

FAILURE-TO-ADAPT CLIMATE LITIGATION AT 20: AN UNDERUSED TOOL?

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SUMMARY

As the prospects of significantly mitigating climate change through emissions reductions become dimmer, the critical necessity of adaptation has become clearer, with failure-to-adapt litigation possibly playing an important role in bringing adaptation measures to pass. Based on a review of every adaptation-related case in the U.S. Climate Litigation Database maintained by the Sabin Center for Climate Change Law, this Article offers the first comprehensive assessment of failure-to-adapt litigation in the United States. It finds that such cases have proliferated in this country over the past decade, but that the lawsuits so far filed have sought specific, incremental, and relatively small-scale adaptation measures rather than systemic, large-scale, coordinated action. The Article's central finding is that failure-to-adapt litigation in the United States has so far been only modestly successful: most suits have failed, but a significant minority have succeeded. Failure-to-adapt litigation succeeds frequently enough to make it an important, and perhaps underutilized, tool for bringing about much-needed adaptive measures in the United States.

On July 10, 2010, the Boston area experienced a severe rainstorm, with more than two inches of rain falling in a two-hour period.¹ The storm resulted in a serious environmental mishap at a petroleum products storage and distribution terminal operated by the ExxonMobil Corporation in the town of Everett, Massachusetts, a Boston suburb (Everett Terminal).² Part of the Everett Terminal was flooded, resulting in a discharge of untreated pollutants directly into the nearby Island End River.³

Several years later, in 2016, the Conservation Law Foundation (CLF), a nonprofit environmental advocacy group, sued ExxonMobil under the Clean Water Act (CWA)⁴ and the Resource Conservation and Recovery Act (RCRA)⁵ for, among other things, failing to consider climate change in its contingency planning for the Everett Termi-

nal.⁶ “Because ExxonMobil has not taken climate change impacts into account,” the complaint alleged, “CLF and its members are placed directly in harm’s way and have no reasonable assurance that they will be protected from pollutants released and discharged from the Everett Terminal.”⁷ The complaint further alleged that the terminal was “vulnerable to sea level rise, increased precipitation, increased magnitude and frequency of storm events, and increased magnitude and frequency of storm surges due to its location, elevation, and lack of preventative infrastructure” and that “ExxonMobil has not implemented needed actions to address and eliminate these vulnerabilities.”⁸

After several years of litigation, the parties reached a settlement.⁹ Under its terms, ExxonMobil agreed to permanently close the Everett Terminal.¹⁰ CLF also obtained an “enforceable prohibition on the property ever being used for polluting bulk fossil fuel storage.”¹¹ “This resolution,” noted CLF President Brad Campbell, “should put operators of similar climate-vulnerable facilities on notice that they cannot turn a blind eye to extreme weather dangers driven by climate change.”¹²

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1. See Complaint for Declaratory and Injunctive Relief and Civil Penalties at 18, *Conservation L. Found. v. ExxonMobil Corp. (CLF I)*, 3 F.4th 61, 65, 51 ELR 20129 (1st Cir. 2021).
2. See *CLF I*, 3 F.4th at 65; Complaint for Declaratory and Injunctive Relief and Civil Penalties at 10, *CLF I*, 3 F.4th 61.
3. See Complaint at 18, *CLF I*, 3 F.4th 61.
4. 33 U.S.C. §§1251-1387, ELR STAT. FWPCA §§101-607.
5. 42 U.S.C. §§6901-6992k, ELR STAT. RCRA §§1001-11011.

6. See Complaint at 5, *CLF I*, 3 F.4th 61.

7. *Id.*

8. *Id.* at 17.

9. Press Release, CLF, CLF Settles Landmark Climate Lawsuit Against Exxon (Dec. 5, 2023), <https://www.clf.org/newsroom/clf-settles-landmark-climate-lawsuit-against-exxon/>.

10. *Id.*

11. *Id.*

12. *Id.*

By contrast, consider the Massachusetts Supreme Judicial Court's 2022 decision in *GreenRoots, Inc. v. Energy Facilities Siting Board*.¹³ GreenRoots, a nonprofit organization dedicated to improving the urban environment, challenged a decision of the Massachusetts Energy Facilities Siting Board (EFSB) to approve a particular location for a new electric substation on the grounds that, among other things, the substation's proposed location put it at risk from sea-level rise due to climate change.¹⁴ GreenRoots faulted the EFSB for basing its approval on the power company's decision to design the substation to be "resilient to sea level rise through 2070."¹⁵

Although the EFSB determined that 2070 was a reasonable planning horizon in light of the fact that the substation equipment had a design life of 40 years, GreenRoots urged the adoption of a 60-year horizon, given that 60 years was the average age of the existing substations owned by the power company seeking approval for the new substation.¹⁶ The court rejected this argument, concluding that the EFSB's "adoption of a forty-year planning horizon based on the design life of substation equipment is reasonable, given the uncertainties in long-term predictions of sea level rise and electricity demand."¹⁷ The court went on to reject GreenRoots' challenge to the EFSB's location decision.¹⁸

Both of these cases are examples of "failure-to-adapt"¹⁹ climate change litigation. A "failure-to-adapt" lawsuit is one alleging that the defendant—usually a government entity, but sometimes a private entity—has failed to take measures necessary to adapt to climate change or has inadequately accounted for climate change impacts in its planning, analysis, determinations, or operations. Over the past 15 years, a number of scholars have predicted that an important front in U.S. climate change litigation would be such failure-to-adapt lawsuits, often arguing for the desirability and importance of litigation of this sort.²⁰ As

the prospects for significantly mitigating climate change through emissions reductions have become dimmer,²¹ the critical necessity of adaptation has become clearer than ever,²² with litigation possibly playing an important role in bringing adaptation measures to pass.²³

Based on a review of every adaptation-related case in the U.S. Climate Change Litigation Database maintained by the Sabin Center for Climate Change Law at Columbia Law School (Sabin Center database),²⁴ this Article assesses

Burkett, *supra* note 19, at 11145 ("[L]itigation based on the failure to adapt may be a much easier road than the mitigation-oriented carbon torts filed in the last several years."); Robin Kundis Craig, *Adapting to Climate Change: The Potential Role of State Common-Law Public Trust Doctrines*, 34 Vt. L. REV. 781, 784 (2010) ("This Article argues that, within water law, state public trust doctrines can be particularly well-suited to providing legal support for adaptive management-based climate change adaptation regimes."); Thomas Landers, *A New Path to Climate Justice: Adaptation Suits Against Private Entities*, 30 GEO. ENV'T L. REV. 321, 326 (2018) ("This Note argues that the time is ripe for climate adaptation litigation against private entities, that CLF has put forward a viable model for such suits, and that, whether CLF succeeds or fails, others should learn from this case and pursue more like it."); see also MICHAEL BURGER & MARIA ANTONIA TIGRE, UNITED NATIONS ENVIRONMENT PROGRAMME & SABIN CENTER FOR CLIMATE CHANGE LAW, GLOBAL CLIMATE LITIGATION REPORT: 2023 STATUS REVIEW 60 (2023) ("[D]espite the importance of adaptation efforts there are still a limited number of cases focused on adaptation.")

21. See, e.g., Intergovernmental Panel on Climate Change (IPCC), *Summary for Policymakers*, in *Climate Change 2023: Synthesis Report*. Contribution of Working Groups I, II, and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change 1, 4 (H. Lee et al. eds., IPCC 2023) [hereinafter IPCC 2023, *Summary for Policymakers*] ("Global greenhouse gas emissions have continued to increase, with unequal historical and ongoing contributions arising from unsustainable energy use, land use and land-use change, lifestyles and patterns of consumption and production across regions, between and within countries, and among individuals . . ."); *id.* at 10, 12:

Global [greenhouse gas] emissions in 2030 implied by nationally determined contributions (NDCs) announced by October 2021 make it *likely* that warming will exceed 1.5°C during the 21st century and make it harder to limit warming below 2°C. . . . Continuing greenhouse gas emissions will lead to increasing global warming, with the best estimate of reaching 1.5°C in the near term in considered scenarios and modelled pathways.

22. See, e.g., IPCC, *Summary for Policymakers*, in *Climate Change 2022: Impacts, Adaptation, and Vulnerability*. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change 3, 20 (H.-O. Pörtner et al. eds., Cambridge Univ. Press 2022) [hereinafter IPCC 2022, *Summary for Policymakers*]:

Despite progress, adaptation gaps exist between current levels of adaptation and levels needed to respond to impacts and reduce climate risks. . . . At current rates of adaptation planning and implementation the adaptation gap will continue to grow As adaptation options often have long implementation times, long-term planning and accelerated implementation, particularly in the next decade, is important to close adaptation gaps, recognising that constraints remain for some regions

23. See, e.g., *id.* at 27: Political commitment and follow-through across all levels of government accelerate the implementation of adaptation actions. . . . Accelerating commitment and follow-through is promoted by rising public awareness, building business cases for adaptation, accountability and transparency mechanisms, monitoring and evaluation of adaptation progress, social movements, and *climate-related litigation* in some regions (emphasis added).

24. The Sabin Center's U.S. Climate Litigation Database was created in 2007 and made interactive and searchable in 2017. Updated on a monthly basis, the database included 1,796 cases as of July 2024. See Sabin Center for Climate Change Law, *Climate Change Litigation Database—About*, <https://climatecasechart.com/about/> (last visited Sept. 9, 2024). Routinely cited by climate change scholars, see, e.g., Hari M. Osofsky, *Litigating Climate Change Infrastructure Impacts*, 118 Nw. U. L.R. ONLINE 149, 168 (2023); Jim Rossi & J.B. Ruhl, *Adapting Private Law for Climate Change Adaptation*,

13. 197 N.E.3d 382 (Mass. 2022).

14. *Id.* at 384.

15. *Id.* at 390.

16. *Id.*

17. *Id.*

18. *Id.* at 392.

19. The term "failure-to-adapt" is not my coinage. It has been used by both climate change law scholars and courts. See, e.g., Maxine Burkett, *Litigating Climate Change Adaptation: Theory, Practice, and Corrective (Climate) Justice*, 42 ELR 11144, 11145 (Dec. 2012) (referring to "litigation based on the failure to adapt" to climate change); Conservation L. Found. v. Shell Oil Prods. US (CLF II), No. 1:17-cv-00396, 2020 WL 5775874, at *1, 50 ELR 20220 (D.R.I. Sept. 28, 2020) ("The Complaint makes clear that a major weather event, magnified by the effects of climate change, could happen at virtually any time, resulting in the catastrophic release of pollutants due to Defendants' alleged *failure to adapt* the Terminal to address those impending effects.") (emphasis added).

20. See J.B. Ruhl, *Climate Change Litigation, Ten Years Later*, 36 J. LAND USE & ENV'T L. 225, 228-29 (2021) ("Notwithstanding difficult issues of causation and attribution, it is likely that adaptation litigation will see an upswing in the years ahead given the growing concern that greenhouse gas emissions are not being adequately regulated."); Jacqueline Peel & Hari Osofsky, *Sue to Adapt?*, 99 MINN. L. REV. 2177, 2181, 2192 (2015):

The handful of [adaptation planning suits] currently winding their way through U.S. courts may be the beginning of a major new area of litigation in this country focused on adaptation. . . . While these cases have had nowhere near the impact of the mitigation cases to date, these first few cases may yet be an indication of future U.S. litigation pathways

whether failure-to-adapt climate litigation has so far lived up to this promise. This is a novel contribution to the literature, as no commentator appears to have undertaken a comprehensive review of failure-to-adapt litigation in the United States, at least not in the past 10 years.

The Article finds that, as predicted, failure-to-adapt litigation has proliferated in the United States over the past decade, particularly in the past five years. Of the 90 failure-to-adapt cases in the Sabin Center database (the first of which was filed 19 years ago in 2005), 77% were filed in 2014 or later and 54% were filed in 2019 or later.²⁵ Most of the cases have been filed against government agencies or other public entities and have sought relief under federal or state statutes, rather than under the common law or federal or state constitutions.²⁶ Plaintiffs in these cases have generally sought specific, incremental, and relatively small-scale adaptation measures.²⁷ U.S. courts have not so far seen a trend of broader failure-to-adapt lawsuits seeking systemic, large-scale, coordinated action to adapt to climate change.

The Article's central finding is that failure-to-adapt litigation in the United States has so far been only modestly successful. Most failure-to-adapt suits brought in U.S. courts have failed,²⁸ with the *GreenRoots v. Energy Facilities Siting Board* case serving as a representative example.²⁹ However, a significant minority of such cases have succeeded, either by winning a judicial ruling in the plaintiff's favor or, as in the *Conservation Law Foundation v. ExxonMobil* case, by achieving a plaintiff-favorable settlement. Of the 66 failure-to-adapt cases in the Sabin Center database that, as of July 2024, have been resolved through adjudication or settlement, 21% of the cases resulted in an outcome that was at least partially favorable to climate change adaptation concerns, while the other 79% were resolved in a manner unfavorable to such concerns.³⁰ Thus, although failure-to-adapt litigation usually fails, it succeeds frequently enough to make it an important, and perhaps underutilized, tool for bringing about much-needed adaptive measures.

