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18 *The County of Santa Cruz, individually,*
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19 **SUPERIOR COURT OF THE STATE OF CALIFORNIA**
20 **IN AND FOR THE COUNTY OF SAN FRANCISCO**

21 COORDINATION PROCEEDING
22 SPECIAL TITLE [CRC 3.550(c)]

23 **FUEL INDUSTRY CLIMATE CASES**

24 **THIS CASE RELATES TO:**

25 *The County of Santa Cruz, individually and on*
26 *behalf of The People of the State of California*
27 *v. Chevron Corporation et al.,*
28 Santa Cruz County Superior Court,
Case No.: 17CV03242

JUDICIAL COUNCIL COORDINATION
PROCEEDING NO. 5310

Case No.: CJC-24-005310

FIRST AMENDED COMPLAINT FOR:

1. PUBLIC NUISANCE ON BEHALF OF THE PEOPLE OF THE STATE OF CALIFORNIA;
2. PUBLIC NUISANCE;
3. STRICT LIABILITY – FAILURE TO

ELECTRONICALLY
FILED
Superior Court of California,
County of San Francisco

06/10/2024
Clerk of the Court
BY: VERA MU
Deputy Clerk

1 THE COUNTY OF SANTA CRUZ,
2 individually and on behalf of THE PEOPLE OF
3 THE STATE OF CALIFORNIA,

4 Plaintiffs,

5 vs.

6 CHEVRON CORP.; CHEVRON U.S.A. INC.;
7 EXXONMOBIL CORP.; EXXONMOBIL OIL
8 CORP.; BP P.L.C.; BP AMERICA, INC.;
9 SHELL PLC; SHELL USA, INC., SHELL OIL
10 PRODUCTS COMPANY LLC; CITGO
11 PETROLEUM CORP.; CONOCOPHILLIPS;
12 CONOCOPHILLIPS COMPANY; PHILLIPS
13 66; PHILLIPS 66 COMPANY; TOTAL E&P
14 USA INC.; TOTAL SPECIALTIES USA INC.;
15 ENI S.p.A.; ENI OIL & GAS INC.;
16 ANADARKO PETROLEUM CORP.;
17 OCCIDENTAL PETROLEUM CORP.;
18 OCCIDENTAL CHEMICAL CORP.; REPSOL
19 S.A.; REPSOL ENERGY NORTH AMERICA
20 CORP.; REPSOL TRADING USA CORP.;
21 MARATHON OIL COMPANY; MARATHON
22 OIL CORPORATION; MARATHON
23 PETROLEUM CORP.; HESS CORP.; DEVON
24 ENERGY CORP.; DEVON ENERGY
25 PRODUCTION COMPANY, L.P.; ENCANA
26 CORP.; APACHE CORP.; and DOES 1
27 through 100, inclusive,
28

Defendants.

WARN;

4. PRIVATE NUISANCE;
5. NEGLIGENCE;
6. NEGLIGENCE – FAILURE TO WARN; and
7. TRESPASS.

JURY TRIAL DEMANDED

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1 **I. INTRODUCTION**

2 1. Defendants, major corporate members of the fossil fuel industry, have known for
3 decades that unrestricted consumption of their fossil fuel products creates greenhouse gas
4 pollution that warms the planet and changes our climate. They have known for decades that those
5 impacts could be catastrophic and that only a narrow window existed to take action before the
6 consequences would become irreversible. They have nevertheless engaged in a coordinated,
7 multi-front effort to conceal and deny their own knowledge of those consequences, discredit the
8 growing body of publicly available scientific evidence connecting fossil fuel consumption to
9 climate change, and persistently create doubt in the minds of customers, consumers, the media,
10 journalists, teachers, and the public about the reality and severity of climate change. At the same
11 time, Defendants have promoted and profited from a massive increase in the consumption of oil,
12 coal, and natural gas, which has in turn caused an enormous, foreseeable, and avoidable increase
13 in global greenhouse gas pollution and a concomitant increase in the concentration of greenhouse
14 gases,¹ particularly carbon dioxide (“CO₂”) and methane, in the Earth’s atmosphere. Those
15 disruptions of the Earth’s otherwise balanced carbon cycle have substantially contributed to a
16 wide range of dire climate-related effects, including global warming, rising atmospheric and
17 ocean temperatures, ocean acidification, melting polar ice caps and glaciers, more extreme and
18 volatile weather, and sea level rise. Plaintiffs, the People of the State of California and the
19 County of Santa Cruz,² along with the County’s residents, taxpayers, and infrastructure, suffer
20 the consequences.

21 2. Defendants are vertically integrated extractors, producers, refiners, manufacturers,
22 distributors, promoters, marketers, and sellers of fossil fuel products. Decades of scientific
23

24 _____
25 ¹ As used in this Complaint, “greenhouse gases” refers collectively to carbon dioxide, methane,
26 and nitrous oxide. Where a source refers to a specific gas or gases, or when a process relates only
to a specific gas or gases, this Complaint refers to them by name.

27 ² As used in this Complaint, “Santa Cruz” and “County” refer to all areas within the geographic
28 boundaries of the County, excluding federal land and any area acknowledged in Paragraph 11
herein.

1 research show that pollution from Defendants' fossil fuel products plays a direct and substantial
2 role in the unprecedented rise in emissions of greenhouse gas pollution and increased
3 atmospheric CO₂ concentrations since the mid-20th century. This dramatic increase in
4 atmospheric CO₂ and other greenhouse gases is the main driver of the gravely dangerous changes
5 occurring to the global climate.

6 3. Anthropogenic (human-caused) greenhouse gas pollution, primarily in the form of
7 CO₂, is far and away the dominant cause of climate change and sea level rise.³ The primary
8 source of this pollution is the extraction, production and consumption of coal, oil, and natural
9 gas, referred to collectively in this Complaint as "fossil fuel products."⁴

10 4. The rate at which Defendants have extracted and sold fossil fuel products has
11 exploded since the Second World War, as have emissions from those products. The substantial
12 majority of all greenhouse gas emissions in history has occurred since the 1950s, a period known
13 as the "Great Acceleration."⁵ About three quarters of all industrial CO₂ emissions in history have
14 occurred since the 1960s,⁶ and more than half have occurred since the late 1980s.⁷ The annual
15 rate of CO₂ emissions from fossil fuels has increased by more than 60% since 1990.⁸

16 5. Defendants have known for more than 50 years that greenhouse gas pollution
17
18

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

21 ⁴ See C. Le Quéré et al., Global Carbon Budget 2016, *Earth Syst. Sci. Data* 8, 632 (2016),
22 <http://www.earth-syst-sci-data.net/8/605/2016/>. Cumulative emissions since the beginning of the
23 industrial revolution to 2015 were 413 GtC attributable to fossil fuels, and 190 GtC attributable
24 to land use change. Id. Global CO₂ emissions from fossil fuels and industry remained nearly
constant at 9.9 GtC in 2015, distributed among coal (41 %), oil (34 %), gas (19 %), cement (5.6
%), and gas flaring (0.7 %). Id. at 629.

25 ⁵ Will Steffen et al., The Trajectory of the Anthropocene: The Great Acceleration (2015),
<http://journals.sagepub.com/doi/abs/10.1177/2053019614564785>.

26 ⁶ R. J. Andres et al., A synthesis of carbon dioxide emissions from fossil-fuel combustion,
Biogeosciences, 9, 1851 (2012), <http://www.biogeosciences.net/9/1845/2012/>.

27 ⁷ Id.

28 ⁸ Le Quéré et al. (2016), supra note 4, at 630.

1 from their fossil fuel products has a significant impact on the Earth’s climate and sea levels.
2 Defendants’ awareness of the damaging consequences of their products’ ordinary use
3 corresponds almost exactly with the Great Acceleration, and with skyrocketing greenhouse gas
4 emissions. Armed with that knowledge, Defendants took steps to protect their own assets from
5 these threats through immense internal investment in research, infrastructure improvements, and
6 plans to exploit new opportunities in a warming world.

7 6. But instead of warning consumers and the public about the dangers of fossil fuels,
8 Defendants mounted disinformation campaigns to undermine the burgeoning scientific
9 consensus on climate change; create doubt in the minds of consumers, the media, teachers, and
10 the public about the dire consequences of burning fossil fuels; and delay the necessary transition
11 to a lower-carbon future. Defendants’ climate deception campaigns, and their aggressive
12 promotion of fossil fuel products despite knowing of their dangers, had the purpose and effect of
13 unduly and substantially inflating and sustaining the market for fossil fuels. Defendants’ tortious
14 and deceptive conduct, both individually and collectively, drove fossil fuel consumption and
15 delayed the transition to a lower-carbon future. This caused an enormous, foreseeable, and
16 avoidable increase in anthropogenic GHG emissions and accelerated global warming, bringing
17 devastating consequences to the County and its people.

18 7. Extreme flooding events will more than double in frequency on California’s
19 Pacific coast by 2050.⁹ Flooding and storms will become more frequent and more severe, and
20 average sea level will rise substantially along California’s coast, including in Santa Cruz County.
21 Disruptions to weather cycles, extreme precipitation and drought, increased frequency and
22 magnitude of wildfires, and associated consequences—all due to anthropogenic global
23 warming—will increase in Santa Cruz County. The County, flanked on its entire southern and

24 _____
25 ⁹ Sean Vitousek et al., Doubling of Coastal Flooding Frequency Within Decades Due to Sea-
26 Level Rise, Scientific Reports, (May 18, 2017) (“Only 10 cm of SLR doubles the flooding
27 potential in high-latitude regions with small shape parameters, notably the North American west
28 coast; USGS, In Next Decades, Frequency of Coastal Flooding Will Double Globally (May 18,
2017), <https://www.usgs.gov/news/next-decades-frequency-coastal-flooding-will-double-globally>.

1 western boundaries by the Pacific Ocean, and otherwise surrounded by dense mountain forests
2 interspersed with commercial and residential activity, has already spent substantial sums to
3 study, mitigate, and adapt to the effects of global warming, which already impact the County and
4 jeopardize its utilities, beaches, parks, roads, municipal infrastructure, essential public services,
5 and communities. These impacts, as well as extreme heat, present myriad public health harms in
6 the County, and disproportionately impact the County's vulnerable, at-risk populations.

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

9 9. Defendants' promotion, marketing, and sale of fossil fuel products, and their
10 simultaneous concealment of the known hazards of those products, substantially, actually, and
11 proximately caused Plaintiffs' injuries.

12 10. Accordingly, the County brings a claim against Defendants for Public Nuisance
13 on behalf of the People of California as well as itself, and claims for Strict Liability for Failure to
14 Warn, Private Nuisance, Negligence, Negligent Failure to Warn, and Trespass on behalf of itself.

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

18 12. Plaintiffs hereby disclaim injuries arising on federal property and those arising
19 from Defendants' provision of non-commercial, specialized fossil fuel products to the federal
20 government for military and national defense purposes. Plaintiffs seek no recovery or relief
21 attributable to these injuries.

22 13. Plaintiffs do not seek to impose liability on Defendants for their direct emissions
23 of greenhouse gases and do not seek to restrain Defendants from engaging in their business
24 operations.

25 14. By this action, Plaintiffs seek to ensure that the parties responsible for causing and
26 exacerbating climate change-related harms to the County bear the costs of its impacts, rather than
27 Plaintiffs, local taxpayers, or residents.

28

1 **II. PARTIES**

2 **A. Plaintiffs**

3 15. Plaintiff, the People of the State of California (“the People”), by and through the
4 County Counsel of Santa Cruz County, brings this suit pursuant to Code of Civil Procedure
5 section 731, and Civil Code sections 3479, 3480, 3491, and 3494, to abate the nuisance caused
6 by the effects of climate change in the County’s jurisdiction.

7 16. Plaintiff County of Santa Cruz (“the County” or “Santa Cruz”) is a political
8 subdivision of the State of California. The County is located in the northern Monterey Bay along
9 the Central Coast of California, bordered by San Mateo County to the North, Santa Clara County
10 to the East, and Monterey County to the South.

11 17. The County is bordered by the Pacific Ocean to the West, and contains
12 approximately forty miles of coastline.

13 18. The County covers 445.17 square miles of land, of which 417 square miles are
14 unincorporated and rural.¹⁰ Unincorporated County land is incredibly diverse, from redwood
15 forests on the steep mountains north of the County of Santa Cruz, to coastal terraces along the
16 Pacific, to alluvial soils in the southern portion of the County.

17 19. Sea level has already risen significantly along the County’s ocean coast.¹¹ The
18 County will experience additional sea level rise over the coming decades through the year
19 2100.¹² The sea level rise impacts to the County associated with an increase in average mean sea
20 level height include, but are not limited to, building damage, restricted use of public amenities,
21 destruction of storm drains and tide gates, and limitations on road use and walkways with wave
22 run-up and overtopping; extensive rebuilding, changes in property use, or abandonment of
23

24 _____
25 ¹⁰ Central Coast Wetlands Group, Santa Cruz County Coastal Climate Change Vulnerability
26 Report, at 4 (June 2017).

26 ¹¹ Id. at 16.

27 ¹² Id. at 27–28 (Employing sea level rise scenarios presented in National Research Council, Sea-
28 Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future,
National Academies Press (2012)).

1 property due to cliff erosion and/or monthly high-tide flooding; localized flooding along river
2 mouth estuaries and collocated agricultural operations and urban development; and injuries to
3 agricultural fields and residential and commercial development from dune loss. Compounding
4 these environmental impacts are cascading social and economic impacts, which are secondary
5 and tertiary injuries that arise out of physical sea-level rise injuries to the County.

6 20. The County is already experiencing a climatic and meteorological shift toward
7 hotter, dryer, and longer summers, with more extreme and compressed precipitation in the
8 midwinter; increased ambient temperature with attendant increases in heat waves; and
9 increasingly frequent and severe drought. These changes have contributed to diminished annual
10 water supply, which has led to increased wildfire risk, water shortages, groundwater overdraft,
11 saltwater intrusion, impacts to biodiversity, impacts to public health, and economic injuries to
12 important industries in the County. The County must expend substantial funds to plan for and
13 respond to these phenomena, and to mitigate their secondary and tertiary impacts.

14 21. Compounding these environmental impacts are cascading social and economic
15 impacts, which are secondary and tertiary injuries to the County that will arise out of localized
16 climate-related damage.

17 22. The County owns, operates, and/or controls civil infrastructure in the County
18 including, but not limited to, coastal armoring and roads. The County owns, leases, and/or
19 controls real property within its jurisdiction. Much of the County's infrastructure and real
20 property has already suffered damage from rising sea levels and will suffer increasing damage in
21 the future through rising sea levels and through the exacerbation of natural climate-driven
22 phenomena such as heatwaves, drought, and wildfires.

23 23. The sea level rise impacts on the County associated with an increase in average
24 mean sea level height include, but are not limited to, increased inundation and flooding in natural
25 and built environments with higher tides and intensified wave and storm surge events;
26 aggravated wave impacts, including erosion, damage, and destruction of built structures, as well
27 as natural features like cliffs, beaches and dunes, with consequent landslides; changes in
28 sediment supply that could alter or destroy natural coastal habitats like beaches and wetlands,

1 which would otherwise naturally mitigate sea level rise impacts; saltwater intrusion on
2 groundwater and infrastructure; and magnification of other climate change impacts, due to the
3 superimposition of sea level rise on shifts in precipitation patterns that result in more rain and
4 attendant flooding; increased frequency and severity of storms that cause erosion, flooding, and
5 temporary sea level rise increases; and others. Compounding these environmental impacts are
6 cascading social and economic impacts, which are secondary and tertiary injuries that arise out
7 of physical sea level rise injuries to the County.

8 24. In addition, the County of Santa Cruz is and will continue to be impacted by
9 disruptions to the hydrologic cycle and extreme temperatures. The County is already
10 experiencing a climatic and meteorological shift toward hotter, dryer, and longer summers, with
11 more extreme precipitation events; increased ambient temperature; and increasingly frequent and
12 severe drought. These changes have led to increased water shortages, impacts to biodiversity,
13 impacts to public health, and economic injuries. The County will also experience public health
14 harms disproportionately borne by communities made vulnerable by geographic, racial, or
15 income disparities, including, but not limited to, illness and injury from extreme heat, extreme
16 weather, air quality impacts from wildfire smoke, and increased vector borne illnesses. The
17 County must expend substantial funds to plan for and respond to these phenomena, and to
18 mitigate their secondary and tertiary impacts.

19 25. Compounding these environmental impacts are cascading social and economic
20 impacts, that cause injuries to the County that will arise out of localized climate change-related
21 conditions.

22 26. Municipal assets in the County that will be impacted by climate change and
23 consequent sea level rise and disruption of the hydrologic cycle include, but are not limited to,
24 housing and schools, water supply, wastewater infrastructure, stormwater infrastructure,
25 transportation infrastructure, flood management infrastructure, energy infrastructure, solid
26 waste/hazardous materials management, parks, natural areas, and ecosystems, some of which
27 have already suffered damage from rising sea levels and hydrologic regime shifts, and/or will
28 suffer increasing damage in the future through rising sea levels and through the exacerbation of

1 natural climate-driven phenomena such as drought and coastal erosion.

2 **B. Defendants**

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

9 28. **Chevron Entities: Chevron Corporation and Chevron U.S.A. Inc.**

10 a. Defendant **Chevron Corporation** is a multinational, vertically integrated
11 energy and chemicals company incorporated in Delaware, with its global headquarters and
12 principal place of business in San Ramon, California. Chevron Corporation, through its
13 predecessor Standard Oil Company of California, has been registered to do business in California
14 since 1926. Chevron Corporation was formerly known as, did or does business as, and/or is the
15 successor in liability to Standard Oil Company of California (also known as “Socal”), Texaco
16 Inc., and ChevronTexaco Corporation.

17 b. Chevron Corporation operates through a web of United States and
18 international subsidiaries at all levels of the fossil fuel supply chain. Chevron Corporation and its
19 subsidiaries’ operations include, but are not limited to: exploration, development, production,
20 storage, transportation, and marketing of crude oil and natural gas; refining crude oil into
21 petroleum products and marketing those products; and manufacturing and marketing commodity
22 petrochemicals, plastics for industrial uses, and fuel and lubricant additives.

23 c. Chevron Corporation controls and has controlled group-wide decisions
24 about the quantity and rate of fossil fuel production and sales, including those of its subsidiaries.
25 Chevron Corporation determines whether and to what extent its corporate holdings market,
26 produce, and/or distribute fossil fuel products.

27 d. Chevron Corporation controls and has controlled group-wide decisions,
28 including those of its subsidiaries, related to marketing, advertising, greenhouse gas emissions

1 and climate change resulting from the company's fossil fuel products, and communications
2 strategies concerning climate change and the link between fossil fuel use and climate-related
3 impacts on the environment and humans. Overall accountability for climate change within
4 Chevron Corporation lies with Chevron Corporation's Board of Directors and Executive
5 Committee.

6 e. Defendant **Chevron U.S.A. Inc.** is a wholly owned subsidiary of Chevron
7 Corporation that acts on Chevron Corporation's behalf and is subject to Chevron Corporation's
8 control. Chevron U.S.A. Inc. is a Pennsylvania corporation, with its principal place of business in
9 San Ramon, California. Through its predecessors, Chevron U.S.A. Inc. has been registered to do
10 business in California since 1965. Chevron U.S.A. Inc. was formerly known as, did or does
11 business as, and/or is the successor in liability to Gulf Oil Corporation, Gulf Oil Corporation of
12 Pennsylvania, Chevron Products Company, Chevron Chemical Company, and Chevron
13 Chemical Company LLC.

14 f. Defendants Chevron Corporation and Chevron U.S.A. Inc., together with
15 their predecessors, successors, parents, subsidiaries, affiliates, and divisions, are collectively
16 referred to herein as "Chevron."

17 g. Plaintiffs' claims against Chevron arise out of and are related to the acts
18 and omissions of Chevron in California and elsewhere that caused and will cause injuries in
19 California, including in the County of Santa Cruz.

20 h. Chevron has purposefully directed its tortious conduct toward California
21 by distributing, marketing, advertising, promoting, and supplying its fossil fuel products in
22 California, with knowledge that the intended use of those products for combustion has caused
23 and will continue to cause climate change-related harms in Santa Cruz County, including
24 Plaintiffs' injuries. Chevron's statements in California and elsewhere made in furtherance of its
25 campaign of deception about and denial of climate change, and Chevron's affirmative promotion
26 of its fossil fuel products as safe with knowledge of how the intended use of those products
27 would cause climate change-related harms, were designed to conceal and mislead consumers and
28 the public, including the County of Santa Cruz and its residents, about the serious adverse

1 consequences that would result from continued use of Chevron's products. That conduct was
2 purposefully directed to reach the County of Santa Cruz and obscure the dangers of Chevron's
3 fossil fuel products from the County of Santa Cruz and its residents such that use of Chevron's
4 fossil fuel products in the County of Santa Cruz would not decline.

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

15 j. Significant quantities of Chevron's fossil fuel products are or have been
16 transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in
17 California, from which activities Chevron derives and has derived substantial revenue. Chevron
18 conducts and controls, either directly or through franchise agreements, retail fossil fuel sales at
19 gas station locations throughout California, at which locations it promotes, advertises, and sells
20 its fossil fuel products under its various brand names, including Chevron, Texaco, and other
21 brand names. Chevron operates over 1,500 Chevron-branded petroleum service stations in
22 California. Chevron has owned and operated an oil refinery in Richmond, California, since 1902,
23 and has owned and operated an oil refinery in El Segundo, California, since 1911. During the
24 period relevant to this Complaint, Chevron sold a substantial percentage of all retail gasoline
25 sold in California.

26 k. Chevron historically directed its fossil fuel product advertising, marketing,
27 and promotional campaigns to California, including through maps that identified the locations of
28 its service stations in California. Chevron markets and advertises its fossil fuel products in

1 California to California residents by maintaining an interactive website available to prospective
2 customers by which it directs California residents to Chevron’s nearby retail service stations.
3 Chevron markets and sells engine lubricants and motor oils to California customers under its
4 Delo, IsoClean, Techron, and Havoline brand names at retail outlets. Chevron offers a
5 proprietary credit card known as the “Chevron Techron Advantage Credit Card,” which allows
6 consumers in California to pay for gasoline and other products at Chevron-branded service
7 stations, and which encourages California consumers to use Chevron-branded service stations by
8 offering various rewards, including discounts on gasoline purchases at Chevron service stations
9 and cash rebates. Chevron further maintains two smartphone applications known as the
10 “Chevron App” and the “Texaco App,” both part of the “Chevron Texaco Rewards” program.
11 The program offers California consumers a cashless payment method for gasoline and other
12 products at Chevron- and Texaco-branded service stations. California consumers utilize the
13 payment method by providing their credit card information through the application. California
14 consumers can also receive rewards, including discounts on gasoline purchases, by registering
15 their personal identifying information in the apps and by using the applications to identify and
16 activate gas pumps at Chevron and Texaco service stations during a purchase.

17 29. **Exxon Entities: Exxon Mobil Corporation and ExxonMobil Oil Corporation**

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

27 b. Defendant **ExxonMobil Oil Corporation** is a wholly owned subsidiary of
28 Exxon Mobil Corporation, acts on Exxon Mobil Corporation’s behalf, and is subject to Exxon

1 Mobil Corporation’s control. ExxonMobil Oil Corporation is a New York corporation
2 headquartered in Spring, Texas, and has been registered to do business in California since 1959.
3 ExxonMobil Oil Corporation was formerly known as, did or does business as, and/or is the
4 successor in liability to Mobil Oil Corporation. ExxonMobil Oil Corporation is engaged in the
5 business of oil and natural gas production, refining, marketing, and distribution.

6 c. Exxon Mobil Corporation controls and has controlled group-wide
7 decisions about the quantity and rate of fossil fuel production and sales, including those of its
8 subsidiaries. Exxon Mobil Corporation’s 2022 Form 10-K filed with the United States Securities
9 and Exchange Commission (“SEC”) represents that its success, including its “ability to mitigate
10 risk and provide attractive returns to shareholders, depends on [its] ability to successfully
11 manage [its] overall portfolio, including diversification among types and locations of [its]
12 projects, products produced, and strategies to divest assets.” Exxon Mobil Corporation
13 determines whether and to what extent its subsidiaries market, produce, and/or distribute fossil
14 fuel products. For example, on October 11, 2023, Exxon Mobil Corporation announced its
15 acquisition of Pioneer Natural Resources in a press release that referred to the corporate family
16 generally as “ExxonMobil.”

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

1 e. Defendants Exxon Mobil Corporation, ExxonMobil Oil Corporation, and
2 their predecessors, successors, parents, subsidiaries, affiliates, and divisions, are collectively
3 referred to herein as “Exxon.”

4 f. Plaintiffs’ claims against Exxon arise out of and are related to the acts and
5 omissions of Exxon in California and elsewhere that caused and will cause injuries in California,
6 including in the County of Santa Cruz.

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

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

25 i. Over the past several decades and continuing to the present day, Exxon
26 spent millions of dollars on radio, television, online, social media, and outdoor advertisements in
27 the California market related to its fossil fuel products. Since at least 1972, and continuing to the
28 present day, Exxon has advertised its fossil fuel products in print publications circulated widely

1 to California consumers, including but not limited to: The Atlantic, Life, National Geographic,
2 The New York Times, People, Sports Illustrated, Time, The Wall Street Journal, and The
3 Washington Post. As further detailed herein, these include advertisements containing false or
4 misleading statements, misrepresentations, and/or material omissions designed to hide the
5 connection between the production and use of Exxon’s fossil fuel products and climate change,
6 and/or misrepresenting Exxon’s products or Exxon itself as environmentally friendly.

7 j. Significant quantities of Exxon’s fossil fuel products are or have been
8 transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in
9 California, from which activities Exxon derives and has derived substantial revenue. Exxon owns
10 and operates a petroleum storage and transport facility in the San Ardo Oil Field in San Ardo,
11 California. Exxon and its predecessors owned and operated an oil refinery in Torrance,
12 California from 1966 to 2016; shortly after an explosion disabled the refinery. Exxon Co. USA,
13 an ExxonMobil subsidiary, operated a petroleum refinery in Benicia, California, from 1968 to
14 2000. Exxon also—both directly and through its subsidiaries and/or predecessors-in-interest—
15 has supplied substantial quantities of fossil fuel products to California during the period relevant
16 to this Complaint. Currently, Exxon promotes, markets, and sells gasoline and other fossil fuel
17 products to California consumers through approximately 600 Exxon- and Mobil-branded
18 petroleum service stations in California. During the period relevant to this Complaint, Exxon
19 sold a substantial percentage of all retail gasoline in California. Exxon also markets and sells
20 petroleum products, including engine lubricants and motor oils sold under the “Mobil 1” brand
21 name, to California customers through local retailers.

22 k. Exxon historically directed its fossil fuel product advertising, marketing,
23 and promotional campaigns to California residents, including through maps that identify the
24 locations of its service stations in California. To this day, Exxon continues to market and
25 advertise its fossil fuel products in California to California residents by maintaining an
26 interactive website available to prospective customers that directs California residents to Exxon’s
27 nearby retail service stations and lubricant distributors. Further, Exxon promotes its products in
28 California by regularly updating and actively promoting its mobile device application, “Exxon

1 Mobil Rewards+,” throughout California, which encourages California users to consume fuel at
2 Exxon stations in California in exchange for rewards on every fuel purchase.

3 30. **BP Entities: BP P.L.C. and BP America Inc.**

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

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

23 c. BP P.L.C. controls and has controlled group-wide decisions, including
24 those of its subsidiaries, related to marketing, advertising, climate change, and greenhouse gas
25 emissions from its fossil fuel products, as well as communications strategies concerning climate
26 change and the link between fossil fuel use and climate-related impacts on the environment and
27 humans. BP P.L.C. makes decisions on production and use of fossil fuel reserves for the entire
28 BP Group based on factors including climate change. BP P.L.C.’s Board of Directors is the

1 company's highest decision-making body, with direct responsibility for the BP Group's policies
2 concerning climate change policies. BP P.L.C.'s chief executive is responsible for maintaining
3 the BP Group's system of internal control that governs the BP Group's business conduct. BP
4 P.L.C.'s senior leadership directly oversees a carbon steering group, which manages climate-
5 related matters and consists of two committees—both overseen directly by the board—focused
6 on climate-related investments.

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

20 e. Defendants BP P.L.C. and BP America, Inc., together with their
21 predecessors, successors, parents, subsidiaries, affiliates, and divisions, are collectively referred
22 to herein as "BP."

23 f. Plaintiffs' claims against BP arise out of and are related to the acts and
24 omissions of BP in California and elsewhere that caused or will cause injuries in California,
25 including in the County of Santa Cruz.

26 g. BP has purposefully directed its tortious conduct toward California by
27 distributing, marketing, advertising, promoting, and supplying its fossil fuel products in
28 California, with knowledge that the intended use of those products for combustion have caused

1 and will continue to cause climate change-related harms in the County of Santa Cruz, including
2 Plaintiffs' injuries. BP's statements in California and elsewhere made in furtherance of its
3 campaign of deception about and denial of climate change, and BP's affirmative promotion of its
4 fossil fuel products as safe with knowledge of how the intended use of those products would
5 cause climate change-related harms, were designed to conceal and mislead consumers and the
6 public, including the County of Santa Cruz and its residents, about the serious adverse
7 consequences that would result from continued use of BP's products. That conduct was
8 purposefully directed to reach the County of Santa Cruz and obscure the dangers of BP's fossil
9 fuel products from the County of Santa Cruz and its residents such that use of BP's fossil fuel
10 products in the County of Santa Cruz would not decline.

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

21 i. Significant quantities of BP's fossil fuel products are or have been
22 transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in
23 California, from which activities BP derives and has derived substantial revenue. BP conducts
24 and controls, either directly or through franchise agreements, retail fossil fuel sales at gas station
25 locations in substantial portions of California, at which locations it promotes, advertises, and
26 sells its fossil fuel products under its ARCO brand name. Among other operations, BP operates
27 more than 300 ARCO-licensed and branded gas stations in California. From 2000 to 2013, BP
28 also owned and operated an oil refinery in Carson, California. During the period relevant to this

1 Complaint, BP sold a substantial percentage of all retail gasoline sold in California. BP's
2 marketing and trading business maintains an office in Irvine, California. BP maintains an energy
3 research center in San Diego, California.

4 j. BP also markets and sells other fossil fuel products, including engine
5 lubricant and motor oils, to the County of Santa Cruz and California consumers under its Castrol
6 brand name.

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

13 l. By BP's own description, its "retail stations in California serve more than
14 640,000 customers every day."¹³ BP claims to support 3,000 jobs in California, including at least
15 1,400 BP employees, and has invested over \$100 million through vendors in California.

16 31. **Shell Entities: Shell plc, Shell USA, Inc., and Shell Oil Products Company**
17 **LLC**

18 a. Defendant **Shell plc** (formerly Royal Dutch Shell plc) is a vertically
19 integrated multinational energy and petrochemical company. Shell plc is incorporated in England
20 and Wales, with its headquarters and principal place of business in The Hague, Netherlands.
21 Shell plc is the ultimate parent company of numerous divisions, subsidiaries, and affiliates,
22 referred to collectively as the "Shell Group," that engage in all aspects of fossil fuel production,
23 including exploration, development, extraction, manufacturing and energy production, transport,
24 trading, marketing, and sales.

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26
27 ¹³ BP, Bp in California, [https://www.bp.com/content/dam/bp/country-sites/en_us/united-](https://www.bp.com/content/dam/bp/country-sites/en_us/united-states/home/documents/where-we-operate/states/bp%20in%20California.pdf)
28 [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 b. Shell plc controls and has controlled group-wide decisions about the
2 quantity and extent of fossil fuel production and sales, including those of its subsidiaries. Shell
3 plc's Board of Directors determines whether and to what extent Shell subsidiary holdings around
4 the globe produce Shell-branded fossil fuel products.

5 c. Shell plc controls and has controlled group-wide decisions, including
6 those of its subsidiaries, related to marketing, advertising, greenhouse gas emissions and climate
7 change resulting from the company's fossil fuel products, and communications strategies
8 concerning climate change and the link between fossil fuel use and climate-related impacts on
9 the environment and humans. Overall accountability for climate change within the Shell Group
10 lies with Shell plc's Chief Executive Officer and Executive Committee. For instance, at least as
11 early as 1988, Shell plc, through its predecessors and subsidiaries, was researching company-
12 wide CO₂ emissions and concluded that the Shell Group accounted for 4% of the CO₂ emitted
13 worldwide from combustion, and that climatic changes could compel the Shell Group, as
14 controlled by Shell plc, to examine the possibilities of expanding and contracting its business
15 accordingly.

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

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

1 is the successor in liability to Shell Oil Products Company, which was a Delaware corporation
2 that converted to a limited liability company in 2001.

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

6 g. Plaintiffs’ claims against Shell arise out of and are related to the acts and
7 omissions of Shell in California and elsewhere that caused and will cause injuries in California,
8 including in the County of Santa Cruz.

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

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

1 false or misleading statements, misrepresentations, and/or material omissions obfuscating the
2 connection between the production and use of Shell’s fossil fuel products and climate change,
3 and/or misrepresenting Shell’s products or Shell itself as environmentally friendly.

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

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

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

6 32. **Citgo Petroleum Corporation (“Citgo”)**

7 a. Citgo is a direct, wholly owned subsidiary of PDV America, Incorporated,
8 which is a wholly owned subsidiary of PDV Holding, Incorporated. These organizations’
9 ultimate parent is Petroleos de Venezuela, S.A. (“PDVSA”), an entity wholly owned by the
10 Republic of Venezuela that plans, coordinates, supervises and controls activities carried out by
11 its subsidiaries. Citgo is incorporated in the State of Delaware and maintains its headquarters in
12 Houston, Texas.

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

16 c. Citgo is registered to do business in the State of California and has
17 designated an agent for service of process in California. Citgo further does substantial fossil fuel
18 product-related business in California, and a substantial portion of its fossil fuel products are
19 extracted, refined, transported, traded, distributed, marketed, and/or sold in California. For
20 instance, Citgo sells significant volumes of fossil-fuel derived consumer motor oils and
21 automobile lubricants through retail and wholesale distributors. Citgo further sells a wide variety
22 of greases and oils for use in construction, mining, agricultural, and metalworking machinery and
23 vehicles, and in many other industrial and commercial settings, through licensed distributors
24 in California.

25 33. **ConocoPhillips Entities: ConocoPhillips, ConocoPhillips Company,**
26 **Phillips 66, and Phillips 66 Company.**

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

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

4 b. 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,
7 and/or distribute fossil fuel products. ConocoPhillips’s most recent annual report to the
8 Securities and Exchange Commission subsumes the operations of ConocoPhillips’s subsidiaries
9 under its name. In ConocoPhillips’s Form 10-K filed with the SEC for Fiscal Year 2022, the
10 company represents that its value—for which ConocoPhillips maintains ultimate responsibility—
11 is a function of its decisions to direct subsidiaries to develop crude oil, bitumen, natural gas, and
12 natural gas liquids from ConocoPhillips’s reserves into fossil fuel products and to explore for and
13 replace those reserves with more fossil fuels: “Unless we successfully develop resources, the
14 scope of our business will decline, resulting in an adverse impact to our business. . . . If we are
15 not successful in replacing the resources we produce with good prospects for future organic
16 development or through acquisitions, our business will decline.”

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

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

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

4 e. Defendant **ConocoPhillips Company** is a wholly owned subsidiary of
5 ConocoPhillips that acts on ConocoPhillips's behalf and is subject to ConocoPhillips's 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 f. Defendant **Phillips 66** is a multinational energy and petrochemical
11 company incorporated in Delaware, with its principal place of business in Houston, Texas. It
12 encompasses downstream fossil fuel processing, refining, transport, and marketing segments that
13 were formerly owned and/or controlled by ConocoPhillips.

14 g. Defendant **Phillips 66 Company** is a wholly owned subsidiary of Phillips
15 66 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
18 since 1964 under a different name, Phillips Chemical Company, which was a wholly owned
19 subsidiary of the Phillips Petroleum Company. Phillips Chemical Company changed its name to
20 Phillips 66 Company in 1985, and that iteration of Phillips 66 Company was terminated in 1991.
21 Phillips 66 Company was formerly known as, did or does business as, and/or is the successor in
22 liability to Phillips Petroleum Company; Phillips Chemical Company; Conoco, Inc.; Tosco
23 Corporation; and Tosco Refining Co.

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

1 i. Plaintiffs' claims against ConocoPhillips arise out of and are related to the
2 acts and omissions of ConocoPhillips in California and elsewhere that caused and will cause
3 injuries in California, including in the County of Santa Cruz.

