful to the health of the planet and its people;  
20 and deceptively marketing their companies and their products as contributing to solutions to climate  
21 change when in reality their investments in clean energy and alternative fuels pale in comparison to  
22 their investments in expanding fossil fuel production.

23 253. The climate change-related conditions that Defendants created, caused, contributed  
24 to, and assisted in the creation of, constitute a substantial and unreasonable interference with and  
25 obstruction of public rights and property, including, *inter alia*, the public rights to health, safety,  
26 welfare, peace, comfort, and convenience of Oakland residents and other citizens. These  
27 interferences with public rights, which Defendants knew or should have known their affirmative  
28 wrongful promotion would cause or exacerbate, include without limitation:

- a. Sea level rise, coastal inundation and flooding, and groundwater changes, which obstruct the free passage and use of roads and property, impair water quality in groundwater aquifers, damage critical public infrastructure, and lead to unprecedented and dangerous storm surges that can cause injury or even deaths;
- b. More frequent and extreme precipitation events, including atmospheric rivers, which cause flooding, mudslides, and downed trees that can damage public infrastructure, obstructing the free passage and use of property;
- c. More frequent and extreme heat events, which increase the risk of injury or death from dehydration, heat stroke, heart attack, and respiratory problems;
- d. Increased risk, occurrence, and intensity of wildfires, exacerbated by more frequent droughts, which damage or destroy structures and the natural environment, including by causing soil erosion, landslides and flash flooding, and endanger human life; and
- e. Reduced air quality from smoke and dangerous pollutants caused by more frequent and intense wildfires across California, which exacerbates existing health conditions, causes lung damage, and increases rates of childhood asthma, respiratory and heart disease, and death, and which reduces visibility and obstructs scenic views.

254. Defendants’ conduct was a direct and proximate cause of the People’s injuries, and a substantial factor in the harms suffered by the People as described herein.

255. The harms caused by Defendants’ nuisance-creating conduct are extremely grave, and far outweigh the social utility of that conduct.

256. The climate change-related harms that Defendants created, caused, contributed to, and assisted in the creation of are present throughout Oakland, and therefore affect a considerable number of persons in Oakland.

257. The climate change-related harms Defendants created, caused, contributed to, and assisted in the creation of would be reasonably annoying or disturbing to an ordinary person.

258. The People did not consent to Defendants’ conduct.

259. The People’s injuries and threatened injuries from each Defendant’s affirmative acts or omissions are indivisible injuries. Each Defendant’s past and ongoing conduct is a direct and

1 proximate cause of the People’s injuries and threatened injuries. As a direct and proximate result of  
2 Defendants’ acts and omissions, the City will be required to expend significant public resources to  
3 mitigate the impacts of climate-related harms throughout Oakland.

4 260. Defendants are jointly and severally liable to the People for committing a public  
5 nuisance.

6 261. The People seek an order of abatement requiring Defendants, and each of them jointly  
7 and severally, to abate the nuisance, including by making payments into an abatement fund in an  
8 amount to be proven at trial to address the public nuisance.<sup>273</sup>

9 **SECOND CAUSE OF ACTION**

10 **(Public Nuisance on Behalf of the City of Oakland)**

11 **(Against All Defendants)**

12 262. The City re-alleges and incorporates by reference the allegations in §§ I–IV as though  
13 fully set forth herein.

14 263. Defendants, individually and in concert with each other, by their affirmative acts and  
15 omissions described in more detail below, have knowingly caused, created, assisted in the creation  
16 of, contributed to, and/or maintained, and continue to cause, create, assist in the creation of,  
17 contribute to and/or maintain harmful climate change-related conditions, including sea level rise,  
18 more frequent and extreme precipitation events, coastal and inland flooding, more frequent and  
19 extreme heat events, wildfires, drought, and reduced air quality, with compounding effects in  
20 Oakland’s EJ Communities. These climate change-related harms are injurious to health, indecent and  
21 offensive to the senses, and obstruct the free use of property, so as to interfere with the comfortable  
22 enjoyment of life and property, or unlawfully obstruct the free passage or use, in the customary  
23 manner, of any navigable lake, or river, bay, stream, canal, or basin, or any public park, square, street,  
24 or highway, and therefore constitute a nuisance.

25 264. Defendants, and each of them, substantially created, caused, contributed to, and  
26 assisted in the creation of these and other climate change-related conditions in Oakland by, among

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<sup>273</sup> The People do not seek abatement with respect to any federal land.