76 VAND. L. REV. 827, 830 n.3 (2023), it appears to be the most comprehensive database of its kind currently in existence.

Another major database relating to climate change law is the Climate Change Laws of the World database maintained by the Grantham Research Institute on Climate Change and the Environment at the London School of Economics. As of July 2024, however, the "Litigation" category in this database contained no cases or other judicial documents and instead referred users to the Sabin Center database. See Grantham Research Institute on Climate Change and the Environment & Climate Policy Radar, *Climate Change Laws of the World*, <https://climate-laws.org> (last visited Sept. 9, 2024) ("Climate litigation case documents are coming soon. . . . In the meantime, visit the Sabin Center's Climate Change Litigation Databases.").

25. See *infra* Appendix; see also *infra* Part I.

26. See *infra* Appendix; see also *infra* Part I.

27. Cf., e.g., IPCC 2022, *Summary for Policymakers*, *supra* note 22, at 20 ("Most observed adaptation is fragmented, small in scale, incremental, sector-specific, designed to respond to current impacts or near-term risks, and focused more on planning rather than implementation . . .").

28. See *infra* Appendix; see also *infra* Part I.

29. The vast majority of failure-to-adapt cases filed in the United States have been filed against government agencies or other government bodies and have alleged a failure to take adequate account of climate change impacts in environmental impact assessments or other types of analyses or determinations. See *infra* Appendix; see also *infra* Part I.

30. See *infra* Appendix; see also *infra* Part I.

This Article proceeds in four parts. Part I broadly describes the current state of affairs regarding the impacts of climate change, global greenhouse gas emissions, and climate adaptation efforts across the world and in the United States. It also introduces a classification scheme for failure-to-adapt lawsuits and highlights broad trends in failure-to-adapt litigation in the United States. Part II focuses on failure-to-adapt litigation against public entities, dividing such cases into three subcategories and then highlighting trends and particular cases in each subcategory. Part III does the same with respect to failure-to-adapt litigation against private entities. Part IV concludes.

I. Climate Change, Adaptation, and Failure-to-Adapt Litigation in the United States

Climate change has already begun to negatively impact human life in myriad ways.³¹ Heat waves, heavy precipitation events, droughts, and extreme weather events like tropical cyclones have all become more severe and frequent.³² Food security and water security have both been negatively affected, particularly in poorer and more vulnerable regions of the world.³³ Human health has suffered through, for example, an increase in extreme heat events, an increase in food- and water-borne diseases, and an increase in vector-borne diseases.³⁴ As the earth continues on its warming trajectory, the frequency and severity of

31. See IPCC, *Sections*, in *Climate Change 2023: Synthesis Report*. Contribution of Working Groups I, II, and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change 35, 42 (H. Lee et al. eds., IPCC 2023) [hereinafter IPCC 2023, *Synthesis*] ("Human-caused climate change is already affecting many weather and climate extremes in every region across the globe. This has led to widespread adverse impacts on food and water security, human health and on economies and society and related losses and damages to nature and people . . .").

32. See *id.* at 46 ("Evidence of observed changes in extremes such as heatwaves, heavy precipitation, droughts and tropical cyclones, and, in particular, their attribution to human influence, has strengthened since [the Fifth Assessment Report] . . ."); see also Jessica Owley et al., *The Tyranny of Baselines*, 54 ELR 10219, 10219 (Mar. 2024) ("The devastating effects of climate change are already happening—people are un-homed by wildfires, displaced by flooding, and dying from unprecedented heat. Climate change is here. It is brutal.").

33. See IPCC 2023, *Synthesis*, *supra* note 31, at 50:

Climate change has reduced food security and affected water security due to warming, changing precipitation patterns, reduction and loss of cryospheric elements, and greater frequency and intensity of climate extremes Increasing weather and climate extreme events have exposed millions of people to acute food insecurity and reduced water security, with the largest impacts observed in many locations and/or communities in Africa, Asia, Central and South America, [least developed countries], Small Islands and the Arctic, and for small-scale food producers, low-income households, and Indigenous Peoples globally

34. See *id.* ("Climate change has adversely affected human physical health globally and mental health in assessed regions . . . , and is contributing to humanitarian crises where climate hazards interact with high vulnerability . . .").

adverse impacts like these are projected to increase in both the near term³⁵ and the medium to long term.³⁶

The United States has not been spared the adverse impacts of climate change.³⁷ Extreme weather events have increased in frequency and severity, causing harm to human health, food and water systems, air quality, real and personal property, and the economy.³⁸ On average, the United States now experiences a billion-dollar weather or climate disaster every three weeks.³⁹ Drought, flooding, and sea-level rise threaten national water supplies.⁴⁰ Food security is expected to be placed at risk.⁴¹ Extreme weather events and sea-level rise threaten critical infrastructure and vital public services.⁴² Human health is threatened by what the Fifth National Climate Assessment describes as a “range of compounding health hazards, including . . . more severe and frequent extreme events, wider distribution of infectious and vector-borne pathogens, air quality

worsened by smog, wildfire smoke, dust, and increased pollen, threats to food and water security, [and] mental and spiritual health stressors.”⁴³

Meanwhile, the prospects for significantly mitigating climate change through emissions reductions appear dim. Global greenhouse gas emissions have continued to increase, with 2019 net anthropogenic emissions 12% higher than in 2010 and 54% higher than in 1990.⁴⁴ Although policies and laws addressing mitigation have expanded in recent years,⁴⁵ there remains a substantial gap between the global greenhouse gas emissions reductions nations have committed to achieve and the emissions levels consistent with limiting warming to the critical temperature threshold of 1.5 degrees Celsius (°C) above pre-industrial levels.⁴⁶ Global warming is therefore predicted to continue, at least in the next 20 years, making it more likely than not that the world will exceed 1.5°C,⁴⁷ if it has not already done so.⁴⁸ Some analysts predict that warming of between 2°C and 3°C will occur by 2100.⁴⁹

35. See IPCC 2022, *Summary for Policymakers*, *supra* note 22, at 13 (“Global warming, reaching 1.5°C in the near-term, would cause unavoidable increases in multiple climate hazards and present multiple risks to ecosystems and humans The level of risk will depend on concurrent near-term trends in vulnerability, exposure, level of socioeconomic development and adaptation”).

36. See *id.* at 14:

Beyond 2040 and depending on the level of global warming, climate change will lead to numerous risks to natural and human systems For 127 identified key risks, assessed mid- and long-term impacts are up to multiple times higher than currently observed The magnitude and rate of climate change and associated risks depend strongly on near-term mitigation and adaptation actions, and projected adverse impacts and related losses and damages escalate with every increment of global warming

37. See Alexa K. Jay et al., *Overview: Understanding Risks, Impacts, and Responses*, in FIFTH NATIONAL CLIMATE ASSESSMENT 1-1, 1-5, 1-16 (Allison R. Crimmins et al. eds., U.S. Global Change Research Program 2023):

The effects of human-caused climate change are already far-reaching and worsening across every region of the United States. . . . As extreme events and other climate hazards intensify, harmful impacts on people across the United States are increasing. Climate impacts—combined with other stressors—are leading to ripple effects across sectors and regions that multiply harms, with disproportionate effects on underserved and overburdened communities.

National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, 88 Fed. Reg. 1196, 1197, 1199 (Council on Environmental Quality Jan. 9, 2023) [hereinafter CEQ Interim Guidance] (“The United States faces a profound climate crisis and there is little time left to avoid a dangerous—potentially catastrophic—climate trajectory. . . . Climate change is a defining national and global environmental challenge of this time, threatening broad and potentially catastrophic impacts to the human environment.”).

38. See Jay et al., *supra* note 37, at 1-17:

One of the most direct ways that people experience climate change is through changes in extreme events. Harmful impacts from more frequent and severe extremes are increasing across the country—including increases in heat-related illnesses and death, costlier storm damages, longer droughts that reduce agricultural productivity and strain water systems, and larger, more severe wildfires that threaten homes and degrade air quality. Extreme weather events cause direct economic losses through infrastructure damage, disruptions in labor and public services, and losses in property values.

39. *Id.* at 1-18.

40. See *id.* at 1-23 (“Safe, reliable water supplies are threatened by flooding, drought, and sea level rise.”).

41. See *id.* at 1-24 (“As the climate changes, increased instabilities in US and global food production and distribution systems are projected to make food less available and more expensive.”).

42. See *id.* at 1-27 (“Climate change threatens vital infrastructure that moves people and goods, powers homes and businesses, and delivers public services. . . . At the same time, climate change is expected to place multiple demands on infrastructure and public services.”).

43. *Id.* at 1-28.

44. See IPCC 2023, *Summary for Policymakers*, *supra* note 21, at 4.

45. See *id.* at 10.

46. See *id.* at 11:

A substantial “emissions gap” exists between global GHG [greenhouse gas] emissions in 2030 associated with the implementation of NDCs announced prior to COP26 [the 26th Conference of Parties] and those associated with modelled mitigation pathways that limit warming to 1.5°C . . . with no or limited overshoot or limit warming to 2°C . . . assuming immediate action This would make it *likely* that warming will exceed 1.5°C during the 21st century

see also J.B. Ruhl & Robin Kundis Craig, 4°C, 106 MINN. L. REV. 191, 206 (2021):

Climate change will be an issue as long as atmospheric CO₂ [carbon dioxide] concentrations remain high, trapping more heat close to the Earth’s surface. Reversing the process significantly enough to quickly change the planet’s warming processes will require herculean efforts by the world’s nations over the next two to three decades—an unlikely future recently made more unlikely by the fact that nations will presumably prioritize economic and social recovery as the coronavirus pandemic eventually recedes.

47. See IPCC 2023, *Summary for Policymakers*, *supra* note 21, at 10 (“Global GHG emissions in 2030 implied by nationally determined contributions (NDCs) announced by October 2021 make it *likely* that warming will exceed 1.5°C during the 21st century and make it harder to limit warming below 2°C.”); *id.* at 12:

Global warming will continue to increase in the near term (2021-2040) mainly due to increased cumulative CO₂ emissions in nearly all considered scenarios and modelled pathways. In the near term, global warming *is more likely than not* to reach 1.5°C even under the very low GHG emission scenario . . . and *likely* or *very likely* to exceed 1.5°C under higher emissions scenarios.

48. See, e.g., Shannon Osaka, *Earth Breached a Feared Level of Warming Over the Past Year. Are We Doomed?*, WASH. POST (Feb. 8, 2024), <https://www.washingtonpost.com/climate-environment/2024/02/08/1-5-celsius-global-warming-record/> (“According to the European Union’s Copernicus Climate Change Service, the past 12 months clocked in at a scorching 1.52 degrees Celsius (2.74 degrees Fahrenheit) higher on average compared with between 1850 and 1900.”).

49. See David Wallace-Wells, *What No One at COP28 Wanted to Say Out Loud: Prepare for 1.5 Degrees*, N.Y. TIMES (Dec. 16, 2023), <https://www.nytimes.com/2023/12/16/opinion/cop28-climate-change-renewable-energy.html>:

[M]ost analysts predict a global peak in fossil fuel emissions, followed not by a decline but a long plateau—meaning that, every year for the foreseeable future, we would be doing roughly as much damage to the future of the planet’s climate as was done in recent years. The expected result: end-of-century warming between 2 and 3 degrees Celsius.

Given the likelihood that significant global warming will continue for the foreseeable future, it is not surprising that climate change adaptation⁵⁰ efforts have intensified and expanded across the world in recent years.⁵¹ Despite progress on the adaptation front, however, the United Nations Intergovernmental Panel on Climate Change (IPCC) notes in its most recent assessment report that “adaptation gaps exist between current levels of adaptation and levels needed to respond to impacts and reduce climate risks.”⁵² More specifically, “many adaptation initiatives pri-

oritise immediate and near-term climate risk reduction, e.g., through hard flood protection, which reduces the opportunity for transformational adaptation.”⁵³ Additionally, “[m]ost observed adaptation is fragmented, small in scale, incremental, sector-specific, and focused more on planning rather than implementation.”⁵⁴

Litigation may have an important role to play in bringing about sorely needed adaptation measures, both incremental and transformational.⁵⁵ Failure-to-adapt lawsuits represent one important type of adaptation litigation, perhaps the one with the greatest potential to bring about meaningful adaptive action. Other species of adaptation litigation exist as well, however. For example, there are cases alleging that a government action taken for the purpose of adapting to climate change violated some right or

Climate Action Tracker, *The CAT Thermometer*, <https://climateactiontracker.org/global/cat-thermometer/> (last visited Sept. 9, 2024) (“Current policy will lead to a warming of 2.7°C in our combined estimate in 2100 but will also continue to rise after that date.”); UNITED NATIONS ENVIRONMENT PROGRAMME, ADAPTATION GAP REPORT 2023: UNDERFINANCED. UNDER-REPAIRED. INADEQUATE INVESTMENT AND PLANNING ON CLIMATE ADAPTATION LEAVES WORLD EXPOSED xii (2023), <https://www.unep.org/resources/adaptation-gap-report-2023> [hereinafter ADAPTATION GAP REPORT 2023]:

Current climate action is woefully inadequate to meet the temperature and adaptation goals of the Paris Agreement. While global average temperatures are already exceeding 1.1°C above pre-industrial levels, current plans reflected in the nationally determined contributions (NDCs) are putting us on a path towards 2.4°C-2.6°C by the end of the century.