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

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

1 l. Significant quantities of ConocoPhillips’s fossil fuel products are or have
2 been transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed
3 in California, from which activities ConocoPhillips derives and has derived substantial revenue.
4 ConocoPhillips conducts and controls, either directly or through franchise agreements, retail
5 fossil fuel sales at gas station locations throughout California, at which locations it promotes,
6 advertises, and sells its fossil fuel products under its various brand names, including Conoco,
7 Phillips 66, and 76. ConocoPhillips also markets and sells to California customers at retail outlets
8 engine lubricants and motor oils under its Phillips 66, Kendall, and Red Line brand names.
9 ConocoPhillips operates hundreds of 76-branded petroleum service stations throughout
10 California. During the period relevant to this Complaint, ConocoPhillips sold a substantial
11 percentage of all retail gasoline sold in California.

12 m. ConocoPhillips does substantial fossil fuel product-related business in
13 California, 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
15 and/or operates oil and natural gas terminals in Richmond and Los Angeles, California; owns
16 and operates oil refineries in Arroyo Grande, Colton, and Wilmington, California; and distributes
17 ConocoPhillips fossil fuel products throughout California. Phillips 66 also owns and operates oil
18 refineries in Rodeo, Santa Maria, and Los Angeles, California. All of these refineries were
19 owned and operated by ConocoPhillips and its predecessors-in-interest from 1997 to 2012.

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

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

9 34. **Total Entities: Total E&P USA Inc. and Total Specialties USA Inc.**

10 a. **Total E&P USA Inc.** is a wholly owned subsidiary of Total S.A.—a
11 French energy conglomerate—engaged in the North American segment of Total SA’s fossil fuel
12 products-related business. Total E&P USA Inc. and its subsidiaries are involved in the
13 exploration for, extraction, transportation, research, and marketing of Total S.A.’s fossil fuel
14 products. Total E&P USA Inc. is registered to do business in the State of California and has
15 designated an agent for service of process in California.

16 b. **Total Specialties USA Inc.,** is a wholly owned subsidiary of Total SA,
17 involved in the marketing and distribution of Total S.A.’s fossil fuel products. Total Specialties
18 USA Inc. is incorporated in the State of Delaware and headquartered in Houston, Texas. Total
19 Specialties USA Inc. is registered to do business in the State of California and has designated an
20 agent for service of process in California. Total Specialties USA Inc. does substantial fossil fuel
21 product-related business in California, and a substantial portion of its fossil fuel products are
22 extracted, refined, transported, traded, distributed, marketed, and/or sold in California. For
23 instance, Total Specialties USA Inc. maintains regular distributorship relationships with several
24 California distributors of Total fossil fuel products, including engine oils, lubricants, greases, and
25 industrial petroleum products.

26 35. **Eni Entities: Eni S.p.A and Eni Oil & Gas Inc.**

27 a. **Eni S.p.A.** is a vertically integrated, multinational energy company
28 focusing on petroleum and natural gas. Eni is incorporated in the Republic of Italy, with its

1 principal place of business in Rome, Italy. With its consolidated subsidiaries, Eni engages in the
2 exploration, development, and production of hydrocarbons; in the supply and marketing of gas,
3 liquid natural gas, and power; in the refining and marketing of petroleum products; in the
4 production and marketing of basic petrochemicals, plastics and elastomers; in commodity
5 trading; and in electricity marketing and generation.

6 b. **Eni Oil & Gas Inc.** is incorporated in Texas, with its principal place of
7 business in Houston, Texas. Eni Oil & Gas Inc., is a wholly owned subsidiary of Eni America
8 Ltd., a Delaware corporation doing business in the United States. Eni America, Ltd. Is a wholly
9 owned subsidiary of Eni UHL Ltd., a British corporation with its registered office in London,
10 United Kingdom. Eni UHL Ltd. is a wholly owned subsidiary of Eni ULT, Ltd., a British
11 corporation with its registered office on London, United Kingdom. Eni ULT, Ltd. is a wholly
12 owned subsidiary of Eni Lasmo Plc, a British corporation with its registered office on London,
13 United Kingdom. Eni Investments Plc, a British corporation with its registered office in London,
14 United Kingdom, holds a 99.9% ownership interest in Eni Lasmo Plc (the other 0.01%
15 ownership interest is held by another Eni entity, Eni UK Ltd, a British corporation with its
16 registered office in London, United Kingdom). Eni S.p.A owns a 99.99% interest in Eni
17 Investments Plc. Eni UK Ltd. holds the remainder interest in Eni Investments Plc. Collectively,
18 these entities are referred to as “Eni.”

19 c. Eni Oil & Gas Inc. is a successor-in-interest to Golden Eagle Refining
20 Company, Inc. (“Golden Eagle”). At times relevant to this complaint, Golden Eagle did
21 substantial fossil fuel-related business in California. Specifically, Golden Eagle owned and/or
22 operated oil refineries in Carson (Los Angeles County) and Martinez (Contra Costa County),
23 California, and owned and/or operated oil pipelines in or near Long Beach (Los Angeles
24 County), California.

25 36. **Anadarko Petroleum Corporation (“Anadarko”)**

26 a. Anadarko is incorporated in the State of Delaware and maintains its
27 principal place of business in The Woodlands, Texas. Anadarko is a multinational, vertically
28 integrated energy company comprised of multiple upstream and downstream segments. These

1 include exploration, production, gathering, processing, treating, transporting, marketing, and
2 selling fossil fuel products derived primarily from petroleum and natural gas. In the United
3 States, Anadarko entities operate fossil fuel product exploration and production concerns in
4 Texas, the Gulf of Mexico, Alaska, the Powder River Basin, Utah, Colorado, and the Marcellus
5 Shale Formation. Anadarko operates fossil fuel product production and exploration activities
6 internationally in Algeria, Ghana, Mozambique, and Columbia, among others. Anadarko
7 Petroleum Corporation is registered to do business in California and has designated an agent for
8 service of process in California.

9 b. Anadarko is a successor-in-interest to HS Resources Inc. (“HS”). HS was
10 an energy company headquartered in San Francisco, San Francisco County, California. It owned
11 natural gas reserves in Colorado, North Dakota, South Dakota, Montana, and along the coasts of
12 Texas and Louisiana, which it extracted and imported to California. HS was acquired by Kerr-
13 McGee Corporation in 2001. Kerr-McGee was an energy exploration and production company
14 owning oil and natural gas rights in the Gulf of Mexico, Colorado, and Utah, with its corporate
15 headquarters in Oklahoma. Anadarko Petroleum Corporation acquired Kerr-McGee Corporation
16 in 2006.

17 37. **Occidental Entities: Occidental Petroleum Corporation and Occidental**
18 **Chemical Corporation**

19 a. **Occidental Petroleum Corporation** is a multinational, vertically
20 integrated energy and chemical company incorporated in the State of Delaware and with its
21 principal place of business in Houston, Texas. Occidental’s operations consist of three segments:
22 Occidental’s operations consist of three segments: (1) the exploration for, extraction of, and
23 production of oil and natural gas products; (2) the manufacture and marketing of chemicals and
24 vinyls; and (3) processing, transport, storage, purchase, and marketing of oil, natural gas, and
25 power. Occidental Petroleum Corporation is registered to do business in the State of California
26 and has designated an agent for service of process in the State of California.

27 b. **Occidental Chemical Corporation**, a manufacturer and marketer of
28 petrochemicals, such as polyvinyl chloride resins, is a wholly owned subsidiary of Occidental

1 Petroleum Corporation. Occidental Chemical Corporation is registered to do business in the State
2 of California and has designated an agent for service of process in the State of California.

3 c. Defendants Occidental Petroleum Corporation and Occidental Chemical
4 Corporation are collectively referred to as “Occidental.”

5 d. Occidental does substantial fossil fuel product-related business in the State
6 of California, and a substantial portion of its fossil fuel products are extracted, refined,
7 transported, traded, distributed, marketed and/or sold in California. For instance, Occidental
8 extracted and transported its fossil fuel products from approximately 30,900 drilling locations
9 within the San Joaquin, Los Angeles, Ventura, and Sacramento Basins in California.

10 e. In addition, Occidental conducts has conducted substantial activities in the
11 state, including marketing and promotion; efforts to avoid or minimize regulation of greenhouse
12 gas pollution in and from California; and efforts to influence statutory and regulatory debate
13 regarding fossil fuel consumption, electric power distribution, and greenhouse gas pollution
14 policies such that the exercise of jurisdiction comports with traditional notions of fair play and
15 substantial justice. Since 1999, Occidental Petroleum Corp. and its subsidiaries have reported
16 more than \$4.6 million in lobbying expenditures directed at numerous statutory and regulatory
17 proposals before the California legislature and executive agencies, including the California
18 Energy Commission, California Air Resources Board, and California Public Utilities
19 Commission, related to its fossil fuel products business.

20 38. **Repsol Entities: Repsol S.A., Repsol Energy North America Corporation,**
21 **and Repsol Trading USA Corporation**

22 a. Repsol S.A. is a vertically integrated, multinational global energy
23 company, incorporated in the Kingdom of Spain, with its principal place of business in Madrid,
24 Spain. Repsol is involved in multiple aspects of the fossil fuel industry, including exploration,
25 production, marketing, and trading. Repsol engages in significant fossil fuel exploration and
26 production activities in the United States, including in the Gulf of Mexico, the Marcellus Shale
27 in Pennsylvania, the Eagle Ford Shale in South Texas, the Mississippi Lime in Oklahoma and
28 Kansas, the North Slope in Alaska, and the Trenton-Black River in New York

1 b. Repsol does substantial fossil fuel product-related business in the State of
2 California, and a substantial portion of its fossil fuel products are extracted, refined, transported,
3 traded, distributed, marketed and/or sold in California. For instance, Repsol subsidiary Repsol
4 Energy North America Corporation, incorporated in the State of Texas and with its principal
5 place of business in The Woodlands, Texas, is listed as a natural gas procurement, storage,
6 transportation, scheduling, and risk management provider by Pacific Gas and Electric, a
7 California utility. Repsol Energy North America Corporation is registered to do business in
8 California and has designated an agent for service of process in California. Repsol subsidiary
9 Repsol Trading USA Corporation, incorporated in the State of Texas and with its principal place
10 of business in The Woodlands, Texas, is also registered do business in California and has
11 designated an agent for service of process in California. Additionally, Repsol represents on its
12 website that it is engaging in strategic opportunities involving its fossil fuel products in
13 California, which may consist of crude oil, gasoline, diesel, and/or jet fuel.

14 39. **Marathon Entities: Marathon Oil Company, Marathon Oil Corporation, and**
15 **Marathon Petroleum Corporation**

16 a. **Marathon Oil Company** is an energy company incorporated in the State
17 of Ohio and with its principal place of business in Houston, Texas. Marathon Oil Company is
18 registered to do business in California and has designated an agent for service of process in
19 California. Marathon Oil Company is a corporate ancestor of Marathon Oil Corporation and
20 Marathon Petroleum Company.

21 b. Marathon Oil Company is a successor-in-interest to Husky Oil Ltd.
22 (“Husky”), which it acquired in 1984. During times relevant to this Complaint, Husky operated
23 oil production facilities near Santa Maria (Santa Barbara County), California, where it produced
24 nearly 1,100 barrels per day. During the period relevant to this litigation, Husky did substantial
25 fossil fuel product-related business in California.

26 c. **Marathon Oil Corporation** is a multinational energy company
27 incorporated in the State of Delaware and with its principal place of business in Houston, Texas.

1 Marathon Oil Corporation consists of multiple subsidiaries and affiliates involved in the
2 exploration for, extraction, production, and marketing of fossil fuel products.

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

8 e. Defendants Marathon Oil Company, Marathon Oil Corporation, and
9 Marathon Petroleum Corporation are collectively referred to as “Marathon.”

10 f. Marathon has purposefully directed its tortious conduct toward California
11 by distributing, marketing, advertising, promoting, and supplying its fossil fuel products in
12 California, with knowledge that the intended use of those products for combustion has caused
13 and will continue to cause climate change-related harms in the County of Santa Cruz, including
14 Plaintiffs’ injuries. That conduct was purposefully directed to reach the County of Santa Cruz
15 and obscure the dangers of Marathon’s fossil fuel products from the County of Santa Cruz and its
16 residents such that the use of Marathon’s fossil fuel products in the County of Santa Cruz would
17 not decline.

18 40. **Hess Corporation (“Hess”)**

19 a. Hess is a global, vertically integrated petroleum exploration and extraction
20 company incorporated in the State of Delaware with its headquarters and principal place of
21 business in New York, New York.

22 b. Hess is engaged in the exploration, development, production,
23 transportation, purchase, marketing and sale of crude oil and natural gas. Its oil and gas
24 production operations are located primarily in the United States, Denmark, Equatorial Guinea,
25 Malaysia, Thailand, and Norway. Prior to 2014, Hess also conducted extensive retail operations
26 in its own name and through subsidiaries. Hess owned and operated more than 1,000 gas stations
27 throughout the United States, including in California during times relevant to this complaint.
28

1 Prior to 2013, Hess also operated oil refineries in the continental United States and U.S.
2 Virgin Islands.

3 c. Hess has purposefully directed its tortious conduct toward California by
4 distributing, marketing, advertising, promoting, and supplying its fossil fuel products in
5 California, with knowledge that the intended use of those products for combustion has caused
6 and will continue to cause climate change-related harms in the County of Santa Cruz, including
7 Plaintiffs' injuries. That conduct was purposefully directed to reach the County of Santa Cruz
8 and obscure the dangers of Hess's fossil fuel products from the County of Santa Cruz and its
9 residents such that the use of Hess's fossil fuel products in the County of Santa Cruz would not
10 decline.

11 41. **Devon Energy Entities: Devon Energy Corporation and Devon Energy**
12 **Production Company, L.P.**

13 a. **Devon Energy Corp.** is an independent energy company engaged in the
14 exploration, development, and production of oil, and natural gas. It is incorporated in the State of
15 Delaware and maintains its principal place of business in Oklahoma City, Oklahoma. Devon is
16 engaged in multiple aspects of the fossil fuel industry, including exploration, development,
17 production, and marketing of its fossil fuel products.

18 b. **Devon Energy Production Company, L.P.** is a Devon subsidiary
19 registered to do business in the State of California and with a designated agent for service of
20 process in California. Devon Energy does substantial fossil fuel product-related business in
21 California.

22 c. Devon Energy Corp. is a successor-in-interest to the Pauley Petroleum
23 Company ("Pauley"). At times relevant to this complaint, Pauley did substantial fossil-fuel
24 related business in California. Specifically, this included owning and operating a petroleum
25 refinery in Newhall (Los Angeles County), California from 1959 to 1989, and a refinery in
26 Wilmington (Los Angeles, Los Angeles County), California from 1988 to 1992. Pauley merged
27 with Hondo Oil and Gas Co. ("Hondo") in 1987. Subsequently, Devon Energy Corp. acquired
28 Hondo in 1992.

1 d. Defendants Devon Energy Production Company, L.P. and Devon Energy
2 Corp. are collectively referred to as “Devon.”

3 42. **Encana Corporation (“Encana”)**

4 a. Encana is a Canadian corporation with its principal place of business in
5 Calgary, Alberta, Canada. Encana is an extractor and marketer of oil and natural gas and has
6 facilities including gas plants and gas wells in Colorado, Texas, Wyoming, Louisiana, and
7 New Mexico. By approximately 2005, Encana was the largest independent owner and operator
8 of natural gas storage facilities in North America.

9 b. Encana has done and continues to do substantial fossil fuel product-related
10 business in California. Between 1997 and 2006, Encana owned and operated the Wild Goose
11 Storage underground natural gas storage facility in Butte County, California. In 2003, Encana
12 began transporting natural gas through a 25-mile pipeline from the Wild Goose Station to a
13 Pacific Gas & Electric Co. (“PG&E”) compressor station in Colusa County, where gas entered
14 the main PG&E pipeline. Encana invested in a 100 billion cubic foot expansion of the facility in
15 2004, bringing gas storage capacity at Wild Goose to 24 billion cubic feet.

16 43. **Apache Corporation (“Apache”)**

17 a. Apache is a publicly traded Delaware corporation with its principal place
18 of business in Houston, Texas. Apache is an oil and gas exploration and production company,
19 with crude oil and natural gas exploration and extraction operations in the United States, Canada,
20 Egypt, and in the North Sea.

21 b. During the time at issue, Apache extracted natural gas from wells
22 developed on approximately seven million acres of land held in the Canadian provinces of
23 British Columbia, Alberta, and Saskatchewan, and Apache did substantial fossil fuel product-
24 related business in California. Apache transported a substantial volume of the natural gas
25 extracted from its Canadian holdings to California, where it sold that gas to electric utilities, end-
26 users, other fossil fuel companies, supply aggregators, and other fossil fuel marketers. Apache
27 directed sales of its natural gas to California in addition to markets in Washington state, Chicago,
28

1 and western Canada, to intentionally retain a diverse customer base and maximize profits from
2 the differential price rates and demand levels in those respective markets.

3 **C. Doe Defendants**

4 44. The true names and capacities, whether individual, corporate, associate, or
5 otherwise of Defendants Does 1 through 100, inclusive, are unknown to Plaintiffs, who therefore
6 sue said Defendants by such fictitious names pursuant to California Code of Civil Procedure
7 Section 474. Plaintiffs are informed and believe, and on that basis allege, that each of the
8 fictitiously named Defendants is responsible in some manner for the acts and occurrences herein
9 alleged, and that Plaintiffs' damages were caused by such Defendants.

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

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

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

28

1 47. **The American Petroleum Institute (API)**

2 a. API is a national trade association representing the oil and gas industry,
3 formed in 1919. With more than 600 members, API is the country’s largest oil trade association.
4 API’s purpose is to advance its members’ collective business interests, which includes increasing
5 consumer consumption of oil and gas for the financial profit of Defendants and other oil and gas
6 companies. Among other functions, API also coordinates members of the petroleum industry,
7 gathers information of interest to the industry, and disseminates that information to its members.

8 b. Acting on behalf of and under the supervision and control of Defendants,
9 API has, since at least 1988, participated in and led several coalitions, front groups, and
10 organizations that have promoted disinformation about the climate impacts of fossil fuel products
11 to consumers—including, but not limited to, the Global Climate Coalition, Partnership for a
12 Better Energy Future, Coalition for American Jobs, Alliance for Energy and Economic Growth,
13 and Alliance for Climate Strategies. These front groups were formed to promote climate
14 disinformation and advocacy from a purportedly objective source, when in fact these groups
15 were financed and controlled by Defendants and other oil and gas companies. Defendants have
16 benefited from the spread of this disinformation because, among other things, it has ensured a
17 thriving consumer market for oil and gas, resulting in substantial profits for Defendants. In
18 effect, API acts and has acted as a marketing arm for its member companies, including
19 Defendants. Over the last several decades, API has spent millions of dollars on television,
20 newspaper, radio, social media, and internet advertisements in the California market.

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

1 messaging regarding climate change. That conduct directly impacted California, as Defendants
2 worked with API to create and disseminate misleading advertisements that promote consumption
3 of fossil fuel products in California.

4 d. The following Defendants and/or their predecessors in interest are and/or
5 have been API members at times relevant to this litigation: Chevron, ExxonMobil, Shell, BP,
6 ConocoPhillips, Anadarko, Occidental, Repsol, CITGO, Hess, Marathon, EnCana, and Apache.
7 Each of these Defendants consistently holds API leadership positions, participates in API
8 committees and task forces formed to address climate change issues, makes decisions that
9 determine API's conduct, and works with other Defendants to achieve these ends. Their control
10 of and leadership roles in API are longstanding, deeply rooted, and continuous throughout
11 relevant time periods.

12 e. For example, Defendants served as corporate officers of API in the
13 relevant time period, including executives from Exxon, Shell, Chevron, ConocoPhillips,
14 Marathon, Hess and BP serving as API Board Chairman and on the Board's Executive
15 Committee. Exxon's CEO served on API's Executive Committee, including as President and
16 Chairman, for 21 of the 29 years between 1991 and 2020.¹⁴ Multiple high-level executives from
17 Exxon, such as Presidents, Vice Presidents, CEOs, COOs, and Chairmans, served on API's
18 Board in each year between 1994-2002. BP's CEO served as API Chairman in 1988, 1989, and
19 1998. Multiple high-level executives from BP served on API's Board of Directors between 1994-
20 2002. The Chairman and CEO of BP's predecessor ARCO served as API treasurer in 1998 and
21 Chairman in 1999. Chevron's CEO served as API Chairman in 1994, 1995, 1997, 1998, 2003,
22 and 2012. In 2002, Chevron's CEO served as API treasurer. Chairman and CEO of Chevron's
23 predecessor Texaco served as API Board Chairman in 2001, and as treasurer in 1999. Multiple
24 high-level executives from Chevron served on API's Board of Directors in each year between
25 1994-2002. Shell's President served as API treasurer in 1997 and sat on the Board's executive

26
27 _____
28 ¹⁴ 1991, 1996-1997, 2001, 2002, 2003, 2005-2016, 2018-2020.

1 committee from at least 2005-2006. Multiple high-level Shell executives served on API's Board
2 of Directors between 1994-2002. ConocoPhillips Chairman and CEO was API Chairman from
3 2016-2018, and currently serves on API's executive committee. In 2020, API elected Phillips 66
4 Chairman and CEO to serve a two-year term as its Board President, and Phillips 66's current
5 President and CEO is on the API Board's executive committee. Multiple high-level
6 ConocoPhillips executives served on API's Board of Directors between 1994-2002. Marathon or
7 its predecessors' CEOs served on the API Board's executive committee across multiple decades,
8 for example Marathon's then-CEO was Treasurer and testified to Congress on behalf of API in
9 1994. Multiple high-level executives from Marathon served on API's Board of Directors
10 between 1994-2002. Multiple CITGO high-level executives served on API's Board of Directors
11 between 1995 to 2002. Hess high-level executives served on API's Board of Directors in 1994
12 and 1995; and Hess' CEO currently serves on the API Board's Executive Committee and served
13 on API's Board of Directors from at least 2015 to 2021. Multiple high-level executives from
14 Occidental served on API's Board of Directors between 1994-2002. Anadarko or its
15 predecessors' high-level executives served on API's Board of Directors between 1994-2002.
16 Anadarko's then-President and COO served on API's executive committee as treasurer in 2001.

17 f. Relevant information was shared among API and Defendants and
18 Defendants' predecessors-in-interest through the following: (1) API's distribution of information
19 to its members, and/or (2) participation of Defendants' officers and other personnel, and those of
20 Defendants' predecessors-in-interest, on API boards, committees, and task forces. This includes
21 representatives of Exxon, Chevron, BP, Shell, and ConocoPhillips sitting on both API's
22 Committee for Air and Water Conservation and a special advisory group to API's Committee for
23 Public Affairs, which worked together to develop research reports on air emissions and other
24 environmental topics. Different representatives of Exxon, Chevron, BP, Shell, ConocoPhillips,
25 and Marathon rotated in and out of these positions throughout the time periods discussed in this
26 complaint. Representatives from Marathon sat on the Executive Committee to API's Engineering
27 and Technical Research Committee and on the Committee for Air and Water Conservation.
28 Representatives from Chevron and Exxon chaired API's Engineering and Technical Research

1 Committee, and representatives from BP and Exxon chaired API's Health and Biological
2 Research Committee, also developing research documents. Different representatives of Exxon,
3 Chevron, BP, Shell and ConocoPhillips rotated in and out of these positions throughout the time
4 periods discussed in this complaint.¹⁵

5 48. **The Information Council for the Environment (ICE)** was formed by coal
6 companies and their allies, including Western Fuels Association and the National Coal
7 Association. Associated companies included Pittsburg and Midway Coal Mining (Chevron).¹⁶

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

24
25 ¹⁵ American Petroleum Institute, Comm. for Air and Water Conservation & Comm. On Public
26 Affairs, Environmental Research: A Status Report (1972) (listing members of relevant
27 committees and their fossil fuel company affiliations),
<https://files.eric.ed.gov/fulltext/ED066339.pdf>.

28 ¹⁶ Hereinafter, parenthetical references to Defendants indicate corporate ancestry and/or
affiliation.

1 1994, for instance, the GCC Board was composed of executives from API, Exxon, Phillips
2 Petroleum Company (ConocoPhillips), and Texaco (Chevron).¹⁷ In 1995, GCC's Board of
3 Directors included high-level executives from Texaco (Chevron), American Petroleum Institute,
4 ARCO, and Phillips Petroleum Company.¹⁸

5 **III. AGENCY**

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

12 **IV. JURISDICTION AND VENUE**

13 51. This Court's personal jurisdiction over Defendants named herein is proper
14 because each Defendant maintains substantial contacts with California by and through their fossil
15 fuel business operations in this state, as described above, and because Plaintiffs' injuries
16 described herein arose out of and relate to those operations and occurred in California. Each
17 Defendant purposefully availed itself of the California market, and thus of the benefits of the
18 laws of the State, during all times relevant to this Complaint, so as to render California courts'
19 exercise of jurisdiction over each Defendant consistent with traditional notions of fair play and
20 substantial justice. Each Defendant researched, developed, manufactured, designed, marketed,
21 distributed, released, promoted, and/or otherwise sold its fossil fuel products in markets around
22 the United States, including within California.

23
24
25 ¹⁷ 1994 GCC Board Member List and Background Information, Climate Investigations Center,
26 <https://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1994-board-member-list-general-info/>.

27 ¹⁸ 1995 GCC IRS 1024 and Attachments, Climate Investigations Center (1995),
28 <https://www.documentcloud.org/documents/5798254-GCC-IRS-1023#document/p17>

1 52. Additionally, jurisdiction is proper over each non-resident Defendant for the
2 following reasons:

3 a. With respect to its subsidiaries, each non-resident Defendant controls and
4 has controlled its direct and indirect subsidiaries' decisions about the quantity and extent of its
5 fossil fuel production and sales; determines whether and to what extent to market, produce,
6 and/or distribute its fossil fuel products; and controls and has controlled its direct and indirect
7 subsidiaries' decisions related to its marketing and advertising, specifically communications
8 strategies concerning climate change and the link between fossil fuel use and impacts on the
9 environment. Each subsidiary Defendant is the agent of its parent Defendant. As agents, the
10 subsidiaries of each non-resident Defendant conducted activities in California at the direction
11 and for the benefit of its parent company. Specifically, the subsidiaries furthered each parent
12 company's campaign of deception and denial through misrepresentations, omissions, and
13 affirmative promotion of the company's fossil fuel products as safe with knowledge of the
14 climate change-related harms that would result from the intended use of those products, all of
15 which resulted in climate change-related injuries in the County of Santa Cruz and increased sales
16 to the parent company. The subsidiaries' jurisdictional activities are properly attributed to each
17 parent company and serve as a basis to assert jurisdiction over each of the non-resident
18 Defendant parent companies.

19 b. Through their various agreements with dealers, franchises, or otherwise,
20 the Defendants direct and control the branding, marketing, sales, promotions, image
21 development, signage, and advertising of their branded fossil fuel products at their respectively
22 branded gas stations in California, including point-of-sale advertising and marketing. The
23 Defendants dictate which grades and formulations of their gasoline may be sold at their
24 respectively branded stations.

25 c. Defendants, in coordination with API and other organizations, conspired
26 to conceal and misrepresent the known dangers of burning fossil fuels, to knowingly withhold
27 material information regarding the consequences of using fossil fuel products, to spread
28 knowingly false and misleading information to the public regarding the weight of climate science

1 research, and to promote their fossil fuel products which they knew were harmful. Through their
2 own actions and through their membership and participation in climate denialist front groups,
3 API and each Defendant were and are members of that conspiracy. Defendants committed
4 substantial acts to further the conspiracy in California by making misrepresentations and
5 misleading omissions to California consumers about the existence, causes, and effects of global
6 warming; by affirmatively promoting the Defendants' fossil fuel products as safe, with
7 knowledge of the disastrous impacts that would result from the intended use of those products;
8 and by failing to warn California consumers about the disastrous impacts of fossil fuel use. A
9 substantial effect of the conspiracy has also and will also occur in the County of Santa Cruz, as
10 the County and its residents have suffered and will suffer injuries from Defendants' wrongful
11 conduct, including but not limited to the following: sea level rise, massive storms, flooding,
12 extreme heat, reduced air quality, and other social and economic consequences of these
13 environmental changes. Defendants knew or should have known based on information provided
14 to them from their internal research divisions, affiliates, trade associations, and industry groups
15 that their actions in California and elsewhere would result in these injuries in and to the County
16 of Santa Cruz and its residents. Finally, the climate effects described herein are direct and
17 foreseeable results of Defendants' conduct in furtherance of the conspiracy.

18 53. The Superior Court of California for Santa Cruz County is a court of general
19 jurisdiction and therefore has subject matter jurisdiction over this action.

20 54. Venue is proper in Santa Cruz County pursuant to Code of Civil Procedure
21 sections 395 and 395.5 because the injury giving rise to the County's claims occurred in Santa
22 Cruz County. Defendants have contributed to the creation of a public nuisance in the County of
23 Santa Cruz, and the Santa Cruz County Counsel has the right and authority to seek abatement of
24 that nuisance on behalf of the People of the State of California. Injuries the County of Santa Cruz
25 has suffered personally have also occurred within Santa Cruz County.

26 55. Additionally, venue is also proper in San Francisco County for pre-trial purposes
27 pursuant to the February 5, 2024 order from Judge Treat in Contra Costa Superior Court and the
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1 February 9, 2024 order from the Judicial Council of California. Those orders coordinated this
2 and other actions into JCCP 5310, Fuel Industry Climate Cases, in San Francisco County.

3 **V. FACTUAL BACKGROUND**

4 **A. Global Warming—Observed Effects and Known Cause**

5 56. The Earth is warming at a rate unprecedented in human history.

6 57. The Earth’s atmosphere is warming, sea level is rising, snow and ice cover is
7 diminishing, oceans are warming and acidifying, and hydrologic systems have been altered,
8 among other rapidly accelerating changes to our climate. These changes are directly harming
9 people’s health, lives, lifestyles, and livelihoods, including in the County of Santa Cruz.
10 According to the IPCC, the evidence that humans are causing this warming of the Earth is
11 unequivocal.¹⁹ Greenhouse gas emissions caused by human activities are the most significant
12 driver of climate change.²⁰ Over the past couple of decades, those emission rates have exceeded
13 those predicted under previous “worst case” global emissions scenarios.

14 58. Greenhouse gases are largely byproducts of human combustion of fossil fuels to
15 produce energy and use of fossil fuels to create petrochemical products. While there are several
16 greenhouse gases contributing to climate change, CO₂ is the primary greenhouse gas emitted as a
17 result of human activities.

18 59. Atmospheric and ocean temperatures have both increased substantially since the
19 beginning of the global industrial revolution, and the rate of warming has also dramatically
20 increased since the end of World War II.

21 60. In the geological short term, ocean and land surface temperatures have increased
22 at a rapid pace during the late 20th and early 21st centuries:

23 a. 2023 was the hottest year on record by globally averaged surface
24 temperatures, exceeding mid-20th century mean ocean and land surface temperatures by

25 _____
26 ¹⁹ Climate Change 2021: The Physical Science Basis, The Intergovernmental Panel on Climate
27 Change, at v, 4, 41, 63, 150, 425, 506 (2021),
https://report.ipcc.ch/ar6/wg1/IPCC_AR6_WGI_FullReport.pdf.

28 ²⁰ Id. at 41.

1 approximately 2.12° F. Each month in 2023 was hotter by globally averaged surface
2 temperatures than those respective months in any previous year. June, July, August, September,
3 October, November, and December 2023 were all the hottest average surface temperatures for
4 those months.²¹

5 b. The second hottest year on record by globally averaged surface
6 temperatures was 2016, and the third hottest was 2020.²²

7 c. The ten hottest years on record by globally averaged surface temperature
8 have all occurred since 2014.²³

9 61. The average global surface and ocean temperature in 2023 was approximately
10 2.12° F warmer than the 20th century baseline, which is the greatest positive anomaly observed
11 since at least 1850.²⁴ The increase in hotter temperatures and more frequent positive anomalies
12 during the Great Acceleration is occurring both globally and locally, including in the County of
13 Santa Cruz. The graph below shows the increase in global land and ocean temperature anomalies
14 since 1850, as measured against the 1901–2000 global average temperature.²⁵

24 ²¹ 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>.

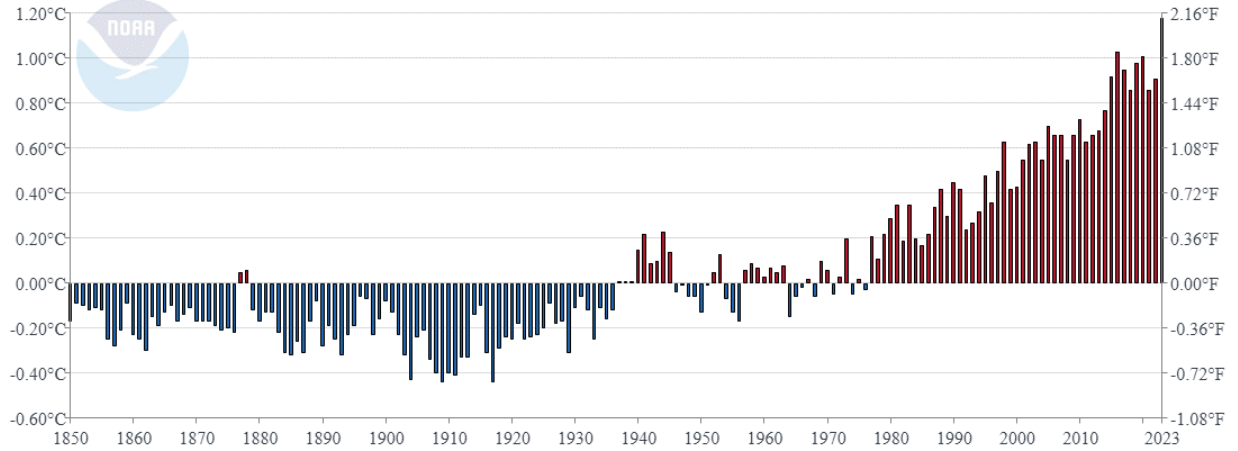
25 ²² Id.

26 ²³ Id.

27 ²⁴ 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>.

28 ²⁵ See id.

1 **Global Land and Ocean**
2 January-December Temperature Anomalies



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10 **Figure 1: Global Land and Ocean Temperature Anomalies, January – December**

11 62. Prior to World War II, most anthropogenic CO₂ emissions were caused by land-
12 use practices, such as forestry and agriculture, which altered the ability of the land and global
13 biosphere to absorb CO₂ from the atmosphere; the impacts of such activities on Earth's climate
14 were relatively minor. Since the beginning of the Great Acceleration, however, both the annual
15 rate and total volume of human CO₂ emissions have increased enormously following the advent
16 of major uses of oil, gas, and coal. The graph below shows that while CO₂ emissions attributable
17 to forestry and other land-use change have remained relatively constant, total emissions
18 attributable to fossil fuels have increased dramatically since the 1950s.²⁶

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24 ²⁶ Global Carbon Project, Global Carbon Budget 2016 (November 14, 2016),
25 www.globalcarbonproject.org/carbonbudget/16/files/GCP_CarbonBudget_2016.pdf, citing
26 CDIAC; R.A. Houghton et al., Carbon emissions from land use and land-cover change (2012),
27 <http://www.biogeosciences.net/9/5125/2012/bg-9-5125-2012.html>; Louis Giglio et al., Analysis
28 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>; Le Quéré et al.
(2016), supra note 4.

