**City of Oakland v. BP: Testing the Limits of Climate Science in Climate Litigation**

**INTRODUCTION**

Climate litigation is becoming increasingly common in courts around the country, as affected parties turn to the judicial branch following more than a decade of congressional silence.\(^1\) With litigants taking their actions to court, judges have been forced to grapple with climate science as well as the fundamental legal issues implicated by climate litigation.

Because litigants have filed lawsuits primarily against fossil fuel companies, the importance of science in climate litigation is likely to mirror the importance of science in other areas of litigation, like the tobacco litigation of the 1990s.\(^2\) Just as the tobacco litigation forced plaintiffs to contend with industry-funded denial and junk science, climate litigants must confront sophisticated corporate defendants experienced in obstruction and the deployment of junk science. New litigation, however, has started to reveal cracks in the fossil fuel industry’s wall of climate denial.\(^3\)

The case of *City of Oakland v. BP*, in which the cities of Oakland and San Francisco challenged five major fossil fuel producers in a public nuisance lawsuit over climate change, illustrates both the opportunities and limitations of confronting climate science head-on through climate litigation. Although the federal district court for the Northern District of California ultimately held that Oakland’s nuisance claims were preempted by the Clean Air Act,\(^4\) the district court explicitly noted that its dismissal of the case was not dismissal of the science.\(^5\) Instead, in its order granting the defendant’s motion, the court noted that it “accepts the science behind global warming.” In so doing, the court set an important signpost for future litigants looking to bring climate litigation in court.

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DOI: https://doi.org/10.15779/Z38PC2T91J

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5. *Id.* at 1022.
Three months before dismissing the case, the court ordered the first-ever climate science tutorial in climate litigation, asking both sides to present on key issues of climate science. Five fossil fuel companies submitted testimony to the official record in response to the tutorial, each accepting the scientific consensus on climate change.6 The companies’ collective admission of climate science marks a fundamental shift in the way that climate litigants approach the issue of climate science, illustrating a shift from climate denial and misdirection to an emphasis on the uncertainty.

At the same time, the court’s decision to dismiss the plaintiffs’ case reveals limitations to the power that climate science holds in court. Oakland is an illustration of how even strong science cannot necessarily overcome claims of federal preemption. Instead, it illustrates that any climate action through the judiciary must necessarily come from judges taking bold steps of their own; an outcome that, in turn, could potentially weaken a strong national push towards climate action.

I. LEGAL BACKGROUND

A. Early Climate Litigation: Massachusetts v. EPA

During the mid- to late-2000s, a number of lawsuits involving climate change began working their way through the judiciary, primarily as a response to the silence by the legislative and executive branches of government during the presidency of George W. Bush.7 In the first major climate case, Massachusetts v. EPA, environmental groups and state attorneys general challenged the Bush Environmental Protection Agency’s (EPA) refusal to promulgate regulations for carbon emissions.8 The plaintiffs argued that while “there can be no reasonable debate” about the importance of climate change, EPA continued “to disclaim its statutory role in evaluating the dangers posed by [climate] pollutants.”9 The Court eventually sided with the plaintiffs, holding that the Clean Air Act authorizes EPA to regulate greenhouse gas emissions if the agency finds that the pollutants endanger public health or welfare.10

The majority opinion in Massachusetts v. EPA noted that “the harms associated with climate change are serious and well recognized.”11 Justice Scalia argued in his dissent that climate change was “extraordinarily complex and still evolving,” and too uncertain to grant the plaintiffs’ requested relief.12 In so

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10. Massachusetts, 549 U.S. at 532.
11. Id. at 521.
12. Id. at 554 (Scalia, J., dissenting) (quoting a 2001 report from the National Research Council).
dissenting, Scalia laid the groundwork for future defendants in climate litigation by emphasizing both the uncertainty in the science and the difficulty in tracing a particular harm to a particular actor.