1 other things, affirmatively and deceptively promoting the sale and use of fossil fuel products in  
2 Oakland and elsewhere for uses that Defendants knew or should have known would cause or  
3 exacerbate climate change and its impacts in Oakland—all while concealing and misrepresenting  
4 those product risks from consumers and the public. The affirmative misconduct also includes  
5 disseminating and funding the dissemination of information intended to mislead consumers and the  
6 public regarding the known and foreseeable risks of climate change and its consequences. It also  
7 includes other efforts to increase fossil fuel consumption and delay the transition from fossil fuels  
8 toward renewable energy.

9           265. The climate change-related conditions that Defendants created, caused, contributed  
10 to, and assisted in the creation of, constitute a substantial and unreasonable interference with and  
11 obstruction of public rights and property, including, inter alia, the public rights to health, safety,  
12 welfare, peace, comfort, and convenience of Oakland residents and other citizens. These  
13 interferences with public rights, which Defendants knew or should have known their affirmative  
14 wrongful promotion would cause or exacerbate, include without limitation:

- 15           a. Sea level rise, coastal inundation and flooding, and groundwater changes, which  
16           obstruct the free passage and use of roads and property, impair water quality in  
17           groundwater aquifers, damage critical public infrastructure, and lead to  
18           unprecedented and dangerous storm surges that can cause injury or even deaths;
- 19           b. More frequent and extreme precipitation events, including atmospheric rivers, which  
20           cause flooding, mudslides, and downed trees that can damage public infrastructure,  
21           obstructing the free passage and use of property;
- 22           c. More frequent and extreme heat events, which increase the risk of injury or death  
23           from dehydration, heat stroke, heart attack, and respiratory problems and reduced air  
24           quality;
- 25           d. Increased risk, occurrence, and intensity of wildfires, exacerbated by more frequent  
26           droughts, which damage or destroy structures and the natural environment, including  
27           by causing soil erosion, landslides and flash flooding, and endanger human life; and  
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1 e. Reduced air quality from smoke and dangerous pollutants caused by more frequent  
2 and intense wildfires across California, which exacerbates existing health conditions,  
3 causes lung damage and increases rates of childhood asthma, respiratory and heart  
4 disease, and death, and which reduces visibility and obstructs scenic views.

5 266. Defendants' conduct was a direct and proximate cause of the City's injuries, and a  
6 substantial factor in the harms suffered by the City as described herein.

7 267. The harms caused by Defendants' nuisance-creating conduct are extremely grave, and  
8 far outweigh the social utility of that conduct.

9 268. The climate-related harms that Defendants created, caused, contributed to, and  
10 assisted in the creation of are present throughout Oakland, and therefore affect a considerable number  
11 of persons in Oakland.

12 269. The climate change-related harms Defendants created, caused, contributed to, and  
13 assisted in the creation of would be reasonably annoying or disturbing to an ordinary person.

14 270. The City did not consent to Defendants' conduct.

15 271. In addition to the harms suffered by the public at large, the City has suffered special  
16 injuries different in kind. The climate change-related harms that Defendants created, caused,  
17 contributed to, and assisted in the creation of have and will continue to injure public property and  
18 structures owned and managed by the City of Oakland. Defendants have inflicted and continue to  
19 inflict injuries upon the City that require the City to incur extensive costs to protect public and private  
20 property, against increased sea level rise, inundation, storm surges, flooding, more frequent and  
21 extreme precipitation and heat events, wildfires, drought, and reduced air quality.

22 272. Defendants are jointly and severally liable to the City for committing a public  
23 nuisance.

24 273. The City's injuries and threatened injuries from each Defendant's affirmative acts or  
25 omissions are indivisible injuries. Each Defendant's past and ongoing conduct is a direct and  
26 proximate cause of the City's injuries and threatened injuries. As a direct and proximate result of  
27 Defendants' acts and omissions as alleged herein, the City has suffered monetary losses and damages  
28 in amounts to be proven at trial.



- b. Indecent and offensive to the senses of ordinary person;
- c. Obstruct or will obstruct the free use of the City's property so as to interfere with the comfortable enjoyment of life and property; and
- d. Obstruct or will obstruct the free passage and use of navigable lakes, rivers, bays, streams, canals, basins, public parks, squares, streets, and/or highways within the City's communities.