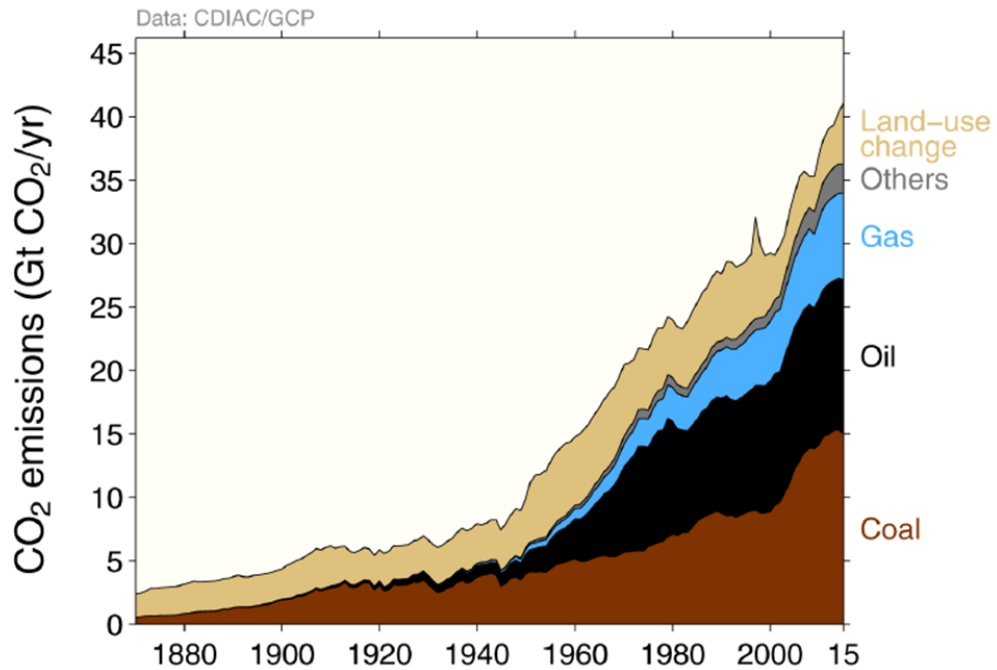


Figure 2: Total Annual Carbon Dioxide Emissions by Source, 1860-2015

63. As human reliance on fossil fuels for industrial and mechanical processes has increased, so too have greenhouse gas emissions, especially of CO₂. The Great Acceleration is marked by a massive increase in the annual rate of fossil fuel emissions: more than half of all cumulative CO₂ emissions have occurred since 1988.²⁷ The rate of CO₂ emissions from fossil fuels and industry, moreover, has increased threefold since the 1960s, and by more than 60% since 1990.²⁸ The graph below illustrates the increasing rate of global CO₂ emissions since the industrial era began.²⁹

²⁷ R. J. Andres et al. (2012), *supra* note 6, at 1851.

²⁸ Le Quéré et al. (2016), *supra* note 4, at 630 (“Global CO₂ emissions from fossil fuels and industry have increased every decade from an average of 3.1±0.2 GtC/yr in the 1960s to an average of 9.3±0.5 GtC/yr during 2006–2015”).

²⁹ Peter Frumhoff et al., *The Climate Responsibilities of Industrial Carbon Producers*, *Climatic Change* 132:157-171, 164 (2015).

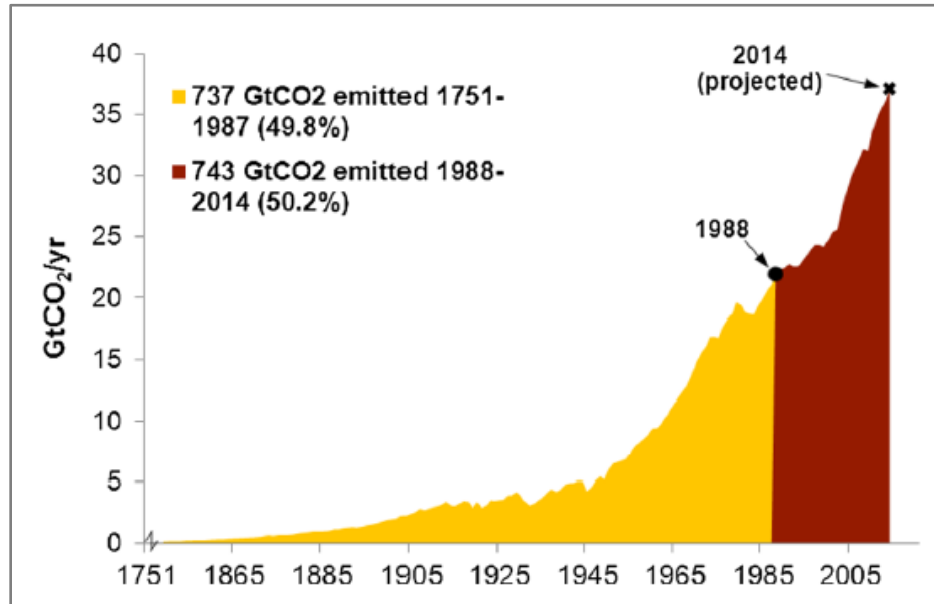


Figure 3: Cumulative Annual Anthropogenic Carbon Dioxide Emissions, 1751-2014

64. Since 1960, the concentration of CO₂ in the atmosphere has spiked from under 320 parts per million (ppm) to approximately 423 ppm.³⁰ The concentration of atmospheric CO₂ has also been accelerating. From 1960 to 1970, atmospheric CO₂ increased by an average of approximately 0.9 ppm per year.³¹

65. The graph below indicates the tight nexus between the sharp increase in emissions from the combustion of fossil fuels and the steep rise of atmospheric concentrations of CO₂.

³⁰ Trends in Atmospheric Carbon Dioxide: Full Record, GLOBAL MONITORING LABORATORY, <https://gml.noaa.gov/ccgg/trends/mlo.html>.

³¹ Trends in Atmospheric Carbon Dioxide: Growth Rate, GLOBAL MONITORING LABORATORY <https://gml.noaa.gov/ccgg/trends/gr.html>.

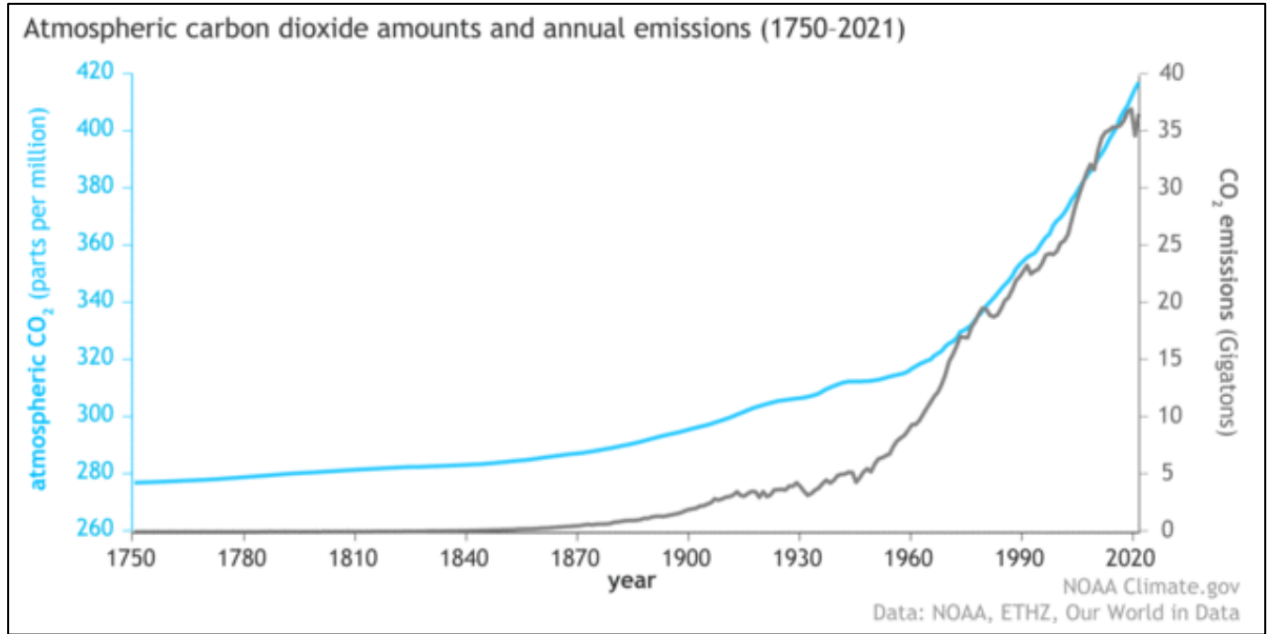


Figure 4: Atmospheric CO₂ Concentration and Annual Emissions³²

Because of the increased burning of fossil fuel products, concentrations of greenhouse gases in the atmosphere are now at an unprecedented level, one not seen in at least three million years.³³

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

- a. Warming of the Earth’s average surface temperature, both locally and globally, and increased frequency and intensity of heat waves.
- b. Sea level rise, due to the thermal expansion of warming ocean waters and runoff from melting glaciers and ice sheets.

³² 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>.

³³ More CO₂ than ever before in 3 million years, shows unprecedented computer simulation, Science Daily (Apr. 3, 2019), <https://www.sciencedaily.com/releases/2019/04/190403155436.htm>.

1 c. Changes to the global climate generally, bringing about longer droughts
2 and dry periods interspersed with fewer and more severe periods of precipitation, and associated
3 impacts to the quantity and quality of water resources available to both human and ecological
4 systems.

5 d. Increased frequency and intensity of extreme weather events due to
6 increases in evaporation, evapotranspiration, and precipitation, a consequence of the warming
7 atmosphere's increased ability to hold moisture.

8 e. Adverse impacts on human health associated with extreme weather,
9 extreme heat, worsening air quality, and vector-borne illnesses.

10 f. Flooding and inundation of land and infrastructure, increased erosion,
11 higher wave run-up and tides, increased frequency and severity of storm surges, saltwater
12 intrusion, and other impacts of higher sea levels.

13 g. Ocean acidification, primarily due to the increased uptake of atmospheric
14 carbon dioxide by the oceans.

15 h. Changes to terrestrial and marine ecosystems, and consequent impacts on
16 the populations and ranges of flora and fauna.

17 **B. Defendants Went to Great Lengths to Understand, and Either Knew or**
18 **Should Have Known the Dangers Associated With Their Fossil Fuel**
19 **Products.**

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

1 68. Although concealed at the time, the industry’s knowledge was later uncovered by
2 journalists at Inside Climate News and the Los Angeles Times, among others. In 1954,
3 geochemist Harrison Brown and his colleagues at the California Institute of Technology wrote to
4 API, informing the trade association that preliminary measurements of natural archives of carbon
5 in tree rings indicated that fossil fuels had caused atmospheric carbon dioxide levels to increase
6 by about 5% since 1840.³⁴ API provided those scientists funding for various research projects,
7 and measurements of carbon dioxide continued for at least one year and possibly longer,
8 although the results were never published or otherwise made available to the public.³⁵ In 1957,
9 H.R. Brannon of Humble Oil Company (predecessor-in-interest to Exxon) measured an increase
10 in atmospheric carbon dioxide attributable to fossil fuels, similar to—and in agreement with—
11 that measured by Harrison Brown.³⁶

12 69. In 1959, API organized a centennial celebration of the American oil industry at
13 Columbia University in New York City.³⁷ High-level representatives of Defendants were in
14 attendance. One of the keynote speakers was nuclear physicist Edward Teller. Teller warned the
15 industry that “a temperature rise corresponding to a 10[%] increase in carbon dioxide will be
16 sufficient to melt the icecap and submerge . . . [a]ll the coastal cities.” Teller added that since “a
17 considerable percentage of the human race lives in coastal regions, I think that this chemical
18 contamination is more serious than most people tend to believe.”³⁸ Following his speech, Teller
19 was asked to “summarize briefly the danger from increased carbon dioxide content in the
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21

22 ³⁴ See Benjamin Franta, Early Oil Industry Knowledge of CO₂ and Global Warming, 8 *Nature*
23 *Climate Change* 1024, 1024–25 (2018).

24 ³⁵ Id.

25 ³⁶ Id.; H.R. Brannon, Jr. et al., Radiocarbon Evidence on the Dilution of Atmospheric and
26 Oceanic Carbon by Carbon from Fossil Fuels, 38 *Am. Geophysical Union Transactions* 643,
27 644–46 (1957).

28 ³⁷ See Allan Nevins & Robert G. Dunlop, Energy and Man: A Symposium (Appleton-Century-
Crofts, N.Y. 1960). See also Franta (2018), supra note 34, at 1024–25.

³⁸ Edward Teller, Energy Patterns of the Future, in Energy and Man: A Symposium (1960), 53–
72.

1 atmosphere in this century.” He responded that “there is a possibility the icecaps will start
2 melting and the level of the oceans will begin to rise.”³⁹

3 70. In 1965, the president of API, Frank Ikard, relayed the findings of a recent report
4 to leaders of the fossil fuel industry at API’s annual meeting, saying, “[o]ne of the most
5 important predictions of the report is that carbon dioxide is being added to the earth’s
6 atmosphere by the burning of coal, oil, and natural gas at such a rate that by the year 2000 the
7 heat balance will be so modified as possibly to cause marked changes in climate beyond local or
8 even national efforts,” and quoting the report’s finding that “the pollution from internal
9 combustion engines is so serious, and is growing so fast, that an alternative nonpolluting means
10 of powering automobiles, buses, and trucks is likely to become a national necessity.”⁴⁰

11 71. Thus, by 1965, Defendants and their predecessors-in-interest were aware that the
12 scientific community had found that fossil fuel products, if used profligately, would cause global
13 warming by the end of the century, and that such global warming would have wide-ranging and
14 costly consequences.

15 72. By 1965, concern about the risks of anthropogenic greenhouse gas emissions
16 reached the highest level of the United States’ scientific community. In that year, President
17 Lyndon B. Johnson’s Science Advisory Committee Panel on Environmental Pollution reported
18 that by the year 2000, anthropogenic CO₂ emissions would “modify the heat balance of the
19 atmosphere to such an extent that marked changes in climate . . . could occur.”⁴¹ President
20 Johnson announced in a special message to Congress that “[t]his generation has altered the
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24 ³⁹ Id. at 70.

25 ⁴⁰ Ikard, Meeting the Challenges of 1966, in Proceedings of the American Petroleum Institute
26 (1965) p.13, available at <https://www.documentcloud.org/documents/5348130-1965-API-Proceedings>.

27 ⁴¹ President’s Science Advisory Committee, Restoring the Quality of Our Environment: Report
28 of the Environmental Pollution Panel, p. 9 (Nov. 1965),
<https://hdl.handle.net/2027/uc1.b4315678>.

1 composition of the atmosphere on a global scale through . . . a steady increase in carbon dioxide
2 from the burning of fossil fuels.”⁴²

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

7 74. In 1968, API received a report from the Stanford Research Institute, which it had
8 hired to assess the state of research on environmental pollutants, including carbon dioxide.⁴³ The
9 assessment endorsed the findings of President Johnson’s Scientific Advisory Council from three
10 years prior, stating that carbon dioxide emissions were “almost certain” to produce “significant”
11 temperature increases by 2000, and that these emissions were almost certainly attributable to
12 fossil fuels. The report warned of “major changes in the earth’s environment” and a “rise in sea
13 levels,” and concluded: “there seems to be no doubt that the potential damage to our environment
14 could be severe.” The scientists warned of “melting of the Antarctic ice cap” and informed API
15 that “[p]ast and present studies of CO₂ are detailed and seem to explain adequately the present
16 state of CO₂ in the atmosphere.” What was missing, the scientists said, was work on “air
17 pollution technology and . . . systems in which CO₂ emissions would be brought under control.”⁴⁴

18 75. In 1969, the Stanford Research Institute delivered a supplemental report on air
19 pollution to API, projecting with alarming particularity that atmospheric CO₂ concentrations
20 would reach 370 parts per million (“ppm”) by 2000.⁴⁵ This projection turned out to almost exactly
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22

23 ⁴² President Lyndon B. Johnson, Special Message to Congress on Conservation and Restoration
24 of Natural Beauty (Feb. 8, 1965), <http://acsc.lib.udel.edu/items/show/292>.

25 ⁴³ Elmer Robinson & R.C. Robbins, Sources, Abundance, and Fate of Gaseous Atmospheric
26 Pollutants, Stanford Rsch. Inst. (Feb. 1968),
<https://www.smokeandfumes.org/documents/document16>.

27 ⁴⁴ Id. at 108, 112.

28 ⁴⁵ Elmer Robinson & R.C. Robbins, Sources, Abundance, and Fate of Gaseous Atmospheric
Pollutants Supplement, Stanford Rsch. Inst. (June 1969).

1 match the actual CO₂ concentrations measured in 2000 of 369.64 ppm.⁴⁶ The report explicitly
2 connected the rise in CO₂ levels to the combustion of fossil fuels, finding it “unlikely that the
3 observed rise in atmospheric CO₂ has been due to changes in the biosphere.”

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

7 77. In 1969, Shell memorialized an ongoing 18-month project to collect ocean data
8 from oil platforms to develop and calibrate environmental forecasting theories related to
9 predicting wave, wind, storm, sea level, and current changes and trends.⁴⁷ Several Defendants
10 and/or their predecessors in interest participated in the project, including Esso Production
11 Research Company (Exxon), Mobil Research and Development Company (Exxon), Pan
12 American Petroleum Corporation (BP), Gulf Oil Corporation (Chevron), Texaco Inc. (Chevron),
13 and the Chevron Oil Field Research Company.

14 78. In 1972, API members, including Defendants, received a status report on all
15 environmental research projects funded by API. The report summarized the 1968 SRI report
16 describing the impact of Defendants’ fossil fuel products on the environment, including global
17 warming and sea level rise. Industry participants who received this report include: American
18 Standard of Indiana (BP), Asiatic (Shell), Ashland (Marathon), Atlantic Richfield (BP), British
19 Petroleum (BP), Chevron Standard of California (Chevron), Cities Service (Citgo), Continental
20 (ConocoPhillips), Dupont (former owner of Conoco), Esso Research (Exxon), Ethyl (formerly
21 affiliated with Esso, which was subsumed by Exxon), Getty (Lukoil/Exxon), Gulf (Chevron,
22 among others), Humble Standard of New Jersey (Exxon /Chevron/BP), Marathon, Mobil
23 (Exxon), Pan American (BP), Phillips (ConocoPhillips), Shell, Standard of Ohio (BP), Texaco
24 (Chevron), Union (Chevron), Edison Electric Institute (representing electric utilities),

25 _____
26 ⁴⁶ NASA Goddard Institute for Space Studies, Global Mean CO₂ Mixing Ratios (ppm):
Observations, <https://data.giss.nasa.gov/modelforce/ghgases/Fig1A.ext.txt>.

27 ⁴⁷ M.M. Patterson, An Ocean Data Gathering Program for the Gulf of Mexico, Society of
28 Petroleum Engineers (1969), <https://www.onepetro.org/conference-paper/SPE-2638-MS>.

1 Bituminous Coal Research (coal industry research group), Mid-Continent Oil & Gas Association
2 (presently the U.S. Oil & Gas Association, a national trade association), Western Oil & Gas
3 Association, National Petroleum Refiners Association (presently the American Fuel and
4 Petrochemical Manufacturers Association, a national trade association), Champlin (Anadarko),
5 Skelly (Lukoil/Exxon), Colonial Pipeline (ownership has included BP, Citgo, Exxon,
6 ConocoPhillips, Chevron entities, among others) and Caltex (Chevron), among others.⁴⁸

7 79. In 1977, James Black of Exxon gave a presentation to Exxon executives on the
8 “greenhouse effect,” which was summarized in an internal memo the following year. Black
9 reported that “current scientific opinion overwhelmingly favors attributing atmospheric carbon
10 dioxide increase to fossil fuel consumption,” and that doubling atmospheric carbon dioxide
11 would, according to the best climate model available, “produce a mean temperature increase of
12 about 2°C to 3°C over most of the earth,” with two to three times as much warming at the
13 poles.⁴⁹ Black reported that the impacts of global warming would include “more rainfall,” which
14 would “benefit some areas and would harm others,” and that “[s]ome countries would benefit,
15 but others could have their agricultural output reduced or destroyed.” “Even those nations which
16 are favored, however, would be damaged for a while since their agricultural and industrial
17 patterns have been established on the basis of the present climate.” Finally, Black reported that
18 “[p]resent thinking holds that man has a time window of five to ten years before the need for
19 hard decisions regarding changes in energy strategies might become critical.”⁵⁰ The figure
20 below, reproduced from Black’s memo, illustrates Exxon’s understanding of the timescale and
21 magnitude of global warming that its products would cause.

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23
24 ⁴⁸ American Petroleum Institute, Environmental Research, A Status Report, Committee for Air
and Water Conservation (January 1972), <http://files.eric.ed.gov/fulltext/ED066339.pdf>.

25 ⁴⁹ J.F. Black, Exxon Research and Engineering Co., memorandum to F.G. Turpin, Exxon
26 Research and Engineering Co. re The Greenhouse Effect (June 6, 1978), at 2, 23, available at
27 [https://www.documentcloud.org/documents/2805568-1978-Exxon-Presentation-on-
GreenhouseEffect](https://www.documentcloud.org/documents/2805568-1978-Exxon-Presentation-on-GreenhouseEffect).

28 ⁵⁰ Id. at 2.

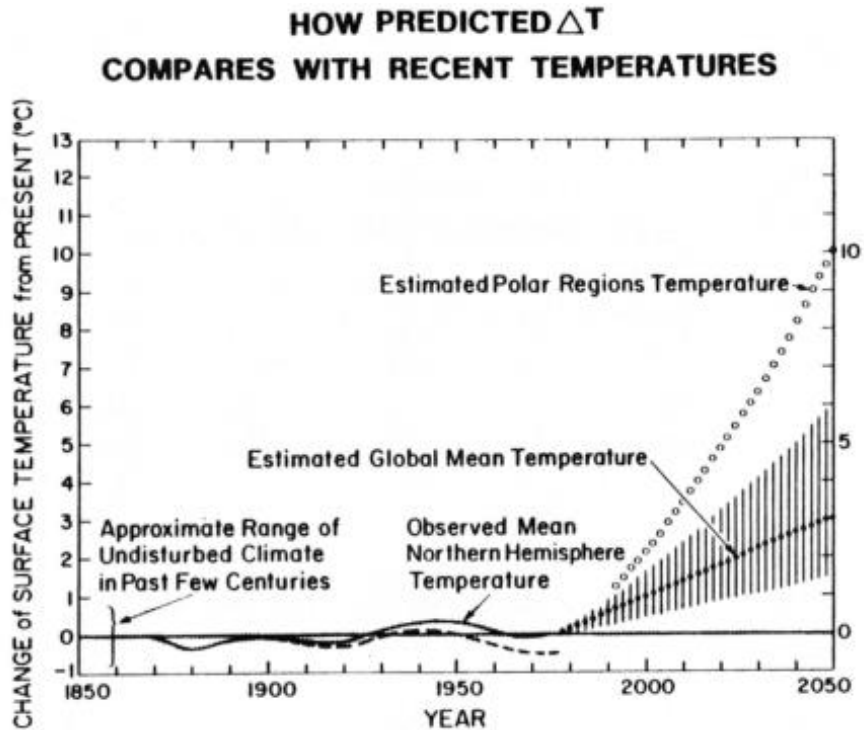


Figure 5: Future Global Warming Predicted Internally by Exxon in 1977

80. Black’s report also stated:

There is general scientific agreement that the most likely manner in which mankind is influencing the global climate is through carbon dioxide release from the burning of fossil fuels . . . [and that] Man has a time window of five to ten years before the need for hard decisions regarding changes in energy strategies might become critical.⁵¹

81. Thereafter, Exxon engaged in a research program to study the environmental fate of fossil fuel-derived greenhouse gases and their impacts, which included publication of peer-reviewed research by Exxon staff scientists and the conversion of a supertanker into a research vessel to study the greenhouse effect and the role of the oceans in absorbing anthropogenic CO₂. Much of this research was shared in a variety of fora, symposia, and shared papers through trade associations and directly with other Defendants.

⁵¹ Id.

1 82. Exxon scientists made the case internally for using company resources to build
2 corporate knowledge about the impacts of the promotion, marketing, and consumption of
3 Defendants' fossil fuel products. Exxon climate researcher Henry Shaw wrote in 1978: "The
4 rationale for Exxon's involvement and commitment of funds and personnel is based on our need
5 to assess the possible impact of the greenhouse effect on Exxon business. Exxon must develop a
6 credible scientific team that can critically evaluate the information generated on the subject and
7 be able to carry bad news, if any, to the corporation."⁵² Shaw's internal memo to Exxon's John
8 W. Harrison reported that "[t]he climatic effects of carbon dioxide release may be the primary
9 limiting factor on energy production from fossil fuels[.]"⁵³ Moreover, Shaw emphasized the need
10 to collaborate with universities and government to more completely understand what he called
11 the "CO₂ problem."⁵⁴

12 83. In 1979, API and its members, including Defendants, convened a Task Force to
13 monitor and share cutting edge climate research among the oil industry. The group was initially
14 called the CO₂ and Climate Task Force, but changed its name to the Climate and Energy Task
15 Force in 1980 (hereinafter referred to as "API CO₂ Task Force"). API kept and distributed
16 meeting minutes to Task Force members. Membership included senior scientists and engineers
17 from nearly every major U.S. and multinational oil and gas company, including Exxon, Mobil
18 (Exxon), Amoco (BP), Phillips (ConocoPhillips), Texaco (Chevron), Shell, Sunoco, Sohio (BP)
19 as well as Standard Oil of California (Chevron) and Gulf Oil (Chevron, among others). The Task
20 Force was charged with assessing the implications of emerging science on the petroleum and gas
21 industries and identifying where reductions in greenhouse gas emissions from Defendants' fossil
22 fuel products could be made.⁵⁵

24 ⁵² Henry Shaw, Memo to Edward David Jr. on the "Greenhouse Effect", Exxon Research and
25 Engineering Company (Dec. 7, 1978).

26 ⁵³ Henry Shaw, Environmental Effects of Carbon Dioxide, Climate Investigations Ctr. (Oct. 31,
1977), <https://www.industrydocuments.ucsf.edu/docs/tpwl0228>.

27 ⁵⁴ Id.

28 ⁵⁵ American Petroleum Institute, AQ-9 Task Force Meeting Minutes (March 18, 1980),
<http://insideclimatenews.org/sites/default/files/documents/AQ->

1 84. In 1979, API sent its members a background memo related to the API CO₂ and
2 Climate Task Force’s efforts, stating that CO₂ concentrations were rising steadily in the
3 atmosphere, and predicting when the first clear effects of climate change might be felt.⁵⁶

4 85. That same year, Exxon Research and Engineering reported that: “The most widely
5 held theory [about increasing CO₂ concentration] is that the increase is due to fossil fuel
6 combustion, increasing CO₂ concentration will cause a warming of the earth’s surface, and the
7 present trend of fossil fuel consumption will cause dramatic environmental effects before the
8 year 2050.”⁵⁷ Further, the report stated that unless fossil fuel use was constrained, there would be
9 “noticeable temperature changes” associated with an increase in atmospheric CO₂ from about
10 280 parts per million before the Industrial Revolution to 400 parts per million by the year 2010.⁵⁸
11 Those projections proved remarkably accurate—atmospheric CO₂ concentrations surpassed 400
12 parts per million in May 2013, for the first time in millions of years.⁵⁹ In 2015, the annual
13 average CO₂ concentration rose above 400 parts per million, and in 2016 the annual low
14 surpassed 400 parts per million, meaning atmospheric CO₂ concentration remained above that
15 threshold all year.⁶⁰ In 1980, API’s CO₂ Task Force members discussed the oil industry’s
16 responsibility to reduce CO₂ emissions by changing refining processes and developing fuels that
17 emit less CO₂.

18
19 9%20Task%20Force%20Meeting%20%281980%29.pdf (AQ-9 refers to the “CO₂ and Climate”
20 Task Force).

21 ⁵⁶ Neela Banerjee, Exxon’s Oil Industry Peers Knew About Climate Dangers in the 1970s, Too,
22 Inside Climate News (December 22, 2015),
<https://insideclimatenews.org/news/22122015/exxon-mobil-oil-industry-peers-knew-about-climate-change-dangers-1970s-american-petroleum-institute-api-shell-chevron-texaco>.

23 ⁵⁷ W.L. Ferrall, Exxon Memo to R.L. Hirsch about “Controlling Atmospheric CO₂”, Exxon
24 Research and Engineering Company (October 16, 1979),
<http://insideclimatenews.org/sites/default/files/documents/CO2%20and%20Fuel%20Use%20Projections.pdf>.

25 ⁵⁸ Id.

26 ⁵⁹ Nicola Jones, How the World Passed a Carbon Threshold and Why it Matters, Yale
27 Environment 360 (Jan. 26, 2017), <http://e360.yale.edu/features/how-the-world-passed-a-carbon-threshold-400ppm-and-why-it-matters>.

28 ⁶⁰ Id.

1 86. In or around February 29, 1980, Dr. John Laurmann, a “recognized expert in the
2 field of CO₂ and climate,” made a presentation to its members.⁶¹ The meeting lasted for seven
3 hours and included a “complete technical discussion” of global warming caused by fossil fuels,
4 including “the scientific basis and technical evidence of CO₂ buildup, impact on society,
5 methods of modeling and their consequences, uncertainties, policy implications, and conclusions
6 that can be drawn from present knowledge.” His presentation identified the “scientific consensus
7 on the potential for large future climatic response to increased CO₂ levels” as a reason for API
8 members to have concern with the “CO₂ problem” and informed attendees that there was “strong
9 empirical evidence that rise [in CO₂ concentration was] caused by anthropogenic release of CO₂,
10 mainly from fossil fuel combustion.”⁶² Moreover, Dr. Laurmann warned that the amount of CO₂
11 in the atmosphere could double by 2038, which he said would likely lead to a 2.5° C (4.5° F) rise
12 in global average temperatures with “major economic consequences.” He then told the Task
13 Force that models showed a 5° C (9° F) rise by 2067, with “globally catastrophic effects.”⁶³ He
14 also suggested that, despite uncertainty, “THERE IS NO LEEWAY” in the time for acting. A
15 taskforce member and representative of Texaco leadership present at the meeting posited that the
16 API CO₂ Task Force should develop ground rules for energy release of fuels and the cleanup of
17 fuels as they relate to CO₂ creation. Attendees to the presentation also included scientists and
18 executives from API, Exxon, and SOHIO (a predecessor to BP), and the minutes of the meeting
19 were distributed to the entire Task Force. API minutes show that the Task Force discussed topics
20 including “the technical implications of energy source changeover,” “ground rules for energy
21 release of fuels and the cleanup of fuels as they relate to CO₂ creation,” and researching “the

23 ⁶¹ J. J. Nelson, American Petroleum Institute, letter to AQ-9 Task Force re The CO₂ Problem;
24 Addressing Research Agenda Development (Mar. 18, 1980) p.2,
25 <https://www.industrydocuments.ucsf.edu/docs/gffl0228>.

26 ⁶² American Petroleum Institute, AQ-9 Task Force Meeting Minutes (March 18, 1980),
27 [http://insideclimatenews.org/sites/default/files/documents/AQ-](http://insideclimatenews.org/sites/default/files/documents/AQ-9%20Task%20Force%20Meeting%20%281980%29.pdf)
28 [9%20Task%20Force%20Meeting%20%281980%29.pdf](http://insideclimatenews.org/sites/default/files/documents/AQ-9%20Task%20Force%20Meeting%20%281980%29.pdf) (AQ-9 refers to the “CO₂ and Climate”
Task Force).

⁶³ Id.

1 Market Penetration Requirements of Introducing a New Energy Source into World Wide Use.”⁶⁴

2 The Task Force even asked the question “what is the 50 year future of fossil fuels?”

3 87. In 1980, the API CO₂ Task Force also discussed a potential area for investigation:
4 alternative energy sources as a means of mitigating CO₂ emissions from Defendants’ fossil fuel
5 products. These efforts called for research and development to “Investigate the Market
6 Penetration Requirements of Introducing a New Energy Source into World Wide Use.” Such
7 investigation was to include the technical implications of energy source changeover, research
8 timing, and requirements.⁶⁵

9 88. By 1980, Exxon’s senior leadership had become intimately familiar with the
10 greenhouse effect and the role of CO₂ in the atmosphere. In that year, Exxon Senior Vice
11 President and Board member George Piercy questioned Exxon researchers on the minutiae of the
12 ocean’s role in absorbing atmospheric CO₂, including whether there was a net CO₂ flux out of
13 the ocean into the atmosphere in certain zones where upwelling of cold water to the surface
14 occurs, because Piercy evidently believed that the oceans could absorb and retain higher
15 concentrations of CO₂ than the atmosphere.⁶⁶ This inquiry aligned with Exxon supertanker
16 research into whether the ocean would act as a significant CO₂ sink that would sequester
17 atmospheric CO₂ long enough to allow reckless emissions without triggering dire climatic
18 consequences. As described below, Exxon eventually scrapped this research before it produced
19 enough data from which to derive a conclusion.⁶⁷

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22 ⁶⁴ Id.

23 ⁶⁵ Id.

24 ⁶⁶ Neela Banerjee, More Exxon Documents Show How Much It Knew About Climate 35 Years
25 Ago, Inside Climate News (Dec. 1, 2015),
<https://insideclimatenews.org/news/01122015/documents-exxons-early-co2-position-senior-executives-engage-and-warming-forecast>.

26 ⁶⁷ Neela Banerjee et al., Exxon Believed Deep Dive Into Climate Research Would Protect Its
27 Business, Inside Climate News (Sept. 17, 2015),
<https://insideclimatenews.org/news/16092015/exxon-believed-deep-dive-into-climate-research-would-protect-its-business>.

1 89. Also in 1980, Imperial Oil (Exxon) reported to Esso and Exxon managers and
2 environmental staff that increases in fossil fuel usage aggravates CO₂ in the atmosphere. Noting
3 that the United Nations was encouraging research into the carbon cycle, Imperial reported that
4 there was “no doubt” that fossil fuels were aggravating the build-up of CO₂ in the atmosphere
5 and that “[t]echnology exists to remove CO₂ from [fossil fuel power plant] stack gases but
6 removal of only 50% of the CO₂ would double the cost of power generation.” Imperial also
7 reported that its coordination department had been internally evaluating its and Exxon’s products
8 to determine whether disclosure of a human health hazard was necessary. The report notes that
9 Section (8e) of Toxic Substances Control Act, 55 U.S.C. §§ 1601 et seq., requires that anyone
10 who discovers that a material or substance in commercial use is or may be a significant risk to
11 human health must report such findings to the Environmental Protection Agency within 15 days.
12 Although greenhouse gases are human health hazards (because they have serious consequences
13 in terms of global food production, disease virulence, and sanitation infrastructure, among other
14 impacts), neither Imperial, Exxon, nor any other Defendant has ever filed a disclosure with the
15 U.S. Environmental Protection Agency pursuant to the Toxic Substances Control Act.

16 90. Exxon scientist Roger Cohen warned his colleagues in a 1981 internal
17 memorandum that “future developments in global data gathering and analysis, along with
18 advances in climate modeling, may provide strong evidence for a delayed CO₂ effect of a truly
19 substantial magnitude,” and that under certain circumstances it would be “very likely that we
20 will unambiguously recognize the threat by the year 2000.”⁶⁸ Cohen had expressed concern that
21 the memorandum mischaracterized potential effects of reckless CO₂ emissions from Defendants’
22 fossil fuel products: “. . . it is distinctly possible that the . . . [Exxon Planning Division’s]

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26 ⁶⁸ Roger W. Cohen, Exxon Memo to W. Glass about possible “catastrophic” effect of CO₂,
27 Exxon Inter-Office Correspondence (Aug. 18, 1981),
28 [http://www.climatefiles.com/exxonmobil/1981-exxon-memo-on-possible-emission-
consequences-of-fossil-fuel-consumption/](http://www.climatefiles.com/exxonmobil/1981-exxon-memo-on-possible-emission-consequences-of-fossil-fuel-consumption/).

1 scenario will produce effects which will indeed be catastrophic (at least for a substantial fraction
2 of the world's population)."⁶⁹

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

- 6 • "Atmospheric CO₂ will double in 100 years if fossil fuels grow at 1.4%/ a².
- 7 • 3°C global average temperature rise and 10°C at poles if CO₂ doubles.
 - 8 ○ Major shifts in rainfall/agriculture
 - 8 ○ Polar ice may melt"⁷⁰

9 92. In 1982, another report prepared for API by scientists at the Lamont-Doherty
10 Geological Observatory at Columbia University recognized that atmospheric CO₂ concentration
11 had risen significantly compared to the beginning of the industrial revolution from about 290
12 parts per million to about 340 parts per million in 1981 and acknowledged that despite
13 differences in climate modelers' predictions, all models indicated a temperature increase caused
14 by anthropogenic CO₂ within a global mean range of 4° C (7.2° F). The report advised that there
15 was scientific consensus that "a doubling of atmospheric CO₂ from [] pre-industrial revolution
16 value would result in an average global temperature rise of (3.0 ± 1.5)°C [5.4 ± 2.7° F]." It went
17 further, warning that "[s]uch a warming can have serious consequences for man's comfort and
18 survival since patterns of aridity and rainfall can change, the height of the sea level can increase
19 considerably and the world food supply can be affected."⁷¹ Exxon's own modeling research
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23 ⁶⁹ Id.