B. Tobacco Litigation

*Massachusetts v. EPA* ushered in a new generation of climate lawsuits. Those cases, some explicitly, modeled themselves on the successful tobacco litigation of the 1990s.\(^\text{13}\) Climate nuisance and tobacco nuisance lawsuits share significant features.\(^\text{14}\) To start, both climate lawsuits and tobacco lawsuits have alleged that manufacturers knew about the harms of their products and suppressed that information in the public sphere.\(^\text{15}\) Moreover, both types of lawsuits have implicated sophisticated corporate defendants who had both lawyers and industry-funded scientists at their disposal, ready to challenge issues like causation.\(^\text{16}\) Finally, defendants in both types of litigation have raised defenses of preemption, claiming that federal laws or policies favoring the industries bar further legal claims.\(^\text{17}\)

As in climate lawsuits, a judicial discomfort with uncertain science and the difficulty of tracing blame to particular manufacturers typified early tobacco lawsuits. In *Lartigue v. RJ. Reynolds Tobacco Co.*, for instance, the court held that the widow of a lifetime smoker could not collect damages from a group of cigarette makers because the defendants could not have foreseen the harm caused by their products.\(^\text{18}\) To help bolster their defense against such claims, tobacco companies relied on industry science that cast doubt on the link between smoking and adverse health effects.\(^\text{19}\)

Eventually, plaintiffs were able to band together in class action lawsuits—the most successful of which was led by state attorneys general—as well as deploy the cigarette industry’s own admission that it knew about the harm


\(^{15}\) While most climate lawsuits have targeted fossil fuel manufacturers, one lawsuit, *American Electric Power Co. v. Connecticut*, focused on the primary users of fossil fuels: major utility companies. *Id.; see also Am. Elec. Power Co. v. Connecticut*, 564 U.S. 410, 415 (2011) (addressing the question of whether states, cities, and private land trusts “can maintain federal common-law public nuisance claims against carbon-dioxide emitters . . .”).


\(^{18}\) 317 F.2d 19, 40 (5th Cir. 1963).

between cigarettes and public harm to obtain massive settlements. In her 2006 final opinion in *United States v. Philip Morris*, for instance, Judge Gladys Kessler of the D.C. Circuit cited a number of admissions by tobacco companies that their products caused health effects like cancer. Kessler eventually found that tobacco companies had violated the Racketeer Influenced and Corrupt Organization Act by engaging in an active public cover-up of the risks of tobacco smoke to public health, even as tobacco companies themselves knew of the harms.

C. Climate Nuisance Lawsuits

As with tobacco litigants, climate litigants began to pursue claims of nuisance against fossil fuel companies in the early 2000s. In one such case, *American Electric Power Co. v. Connecticut* (*AEP*), several states challenged fossil fuel users, including the nation’s largest generators of electricity, under a claim of public nuisance. The complaint in *AEP* featured a deep treatment of climate science, relying on both domestic and international scientific reports. The complaint also noted that “in the absence of reductions of carbon dioxide emissions, global warming will accelerate.” Like the early tobacco litigants, however, climate litigants had to struggle against more than claims of unsettled science: they also had to contend with federal preemption under the Clean Air Act. In a unanimous decision in *AEP*, the Supreme Court ruled that federal common law claims of public nuisance with respect to carbon emissions were displaced by the Clean Air Act.

The Ninth Circuit in 2012 further clarified whether plaintiffs could pursue public nuisance claims against fossil fuel producers under federal common law in *Kivalina v. ExxonMobil*. In that case, the plaintiffs’ complaint mentioned climate science more than a dozen times. “The science of global warming is not new,” the complaint noted in its survey of climate science, which started with Swedish chemist Svante Arrhenius’ work connecting carbon dioxide to atmospheric warming in the late-1800s. The complaint also alleged that fossil