50. In this Article, “climate change adaptation” refers to any action or omission intended to protect against or reduce the risk of harmful impacts from climate change, other than an attempt to avoid or mitigate climate change itself. See, e.g., IPCC 2022, *Summary for Policymakers*, *supra* note 22, at 20 (“Adaptation, in response to current climate change, is reducing climate risks and vulnerability mostly via adjustment of existing systems.”); Emily Wasley et al., *Adaptation*, in FIFTH NATIONAL CLIMATE ASSESSMENT 31-1, 31-5 (Allison R. Crimmins et al. eds., U.S. Global Change Research Program 2023) (“Adaptation refers to actions taken to reduce risks from today’s changed climate conditions and to prepare for further impacts in the future.”); ADAPTATION GAP REPORT 2023, *supra* note 49, at vi (“Adaptation: The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects.”).

51. See IPCC 2023, *Synthesis*, *supra* note 31, at 55:

Progress in adaptation planning and implementation has been observed across all sectors and regions, generating multiple benefits The ambition, scope and progress on adaptation have risen among governments at the local, national and international levels, along with businesses, communities and civil society Growing public and political awareness of climate impacts and risks has resulted in at least 170 countries and many cities including adaptation in their climate policies and planning processes

Jay et al., *supra* note 37, at 1-10 to 1-11:

As more people face more severe climate impacts, individuals, organizations, companies, communities, and governments are taking advantage of adaptation opportunities that reduce risks. State climate assessments and online climate services portals are providing communities with location- and sector-specific information on climate hazards to support adaptation planning and implementation across the country. New tools, more data, advancements in social and behavioral sciences, and better consideration of practical experiences are facilitating a range of actions Since 2018, city- and state-level adaptation plans and actions . . . increased by 32%, complemented by a 14% increase in the total number of new state-level mitigation activities

Wasley et al., *supra* note 50, at 31-5:

The urgency for climate adaptation is clear and very well-documented. The benefits of climate adaptation can be immense and felt by everyone if advanced and scaled sufficiently in relation to the pace of climate change . . . , if equity is centered from the start . . . , and if both transformative and incremental adaptation actions are taken now

52. IPCC 2023, *Synthesis*, *supra* note 29, at 61; see also Jay et al., *supra* note 35, at 1-10 (“Despite an increase in adaptation actions across the country, current adaptation efforts and investments are insufficient to reduce today’s climate-related risks and keep pace with future changes in the climate.”);

Wasley et al., *supra* note 48, at 31-7 (“Diverse adaptation activities are occurring across the US Current adaptation efforts and investments are insufficient to reduce today’s climate-related risks . . . and are unlikely to keep pace with future changes in the climate”); see generally ADAPTATION GAP REPORT 2023, *supra* note 47; UNITED NATIONS ENVIRONMENT PROGRAMME, ADAPTATION GAP REPORT 2022: TOO LITTLE, TOO SLOW—CLIMATE ADAPTATION FAILURE PUTS WORLD AT RISK (2022), <https://www.unep.org/resources/adaptation-gap-report-2022>.

53. IPCC 2023, *Synthesis*, *supra* note 31, at 61.

54. *Id.*; see also Jay et al., *supra* note 37, at 1-10 (“Accelerating current efforts and implementing new ones that involve more fundamental shifts in systems and practices can help address current risks and prepare for future impacts”); *id.* at 1-44:

While adaptation planning and implementation has advanced in the US, most adaptation actions to date have been incremental and small in scale In many cases, more transformative adaptation will be necessary to adequately address the risks of current and future climate change. Transformative adaptation involves fundamental shifts in systems, values, and practices, including assessing potential trade-offs, intentionally integrating equity into adaptation processes, and making systemic changes to institutions and norms.

Ruhl & Craig, *supra* note 46, at 200-01 (arguing that, in addition to the three traditional adaptation modes of *resistance* to climate change, building *resilience* to the harms of climate change, and *retreat* from unavoidable impacts, adaptation will also require *redesign* (i.e., “transformational adaptation measures . . . needed to reconfigure and relocate our nation’s population distribution, land uses, infrastructure, economic and production networks, natural resource management, and other social, ecological, and technological systems”)).

55. See IPCC 2022, *Summary for Policymakers*, *supra* note 22, at 27:

Political commitment and follow-through across all levels of government accelerate the implementation of adaptation actions. . . . Accelerating commitment and follow-through is promoted by rising public awareness, building business cases for adaptation, accountability and transparency mechanisms, monitoring and evaluation of adaptation progress, social movements, and *climate-related litigation* in some regions

(emphasis added); Wasley et al., *supra* note 50, at 31-21 (“Research on adaptation governance may increasingly address a rise in climate litigation, with thousands of US cases identified in climate litigation databases. A key driver for litigation is compensation for the costs of adaptation.”); see also IPCC 2023, *Synthesis*, *supra* note 31, at 110 (“Climate-related litigation is growing, with a large number of cases in some developed countries . . . , and in some cases has influenced the outcome and ambition of climate governance”); Peel & Osofsky, *supra* note 20, at 2181:

This Article presents a much-needed analysis of the new phenomenon of adaptation planning suits in the United States. The handful of such cases currently winding their way through U.S. courts may be the beginning of a major new area of litigation in this country focused on adaptation. If the more developed U.S. jurisprudence on climate change mitigation is any guide, our courts will likely be key players in shaping regulatory responses to adaptation.

Sources cited *supra* note 20.

interest of the plaintiff.⁵⁶ Such cases challenging adaptation measures do not rest on an allegation that the defendant failed to adapt to climate change. On the contrary, they challenge the defendant's legal right to take some adaptive measure.

Additionally, suits by states, counties, or municipalities seeking money damages from fossil fuel companies for the harmful impacts of climate change are adaptation-related in the sense that some of them explicitly propose to use the damages award to fund adaptive measures.⁵⁷ But the gravamen of these actions is not that the defendant has failed to adapt to climate change, but rather that the defendant has contributed to causing climate change through greenhouse gas emissions.

This Article focuses on failure-to-adapt litigation, using a four-category scheme to classify failure-to-adapt cases and highlighting trends in each category.⁵⁸ Under this classification system, failure-to-adapt cases are categorized according to the particular type of adaptive failure the defendant is alleged to have committed. The four categories are as follows:

(1) *Inadequate government review under the National Environmental Policy Act or state-law equivalent.* Actions alleging that a government agency or other government body violated the National Environmental Policy Act (NEPA)⁵⁹ (or an equivalent state law) by failing to adequately account for climate change in reviewing the environmental impact of a proposed project or action

(2) *Improper government approval or determination outside NEPA (or state-law equivalent) context.* Actions alleging that a government agency or other government body improperly approved a proposed action that would be maladaptive or insufficiently adaptive to climate change or improperly made some type of maladaptive or insufficiently adaptive determination

(3) *Government failure to take adaptive measures.* Actions alleging that a government agency or other government body failed to take a particular action or set of actions that are necessary or conducive to adaptation to climate change

(4) *Private entity failure to take adaptive measures.* Actions alleging that a private entity (such as a private corporation or utility) failed to take appropriate action to adapt to climate change or acted in a way that was maladaptive to climate change.

The Data Set: Of the 153 U.S. cases appearing in the "Adaptation" section of the Sabin Center database as of July 2024, 90 involve an allegation that the defendant failed to adequately adapt to climate change or to take sufficient account of climate change in its analysis, planning, decisionmaking, or actions.⁶⁰ Other U.S. failure-to-adapt cases may exist aside from these 90 cases. This Article focuses its analysis on this 90-case data set (the Data Set), which includes all of the failure-to-adapt cases in the "Adaptation" section of the Sabin Center database and, at the very least, represents a substantial sample of the failure-to-adapt lawsuits that have been filed in the United States.

The following generalizations can be made concerning the cases in the Data Set:

Timing: Failure-to-adapt litigation has proliferated over the past 10 years, and particularly over the past five years. Of the 90 failure-to-adapt cases in the Data Set, the earliest of which was filed in 2005, more than three-quarters (77%) were filed in 2014 or later, and more than half (54%) were filed in 2019 or later.⁶¹

Jurisdiction: The majority of failure-to-adapt lawsuits have been filed in federal court. Of the 90 cases in the Data Set, 59 (or 66%) were filed in federal courts and 31 (34%) were filed in state courts. Cases filed in California federal or state courts account for nearly one-quarter (24%) of the cases in the Data Set.⁶²

Plaintiff Type: The majority of failure-to-adapt lawsuits have been brought by environmental advocacy groups. Of the 90 cases in the Data Set, 62 (or 69%) were brought by environmentally oriented nongovernmental advocacy groups like CLF, the Sierra Club, and the Center for Biological Diversity. The plaintiffs in the other 28 cases were private individuals, private corporations, tribes, or governmental entities.⁶³

56. See, e.g., Complaint for Declaratory and Injunctive Relief at 1-3, *Jurisch Oysters, LLC v. U.S. Army Corps of Eng'rs*, No. 2:24-cv-00106-SM-DPC (E.D. La. Jan. 11, 2024) (challenging the defendants' decision to authorize a sediment and freshwater diversion project designed to support coastal resiliency to climate change on the grounds that it would, among other things, decimate the local dolphin population and disrupt commercially important fisheries). The Sabin Center database labels such cases "Challenges to Adaptation Measures."

57. See, e.g., Complaint and Demand for Jury Trial at 183, *City of Chicago v. B.P. P.L.C.*, No. 2024CH01024 (Ill. Cir. Ct. June 20, 2024) (seeking damages for "the costs of all past damages the City has incurred, and future damages the City will incur, as a result of Defendants' conduct, including responding to and remedying Climate-Related Harms, such as the costs of enhancing infrastructure and property damage costs"). The Sabin Center database labels such cases "Actions seeking money damages for losses."

58. The classification scheme this Article uses to classify different types of failure-to-adapt litigation is similar to the scheme used in a paper recently published by the Sabin Center for Climate Change Law. See JACOB ELKIN, SABIN CENTER FOR CLIMATE CHANGE LAW, CLIMATE SCIENCE IN ADAPTATION LITIGATION IN THE U.S. 16 (2022), https://scholarship.law.columbia.edu/cgi/viewcontent.cgi?article=1193&context=sabin_climate_change.

59. 42 U.S.C. §§4321-4370h, ELR STAT. NEPA §§2-209.

60. The "Adaptation" section of the Sabin Center database is divided into six subcategories: "Actions seeking adaptation measures"; "Challenges to adaptation measures"; "Reverse Impact Assessment"; "Actions seeking money damages for losses"; "Insurance cases"; and "Other Types of Adaptation Cases." Some cases appear in more than one subcategory. The 90 failure-to-adapt cases this Article focuses on include all of the cases listed in the "Actions seeking adaptation measures" and "Reverse Impact Assessment" subcategories and certain cases appearing in the "Actions seeking money damages for losses," "Challenges to adaptation measures," and "Insurance cases" subcategories. See *infra* Appendix.

61. See *infra* Appendix; see also Osofsky, *supra* note 24, at 168:

In *Sue to Adapt?*, Professor Peel and I analyzed the nascent U.S. adaptation jurisprudence and ways it could learn from Australian approaches. In the eight years since that article was published, cases focused on adaptation cases [sic] have grown substantially. As of March 2023, the Sabin Center database categorizes 130 cases as involving adaptation claims.