24 ⁷⁰ Henry Shaw, Exxon Memo to E. E. David, Jr. about "CO₂ Position Statement", Exxon Inter-
25 Office Correspondence (May 15, 1981),
<https://insideclimatenews.org/sites/default/files/documents/Exxon%20Position%20on%20CO2%20%281981%29.pdf>.

26 ⁷¹ American Petroleum Institute, Climate Models and CO₂ Warming: A Selective Review and
27 Summary, Lamont-Doherty Geological Observatory (Columbia University) (March 1982),
[https://assets.documentcloud.org/documents/2805626/1982-API-Climate-Models-and-CO2-
28 Warming-a.pdf](https://assets.documentcloud.org/documents/2805626/1982-API-Climate-Models-and-CO2-Warming-a.pdf).

1 confirmed this, and the company’s results were later published in at least three peer-reviewed
2 scientific papers.⁷²

3 93. Also in 1982, Exxon’s Environmental Affairs Manager distributed a primer on
4 climate change to a “wide circulation [of] Exxon management . . . intended to familiarize Exxon
5 personnel with the subject.”⁷³ The primer also was “restricted to Exxon personnel and not to be
6 distributed externally.”⁷⁴ The primer compiled science on climate change available at the time,
7 and confirmed fossil fuel combustion as a primary anthropogenic contributor to global warming.
8 The report estimated a CO₂ doubling around 2090 based on Exxon’s long-range modeled
9 outlook. The author warned that the melting of the Antarctic ice sheet could result in global sea
10 level rise of five feet which would “cause flooding on much of the U.S. East Coast, including the
11 State of Florida and Washington, D.C.”⁷⁵ Indeed, it warned that “there are some potentially
12 catastrophic events that must be considered,” including sea level rise from melting polar ice
13 sheets. It noted that some scientific groups were concerned “that once the effects are measurable,
14 they might not be reversible.”⁷⁶

15 94. In a summary of Exxon’s climate modeling research from 1982, Director of
16 Exxon’s Theoretical and Mathematical Sciences Laboratory Roger Cohen wrote that “the time
17 required for doubling of atmospheric CO₂ depends on future world consumption of fossil fuels.”
18 Cohen concluded that Exxon’s own results were “consistent with the published predictions of
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21 ⁷² See Roger W. Cohen, Exxon Memo summarizing findings of research in climate modeling,
22 Exxon Research and Engineering Company (September 2, 1982),
23 [https://insideclimatenews.org/sites/default/files/documents/%2522Consensus%2522%20on%20CO2%20Impacts%20\(1982\).pdf](https://insideclimatenews.org/sites/default/files/documents/%2522Consensus%2522%20on%20CO2%20Impacts%20(1982).pdf). (discussing research articles).

24 ⁷³ M. B. Glaser, Exxon Memo to Management about “CO₂ ‘Greenhouse’ Effect”, Exxon
25 Research and Engineering Company (November 12, 1982),
26 <http://insideclimatenews.org/sites/default/files/documents/1982%20Exxon%20Primer%20on%20CO2%20Greenhouse%20Effect.pdf>.

27 ⁷⁴ Id.

28 ⁷⁵ Id.

⁷⁶ Id.

1 more complex climate models” and “in accord with the scientific consensus on the effect of
2 increased atmospheric CO₂ on climate.”⁷⁷

3 95. At the fourth biennial Maurice Ewing Symposium at the Lamont-Doherty
4 Geophysical Observatory in October 1982, attended by members of API, Exxon Research and
5 Engineering Company president E.E. David delivered a speech titled: “Inventing the Future:
6 Energy and the CO₂ ‘Greenhouse Effect.’”⁷⁸ His remarks included the following statement:
7 “[F]ew people doubt that the world has entered an energy transition away from dependence upon
8 fossil fuels and toward some mix of renewable resources that will not pose problems of CO₂
9 accumulation.” He went on, discussing the human opportunity to address anthropogenic climate
10 change before the point of no return:

11 It is ironic that the biggest uncertainties about the CO₂ buildup are not in
12 predicting what the climate will do, but in predicting what people will do. . . . [It]
13 appears we still have time to generate the wealth and knowledge we will need to
invent the transition to a stable energy system.

14 96. Throughout the early 1980s, at Exxon’s direction, Exxon climate scientist Henry
15 Shaw forecasted emissions of CO₂ from fossil fuel use. Those estimates were incorporated into
16 Exxon’s 21st century energy projections and were distributed among Exxon’s various divisions.
17 Shaw’s conclusions included an expectation that atmospheric CO₂ concentrations would double
18 in 2090 per the Exxon model, with an attendant 2.3–5.6° F average global temperature increase.
19 Shaw compared his model results to those of the U.S. EPA, the National Academy of Sciences,
20 and the Massachusetts Institute of Technology, indicating that the Exxon model predicted a

24 ⁷⁷ Roger W. Cohen, Exxon Memo summarizing findings of research in climate modeling, Exxon
25 Research and Engineering Company (Sept. 2, 1982),
26 [https://insideclimatenews.org/sites/default/files/documents/%2522Consensus%2522%20on%20CO2%20Impacts%20\(1982\).pdf](https://insideclimatenews.org/sites/default/files/documents/%2522Consensus%2522%20on%20CO2%20Impacts%20(1982).pdf).

27 ⁷⁸ E. E. David, Jr., Inventing the Future: Energy and the CO₂ Greenhouse Effect: Remarks at the
28 Fourth Annual Ewing Symposium, Tenafly, NJ (1982),
<http://sites.agu.org/publications/files/2015/09/ch1.pdf>.

1 longer delay than any of the other models, although its temperature increase prediction was in the
2 mid-range of the four projections.⁷⁹

3 97. During the 1980s, many Defendants formed their own research units focused on
4 climate modeling. The API, including the API CO₂ Task Force, provided a forum for Defendants
5 to share their research efforts and corroborate their findings related to anthropogenic greenhouse
6 gas emissions.⁸⁰

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

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

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

21 Prevention means engineering a new generation of fuels, lubricants and chemical
22 products. . . . Prevention means designing catalysts and processes that minimize
23 or eliminate the production of unwanted byproducts. . . . Prevention on a global
24 scale may even require a dramatic reduction in our dependence on fossil fuels—
25 and a shift towards solar, hydrogen, and safe nuclear power. It may be possible
26 that—just possible—that the energy industry will transform itself so completely
27 that observers will declare it a new industry. . . . Brute force, low-tech responses
28 and money alone won't meet the challenges we face in the energy industry.⁸¹

25 ⁷⁹ Banerjee (2015), supra note 66.

26 ⁸⁰ Banerjee (2015), supra note 56.

27 ⁸¹ Richard E. Tucker, High Tech Frontiers in the Energy Industry: The Challenge Ahead, AIChE
28 National Meeting (November 30, 1988),
<https://hdl.handle.net/2027/pur1.32754074119482?urlappend=%3Bseq=522>.

1 99. In 1987, Shell published an internal “brief for companies of the Royal
2 Dutch/Shell Group” titled “Air pollution: an oil industry perspective.” In this report, the
3 company described the greenhouse effect as occurring “largely as a result of burning fossil fuels
4 and deforestation.”⁸² Shell further acknowledged the “concern that further increases in carbon
5 dioxide levels could cause climatic changes, notably a rise in overall temperature, having major
6 environmental, social and economic consequences.”⁸³

7 100. In 1988, the Shell Greenhouse Effect Working Group issued a confidential
8 internal report, “The Greenhouse Effect,” which acknowledged global warming’s anthropogenic
9 nature: “Man-made carbon dioxide, released into and accumulated in the atmosphere, is believed
10 to warm the earth through the so-called greenhouse effect.” The authors also noted the burning of
11 fossil fuels as a primary driver of CO₂ buildup and warned that warming could “create
12 significant changes in sea level, ocean currents, precipitation patterns, regional temperature and
13 weather.” They further pointed to the potential for “direct operational consequences” of sea level
14 rise on “offshore installations, coastal facilities and operations (e.g. platforms, harbors,
15 refineries, depots).”⁸⁴

16 101. Similar to early warnings by Exxon scientists, the 1988 Shell report noted that “by
17 the time the global warming becomes detectable it could be too late to take effective
18 countermeasures to reduce the effects or even to stabilize the situation.” The authors mentioned
19 the need to consider policy changes on multiple occasions, noting that “the potential implications
20 for the world are . . . so large that policy options need to be considered much earlier” and that
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24 ⁸² Shell Briefing Service, Air pollution: an oil industry perspective (1987), at 4,
25 <https://www.documentcloud.org/documents/24359057-shell-briefing-service-air-pollution-an-oil-industry-perspective-nr1-1987>.

26 ⁸³ Id. at 5.

27 ⁸⁴ Shell Internationale Petroleum, Greenhouse Effect Working Group, The Greenhouse Effect
28 (May 1988), at 1, 27, available at <https://www.documentcloud.org/documents/4411090-Document3.html#document/p9/a411239>.

1 research should be “directed more to the analysis of policy and energy options than to studies of
2 what we will be facing exactly.”⁸⁵

3 102. In 1989, Esso Resources Canada (Exxon) commissioned a report on the impacts
4 of climate change on existing and proposed natural gas facilities in the Mackenzie River Valley
5 and Delta, including extraction facilities on the Beaufort Sea and a pipeline crossing Canada’s
6 Northwest Territory.⁸⁶ It reported that “large zones of the Mackenzie Valley could be affected
7 dramatically by climatic change” and that “the greatest concern in Norman Wells [oil town in
8 North West Territories, Canada] should be the changes in permafrost that are likely to occur
9 under conditions of climate warming.” The report concluded that, in light of climate models
10 showing a “general tendency towards warmer and wetter climate,” operation of those facilities
11 would be compromised by increased precipitation, increase in air temperature, changes in
12 permafrost conditions, and significantly, sea level rise and erosion damage.⁸⁷ The authors
13 recommended factoring these eventualities into future development planning and also warned
14 that “a rise in sea level could cause increased flooding and erosion damage on Richards Island.”

15 103. In the mid-1990s, Exxon, Shell and Imperial Oil (Exxon) jointly undertook the
16 Sable Offshore Energy Project in Nova Scotia. The project’s own Environmental Impact
17 Statement declared: “The impact of a global warming sea-level rise may be particularly
18 significant in Nova Scotia. The long-term tide gauge records at a number of locations along the
19 N.S. coast have shown sea level has been rising over the past century For the design of
20 coastal and offshore structures, an estimated rise in water level, due to global warming, of 0.5 m
21 [1.64 feet] may be assumed for the proposed project life (25 years).”⁸⁸

23 ⁸⁵ Id. at 1, 6.

24 ⁸⁶ Stephen Lonergan and Kathy Young, An Assessment of the Effects of Climate Warming on
25 Energy Developments in the Mackenzie River Valley and Delta, Canadian Arctic, Energy
26 Exploration & Exploitation, Vol. 7, Issue 5 (Oct. 1, 1989),
<http://journals.sagepub.com/doi/abs/10.1177/014459878900700508>.

27 ⁸⁷ Id.

28 ⁸⁸ ExxonMobil, Sable Project, Development Plan, Volume 3 – Environmental Impact Statement
<http://soep.com/about-the-project/development-plan-application/>.

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

7 105. In 1991, Ken Croasdale, a senior ice researcher for Exxon’s subsidiary Imperial
8 Oil, stated to an audience of engineers that greenhouse gas concentrations are rising “due to the
9 burning of fossil fuels. Nobody disputes this fact.”⁸⁹

10 106. Defendants also meticulously examined plausible scenarios if they failed to act in
11 the face of their internal knowledge. For instance, Shell evaluated in a 1989 internal confidential
12 planning document the issue of “climate change – the greenhouse effect, global warming,” which
13 the document identified as “the most important issue for the energy industry.”⁹⁰ The document
14 compared a scenario in which society “addresses the potential problem” with one in which it
15 does not. Acknowledging that “[c]hanging emission levels ... and changing atmospheric CO2
16 concentration has been likened to turning around a VLCC [very large crude carrier],” even
17 “substantial efforts” by 2010 would have “hardly any impact on CO2 concentration.” In later
18 years, however, the impacts are “strikingly different”; early efforts “will not prevent the problem
19 arising, but ... could mitigate the problem.” The document described the consequences of failing
20 to address the problem right away:

21 These seem small changes but they mask more dramatic temperature changes
22 which would take place at temperate latitudes. There would be more violent
23 weather – more storms, more droughts, more deluges. Mean sea level would rise

24 ⁸⁹ Jerving et al., Special Report: What Exxon Knew About Global Warming’s Impact on the
25 Arctic, L.A. Times (Oct. 10, 2015), <https://www.latimes.com/business/la-na-advexxon-arctic-20151011-story.html>.

26 ⁹⁰ Shell, Scenarios 1989–2010: Challenge and Response (Oct. 1989), at 33,
27 <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 at least 30 cm. Agricultural patterns would be most dramatically changed.
2 Something as simple as a moderate change in rainfall pattern disrupts eco-
3 systems, and many species of trees, plants, animals and insects would not be able
4 to move and adapt.

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

14 107. In another 1989 confidential internal planning document, Shell anticipated that
15 “public/media pressures” to “adopt[] environmental programmes” such as “much tighter targets
16 for CO₂ emissions” could prompt “effective consumer responses” that “will lead to intense and
17 unpredictable pressures on business.”⁹² The scenario envisioned that “[c]oncerns about global
18 warming and depletion will depress production of fossil fuels, their market share declining as
19 renewables are actively promoted,” given that “[w]here there can be real consumer choice it will
20 be a dominant force, especially where interest is heightened by obvious environmental impact.”⁹³

21 108. In yet another scenario published in a 1998 internal report, Shell paints an eerily
22 prescient scene:

23 In 2010, a series of violent storms causes extensive damage to the eastern coast
24 of the U.S. Although it is not clear whether the storms are caused by climate
25 change, people are not willing to take further chances. The insurance industry
26 refuses to accept liability, setting off a fierce debate over who is liable: the
27 insurance industry or the government. After all, two successive IPCC reports
28 since 1993 have reinforced the human connection to climate change . . .
Following the storms, a coalition of environmental NGOs brings a class-action
suit against the US government and fossil-fuel companies on the grounds of

25 ⁹¹ Id. at 36.

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

28 ⁹³ Id. at 34.

1 neglecting what scientists (including their own) have been saying for years: that
2 something must be done. A social reaction to the use of fossil fuels grows, and
3 individuals become ‘vigilante environmentalists’ in the same way, a generation
4 earlier, they had become fiercely anti-tobacco. Direct-action campaigns against
5 companies escalate. Young consumers, especially, demand action.⁹⁴

6 109. Fossil fuel companies did not just consider climate change impacts in scenarios;
7 they also incorporated those impacts in their on-the-ground planning. In the mid-1990s, Exxon,
8 Shell, and Imperial Oil (Exxon) jointly undertook the Sable Offshore Energy Project in Nova
9 Scotia. The project’s own Environmental Impact Statement declared, “The impact of a global
10 warming sea-level rise may be particularly significant in Nova Scotia. The long-term tide gauge
11 records at a number of locations along the N.S. coast have shown sea level has been rising over
12 the past century. . . . For the design of coastal and offshore structures, an estimated rise in water
13 level, due to global warming, of 0.5 m [1.64 feet] may be assumed for the proposed project life
14 (25 years).”⁹⁵

15 110. Despite the overwhelming information about the threats to people and the planet
16 posed by continued use of their fossil fuel products, Defendants failed to act as they reasonably
17 should have to mitigate or avoid those dire adverse impacts. Defendants instead adopted the
18 position, as described below, that they had a license to continue the unfettered pursuit of profits
19 from those products—including by intentionally misleading and deceiving the public regarding
20 these threats. This position was an abdication and contravention of Defendants’ responsibility to
21 consumers and the public, including the County, to act on their unique knowledge of the
22 reasonably foreseeable hazards of reckless promotion and consumption of their fossil fuel products.
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26 ⁹⁴ Royal Dutch/Shell Group, Group Scenarios 1998–2020 115, 122 (1998),
27 <http://www.documentcloud.org/documents/4430277-27-1-Compiled.html>.

28 ⁹⁵ ExxonMobil, Sable Project Development Plan, vol. 3, Environmental Impact Statement (Feb. 1996), at 4–77.

1 **C. Despite Their Early Knowledge That Global Warming Was Real and Posed**
2 **Grave Threats, Defendants Did Not Disclose Known Harms Associated with**
3 **the Extraction, Promotion, and Consumption of Their Fossil Fuel Products**
4 **and Instead Affirmatively Acted to Obscure Those Harms and Engaged in a**
5 **Campaign to Deceptively Protect and Expand the Use of their Fossil Fuel**
6 **Products.**

7 111. Notwithstanding Defendants’ early knowledge of climate change, Defendants
8 have engaged in advertising and communications campaigns intended to promote their fossil fuel
9 products by downplaying the harms and risks of global warming. Initially, the campaigns tried to
10 show that global warming was not occurring. More recently, the campaigns have sought to
11 minimize the risks and harms from global warming. The deception campaigns had the purpose
12 and effect of inflating and sustaining the market for fossil fuels, which—in turn—drove up
13 greenhouse gas emissions, accelerated global warming, delayed the energy economy’s transition
14 to a lower-carbon future, and brought about devastating climate change impacts to the County of
15 Santa Cruz and its vulnerable, at-risk and disadvantaged communities—sometimes referred to as
16 environmental justice communities.

17 112. By 1988, Defendants had amassed a compelling body of knowledge about the role
18 of anthropogenic greenhouse gases, and specifically those emitted from the use of Defendants’
19 fossil fuel products, in causing global warming and sea level rise and the attendant consequences
20 for human communities and the environment. On notice that their deception and products were
21 causing global climate change and dire effects on the planet, Defendants were faced with the
22 decision of whether to take steps to limit the damages their fossil fuel products were causing and
23 would continue to cause for virtually every one of Earth’s inhabitants, including the People of
24 the State of California, and the County of Santa Cruz and its residents.

25 113. Defendants at any time before or thereafter could and should reasonably have
26 taken any of a number of steps to mitigate the damage caused by their deception and fossil fuel
27 products, and their own comments reveal an awareness of what some of these steps may have
28 been. For example, Defendants should have issued reasonable warnings to consumers and the
29 public of the dangers known to Defendants of the consumption of their fossil fuel products.
30 Doing so would have allowed consumers to act sooner and faster to reduce their fossil fuel

1 consumption, and would have stimulated consumer demand for non-carbon energy alternatives
2 whose use does not imperil the Earth. This process is now stutteringly underway, but was
3 wrongfully delayed by Defendants’ deception and continued downplaying of the reality and
4 severity of climate change—and of fossil fuels’ role in causing it.

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

12 a. In 1988, National Aeronautics and Space Administration (NASA)
13 scientists confirmed that human activities were actually contributing to global warming.⁹⁶ On
14 June 23 of that year, NASA scientist James Hansen’s presentation of this information to
15 Congress engendered significant news coverage and publicity for the announcement, including
16 coverage on the front page of the New York Times.

17 b. On July 28, 1988, Senator Robert Stafford and four bipartisan co-sponsors
18 introduced S. 2666, “The Global Environmental Protection Act,” to regulate CO₂ and other
19 greenhouse gases. Four more bipartisan bills to significantly reduce CO₂ pollution were
20 introduced over the following ten weeks, and in August, U.S. Presidential candidate George
21 H.W. Bush pledged that his presidency would “combat the greenhouse effect with the White
22 House effect.”⁹⁷ Political will in the United States to reduce anthropogenic greenhouse gas
23 emissions and mitigate the harms associated with Defendants’ fossil fuel products was gaining
24 momentum.

25
26 _____
⁹⁶ See Frumhoff et al. (2015), supra note 29, at 161.

27 ⁹⁷ N.Y. Times, The White House and the Greenhouse, May 9, 1998,
28 <http://www.nytimes.com/1989/05/09/opinion/the-white-house-and-the-greenhouse.html>.

1 c. In December 1988, the United Nations formed the Intergovernmental
2 Panel on Climate Change (IPCC), a scientific panel dedicated to providing the world's
3 governments with an objective, scientific analysis of climate change and its environmental,
4 political, and economic impacts.

5 d. In 1990, the IPCC published its First Assessment Report on anthropogenic
6 climate change,⁹⁸ in which it concluded that (1) “there is a natural greenhouse effect which
7 already keeps the Earth warmer than it would otherwise be,” and (2) that

8 emissions resulting from human activities are substantially
9 increasing the atmospheric concentrations of the greenhouse gases
10 carbon dioxide, methane, chlorofluorocarbons (CFCs) and nitrous
11 oxide. These increases will enhance the greenhouse effect,
12 resulting on average in an additional warming of the Earth's
13 surface. The main greenhouse gas, water vapour, will increase in
14 response to global warming and further enhance it.⁹⁹

15 The IPCC reconfirmed these conclusions in a 1992 supplement to the First Assessment report.¹⁰⁰

16 e. The United Nations began preparation for the 1992 Earth Summit in Rio
17 de Janeiro, Brazil, a major, newsworthy gathering of 172 world governments, of which 116 sent
18 their heads of state. The Summit resulted in the United Nations Framework Convention on
19 Climate Change (“UNFCCC”), an international environmental treaty providing protocols for
20 future negotiations aimed at “stabiliz[ing] greenhouse gas concentrations in the atmosphere at a
21 level that would prevent dangerous anthropogenic interference with the climate system.”¹⁰¹

22 115. But rather than issuing warnings commensurate with their own understanding of
23 the risks posed by the expected and intended uses of fossil fuel products, Defendants embarked

24 ⁹⁸ See IPCC, Reports, [http://www.ipcc.ch/publications_and_data/
publications_and_data_reports.shtml](http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml).

25 ⁹⁹ IPCC, Climate Change: The IPCC Scientific Assessment, Policymakers Summary (1990),
http://www.ipcc.ch/ipccreports/far/wg_I/ipcc_far_wg_I_spm.pdf.

26 ¹⁰⁰ IPCC, 1992 IPCC Supplement to the First Assessment Report (1992),
http://www.ipcc.ch/publications_and_data/publications_ipcc_90_92_assessments_far.shtml.

27 ¹⁰¹ United Nations, United Nations Framework Convention on Climate Change, Article 2 (1992),
28 <https://unfccc.int/resource/docs/convkp/conveng.pdf>.

1 on a decades-long series of campaigns designed to maximize continued dependence on their
2 products.

3 116. Defendants' campaigns, which focused on concealing, discrediting, and/or
4 misrepresenting information that tended to support restricting consumption of (and thereby
5 decreasing demand for) Defendants' fossil fuel products, took several forms. The campaigns
6 enabled Defendants to accelerate their business practice of exploiting fossil fuel reserves, and to
7 concurrently externalize the social and environmental costs of their fossil fuel products. These
8 activities directly contradicted Defendants' internal recognition that the science of anthropogenic
9 climate change was clear and that the greatest uncertainties involved responsive human behavior,
10 not scientific understanding of the issue.

11 117. Defendants—both on their own and jointly through industry and front groups
12 such as API, ICE, and the GCC—funded, conceived, planned, and carried out a sustained and
13 widespread campaign of denial and disinformation about the existence of climate change and
14 their products' contribution to it. The campaign included a long-term pattern of direct
15 misrepresentations and material omissions to consumers, as well as a plan to influence
16 consumers indirectly by affecting public opinion through the dissemination of misleading
17 research to the press, government, and academia. Although Defendants were competitors in the
18 marketplace, they combined and collaborated with each other and with API on this public
19 campaign to misdirect and stifle public knowledge in order to increase sales and protect profits.
20 The effort included promoting hazardous fossil fuel products through advertising campaigns that
21 failed to warn of the existential risks associated with the use of those products, and that were
22 designed to influence consumers to continue using Defendants' fossil fuel products irrespective
23 of those products' damage to communities and the environment.

24 118. In a secretly recorded video from 2021, an Exxon executive stated:

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

26 Did we join some of these shadow groups to work against some of the early
27 efforts? Yes, that's true. There's nothing illegal about that.
28

1 We were looking out for our investments. We were looking out for our
2 shareholders.”¹⁰²

3 119. In 1988, Joseph Carlson, an Exxon public affairs manager, described the “Exxon
4 Position,” which included among others, two important messaging tenets: (1) “[e]mphasize the
5 uncertainty in scientific conclusions regarding the potential enhanced Greenhouse Effect;” and
6 (2) “[r]esist the overstatement and sensationalization [sic] of potential greenhouse effect which
7 could lead to noneconomic development of non-fossil fuel resources.”¹⁰³

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

12 [O]ur research [at Exxon] was consistent with findings of the United Nations
13 Intergovernmental Panel on Climate Change on human impacts of fossil fuel
14 burning, which is that they are increasingly having a perceptible influence on
15 Earth’s climate. . . . If anything, adverse climate change from elevated CO₂ is
16 proceeding faster than the average of the prior IPCC mild projections and fully
17 consistent with what we knew back in the early 1980’s at Exxon. . . . I was greatly
18 distressed by the climate science denial program campaign that Exxon’s front
19 office launched around the time I stopped working as a consultant—but not
20 collaborator—for Exxon. The advertisements that Exxon ran in major newspapers
21 raising doubt about climate change were contradicted by the scientific work we
22 had done and continue to do. Exxon was publicly promoting views that its own
23 scientists knew were wrong, and we knew that because we were the major group
24 working on this.¹⁰⁴

22 ¹⁰² Jeff Brady, Exxon Lobbyist Caught on Video Talking About Undermining Biden’s Climate
23 Push, NPR (July 1, 2021, 11:37 AM ET), <https://www.npr.org/2021/07/01/1012138741/exxon-lobbyist-caught-on-video-talks-about-undermining-bidens-climate-push>.

24 ¹⁰³ Joseph M. Carlson, Exxon Memo on “The Greenhouse Effect” (August 3, 1988),
25 <https://assets.documentcloud.org/documents/3024180/1998-Exxon-Memo-on-the-Greenhouse-Effect.pdf>.

26 ¹⁰⁴ Examining the Oil Industry’s Efforts to Suppress the Truth About Climate Change, Hearing
27 Before the Subcomm. on Civil Rights and Civil Liberties of the Comm. on Oversight and
28 Reform, 116th Cong. 7–8 (Oct. 23, 2019) (statement of Martin Hoffert, Former Exxon
Consultant, Professor Emeritus, Physics, New York University),

1 21. Likewise, Shell “shaped a series of influential industry-backed publications that
2 downplayed or omitted key risks; emphasized scientific uncertainties; and pushed for more fossil
3 fuels, particularly coal.”¹⁰⁵ In 1992, for instance, Shell released a publication for wide external
4 distribution purporting to describe the “Basic Scientific Facts” of the “Potential Augmented
5 Greenhouse Effect.”¹⁰⁶ This document downplayed the scientific consensus (that Shell internally
6 acknowledged) by referring to the “relatively few established scientific fundamentals” regarding
7 the causes of climate change.¹⁰⁷ It also misleadingly suggested that a “particular cause” of global
8 warming was “difficult” to identify, even though Shell had identified the use of its products as a
9 significant contributor to the greenhouse effect in the previous decade.¹⁰⁸ (For example, in 1985,
10 a Shell UK environmental scientist had published an article laying out the scientific fact that
11 “[b]urning of fossil fuels which have taken millions of years to form has effectively upset the
12 balance [of the Carbon Cycle] leading to an increase in CO₂ in the atmosphere.”¹⁰⁹).

13 22. A 1994 Shell report entitled “The Enhanced Greenhouse Effect: A Review of the
14 Scientific Aspects” similarly emphasized scientific uncertainty, noting, for example, that “the
15 postulated link between any observed temperature rise and human activities has to be seen in
16 relation to natural variability, which is still largely unpredictable.”¹¹⁰ In 1996, Exxon released a

17
18 <https://oversight.house.gov/legislation/hearings/examining-the-oil-industry-s-efforts-to-suppress-the-truth-about-climate-change>.

19 ¹⁰⁵ Matthew Green, Lost Decade: How Shell Downplayed Early Warnings Over Climate Change,
20 DeSmog, (Mar. 31, 2023, 21:00 PDT), <https://www.desmog.com/2023/03/31/lost-decade-how-shell-downplayed-early-warnings-over-climate-change/>.

21 ¹⁰⁶ Jan Kuyper, Shell Group Planning, Business Environment Occasional Paper, Potential
22 Augmented Greenhouse Effect: Basic Scientific Facts (Sept. 1992), at 3,
<https://www.documentcloud.org/documents/24359060-1992-internal-shell-group-planning-report-potential-augmented-greenhouse-effect-and-depletion-of-the-ozone-layer>.

23 ¹⁰⁷ Id. at 5.

24 ¹⁰⁸ Id.

25 ¹⁰⁹ T.G. Wilkinson, Why and How to Control Energy Pollution: Can Harmonisation Work?, 8
26 Conservation & Recycling 7, 19 (1985), <https://www.documentcloud.org/documents/24359067-1985-03-why-and-how-to-control-energy-pollution-by-tg-wilkinson-shell>.

27 ¹¹⁰ P. Langcake, Shell Internationale Petroleum, The Enhanced Greenhouse Effect: A Review of
28 the Scientific Aspects (Dec. 1994), <https://www.documentcloud.org/documents/4411099-Document11.html#document/p15/a411511>.

1 publication called “Global Warming: Who’s Right? Facts about a debate that’s turned up more
2 questions than answers.” In the publication’s preface, Exxon CEO Lee Raymond stated that
3 “taking drastic action immediately is unnecessary since many scientists agree there’s ample time
4 to better understand the climate system.” The subsequent article described the greenhouse effect
5 as “unquestionably real and definitely a good thing,” while ignoring the severe consequences that
6 would result from the influence of the increased CO₂ concentration on the Earth’s climate.
7 Instead, it characterized the greenhouse effect as simply “what makes the earth’s atmosphere
8 livable.” Directly contradicting their own internal reports and peer-reviewed science, the article
9 ascribed the rise in temperature since the late 19th century to “natural fluctuations that occur
10 over long periods of time” rather than to the anthropogenic emissions that Exxon and other
11 scientists had confirmed were responsible. The article also falsely challenged the computer
12 models that projected the future impacts of fossil fuel product consumption, including those
13 developed by Exxon’s own employees, as having been “proved to be inaccurate.” The article
14 contradicted the numerous reports circulated among Exxon’s staff, and by API, by stating that
15 “the indications are that a warmer world would be far more benign than many imagine . . .
16 moderate warming would reduce mortality rates in the US, so a slightly warmer climate would
17 be more healthful.” Raymond concluded his preface by attacking the basis for reducing
18 consumption of his company’s fossil fuel products as “drawing on bad science, faulty logic, or
19 unrealistic assumptions”—despite the important role that Exxon’s own scientists had played in
20 compiling those same scientific underpinnings.¹¹¹

21 123. Imperial Oil CEO Robert Peterson falsely denied the established connection
22 between Defendants’ fossil fuel products and anthropogenic climate change in the Summer 1998
23 Imperial Oil Review, “A Cleaner Canada”:

24 [T]his issue [referring to climate change] has absolutely nothing to do with
25 pollution and air quality. Carbon dioxide is not a pollutant but an essential
26 ingredient of life on this planet. . . . [T]he question of whether or not the trapping

27 ¹¹¹ Exxon Corp., Global warming: who’s right? (1996),
28 <https://www.documentcloud.org/documents/2805542-Exxon-Global-Warming-Whos-Right.html>.

1 of 'greenhouse gases will result in the planet's getting warmer...has no
2 connection whatsoever with our day-to-day weather.

3 There is absolutely no agreement among climatologists on whether or not the
4 planet is getting warmer, or, if it is, on whether the warming is the result of man-
5 made factors or natural variations in the climate. . . . I feel very safe in saying that
6 the view that burning fossil fuels will result in global climate change remains an
7 unproved hypothesis.¹¹²

8 124. Exxon and Mobil (Exxon) paid for a series of "advertorials," advertisements
9 located in the editorial section of The New York Times and meant to look like editorials rather
10 than paid ads. These ads discussed various aspects of the public discussion of climate change and
11 sought to undermine the justifications for tackling greenhouse gas emissions as unsettled science.
12 For example, the 1993 Mobil advertorial below argued that "what's wrong with so much of the
13 global warming rhetoric" is "[t]he lack of solid scientific data," and quoted a purportedly neutral
14 scientific expert who insisted that "there is a large amount of empirical evidence suggesting that
15 the apocalyptic vision is in error and that the highly touted greenhouse disaster is most
16 improbable."¹¹³ It also quoted another purportedly neutral scientist who asserted that "the net
17 impact [of a modest warming] may yet be beneficial."
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25 ¹¹² Robert Peterson, A Cleaner Canada in Imperial Oil Review (1998),
26 [http://www.documentcloud.org/documents/2827818-1998-Imperial-Oil-Robert-Peterson-A-
Cleaner-Canada.html](http://www.documentcloud.org/documents/2827818-1998-Imperial-Oil-Robert-Peterson-A-Cleaner-Canada.html).

27 ¹¹³ Mobil, Apocalypse No (1993) N.Y. Times, A19 (Feb. 25, 1993),
28 <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 "pseudoscientific 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 CO₂ 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 CO₂ 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 6: New York Times Advertisement

1 125. 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
3 funding from the fossil fuel industry over the past decade, including from ExxonMobil.¹¹⁴ The
4 second, S. Fred Singer, had previously been funded by tobacco companies to spread doubt about
5 the scientific claim that exposure to second-hand smoke causes cancer.¹¹⁵

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

- 9 • “We don’t know enough about the factors that affect global warming and the
10 degree to which—if any—that man-made emissions (namely, carbon dioxide)
contribute to increases in Earth’s temperature.”¹¹⁶
- 11 • “[G]reenhouse-gas emissions, which have a warming effect, are offset by
12 another combustion product—particulates—which leads to cooling.”¹¹⁷
- 13 • “Even after two decades of progress, climatologists are still uncertain how—
14 or even if—the buildup of man-made greenhouse gases is linked to global
15 warming. It could be at least a decade before climate models will be able to
link greenhouse warming unambiguously to human actions. Important
16 answers on the science lie ahead.”¹¹⁸
- 17 • “[I]t is impossible for scientists to attribute the recent small surface
18 temperature increases to human causes.”¹¹⁹

19 ¹¹⁴ DeSmog, Robert C. Balling, Jr., <https://www.desmog.com/robert-c-balling-jr/>.

20 ¹¹⁵ Naomi Oreskes & Erik M. Conway, Merchants of Doubt: How a Handful of Scientists
21 Obscured the Truth on Issues from Tobacco Smoke to Global Warming, 150–54 (Bloomsbury
Press, 1st ed. 2011).

22 ¹¹⁶ Mobil, Climate change: a prudent approach, N.Y. Times (Nov. 13, 1997),
[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).

23 ¹¹⁷ Mobil, Less Heat, More Light on Climate Change, N.Y. Times (July 18, 1996),
24 [https://www.documentcloud.org/documents/705544-mob-nyt-1996-jul-18-
lessheatmorelight.html](https://www.documentcloud.org/documents/705544-mob-nyt-1996-jul-18-lessheatmorelight.html).

25 ¹¹⁸ Mobil, Climate Change: Where We Come Out, N.Y. Times (Nov. 20, 1997),
26 [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).

27 ¹¹⁹ 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).

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- “Within a decade, science is likely to provide more answers on what factors affect global warming, thereby improving our decision-making. We just don’t have this information today. Answers to questions about climate change will require more reliable measurements of temperature at many places on Earth, better understanding of clouds and ocean currents along with greater computer power.”¹²⁰

6 127. A quantitative analysis of ExxonMobil’s climate communications between 1989
7 and 2004 found that, while 83% of the company’s peer-reviewed papers and 80% of its internal
8 documents acknowledged the reality and human origins of climate change, 81% of its
9 advertorials communicated doubt about those conclusions.¹²¹ ExxonMobil’s tendency to
10 contradict its own peer-reviewed research in statements meant for lay audiences also appeared at
11 a year-to-year scale. Based on this “statistically significant” discrepancy between internal and
12 external communications, the authors concluded that “ExxonMobil misled the public.”¹²²

13 128. Defendants—individually and through API, other trade associations, and various
14 front groups—mounted a deceptive public campaign in order to continue wrongfully promoting
15 and marketing their fossil fuel products, despite their own knowledge and the growing national
16 and international scientific consensus about the hazards of doing so.

17 129. One of the key organizations formed by Defendants to coordinate the fossil fuel
18 industry’s response to the world’s growing awareness of climate change was the International
19 Petroleum Industry Environmental Conservation Association (“IPIECA”). In 1987, the IPIECA
20 formed a “Working Group on Global Climate Change” chaired by Duane LeVine, Exxon’s
21 manager for science and strategy development. The Working Group also included Brian
22 Flannery from Exxon, Leonard Bernstein from Mobil, Terry Yosie from API, and representatives
23

24 ¹²⁰ Mobil, Science: What We Know and Don’t Know, (1997), reproduced in
25 <https://www.theguardian.com/environment/2021/nov/18/the-forgotten-oil-ads-that-told-us-climate-change-was-nothing>.