280. The conditions described above created by Defendants' conduct substantially interfere with the City's use and quiet enjoyment of its properties.

281. The City has not consented to Defendants' conduct in creating the condition that has led to sea level rise, more frequent and extreme precipitation and heat events, wildfires, drought, and poor air quality.

282. The ordinary person, and the ordinary city in the City's position, would be reasonably annoyed and disturbed by Defendants' conduct and the condition created thereby, because, *inter alia*, it infringes on the City's ability to provide public space to residents and visitors, infringes on the City's ability to perform its duties and continue operations on its own property, and has forced the City to plan for and provide additional emergency and other public services in response to impacts from sea level rise, more frequent and extreme precipitation and heat events, wildfires, and poor air quality on property owned by the City.

283. The seriousness of sea level rise, more frequent and extreme precipitation and heat events, wildfires, and poor air quality is extremely grave, and outweighs the social utility of Defendants' conduct.

284. 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 described herein.

285. Defendants' wrongful conduct was oppressive, malicious, and fraudulent, in that their conduct was willful, intentional, and in conscious disregard for the rights of others. Defendants' conduct was so vile, base, and contemptible that it would be looked down upon and despised by reasonable people, justifying an award of punitive and exemplary damages in an amount subject to

1 proof at trial, and justifying equitable disgorgement of all profits Defendants obtained through their  
2 unlawful and outrageous conduct.

3 286. Defendants' acts and omissions as alleged herein are indivisible causes of the City's  
4 injuries as alleged herein.

5 287. Defendants are jointly and severally liable to Plaintiffs for committing a private  
6 nuisance.

7 288. As a direct and proximate result of Defendants' acts and omissions as alleged herein,  
8 the City has suffered monetary losses and damages in amounts to be proven at trial.

9 289. The City seeks an order of abatement requiring Defendants, and each of them jointly  
10 and severally, to abate the nuisance, including by making payments into an abatement fund in an  
11 amount to be proven at trial to address the private nuisance.<sup>275</sup>

12 **FOURTH CAUSE OF ACTION**  
13 **(Trespass on Behalf of the City of Oakland)**  
14 **(Against All Defendants)**

15 290. The City re-alleges and incorporates by reference the allegations in §§ I-IV as though  
16 fully set forth herein.

17 291. The City owns, leases, controls, and/or manages extensive property, both within and  
18 outside Oakland's physical boundaries.

19 292. Defendants, and each of them, have intentionally, recklessly, or negligently caused  
20 ocean waters, flood waters, precipitation, wildfires, and airborne pollutants (e.g., smog and wildfire  
21 smoke) to enter the City's property, by advertising, promoting, marketing, and/or selling fossil fuel  
22 products, knowing those products in their normal operation and use or foreseeable misuse would  
23 cause global and local sea levels to rise, cause flooding and storm surges to become more frequent  
24 and more intense, cause precipitation, heat events, and wildfires to become more frequent and more  
25 intense, and cause worsening air quality.

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<sup>275</sup> The City does not seek abatement with respect to any federal land.



1           293. The City did not give permission for Defendants, or any of them, to cause ocean water,  
2 flood water, precipitation, or airborne pollutants to enter its property.

3           294. The City has been and continues to be actually injured and continues to suffer  
4 damages as a result of Defendants and each of their having caused ocean water, flood water,  
5 precipitation, and airborne pollutants to enter its real property, by *inter alia*, permanently submerging  
6 real property owned by the City, causing flooding and storm surges, extreme precipitation, and  
7 airborne pollution, which have invaded and threaten to invade real property owned by the City and  
8 have rendered it unusable.

9           295. Defendants' and each Defendant's decades-long campaign of deception, which had  
10 the purpose and effect of inflating and sustaining the market for fossil fuels, drove up greenhouse  
11 gas emissions, accelerated global warming, delayed the energy economy's transition to a lower-  
12 carbon future, and brought about devastating climate change impacts to Oakland, was a substantial  
13 factor in causing the injuries and damages to the City's real property.

14           296. Defendants' acts and omissions as alleged herein are indivisible causes of the City's  
15 injuries and damage as alleged herein.

16           297. Defendants are jointly and severally liable to Plaintiff for trespassing.