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20. *Id.* at 1346.
22. *Id.* at 1.
25. *Id.* at 91.
28. 696 F. 3d. 849 (9th Cir. 2011).
fuel producers knew about the impact of fossil fuel production on climate change as early as the 1970s, noting that instead of curtailing their production, the defendants “greatly increased their emissions and other conduct contributing to such emissions.”30 The Ninth Circuit held that nuisance actions against fossil fuel producers—not against users, whom the plaintiffs in AEP v. Connecticut had targeted—were shielded from federal public nuisance claims through displacement via the Clean Air Act.31 The court also held that although the plaintiffs were seeking damages—rather than the injunctive relief sought in AEP v. Connecticut—the Clean Air Act still precluded the claim.32

Neither the opinion in AEP nor that in Kivalina dealt with climate science in any substantive way, despite essentially precluding any action on climate change under federal common law. Climate science is not mentioned in Justice Ginsburg’s opinion in AEP, and it receives little more than passing treatment in Kivalina. Comparing these early opinions to the recent opinion in Oakland illustrates how far courts have come in their willingness to engage directly with climate science.

Litigants have also begun using climate science more pointedly in their claims in an attempt to satisfy the issue of causation between a particular actor and a particular harm. Climate science has been evolving rapidly, and scientists have begun to be able to attribute particular natural disasters to climate change with greater precision than was possible even a decade ago. Today, scientists working in climate attribution can confidently say the extent to which climate change made particular events more likely, or more destructive.33 Therefore, climate litigants have increasingly applied climate science to satisfy the causation requirement by linking particular climate events with the behavior of particular defendants. The “uncertainty” that Justice Scalia cited in his dissent in Massachusetts v. EPA, in other words, seems increasingly out of step with the present day reality of climate science.

II. CASE BACKGROUND

A. Climate Nuisance and Sea Level Rise

On September 19, 2017, the City of Oakland, along with the City of San Francisco, filed a lawsuit in California Superior Court against five oil and gas companies for their role in creating and perpetuating climate change.34 Specifically, the cities alleged in their complaint that the five companies, through

30. Id. at 162.
31. Native Vill. of Kivalina, 696 F. 3d 849, 858 (9th Cir. 2011).
32. Id.
33. Climate attribution is a field of scientific inquiry that studies the connection between extreme weather events and climate change. See Chelsea Harvey, Researchers can now blame warming for individual disasters, CLIMATENEWS (Jan. 2, 2018), https://www.cenews.net/stories/1060069847.
their business in extracting, producing, and selling fossil fuels, created a public nuisance by knowingly contributing to climate-fueled sea level rise.\(^{35}\) In their original complaint, the plaintiffs sought monetary relief under California law for the cost of new infrastructure associated with adapting to and mitigating damage from climate change-driven sea level rise.\(^{36}\)

The plaintiffs’ complaint referred to a 2017 report from the California Ocean Science Trust, which projected that the San Francisco Bay Area could see more than ten feet in sea level rise by the end of the century, resulting in potentially catastrophic flooding and inundation of the cities’ coastal areas.\(^{37}\) The complaint alleged that the projected sea level rise would result in billions of dollars of damage to the city, and would require the city to undertake massive adaptation infrastructure projects, such as construction of a sea wall to keep out rising seas.\(^{38}\)

The defendants subsequently removed the complaint to federal court, arguing that the claims necessarily arose under federal common law.\(^{39}\) After the case was removed to federal court, plaintiffs sought to remand the case to state court.\(^{40}\)

**B. Climate Science Tutorial**

On February 27, 2018, the United States District Court for the Northern District of California denied the plaintiffs’ motion for remand, and, on the same day, issued a notice inviting counsel on both sides to present “a two-part tutorial on the subject of global warming and climate change.”\(^{41}\) The tutorial would be the first opportunity for litigants in a climate liability lawsuit to present climate science to a court.\(^{42}\) The court gave each counsel a list of eight questions to

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35. Id. at 32.
36. Id. at 30–31.
answer, as well as specific areas to focus on. In the first part of the tutorial, counsel would have sixty minutes to present a history of climate science. In the second half, counsel would have an additional sixty minutes to present the “best science now available” on global warming, glacier melt, sea rise, and coastal flooding.