62. See *infra* Appendix.

63. See *id.*

Defendant Type: The vast majority of failure-to-adapt lawsuits have been brought against public entities. Of the 90 cases in the Data Set, 74 were filed exclusively against government agencies or other public entities, and just 16 were filed against private corporations or other private entities (this includes three cases filed against utilities). Of those 16 cases, five were filed against both a private entity and a public entity. Thus, only 11 of the 90 cases were filed exclusively against a private corporation or other private entity.⁶⁴

Claim Type: Of the 79 cases filed against public entities, the vast majority—70 cases, or 89%—centered on an allegation that a government agency failed to take adequate account of climate change impacts in its analysis, review, planning, or decisionmaking process. Only a small minority of failure-to-adapt cases against government entities—nine of the 79 cases, or 11%—focused on the government’s failure to take a specific action or set of actions to adapt to climate change. Of the 11 cases filed exclusively against private entities, all focused either on the entity’s failure to take specific adaptive measures in response to risks posed by climate change or on the entity’s having affirmatively created risks that were exacerbated by climate change.⁶⁵

Legal Basis: The vast majority of failure-to-adapt cases have had a statutory rather than common-law or constitutional basis. Of the 90 cases in the Data Set, 79 involved statutory claims. Of those 79 cases, 51 sought relief under federal statutes, 24 sought relief under state statutes, and four sought relief under both federal and state statutes. The federal statutes most commonly relied on in cases brought against government entities are NEPA, the Administrative Procedure Act (APA), and the CWA. Only eight of the 90 cases alleged common-law causes of action. And just two of the 90 cases sought relief under the public trust doctrine. Allegations of constitutional violations were also rare: just 10 cases alleged a violation of the federal constitution or a state constitution (or both).⁶⁶

Type of Climate Change Threat: Failure-to-adapt cases often involve water-related climate change threats like sea-level rise and increased precipitation. Of the 73 cases in which a particular climate change threat (or group of threats) was identified in or discernible from the case documents, 42 cases (or 58%) involved sea-level rise, increased precipitation, increase in storm severity and frequency, or flooding.⁶⁷

Outcome: Although most failure-to-adapt suits have failed, a significant minority have succeeded. As of July 2024, of the 90 cases in the Data Set, 66 had reached some type of dispositive resolution, whether through adjudication or settlement.⁶⁸ Of these 66 resolved cases, 52 (79%)

were resolved in a manner unfavorable to climate change adaptation concerns (typically, though not always, through a resolution in the defendant’s favor) and 14 (21%) were resolved in a manner favorable to climate change adaptation concerns (typically, though not always, through a resolution in the plaintiff’s favor). Of the 14 cases resolved in a manner favorable to climate adaptation concerns, eight (or 12%) were resolved through settlement and six (or 9%) were resolved through adjudication.⁶⁹

II. Failure-to-Adapt Suits Against Government Agencies or Other Public Entities

A. Inadequate Government Review Under NEPA or State-Law Equivalent

NEPA⁷⁰ requires federal agencies, in “every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment,” to include a “detailed statement by the responsible official” that addresses, among other topics:

- (i) reasonably foreseeable environmental effects of the proposed agency action;
- (ii) any reasonably foreseeable adverse environmental effects which cannot be avoided should the proposal be implemented;
- (iii) a reasonable range of alternatives to the proposed agency action, including an analysis of any negative environmental impacts of not implementing the proposed agency action in the case of a no action alternative, that are technically and economically feasible, and meet the purpose and need of the proposal.⁷¹

This detailed statement is known as an environmental impact statement (EIS).⁷²

The purpose of NEPA is to “ensure that the agency will have available, and will carefully consider, detailed information concerning significant environmental impacts and guarantee that the relevant information will be made available to the larger public audience.”⁷³ NEPA is a “procedural statute that requires the federal government to carefully consider the impacts of and alternatives

64. *See id.*

65. *See id.*

66. *See id.*

67. *See id.*

68. The other 24 cases in the Data Set are either unresolved (19 cases) or it was not clear from the available information whether the matter had been resolved favorably to the plaintiff or the defendant (five cases, four of which were voluntarily dismissed by the plaintiff(s)). *See id.*

69. *See id.*

70. NEPA, 42 U.S.C. §§4321 et seq.

71. 42 U.S.C. §4332(2)(C)(i)-(iii); *see also* Center for Biological Diversity v. National Highway Traffic Safety Admin., 538 F.3d 1172, 1185, 38 ELR 20214 (9th Cir. 2008). Alternatively, an agency can prepare an “environmental assessment,” a “less searching” analysis whose “central function is to determine whether an [environmental impact statement] is required.” *See* Friends of the Clearwater v. Probert, No. 3:21-cv-00189-CWD, 2022 WL 2291246, at *13 (D. Idaho June 24, 2022) (citing 40 C.F.R. §1508.9).

72. *See, e.g.,* Protect Our Parks, Inc. v. Buttigieg, 39 F.4th 389, 397 (7th Cir. 2022).

73. *Id.* (quoting *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349, 19 ELR 20743 (1989)).

to major environmental decisions.⁷⁴ NEPA's goals are "realized through a set of 'action-forcing' procedures that require that agencies take a 'hard look' at environmental consequences."⁷⁵ When it comes to judicial review of agency determinations made as part of a NEPA review, "a court must generally be at its most deferential when reviewing scientific judgments and technical analyses within the agency's expertise under NEPA."⁷⁶

It is well established that federal agencies should consider climate change impacts when conducting environmental impact reviews under NEPA.⁷⁷ In addition to assessing whether a proposed action will contribute to global warming,⁷⁸ NEPA reviews should also determine whether the proposed action is appropriately adaptive to climate change.⁷⁹ In hearing challenges to NEPA reviews, courts are generally deferential to federal agencies' determinations concerning climate impacts.⁸⁰ A court "must

uphold the agency's decision 'as long as the agency has considered the relevant factors and articulated a rational connection between the facts found and the choices made.'"⁸¹

Challenges to environmental impact assessments by federal agencies under NEPA constitute a large subset of failure-to-adapt climate lawsuits. Of the 90 cases in the Data Set, no fewer than 25 involved a NEPA-based challenge to an agency's review, assessment, or determination.⁸² In these cases, the gravamen of the challenge is typically that the agency failed to adequately take into account the likely effects of climate change on the proposed project or action. Given the deferential nature of judicial review of NEPA determinations, it is not surprising that few of these challenges have been successful. Of the 21 NEPA-based failure-to-adapt cases in the Data Set that have either settled or resulted in a dispositive ruling, four cases have been resolved in a manner favorable to the plaintiff, whether through adjudication or settlement.⁸³

The case *Idaho Rivers United v. U.S. Army Corps of Engineers* is a representative example of a court deferring to a federal agency's analysis and conclusions in conducting a NEPA review.⁸⁴ In that case, a group of environmental advocacy organizations and an Indian tribe challenged the U.S. Army Corps of Engineers' (the Corps') plan for maintaining the Snake River navigation channel.⁸⁵ In particular, the plaintiffs challenged "the Corps' long-term plan for addressing sediment accumulation in the Snake River from Lewiston, Idaho to the confluence with the Columbia River."⁸⁶ Among other claims, the plaintiffs contended that "the Corps violated NEPA by failing to account for the impacts of climate change on sediment deposition in the Lower Snake River and proceeding as if there will be zero increase in sediment reaching the navigation channel due to climate change."⁸⁷ Specifically, the plaintiffs noted a U.S. Forest Service study finding that increased forest fires in the area will increase sediment loading in the Lower Snake River to levels roughly 10 times greater than those observed during the 20th century.⁸⁸

The court rejected this argument, observing that "plaintiffs' climate change argument boils down to an asser-

74. *Native Ecosystems Council v. Weldon*, 697 F.3d 1043, 1051, 42 ELR 20199 (9th Cir. 2012).

75. *Robertson*, 490 U.S. at 350 (quoting *Kleppe v. Sierra Club*, 427 U.S. 390, 410 n.21, 6 ELR 20532 (1976)).

76. *Native Ecosystems*, 697 F.3d at 1051 (internal quotation omitted). It is possible that the U.S. Supreme Court's recent decision in *Loper Bright Enterprises v. Raimondo*, which overruled the principle of judicial deference to agency interpretations of ambiguous statutes announced in *Chevron v. Natural Resources Defense Council*, will result in courts being somewhat less deferential in reviewing agencies' EISs under NEPA. See *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 54 ELR 20097 (2024) (overruling *Chevron U.S.A. v. Natural Res. Def. Council*, 467 U.S. 837, 14 ELR 20507 (1984)). Conceivably, this could result in courts being more receptive to claims that an agency violated NEPA by failing to adequately take climate change impacts into account in conducting an environmental impact analysis. It is also possible, however, that, even after *Loper Bright*, courts will generally continue to exercise the same level of deference when it comes to reviewing technical and scientific judgments made by agencies in EISs.

77. See, e.g., *Center for Biological Diversity v. National Highway Traffic Safety Admin.*, 538 F.3d 1172, 1215-17, 38 ELR 20214 (9th Cir. 2008); *AquAlliance v. U.S. Bureau of Reclamation*, 287 F. Supp. 3d 969, 1028-32 (E.D. Cal. 2018); see also CEQ Interim Guidance, *supra* note 37, at 1197, 1207 ("Climate change is a fundamental environmental issue, and its effects on the human environment fall squarely within NEPA's purview."); ROMANY M. WEBB ET AL., SABIN CENTER FOR CLIMATE CHANGE LAW & ENVIRONMENTAL DEFENSE FUND, EVALUATING CLIMATE RISK IN NEPA REVIEWS: CURRENT PRACTICES AND RECOMMENDATIONS FOR REFORM 24 (2022) (observing that, under NEPA, "courts have confirmed that climate impacts must be accounted for in the discussion of the affected environment" and that "courts have similarly held that federal agencies must consider the implications of climate change for the proposed action, alternatives, and their respective environmental outcomes").

78. See CEQ Interim Guidance, *supra* note 37, at 1200-07.

79. See *id.* at 1207:

To illustrate how climate change may impact proposed actions and alternatives and to consider climate resilience, NEPA reviews should consider the ongoing impacts of climate change and the foreseeable state of the environment, especially when evaluating project design, siting, and reasonable alternatives. In addition, climate change resilience and adaptation are important considerations for agencies contemplating and planning actions.

ELKIN, *supra* note 58, at 17 ("Courts have also held that agencies must consider how climate change will affect environmental conditions in the project location in order to accurately characterize the affected environment and the environmental effects of the proposal.").

80. See ELKIN, *supra* note 58, at 17, 19:

While courts will take a hard look at environmental reviews to ensure the relevant considerations are analyzed with the requisite level of care, courts reviewing cases brought under NEPA and its state analogs are deferential to agencies' decisions about how much weight to put on climate impacts when assessing a potential project. . . . While courts have held that agencies must consider climate impacts in at least certain scenarios, these lawsuits still run

up against the substantial discretion that NEPA affords agencies to determine which impacts are significant.

81. *Idaho Rivers United v. U.S. Army Corps of Eng'rs*, No. C14-1800JLR, 2016 WL 498911, at *11 (W.D. Wash. Feb. 9, 2016) (quoting *League of Wilderness Defs. Blue Mountains Biodiversity Project v. Allen*, 615 F.3d 1122, 1130, 40 ELR 20224 (9th Cir. 2010)).

82. See *infra* Appendix. Some of the NEPA cases that the Sabin Center database does not classify as falling within its "Adaptation" category might plausibly be regarded as involving adaptation. See, e.g., *First Amended Complaint for Declaratory and Injunctive Relief, Oregon Wild v. U.S. Forest Serv.*, No. 3:23-cv-00935-SB (D. Or. Oct. 30, 2023) (alleging NEPA violation based, in part, on allegation that "substantial scientific dispute and uncertainty exists" about the effects of the proposed project on, among other things, "climate change adaptation"). This Article focuses its analysis on the cases the Sabin Center database classifies as being related to adaptation.

83. See *infra* note 106 (citing cases in which plaintiffs prevailed in NEPA-based challenges).

84. See 2016 WL 498911.

85. See *id.* at *1.

86. *Id.*

87. *Id.* at *16.

88. *Id.*

tion that the Corps should have forecasted future climate change yields . . . despite the speculation inherent in such an exercise.”⁸⁹ The court reasoned that “[a]lthough an agency may not omit ascertainable facts from an EIS, NEPA does not require agencies to include speculative information.”⁹⁰ On this basis, among others, the court granted the Corps’ motion for summary judgment.⁹¹

Another example of a court rejecting a challenge to an agency’s NEPA review is *Central Oregon LandWatch v. Connaughton*.⁹² In that case, two environmental advocacy groups challenged the Forest Service’s issuance of a permit to the city of Bend, Oregon, allowing the city to upgrade its intake facility on and construct a new pipeline for withdrawing drinking water from Tumalo Creek and Bridge Creek, two tributaries of the Deschutes River.⁹³ Among other contentions, the plaintiffs argued that the Forest Service violated NEPA by conducting an inadequate analysis of the impact of climate change on the project.⁹⁴ The plaintiffs contended that the Forest Service’s analysis ran afoul of NEPA’s “hard look” requirement by performing only a qualitative analysis of the project, rather than a quantitative analysis, and by calling for future monitoring of the project instead of taking a hard look before authorizing it.⁹⁵

After the district court granted the defendant’s motion for summary judgment, the U.S. Court of Appeals for the Ninth Circuit concluded in an unpublished opinion that NEPA did not require the Forest Service to perform a quantitative analysis, finding that “the Forest Service determined that climate change would have the same potential impact on stream flows under either alternative [the Forest Service considered], and therefore only a brief discussion of climate change’s impact on the Project area was required.”⁹⁶ The Ninth Circuit further concluded that “the Service’s provision for future monitoring did not conflict with NEPA’s ‘hard look’ requirement, particularly because the Service’s qualitative analysis was sufficient on its own.”⁹⁷ On these bases, among others, the Ninth Circuit affirmed the district court’s decision granting the Forest Service’s motion for summary judgment.⁹⁸

In contrast, a successful NEPA challenge occurred in *AquAlliance v. U.S. Bureau of Reclamation*.⁹⁹ In that case, a group of water resource management and conservation

organizations challenged the Bureau of Reclamation’s 10-year plan to move water from sellers located upstream of the Sacramento/San Joaquin River Delta in California to buyers located south of the delta.¹⁰⁰ The plaintiffs alleged the plan and its associated EIS/environmental impact report (EIR) violated NEPA and two other applicable statutes.¹⁰¹ Among other contentions, the plaintiffs alleged that the EIS/EIR “as a whole fails to meaningfully assess impacts associated with ongoing climate change,” in violation of NEPA and the California Environmental Quality Act (CEQA).¹⁰²

The district court concluded that, while no violation of CEQA had occurred in connection with the evaluation of climate change impacts,¹⁰³ NEPA had been violated.¹⁰⁴ The court reasoned that, although the EIS/EIR noted that California snowpack and streamflow amounts are projected to decline significantly due to climate change, it nevertheless evaluated the impact of the project on water supplies by using a model based on 82 years of *historical* hydrology and concluded that climate change impacts on the project would be less than significant.¹⁰⁵ The court determined that the EIS/EIR “fails to address or otherwise explain how this information about the potential impacts of climate change can be reconciled with the ultimate conclusion that climate change impacts to the Project will be less than significant.”¹⁰⁶ In its view, this amounted to a “failure to consider an important aspect of the problem.”¹⁰⁷ On that basis, the court granted the plaintiff’s motion for summary judgment that the EIS/EIR’s analysis of climate change violates NEPA.¹⁰⁸

Cases like *AquAlliance* are rare, as most climate change-related NEPA challenges appear to have failed. As noted above, of the 25 NEPA challenge cases in the Data Set, 21 of which have been resolved through adjudication or settlement, the plaintiffs prevailed in just four.¹⁰⁹ Given the high

89. *Id.* at *17.