17           298. Defendants' wrongful conduct was oppressive, malicious, and fraudulent, in that their  
18 conduct was willful, intentional, and in conscious disregard for the rights of others. Defendants'  
19 conduct was so vile, base, and contemptible that it would be looked down upon and despised by  
20 reasonable people, justifying an award of punitive and exemplary damages in an amount subject to  
21 proof at trial, and justifying equitable disgorgement of all profits Defendants obtained through their  
22 unlawful and outrageous conduct.

23           299. The City seeks an order of abatement requiring Defendants, and each of them jointly  
24 and severally, to abate the trespass, including by making payments into an abatement fund in an  
25 amount to be proven at trial to abate the trespass.

1 **FIFTH CAUSE OF ACTION**

2 **(Strict Products Liability—Failure to Warn on Behalf of the City of Oakland)**

3 **(Against All Defendants)**

4 300. The City re-alleges and incorporates by reference the allegations in §§ I–IV as though  
5 fully set forth herein.

6 301. At all relevant times Defendants, and each of them, were engaged in the business of  
7 advertising, promoting, and/or selling fossil fuel products and their derivatives. Defendants placed  
8 these fossil fuel products into the stream of commerce.

9 302. Defendants, and each of them, manufactured, heavily marketed, promoted,  
10 advertised, and/or sold fossil fuel products and their derivatives, which were sold or used by their  
11 respective affiliates and subsidiaries. Defendants received direct financial benefit from the sale of  
12 their fossil fuel products, and the products of their affiliates and subsidiaries. Defendants’ roles as  
13 promoters and marketers were integral to their respective businesses and a necessary factor in  
14 bringing fossil fuel products and their derivatives to the consumer market, such that Defendants had  
15 control over, and a substantial ability to influence, the manufacturing and distribution processes of  
16 their affiliates and subsidiaries.

17 303. As manufacturers, advertisers, promoters, and/or sellers of fossil fuel products and  
18 their derivatives, Defendants had a duty to warn consumers, the public, and the City of reasonably  
19 foreseeable environmental and health risks posed by those products and derivatives.

20 304. Throughout the times at issue, Defendants individually and collectively knew or  
21 should have known—based on information passed to them from their internal research divisions and  
22 affiliates, trade associations and entities, and/or from the international scientific community—that  
23 fossil fuel products and their derivatives, whether used as intended or used in a foreseeable manner,  
24 release greenhouse gases into the atmosphere, causing global warming, sea level rise, more frequent  
25 and extreme precipitation events and flooding, more frequent and severe heat waves and extreme  
26 temperatures, wildfires, drought, reduced air quality, and the consequences and injuries associated  
27 with those physical and environmental changes, which result in risks to human health and safety,  
28 damage to property and infrastructure, and loss of use of City services and property in the City.

1           305. Throughout the times at issue and continuing today, Defendants' fossil fuel products  
2 and their derivatives were used, distributed, and sold in a manner in which they were reasonably  
3 foreseeably intended to be used, distributed, and sold, including but not limited to being combusted  
4 for energy, combusted to power automobiles, refined into petrochemicals, and refined and/or  
5 incorporated into petrochemical products including, but not limited to, fuels and plastics.

6           306. Defendants and their affiliates and subsidiaries knew, or should have known, that  
7 these fossil fuel products and their derivatives would be used by the City, its residents, and others  
8 within the City's limits, amongst others, in the manner reasonably foreseeably intended.

9           307. Defendants knew, or should have known, based on information passed to them from  
10 their internal research divisions and affiliates, from trade associations and entities, and/or from the  
11 international scientific community, that the climate related harms described herein rendered their  
12 fossil fuel products and their derivatives dangerous, or likely to be dangerous, when used in the  
13 manner reasonably foreseeably intended.

14           308. The fossil fuel products and derivatives that Defendants refined, formulated,  
15 designed, manufactured, merchandised, advertised, promoted, and/or sold—whether used as  
16 intended or used in a reasonably foreseeable manner—were not reasonably safe at the time they left  
17 Defendants' control because they lacked adequate warnings and instructions.

18           309. The fossil fuel products and their derivatives reached consumers substantially  
19 unchanged from that in which they left Defendants' control.

20           310. Without adequate warnings, Defendants' fossil fuel products and their derivatives  
21 were unsafe to an extent beyond that which would be contemplated by an ordinary person.

22           311. Defendants knew that by failing to warn consumers, the City, and the public of the  
23 risks posed by fossil fuels, their products would be purchased, transported, stored, handled, and used  
24 without users and consumers being aware of the hazards fossil fuels pose to human health and the  
25 environment.