During the tutorial, which took place on March 21, 2018, both the plaintiffs and defendants acknowledged the role that fossil fuels play in climate change. Both sides also acknowledged the scientific consensus that the global warming seen since the mid-twentieth century is extremely likely due to human activities. But while the defendants acknowledged the existence of human-caused climate change and the role that fossil fuels have played in creating the problem, the defendants also stressed the global nature of climate change, highlighting the effects of carbon dioxide emissions in countries like China and India. The defendants also argued that uncertainty about the connection between human activity and climate change dominated scientific thinking in the field until at least the 1960s.

Science, however, could only carry litigants so far, as defendants sought to have the claims dismissed on legal grounds. The day before the tutorial, defendants filed a motion to dismiss for failure to state a claim, arguing that the plaintiffs’ claims were preempted by the Clean Air Act. The court granted the motion, but took the clear position that climate change is real and largely a result of the burning of fossil fuels. In stark contrast to earlier climate litigation opinions, Judge Alsup spent more than four pages outlining the history of climate science, noting that “climate scientists are in vast consensus that the combustion of fossil fuels has, in and of itself, materially increased carbon dioxide levels, which in turn has materially increased the median temperature of the planet.” The court also noted that the vast majority of climate scientists draw a connection between fossil fuel use, global warming, and sea level rise.

43. Notice re Tutorial, supra note 41, at 1.
44. Id.
45. Id.
46. Chevron was the only defendant to present in court during the tutorial. The other four defendants submitted their testimony to the record. See Kaufman, supra note 42.
47. See ExxonMobil Corp.’s Response to Notice to Defendants re Tutorial at 4, Oakland v. BP P.L.C., 325 F. Supp. 3d 1017 (N.D. Cal. 2018) (No. 3:17-cv-06011) (acknowledging alignment with plaintiff’s position that human activities have increased “concentration of greenhouse gases in the atmosphere”).
49. Id.
52. Id.
III. ANALYSIS

A. Oakland’s Accomplishments

*Oakland*, on its face, appears to herald a new era in climate litigation and climate science. Fossil fuel companies have now gone on record acknowledging the reality of climate change and the role that fossil fuels have played in creating that phenomenon. The plaintiffs in *Oakland* forced fossil fuel producers to go on the record acknowledging the scientific consensus on climate change, and they provided a roadmap for future courts in how to deal with the complicated field of climate science in climate litigation.

The enduring legacy of the plaintiffs in *Oakland* might be their success in getting both a court and defendants to state, on the record, that climate change is both real and caused at least in part by the burning of fossil fuels. Judge Alsup’s order to dismiss held that “this order accepts the science behind global warming.” Moreover, unlike the opinions in *AEP* and *Kivalina*, Judge Alsup engages in a serious survey of climate science in his order, carefully tracing more than a century’s worth of evolution in climate science over a number of pages. In his treatment of climate science, Judge Alsup offers a model for future judges looking to engage with climate science in a serious way.

Beyond Judge Alsup’s order, five fossil fuel defendants in the case entered into the record clear and unequivocal statements on their position on climate change. ExxonMobil, which has been the subject of numerous investigative reports illuminating their longstanding funding of climate denial, wrote in their response to the court’s order for the climate science tutorial that the risk of climate change is “clear” and “significant.” The company also wrote that “human activities, including the combustion of coal, oil, and natural gas . . . have increased the concentration of greenhouse gases in the atmosphere.”