26 ¹²¹ Geoffrey Supran & Naomi Oreskes, Assessing ExxonMobil’s Climate Change
27 Communications (1977–2014), 12 Envtl. Research Letters, IOP Publishing Ltd. 12 (2017),
<https://iopscience.iop.org/article/10.1088/1748-9326/aa815f/pdf>.

28 ¹²² Id.

1 from BP, Shell, and Texaco (Chevron). In 1990, the Working Group sent a strategy memo
2 created by LeVine to hundreds of oil companies around the world, including Defendants. This
3 memo explained that, to forestall a global shift away from burning fossil fuels for energy, the
4 industry should emphasize uncertainties in climate science, and the need for further research.¹²³

5 130. In 1991, the Information Council for the Environment (“ICE”), whose members
6 included affiliates, predecessors and/or subsidiaries of Defendants, including Pittsburg and
7 Midway Coal Mining (Chevron) and Island Creek Coal Company (Occidental), launched a
8 national climate change science denial campaign with full-page newspaper ads, radio
9 commercials, a public relations tour schedule, “mailers,” and research tools to measure campaign
10 success. Included among the campaign strategies was to “reposition global warming as theory
11 (not fact).” Its target audience included older less-educated males who are “predisposed to favor
12 the ICE agenda, and likely to be even more supportive of that agenda following exposure to new
13 info.”¹²⁴

14 131. An implicit goal of ICE’s advertising campaign was to change public opinion. A
15 memo from Richard Lawson, president of the National Coal Association noted that “[p]ublic
16 opinion polls reveal that 60% of the American people already believe global warming is a
17 serious environmental problem. Our industry cannot sit on the sidelines in this debate.”¹²⁵

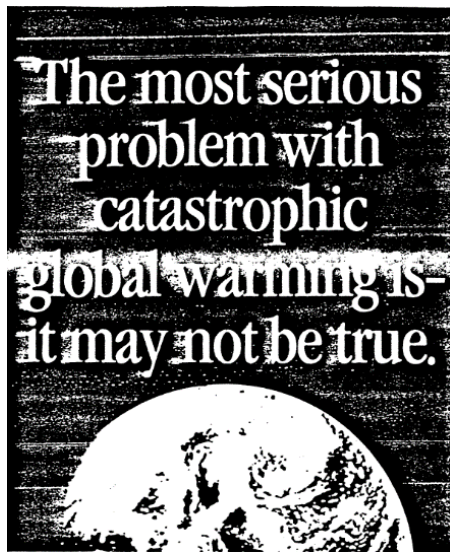
18 132. The following images are examples of ICE-funded print advertisements
19 challenging the validity of climate science, which sought to obscure the scientific consensus on
20 anthropogenic climate change in order to inflate consumer demand for fossil fuels:¹²⁶

22 ¹²³ Benjamin A. Franta, Big Carbon’s Strategic Response to Global Warming, 1950–2020, 140
23 (2022), <https://purl.stanford.edu/hq437ph9153>.

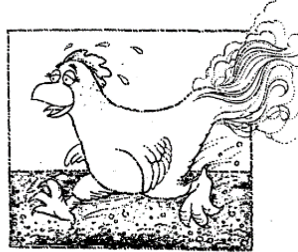
24 ¹²⁴ Id.

25 ¹²⁵ 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, 136–166. Cambridge University Press.
28 doi:10.1017/CBO9780511762154.008.8.

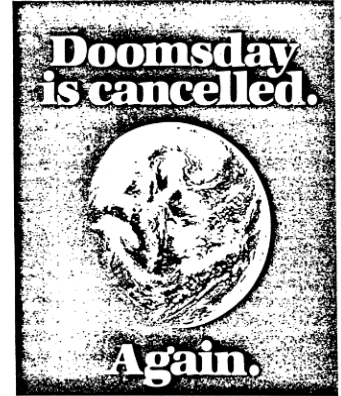
¹²⁶ Union of Concerned Scientists, Deception Dossier #5: Coal’s “Information Council on the
Environment” Sham, 47–49 (1991), http://www.ucsusa.org/sites/default/files/attach/2015/07/Climate-Deception-Dossier-5_ICE.pdf.



Who told you the earth was warming... Chicken Little?



Chicken Little's hysteria about the sky falling was based on a fact that just shows one of symptoms. It's the same with global warming. There's no hard evidence it is warming. In fact, evidence the Earth is heating is weak. Proof that carbon dioxide has been the primary cause is nonexistent. Climate models cannot accurately predict future global change. And the scientific process of climate change are still wide open to debate. If you care about the world, but don't have your tongue stuck in your own tail, write Informed Citizens for the Environment, P.O. Box 1011, Grand Forks, North Dakota 58006, or call us at the 1-800-766-6773. We'll send you what you need.



The twentieth century has seen many predictions of global destruction. In the 1950s, some scientists claimed we were in the middle of a disastrous warming trend. In the mid 1970s, others were sure we were entering a new Ice Age. And so on. It's the same with global warming. There's no hard evidence it is occurring. In fact, evidence the Earth is warming is weak. Proof that carbon dioxide has been the primary cause is nonexistent. Climate models cannot accurately predict future global change. And the underlying physics of the climatic change are still wide open to debate. If you care about the environment, but don't care to be pressured into spending money on problems that don't exist, make sure you get the facts. Write: Informed Citizens for the Environment, P.O. Box 1011, Grand Forks, North Dakota 58006 or call 1-800-766-6773. We'll send you the facts about global warming.

Figure 7: Global Climate Coalition Advertisements

133. The Global Climate Coalition (“GCC”), on behalf of Defendants and other fossil fuel companies, spent millions of dollars on deceptive advertising campaigns and misleading material to discredit climate science and generate public uncertainty around the climate debate and thereby inflate consumer demand for fossil fuels.¹²⁷ The GCC operated between 1989 and 2001. Its founding members included Defendants Exxon, Shell, Phillips Petroleum Company (ConocoPhillips), and API. Defendants BP and Chevron also participated as members of the GCC. William O’Keefe, former president of the GCC, was also a former executive of API.¹²⁸ GCC’s position on climate change contradicted decades of its members’ internal scientific reports by asserting that natural trends, not human combustion of fossil fuels, were responsible for rising global temperatures:

¹²⁷ Id.

¹²⁸ Jeff Nesmith, Industry Promotes Skeptical View of Global Warming, Cox News Service (May 28, 2003), <http://www.heatisonline.org/contentserver/objecthandlers/index.cfm?ID=4450&Method=Full>.

1 The GCC believes that the preponderance of the evidence indicates that most, if
2 not all, of the observed warming is part of [a] natural warming trend which began
3 approximately 400 years ago. If there is an anthropogenic component to this
4 observed warming, the GCC believes that it must be very small and must be
5 superimposed on a much larger natural warming trend.¹²⁹

6 134. The GCC's promotion of overt climate change skepticism also contravened its
7 internal assessment that such theories lacked scientific support. In December 1995, the GCC's
8 Science and Technology Advisory Committee ("GCC-STAC"), whose members included
9 employees of Mobil Oil Corporation (an Exxon predecessor) and API, drafted a primer on the
10 science of global warming for GCC members. The primer concluded that the GCC's contrarian
11 theories "do not offer convincing arguments against the conventional model of greenhouse gas
12 emission-induced climate change." However, the GCC excluded this section from the publicly
13 released version of the report.¹³⁰ Nonetheless, for years afterward, the GCC and its members
14 continued to tout their contrarian theories about global warming, even though the GCC had
15 admitted internally these arguments were invalid. Between 1989 and 1998, the GCC spent \$13
16 million on one ad campaign to obfuscate the public's understanding of climate science and
17 undermine its trust in climate scientists.¹³¹ For example, the GCC distributed a video to hundreds
18 of journalists, which claimed that carbon dioxide emissions would increase crop production and
19 feed the hungry people of the world.¹³²

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22 ¹²⁹ Global Climate Coalition, Global Climate Coalition: An Overview, 2 (Nov. 1996),
23 <http://www.climatefiles.com/denial-groups/global-climatecoalition-collection/1996-global-climate-coalition-overview/>.

24 ¹³⁰ Memorandum from Gregory J. Dana, Assoc. of Int'l Auto. Mfrs., to AIAM Technical
25 Committee, Global Climate Coalition (GCC) - Primer on Climate Change Science - Final Draft
(Jan. 18, 1996), <http://www.webcitation.org/6FyqHawb9>.

26 ¹³¹ Wendy E. Franz, Kennedy School of Government, Harvard University, Science, Skeptics and
27 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-State%20Actors%20in%20the%20Greenhouse%20-%20E-98-18.pdf>.

28 ¹³² http://www.sourcewatch.org/index.php/Global_Climate_Coalition.

1 135. In a 1994 public report, the GCC stated that “observations have not yet confirmed
2 evidence of global warming that can be attributed to human activities,” and that “[t]he claim that
3 serious impacts from climate change have occurred or will occur in the future simply has not
4 been proven.”¹³³ In 1994, GCC Board of Directors was composed of high-level executives from
5 API, Exxon, Phillips Petroleum Company (ConocoPhillips), and Texaco (Chevron).
6 Representatives from Shell, Amoco (BP), and BP were also GCC members at that time.¹³⁴ In
7 1995, the GCC published a booklet called “Climate Change: Your Passport to the Facts,” which
8 stated, “While many warnings have reached the popular press about the consequences of a
9 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.”¹³⁵ In 1995, GCC’s
11 Board of Directors included high-level executives from Texaco (Chevron), American Petroleum
12 Institute, ARCO, and Phillips Petroleum Company.¹³⁶

13 136. In 1997, William O’Keefe, chairman of the GCC and executive vice president of
14 API, falsely wrote in a Washington Post op-ed, “[c]limate scientists don’t say that burning oil,
15 gas, and coal is steadily warming the earth.”¹³⁷ This statement contradicted the established
16 scientific consensus as well as Defendants’ own knowledge. Yet Defendants did nothing to
17 correct the public record, and instead continued to fund the GCC’s anti-scientific climate
18 skepticism.

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20 ¹³³ GCC, Issues and Options: Potential Global Climate Change, Climate Files (1994),
21 [http://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1994-potential-
22 global-climate-change-issues](http://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1994-potential-global-climate-change-issues).

23 ¹³⁴ 1994 GCC Board Member List and Background Information, Climate Investigations Center,
24 [https://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1994-board-
25 member-list-general-info/](https://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1994-board-member-list-general-info/)

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

¹³⁶ 1995 GCC IRS 1024 and Attachments, Climate Investigations Center (1995),
<https://www.documentcloud.org/documents/5798254-GCC-IRS-1023#document/p17>

¹³⁷ 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-
4d59-a185-b0e7eebf19cc/](https://www.washingtonpost.com/archive/opinions/1997/07/05/a-climate-policy/6a11899a-c020-4d59-a185-b0e7eebf19cc/).

1 137. In addition to publicly spreading false and misleading information about the
2 climate science consensus, the GCC also sought to undermine credible climate science from
3 within the IPCC. After becoming a reviewer of IPCC’s Second Assessment Report in 1996, the
4 GCC used its position to accuse the convening author of a key chapter in the Report of
5 modifying its conclusions. The GCC claimed that the author, climatologist Ben Santer, had
6 engaged in “scientific cleansing” that “understate[d] uncertainties about climate change causes
7 and effect . . . to increase the apparent scientific support for attribution of changes to climate to
8 human activities.”¹³⁸ The GCC also arranged to spread the accusation among reporters, editors of
9 scientific journals, and even the op-ed page of the Wall Street Journal.¹³⁹ This effort “was widely
10 perceived to be an attempt on the part of the GCC to undermine the credibility of the IPCC.”¹⁴⁰

11 138. In the late 1990s, Defendants shifted away from openly denying anthropogenic
12 warming toward peddling a subtler form of climate change skepticism. Defendants became
13 alarmed by significant legal judgments Big Tobacco now faced as a result of decades spent
14 publicly denying the health risks of smoking cigarettes, with a Shell employee explaining that
15 the company “didn’t want to fall into the same trap as the tobacco companies who have become
16 trapped in all their lies.”¹⁴¹ Defendants began to shift their communications strategy, claiming
17 they had accepted climate science all along.¹⁴² Several large fossil fuel companies, including BP
18 and Shell, left the GCC (although all Defendants remained members of API).¹⁴³ At this point in
19 time, Defendants publicly claimed to accept the reality that the climate is changing (or Earth is
20 warming) and that climate change is anthropogenic.

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24 ¹³⁸ Franz (1998), supra note 131, at 14.

25 ¹³⁹ Oreskes & Conway (2011), supra note 115, at 205–13; see also S. Fred Singer, Climate
26 Change and Consensus, Science vol. 271, no. 5249 (Feb. 2, 1996); Frederick Seitz, A Major
27 Deception on ‘Global Warming’, Wall Street Journal (June 12, 1996).

28 ¹⁴⁰ Franz (1998), supra note 131, at 15.

¹⁴¹ Nathaniel Rich, Losing Earth: A Recent History, London: Picador 186 (2020).

¹⁴² Franta (2022), supra note 123, at 170.

¹⁴³ Id. at 177.

1 139. Despite the shift in official public messaging, Defendants surreptitiously
2 continued to organize and fund programs designed to deceive the public about the weight and
3 veracity of the climate science consensus. In 1998, API convened a Global Climate Science
4 Communications Team (“GCSCCT”) whose members included representatives from Exxon,
5 Chevron, and API.¹⁴⁴ There were no scientists on the “Global Climate Science Communications
6 Team.” Steve Milloy (a key player in the tobacco industry’s front group) and his organization,
7 The Advancement of Sound Science Coalition (“TASSC”), were founding members of the
8 GCSCCT. TASSC was a fake grassroots citizen group created by the tobacco industry to sow
9 uncertainty by discrediting the scientific link between exposure to second-hand cigarette smoke
10 and increased rates of cancer and heart disease. Philip Morris had launched TASSC on the advice
11 of its public relations firm, which advised Philip Morris that the tobacco company itself would
12 not be a credible voice on the issue of smoking and public health. TASSC, through API and with
13 the approval of Defendants, also became a front group for the fossil fuel industry beyond its role
14 in GCSCCT, using the same tactics it had honed while operating on behalf of tobacco companies
15 to spread doubt about climate science. Although TASSC posed as a grassroots group of
16 concerned citizens, it received significant funding from Defendants. For example, between 2000
17 and 2004, Exxon donated \$50,000 to Milloy’s Advancement of Sound Science Center; and an
18 additional \$60,000 to the Free Enterprise Education Institute and \$50,000 to the Free Enterprise
19 Action Institute, both of which were registered to Milloy’s home address.¹⁴⁵ The GCSCCT,
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22 ¹⁴⁴ In 1998, the GCC Board included executives from API, Amoco (BP), Chevron, Exxon, Mobil
23 (Exxon), and Texaco (Chevron); and CEOs from ARCO (BP) and Amoco (BP) were on the
24 executive committee for API’s Board of Directors, and high-level executives from
25 ConocoPhillips, ARCO, Anadarko, Marathon, BP, Shell, Chevron, Citgo, and Exxon also served
26 as Board members; see 1998 GCC Membership, Climate Investigations Center,
[https://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1998-
membership/](https://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1998-membership/).

27 ¹⁴⁵ Union of Concerned Scientists, [Smoke, Mirrors & Hot Air: How ExxonMobil Uses Big
Tobacco’s Tactics to Manufacture Uncertainty on Climate Science](https://www.ucsusa.org/resources/smoke-mirrors-hot-air) (July 16, 2007),
28 <https://www.ucsusa.org/resources/smoke-mirrors-hot-air>.

1 including TASSC, represented a continuation of Defendants’ concerted actions to sow doubt and
2 confusion about climate change in order to inflate consumer demand for fossil fuels.

3 140. The GCSCT continued Defendants’ efforts to expand the market for fossil fuels
4 by convincing the public that the scientific basis for climate change was in doubt. The multi-
5 million-dollar, multi-year plan, among other elements, sought to: (a) “[d]evelop and implement a
6 national media relations program to inform the media about uncertainties in climate science to
7 generate national, regional, and local media coverage on the scientific uncertainties”;
8 (b) “[d]evelop a global climate science information kit for media including peer-reviewed papers
9 that undercut the ‘conventional wisdom’ on climate science”; (c) “[p]roduce . . . a steady stream
10 of op-ed columns”; and (d) “[d]evelop and implement a direct outreach program to inform and
11 educate members of Congress . . . and school teachers/students about uncertainties in climate
12 science”¹⁴⁶—a blatant attempt to deceive consumers and the general public in order to ensure a
13 continued and unimpeded market for their fossil fuel products.

14 141. Exxon, Chevron, and API directed and contributed to the development of the
15 plan, which plainly set forth the criteria by which the contributors would know when their efforts
16 to manufacture doubt had been successful. “Victory,” they wrote, “will be achieved when . . .
17 average citizens ‘understand’ (recognize) uncertainties in climate science” and “recognition of
18 uncertainties becomes part of the ‘conventional wisdom.’”¹⁴⁷ In other words, the plan was part of
19 Defendants’ goal to use disinformation to plant doubt about the reality of climate change in an
20 effort to maintain consumer demand for their fossil fuel products and their large profits.

21 142. In furtherance of these strategies, Defendants made misleading statements to
22 consumers about climate change, the relationship between climate change and their fossil fuel
23 products, and the urgency of the problem. Defendants made these statements in public fora and
24 in advertisements published in newspapers and other media with substantial circulation to the

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26 ¹⁴⁶ Email from Joe Walker to Global Climate Science Team, Draft Global Climate Science
27 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).

28 ¹⁴⁷ Id.

1 County of Santa Cruz and California, including national publications such as The New York
2 Times, The Wall Street Journal, and The Washington Post.

3 143. Another key strategy in Defendants' efforts to discredit scientific consensus on
4 climate change and the IPCC was to bankroll scientists who, although accredited, held fringe
5 opinions that were even more questionable given the sources of their research funding. These
6 scientists obtained part or all of their research budget from Defendants directly or through
7 Defendant-funded organizations like API,¹⁴⁸ but they frequently failed to disclose their fossil fuel
8 industry underwriters.¹⁴⁹ During the early- to mid-1990s, Exxon directed some of this funding to
9 Dr. Fred Seitz, Dr. Fred Singer, and/or Seitz and Singer's Science and Environmental Policy
10 Project ("SEPP") in order to launch repeated attacks on mainstream climate science and IPCC
11 conclusions, even as Exxon scientists participated in the IPCC.¹⁵⁰ Seitz, Singer, and SEPP had
12 previously been paid by the tobacco industry to create doubt in the public mind about the hazards
13 of smoking.¹⁵¹ Seitz and Singer were not climate scientists.

14 144. At least one industry-funded scientist, Dr. Wei-Hock Soon, contractually agreed
15 to allow donors to review his research before publication, and his housing institution agreed not
16 to disclose the funding arrangement without prior permission from his fossil fuel donors.¹⁵²
17 Between 2001 and 2012, various fossil fuel interests, including Exxon and API, paid Soon over
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19

20 ¹⁴⁸ Willie Soon & Sallie Baliunas, Proxy Climatic and Environmental Changes of the Past 1000
21 Years, *Climate Research* 23, 88-110 (January 31, 2003), <http://www.int-res.com/articles/cr2003/23/c023p089.pdf>.

22 ¹⁴⁹ Newsdesk, Smithsonian Statement: Dr. Wei-Hock (Willie) Soon, *Smithsonian* (February 26,
23 2015), <http://newsdesk.si.edu/releases/smithsonian-statement-dr-wei-hock-willie-soon>.

24 ¹⁵⁰ Union of Concerned Scientists (2007), supra note 145.

25 ¹⁵¹ Frederick Seitz, *SourceWatch*, http://www.sourcewatch.org/index.php/S._Fred_Singer;
http://www.sourcewatch.org/index.php/Frederick_Seitz.

26 ¹⁵² Union of Concerned Scientists, Climate Deception Dossier #1: Dr. Wei-Hock Soon's
Smithsonian Contracts, (July 2015),
27 <https://www.ucsusa.org/sites/default/files/attach/2015/07/The-Climate-Deception-Dossiers.pdf>
28 [<https://perma.cc/JL2V-XYGL>] & https://s3.amazonaws.com/ucs-documents/global-warming/Climate-Deception-Dossier-1_Willie-Soon.pdf.

1 \$1.2 million.¹⁵³ “Dr. Soon, in correspondence with his corporate funders, described many of his
2 scientific papers as ‘deliverables’ that he completed in exchange for their money.”¹⁵⁴ His
3 Defendant-funded research includes articles in scientific journals accusing the IPCC of
4 overstating the negative environmental effects of carbon dioxide emissions and arguing that the
5 sun is responsible for recent climate trends. Soon was also the lead author of a 2003 article that
6 argued that the climate had not changed significantly. The article was widely promoted by other
7 denial groups funded by Exxon, including via “Tech Central Station,” a website supported by
8 Exxon.¹⁵⁵ Soon published other bogus “research” in 2009, attributing global warming to solar
9 activity, for which Exxon paid him \$76,106.¹⁵⁶ This 2009 grant was made several years after
10 Exxon had publicly committed not to fund global warming deniers.¹⁵⁷

11 145. Defendants intended for the papers of authors they funded to be distributed to and
12 relied on by consumers when buying Defendants’ products, including by consumers in the
13 County of Santa Cruz.

14 146. Defendants have also funded dozens of think tanks, front groups, lobbyists, and
15 dark money foundations pushing climate change denial. These include the Competitive
16 Enterprise Institute, the Heartland Institute, Frontiers for Freedom, Committee for a Constructive
17 Tomorrow, and Heritage Foundation. From 1998 to 2014, ExxonMobil spent almost \$31 million
18 funding numerous organizations misrepresenting the scientific consensus that Defendants’ fossil
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22 ¹⁵³ Justin Gillis & John Schwartz, Deeper Ties to Corporate Cash for Doubtful Climate
23 Researcher, New York Times (Feb. 21, 2015), <https://www.nytimes.com/2015/02/22/us/ties-to-corporate-cash-for-climate-change-researcher-Wei-Hock-Soon.html?mcubz=1>.

24 ¹⁵⁴ Id.

25 ¹⁵⁵ Union of Concerned Scientists (2007), supra note 145, at 13–14.

26 ¹⁵⁶ Willie Soon, Grants, <https://www.documentcloud.org/documents/682765-willie-soon-foia-grants-chart-02-08-2011.html>.

27 ¹⁵⁷ ExxonMobil, 2007 Corporate Citizenship Report,
28 http://www.socialfunds.com/shared/reports/1211896380_ExxonMobil_2007_Corporate_Citizenship_Report.pdf.

1 fuel products were causing climate change, sea level rise, and injuries to the County of Santa
2 Cruz, among other coastal communities.¹⁵⁸

3 147. Philip Cooney, an attorney at API from 1996 to 2001, testified at a 2007
4 Congressional hearing that it was “typical” for API to fund think tanks and advocacy groups that
5 minimized fossil fuels’ role in causing climate change.¹⁵⁹

6 148. Creating a false sense of disagreement in the scientific community (despite the
7 consensus that its own scientists, experts, and managers had previously acknowledged) has had
8 an evident impact on public opinion. A 2007 Yale University-Gallup poll found that while 71%
9 of Americans personally believed global warming was happening, only 48% believed that there
10 was a consensus among the scientific community, and 40% believed there was a lot of
11 disagreement among scientists over whether global warming was occurring.¹⁶⁰ Eight years later,
12 a 2015 Yale-George Mason University poll found that “[o]nly about one in ten Americans
13 understands that nearly all climate scientists (over 90%) are convinced that human-caused global
14 warming is happening, and just half . . . believe a majority do.”¹⁶¹ Further, it found that 33% of
15 Americans believe that climate change is mostly due to natural causes, compared to the 97% of
16 peer-reviewed papers that acknowledge that global warming is real and at least partly human-
17 caused.¹⁶² The lack of progress, and even regress, in the public understanding of climate science
18 over this period—during which Defendants professed to accept the conclusions of mainstream
19

20 ¹⁵⁸ ExxonSecrets.org, ExxonMobil Climate Denial Funding 1998–2014
<http://exxonsecrets.org/html/index.php>.

21 ¹⁵⁹ Allegations of Political Interference with Government Climate Change Science: Hearing
22 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-](https://www.govinfo.gov/content/pkg/CHRG-110hhr37415/html/CHRG-110hhr37415.htm)
23 [110hhr37415/html/CHRG-110hhr37415.htm](https://www.govinfo.gov/content/pkg/CHRG-110hhr37415/html/CHRG-110hhr37415.htm)).

24 ¹⁶⁰ American Opinions on Global Warming: A Yale/Gallup/Clearvision Poll, Yale Program on
Climate Change Communication (July 31, 2007),
25 <http://climatecommunication.yale.edu/publications/american-opinions-on-global-warming/>.

26 ¹⁶¹ 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),
27 [https://climatecommunication.yale.edu/wp-content/uploads/2015/11/Climate-Change-American-](https://climatecommunication.yale.edu/wp-content/uploads/2015/11/Climate-Change-American-Mind-October-20151.pdf)
[Mind-October-20151.pdf](https://climatecommunication.yale.edu/wp-content/uploads/2015/11/Climate-Change-American-Mind-October-20151.pdf).

28 ¹⁶² Id. at 7.

1 climate science—testifies to the success of Defendants’ deception campaign in thwarting
2 dissemination of accurate scientific expertise to the public regarding the effects fossil fuel
3 consumption.

4 149. Beginning in 2015, journalists began to uncover mounting evidence of
5 Defendants’ campaign of deception. In September 2015, journalists at Inside Climate News
6 reported that, as far back as the 1970s, Exxon had sophisticated knowledge of the causes and
7 consequences of climate change and of the role its products played in contributing to climate
8 change.¹⁶³

9 150. Between October and December 2015, several journalists at the Energy and
10 Environment Reporting Project at Columbia University’s Graduate School of Journalism and the
11 Los Angeles Times also exposed the fact that, as far back as the 1970s, Exxon and other
12 members of the fossil fuel industry had superior knowledge of the causes and consequences of
13 climate change and the role their products played in causing it.¹⁶⁴

14 151. In November 2017, the Center for International Environmental Law issued a
15 report revealing that Defendants, including API, had superior knowledge of the causes and
16 consequences of climate change and the role fossil fuel products played in causing it as early as
17 the 1970s.¹⁶⁵

18 152. In September 2023, the Wall Street Journal reported that Exxon worked “behind
19 closed doors” to sow public doubt about climate change. The article was based on “documents
20 reviewed by the Journal, which haven’t been previously reported.”¹⁶⁶

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23 ¹⁶³ Neela Banerjee et al., Exxon: The Road Not Taken, Inside Climate News,
<https://insideclimatenews.org/project/exxon-the-road-not-taken/>.

24 ¹⁶⁴ The L.A. Times published a series of three articles between October and December 2015.

25 ¹⁶⁵ Carol Muffett & Steven Feit, Smoke and Fumes: The Legal and Evidentiary Basis for
Holding Big Oil Accountable for the Climate Crisis, Center for Int’l Env’t L. (2017),
26 <https://www.ciel.org/reports/smoke-and-fumes>.

27 ¹⁶⁶ Christopher M. Matthews & Collin Eaton, Inside Exxon’s Strategy to Downplay Climate
Change, The Wall Street J. (Sept. 14, 2023), <https://www.wsj.com/business/energy-oil/exxon-climate-change-documents-e2e9e6af>.
28

1 **D. Defendants Could Have Chosen to Facilitate, and Be Part of, a Lower-**
2 **Carbon Future, but Instead Chose Corporate Profits and Continued**
3 **Deception**

4 153. Defendants could have contributed to the global effort to mitigate the impacts of
5 greenhouse gas emissions by, for example, issuing warnings commensurate with their own
6 understanding of the risks posed by the expected and intended uses of fossil fuel products.
7 Instead, Defendants undertook a momentous effort to deceive consumers and the public about
8 the existential hazards of burning fossil fuels— all with the purpose and effect of perpetuating and
9 hyperinflating fossil fuel consumption and delaying the advent of alternative energy sources not
10 based on fossil fuels.

11 154. As a result of Defendants’ tortious, false and misleading conduct, consumers of
12 Defendants’ fossil fuel products in the County of Santa Cruz as elsewhere, have been
13 deliberately and unnecessarily deceived about: the role of fossil fuel products in causing global
14 warming, sea level rise, disruptions to the hydrologic cycle, and increased extreme precipitation,
15 heat waves, drought, and other consequences of the climate crisis; the acceleration of global
16 warming since the mid-twentieth century and the continuation thereof; and the fact that the
17 continued increase in fossil fuel consumption creates severe environmental threats and
18 significant economic costs for coastal communities, including the County of Santa Cruz.
19 Consumers in the County of Santa Cruz and elsewhere have also been deceived about the depth
20 and breadth of the state of the scientific evidence on anthropogenic climate change, and in
21 particular about the strength of the scientific consensus demonstrating the role of fossil fuels in
22 causing both climate change and a wide range of potentially destructive impacts, including sea
23 level rise, disruptions to the hydrologic cycle, extreme precipitation, heat waves, drought, and
24 associated consequences.

25 155. By sowing doubt about the future consequences of unrestricted fossil fuel
26 consumption, Defendants’ deception campaign successfully delayed the transition to alternative
27 energy sources, which Defendants forecasted could penetrate half of a competitive energy
28 market in 50 years if allowed to develop unimpeded. This delay caused emission of huge
 amounts of avoidable greenhouse gases, thereby ensuring that the damage caused by climate

1 change will be substantially more severe than if Defendants had acted forthrightly,
2 commensurate with their internal knowledge of climate risks.

3
4 **E. In Contrast to Their Denial and Downplaying the Risks of Climate Change**
5 **in Public, Defendants' Internal Actions Demonstrate Their Awareness of and**
6 **Intent to Profit from Uses of Fossil Fuel Products They Knew Were**
7 **Hazardous.**

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

19 157. For example, oil and gas reserves in the Arctic that were not previously reachable
20 due to sea ice are becoming increasingly reachable as sea ice thins and melts due to climate
21 change.¹⁶⁷ In 1973 Exxon obtained a patent for a cargo ship capable of breaking through sea
22 ice¹⁶⁸ and for an oil tanker¹⁶⁹ designed specifically for use in previously unreachable areas of the
23 Arctic.

24 ¹⁶⁷ Henderson & Loe, The Prospects and Challenges for Arctic Oil Development, Oxford
25 Institute for Energy Studies (Nov. 2014) p. 1, <https://www.oxfordenergy.org/publications/the-prospects-and-challenges-for-arctic-oildevelopment/>.

26 ¹⁶⁸ ExxonMobil Research Engineering Co., Patent US3727571A, Icebreaking cargo vessel,
(granted April 17, 1973), <https://www.google.com/patents/US3727571>.

27 ¹⁶⁹ ExxonMobil Research Engineering Co., Patent US3745960A, Tanker vessel, (granted July
28 17, 1973), <https://www.google.com/patents/US3745960>.

1 158. In 1974, Chevron obtained a patent for a mobile arctic drilling platform designed
2 to withstand significant interference from lateral ice masses,¹⁷⁰ allowing for drilling in areas with
3 increased ice floe movement due to elevated temperature.

4 159. 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,¹⁷¹ allowing for drilling in previously unreachable Arctic areas that
7 would become seasonally accessible.

8 160. Shell obtained a patent for an Arctic offshore platform adapted for conducting
9 operations in the Beaufort Sea in 1984.¹⁷²

10 161. In 1989, Norske Shell, Royal Dutch Shell's Norwegian subsidiary, altered designs
11 for a natural gas platform planned for construction in the North Sea to account for anticipated sea
12 level rise. Those design changes were ultimately carried out by Shell's contractors, adding
13 substantial costs to the project.¹⁷³

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

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

22 _____
23 ¹⁷⁰ Chevron Research & Technology Co., Patent US3831385A, Arctic offshore platform (granted
24 Aug. 27, 1974), <https://www.google.com/patents/US3831385>.

25 ¹⁷¹ Texaco Inc., Patent US3793840A, Mobile, arctic drilling and production platform, (granted
26 Feb. 26, 1974), <https://www.google.com/patents/US3793840>.

27 ¹⁷² Shell Oil Co., Patent US4427320A, Arctic offshore platform, Shell Oil Company (granted
28 Jan. 24, 1984), <https://www.google.com/patents/US4427320>.

¹⁷³ Greenhouse Effect: Shell Anticipates A Sea Change, N.Y. Times (Dec. 20, 1989),
<http://www.nytimes.com/1989/12/20/business/greenhouse-effect-shell-anticipates-a-sea-change.html>.

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

4 d. In 1989, Shell engineers revised their plans to increase the above-water
5 height of the platform by 3 to 6 feet, specifically to account for higher anticipated average sea
6 levels and increased storm intensity due to global warming over the platform’s 70-year
7 operational life.¹⁷⁴

8 e. 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 **F. Defendants’ Actions Have Slowed the Development of Alternative Energy**
11 **Sources and Exacerbated the Costs of Adapting to and Mitigating the**
12 **Adverse Impacts of the Climate Crisis.**

13 162. As greenhouse gas pollution accumulates in the atmosphere, some of which does
14 not dissipate for potentially thousands of years (namely CO₂), climate changes and consequent
15 adverse environmental changes compound, and their frequencies and magnitudes increase. As
16 those adverse environmental changes compound and their frequencies and magnitudes increase,
17 so too do the physical, environmental, economic, and social injuries resulting therefrom.

18 163. Delayed societal development and adoption of alternative energy sources have
19 therefore increased environmental harms and increased the magnitude and cost to remediate
20 harms that have already occurred or are locked in by previous emissions. Therefore, Defendants’
21 campaign to obscure the science of climate change and to expand the use of fossil fuels greatly
22 increased and continues to increase the harms and rate of harms suffered by Plaintiffs. Had
23 market demand to transition away from fossil fuels—and for affordable, reliable sources of clean
24 energy—developed earlier, the subsequent impacts of climate change could have been avoided
25 or mitigated.

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27 ¹⁷⁴ Id.; Amy Lieberman & Suzanne Rust, Big Oil braced for global warming while it fought
28 regulations, L.A. Times (Dec. 31, 2015), <http://graphics.latimes.com/oil-operations/>.

1 164. Defendants have been aware for decades that clean energy presents a feasible
2 alternative to fossil fuels. In 1980, Exxon forecasted that non-fossil fuel energy sources, if
3 pursued, could penetrate half of a competitive energy market in approximately 50 years.¹⁷⁵ This
4 internal estimate was based on extensive modeling within the academic community, including
5 research conducted by the Massachusetts Institute of Technology’s David Rose, which
6 concluded that a transition to non-fossil energy could be achieved in around 50 years. Exxon
7 circulated an internal memo approving of Rose’s conclusions, stating they were “based on
8 reasonable assumptions.”¹⁷⁶ But instead of pursuing a clean energy transition or warning
9 consumers about the dangers of burning fossil fuels, Defendants chose to deceive consumers to
10 preserve Defendants’ profits and assets. As a result, much time has been lost during which
11 consumers and market forces would have spurred a societal transition away from fossil fuels,
12 which would have reduced or eliminated entirely the harmful effects of climate change in the
13 County of Santa Cruz.

14 165. The costs of inaction and the opportunities to confront anthropogenic climate
15 change and sea level rise caused by normal consumption of their fossil fuel products were not
16 lost on Defendants. In a 1997 speech by John Browne, Group Executive for BP America, at
17 Stanford University, Browne described Defendants’ and the entire fossil fuel industry’s
18 responsibility and opportunities to reduce use of fossil fuel products, reduce global CO₂
19 emissions, and mitigate the harms associated with the use and consumption of such products:

20 “A new age demands a fresh perspective of the nature of society and
21 responsibility.

22 We need to go beyond analysis and to take action. It is a moment for change and
23 for a rethinking of corporate responsibility. . . .

24 _____
25 ¹⁷⁵ Shaw & McCall, Exxon Research and Engineering Company’s Technological Forecast: CO₂
26 Greenhouse Effect (Dec. 18, 1980), at 5, [https://insideclimatenews.org/wp-](https://insideclimatenews.org/wp-content/uploads/2015/09/Technological-Forecast-on-CO2-Greenhouse-Effect-1980.pdf)
[content/uploads/2015/09/Technological-Forecast-on-CO2-Greenhouse-Effect-1980.pdf](https://insideclimatenews.org/wp-content/uploads/2015/09/Technological-Forecast-on-CO2-Greenhouse-Effect-1980.pdf).