90. *Id.* The court also noted that it “must defer to an agency’s determination as to predictions within its area of special expertise, especially when those predictions are at the frontiers of science.” *Id.* (quoting *Turtle Island Restoration Network v. U.S. Dep’t of Com.*, No. CIV. 12-00594 SOM, 2013 WL 4511314, at *23 (D. Haw. Aug. 23, 2013)).

91. *Id.*

92. See 696 F. App’x 816 (9th Cir. 2017).

93. See *id.* at 817.

94. See *id.* at 819.

95. See *id.*

96. See *id.* at 817, 819; see also *Center for Biological Diversity v. U.S. Bureau of Land Mgmt.*, Nos. 2:14-cv-00226-APG-VCF, 2:14-cv-002280-APG-VCF, 2017 WL 3667700, at *8 (D. Nev. Aug. 23, 2017) (concluding that federal agency’s qualitative consideration of climate change impacts was sufficient under NEPA and that NEPA did not require a quantitative analysis of the climate change impacts).

97. See *Central Oregon LandWatch*, 696 F. App’x at 819.

98. *Id.* at 820.

99. See 287 F. Supp. 3d 969 (E.D. Cal. 2018).

100. See *id.* at 984-85. In addition to the Bureau of Reclamation, the following parties were also named as defendants: the San Luis & Delta-Mendota Water Authority, the U.S. Department of the Interior, Sally Jewell, in her official capacity as Secretary of the Interior, and the U.S. Fish and Wildlife Service.

101. See *id.*

102. See *id.* at 1023.

103. See *id.* at 1023-28.

104. See *id.* at 1028-32.

105. See *id.* at 1032.

106. *Id.*

107. *Id.*

108. See *id.*

109. See *AquAlliance*, 287 F. Supp. 3d 969 (E.D. Cal. 2018); Joint Motion for Voluntary Dismissal Without Prejudice at 1, Stipulated Settlement Agreement at 2, and Complaint for Declaratory and Injunctive Relief at 35, *Friends of Cedar Mesa v. U.S. Dep’t of the Interior*, No. 1:21-cv-00971-RC (D.D.C. Jan. 25, 2023 & Apr. 8, 2021) (granting joint motion for voluntary dismissal of action alleging that, among other things, the Bureau of Land Management had, in violation of NEPA, “utterly ignored the cumulative impacts of climate change on cultural resource degradation” in its environmental assessments of a plan to approve oil and gas leases in southeastern Utah where parties entered into settlement agreement under which the Bureau would conduct additional analyses of its leasing plan under NEPA and other laws, including an analysis of a no-leasing alternative); Stipulated Settlement Agreement and Order at 2-9, First Amended Complaint at 2-3, *Resource Renewal Inst. v. National Park Serv.*, No. 4:16-cv-00688-SBA (KAW) (N.D. Cal. July 14, 2017 & Feb. 10, 2016) (entering order giving effect to stipulated settlement agreement in action

level of deference courts have accorded to federal agencies when reviewing determinations made under NEPA, this should not be surprising.

Failure-to-adapt lawsuits filed under state-law equivalents of NEPA, such as CEQA, have also generally been unsuccessful. There are 15 failure-to-adapt cases in the Data Set that involve challenges brought under CEQA or another state-law equivalent to NEPA.¹¹⁰ Of these 15 cases, 13 have been resolved through adjudication or settlement.¹¹¹ Of these 13 cases, it appears that only two have been resolved in a matter at all favorable to the plaintiffs.¹¹²

B. *Improper Government Approval or Determination (Outside of NEPA or State-Law Equivalent Context)*

The largest subcategory of failure-to-adapt cases in the Data Set involves challenges to government approvals or other determinations that are not based on NEPA or equivalent state laws. Of the 30 cases in this category, 26 have been resolved via settlement or adjudication and 4 remain unresolved.¹¹³ Of the 26 resolved cases, no fewer than 7 appear to have resulted in an adjudicated outcome or settlement that was favorable to climate change adapta-

tion concerns.¹¹⁴ Many of these challenges have been based on federal statutes like the CWA or the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA),¹¹⁵ but some have been brought under state laws.¹¹⁶ Notably, a majority of the cases resolved in favor of climate change adaptation concerns (typically through a ruling in the plaintiff's favor) involved challenges brought under the CWA.¹¹⁷

Cases in this category vary in the degree to which the public entity's failure to consider climate change impacts is central to the plaintiff's grievance. An example of litigation that focused specifically on a government agency's failure to consider climate change impacts in an approval process is a series of lawsuits filed against the U.S. Environmental Protection Agency (EPA) in the early 2010s concerning nitrogen levels in Cape Cod, Massachusetts.¹¹⁸ In three lawsuits filed between 2010 and 2013, CLF sued EPA for violating the CWA by approving total maximum daily

alleging National Park Service violated NEPA and the APA in failing to create new General Management Plan for Point Reyes National Seashore that took into account environmental impacts including sea-level rise and other climate change threats).

In a fourth case, *Friends of the Clearwater v. Probert*, an advocacy group challenged the National Forest Service's plan for extensive logging in the Clearwater National Forest under NEPA and other laws based on, among other grounds, the plan's failure to take adequate account of the impact of logging on the risks of wildfires and other adverse events caused by climate change. See Complaint at 3, 18, *Friends of the Clearwater v. Probert*, No. 3:21-cv-00189-CWD, 2022 WL 2291246 (D. Idaho June 24, 2022). The court granted in part the plaintiff's motion for summary judgment based on, among other things, a finding that the Forest Service had violated NEPA in failing to take a sufficient "hard look" at the impact of its logging plan on old growth forests. See *Friends of the Clearwater*, 2022 WL 2291246, at *25-26. However, notwithstanding this finding, the court rejected most of the NEPA violations plaintiff had alleged. See *id.* at *13-26.

110. See *infra* Appendix. In the Sabin Center database's "Adaptation" section, these cases appear in either the "Reverse Impact Assessment" subcategory, the "Actions seeking adaptation measures" subcategory, or in both of those subcategories. In addition to these 15 cases, as noted above, the *AquAlliance* case featured alleged violations of both NEPA and CEQA.

111. See *id.*

112. See *Sierra Club v. City of Oxnard*, No. 56-2011-00401161, 2012 WL 7659201 (Cal. Super. Ct. Oct. 15, 2012) (issuing peremptory writ of mandate based on finding that city of Oxnard violated CEQA by deferring proper analysis of expected sea-level rise impacts in connection with the city's approval of plans to redevelop an area near the Ormond Beach wetlands for residential, school, and other uses); Amended Verified Petition at 17, *Citywide Council on High Schs. v. Franchise & Concession Rev. Comm. of the City of N.Y.*, No. 107463/09 (N.Y. Sup. Ct. Dec. 21, 2009) (vacating negative declaration issued by New York City Department of Parks and Recreation (DPR) under New York State Environmental Quality Review Act and New York City Environmental Quality Review based on finding that DPR had erred in determining that a proposed sports field development project on Randall's Island would have no significant environmental impact where petition alleged that the environmental assessment "does not address the potential impact on Randall's Island and the Project from expected climate change").

113. See *infra* Appendix.

114. See Order—Consent Motion for Limited Remand, *In re Chesapeake Bay Found.*, Nos. C-03-CV-22-005075, C-03-CV-22-005086, C-03-CV-22-005087 (Md. Cir. Ct. June 13, 2023) (granting consent motion for limited remand in three cases challenging Maryland Department of the Environment's final Industrial Stormwater General Permit for Baltimore where plaintiffs alleged major flaws in the permit, including the failure to consider climate change impacts and reliance on outdated precipitation data, and defendant had agreed to reassess certain aspects of the permit and to reopen the permit for public comment); Notice of Settlement and Joint Motion to Stay Litigation at 1-2, Memorandum Opinion at 31, *Chesapeake Bay Found. v. County of Henrico*, No. 3:21-cv-00752 (E.D. Va. Sept. 16, 2022 & Apr. 11, 2022) (notifying court of settlement where district court had earlier partially denied defendant's motion to dismiss on the basis that there were reasonable doubts as to water reclamation facility's future compliance with CWA requirements, partly owing to climate change trends like "more frequent severe weather events and increased amounts of precipitation"); *Aquifer Sci. v. Verhines*, 527 P.3d 667 (N.M. Ct. App. 2022) (see description of this case *infra* Section II.B); *San Francisco Baykeeper v. Environmental Prot. Agency*, 492 F. Supp. 3d 1030, 50 ELR 20228 (N.D. Cal. 2020) (see description of this case *infra* Section II.B); Complaint for Declaratory and Injunctive Relief, *Conservation L. Found. v. Environmental Prot. Agency*, No. 1-13-cv-12704-MLW (D. Mass. Oct. 24, 2013) (see description of this case and two related cases *infra* Section II.B); Complaint, *Conservation L. Found. v. Jackson*, No. 1-11-cv-11657 (D. Mass. Sept. 19, 2011) (see description of this case and two related cases *infra* Section II.B); Complaint for Declaratory and Injunctive Relief, *Conservation L. Found. v. Environmental Prot. Agency*, No. 1:10-cv-11455-MLW (D. Mass. Aug. 24, 2010) (see description of this case and two related cases *infra* Section II.B).

One additional case, *Sound Action v. U.S. Army Corps of Engineers*, appears to have been resolved at least partially in the plaintiff's favor, but is not included in the count of plaintiff-favorable climate adaptation cases in this category because the gravamen of the action was a CWA-based challenge to shoreline armoring protections, an adaptation to sea-level rise, in Puget Sound, Washington. See Stipulated Motion and Order of Dismissal, *Sound Action v. U.S. Army Corps of Eng'rs*, No. 18-cv-00733-JLR (W.D. Wash. Apr. 17, 2020); *Sound Action v. U.S. Army Corps of Eng'rs*, No. 18-cv-00733-JLR, 2019 WL 5617571 (W.D. Wash. Oct. 30, 2019); *Sound Action v. U.S. Army Corps of Eng'rs*, No. 18-cv-00733-JLR, 2019 WL 446614 (W.D. Wash. Feb. 5, 2019) (granting stipulated motion to dismiss action after granting defendant's motion for voluntary remand and denying defendant's motion to dismiss in action alleging defendant violated CWA by improperly limiting its own jurisdiction over shoreline armoring protections in Puget Sound).

115. 42 U.S.C. §§9601-9675, ELR STAT. CERCLA §§101-405.