The plaintiffs in *Oakland* did not succeed in having their claims litigated in open court. But the success of climate litigation should not be judged entirely on whether claims lead to actual judicial remedies. Instead, bringing climate lawsuits may have the added effect of shifting public opinion, especially with respect to what fossil fuel companies knew about climate change. Following *Oakland*, Rhode Island became the first state to file a climate lawsuit against a fossil fuel company, citing both public nuisance and failure to warn the public about the risks of fossil fuels. This new litigation suggests that litigants are still interested in bringing their claims to court, even as cities like Oakland see their

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53. *Id.* at 1029.
54. *Id.* at 1019–22.
56. *Id.*
57. Nate Raymond, *Rhode Island sues major oil companies over climate change*, Reuters (July 2, 2018), https://www.reuters.com/article/us-oil-climatechange-rhode-island/rhode-island-sues-major-oil-companies-over-climate-change-idUSKBN1JS8M.
own claims dismissed. As more litigants bring climate lawsuits against fossil fuel companies, the public visibility of these claims will only increase. Eventually, climate litigants could see their claims begin to move the needle of public opinion in the same way that tobacco litigants helped shift public opinion on the dangers of smoking.58

B. Oakland and the Limits of Climate Science in Climate Litigation

Oakland represents the strongest treatment of climate science to date in a climate lawsuit; but it also illustrates the limits of the role that climate science can play in bolstering a litigant’s case.

Primarily, Oakland shows how difficult it will be for plaintiffs in federal court to overcome issues of displacement with respect to federal nuisance claims. The court ruled that the Clean Air Act preempted the federal nuisance claims, even with fossil fuel defendants on the record acknowledging the role that fossil fuels play in climate change.59 If plaintiffs are unable to overcome motions to dismiss for failure to state a claim due to federal preemption, the strength of climate science cannot help litigants obtain remedies through the court.

Even when judges arrive at an understanding of climate science and the role of fossil fuel emissions in generating climate change, the judiciary may remain hesitant to wade into what has historically been viewed by the judiciary as a political question.60 Judge Alsup, in his order to dismiss, wrote that the determination of the best policy for solving climate change “demand[s] the expertise of our environmental agencies, our diplomats, our Executive, and at least the Senate.”61 Even as climate science comes closer to resolving questions of causation, climate action may still require broader policy responses that courts are often hesitant to prescribe.

C. Oakland’s Impact on Future Climate Litigation

Oakland shows both how far climate science has come in climate litigation, and how far litigants still have to go to have any chance of obtaining a judicial remedy for claims related to climate change. But Oakland also signals a significant break for fossil fuel companies in how they approach climate science in court. Obscuring or contradicting the scientific consensus on climate change

58. See, e.g., Erin Myers, The Manipulation of Public Opinion by the Tobacco Industry: Past, Present, and Future, 2 J. HEALTH CARE L. & POL’y 79, 93 (1998) (noting the shift in public opinion about smoking following tobacco litigation); Jacqueline Peel, CLIMATE CHANGE LITIGATION: REGULATORY PATHWAYS TO CLEANER ENERGY 236 (2015) (“Alongside highlighting Massachusetts v. EPA, several interviewees identified tort cases brought in the United States against corporate emitters as having played an important role in influencing public perceptions of the climate change problem.”).

59. See ExxonMobil Corp.’s Response, supra note 47.

60. See Native Vill. of Kivalina v. ExxonMobil Corp., 663 F. Supp. 2d 863, 877 (N.D. Cal. 2004) (holding that determining fault for climate change “is a matter appropriately left for determination by the executive or legislative branch in the first instance.”).

no longer appears to be a viable litigation strategy for defendants in climate litigation following *Oakland*. This reality is further evidenced by the federal government’s purported strategy as a defendant in another high-profile climate litigation case: *Juliana v. United States*. In its expert report submitted to the court, the federal government noted that climate change is real, that the phenomenon is caused by human activity, and that the primary contributor to the phenomenon is carbon dioxide.

The admissions made by fossil fuel companies in *Oakland* may also play a role in the strategy of future climate litigation. The position taken by defendants in *Oakland* represents a major shift from earlier climate litigation cases, where defendants’ strategies often depended, at least in part, on highlighting scientific uncertainty over climate change. In oral arguments before the Ninth Circuit in *Kivalina*, for instance, the defendant fossil fuel companies argued that it was impossible to trace particular climate harms to particular actors. In an amicus brief submitted to the Supreme Court in support of the defendants in *AEP*, companies including Shell and Chevron argued that “because every living, breathing organism contributes to climate change by emitting carbon dioxide . . . plaintiffs cannot show that their alleged harms were specifically caused by any particular emitter or group of emitters.”