27 ¹⁷⁶ Exxon Research and Engineering Company, Coordination and Planning Division, CO₂
28 Greenhouse Effect: A Technical Review (Apr. 1, 1982), at 17–18, [https://insideclimatenews.org/](https://insideclimatenews.org/wp-content/uploads/2015/09/1982-Exxon-Primer-on-CO2-Greenhouse-Effect.pdf)
[wp-content/uploads/2015/09/1982-Exxon-Primer-on-CO2-Greenhouse-Effect.pdf](https://insideclimatenews.org/wp-content/uploads/2015/09/1982-Exxon-Primer-on-CO2-Greenhouse-Effect.pdf).

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[T]here is now an effective consensus among the world's leading scientists and serious and well informed people outside the scientific community that there is a discernible human influence on the climate, and a link between the concentration of carbon dioxide and the increase in temperature.

The prediction of the IPCC is that over the next century temperatures might rise by a further 1 to 3.5 degrees centigrade [1.8° – 6.3° F], and that sea levels might rise by between 15 and 95 centimeters [5.9 and 37.4 inches]. Some of that impact is probably unavoidable, because it results from current emissions. . . .

[I]t would be unwise and potentially dangerous to ignore the mounting concern.

The time to consider the policy dimensions of climate change is not when the link between greenhouse gases and climate change is conclusively proven . . . but when the possibility cannot be discounted and is taken seriously by the society of which we are part. . . .

We [the fossil fuel industry] have a responsibility to act, and I hope that through our actions we can contribute to the much wider process which is desirable and necessary.

BP accepts that responsibility and we're therefore taking some specific steps.

To control our own emissions.

To fund continuing scientific research.

To take initiatives for joint implementation.

To develop alternative fuels for the long term.

And to contribute to the public policy debate in search of the wider global answers to the problem.”¹⁷⁷

166. Despite Defendants’ knowledge of the foreseeable, measurable harms associated with the consumption and use of their fossil fuel products, and despite the existence and Defendants’ knowledge of technologies and practices that could have helped to reduce the foreseeable dangers associated with their fossil fuel products, Defendants continued to misleadingly market and promote heavy fossil fuel use and conceal the connection between use

¹⁷⁷ John Browne, BP Climate Change Speech to Stanford, Climate Files (May 19, 1997), <http://www.climatefiles.com/bp/bp-climate-change-speech-to-stanford/>.

1 of their products and the climate crisis, dramatically increasing the cost of abatement. This
2 campaign was intended to and did reach and influence the County of Santa Cruz consumers,
3 along with consumers elsewhere.

4 167. At all relevant times, Defendants were deeply familiar with opportunities to
5 reduce the use of their fossil fuel products, reduce global CO₂ emissions associated therewith,
6 and mitigate the harms associated with the use and consumption of such products. Examples of
7 that recognition include, but are not limited to the following:

8 a. In 1961, Phillips Petroleum Company filed a patent application for a
9 method to purify gas, among other things, as “natural gas containing gasoline hydrocarbons can
10 contain undesirable amounts of sulfur and other compounds such as carbon dioxide which are
11 undesirable in the finished gasoline product.”¹⁷⁸

12 b. In 1963, Esso (Exxon) obtained multiple patents on technologies for fuel
13 cells, including on the design of a fuel cell and necessary electrodes,¹⁷⁹ and on a process for
14 increasing the oxidation of a fuel, specifically methanol, to produce electricity in a fuel cell.¹⁸⁰

15 c. In 1970, Esso (Exxon) obtained a patent for a “low-polluting engine and
16 drive system” that used an interburner and air compressor to reduce pollutant emissions,
17 including CO₂ emissions, from gasoline combustion engines (the system also increased the
18 efficiency of the fossil fuel products used in such engines, thereby lowering the amount of fossil
19 fuel product necessary to operate engines equipped with this technology).¹⁸¹

20 d. In 1980, Imperial Oil wrote in its “Review of Environmental Protection
21 Activities for 1978–79”: “There is no doubt that increases in fossil fuel usage and decreases in
22

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

24 ¹⁷⁹ Patents, Fuel cell and fuel cell electrodes, Exxon Research Engineering Co. (Dec. 31,
25 1963) <https://www.google.com/patents/US3116169>.

26 ¹⁸⁰ Patents, Direct production of electrical energy from liquid fuels, Exxon Research Engineering
27 Co. (Dec. 3, 1963) <https://www.google.com/patents/US3113049>.

28 ¹⁸¹ Patents, Low-polluting engine and drive system, Exxon Research Engineering Co. (May 16,
1970) <https://www.google.com/patents/US3513929>.

1 forest cover are aggravating the potential problem of increased CO₂ in the atmosphere.
2 Technology exists to remove CO₂ from stack gases but removal of only 50% of the CO₂ would
3 double the cost of power generation.”¹⁸²

4 e. A 1987 company briefing produced by Shell on “Synthetic Fuels and
5 Renewable Energy” noted that while “immediate prospects” were “limited,” “nevertheless it is
6 by pursuing commercial opportunities now and in the near future that the valuable experience
7 needed for further development will be gained.” The brief also noted that “the task of replacing
8 oil resources is likely to become increasingly difficult and expensive and there will be a growing
9 need to develop lean, convenient alternatives. Initially these will supplement and eventually
10 replace valuable oil products. Many potential energy options are as yet unknown or at very early
11 stages of research and development. New energy sources take decades to make a major global
12 contribution. Sustained commitment is therefore needed during the remainder of this century to
13 ensure that new technologies and those currently at a relatively early stage of development are
14 available to meet energy needs in the next century.”¹⁸³

15 f. A 1989 article in a publication from Exxon Corporate Research for
16 company use only stated: “CO₂ emissions contribute about half the forcing leading to a potential
17 enhancement of the Greenhouse Effect. Since energy generation from fossil fuels dominates
18 modern CO₂ emissions, strategies to limit CO₂ growth focus near term on energy efficiency and
19 long term on developing alternative energy sources. Practiced at a level to significantly reduce
20 the growth of greenhouse gases, these actions would have substantial impact on society and our
21 industry—near-term from reduced demand for current products, long term from transition to
22 entirely new energy systems.”¹⁸⁴

23 _____
24 ¹⁸² Imperial Oil Ltd., Review of Environmental Protection Activities for 1978–1979 2 (Aug. 6,
25 1980), <http://www.documentcloud.org/documents/2827784-1980-Imperial-Oil-Review-of-Environmental.html#document/p2>.

26 ¹⁸³ Synthetic Fuels and Renewable Energy, Shell Service Briefing, no. 2, 1987,
<https://assets.documentcloud.org/documents/4411089/Document2.pdf>.

27 ¹⁸⁴ Brian Flannery, Greenhouse Science, Connections: Corporate Research, Exxon Research and
28 Engineering Company (Fall 1989), <http://www.climatefiles.com/exxonmobil/1989-exxon-mobil-article-technologys-place-marketing-mix>.

1 168. Defendants could have taken other practical, cost-effective steps to reduce the risk
2 created by their fossil fuel products and marketing. These alternatives could have included,
3 among other measures:

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

9 b. Forthrightly communicating with Defendants' shareholders, consumers,
10 banks, insurers, and Plaintiffs about the climatic hazards of Defendants' fossil fuel products that
11 were known to Defendants, which would have enabled those groups to make material, informed
12 decisions about whether and how to address climate change and sea level rise vis-à-vis
13 Defendants' products;

14 c. Refraining from affirmative efforts, whether directly, through coalitions,
15 or through front groups, to distort consumer awareness of the climatic dangers of fossil fuels, and
16 to cause many consumers and business leaders to think the relevant science was far less certain
17 that it actually was; and

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

21 **G. Defendants Intended for Consumers to Use Their Fossil Fuel Products in a**
22 **Way Defendants Knew Was Harmful.**

23 169. Consumer use of fossil fuel products, particularly by driving gasoline-powered
24 cars and other vehicles, is a significant contributor to climate change. However, as a result of
25 Defendants' sustained and widespread campaign of disinformation, many consumers in Santa
26 Cruz County and elsewhere have been unaware of the magnitude of the threat posed by their use
27 of fossil fuels, or of the relationship between their purchasing behavior and climate change.

1 170. By misleading the consumers about the climate impacts of using fossil fuel
2 products, even to the point of claiming that certain of their products may benefit the
3 environment, and by failing to disclose the climate risks associated with their purchase and use
4 of those products, Defendants have deprived and are continuing to deprive consumers of
5 information about the consequences of their purchasing decisions.

6 171. Defendants intended for consumers to rely on their omissions and concealments
7 and to continue purchasing Defendants' fossil fuel products without regard for the damage such
8 products cause.

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

19 173. A consumer who received accurate information that fossil fuel use was a primary
20 driver of climate change, and about the resultant dangers to the environment and to public health,
21 would have decreased the consumer's use of fossil fuel products and/or demanded lower-carbon
22 transportation options. Indeed, recent studies and surveys have found that consumers with
23 substantial awareness of climate change are largely willing "to change their consumption habits
24 . . . to help reduce the impacts of climate change."¹⁸⁵ If consumers were aware of what the

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26 ¹⁸⁵ The Conference Board, Changes in Consumers' Habits Related to Climate Change May
27 Require New Marketing and Business Models (Oct. 26, 2022), [https://www.conference-](https://www.conference-board.org/topics/consumers-attitudes-sustainability/changes-in-consumer-habits-related-to-climate-change)
28 [board.org/topics/consumers-attitudes-sustainability/changes-in-consumer-habits-related-to-](https://www.conference-board.org/topics/consumers-attitudes-sustainability/changes-in-consumer-habits-related-to-climate-change)
[climate-change.](https://www.conference-board.org/topics/consumers-attitudes-sustainability/changes-in-consumer-habits-related-to-climate-change)

1 Defendants knew about climate change when the Defendants knew it, consumers would have
2 opted to avoid or minimize airplane travel; avoid or combine car travel trips; carpool; switch to
3 more fuel-efficient vehicles, hybrid vehicles, or electric vehicles; demand more charging
4 infrastructure for electric vehicles; use a car-sharing service; seek transportation alternatives all
5 or some of the time, if and when available (e.g., public transportation, biking, or walking); or
6 adopt any combination of these choices. In addition, informed consumers often attempt to
7 contribute toward solving environmental problems by supporting companies that they perceive to
8 be developing “green” or more environmentally friendly products.¹⁸⁶

9 174. As described herein, by casting doubt upon the scientific consensus on climate
10 change, Defendants deceived consumers about the relationship between consumption of fossil
11 fuels and climate change, and the magnitude of the threat posed by fossil fuel use. Consumers
12 equipped with complete and accurate knowledge about the climate and the public health effects
13 of continued consumption of fossil fuels would have likely formed a receptive customer base for
14 clean energy alternatives decades before such demand in fact developed. Instead, Defendants’
15 campaign of deception allowed them to exploit public uncertainty to reap substantial profits.

16 175. The delayed emergence of a scalable market for non-fossil fuel energy is
17 attributable to consumers’ industry-induced ignorance of the reality and severity of the climatic
18 consequences associated with normal use of fossil fuels. The societal transition to a low-carbon
19 economy would have been far cheaper and more efficient had Defendants publicly
20 acknowledged the conclusions reached by their own scientists and the broader scientific
21 community. As a result of this delay, huge quantities of avoidable greenhouse gas emissions
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24 ¹⁸⁶ See, e.g., Leiserowitz et al., Program on Climate Change Communication, Yale University,
25 and Center for Climate Change Communication, George Mason University, Consumer Activism
26 on Global Warming, September 2021 (2021), [https://climatecommunication.yale.edu/wp-](https://climatecommunication.yale.edu/wp-content/uploads/2021/12/consumer-activism-on-global-warming-september-2021.pdf)
27 [content/uploads/2021/12/consumer-activism-on-global-warming-september-2021.pdf](https://climatecommunication.yale.edu/wp-content/uploads/2021/12/consumer-activism-on-global-warming-september-2021.pdf). About a
28 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).

1 have been released into the atmosphere, causing greater total emissions, higher peak emissions,
2 and all associated climatic effects.

3 **H. Defendants’ Deceit Only Recently Came to Light, and Their Misconduct Is**
4 **Ongoing.**

5 176. The fact that Defendants and their proxies knowingly provided incomplete and
6 misleading information to the public, including Santa Cruz County consumers, only recently
7 became discoverable due to, among other things:

8 a. Defendants’ above-described deception campaigns, which continues to
9 this day;

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

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

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

20 178. Defendants have continued to mislead the public about the impact of fossil fuel
21 products on climate change through “greenwashing.” Through recent advertising campaigns and
22 public statements in California and/or intended to reach California, including but not limited to
23 online advertisements and social media posts, Defendants falsely and misleadingly portray these
24 products as “green,” and the Defendants portray themselves as climate-friendly energy
25 companies that are deeply engaged in finding solutions to climate change. In reality, Defendants
26 continue to primarily invest in, develop, promote, and profit from fossil fuel products and
27 heavily market those products to consumers, with full knowledge that those products will
28 continue to exacerbate climate change harms.

1 179. Defendants’ greenwashing exploits consumers’ concerns about climate change
2 and their desire to purchase “green” products and spend their consumer dollars on products and
3 businesses that are taking substantial and effective measures to combat climate change.
4 Defendants’ false advertisements are likely to mislead consumers by giving the impression that
5 in purchasing the Defendants’ fossil fuel products, consumers are supporting genuine,
6 substantial, and effective measures to mitigate climate change through these companies’ alleged
7 investments in clean energy. Defendants’ greenwashing ultimately attempts to persuade
8 consumers to support Defendants’ purported attempts to contribute to climate change solutions
9 by purchasing and consuming these products, including the Defendants’ fossil fuel products.

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

14 181. As recently as June 2018, a post on the official Shell blog stated: “the potential
15 extent of change in the climate itself could now be limited. In other words, the prospect of
16 runaway climate change might have passed.”¹⁸⁷ However, this statement is not supported by
17 valid scientific research, and was and is contradicted by various studies.¹⁸⁸

18 182. In March 2018, Chevron issued a report entitled “Climate Change Resilience: A
19 Framework for Decision Making,” which misleadingly stated that “[t]he IPCC Fifth Assessment
20 Report concludes that there is warming of the climate system and that warming is due in part to
21

22 ¹⁸⁷ David Hone, Has Climate Change Run Its Course??, Shell Climate Change Blog (June 14,
2018), <https://blogs.shell.com/2018/06/14/has-climate-change-run-its-course>.

23 ¹⁸⁸ See, e.g., Fiona Harvey, Carbon Emissions from Warming Soils Could Trigger Disastrous
24 Feedback Loop, The Guardian (Oct. 5, 2017), [https://www.theguardian.com/environment/2017/
25 oct/05/carbon-emissions-warming-soils-higher-than-estimated-signalling-tipping-points](https://www.theguardian.com/environment/2017/oct/05/carbon-emissions-warming-soils-higher-than-estimated-signalling-tipping-points);
Jonathan Watts, Domino-Effect of Climate Events Could Move Earth into a ‘Hothouse’ State,
26 The Guardian (Aug. 7, 2018), [https://www.theguardian.com/environment/2018/aug/06/domino-
27 effect-of-climate-events-could-push-earth-into-a-hothouse-state](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),
28 [https://www.theguardian.com/environment/2018/oct/09/tipping-points-could-exacerbate-climate-
crisis-scientists-fear](https://www.theguardian.com/environment/2018/oct/09/tipping-points-could-exacerbate-climate-crisis-scientists-fear).

1 human activity.”¹⁸⁹ In reality, the Fifth Assessment report concluded that “[i]t is extremely likely
2 [defined as 95–100% probability] that human influence has been the dominant cause of the
3 observed warming since the mid-20th century.”¹⁹⁰

4 183. Despite this fact, in April 2017, Chevron CEO and Chairman of the Board John
5 Watson said on a podcast, “There’s no question there’s been some warming; you can look at the
6 temperatures data and see that. The question and debate is around how much, and how much is
7 caused by humans.”¹⁹¹

8 184. Similarly, ConocoPhillips’s “Climate Change Position” as it appeared on the
9 company’s website through 2020 stated that human activity is “contributing to” climate change
10 and emphasizes “uncertainties,” even though the science is clear: “ConocoPhillips recognizes
11 that human activity, including the burning of fossil fuels, is contributing to increased
12 concentrations of greenhouse gases in the atmosphere that can lead to adverse changes in global
13 climate. . . . While uncertainties remain, we continue to manage greenhouse gas emissions in our
14 operations and to integrate climate change related activities and goals into our business
15 planning.”¹⁹²

16 185. On May 27, 2015, at Exxon’s annual shareholder meeting, then-CEO Rex
17 Tillerson misleadingly downplayed global warming’s risks by stating that climate models used to
18 predict future impacts were unreliable: “What if everything we do it turns out our models are
19 lousy, and we don’t get the effects we predict? Mankind has this enormous capacity to deal with
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21

22 _____
23 ¹⁸⁹ Chevron, Climate Change Resilience: A Framework for Decision Making, at 20 (Mar. 2018),
<https://www.chevron.com/-/media/shared-media/documents/climate-change-resilience.pdf>.

24 ¹⁹⁰ IPCC, Summary for Policymakers: Working Group I Contribution to the Fifth Assessment
Report 17 (2013), https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_SPM_FINAL.pdf.

25 ¹⁹¹ Columbia Energy Exchange Podcast, John Watson, CEO, Chevron (Apr. 10, 2017),
<https://www.energypolicy.columbia.edu/us-energy-markets-policy>.

26 ¹⁹² ConocoPhillips, Climate Change Position (Oct. 28, 2020),
27 <https://web.archive.org/web/20201028115814/https://www.conocophillips.com/sustainability/integrating-sustainability/sustainable-development-governance/policies-positions/climate-change-position/>.
28

1 adversity, and those solutions will present themselves as those challenges become clear.”¹⁹³ But
2 as noted above, in 1982 Exxon’s scientific staff stated, based upon the climate models, that there
3 was a “clear scientific consensus” with respect to the level of projected future global warming
4 and starting shortly thereafter Exxon relied upon the projections of climate models, including its
5 own climate models, in order to protect its own business assets. Tillerson’s statement reached
6 consumers because it was reported in the press, including in California,¹⁹⁴ as is common when
7 fossil fuel company CEOs make statements regarding climate change and as Exxon had reason to
8 know would occur.

9 186. Until approximately early 2017, Exxon’s website continued to emphasize the
10 “uncertainty” of global warming science and impacts: “current scientific understanding provides
11 limited guidance on the likelihood, magnitude, or time frame” of events like temperature
12 extremes and sea level rise.¹⁹⁵ Exxon’s insistence on crystal-ball certainty was clear misdirection,
13 since Exxon knew that the fundamentals of climate science were well settled and showed global
14 warming to present a clear and present danger.¹⁹⁶

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

21 _____
22 ¹⁹³ Dallas Morning News, Exxon CEO: Let’s Wait for Science to Improve Before Solving
23 Problem of Climate Change (May 27, 2015),
[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).

24 ¹⁹⁴ See, e.g., David Koenig, Exxon shareholders to vote on climate change, fracking, San Diego
25 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/)

26 ¹⁹⁵ 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).

27 ¹⁹⁶ See IPCC, Climate Change 2014, Impacts, Adaptation, and Vulnerability, Summary for
28 Policymakers, http://www.ipcc.ch/pdf/assessment-report/ar5/wg2/ar5_wgII_spm_en.pdf.

1 188. Defendants bombard the public and consumers with the following advertisements,
2 although these are a mere sliver of Defendants’ extensive campaigns. Defendants’
3 advertisements must be understood in their proper context—as following Defendants’ substantial
4 early knowledge on global warming risks and impacts, and following a decades-long campaign
5 of misleading statements on global warming that primed the pump for massive use of their fossil
6 fuel products.

7 a. Exxon’s “Lights Across America” website advertisement states that
8 natural gas is “helping dramatically reduce America’s emissions”¹⁹⁷ even though natural gas is a
9 fossil fuel causing widespread planetary warming and harm to coastal counties like Santa Cruz
10 and the use of natural gas competes with wind and solar, which have no greenhouse gas
11 emissions.

12 b. In 2017, Shell’s CEO promoted massive fossil fuel use by stating that the
13 fossil fuel industry could play a “crucial role” in lifting people out of poverty.¹⁹⁸ A Shell website
14 promotion states: “We are helping to meet the world’s growing energy demand while limiting
15 CO₂ emissions, by delivering more cleaner-burning natural gas.”¹⁹⁹

16 c. BP touts natural gas on its website as “a vital lower carbon energy source”
17 and as playing a “crucial role” in a transition to a lower carbon future.²⁰⁰ BP promotes continued
18 massive fossil fuel use as enabling two billion people to be lifted out of poverty.²⁰¹

19 d. Chevron’s website implores the public that “we produce safe, reliable
20 energy products for people around the world.”²⁰² Chevron also promotes massive use of fossil
21

22 ¹⁹⁷ [https://www.youtube.com/watch?v=tMu1CBjXfq4&list=PLIrXIHj7zayYGaExfTp_](https://www.youtube.com/watch?v=tMu1CBjXfq4&list=PLIrXIHj7zayYGaExfTp_B4t6gqTtkGf9A&index=6)
23 [B4t6gqTtkGf9A&index=6](https://www.youtube.com/watch?v=tMu1CBjXfq4&list=PLIrXIHj7zayYGaExfTp_B4t6gqTtkGf9A&index=6) (at 0:46).

24 ¹⁹⁸ Shell CEO speech, Mar. 9, 2017, [http://www.shell.com/media/speeches-and-](http://www.shell.com/media/speeches-and-articles/2017/deliver-today-prepare-for-tomorrow.html)
25 [articles/2017/deliver-today-prepare-for-tomorrow.html](http://www.shell.com/media/speeches-and-articles/2017/deliver-today-prepare-for-tomorrow.html).

26 ¹⁹⁹ Shell United States, Transforming Natural Gas, [http://www.shell.us/energy-and-](http://www.shell.us/energy-and-innovation/transforming-natural-gas.html)
27 [innovation/transforming-natural-gas.html](http://www.shell.us/energy-and-innovation/transforming-natural-gas.html).

28 ²⁰⁰ [https://www.bp.com/content/dam/bp/en/corporate/pdf/sustainability-report/group-reports/bp-](https://www.bp.com/content/dam/bp/en/corporate/pdf/sustainability-report/group-reports/bp-sustainability-report-2016.pdf)
[sustainability-report-2016.pdf](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>.

²⁰¹ BP energy outlook, [http://www.bp.com/en/global/corporate/energy-economics/energy-](http://www.bp.com/en/global/corporate/energy-economics/energy-outlook.html)
[outlook.html](http://www.bp.com/en/global/corporate/energy-economics/energy-outlook.html).

1 fuels as the key to lifting people out of poverty: “Reliable and affordable energy is necessary for
2 improving standards of living, expanding the middle class and lifting people out of poverty. Oil
3 and natural gas will continue to fulfill a significant portion of global energy demand for decades
4 to come – even in a carbon-constrained scenario.”²⁰³ A prior Chevron advertisement still
5 available on the web promotes Chevron fossil fuels on a massive scale by stating that “our lives
6 demand oil.”²⁰⁴

7 e. ConocoPhillips promotes its fossil fuel products by stating that it
8 “responsibly suppl[ies] the energy that powers modern life.”²⁰⁵ Similarly, ConocoPhillips has the
9 following advertising slogan on its website: “Providing energy to improve quality of life.”²⁰⁶

10 **I. The County Has Suffered, Is Suffering, and Will Suffer Injuries From**
11 **Defendants’ Tortious Conduct.**

12 189. Defendants’ individual and collective conduct—including, but not limited to, their
13 failures to warn of the threats their fossil fuel products posed to the climate; their wrongful
14 promotion of fossil fuel products and their concealment of known hazards associated with the
15 use of those products; and their public deception campaigns designed to obscure the connection
16 between their products and climate change and its environmental, physical, social, and economic
17 consequences—is a direct and proximate cause that brought about or helped bring about climate
18 change and consequent harms to the County. Such harms include the increase in global mean
19 temperature and consequent increase in sea level rise and attendant flooding; disruptions to the
20 hydrologic cycle, including, but not limited to, more frequent and extreme droughts, more
21 frequent and extreme precipitation events and resulting flooding, erosion, and landslides, higher
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23 ²⁰² Chevron, Products and Services, <https://www.chevron.com/operations/products-services>.

24 ²⁰³ Chevron, managing climate change risks, <https://www.chevron.com/corporate-responsibility/climate-change/managing-climate-risk>.

25 ²⁰⁴ Chevron TV ad (2009), <https://www.youtube.com/watch?v=-KyjTGMVTkA>.

26 ²⁰⁵ ConocoPhillips, the changing energy landscape, <http://www.conocophillips.com/who-we-are/our-company/spirit-values/responsibility/Pages/the-changing-energy-landscape.aspx>.

27 ²⁰⁶ ConocoPhillips, Producing energy, <http://www.conocophillips.com/what-we-do/producing-energy/Pages/default.aspx>.

1 groundwater levels and an accompanying increased risk of contaminant spread from hazardous,
2 superfund, landfills, and similar sites; more frequent and extreme heat waves; more frequent and
3 extreme wildfires; reduced air quality; and the cascading social, economic, health, and other
4 consequences of these environmental changes. These adverse impacts will continue to increase
5 in frequency and severity in Santa Cruz and disproportionately impact the County’s most
6 vulnerable communities.

7 190. Santa Cruz’s topography, geography, and land use patterns make it particularly
8 susceptible to injuries from sea level rise. Sea level in California, including Santa Cruz County,
9 will continue to rise significantly through at least 2150.²⁰⁷

10 191. Without Defendants’ fossil fuel-related greenhouse gas pollution, current sea level
11 rise would have been far less than the observed sea level rise to date.²⁰⁸ Similarly, committed sea
12 level rise that will occur in the future would also be far less.²⁰⁹

13 192. In Santa Cruz County, anthropogenic climate change is compressing precipitation
14 into mid-winter (January–February) months, which will create drier than normal conditions in
15 the County in the fall (November–December) and spring (March–April), effectively extending
16 the summer “dry” season and compressing the winter “wet” season.

17 193. California is moving toward a regime in which annual rainfall is increasingly
18 either extremely abundant, or extremely lacking, with fewer “normal” rainfall years occurring in
19 1982–2015 as compared to 1949–1981.²¹⁰

21 ²⁰⁷ See Gary Griggs et al., Rising Seas in California: An Update on Sea-Level Rise Science,
22 California Ocean Science Trust, p. 26, Table 1(b) (2017),
23 <http://www.opc.ca.gov/webmaster/ftp/pdf/docs/rising-seas-in-california-an-update-on-sea-level-rise-science.pdf>.

24 ²⁰⁸ Robert E. Kopp et al., Temperature-driven Global Sea-level Variability in the Common Era,
25 Proceedings of the National Academy of Sciences, Vol. 113, No. 11, E1434-E1441, E1438
(2016), <http://www.pnas.org/content/113/11/E1434.full>.

26 ²⁰⁹ Peter U. Clark et al., Consequences of Twenty-First-Century Policy for Multi-Millennial
Climate and Sea-Level Change, Nature Climate Change Vol. 6, 365 (2016).

27 ²¹⁰ Daniel L. Swain et al., Trends in Atmospheric Patters Conducive to Seasonal Precipitation
and Temperature Extremes in California, Science Advances, e10501344, p. 5 (2016); U.S.
28 Geological Survey, Simulation of Climate Change in San Francisco Bay Basins, California: Case

1 194. The upshot is that the same amount of rain will fall in a shorter period via more
2 intense storms in Santa Cruz County. The water supply generated from those events evaporates
3 more quickly, resulting in diminished surface water availability and diminished groundwater
4 recharge. In turn, this will diminish water supply for both human and ecological demand.
5 Decreased soil moisture will result in increased fuel aridity—that is, vegetation will dry out
6 quickly and completely in the absence of water, increasing its flammability.

7 195. Because of anthropogenic global warming, Santa Cruz County’s hydrologic
8 regime is shifting toward one that is characterized by more frequent and severe drought, more
9 extreme precipitation events, more frequent and severe heatwaves, and more frequent and severe
10 wildfires.

11 196. Defendants have actually and proximately caused sea levels to rise, increased the
12 destructive impacts of storm surges, increased coastal erosion, exacerbated the onshore impact of
13 regular tidal ebb and flow, caused saltwater intrusion, disrupted the hydrologic cycle, caused
14 increased frequency and severity of drought, caused increased frequency and severity of extreme
15 precipitation events, caused increased frequency and severity of heat waves, caused increased
16 frequency and severity of wildfires, and caused consequent social and economic injuries
17 associated with the aforementioned physical and environmental impacts, among other impacts,
18 resulting in inundation, destruction, and/or other interference with Plaintiffs’ property and
19 citizenry.

20 197. Plaintiffs have already incurred, and will foreseeably continue to incur, injuries,
21 and damages because of sea level rise and disruptions to the hydrologic cycle including increased
22 frequency and severity of drought, increased frequency and severity of extreme precipitation
23 events, increased frequency and severity of heat waves, increased frequency and severity of
24 wildfires, and consequent social and economic injuries associated with those physical and
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26

27 Studies in the Russian River Valley and Santa Cruz Mountains, Scientific Investigations Report
28 2012-5132, at 36 (2012).

1 environmental changes, all of which have been caused and/or exacerbated by Defendants’
2 conduct.

3 198. But for Defendants’ conduct, Plaintiffs would have suffered no or far less injuries
4 and damages than they have endured, and foreseeably will endure, due to anthropogenic sea level
5 rise, disruption of the hydrologic cycle, and associated consequences of those physical and
6 environmental changes.

7
8 **i. Sea Level Rise-Related Conditions and Injuries**

9 199. Santa Cruz County has experienced significant sea level rise over the last half
10 century attributable to Defendants’ conduct.²¹¹ Santa Cruz County will experience additional,
11 significant, and dangerous sea level rise through at least the year 2150,²¹² and the increases will
12 continue and accelerate. Additionally, Santa Cruz County will experience greater committed sea
13 level rise due to the “locked in” greenhouse gases already emitted.²¹³ The County will suffer
14 greater overall sea level rise than the global average.²¹⁴

15 200. In addition to weather and climate changes already observed, the County is at an
16 increased risk of suffering extreme injuries in the future. For example, there is a 98% chance that
17 the County experiences a devastating three-foot flood before the year 2050, and a 22% chance
18 that such a flood occurs before 2030.²¹⁵ Average sea level rise along the County’s shores will
19 increase substantially over the course of the next several decades. For instance, sea level in the

20
21 ²¹¹ See NOAA, Mean Sea Level Trend at Tide Station 9413450 (Monterey, CA),
22 https://tidesandcurrents.noaa.gov/sltrends/sltrends_station.shtml?stnid=9413450 (accessed Nov.
23 3, 2017).

24 ²¹² Griggs et al. (2017), supra note 207, at 26, Table 1(b) (describing sea level rise at the Golden
25 Gate, approximately 80 miles from Santa Cruz County).

26 ²¹³ Clark et al. (2016), supra note 209, at 363–65.

27 ²¹⁴ Global sea level rise is projected to be 82.7 cm (32.6 inches) above 2000 levels by 2100. See
28 National Research Council, Sea-Level Rise for the Coasts of California, Oregon, and
Washington: Past Present and Future (2012), at 107 at Table 5.2; page 117 at Table 5.3.

²¹⁵ Climate Central, Surging Seas Risk Finder: Santa Cruz County,
[https://riskfinder.climatecentral.org/county/santa-cruz-county.ca.us?comparisonType=postal-
code&forecastType=NOAA2017_int_p50&level=3&unit=ft](https://riskfinder.climatecentral.org/county/santa-cruz-county.ca.us?comparisonType=postal-code&forecastType=NOAA2017_int_p50&level=3&unit=ft) (accessed Nov. 3, 2017).

1 County will eventually increase in the County by over five feet by the year 2100 if emissions
2 continue largely unabated,²¹⁶ causing multiple, predictable impacts, and exacerbating the impacts
3 of extreme events.

4 201. With 0.3 feet of sea level rise, anticipated by 2030, the County will endure
5 extensive coastal flooding. Over 850 buildings in unincorporated Santa Cruz County are at risk
6 from that level of sea level rise. More than half of these are private residences, flooding of which
7 can and will displace County citizens. 105,000 linear feet of roadway and highway are in the
8 pathway of flooding and erosion damage, as well as 120,000 feet of storm and sewer
9 infrastructure. Two emergency services buildings in the County are identified as at risk from 0.3
10 feet of sea level rise. 1,300 acres of parks and more than half of the coastal access points in the
11 County are at risk, as are half of the coastal wetlands in the County, and 2% of its dune
12 ecosystems, which protect upland activities from flooding and inundation.²¹⁷ The County
13 estimates that the economic value of assets at-risk with 0.3 feet of sea level rise is approximately
14 \$742 million.²¹⁸

15 202. With 2.4 feet of sea level rise, the County will endure greater flooding, erosion,
16 and other injuries. Moreover, that level of sea level rise – projected by 2060 – will be coupled
17 with the failure of coastal armoring and water control structures that are already in place. With
18 that level of sea level rise, an additional 800 buildings in unincorporated areas of the County are
19 under flood, inundation, or erosion risk. 35,000 additional feet of roadway and 55,000 feet of
20 wastewater and storm drain pipes will be in the path of sea level rise hazards.²¹⁹ The County
21 estimates that the economic value of assets at risk with 2.4 feet of sea level rise is approximately
22 \$1.52 billion.²²⁰

23 203. With 5.2 feet of sea level rise, the County will suffer even greater injuries. At that
24

25 ²¹⁶ Central Coast Wetlands Group (2017), supra note 10, at 28, Table 2.

26 ²¹⁷ Id. at 38–39.

27 ²¹⁸ Id. at 60 Table 7.

28 ²¹⁹ Id. at 39.

²²⁰ Id. at 60 Table 7.

1 level, more than 1,800 residential properties within the unincorporated County will be impacted
2 by sea level rise hazards, as are 170,000 feet of roadway and 210,000 feet of water and sewer
3 pipes.²²¹ The County estimates that the economic value of assets at risk with 5.2 feet of sea level
4 rise is approximately \$2.15 billion.²²²

5 204. Specific infrastructure in the County at risk of injury or destruction from
6 anticipated increases in mean sea level includes all of, but is not limited to, the following:

7 a. Highway 1 north of the City of Santa Cruz will suffer from coastal
8 erosion. Three sections of the highway are predicted to be vulnerable by 2030, four sections by
9 2060, and eleven separate locations are within erosion hazard areas by 2100. Key infrastructure
10 within hazard areas includes bridges over Scott and Waddell creeks. Almost 3.5 miles of coastal
11 armoring will be necessary to protect the current north county highway alignment through
12 2100.²²³

13 b. Roads along East Cliff Drive will experience monthly tidal flooding by
14 2030. Some sections of road, especially those crossing creek and lagoon mouths between 7th
15 Avenue and Capitola, are already vulnerable to coastal flooding. Portions of West Beach Street
16 will be vulnerable to tidal flooding by 2060 and much of the road and parking area within the
17 Pajaro Dunes development will be flooded monthly by 2100. Approximately 1.8 miles of the rail
18 line and 3.5 miles of County roads in the Pajaro Valley area are vulnerable to coastal flooding by
19 2060.

20 c. Many coastal access points adjacent to Moran Lake and within the low-
21 lying sections of Rio Del Mar will suffer coastal flooding as early as 2030. By 2060, beach areas
22 between Pleasure Point and Capitola will be submerged during high tides. By 2100 most of
23 Seacliff, Aptos and Manresa beaches will be flooded during high tides if coastal bluffs are not
24 allowed to erode inland.

25
26 ²²¹ Id. at 39.

27 ²²² Id. at 60 Table 7.

28 ²²³ Id. at 45.