116. See *infra* Appendix.

117. See *id.*

118. See Complaint for Declaratory and Injunctive Relief, *Conservation L. Found.*, No. 1:10-cv-11455-MLW; Complaint, *Conservation L. Found.*, No. 1-11-cv-11657; Complaint for Declaratory and Injunctive Relief, *Conservation L. Found.*, No. 1-13-cv-12704-MLW. In addition to CLF, the Buzzards Bay Coalition, Inc., an environmental advocacy group, was also a plaintiff in the 2010 and 2011 actions.

loads (TMDLs) that were inadequate to address nitrogen pollution in the embayments of Cape Cod.¹¹⁹

The complaints in all three actions specifically tied nitrogen pollution to climate change. For example, the complaint in the 2010 action alleged that in “approving the Cape Cod TMDLs, EPA unlawfully failed to consider scientific findings demonstrating an ongoing and increasing trend of accelerated climate change and the impact on that change on affected embayments.”¹²⁰ The complaint in the 2011 action alleged that “Defendants’ failures to annually approve or to require updates of the Areawide Plan means that the impact of climate change on water quality conditions has not been evaluated in the context of Section 208” of the CWA.¹²¹ And the complaint in the 2013 action alleged that “Defendants’ approval of the Cape Cod TMDLs was also arbitrary and capricious because they ignored entirely an important aspect of the water problem facing the embayments: the actual and potential impacts of climate change on the attainment of water quality standards.”¹²²

In November 2014, the parties entered into a settlement agreement providing that the actions would be voluntarily dismissed after specified actions were taken.¹²³ The settlement agreement specifically referred to climate change, providing that

EPA will encourage MassDEP [Massachusetts Department of Environmental Protection] in writing with regard to all future nitrogen TMDLs submitted by MassDEP to EPA . . . to consider, based on then currently available information and data, impacts that climate change may have on nitrogen loading and transport . . . and . . . consider whether such effects should be incorporated in setting the loads in the TMDL, in setting the margin of safety, and/or in adjusting the implementation plan and its activities.¹²⁴

On the other hand, in some cases in this category, climate change impacts do not play a central role in the court’s analysis. For example, in *Aquifer Science, LLC v. Verhines*, the New Mexico Court of Appeals affirmed a lower court’s denial of an application for groundwater appropriation where the applicant failed to consider climate change impacts in its analyses.¹²⁵ In that case, a company formed for the purpose of obtaining water for a multiple use real estate development challenged a New Mexico state district court’s denial of its application to

appropriate groundwater from the Sandia Underground Water Basin in New Mexico.¹²⁶

In denying the application, the district court concluded that, although there was water available to appropriate, the application was “inconsistent with applicable principles of conservation” and “the magnitude of the likely impairment to existing water rights was significant.”¹²⁷ The district court also found that predicted higher temperatures and severe droughts were likely to negatively impact the supply of water, and that the plaintiff had not considered the impacts of climate change in its analysis.¹²⁸

On appeal, the court affirmed the district court’s determination that the application was contrary to the conservation of water.¹²⁹ It determined that the district court’s finding that the plaintiff had not considered climate change in its analyses was supported by substantial evidence.¹³⁰ However, the court explicitly noted that its affirmance did *not* rest on the plaintiff’s failure to consider climate change impacts, noting that its decision “provides the State Engineer and the Legislature the opportunity to provide guidance regarding climate change and conservation before it is judicially imposed.”¹³¹

In a similar vein, *San Francisco Baykeeper v. Environmental Protection Agency* is an example of a case that resulted in a plaintiff-favorable decision, but one where the court did not even address the aspect of the plaintiffs’ argument relating to climate change impacts.¹³² In that case, four environmental advocacy groups challenged EPA’s determination that its jurisdiction under the CWA did not extend to the salt ponds in a salt production complex bordering San Francisco Bay.¹³³ In their complaint, the plaintiffs alleged that, due to EPA’s negative jurisdictional determination, “the Bay water quality will be significantly impacted, and the consequences of sea level rise will be exacerbated by lack of regulation” and that protecting San Francisco Bay’s ecosystems “will help the surrounding area be resilient to climate impacts.”¹³⁴

The district court vacated EPA’s negative jurisdictional determination on the grounds that EPA had misapplied Ninth Circuit law in deeming the salt ponds to have been converted to “fast lands” prior to the enactment of the CWA.¹³⁵ However, in its analysis, the court made no mention of climate change impacts or the plaintiffs’ argument that leaving the salt ponds unregulated would exacerbate sea-level rise.¹³⁶

While the three cases just discussed are examples of successful litigation, most challenges of this type have failed. To take a relatively recent example, in *In re Blue*

119. See Complaint for Declaratory and Injunctive Relief at 1-2, *Conservation L. Found.*, No. 1:10-cv-11455-MLW; Complaint at 1-4, *Conservation L. Found.*, No. 1-11-cv-11657; Complaint for Declaratory and Injunctive Relief at 1-2, *Conservation L. Found.*, No. 1-13-cv-12704-MLW.

120. Complaint for Declaratory and Injunctive Relief at 19, *Conservation L. Found.*, No. 1:10-cv-11455-MLW.

121. Complaint at 70, *Conservation L. Found.*, No. 1-11-cv-11657.

122. Complaint for Declaratory and Injunctive Relief at 2, *Conservation L. Found.*, No. 1-13-cv-12704-MLW.

123. See Settlement Agreement, *Conservation L. Found.*, No. 1-11-cv-11657-MLW.

124. *Id.* at 4.

125. See 527 P.3d 667 (N.M. Ct. App. 2022).

126. See *id.* at 671.

127. See *id.* at 672 (quoting district court decision without citation).

128. See *id.* at 679.

129. See *id.*

130. See *id.*

131. *Id.*

132. See 492 F. Supp. 3d 1030, 50 ELR 20228 (N.D. Cal. 2020).

133. See *id.*

134. See Complaint at 1, 7, *San Francisco Baykeeper v. Environmental Prot. Agency*, No. 3:19-cv-05941 (N.D. Cal. Sept. 24, 2019).

135. See *San Francisco Baykeeper*, 492 F. Supp. 3d at 1044.

136. See *id.* at 1037-45.

Water Baltimore, a court rejected several advocacy groups' CWA-based challenge to the Maryland Department of the Environment's issuance of municipal separate storm sewer system permits to the city of Baltimore and to Baltimore County.¹³⁷ Before the Maryland Circuit Court of Appeal, the plaintiff argued, among other things, that the permits "fail to acknowledge changing weather patterns linked to climate change" and that the permits "are ineffective because the [Maryland] Department [of the Environment] failed to include 'climate change related conditions.'"¹³⁸

Rejecting these arguments, the court concluded that the "reopener clauses" in the permits allowing modification based on new information—including new and greater data about increased precipitation—constituted a "flexible, iterative approach" that complied with the relevant legal framework.¹³⁹ Accordingly, the court affirmed the Department of the Environment's decision to issue the permits.¹⁴⁰

Similarly, in *Housatonic River Initiative v. Environmental Protection Agency*, two citizen groups filed a petition challenging EPA's issuance of a corrective action permit requiring General Electric Company to clean up polychlorinated biphenyls (PCBs) from a portion of the Housatonic River in Massachusetts and Connecticut.¹⁴¹ The challenge was brought under three federal statutes: the Toxic Substances Control Act (TSCA),¹⁴² RCRA, and CERCLA.¹⁴³ Among other objections, the citizen groups challenged EPA's hybrid disposal approach for the PCBs generated by General Electric, which directed the most highly contaminated wastes to an off-site landfill and the less contaminated waste to a newly constructed on-site landfill.¹⁴⁴ In this connection, the citizen groups argued that "no on-site facility can be guaranteed forever against leakage, especially considering the effects of climate change."¹⁴⁵

In a proceeding before EPA's Environmental Appeals Board (EAB), the EAB rejected that argument, finding that the citizen groups "had advanced no substantive critique of the [EPA] Region's revised analysis of the risks posed by the [on-site landfill] short of vague allegations in their petition that eventually landfills will leak and groundwater monitoring will fail."¹⁴⁶ The EAB denied the citizen groups' petition.¹⁴⁷ After the citizen groups appealed that decision, the U.S. Court of Appeals for the First Circuit denied the petition as well, concluding, among other things, that the permit's hybrid disposal provisions were not arbitrary or capricious.¹⁴⁸

137. See Opinion by Nazarian, J., In re Blue Water Balt., Nos. 1426, 1803 (Md. Ct. App. Jan. 31, 2024).

138. See *id.* at 17, 33.

139. See *id.* at 33-34.

140. *Id.* at 34.

141. See 75 F.4th 248, 255 (1st Cir. 2023).

142. 15 U.S.C. §§2601-2692, ELR STAT. TSCA §§2-412.

143. See 75 F.4th at 256.

144. See Order Denying Review at 578, 619, In re General Elec. Co., RCRA Appeal No. 21-01 (EAB Feb. 8, 2022).

145. See *id.* at 631.

146. See *id.*

147. See *id.* at 575, 677.

148. See *Housatonic River Initiative*, 75 F.4th at 255, 285.

C. Public Entity's Failure to Take Adaptive Measures

A surprisingly small number of lawsuits have focused on a public entity's failure to take specific adaptive measures.¹⁴⁹ In this type of adaptation lawsuit, the plaintiff does not challenge a government body's review, approval, or other determination for failing to adequately take climate change impacts into account. Rather, it identifies a particular action (or set of actions) that is allegedly necessary for or conducive to adaptation to climate change and claims that the defendant violated the law by failing to take that action (or set of actions).

Just nine of the 90 cases in the Data Set fall into this category, with eight of the nine cases having reached some type of resolution and one case still pending.¹⁵⁰ Of the eight cases that have been resolved, all but two were resolved in the defendant's favor (and in a manner unfavorable to climate adaptation concerns).¹⁵¹

At least three lawsuits of this type have focused on the threat extreme heat poses to individuals incarcerated in Texas facilities without adequate air-conditioning.¹⁵² In *Cole v. Collier*, a group of individuals incarcerated in the Wallace Pack Unit, a Texas prison, filed a putative class action alleging that the high apparent air temperatures in the prison's housing areas constituted cruel and unusual punishment in violation of the Eighth Amendment.¹⁵³ After the class was certified, the plaintiffs filed two motions for preliminary injunctions, both of which sought court orders that the prison take a variety of heat-mitigating measures.¹⁵⁴

In granting the plaintiffs' second motion for a preliminary injunction, the district court observed that the "Court and the parties have no way of knowing when a heat wave will occur, but it is clear that one will come" and took "judicial notice that 'climate scientists forecast with a high degree of confidence that average temperatures in the U.S. will rise throughout this century and that heat waves will become more frequent, more severe, and more prolonged.'"¹⁵⁵ After nearly four years of litigation, the parties entered into a class action settlement requiring the Texas Department of Criminal Justice to, among other

149. See *infra* Appendix.

150. See *id.*

151. See *id.* Of these two cases, one ended in a settlement that was favorable to the plaintiff. See *Cole v. Collier*, No. 4:14-cv-1698, 2018 WL 2766028 (S.D. Tex. June 8, 2018) (see detailed case description *infra* Section II.C). The other case was voluntarily dismissed by the plaintiffs shortly after it was filed, but it is unclear whether the case was resolved in a manner favorable to climate change adaptation concerns. See Complaint, Illinois Farmers Ins. Co. v. Metropolitan Water Reclamation Dist. of Greater Chi., No. 2014CH06608 (Ill. Cir. Ct. Apr. 16, 2014) (see detailed case description *infra* Section II.C).

152. See *Cole*, 2018 WL 2766028; Complaint, Shafer v. Sanchez, No. 2:22-cv-00049 (S.D. Tex. Mar. 11, 2022); First Amended Complaint, Tiede v. Collier, No. 1:23-cv-01004-RP (W.D. Tex. May 7, 2024).

153. See 2018 WL 2766028, at *1.

154. See *Cole v. Collier*, No. 4:14-cv-1698, 2017 WL 3049540, at *2 (S.D. Tex. July 19, 2017).

155. See *id.* at *31 n.27 (quoting Daniel W.E. Holt, Sabin Center for Climate Change Law, Heat in U.S. Prisons and Jails: Corrections and the Challenge of Climate Change i (2015), <https://climate.law.columbia.edu/sites/default/files/content/docs/Holt-2015-08-Heat-in-US-Prisons-and-Jails.pdf>).

measures, provide air-conditioning in the housing areas in which class members reside.¹⁵⁶ A federal district court approved the settlement in 2018.¹⁵⁷

At least one lawsuit against a public entity focused on affirmative conduct that is maladaptive to climate change (i.e., conduct that independently creates a health, safety, or environmental risk that is exacerbated by climate change). In *Cangemi v. Town of East Hampton*, a group of beachfront property owners sued a municipality and a number of federal government bodies in connection with shoreline erosion allegedly caused by jetties the municipality owned.¹⁵⁸ The complaint stated causes of action for public nuisance, private nuisance, and trespass, among others, and sought compensatory damages, injunctive relief, and declaratory relief.¹⁵⁹

Although the complaint itself did not mention climate change, the plaintiffs' expert testified at trial that climate change-induced sea-level rise was partly responsible for the erosion of plaintiffs' beaches.¹⁶⁰ (The logical implication of this testimony is that the jetties exacerbated the beach erosion risk resulting from sea-level rise and other natural factors.) After a jury verdict in the plaintiffs' favor, the district court granted defendant's motion for judgment as a matter of law, finding that the municipality did not actually control the jetties and did not cause the beachfront erosion that had occurred.¹⁶¹

A number of actions against public entities, rather than seeking injunctive or declaratory relief, have sought only money damages as compensation for injuries allegedly caused by a public entity's failure to take sufficient adaptive precautions against climate change-induced severe storms, increased precipitation, and/or flooding.¹⁶² For example, in

Illinois Farmers Insurance Co. v. Metropolitan Water Reclamation District of Greater Chicago, an insurance company filed a putative class subrogation action against Chicago's water reclamation district and a number of other Chicago-area municipalities in connection with the defendants' alleged failure to adequately prepare their stormwater sewer systems to deal with increased rainfall resulting from climate change.¹⁶³