This shift may be particularly important for ongoing investigations into ExxonMobil currently underway in both New York and Massachusetts. Attorneys general in both states are investigating Exxon for fraud, claiming that the company intentionally misled investors about the risks of climate change despite internal evidence linking fossil fuels to the phenomenon. Exxon has tried to block the investigations by filing lawsuits in federal and state courts, arguing that the attorneys general lack jurisdiction for the investigation. Thus far, those claims have been dismissed.

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62. A constitutional case claiming that the federal government, through its policies, has violated the youth plaintiff’s Due Process rights. See Juliana v. United States, 2016 WL 183903, at *4–*5 (D. Ore. 2016).
65. Transcript of Oral Argument, Kivalina v. Exxon, 696 F.3d 849 (9th Cir. 2012) (No. 09-17490) (“There’s further question of how would you possibly create a system for allocating full pairing up particular persons with harms.”).
If Exxon finds itself in federal court, the Federal Rules of Evidence would let the attorneys general point to Exxon’s admissions regarding climate science in the *Oakland* case. These rules would prevent Exxon from taking a different position in future litigation than it took in *Oakland*, locking the company into a public position that climate change is real and caused, at least in part, by fossil fuels.

**CONCLUSION**

*Oakland v. BP* shows how far climate litigation plaintiffs have come in their crusade to bring climate science into the courts. Following *Oakland*, fossil fuel defendants will be unable to deny climate science and the existence of climate change. But *Oakland* also shows the limits that climate science plays in making a winning case for plaintiffs in climate litigation. Even with arguably the strongest foundation of climate science on record, plaintiffs were still not able to overcome a motion to dismiss due to preemption under the Clean Air Act. As long as judges view climate regulation as within the strict purview of the legislative and executive branch, the path to climate action through the judiciary remains fraught for plaintiffs.

For climate science to lead to judicial remedies, judges will need to embrace a more policy-driven role. An approach for judicial climate action might look similar to that of Judge Dan Aaron Polster of the Northern District of Ohio, who is currently overseeing the multidistrict litigation challenging pharmaceutical companies for their role in the opioid epidemic. In his opening statement in the multidistrict litigation, Judge Polster noted that “the federal court is probably the least likely branch of government to try and tackle [the opioid epidemic],” but that because “the other branches of government, federal and state, have punted,” he felt it was his duty “to do something meaningful to abate this crisis.” That statement reflects Judge Polster’s belief that, when it comes to intractable and immediate social issues where the other branches of government have loathed to act, the judiciary may step outside of its usual, or perhaps, idealized, role as a neutral arbitrator and into a role that involves more overt policy making. Judges should understand that in a political climate where Congress and the Executive are committed to climate inaction, punting on climate remedies is, in and of itself, a policy choice.

Ultimately, climate litigation faces an uphill battle in the courts in the coming decades, particularly as the Trump administration continues to appoint

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69. See, e.g., FED. R. EVID. 801(d) (allowing parties in litigation to reference prior statements made by parties (or authorized agents for the parties), as long as the client or agent for the client is a party in current litigation).
judges at the federal level. As evidenced by the unanimous decision in AEP, preemption is likely to keep nuisance claims out of federal court. Nonetheless, as climate science becomes increasingly accepted in the mainstream, litigants can work to force fossil fuel producers to admit, on the record, that their business has contributed to the climate crisis. By doing this, litigants can potentially establish a record for other forms of climate liability. Moreover, litigants can help shift public opinion by showing that fossil fuel producers knew about the risks of climate change for decades—potentially shifting the understanding of where the blame for the climate crisis truly lies by showing that while fossil fuels are used by everyone, they have only been extracted, produced, and marketed by a handful of producers who knew exactly the harm they were causing.

Natasha Geiling

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