26           312. At the time of manufacture, merchandising, advertising, promotion, or sale,  
27 Defendants could have provided warnings or instructions regarding the full and complete risks fossil  
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1 fuel products and their derivatives posed because they knew, and/or should have known, of the  
2 unreasonable risks of harm associated with the use of these products, as described herein.

3 313. Despite Defendants' superior and unequal knowledge of the risks posed by fossil fuel  
4 products and their derivatives, Defendants failed to adequately warn consumers, the City, and the  
5 public of the known and foreseeable risks of climate change, climate related harms as described  
6 herein, and other dangers that would inevitably follow from the intended or reasonably foreseeable  
7 use of these products.

8 314. Not only did Defendants fail to adequately warn, Defendants falsely represented,  
9 asserted, claimed, and warranted that their fossil fuel products and derivatives were safe for their  
10 intended and foreseeable uses.

11 315. Any warnings Defendants may have issued as to the risks of their fossil fuel products  
12 and their derivatives were rendered ineffective and inadequate by Defendants' false and misleading  
13 public relations campaigns and statements about fossil fuel products, and their decades-long efforts  
14 to conceal and misrepresent the dangers that follow from the intended or reasonably foreseeable use  
15 of such products.

16 316. Defendants individually and in concert widely disseminated misleading marketing  
17 materials, attempted to refute scientific knowledge generally accepted at the time concerning climate  
18 change, advanced and promoted pseudo-scientific theories of their own, and developed public  
19 relations materials that prevented reasonable consumers from recognizing or discovering the latent  
20 risk that Defendants' fossil fuel products and their derivatives would cause grave climate changes,  
21 undermining and rendering ineffective any warnings that Defendants may have also disseminated.

22 317. Accordingly, throughout the times at issue, the ordinary consumer would not  
23 recognize the full extent and severity of the global and localized changes in climate caused by the  
24 use of fossil fuel products and their derivatives nor the consequent injuries to Oakland and its  
25 communities, as described herein.

26 318. Defendants breached their duty to warn by unreasonably failing to provide the City,  
27 the public, consumers, and users of fossil fuel products and their derivatives with warnings regarding  
28 the potential and/or actual threat to human health and the environment caused by pollution released

1 from the manufacturing and consumption of fossil fuels, despite Defendants' vast amounts of  
2 knowledge and research demonstrating fossil fuels and their derivatives presented threats to human  
3 health and the environment.

4 319. Had Defendants provided adequate warnings and not waged a deceptive campaign  
5 against climate science, their fossil fuel products and their derivatives would not have had  
6 widespread acceptance in the marketplace, and alternatives to fossil fuel products could have been  
7 developed faster, investment in fossil fuel alternatives would be greater, and/or fossil fuel alternatives  
8 would be used in greater amounts.

9 320. Moreover, had Defendants provided adequate warnings about the adverse impacts to  
10 public health and the environment that results from the intended and reasonably foreseeable use of  
11 fossil fuel products and their derivatives, the City and its residents would have taken measures to  
12 decrease fossil fuel dependency and to increase climate resiliency in order to avoid or lessen the  
13 climate-related harms described herein and property damage that would inevitably follow.

14 321. Defendants' failure to adequately warn about the climate risks of their products—  
15 both individually and collectively—was a direct and proximate cause of the City's injuries. As a  
16 result of Defendants' failure to warn, Defendants are strictly liable to the City.

17 322. Defendants' wrongful conduct was oppressive, malicious, and fraudulent, in that their  
18 conduct was willful, intentional, and in conscious disregard for the rights of others. Defendants'  
19 conduct was so vile, base, and contemptible that it would be looked down upon and despised by  
20 reasonable people, justifying an award of punitive and exemplary damages, in an amount subject to  
21 proof, and justifying equitable disgorgement of all profits Defendants obtained through their  
22 unlawful and outrageous conduct.

23 323. Defendants' acts and omissions as alleged herein are indivisible causes of the City's  
24 injuries as alleged herein, and are a substantial factor in bringing about the harms described herein.

25 324. As a direct and proximate result of Defendants' failure to warn about the unreasonably  
26 dangerous conditions of their fossil fuel products and derivatives, the City has incurred and will  
27 continue to incur costs and damages related to physical damage to City property, City infrastructure,  
28 public health, and loss of use of City property.