The lawsuit alleged that, as a result of that failure, a number of Illinois Farmers' insureds sustained property damage caused by sewer water flooding that occurred after heavy rains hit the Chicago area on April 17 and 18, 2013.¹⁶⁴ The complaint stated causes of action for negligent maintenance liability and failure to remedy dangerous conditions, both in violation of Illinois statutes, as well as a cause of action for a taking without just compensation in violation of the Illinois and federal constitutions.¹⁶⁵ The complaint sought compensatory damages, but not declaratory or injunctive relief.¹⁶⁶

With respect to climate change, the complaint alleged that the water reclamation district "knew or should have known that climate change in Cook County has resulted in greater rainfall volume, greater rainfall intensity and greater rainfall duration than pre-1970 rainfall history evidenced, resulting in greater stormwater runoff from a rainfall with Cook County and its Watersheds."¹⁶⁷ The complaint further alleged, "This defendant knew that, because of climate change causing increased rainfall, this defendant had to increase stormwater storage capacity of its stormwater sewer system(s) to prevent sewer water invasions."¹⁶⁸ For

156. See *Cole*, 2018 WL 2766028, at *1.

157. See *id.* at *16. In 2022, an individual incarcerated in a different Texas prison, the W.G. McConnell Unit, filed a similar action against the prison's warden. See *Complaint, Shafer v. Sanchez*, No. 2:22-cv-00049, 2023 WL 198629 (S.D. Tex. Jan. 17, 2023). The federal district court initially denied the plaintiff's request for a preliminary injunction, rejecting the plaintiff's attempt to establish a likelihood of success on the merits by citing *Cole v. Collier*, since the plaintiff's case concerned a different facility. See *Shafer*, 2023 WL 198629, at *1. However, the court subsequently granted plaintiff's request to the extent of requiring the prison to follow its own policies for providing respite for extreme heat, which it had not been doing. See *Shafer v. Sanchez*, No. 2:22-cv-00049, 2023 WL 5577351, at *8 (S.D. Tex. Aug. 29, 2023). After the plaintiff was transferred to a different facility, most of his claims relating to the McConnell facility were dismissed on grounds of mootness or sovereign immunity. See *Shafer v. Sanchez*, No. 2:22-cv-00049, 2024 WL 1434441 (S.D. Tex. Apr. 3, 2024). A third action of this type was filed in the Western District of Texas in 2023 and has not yet been resolved. See *First Amended Complaint, Tiede*, No. 1:23-cv-01004-RP.

158. See 374 F. Supp. 3d 227 (E.D.N.Y. 2019); *Amended Complaint & Jury Demand, Cangemi v. Town of E. Hampton*, No. 2:12-cv-03989-JS-SIL (E.D.N.Y. Sept. 14, 2012).

159. See *Amended Complaint and Jury Demand* at 20-33, *Cangemi*, 374 F. Supp. 3d 227.

160. See *Memorandum of Law in Support of Defendant's Motion for Judgment as a Matter of Law or for a New Trial Under Federal Rules of Civil Procedure 50 and 59*, at 13-14 n.1, *Cangemi*, 374 F. Supp. 3d 227.

161. See *Cangemi*, 374 F. Supp. 3d at 233-36.

162. See *Original Class Action Complaint and Demand for Jury Trial, Illinois Farmers Ins. Co. v. Metropolitan Water Reclamation Dist. of Greater Chi.*, No. 2014CH06608 (Ill. Cir. Ct. Apr. 16, 2014) (see description of this case *infra* Section II.C); *St. Bernard Par. Gov't v. United States*, 887 F.3d 1354 (5th Cir. 2018) (reversing Court of Federal Claims ruling that a Fifth Amendment taking occurred when the federal government failed to prop-

erly maintain the Mississippi River Gulf Outlet, resulting in flood damage to plaintiffs' property during Hurricane Katrina); April 3, 2015, Order re PDR Decision as to LPES and Other Issues, *Tzakis v. Berger Excavating Contractors*, No. 2009CH6159 (Ill. Cir. Ct. Apr. 3, 2015) (dismissing claim against municipal defendants based on public duty rule in lawsuit seeking compensation from private and municipal defendants for property damage resulting from 2008 floods allegedly caused in part by municipal defendants' failure to adequately prepare and maintain stormwater systems to deal with increased precipitation); *In re Katrina Canal Breaches Litig.*, 616 F. App'x 659 (5th Cir. 2015) (affirming district court's dismissal based on the discretionary function exception of homeowners' action against the Corps for negligent dredging of the Mississippi River Gulf Outlet that allegedly exacerbated effects of Hurricane Katrina in area of New Orleans); *Wohl v. City of New York*, 45 Misc. 3d 1217(A), 2014 WL 6092059, at *3 (N.Y. Sup. Ct. Oct. 22, 2014) (granting defendant's motion for summary judgment in action seeking compensation for property damage allegedly caused by the defendant's negligence in maintaining sewer lines and catch basins on Staten Island prior to two severe storms that occurred in August 2011 based on a determination that climatological evidence showed that "inordinate rainfall" had occurred in the relevant time periods and that "the sewer system on Staten Island was never designed to accommodate the volume of rain which fell during the designated periods of time").

163. See *Original Class Action Complaint and Demand for Jury Trial, Illinois Farmers Ins. Co.*, No. 2014CH06608. Around the same time, Illinois Farmers also filed similar actions against each of five Illinois counties. See *Sabin Center for Climate Change Law, U.S. Climate Litigation Database: Illinois Farmers Insurance Co. v. Metropolitan Water Reclamation District of Greater Chicago*, <https://climatecasechart.com/case/illinois-farmers-insurance-co-v-metropolitan-water-reclamation-district-of-greater-chicago/> (last visited Sept. 9, 2024).

164. See *Original Class Action Complaint and Demand for Jury Trial* at 23-24, 35-37, *Illinois Farmers Ins. Co.*, No. 2014CH06608.

165. See *id.* at 24-35.

166. See *id.* at 37.

167. *Id.* at 20.

168. *Id.* at 21.

reasons that are not entirely clear, the plaintiff voluntarily dismissed the action less than two months after filing it.¹⁶⁹

III. Failure-to-Adapt Suits Against Private Entities

Although most failure-to-adapt suits have been brought against government agencies or other public entities, a small number have been brought exclusively against private corporations, utilities, or other private entities. Of the 90 cases in the Data Set, 11 centered on a private entity's alleged failure to take precautions or other preparatory measures to mitigate the risks posed by climate change-induced events such as sea-level rise, storm surge, increased precipitation, flooding, wildfires, and severe weather events.¹⁷⁰ Of these 11 cases, seven are pending and unresolved, three were resolved favorably to the defendant (and unfavorably to climate change adaptation concerns), and one was resolved favorably to the plaintiff (and favorably to climate change adaptation concerns).¹⁷¹

Probably the most significant failure-to-adapt litigation that has so far been filed against private entities is a series of lawsuits brought against fossil fuel companies relating not to their role in causing climate change, but instead to their failure to manage their facilities in a way that takes account of climate change impacts. Between 2016 and 2021, CLF filed four lawsuits against fossil fuel companies that own and operate fuel storage and distribution facilities located at various points along the eastern coast of the United States.

These four actions—each of which was filed in federal district court, alleged violations of the CWA and RCRA, and sought relief under the citizen suit enforcement provisions of those statutes—include: (1) a 2016 suit against ExxonMobil Corporation relating to a petroleum products distribution and bulk storage terminal it owns and operates in Everett, Massachusetts¹⁷²; (2) a 2017 suit against Shell Oil Company relating to a bulk storage and fuel terminal it owns and operates in Providence, Rhode Island¹⁷³; (3) a 2021 suit against Shell Oil Company in connection with a bulk storage and fuel terminal it owns and operates in New

Haven, Connecticut¹⁷⁴; and (4) a 2021 suit against Gulf Oil Company in connection with a bulk storage and fuel terminal it owns and operates in New Haven, Connecticut.¹⁷⁵

The gravamen of each of these actions is that the defendant failed to take adequate steps to guard against the unintentional release of pollutants from its facility in the event of climate change-induced sea-level rise, storm surge, increased precipitation, or severe weather events, in violation of federal law.¹⁷⁶ As relief, these actions principally sought declaratory and injunctive relief to prevent further violations of the CWA and RCRA, injunctive relief ordering the defendant to comply with RCRA by properly disposing of or otherwise responding to hazardous and solid waste, and civil penalties.¹⁷⁷ Unlike many of the other failure-to-adapt lawsuits that have been filed against private entities, in which climate change looms in the background and is infrequently mentioned in the complaint, these CLF lawsuits place climate change at the center of the grievance.

For example, the complaint in the 2016 Massachusetts action, which mentions “climate change” no fewer than 101 times, alleges that ExxonMobil's Everett Terminal “is at risk of discharging oil and other pollutants due to climate change-induced sea level rise,” “is at risk of discharging oil and other pollutants due to climate change-induced storm surge,” “has discharged, and is at risk of discharging, oil and other pollutants due to climate change-induced increased precipitation,” and “has discharged, and is at risk of discharging, oil and other pollutants due to climate change-affected weather events.”¹⁷⁸ The complaint in the 2017 Rhode Island lawsuit alleges:

Shell has not taken sea level rise, increased and/or more intense precipitation, increased magnitude and frequency of storm events, and increased magnitude and frequency of storm surges—all of which will become, and are becoming, worse as a result of climate change—into account in its Clean Water Act-required and enforceable stormwater pollution prevention plan.¹⁷⁹

And the complaint in the 2021 Connecticut lawsuit against Gulf Oil Company alleges:

169. See Robert McCoppin, *Insurance Company Drops Suit Over Chicago-Area Flooding*, CHI. TRIB. (May 21, 2019), <https://www.chicagotribune.com/2014/06/03/insurance-company-drops-suits-over-chicago-area-flooding/>; see also Akiko Shimizu & Hunter Book, *Farmers Insurance Withdraws Class Action Alleging Failure to Adapt to Climate Change*, SABIN CTR. FOR CLIMATE CHANGE L.: CLIMATE L. (June 16, 2014), <https://blogs.law.columbia.edu/climatechange/2014/06/16/farmers-insurance-withdraws-class-action-alleging-failure-to-adapt-to-climate-change/>.

Farmers' attorneys surely knew that the cases would be an uphill battle, if only because of the Illinois Tort Immunity Act, which limits the tort liabilities of municipalities. It is unknown now whether Farmers actually intended to pursue these cases or whether its intention was to cause a stir and put local governments on notice that they may face litigation if they do not adapt to climate change.

170. See *infra* Appendix.

171. See *id.*

172. See *CLF I*, 3 F.4th 61 (1st Cir. 2021) (vacating district court's stay order).

173. See *CLF II*, No. 1:17-cv-00396, 2020 WL 5775874 (D.R.I. Sept. 28, 2020) (granting in part and denying in part defendant's motion to dismiss).

174. See *Conservation L. Found. v. Shell Oil Co. (CLF III)*, 628 F. Supp. 3d 416 (D. Conn. 2022) (granting in part and denying in part defendant's motion to dismiss).

175. See *Conservation L. Found. v. Gulf Oil Ltd. P'ship (CLF IV)*, No. 3:21-cv-00932, 2022 WL 4585549 (D. Conn. Sept. 29, 2022) (granting defendant's motion to dismiss for lack of standing without prejudice to plaintiff seeking leave to file an amended complaint).

176. See, e.g., Complaint for Declaratory and Injunctive Relief and Civil Penalties at 5, *CLF I*, 3 F.4th 61; Complaint and Jury Demand at 4-5, *CLF II*, 2020 WL 5775874; Complaint and Jury Demand at 10, *CLF III*, 628 F. Supp. 3d 416; Complaint and Jury Demand at 7, *CLF IV*, 2022 WL 4585549.

177. See Complaint for Declaratory and Injunctive Relief and Civil Penalties at 69, *CLF I*, 3 F.4th 61; Complaint and Jury Demand at 77-78, *CLF II*, 2020 WL 5775874; Complaint and Jury Demand at 91-92, *CLF III*, 628 F. Supp. 3d 416; Complaint and Jury Demand at 86-87, *CLF IV*, 2022 WL 4585549.