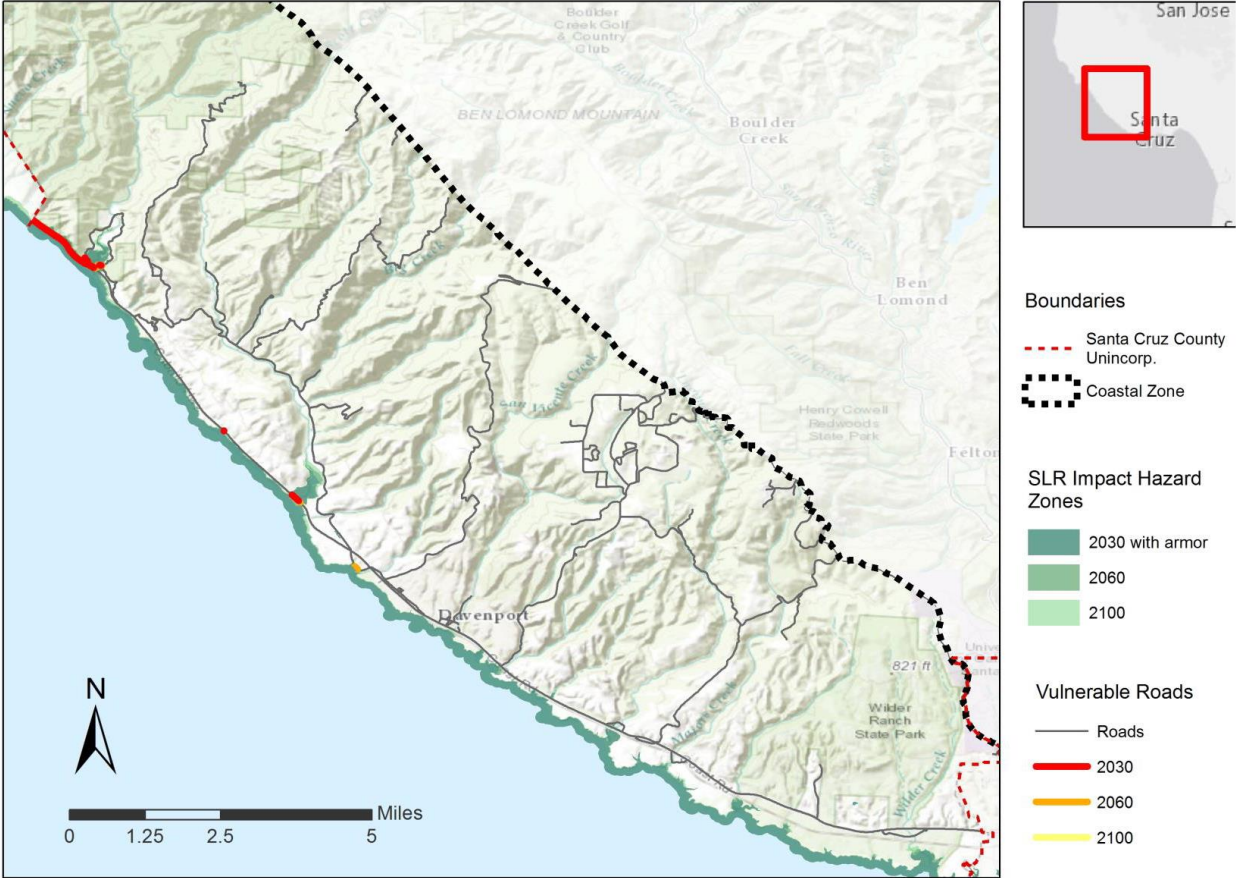
1 d. 2.5 miles of coastal armoring located between 7th Avenue and Capitola
2 will need to be replaced to protect the adjacent 180 homes. Without replacing 2.9 miles of
3 coastal armoring from Seacliff to Manresa Beach, 442 residential properties would be vulnerable
4 to coastal erosion by 2060. The costs of rebuilding these seawalls are expected to be high and the
5 feasibility of maintaining these structures as sea levels rise is uncertain.

6 e. Santa Cruz County Sanitation District pump stations and associated
7 sanitary sewer infrastructure are situated in locations vulnerable to storm surges. Several of these
8 facilities will be increasingly impacted by flooding as sea level rises and storms increase. As
9 many as 427 sewer structures, 109,774 feet of sewer conduit, 13,466 feet of water main, and one
10 wastewater treatment plant will suffer damage as a result of anticipated sea level rise and its
11 associated consequences.²²⁴

12 205. The following figures depict the areas of the County that will experience
13 anticipated levels of sea level rise. As they demonstrate, virtually all the County's shoreline will
14 experience some form of sea level rise-related impact by 2030, even with only 0.3 feet of sea
15 level rise.

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28 ²²⁴ Id. at Appendix A Table A4.

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**Figure 8: Santa Cruz County Coastal Hazard Analysis, Sec. 1:
Combined Sea Level Rise Impacts**

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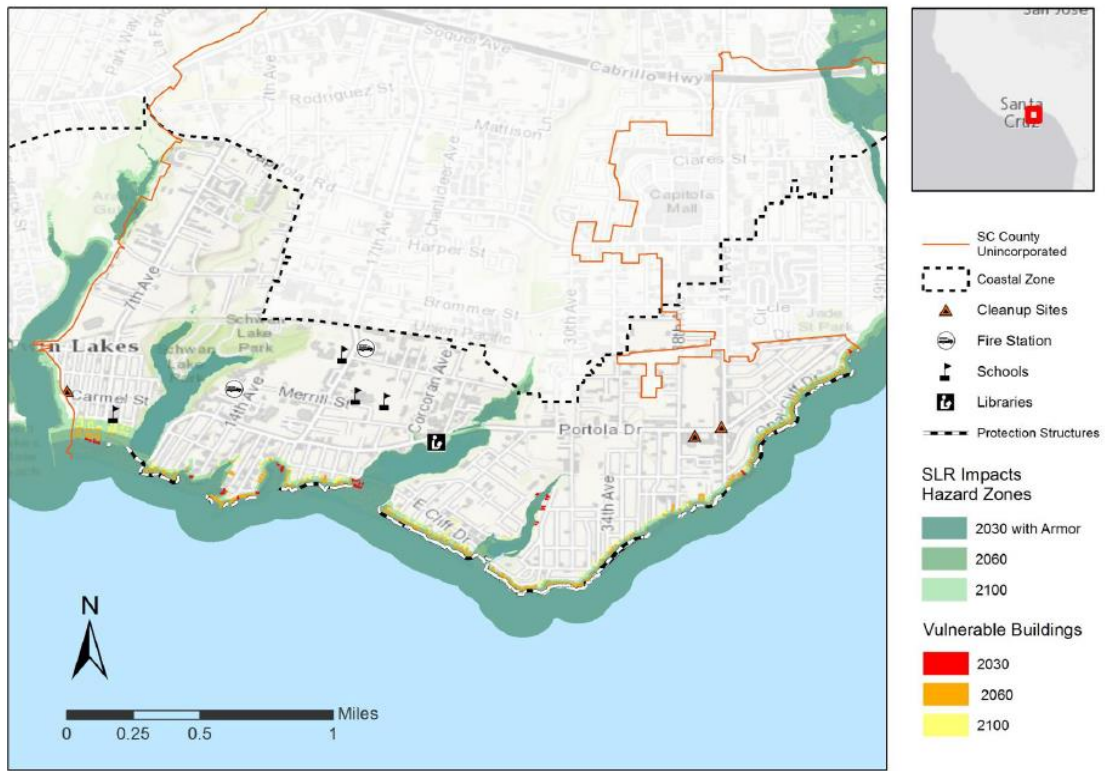


Figure 9: Map B5. Sec. 2: Combined Coastal Climate Change Hazard Zones



Figure 10: Map B9. Sec. 3: Combined Coastal Climate Change Hazard Zones

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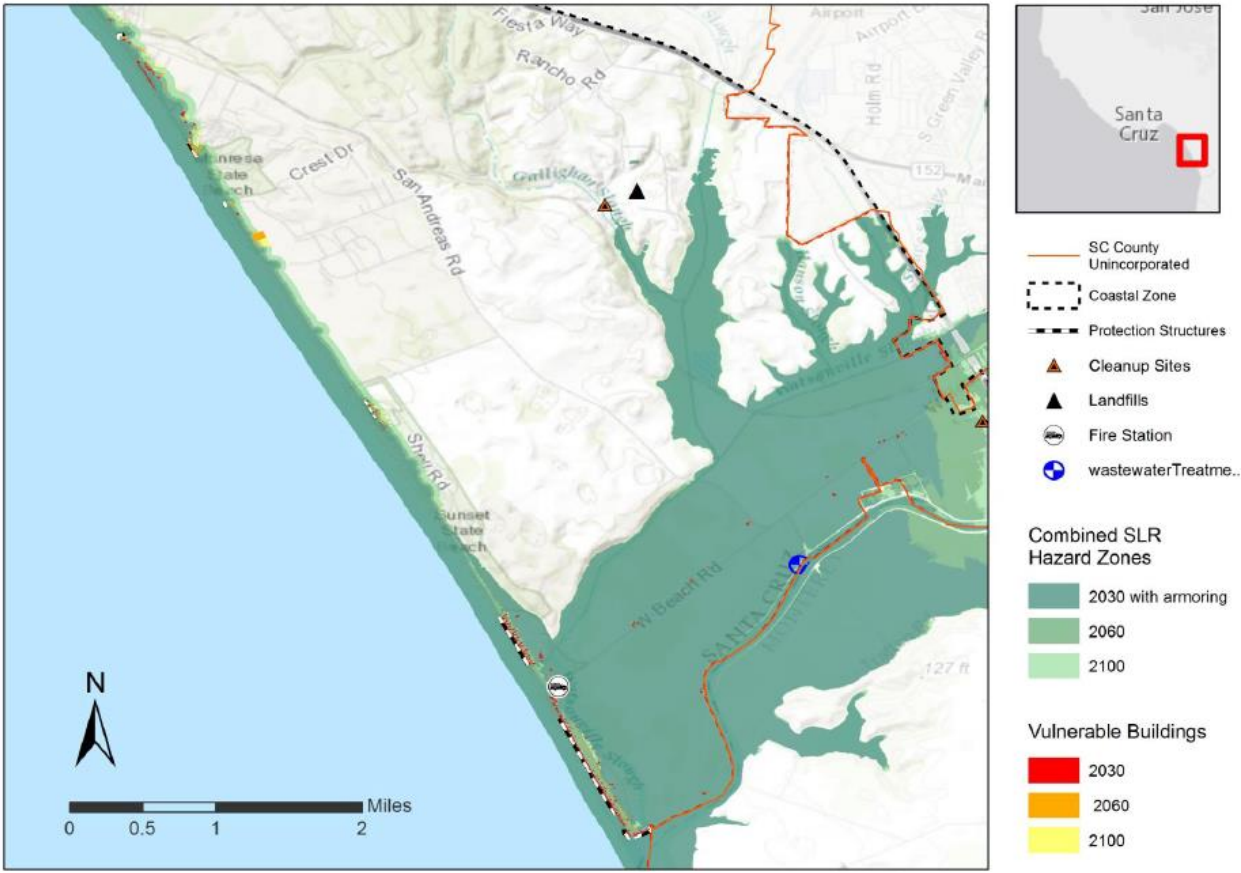


Figure 11: Map B13. Sec. 4: Combined Coastal Climate Change Hazard Zones

206. Particularly concerning to the County is the impact of sea level rise on its public beaches, which are the focal point of the tourism industry in the County. Rising sea level threatens the beaches with increased erosion, severe storms and flooding that will damage infrastructure, access, and tourist attractions. Several key roads and bridges are at low elevation and close to the coast where they are vulnerable to flooding, storm waves, and erosion. Tourism generates hundreds of millions of dollars in direct travel expenditures in the County annually, and millions in revenue for local government. The County will lose material portions of this revenue source because of the continued erosion and inundation of its beaches and other injuries to tourist attractions.

///

1 **ii. Wildfire-Related Conditions & Injuries**

2 207. The climatic and meteorological trends toward longer, hotter, drier summers in
3 Santa Cruz County are key indicia of increased fire occurrence, area burned, and fire behavior.²²⁵
4 Climate drives moisture availability and weather conditions that increase fire risk.²²⁶ Wet
5 conditions during winter and spring promote fuel (vegetation) growth, while dry conditions prior
6 to and during fire season increase the flammability of live and dead fuels that sustain wildfires.²²⁷
7 Factors that limit and/or facilitate wildfires that are interrelated to moisture availability include
8 fuel aridity,²²⁸ fuel density, ambient meteorological conditions (temperature, relative humidity,
9 wind, and precipitation), availability of ignition sources (lightning and anthropogenic sources),
10 and fire suppression rates.²²⁹

11 208. In Northern California, including Santa Cruz County, there is a positive
12 correlation between autumn-winter temperatures and the area burned in the subsequent fire
13 season (i.e. higher temperature in a given autumn-winter correlates with larger areas burned in
14 the following fire season), and a negative correlation between moisture availability and the area
15 burned during the fire season (i.e. less moisture correlates to more area burned).²³⁰ Thus, as
16 temperatures increase, and moisture availability decreases with anthropogenic global warming's
17 effects on the hydrologic cycle, conditions have and will continue to become more conducive to
18 wildfires in the County.

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21 ²²⁵ John T. Abatzoglou & Crystal A. Kolden, Relationships Between Climate and Macroscale
Area Burned in the Western United States, International Journal of Wildland Fire at A (2013).

22 ²²⁶ A.L. Westerling & B.P. Bryant, Climate Change and Wildfire in California, Climatic Change,
23 87 (Suppl. 1) S231-S249, S233 (2007).

24 ²²⁷ Id.

25 ²²⁸ John T. Abatzoglou & A. Park Williams, Impact of Anthropogenic Climate Change on
Wildfires Across Western US Forests, Proceedings of the National Academy of Sciences, Vol.
26 113, No. 42, E11770-11775, E11770 (2016) (citations omitted).

27 ²²⁹ O. Pechony & D.T. Shindell, Driving Forces of Global Wildfires Over the Past Millenium
and the Forthcoming Century, Proceedings of the National Academy of Sciences, Vol. 107, No.
28 45, 19167-19170, 19167 (2010).

²³⁰ Abatzoglou & Kolden (2013), supra note 225, at F.

1 209. Fire activity, including the number of large fires, total area burned, and fire-
2 season length, have all increased across the western United States in the last half century.²³¹
3 Man-made global warming has and will continue to exacerbate the areal extent and frequency of
4 extreme fire risk in California, including Santa Cruz County.²³²

5 210. Anthropogenic climate change is responsible for increasing the number of days in
6 which there is a high fire potential in the western United States, including Santa Cruz County, by
7 a substantial number per year over the period 1979–2015.²³³

8 211. Anthropogenic forcing, in the form of greenhouse gas pollution attributable to the
9 defendants’ fossil fuel products, is responsible for nearly doubling the land surface area burned
10 by wildfires in the western United States, which includes Santa Cruz County, over the period
11 1984-2015.²³⁴ The net increase in burned area attributable to anthropogenic climate change in the
12 Western United States during that timeframe is approximately 10.4 million acres.²³⁵

13 212. The annual average area burned by wildfires in Santa Cruz County has increased
14 substantially from the period 1961–1990 to the period 2006–2017.²³⁶

15 213. The average area in Santa Cruz County annually burned by wildfires will continue
16 to increase substantially at least through 2099 relative to the historical baseline.²³⁷

17 214. Santa Cruz ranks 14th among California Counties for fire risk.²³⁸ This owes to the
18 County’s steep and remote inland mountains, covered with dense vegetation ranging from
19 chaparral to eucalyptus to conifer forest, and the typical cold and damp weather pattern in the
20 Count that is interspersed with extremely hot, dry, and windy conditions.

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22 ²³¹ Abatzoglou & Williams (2016), supra note 228, at E11770 (citations omitted).

23 ²³² See Jin-Ho Yoon et al., Extreme Fire Season in California: A Glimpse into the Future?,
Bulletin of the American Meteorological Society.

24 ²³³ Abatzoglou & Williams (2016), supra note 228, at E11771.

25 ²³⁴ Id.

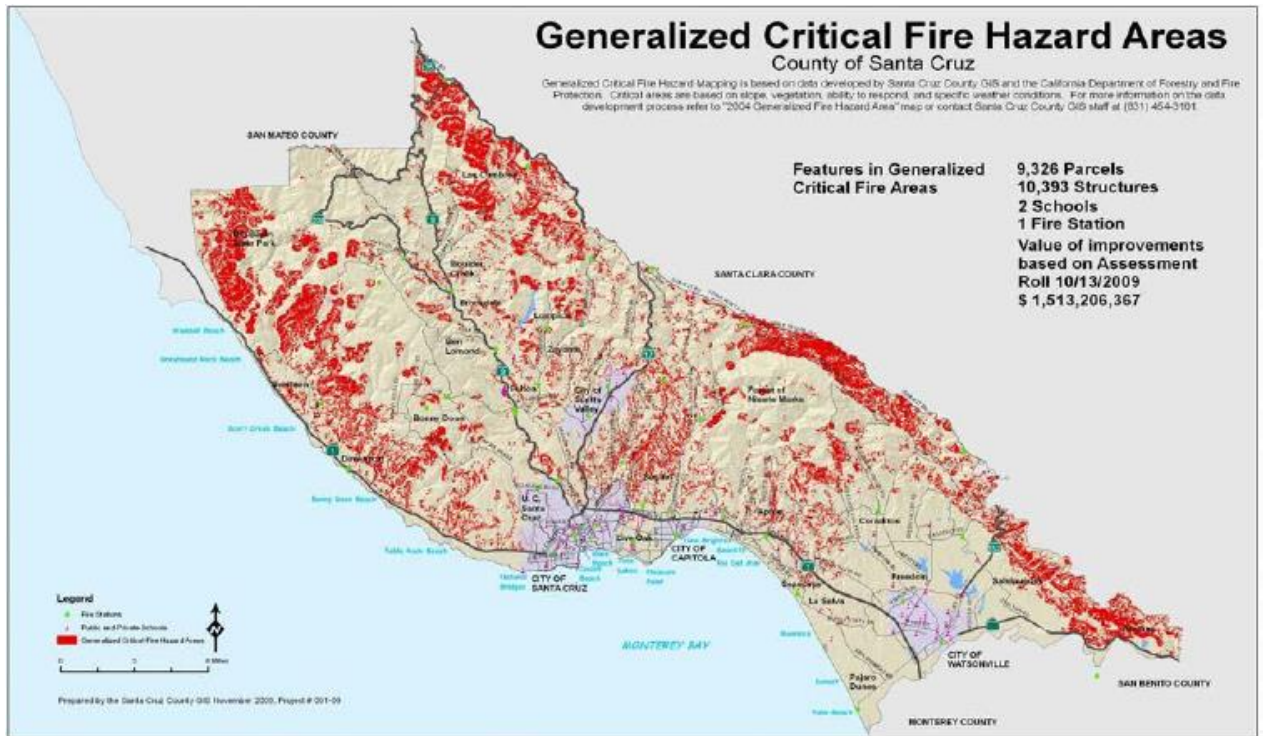
26 ²³⁵ Id.

27 ²³⁶ See California Energy Commission, Cal-Adapt: Exploring California’s Climate Change
28 Research, Wildfire Tool, <http://cal-adapt.org>.

²³⁷ Id.

²³⁸ County of Santa Cruz, Local Hazard Mitigation Plan: 2015–2020, 62 (2015).

1 215. The map below describes portions of the County that are designated Critical Fire
2 Hazard Areas.²³⁹



15 **Figure 12: Critical Fire Hazard Areas within County of Santa Cruz**

16 216. Since 1948, the County has experienced 16 major wildfires that burned more than
17 150 acres. Of those, seven occurred since 2002,²⁴⁰ demonstrating that the frequency of major
18 fires in Santa Cruz County has accelerated since the onset of anthropogenic global warming. The
19 major wildfires that have burned in the County since 2008 include, but are not limited to:

20 a. The Summit Fire in May 2008 that burned 4,270 acres in an area
21 straddling Santa Cruz and Santa Clara Counties, destroyed 35 residences and 64 outbuildings,
22 and caused sixteen injuries.²⁴¹

23

24

25 ²³⁹ Id. at 59.

26 ²⁴⁰ Id. at 60.

27 ²⁴¹ Cal. Dept. of Forestry and Fire Protection, Incident Information for Santa Cruz County,
28 [http://cdfdata.fire.ca.gov/incidents/incidents_cur_search_results?search=santa%20cruz%20count
y](http://cdfdata.fire.ca.gov/incidents/incidents_cur_search_results?search=santa%20cruz%20county) (accessed Nov. 3, 2017).

1 b. The Martin Fire in June 2008 that burned 520 acres, destroyed three
2 residences and eight outbuildings, seven miles north of Santa Cruz at Bonny Doon and Martin
3 Road near Hwy 9 in Santa Cruz County.²⁴²

4 c. The Trabing Fire in June 2008 that burned 630 acres, destroyed ten
5 residences and ten outbuildings, in Larkin Valley north of Watsonville near Highway 1 in Santa
6 Cruz County.²⁴³

7 d. The Lockheed Fire in August 2009 that burned 7,817 acres in the Bonny
8 Doon and Swanton areas of Santa Cruz County, destroying thirteen outbuildings.²⁴⁴

9 e. The Loma Fire in October 2009 that burned 485 acres in the area of
10 Maymens Flat - Highland Road, Eureka Canyon and Ormsby in Santa Cruz County.²⁴⁵

11 f. The Bear Fire in October 2017 that burned 391 acres in the vicinity of
12 Bear Canyon Road and Deer Creek Road in Boulder Creek, Santa Cruz County. Six structures
13 were destroyed in this fire.²⁴⁶

14 217. The County contracts with the California Department of Forestry and Fire
15 Protection (“CalFire”) to provide fire suppression services that are not included in autonomous
16 fire protection districts.²⁴⁷ The County bears costs related to fire suppression in its jurisdiction.

17 218. Due to the increase in temperature and decrease in moisture availability in Santa
18 Cruz County, the frequency and intensity of wildfires is increasing. Coincident with that
19 increase, the destructive force of and costs to suppress wildfires are also increasing.

20 219. The County estimates that over a billion dollars of improvements are located in
21 Critical Fire Hazard Areas of the County. Assets within the County that are at risk of wildfire
22 include thousands of residences, several schools including the University of California, Santa
23

24 ²⁴² Id.

25 ²⁴³ Id.

26 ²⁴⁴ Id.

27 ²⁴⁵ Id.

27 ²⁴⁶ Id.

28 ²⁴⁷ County of Santa Cruz, Local Hazard Mitigation Plan: 2015–2020, supra note 238, at 58.

1 Cruz, several youth camps, numerous commercial facilities, five local public water systems with
2 extensive infrastructure, three state highways, and three major power transmission Rights of
3 Way. Wildfire injury to any of these assets will cause secondary and tertiary injuries to the
4 County in the form of response costs, displacement of residents, landslides, and others.

5 **iii. Extreme Precipitation & Landslide-Related Conditions & Injuries**

6 220. Extreme precipitation events (the upper 0.1% of daily rain events) have increased
7 substantially over the past 100 years in the United States, by about 33%.²⁴⁸ In California, the
8 weather phenomena that drive extreme precipitation events are increasing in both frequency and
9 magnitude.

10 221. Historically, the most dangerous storms in California have been warm and wet
11 storms that strike in winter, producing intense rains over large areas, melting snowpack in the
12 Sierra Nevada, and unleashing many of the State’s largest floods.²⁴⁹ These storms are delivered
13 via atmospheric rivers – bands of warm, moist air containing water vapor evaporated in southerly
14 latitudes that transport water from the tropics to the western U.S.²⁵⁰ When atmospheric rivers hit
15 the mountainous topography of California, Pacific moisture is forced out of the atmosphere as
16 very intense precipitation, the magnitude of which can rival the intensity of landfalling
17 hurricanes in the tropics.²⁵¹ Atmospheric river storms are the primary meteorological cause of
18 extreme precipitation and flooding in California.²⁵² Projections indicate that major atmospheric
19 river storms with attendant winter flooding will increase with warming of the climate.²⁵³ Winters
20 with exceptionally large numbers of atmospheric river storms will increase in the 21st
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23 ²⁴⁸ P.Y.A. Groisman et al., Trends in intense precipitation in the climate record, J. Clim. 18,
1326–1350 (2005).

24 ²⁴⁹ Michael Dettinger, Climate Change, Atmospheric Rivers, and Floods in California – A
25 Multimodel Analysis of Storm Frequency and Magnitude Changes, Journal of the American
Water Resources Association Vol. 47, No. 3, 515 (2011).

26 ²⁵⁰ Id.

27 ²⁵¹ Id.

28 ²⁵² Id.

²⁵³ Id. at 518.

1 Century.²⁵⁴ Moreover, the amount of precipitation delivered by future atmospheric rivers will
2 increase with anthropogenic global warming.²⁵⁵ Projections show that future atmospheric river
3 storms may exceed the intensity of any atmospheric river storm previously observed.²⁵⁶

4 222. Due to anthropogenic climate change, heavy precipitation events (defined as
5 rainfall equal to or greater than the historical 95th percentile) will increase in frequency by 3.1
6 events per year by the year 2100.²⁵⁷

7 223. Among other impacts, extreme precipitation events cause, contribute to, or
8 exacerbate disruption of surface substrate, thereby leading to increased frequency and magnitude
9 of landslides.

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²⁵⁴ See *id.*

²⁵⁵ *Id.* at 520.

²⁵⁶ *Id.* at 521.

²⁵⁷ Xiang Gao et al., 21st Century Changes in U.S. Heavy Precipitation Frequency Based on Resolved Atmospheric Patterns, MIT Joint Program on the Science and Policy of Global Change: Report 302, 15 (2016).

1 224. The topography in Santa Cruz County is conducive to destructive landslides, and
2 such activity is centered primarily along the steeper slopes in the hills and mountains, along
3 stream corridors, and along coastal bluffs and inlets. The County anticipates that as extreme
4 precipitation events increase, so too will the occurrence of landslides. Runoff that seeps into
5 loose substrate can cause it to dislodge, at which point gravity will carry material downslope.
6 Additionally, in areas burned by forest and brush fires, a lower threshold of precipitation may
7 initiate landslides²⁵⁸ due to the loss of root structures that maintain soil cohesion. Landslides may
8 cause loss of life, property damage, and destruction of infrastructure, among other impacts. For
9 instance, severe storms have caused landslides in the Santa Cruz mountains that killed at least ten
10 people in one instance, and severe storms have damaged major thoroughfares such as Highway
11 9, Branciforte Road, and Amensti Road.²⁵⁹ Because utilities in the County generally follow
12 roadways, damage to roads will often disrupt sewers, water systems, gas and electricity, and
13 cable and telephone utilities that service the County and its residents.²⁶⁰ The County incurs

26 ²⁵⁸ Id. at 137.

27 ²⁵⁹ Id. at 140.

28 ²⁶⁰ Id. at 141.

1 significant costs in responding to road closures associated with landslides, including, but not
 2 limited to, the costs of personnel, engineering, and construction/demolition. The County also
 3 expends significant sums on planning for landslides, including by constructing prevention and
 4 mitigation infrastructure to limit damages. The County estimates that multiple billions of dollars
 5 in property is subject to landslide risk that increases with anthropogenic climate change.²⁶¹ The
 6 map below illustrates the significant portion of the County that is at an increasing risk of injury
 7 due to landslides associated with the consequences of anthropogenic global warming.²⁶²

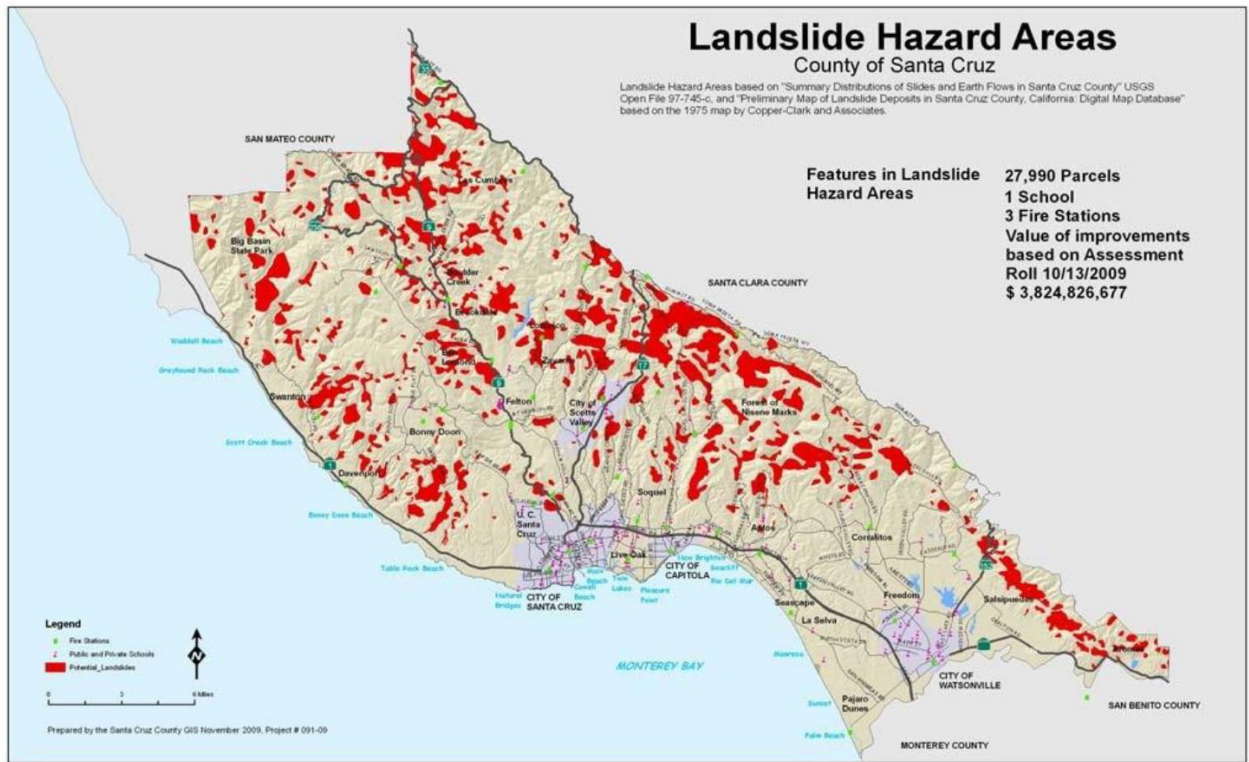


Figure 13: Landslide Hazard Areas within County of Santa Cruz

225. Foreseeably, the increased incidence of landslides has resulted in increased litigation defense costs to the County. County residents have brought, *inter alia*, inverse condemnation claims against the County where those residents are unable to access their property due to landslide-induced road closures. Unless the County undertakes expensive

²⁶¹ *Id.* at 139 Figure 28.

²⁶² *Id.*

1 projects to mitigate the effects of anthropogenic global warming, specifically increased risk and
2 occurrence of landslides, it will continue to be exposed to these litigation-related expenses.

3 226. Additionally, increasingly extreme precipitation events in the County will
4 contribute to relatively diminished groundwater storage in groundwater basins in the County
5 (due to the shorter time in which runoff is present on the surface), which will reduce
6 groundwater storage and dry season stream baseflows, which will have adverse impacts on water
7 supply.²⁶³

8 227. Extreme precipitation events, and consequent extreme surface runoff, injure
9 wastewater collection and treatment infrastructure. Stormwater infiltration inflow that enters
10 wastewater collection systems in the County increases the total amount of water that the systems
11 treat, causing increased costs of operating, maintaining, and powering wastewater treatment
12 facilities, and increasing the wear and tear on treatment and conveyance infrastructure.

13 228. Increasingly extreme precipitation events have caused and will continue to cause
14 increased inland flooding and associated damage, including interference with or destruction of
15 roads and county infrastructure. Intense storms in the recent past have destroyed or rendered
16 impassable approximately 230 roads in the County, for which the County has incurred hundreds
17 of millions of dollars in expenses in planning, permitting, and actual repair. The County will
18 continue to suffer similar injuries and on-going expenses in the coming years.

19 **iv. Drought-Related Conditions & Injuries**

20 229. As a result of anthropogenic global warming, Santa Cruz County's hydrologic
21 regime is shifting toward one that is characterized by more frequent, more intense drought.²⁶⁴

22 230. California and Santa Cruz County most recently experienced a record-setting
23 drought in 2012-2016, which featured the lowest multi-year precipitation total recorded in the
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26 ²⁶³ Id. at 101.

27 ²⁶⁴ Union of Concerned Scientists, Causes of Drought: What's the Climate Connection?
28 (webpage), http://www.ucsusa.org/global_warming/science_and_impacts/impacts/causes-of-drought-climate-change-connection.html#.WgCiK2i3w0F (accessed Nov. 6, 2017).

1 state, as well as the highest annual temperature.²⁶⁵ Anthropogenic warming was a substantial
2 contributing cause of the severity of that drought,²⁶⁶ which caused significant and material
3 injuries in Santa Cruz County.

4 231. As annual rainfall concentrates into a shorter time span, the annual dry period is
5 growing longer, resulting in conditions of moisture deficiency over longer periods. Even in the
6 absence of substantial changes in average precipitation in the County, precipitation will fall in a
7 shorter time span and therefore be less susceptible to capture and use.

8 232. An increase in the frequency and persistence of unusual atmospheric pressure
9 patterns also have contributed to the frequency of meteorological drought in California and the
10 County. For instance, multi-year persistence of an atmospheric high-pressure ridge off the
11 California coast that diverted atmospheric moisture away from California was a substantial
12 contributor to the absence of precipitation during the 2012-2016 California drought.²⁶⁷

13 233. The co-occurrence of the precipitation/moisture deficits that constitute “drought”
14 with extremely warm temperatures induced by anthropogenic global warming exacerbates the
15 impacts of precipitation deficits by amplifying evapotranspiration and inducing increased
16 groundwater withdrawal and surface water diversion, thereby magnifying the impacts of drought
17 in Santa Cruz County.²⁶⁸ Continued global warming is likely to cause a transition to a regime in
18 which essentially every seasonal, annual, and multiannual precipitation deficit co-occurs with
19 historically warm ambient temperatures.²⁶⁹ Thus, future droughts in the County are expected to
20 be more severe than historical droughts, with an attendant exacerbation of drought impacts.

21 234. Nearly all of the public water supply systems in Santa Cruz County are already
22 impacted by climate-related shifts to a hotter, dryer meteorological regime in the County and an
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24 ²⁶⁵ Noah S. Diffenbaugh et al., Anthropogenic Warming Has Increased Drought Risk in
California, Proceedings of the National Academy of Sciences, 3931–3936, 3931 (2015).

25 ²⁶⁶ See A. Park Williams et al., Contribution of Anthropogenic Warming to California Drought
During 2012–2014, Geophysical Research Letters, 42, 6819–6828 (2015).

26 ²⁶⁷ Diffenbaugh et al. (2015), supra note 265, at 3931.

27 ²⁶⁸ Id.

28 ²⁶⁹ Id. at 3934.

1 increased climatic water deficit. These water suppliers and County residents and businesses are
2 suffering from either reduction in surface water supply due to increasingly frequent and intense
3 drought, or from groundwater overdraft due to increased reliance on that source in the face of
4 diminished surface water supply. With continued global warming and attendant climatic and
5 meteorological shifts, the County and its residents will continue to be negatively impacted in
6 several ways, including, but not limited to, being forced to adapt water sources and water use
7 habits, and incur attendant costs.

8 235. Almost all of the groundwater basins in the County are in a condition of
9 overdraft.²⁷⁰ This is due to increased reliance on groundwater as surface water availability
10 decreases due to drought, and reduced groundwater recharge due to the same decrease in surface
11 water availability. Current average groundwater pumping levels in the County cannot be
12 sustained on a long-term basis.²⁷¹

13 236. The County projects that that water demand will outstrip supply during drought
14 years moving forward. As soon as 2020, the County projects that a single drought year will result
15 in a deficit of tens of millions of gallons.²⁷² Water supply deficits will be exacerbated by
16 increasing frequency and severity of droughts, and the increasing likelihood of multi-year
17 drought conditions.

18 237. Because groundwater extraction rates in the County's groundwater basins exceed
19 sustainable pumping rates, groundwater levels have dropped significantly, resulting in saltwater
20 intrusion and rendering some coastal groundwater wells unsuitable for use.²⁷³ With the rise in sea
21 level and current groundwater overdraft conditions, saltwater intrusion will be exacerbated.
22 Consequences of saltwater intrusion in the County include, but are not limited to, County
23 agricultural operations following fields in the County. This diminishes the productivity of the
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26 ²⁷⁰ County of Santa Cruz, Local Hazard Mitigation Plan: 2015-2020, supra note 238, at 95.

27 ²⁷¹ Id.

28 ²⁷² Id. at 98–99.

²⁷³ Id. at 159.

1 County's agricultural economy, thereby diminishing tax revenue to the County, among other
2 injuries.

3 **v. Public Health Conditions & Injuries**

4 238. The County has and will continue to incur expenses in planning and preparing for,
5 and treating, the public health impacts associated with anthropogenic global warming. In Santa
6 Cruz County, the predicted public health effects of anthropogenic climate change include, but are
7 not limited to, impacts associated with extreme weather, extreme heat, drought, vector borne
8 illnesses, and sea level rise.