1           331. Throughout the times at issue, Defendants individually and collectively knew or  
2 should have known—based on information passed to them from their internal research divisions and  
3 affiliates, trade associations and entities, and/or from the international scientific community—that  
4 fossil fuel products and their derivatives, whether used as intended or used in a foreseeable manner,  
5 release greenhouse gases into the atmosphere, causing global warming, sea level rise, more frequent  
6 and extreme precipitation events and flooding, more frequent and severe heat waves, extreme  
7 temperatures, wildfires, drought, reduced air quality, and the consequences and injuries associated  
8 with those physical and environmental changes, which result in risks to human health and safety,  
9 damage to property and infrastructure, and loss of use of City services and property in the City.

10           332. Throughout the times at issue and continuing today, Defendants’ fossil fuel products  
11 and their derivatives were used, distributed, and sold in a manner in which they were reasonably  
12 foreseeably intended to be used, distributed, and sold, including but not limited to being combusted  
13 for energy, combusted to power automobiles, refined into petrochemicals, and refined and/or  
14 incorporated into petrochemical products including, but not limited to, fuels and plastics.

15           333. Defendants and their affiliates and subsidiaries knew, or should have known, that  
16 these fossil fuel products and their derivatives would be used by the City, its residents, and others  
17 within the City’s limits, amongst others, in the manner reasonably foreseeably intended.

18           334. Defendants knew, or should have known, based on information passed to them from  
19 their internal research divisions and affiliates, from trade associations and entities, and/or from the  
20 international scientific community, that the climate related harms described herein rendered their  
21 fossil fuel products and their derivatives dangerous, or likely to be dangerous, when used in an  
22 intended or reasonably foreseeably manner.

23           335. Defendants knew that by failing to warn the City, the public, consumers, and users of  
24 fossil fuels and their derivatives of the risks posed by fossil fuels, their products would be purchased,  
25 transported, stored, handled, and used without users and consumers being aware of the hazards fossil  
26 fuels pose to human health and the environment.

27           336. At the time of manufacture, merchandising, advertising, promotion, or sale,  
28 Defendants could have provided warnings or instructions regarding the full and complete risks fossil

1 fuel products and their derivatives posed because they knew, and/or should have known, of the  
2 unreasonable risks of harm associated with the use of these products, as described herein.

3 337. Given the grave dangers caused by normal or foreseeable use of fossil fuel products  
4 as described herein, a reasonable manufacturer, advertiser, promoter, and/or seller of fossil fuel  
5 products and their derivatives, would have warned of those known and inevitable climate effects.

6 338. Despite Defendants' superior and unequal knowledge of the risks posed by fossil fuel  
7 products and their derivatives, Defendants failed to adequately warn consumers, the City, and the  
8 general public of the known and foreseeable risks of climate change, climate related harms including  
9 sea level rise, more frequent and intense precipitation and heat events, wildfires, drought, reduced  
10 air quality, and other dangers that would inevitably follow from the intended or reasonably  
11 foreseeable use of these products.

12 339. Not only did Defendants fail to adequately warn consumers, Defendants represented,  
13 asserted, claimed, and warranted that their fossil fuel products and derivatives were safe for their  
14 intended and foreseeable uses.

15 340. Any warnings Defendants may have issued as to the risks of their fossil fuel products  
16 and their derivatives were rendered ineffective and inadequate by Defendants' false and misleading  
17 public relations campaigns and statements about fossil fuel products and their derivatives, and their  
18 decades-long efforts to conceal and misrepresent the dangers that follow from the intended or  
19 reasonably foreseeable use of such products.

20 341. Defendants individually and in concert widely disseminated misleading marketing  
21 materials, attempted to refute scientific knowledge generally accepted at the time concerning climate  
22 change, advanced and promoted pseudo-scientific theories of their own, and developed public  
23 relations materials that prevented reasonable consumers from recognizing or discovering the latent  
24 risk that Defendants' fossil fuel products and their derivatives would cause grave climate changes,  
25 undermining and rendering ineffective any warnings that Defendants may have also disseminated.

26 342. Accordingly, throughout the times at issue, the ordinary consumer would not  
27 recognize the full extent and severity of the global and localized changes in climate caused by the  
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1 use of fossil fuel products and their derivatives nor the consequent injuries to Oakland and its  
2 communities, as described herein.

3 343. Defendants breached their duty to warn by unreasonably failing to provide the City,  
4 the public, consumers, and users of fossil fuel products and their derivatives with warnings regarding  
5 the potential and/or actual threat to human health and the environment caused by pollution released  
6 from the manufacturing and consumption of fossil fuels, despite Defendants' extensive knowledge  
7 and research demonstrating fossil fuels and their derivatives presented threats to human health and  
8 the environment.

9 344. Defendants further breached their duty of care by making untruthful, deceptive,  
10 and/or misleading environmental marketing claims, explicit and implied, in violation of Cal. Bus. &  
11 Prof. Code section 17580.5. By violating the greenwashing statute, Defendants are presumed to have  
12 breached their duty per se under Evidence Code section 669.

13 a. Defendants violated section 17580.5 with such conduct including deceptively  
14 marketing fossil fuel products claimed to be "low carbon," "emissions-reducing,"  
15 "clean" and/or "green," or otherwise environmentally beneficial or benign when in  
16 reality those products contribute to climate change and are harmful to the health of  
17 the planet and its people; and deceptively marketing their companies and their  
18 products as contributing to solutions to climate change when in reality their  
19 investments in clean energy and alternative fuels pale in comparison to their  
20 investments in expanding fossil fuel production.

21 b. This conduct was the proximate cause of Plaintiffs' climate related injuries.

22 c. Plaintiffs' injuries resulted from an occurrence of the nature which the greenwashing  
23 statute was designed to prevent.

24 d. Plaintiffs are among the class of persons for whose protection the greenwashing  
25 statute was adopted.

26 345. Had Defendants provided adequate warnings and not waged a deceptive campaign  
27 against climate science, their fossil fuel products and their derivatives would not have earned  
28 widespread acceptance in the marketplace.

1           346. Had Defendants provided adequate warnings and not waged a deceptive campaign  
2 against climate science, fossil fuel alternatives could have been developed faster, investment in fossil  
3 fuel alternatives would be greater, and/or fossil fuel alternatives would be used in greater amounts.

4           347. Moreover, had Defendants provided adequate warnings about the adverse impacts to  
5 public health and the environment that results from the intended and reasonably foreseeable use of  
6 fossil fuel products and their derivatives, the City and its residents would have taken measures to  
7 decrease fossil fuel dependency in order to avoid or lessen the climate related harms described herein  
8 and property damage that would inevitably follow.

9           348. As a result of Defendants' negligent breach of duty to warn about the unreasonably  
10 dangerous conditions of their fossil fuel products and their derivatives, Defendants are liable to the  
11 City.

12           349. Defendants' wrongful conduct was oppressive, malicious, and fraudulent, in that their  
13 conduct was willful, intentional, and in conscious disregard for the rights of others. Defendants'  
14 conduct was so vile, base, and contemptible that it would be looked down upon and despised by  
15 reasonable people, justifying an award of punitive and exemplary damages, in an amount subject to  
16 proof, and justifying equitable disgorgement of all profits Defendants obtained through their  
17 unlawful and outrageous conduct.

18           350. Defendants' acts and omissions as alleged herein are indivisible causes of the City's  
19 injuries as alleged herein, and are a substantial factor in causing the harms described herein.

20           351. Defendants are jointly and severally liable to the City for their failures to warn.

21           352. As a direct and proximate result of Defendants' failure to warn about the unreasonably  
22 dangerous conditions of their fossil fuel products and derivatives, the City has incurred and will  
23 continue to incur costs and damages related to physical damage to City property, City infrastructure,  
24 and public health.

25           353. As a direct and proximate result of Defendants' acts and omissions as alleged herein,  
26 the City and its residents have suffered monetary losses and damages in amounts to be proven at  
27 trial.

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**SEVENTH CAUSE OF ACTION**  
**(Negligence on Behalf of the City Oakland)**  
**(Against All Defendants)**

354. The City re-alleges and incorporates by reference the allegations in §§ I–IV as though fully set forth herein.

355. For decades, Defendants possessed knowledge—based on information passed to them from their internal research divisions and affiliates, from trade associations and industry groups, and from the international scientific community—that fossil fuels are the primary cause of climate change and that, if sustained, climate change would cause severe climate-related harms, including but not limited to: sea level rise, more frequent and extreme precipitation events, increased frequency and severity of heat waves, extreme temperatures, droughts, wildfires, reduced air quality, and other adverse environmental changes, and the associated consequences of those physical and environmental changes in Oakland and elsewhere, with compounding effects in EJ Communities. Defendants possessed knowledge that these climate related harms would result in risks to human health and safety, damage to property and infrastructure, and loss of use of City services and property in the City.