9 239. Extreme weather-induced public health impacts in the County will increase risk of
10 fatal and nonfatal injuries from drowning, being struck by objects, fire, explosions, electrocution,
11 or exposure to toxic materials, among others. A widespread weather-related natural disaster may
12 destroy or ruin housing, schools and businesses, and cause temporary or permanent
13 displacement. Individuals and families may experience post-traumatic stress, depression, and
14 increased risk of suicide.²⁷⁴

15 240. The annual average number of extreme heat days²⁷⁵ has increased in Santa Cruz
16 County relative to the historical baseline.²⁷⁶

17 241. With future emissions, the annual average number of extreme heat days will
18 continue to increase substantially in the County.²⁷⁷

19 242. Extreme heat-induced public health impacts in the County will result in increased
20 risk of heat-related illnesses (mild heat stress to fatal heat stroke) and the exacerbation of pre-
21 existing conditions in the medically fragile, chronically ill, and vulnerable. Increased heat also
22

23 ²⁷⁴ N. Maizlish et al., Climate Change and Health Profile Report: Santa Cruz County Office of
24 Health Equity, California Department of Public Health, p.12 (2017).

25 ²⁷⁵ Defined as days in April–October that meet or exceed the 98th percentile of historical
26 maximum temperatures between April 1 and October 31 based on observed daily temperature
27 data from 1961–1990.

27 ²⁷⁶ See California Energy Commission, Cal-Adapt: Exploring California's Climate Change
28 Research, Number of Extreme Heat Days Tool, accessed Nov. 30, 2017, <http://cal-adapt.org>.

²⁷⁷ Id.

1 intensifies the photochemical reactions that produce smog and ground level ozone and fine
2 particulates (PM2.5), which contribute to and exacerbate respiratory disease in children and
3 adults. Increased heat and carbon dioxide enhance the growth of plants that produce pollen,
4 which are associated with allergies. Increased temperatures add to the heat load of buildings in
5 urban areas and exacerbate existing urban heat islands adding to the risk of high ambient
6 temperatures.²⁷⁸

7 243. Increased frequency and intensity of wildfires will increase fire-related injuries
8 and increase respiratory and cardiovascular risks from smoke, ash, and fine particles.²⁷⁹

9 244. Increased frequency and intensity of drought will create human health impacts by
10 reducing water availability to fight wildfires. Drought will also increase risk of exposure to
11 health hazards including wildfires, dust storms, extreme heat events, flash flooding, degraded
12 water quality, and reduced water quantity. Dust storms associated with drought conditions have
13 been associated with increased incidents of Valley fever, a fungal pathogen.²⁸⁰

14 245. Disease-related public health impacts in the County may include, but are not
15 limited to, increased incidence of emerging diseases with migration of animal and insect disease
16 vectors; physical and mental health impacts associated with severe weather events, such as
17 flooding, when they cause population dislocation and infrastructure loss; exacerbation of existing
18 respiratory disease, cardiovascular disease, and stroke as a result of heatwaves and increased
19 average temperature; respiratory distress; and exacerbation of existing disease.²⁸¹

20 246. Sea level rise will increase risk of public health impacts including, but not limited
21 to, salt water intrusion into coastal aquifers reducing quality and quantity of water supply; loss of
22 recreational venues and hazards to infrastructure and public safety due to coastal erosion; and;
23 and indoor air quality problems from mold resulting from water intrusion.²⁸²

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25 ²⁷⁸ Id. at 13.

26 ²⁷⁹ Id.

27 ²⁸⁰ Id.

28 ²⁸¹ Id.

²⁸² Id.

1 247. Public health impacts are likely to be disproportionately borne by communities
2 made vulnerable by geographic, racial, or income disparities.²⁸³

3 248. As a direct and proximate result of the acts and omissions of the Defendants’
4 alleged herein, Plaintiffs have incurred substantial expenses related to planning for and
5 predicting future climate change-related injuries to its real property, improvements thereon, civil
6 infrastructure, and citizens, to preemptively mitigate and/or prevent such injuries. This includes,
7 but is not limited to, performing a coastal climate change vulnerability assessment finalized in
8 2017 at significant expense to the County, which found that billions of dollars in assets located in
9 the County are at risk with expected increases in mean sea levels adjacent to the County.
10 Plaintiffs have also expended substantial sums in planning for increasing frequency and severity
11 of drought, increasing frequency and severity of extreme precipitation events, increasing
12 frequency and severity of heatwaves, increasing frequency and severity of wildfires, and
13 increasing magnitude of the associated consequences of those physical and environmental
14 changes.

15 249. As a direct and proximate result of Defendants’ acts and omissions alleged herein,
16 Plaintiffs have incurred sea level rise- and hydrologic cycle change-related injuries and damages.
17 These include, but are not limited to, infrastructural repair and reinforcement of roads, beach and
18 access; installation of coastal armoring infrastructure (sea walls and rip rap), much of which will
19 need to be repaired, replaced, or supplemented after 2030; erosion of ocean-adjacent public land;
20 flooding and/or inundation of property; increased emergency response costs including to
21 wildfires; costs of addressing public health consequences of elevated temperatures; displacement
22 of residents within the County; decreases in County revenue; and others.

23 250. Defendants’ conduct as described herein is therefore an actual, substantial, and
24 proximate cause of Plaintiffs’ injuries that result from sea level rise, changes to the hydrologic
25 cycle, increasing frequency and severity of drought, increasing frequency and severity of
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28 ²⁸³ Id.

1 extreme precipitation events, increasing frequency and severity of heatwaves, increasing
2 frequency and severity of wildfires, and the associated consequences of those physical and
3 environmental changes.

4 **VI. CAUSES OF ACTION**

5 **FIRST CAUSE OF ACTION**

6 **(Public Nuisance on Behalf of the People of the State of California)**

7 **(Against All Defendants)**

8 251. The People incorporate by reference each and every allegation in §§ I–V
9 contained above, as though set forth herein in full.

10 252. The People of the State of California, acting by and through the County of Santa
11 Cruz County Counsel, bring this claim seeking abatement pursuant to California public nuisance
12 law, including section 731 of the California Code of Civil Procedure, and sections 3479, 3480,
13 3491, and 3494 of the California Civil Code.

14 253. Defendants, individually and in concert with each other, by their affirmative acts
15 and omissions, have caused, created, assisted in the creation of, and/or maintained harmful
16 climate change-related conditions, and continue to engage in that conduct. The climate change-
17 related conditions include higher sea level, increased storm frequency and intensity, more
18 frequent and extreme heat events, reduced air quality, and increased flooding, with compounding
19 effects in the County’s most vulnerable, at-risk and disadvantaged communities. They (1) are
20 harmful and dangerous to human health; (2) are indecent and offensive to the senses of the
21 ordinary person; (3) obstruct and threaten to obstruct the free use of the People’s property so as
22 to interfere with the comfortable enjoyment of life and property; and (4) obstruct and threaten to
23 obstruct the free passage and use of public parks, squares, streets, bodies of water, and/or
24 highways within the County of Santa Cruz. They therefore constitute a nuisance.

25 254. Defendants, individually and in concert with each other, created, caused,
26 contributed to, and assisted in the creation of these and other climate change-related harms in the
27 County of Santa Cruz by, among other things, affirmatively and deceptively promoting the sale
28 and use of fossil fuel products in the County of Santa Cruz which Defendants knew would cause

1 or exacerbate climate change and its impacts in the County of Santa Cruz including without
2 limitation sea level rise, more frequent and extreme precipitation events, coastal and inland
3 flooding, more frequent and extreme heat events, and reduced air quality. The affirmative
4 misconduct also includes disseminating and funding the dissemination of information intended to
5 mislead consumers and the public regarding the risks of climate change and its consequences that
6 Defendants knew would inevitably follow from the intended or reasonably foreseeable use of
7 their products. It also includes engaging in other conduct to manipulate and induce the public
8 into continued and elevated consumption of fossil fuels and delaying the shift to renewable
9 energy in a way that exacerbates climate change harms.

10 255. Defendants' nuisance-creating conduct included egregiously making untruthful,
11 deceptive, and/or misleading environmental marketing claims, explicit and implied, in violation
12 of Cal. Bus. & Prof. Code § 17580.5. The People are within the class of persons that statute
13 seeks to protect. Defendants' misleading environmental marketing claims include, but are not
14 limited to, deceptively marketing fossil fuel products claimed to be "low carbon," "emissions-
15 reducing," "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 the planet and
17 its people; and deceptively marketing their companies and their products as contributing to
18 solutions to climate change when in reality their investments in clean energy and alternative fuels
19 pale in comparison to their investments in expanding fossil fuel production.

20 256. The climate change-related harms that Defendants created, caused, contributed to,
21 and assisted in the creation of, constitute a substantial and unreasonable interference with and
22 obstruction of public rights and property, including, inter alia, the public rights to health, safety,
23 welfare, peace, comfort, and convenience of the County of Santa Cruz residents and other
24 citizens. These interferences with public rights, which Defendants knew their affirmative
25 wrongful promotion would cause or exacerbate, include without limitation:

- 26 a. Interference with the public's rights so regular and severe as to cause
27 permanent inundation;
- 28 b. The destruction of real and personal property, rather than mere annoyance;

1 c. The loss of property and infrastructure within the County of Santa Cruz,
2 which will actually be borne by Plaintiff's residents as a loss of the use of public property and
3 infrastructure and the diversion of tax dollars away from other public services to sea level rise;

4 d. Plaintiff's coastal property, which serves myriad uses including industrial,
5 residential, infrastructural, commercial and ecological, is not suitable for regular inundation;

6 e. Sea level rise, coastal inundation and flooding, and groundwater changes,
7 which obstruct the free passage and use of roads and property, impair water quality in
8 groundwater aquifers, damage critical public infrastructure, and lead to unprecedented and
9 dangerous storm surges that can cause injury or even deaths;

10 f. More frequent and extreme precipitation events, including atmospheric
11 rivers, which cause flooding that can damage public infrastructure, obstructing the free passage
12 and use of property;

13 g. More frequent and extreme heat events, which increase the risk of injury
14 or death from dehydration, heat stroke, heart attack, and respiratory problems; and

15 h. Public health harms including reduced air quality from smoke and
16 dangerous pollutants caused by more frequent and intense wildfires across California, which
17 exacerbates existing health conditions, damages lungs and increases rates of childhood asthma,
18 respiratory and heart disease, and death, and which reduces visibility and obstructs scenic views.

19 257. The harms caused by Defendants' nuisance-creating conduct are extremely grave
20 and far outweigh the social utility of that conduct.

21 258. This public nuisance affects and/or interferes with the rights of an entire
22 community and/or the rights of a considerable number of persons in the County of Santa Cruz
23 and the State of California to health, safety, peace, comfort, and convenience.

24 259. The People's injuries and threatened injuries from each Defendant's affirmative
25 acts or omissions are indivisible injuries. Each Defendant's past and ongoing conduct is a direct
26 and proximate cause of the People's injuries and threatened injuries. As a direct and proximate
27 result of Defendants' acts and omissions, Plaintiffs will be required to expend significant public
28 resources to mitigate the impacts of climate-related harms throughout the County of Santa Cruz.

1 harmful and dangerous to human health; (2) are indecent and offensive to the senses of the
2 ordinary person; (3) obstruct and threaten to obstruct the free use of the County’s property so as
3 to interfere with the comfortable enjoyment of life and property; and (4) obstruct and threaten to
4 obstruct the free passage and use of public parks, squares, streets, bodies of water, and/or
5 highways within the County of Santa Cruz. They therefore constitute a nuisance.

6 268. Defendants, and each of them, created, caused, contributed to, and assisted in the
7 creation of these and other climate change-related harms in the County of Santa Cruz by, among
8 other things, affirmatively and deceptively promoting the sale and use of fossil fuel products in
9 the County of Santa Cruz which Defendants knew would cause or exacerbate climate change and
10 its impacts in the County of Santa Cruz including without limitation sea level rise, more frequent
11 and extreme precipitation events, coastal and inland flooding, more frequent and extreme heat
12 events, and reduced air quality. The affirmative misconduct also includes disseminating and
13 funding the dissemination of information intended to mislead consumers and the public
14 regarding the risks of climate change and its consequences that Defendants knew would
15 inevitably follow from the intended or reasonably foreseeable use of their products. It also
16 includes engaging in other conduct to manipulate and induce the public into continued and
17 elevated consumption of fossil fuels and delaying the shift to renewable energy in a way that
18 exacerbates climate change harms.

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

1 270. The climate change-related harms that Defendants created, caused, contributed to,
2 and assisted in the creation of, constitute a substantial and unreasonable interference with and
3 obstruction of public rights and property, including, inter alia, the public rights to health, safety,
4 welfare, peace, comfort, and convenience of the County of Santa Cruz residents and other
5 citizens. These interferences with public rights, which Defendants knew their affirmative
6 wrongful promotion would cause or exacerbate, include without limitation:

7 a. Interference with the public's rights so regular and severe as to cause
8 permanent inundation;

9 b. The destruction of real and personal property, rather than mere annoyance;

10 c. The loss of property and infrastructure within the County of Santa Cruz,
11 which will actually be borne by Plaintiff's residents as a loss of the use of public property and
12 infrastructure and the diversion of tax dollars away from other public services to sea level rise;

13 d. Plaintiff's coastal property, which serves myriad uses including industrial,
14 residential, infrastructural, commercial and ecological, is not suitable for regular inundation;

15 e. Sea level rise, coastal inundation and flooding, and groundwater changes,
16 which obstruct the free passage and use of roads and property, impair water quality in
17 groundwater aquifers, damage critical public infrastructure, and lead to unprecedented and
18 dangerous storm surges that can cause injury or even deaths;

19 f. More frequent and extreme precipitation events, including atmospheric
20 rivers, which cause flooding that can damage public infrastructure, obstructing the free passage
21 and use of property;

22 g. More frequent and extreme heat events, which increase the risk of injury
23 or death from dehydration, heat stroke, heart attack, and respiratory problems; and

24 h. Public health harms including reduced air quality from smoke and
25 dangerous pollutants caused by more frequent and intense wildfires across California, which
26 exacerbates existing health conditions, damages lungs and increases rates of childhood asthma,
27 respiratory and heart disease, and death, and which reduces visibility and obstructs scenic views.

1 271. The harms caused by Defendants' nuisance-creating conduct are extremely grave
2 and far outweigh the social utility of that conduct.

3 272. This public nuisance affects and/or interferes with the rights of an entire
4 community and/or the rights of a considerable number of persons in the County of Santa Cruz to
5 health, safety, peace, comfort, and convenience.

6 273. In addition to the harms suffered by the public at large, Plaintiff has suffered
7 special injuries different in kind. Among other harms,

8 a. Plaintiff has been forced to spend or set aside significant funds to assess,
9 plan for, and enact infrastructure changes needed to mitigate rising sea levels on Plaintiff's
10 publicly owned beaches and other public coastal property;

11 b. Plaintiff has had to plan for and provide additional emergency and other
12 public services in response to more frequent and more intense flooding and storm surges on both
13 properties owned by Plaintiff, and properties owned, leased, and utilized by residents and visitors
14 to Plaintiff's communities.

15 274. Plaintiff's injuries and threatened injuries from each Defendant's affirmative acts
16 or omissions are indivisible injuries. Each Defendant's past and ongoing conduct is a direct and
17 proximate cause of Plaintiff's injuries and threatened injuries. As a direct and proximate result of
18 Defendants' acts and omissions, Plaintiff will be required to expend significant public resources
19 to mitigate the impacts of climate-related harms throughout the County of Santa Cruz.

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

26 276. As a direct and proximate result of Defendants' conduct, as set forth above, the
27 common rights enjoyed by the general public in the County of Santa Cruz have been
28 unreasonably interfered with because Defendants knew or should have known that their conduct

1 would create a continuing problem with long-lasting significant negative effects on the rights of
2 the public.

3 277. Defendants' actions are a direct and legal cause of the public nuisance.

4 278. Defendants are jointly and severally liable to Plaintiff for committing a public
5 nuisance.

6 279. Plaintiff has a clearly ascertainable right to have the public nuisance created by
7 Defendants abated.²⁸⁵

8 280. Wherefore, Plaintiff prays for relief as set forth below.

9 **THIRD CAUSE OF ACTION**

10 **(Strict Liability—Failure to Warn on behalf of the County of Santa Cruz)**

11 **(Against All Defendants)**

12 281. Plaintiff incorporates by reference each and every allegation in §§ I–V contained
13 above, as though set forth herein in full.

14 282. Defendants, individually and in concert with each other, heavily marketed,
15 promoted, and advertised fossil fuel products and their derivatives, which were sold or used by
16 their respective affiliates and subsidiaries. Defendants received direct financial benefit from their
17 affiliates' and subsidiaries' sales of fossil fuel products. Defendants' role as promoter and
18 marketer was integral to their respective businesses and a necessary factor in bringing fossil fuel
19 products and their derivatives to the consumer market, such that Defendants had control over,
20 and a substantial ability to influence, the manufacturing and distribution processes of their
21 affiliates and subsidiaries.

22 283. As manufacturers, advertisers, promoters, and/or sellers of fossil fuel products
23 and their derivatives, Defendants had a duty to warn consumers, the public, and Plaintiff of
24 reasonably foreseeable environmental and health risks posed by those products and derivatives.

25
26
27 _____
28 ²⁸⁵ Plaintiff does not seek abatement with respect to any federal lands.

1 284. 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
3 and affiliates, trade associations and entities, and/or from the international scientific
4 community—that fossil fuel products, whether used as intended or misused in a foreseeable
5 manner, release greenhouse gases into the atmosphere, causing global warming, sea level rise,
6 increased intensity and frequency of precipitation events and flooding, increased intensity and
7 frequency of storm surges, more frequent and severe heat waves and extreme temperatures,
8 reduced air quality, and the consequences and injuries associated with those physical and
9 environmental changes, which result in risks to human health and safety, damage to property and
10 infrastructure, and loss of use of public services in the County of Santa Cruz.

11 285. Throughout the times at issue and continuing today, Defendants’ fossil fuel
12 products and their derivatives were used, distributed, and sold in a manner in which they were
13 reasonably foreseeably intended to be used, distributed, and sold, including but not limited to
14 being combusted for energy, combusted to power automobiles, refined into petrochemicals, and
15 refined and/or incorporated into petrochemical products including, but not limited to, fuels and
16 plastics.

17 286. Defendants and their affiliates and subsidiaries knew, or should have known, that
18 these fossil fuel products and their derivatives would be used by the County, its residents, and
19 others within the County’s limits, amongst others, in the manner reasonably foreseeably
20 intended.

21 287. Throughout the times at issue and continuing today, fossil fuel products presented
22 and still present a substantial risk of injury to Plaintiff through the climate effects described
23 above, whether used as intended or misused in a reasonably foreseeable manner. They were not
24 reasonably safe at the time they left Defendants’ control because they lacked adequate warnings
25 and instructions. Defendants’ actual and/or constructive knowledge described above also
26 encompassed all of the risks described in this paragraph. The fossil fuel products and their
27 derivatives reached consumers and the environment substantially unchanged from that in which
28 they left the Defendants’ control. Defendants and their affiliates and subsidiaries knew, or should

1 have known, that these fossil fuel products and their derivatives would be used by Plaintiff, their
2 residents, and others within the County of Santa Cruz's limits, amongst others, in the manner
3 reasonably foreseeably intended.

4 288. Throughout the times at issue, the ordinary consumer would not recognize that the
5 use or foreseeable misuse of fossil fuel products causes global and localized changes in climate,
6 including those effects described herein.

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

11 290. Throughout the times at issue, Defendants individually and in concert widely
12 disseminated marketing materials, refuted the scientific knowledge generally accepted at the time
13 concerning climate change, and advanced pseudo-scientific theories of their own, and developed
14 public relations campaigns and materials that prevented reasonable consumers from recognizing
15 or discovering the latent risk that Defendants' fossil fuel products and their derivatives would
16 cause grave climate changes. Defendants also represented, asserted, claimed, and warranted that
17 their fossil fuel products and derivatives were safe for their intended and foreseeable uses.

18 291. Despite the Defendants' superior and unequal knowledge of the risks posed by
19 fossil fuel products and their derivatives, Defendants, and each of them, breached their duty to
20 warn by failing to adequately warn Plaintiff, customers, and the public of the risks of climate
21 change and other dangers that Defendants knew would inevitably follow from the intended or
22 reasonably foreseeable use of Defendants' fossil fuel products.

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

28

1 293. Accordingly, throughout the times at issue, the ordinary consumer would not
2 recognize that the use of fossil fuel products and their derivatives causes global and localized
3 changes in climate, and consequent injuries to the County of Santa Cruz and its communities, as
4 described herein.

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

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

15 296. As a result of the Defendants' failure to warn about the unreasonably dangerous
16 conditions of their fossil fuel products and their derivatives, Defendants are strictly liable to
17 Plaintiff.

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

24 298. As a direct and proximate result of the defects previously described, fossil fuel
25 products caused Plaintiff to sustain the injuries and damages set forth in this Complaint,
26 including damage to publicly owned infrastructure and real property, and the creation and
27 maintenance of a nuisance that interferes with the rights of the County, its residents, and of the
28 People.

1 306. The condition described above created by Defendants' conduct substantially
2 interferes with Plaintiff's use and quiet enjoyment of its properties.

3 307. Plaintiff has not consented to Defendants' conduct in creating the condition that
4 has led to climate change and its associated harms.

5 308. The ordinary person, and the ordinary County or public entity in Plaintiff's
6 position, would be reasonably annoyed and disturbed by Defendants' conduct and the condition
7 created thereby, because, inter alia, it infringes on Plaintiff's ability to provide public space and
8 safe property to residents and visitors, and has forced Plaintiff to plan for and provide additional
9 emergency and other public services in response to more frequent and more intense flooding and
10 storm surges on properties owned by Plaintiff.

11 309. The seriousness of rising sea levels, increased weather volatility, flooding, and
12 extreme heat events (including fire smoke) is extremely grave, and outweighs the social utility of
13 Defendants' conduct. The seriousness of the harm to Plaintiff outweighs the benefit of
14 Defendants' and each of their conduct.

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

17 311. Defendants' acts and omissions as alleged herein are indivisible causes of
18 Plaintiff's injuries and damages as alleged herein.

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

25 313. Defendants are jointly and severally liable to the Plaintiff for causing a private
26 nuisance.

27 314. Wherefore, Plaintiff prays for relief as set forth below.
28

1 **FIFTH CAUSE OF ACTION**

2 **(Negligence on Behalf of the County of Santa Cruz)**

3 **(Against All Defendants)**

4 315. Plaintiff incorporates by reference each and every allegation contained in §§ I–V
5 above, as though set forth herein in full.

6 316. Defendants knew or should have known of the climate effects inherently caused
7 by the normal use and operation of their fossil fuel products, including the likelihood and likely
8 severity of global and local climate change and its consequences, and including Plaintiff’s
9 injuries and damages described herein.

10 317. For decades, Defendants possessed knowledge—based on information passed to
11 them from their internal research divisions and affiliates, from trade associations and industry
12 groups, and from the international scientific community—that fossil fuels are the primary cause of
13 climate change and that, if unabated, climate change would cause climate-related harms,
14 including but not limited to: sea level rise, more frequent and extreme precipitation events,
15 increased frequency and severity of heat waves and extreme temperatures, reduced air quality,
16 and other adverse environmental changes, and the associated consequences of those physical and
17 environmental changes in the County of Santa Cruz and elsewhere, with compounding effects in
18 the most vulnerable, at-risk and disadvantaged communities. Defendants possessed knowledge
19 that these climate-related harms would result in risks to human health and safety, damage to
20 property and infrastructure, and loss of use.

21 318. Given the scientific evidence available to and conducted by Defendants, as
22 referenced herein, such injury was likely and reasonably foreseeable.

23 319. Under California law, each Defendant had a duty to Plaintiff and its residents to
24 exercise reasonable care in the marketing, promoting, sale, and/or labeling of their fossil fuel
25 products and to act reasonably for the protection of the County of Santa Cruz and its residents to
26 avoid inflicting the injuries described herein. All Defendants had a duty to exercise reasonable
27 care in the production and dissemination of information regarding the climate impacts of fossil
28 fuel products to users of those products and to the public.

1 320. Defendants had superior knowledge of the risk posed by fossil fuel products at all
2 times relevant to this Complaint.

3 321. Defendants, collectively and individually, had a duty to use due care in
4 developing, testing, inspecting, selling, and marketing their fossil fuel products. That duty
5 obligated Defendants collectively and individually to, inter alia, prevent defective products from
6 entering the stream of commerce, and prevent reasonably foreseeable harm that could have
7 resulted from the ordinary use or reasonably foreseeable misuse of Defendants' products.

8 322. Defendants, and each of them, breached their duty of due care by engaging in a
9 campaign of disinformation regarding global warming and the climatic effects of fossil fuel
10 products that prevented customers, consumers, and the general public from taking steps to
11 mitigate the inevitable consequences of fossil fuel consumption, and incorporating those
12 consequences into either short-term decisions or long-term planning. This includes when they
13 advertised, promoted, and/or sold fossil fuel products and their derivatives, while failing to
14 include warnings of the risk of harm associated with fossil fuel products and their derivatives, in
15 a manner that they knew or should have known would result in injury to human health and
16 safety, damage to Plaintiff's property and infrastructure, loss of use of Plaintiff's services, and
17 other damages to the Plaintiff. Any warnings provided by Defendants were rendered ineffective
18 by the years-long deceptive marketing practices and public relations campaigns, which
19 promulgated false and misleading statements, casted doubt on the consensus of climate scientists,
20 and advanced pseudo-scientific theories.

21 323. Defendants' individual and collective acts and omissions were actual, substantial
22 causes of climate change and its consequences, including Plaintiff's injuries and damages set
23 forth herein.

24 324. Defendants' individual and collective acts and omissions were proximate causes
25 of climate change and its consequences, including Plaintiff's injuries and damages set forth
26 herein. No other act, omission, or natural phenomenon intervened in the chain of causation
27 between Defendants' conduct and Plaintiff's injuries and damages, or superseded Defendants'
28 breach of their duties' substantiality in causing Plaintiff's injuries and damages.

1 their respective affiliates and subsidiaries. Defendants received direct financial benefit from their
2 affiliates' and subsidiaries' sales of fossil fuel products. Defendants' role as promoter and
3 marketer was integral to their respective businesses and a necessary factor in bringing fossil fuel
4 products and their derivatives to the consumer market, such that Defendants had control over,
5 and a substantial ability to influence, the manufacturing and distribution processes of their
6 affiliates and subsidiaries.

7 334. As manufacturers, advertisers, promoters, and/or sellers of fossil fuel products
8 and their derivatives, Defendants had a duty to warn consumers, the public, and Plaintiff of
9 reasonably foreseeable environmental and health risks posed by those products and derivatives.

10 335. Throughout the times at issue, Defendants individually and collectively knew or
11 should have known—based on information passed to them from their internal research divisions
12 and affiliates, trade associations and entities, and/or from the international scientific
13 community—that fossil fuel products, whether used as intended or misused in a foreseeable
14 manner, release greenhouse gases into the atmosphere, causing global warming, sea level rise,
15 increased intensity and frequency of precipitation events and flooding, increased intensity and
16 frequency of storm surges, more frequent and severe heat waves and extreme temperatures,
17 reduced air quality, and the consequences and injuries associated with those physical and
18 environmental changes, which result in risks to human health and safety, damage to property and
19 infrastructure, and loss of use of public services in the County of Santa Cruz.

20 336. Defendants knew or should have known, based on information passed to them
21 from their internal research divisions and affiliates, their trade organizations, and/or from the
22 international scientific community, that the climate effects described above rendered their fossil
23 fuel products dangerous, or likely to be dangerous, when used as intended or misused in a
24 reasonably foreseeable manner.

25 337. Throughout the times at issue and continuing today, Defendants' fossil fuel
26 products and their derivatives were used, distributed, and sold in a manner in which they were
27 reasonably foreseeably intended to be used, distributed, and sold, including but not limited to
28 being combusted for energy, combusted to power automobiles, refined into petrochemicals, and

1 refined and/or incorporated into petrochemical products including, but not limited to, fuels and
2 plastics.

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

7 339. Throughout the times at issue and continuing today, fossil fuel products presented
8 and still present a substantial risk of injury to Plaintiff through the climate effects described
9 above, whether used as intended or misused in a reasonably foreseeable manner. They were not
10 reasonably safe at the time they left Defendants' control because they lacked adequate warnings
11 and instructions. Defendants' actual and/or constructive knowledge described above also
12 encompassed all of the risks described in this paragraph. The fossil fuel products and their
13 derivatives reached consumers and the environment substantially unchanged from that in which
14 they left the Defendants' control. Defendants and their affiliates and subsidiaries knew, or should
15 have known, that these fossil fuel products and their derivatives would be used by Plaintiff, its
16 residents, and others within the County of Santa Cruz's limits, amongst others, in the manner
17 reasonably foreseeably intended.

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

22 341. Throughout the times at issue, Defendants individually and in concert widely
23 disseminated marketing materials, refuted the scientific knowledge generally accepted at the time
24 concerning climate change, and advanced pseudo-scientific theories of their own, and developed
25 public relations campaigns and materials that prevented reasonable consumers from recognizing
26 or discovering the latent risk that Defendants' fossil fuel products and their derivatives would
27 cause grave climate changes. Defendants also represented, asserted, claimed, and warranted that
28 their fossil fuel products and derivatives were safe for their intended and foreseeable uses.

1 342. Despite the Defendants' superior and unequal knowledge of the risks posed by
2 fossil fuel products and their derivatives, Defendants, and each of them, breached their duty to
3 warn by failing to adequately warn Plaintiff, customers, and the public of the risks of climate
4 change and other dangers that Defendants knew would inevitably follow from the intended or
5 reasonably foreseeable use of Defendants' fossil fuel products.

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

11 344. Accordingly, throughout the times at issue, the ordinary consumer would not
12 recognize that the use of fossil fuel products and their derivatives causes global and localized
13 changes in climate, and consequent injuries to the County of Santa Cruz and its communities, as
14 described herein.

15 345. Had the Defendants provided adequate warnings and not waged a deceptive
16 campaign against climate science, their fossil fuel products and their derivatives would not have
17 had widespread acceptance in the marketplace, and alternatives to fossil fuel products could have
18 been developed faster, investment in fossil fuel alternatives would be greater, and/or fossil fuel
19 alternatives would be used in greater amounts.

20 346. Moreover, had the Defendants provided adequate warnings about the adverse
21 impacts to public health and the environment that result from the intended and reasonably
22 foreseeable use of fossil fuel products and their derivatives, Plaintiff and their residents would
23 have taken measures to decrease fossil fuel dependency in order to avoid or lessen the climate
24 related harms described herein and property damage that would inevitably follow.

25 347. As a result of the Defendants' failure to warn about the unreasonably dangerous
26 conditions of their fossil fuel products and their derivatives, Defendants are liable to Plaintiff.

27 348. Defendants further breached their duty of care by making untruthful, deceptive,
28 and/or misleading environmental marketing claims, explicit and implied, in violation of Cal. Bus.

1 & Prof. Code § 17580.5. By violating the greenwashing statute, Defendants are presumed to
2 have breached their duty per se under Evidence Code § 669.

3 a. Defendants violated § 17580.5 with such conduct including deceptively
4 marketing fossil fuel products claimed to be “low carbon,” “emissions-reducing,” “clean” and/or
5 “green,” or otherwise environmentally beneficial or benign when in reality those products
6 contribute to climate change and are harmful to the health of the planet and its people; and
7 deceptively marketing their companies and their products as contributing to solutions to climate
8 change when in reality their investments in clean energy and alternative fuels pale in comparison
9 to their investments in expanding fossil fuel production.

10 b. This conduct was the proximate cause of Plaintiff’s climate related
11 injuries.

12 c. Plaintiff’s injuries resulted from an occurrence of the nature which the
13 greenwashing statute was designed to prevent.

14 d. Plaintiff is among the class of persons for whose protection the
15 greenwashing statute was adopted.

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

22 350. As a direct and proximate result of the defects previously described, fossil fuel
23 products caused Plaintiff to sustain the injuries and damages set forth in this Complaint,
24 including damage to publicly owned infrastructure and real property, and the creation and
25 maintenance of a nuisance that interferes with the rights of the County, its residents, and of the
26 People.

27 351. Defendants’ acts and omissions as alleged herein are indivisible causes of
28 Plaintiff’s injuries as alleged herein.

1 352. As a direct and proximate result of Defendants' acts and omissions as alleged
2 herein, Plaintiff has suffered monetary losses and damages in amounts to be proven at trial.

3 353. Wherefore, Plaintiff prays for relief as set forth below.

4 **SEVENTH CAUSE OF ACTION**

5 **(Trespass on Behalf of the County of Santa Cruz)**

6 **(Against All Defendants)**

7 354. Plaintiff incorporates by reference each and every allegation in §§ I–V contained
8 above, as though set forth herein in full.

9 355. Plaintiff owns, leases, occupies, and/or controls real property within the County of
10 Santa Cruz boundaries and within communities located within the County.

11 356. Defendants, and each of them, have intentionally, recklessly, or negligently
12 caused ocean waters, storm surges, flood waters, extreme precipitation, and airborne pollutants
13 including smog and wildfire smoke to enter Plaintiff's property, by advertising, promoting,
14 marketing, and/or selling fossil fuel products in a manner which, knowing those products in their
15 normal operation and use or foreseeable misuse would cause global and local sea levels to rise,
16 cause flooding to become more frequent and more intense, and cause storm surges to become
17 more frequent and more intense.

18 357. Plaintiff did not give permission for Defendants, or any of them, to cause ocean
19 water to enter its property.

20 358. Plaintiff has been and continues to be actually injured and continues to suffer
21 damages as a result of Defendants and each of their having caused ocean water to enter their real
22 property, by inter alia permanently submerging real property owned by Plaintiff, causing
23 flooding which have invaded and threatens to invade real property owned by Plaintiff and
24 rendered it unusable, and causing storm surges which have invaded and threatened to invade real
25 Property owned by Plaintiff and rendered it unusable.

26 359. Defendants' and each Defendant's conduct, including their decades-long
27 campaign of deception, which had the purpose and effect of inflating and sustaining the market
28 for fossil fuels, drove up greenhouse gas emissions, accelerated global warming, delayed the

1 energy economy's transition to a lower-carbon future, and brought about devastating climate
2 change impacts to the County of Santa Cruz, was a substantial factor in causing the injuries and
3 damages to Plaintiff's public and private real property.

4 360. Defendants' acts and omissions as alleged herein are indivisible causes of
5 Plaintiff's injuries and damage as alleged herein.

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

12 362. Defendants are jointly and severally liable to the Plaintiff for causing trespass.

13 363. Wherefore, Plaintiff prays for relief as set forth below.

14 **VII. PRAYER FOR RELIEF**

15 1. Compensatory damages in an amount according to proof;

16 2. Equitable relief to abate the nuisances complained of herein;

17 3. Reasonable attorneys' fees pursuant to California Code of Civil Procedure 1021.5

18 or otherwise;

19 4. Punitive damages;

20 5. Disgorgement of profits;

21 6. Finding Defendants jointly and severally liable for causing, creating, assisting in
22 the creation, of, contributing to, and/or maintaining a public nuisance;

23 7. Ordering an abatement fund remedy to be paid for by Defendants to provide for
24 infrastructure and other support necessary for the People to abate the nuisances complained of
25 herein;

26 8. Pre- and post-judgment interest as permitted by law;

27 9. Costs of suit and expenses; and

28 10. For such and other relief as the court may deem proper.

1 **VIII. JURY DEMAND**

2 Plaintiff the County of Santa Cruz demands a jury trial on all issues so triable.

3
4 Dated: June 10, 2024

**OFFICE OF THE COUNTY COUNSEL
COUNTY OF SANTA CRUZ**

5
6 By: /s/ Jason M. Heath
7 JASON M. HEATH, County Counsel
8 MELISSA C. SHAW, Lead Assistant County
9 Counsel

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10 /s/ Katie H. Jones
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*Attorneys for The County of Santa Cruz,
individually and on behalf of the People of the
State of California*

1 **PROOF OF SERVICE**

2 I am employed in the County of San Francisco, State of California. I am over the age of
3 eighteen (18) years and not a party to the action. My business address is 100 Montgomery St.,
4 Ste. 1410, San Francisco, CA 94104. I am readily familiar with Sher Edling LLP’s practice for
5 collection and processing of documents for mailing.

6 On June 10, 2024, I served copies of the following document:

7 **FIRST AMENDED COMPLAINT**

8 upon the counsel listed below via File&ServeXpress as follows:

9

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12 I declare under penalty of perjury that the foregoing is true and correct. Executed in San
13 Francisco, CA on June 10, 2024.

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15 */s/ Oni Strawn*
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17 Oni Strawn

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