356. Given the scientific evidence available to and conducted by Defendants, as referenced herein, such injury was likely and reasonably foreseeable.

357. Under California law, each Defendant had a duty to the City and its residents to exercise reasonable care in the marketing, promoting, sale, and/or labeling of their fossil fuel products and to act reasonably for the protection of the City and its residents to avoid inflicting the injuries described herein. All Defendants had a duty to exercise reasonable care in the production and dissemination of information regarding the climate impacts of fossil fuel products to users of those products and to the public.

358. Defendants had superior knowledge of the risk posed by fossil fuel products at all times relevant to this Complaint.

359. Defendants breached their duty of care when they advertised, promoted, and/or sold fossil fuel products and their derivatives, while failing to include warnings of the risk of harm

1 associated with fossil fuel products and their derivatives, in a manner that they knew or should have  
2 known would result in injury to human health and safety, damage to City property and infrastructure,  
3 loss of use of City services and property, and other damages to the City.

4 360. Defendants further breached their duty of care by waging a decades-long deceptive  
5 marketing and public relations campaign to discredit climate science.

6 361. Any warnings provided by Defendants were rendered ineffective by the years-long  
7 deceptive marketing practices and public relations campaign which promulgated false and  
8 misleading statements, casted doubt on the consensus of climate scientists, and advanced pseudo-  
9 scientific theories.

10 362. Defendants individually and in concert widely disseminated marketing materials,  
11 refuted the scientific knowledge generally accepted at the time, advanced and promoted pseudo-  
12 scientific theories of their own, and developed public relations materials that prevented reasonable  
13 consumers from recognizing or discovering the latent risk that fossil fuel products and derivatives  
14 would cause grave climate changes, undermining and rendering ineffective any warnings that  
15 Defendants may have also disseminated.

16 363. A reasonably careful company would not engage in a decades-long deceptive  
17 marketing and public relations campaign to promulgate such false and misleading statements, would  
18 not manufacture or distribute fossil fuel products and their derivatives without warning, would warn  
19 of these products' hazardous properties, and/or would take steps to enhance the safety and/or reduce  
20 the risk of the products.

21 364. Defendants' conduct was willful, intentional, and in conscious disregard for the rights  
22 of others. Defendants' conduct was so vile, base, and contemptible that it would be looked down  
23 upon and despised by reasonable people, justifying an award of punitive and exemplary damages in  
24 an amount subject to proof at trial, and justifying equitable disgorgement of all profits Defendants  
25 obtained through their unlawful and outrageous conduct.

26 365. Defendants are jointly and severally liable to the City for their negligence.

27 366. Defendants' conduct caused injury to the lives and health of the City's residents, and  
28 to the City's property, including by causing climate related harms as alleged herein which result in

1 risks to human health and safety, damage to property and infrastructure, and loss of use of City  
2 services in the City. Defendants' conduct was a substantial factor in causing the harm described  
3 herein.

4 367. As a direct and proximate result of Defendants' acts and omissions as alleged herein,  
5 the City and its residents have suffered monetary losses and damages in amounts to be proven at  
6 trial.

7 **VI. RELIEF REQUESTED**

8 **WHEREFORE**, Plaintiffs pray for judgment and an order against each Defendant, jointly  
9 and severally, as follows:

- 10 1. Finding Defendants jointly and severally liable for causing, creating, assisting in the  
11 creation of, contributing to, and/or maintaining a public nuisance;
- 12 2. Equitable relief to abate the nuisances complained of herein;
- 13 3. Ordering an abatement fund remedy in an amount according to proof to be paid for by  
14 Defendants to provide for infrastructure in Oakland necessary for Oakland to abate the  
15 nuisances complained of herein;
- 16 4. Ordering compensatory damages in an amount according to proof;
- 17 5. Ordering punitive damages;
- 18 6. Ordering disgorgement of profits;
- 19 7. Awarding attorneys' fees as permitted by law;
- 20 8. Awarding costs and expenses as permitted by law;
- 21 9. Awarding pre- and post-judgment interest as permitted by law; and
- 22 10. Awarding such other relief as this Court deems just and proper.

23 **VII. JURY DEMAND**

24 Plaintiff the City of Oakland demands a jury trial on all issues so triable.

25 ///

1 Dated: June 10, 2024

Respectfully submitted,

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