178. Complaint for Declaratory and Injunctive Relief and Civil Penalties at 21, *CLF I*, 3 F.4th 61.

179. Complaint and Jury Demand at 4, *CLF II*, 2020 WL 5775874 (emphasis added).

While many of the projections discuss harms in 2050 and 2100, it is clear that the acceleration of negative impacts of climate change is happening now and will only get more pronounced as each year goes by. . . . *Gulf has not designed, maintained, modified, and/or operated its Terminal to account for the numerous effects of climate change.* This failure puts CLF, its members, and the New Haven community at great risk.¹⁸⁰

As noted in the introduction, the Massachusetts action against ExxonMobil recently culminated in a plaintiff-favorable settlement, with ExxonMobil agreeing to shut down its Everett Terminal.¹⁸¹ The other three actions are still pending and unresolved. Since the court granted in part and denied in part defendant Shell Oil's motion to dismiss,¹⁸² the Rhode Island action has been in discovery.¹⁸³ The Connecticut action against Shell Oil Company is similarly mired in discovery; in the recent words of the court, it has been "plagued by discovery disputes."¹⁸⁴

The Connecticut action against Gulf Oil is in a somewhat earlier phase of litigation. After granting without prejudice the defendant's motion to dismiss most of the counts for lack of standing,¹⁸⁵ the court in June 2023 granted CLF's motion to amend the complaint to remedy the standing-related deficiencies the court had identified.¹⁸⁶ CLF filed an amended complaint several days after that ruling.¹⁸⁷ The case has since been in discovery.¹⁸⁸

At least one failure-to-adapt lawsuit against a private entity focused on the defendant's failure to obtain insurance and to otherwise act reasonably to protect the plaintiff's property in the event of a hurricane or serious storm. In *Pietrangelo v. S&E Customize It Auto Corp.*, the owner of a car that was seriously damaged in flooding caused by Hurricane Sandy brought a small claims action against the body shop that had possession of the car at the time of the storm for negligence in allowing the car to be damaged and for a negligent failure to obtain flood insurance.¹⁸⁹ The damage to the plaintiff's car was covered by the plaintiff's own insurance, except for a \$1,000 deductible, which they sought to recover from the body shop.¹⁹⁰

In ruling for the defendant, the court deemed the body shop a bailee and concluded that, under New York law, a bailee has no obligation to obtain insurance to protect the property that is the subject of the bailment.¹⁹¹ The court also concluded that the plaintiff's car was not damaged through the body shop's negligence because the damage had occurred due to an "act of nature" (Hurricane Sandy), which "makes it impossible for a human to be negligent and responsible for losses incurred."¹⁹² Noting that "[m] any sources speculated that what made Sandy into a 'superstorm' was a result of 'global warming' or 'climate change,'" the court recognized the possibility that the storm was "not a pure 'act of nature' but . . . the result of human activity."¹⁹³ However, the court characterized this as "merely intellectual speculation" and noted that, in any event, the plaintiff had not established that the defendant's conduct had created the act of nature or made the damage it caused worse.¹⁹⁴

A more recent failure-to-adapt action also focused on the defendant's lack of preparation for a hurricane or other serious storm. In *Stewart v. Entergy Corp.*, a group of Louisiana residents filed a putative class action against a provider of electric power in connection with the failure of its distribution and transmission equipment during Hurricane Ida in 2021.¹⁹⁵ The complaint alleged that Entergy failed to properly design, inspect, and maintain its transmission system—including its transmission towers and power lines—and failed to warn the public of its dangerous condition, resulting in residents of four parishes in south-east Louisiana being left without power for an extended period of time during the hurricane.¹⁹⁶

Regarding climate change, the complaint alleged:

Entergy, along with most of the world, has become aware that the climate of the world (including southeast Louisiana) is changing, and not for the better. In 2020 alone, Louisiana faced four (4) category 2-4 hurricanes, and one (1) severe tropical storm. Entergy also knows that beside the wind events, Louisiana experienced more severe periods of heat and flooding.¹⁹⁷

According to the complaint, "It is beyond dispute that Entergy was aware of the foreseeability of a storm like Ida or greater, could hit their serviced area in Louisiana. Knowing this, Entergy consciously chose not to design, install, construct, operate, inspect, or maintain their Transmission System as a reasonable electric supplier/producer."¹⁹⁸ After being removed to federal court, the case was remanded to state court by the federal district

180. Complaint and Jury Demand at 7, *CLF IV*, 2022 WL 4585549 (emphasis added).

181. See *supra* notes 1-12 and accompanying text.

182. See *CLF II*, 2020 WL 5775874 (granting in part and denying in part defendant's motion to dismiss).

183. See *CLF II*, No. 1:17-cv-00396, 2022 WL 2866705 (D.R.I. July 21, 2022) (denying without prejudice plaintiff's motion to compel and defendant's cross-motion for a protective order).

184. See *CLF III*, No. 3:21-cv-00933 (JAM), 2024 WL 1341116, at *1 (D. Conn. Mar. 29, 2024) (granting in part and denying in part plaintiff's motion to compel).

185. See *CLF IV*, 2022 WL 4585549 (granting defendant's motion to dismiss as to specified counts of the complaint based on a lack of standing, but doing so without prejudice to plaintiff's ability to seek to amend the complaint).

186. See *CLF IV*, No. 3:21-cv-00932, 2023 WL 4145000 (D. Conn. June 23, 2023) (granting in part and denying in part plaintiff's motion to amend the complaint).

187. See Amended Complaint, *CLF IV*, 2022 WL 4585549.

188. See Docket, *CLF IV*, 2022 WL 4585549.

189. See No. SCR 100/13 (N.Y. Civ. Ct. May 22, 2013).

190. See *id.* at *2.

191. See *id.* at *3-4.

192. *Id.* at *4.

193. *Id.* at *4-5.

194. *Id.* at *5.

195. See 35 F.4th 930 (5th Cir. 2022) (per curiam).

196. See Original Class Action Petition for Damages and Jury Trial Request at 4-6, 16-18, *Stewart*, 35 F.4th 930.

197. *Id.* at 5.

198. *Id.* at 15-16.

court for the Eastern District of Louisiana,¹⁹⁹ with the U.S. Court of Appeals for the Fifth Circuit affirming the district court's remand decision.²⁰⁰

Some lawsuits against public utilities have focused on the utility's maladaptive behavior in connection with managing the wildfire risk posed by power lines and electrical equipment. For example, in *York County v. Rambo*, a group of retirement and pension funds filed a putative class action against the California utility Pacific Gas and Electric Company (PG&E), alleging that PG&E violated the federal Securities Act of 1933 by failing to take appropriate measures to guard against the risk of its power lines and electrical equipment starting wildfires in California and then falsely representing that it had taken appropriate precautions in various securities filings.²⁰¹ The complaint alleged that PG&E had failed to comply with applicable state safety regulations requiring it to service and maintain its electrical equipment so as to minimize wildfire risk, including by clearing vegetation away from its power lines and temporarily shutting off its power lines when certain dangerous conditions, such as high wind speed and low humidity, were present.²⁰²

According to the complaint, "PG&E's failure to follow these safety requirements resulted in numerous devastating wildfires in October 2017 and November 2018, causing catastrophic loss of life and destruction of property."²⁰³ The complaint alleged that PG&E had been implicated in causing more than 1,500 wildfires in California, including the October 2017 northern California fires, which burned 245,000 acres of land and killed 44 people, and the November 2018 Camp Fire, which killed at least 86 people and caused an estimated \$16.5 billion in damage.²⁰⁴ The complaint further alleged that, in the offering docu-

ments for more than \$4 billion worth of U.S. Securities and Exchange Commission-registered senior notes (bonds) it sold to investors, PG&E falsely represented that it had complied with safety regulations and taken proper precautions to mitigate wildfire hazards.²⁰⁵

Climate change featured prominently in the wildfire-related representations PG&E made in these offering documents. For example, PG&E's March 2016 registration statement stated that it "regularly reviews the most relevant scientific literature on climate change such as sea level rise, temperature changes, rainfall and runoff patterns, and wildfire risk, to help the Utility identify and evaluate climate change-related risks and develop the necessary adaptation strategies."²⁰⁶ This statement continued, "The Utility maintains emergency response plans and procedures to address a range of near-term risks, including extreme storms, heat waves and wildfires and uses its risk-assessment process to prioritize the infrastructure investments for longer-term risks associated with climate change."²⁰⁷

The complaint alleged that, while the March 2016 registration statement acknowledged the importance of adopting appropriate climate change-related risk mitigation strategies, "it failed to disclose the heightened risk caused by PG&E's own conduct and failure to comply with applicable regulations governing the maintenance of electrical lines, and the hundreds of fires that were *already* being ignited annually by the Company's equipment."²⁰⁸ The complaint sought class certification, compensatory damages, costs and expenses, and any equitable or injunctive relief the court deemed appropriate.²⁰⁹

This case was consolidated with an earlier-filed action against PG&E and is still pending.²¹⁰ On September 30, 2022, the district court issued a stay of the proceedings on the grounds that certain of the defendant entities had sought bankruptcy protection.²¹¹ However, on May 3, 2024, the Ninth Circuit vacated and remanded the stay order.²¹²

Excessive water use—a maladaptive practice in light of the tendency of climate change to cause or exacerbate drought conditions in certain parts of the world—has been the target of at least one lawsuit against a private entity. In *Animal Legal Defense Fund v. Foster Poultry Farms Corp.*, an animal rights advocacy group sued a major poultry meat producer for violating the California Constitution by employing a chicken slaughter process that uses an amount of water that is unreasonable and not maximally beneficial.²¹³ Article X, §2 of the California Constitution mandates that "water use must be rea-

199. See *Stewart v. Entergy Corp.*, No. 2021-07365, 2022 WL 670051 (E.D. La. Mar. 7, 2022).

200. See *Stewart*, 35 F.4th 930 (per curiam).

201. See Complaint for Violations of the Securities Act of 1933, *York County v. Rambo*, No. 3-19-cv-00994-RS (N.D. Cal. Feb. 22, 2019). The complaint also named as defendants a number of PG&E directors and officers, as well as a number of underwriters. See *id.* at 4-9. A similar lawsuit was filed in 2018 against Edison International and the Southern California Edison Company in the Central District of California. See Class Action Complaint, *Barnes v. Edison Int'l*, No. 2:18-cv-09690-CBM-FFM, 2022 WL 822191 (9th Cir. March 18, 2022). On March 18, 2022, the Ninth Circuit affirmed the district court's dismissal of this action on the basis that it failed to plead particularized facts showing false or misleading statements or omissions by the defendant in its securities filings. See *Barnes*, 2022 WL 822191.

Additionally, a lawsuit seeking recovery for damage caused by the Woolsey Fire in Malibu, California (one not involving any allegation of misrepresentations in the securities context), was filed in 2019 against Edison International, Southern California Edison Company, and the Boeing Company. See Complaint for Damages and Injunctive Relief, *Van Oeyen v. Southern Cal. Edison Co.*, No. 2:19-cv-03955-MWF-FFM, 2020 WL 13064657 (9th Cir. June 19, 2020). The complaint alleged that the defendants were aware of, among other things, "climate risk conditions" that made the defendants' failure to properly maintain their electrical equipment pose a risk of serious harm to plaintiffs by causing wildfires. See *id.* at 30. The case was initially removed from California state court to federal court, but was then remanded to California state court. See *Van Oeyen*, 2020 WL 13064657 (dismissing appeal for lack of jurisdiction where district court remanded case to state court based on defect in removal procedure).

202. See Complaint for Violations of the Securities Act of 1933, at 10, *Rambo*, No. 3-19-cv-00994-RS.

203. *Id.*

204. *Id.* at 1-2, 10.

205. See *id.* at 11-38.

206. *Id.* at 13.

207. *Id.*

208. *Id.* at 14.

209. *Id.* at 46.

210. See Brief for Plaintiffs-Appellants at *13, *In re PG&E Corp. Sec. Litig.*, No. 22-16711, 2023 WL 2528541 (9th Cir. Mar. 6, 2023).

211. See *id.* at *19.

212. See Docket Entry No. 49, *Public Emps. Ret. Ass'n of N.M. v. Earley*, No. 22-16711 (9th Cir. May 3, 2024).

213. See Complaint for Declaratory and Injunctive Relief at 16-18, *Animal Legal Def. Fund v. Foster Poultry Farms Corp.*, No. 20-cv-02493 (Cal. Super. Ct. Sept. 2, 2020).

sonable and for a beneficial purpose.”²¹⁴ According to the complaint, which was filed in 2019, this provision is a “universal limitation” that binds all water users in California, both public and private.²¹⁵

The complaint alleged that Foster Farms violated this constitutional provision by operating a chicken slaughterhouse in Livingston, California, that consumes three to four million gallons of drinkable water each day to slaughter and process chickens to sell for meat.²¹⁶ The complaint further alleged that even though less water-intensive slaughter methods are available, Foster Farms’ Livingston facility uses the heavily water-intensive “electric immobilization” system.²¹⁷ The water Foster Farms uses in this process, which it purchases from the city of Livingston, California, comes from the Merced Subbasin in the San Joaquin Valley, a source the California Department of Water Resources has classified as a critically overdrafted groundwater basin.²¹⁸

The complaint alleged that part of what makes this an unreasonable practice are the drought conditions in California, conditions that are worsened by climate change.²¹⁹ In this connection, the complaint noted that “California is plagued with drought that is exacerbated by the effects of climate change,” and that the “San Joaquin Valley’s already drought-prone condition has been, is being, and will continue to be worsened by the effects of climate change.”²²⁰ The complaint sought both declaratory relief—a declaration that “Foster Farms’ daily consumption of millions of gallons of groundwater from the critically overdrafted Merced Subbasin is unreasonable in violation of” the California Constitution—and injunctive relief—an “order enjoining Foster Farms’ unreasonable use and method of use of groundwater . . . and requiring the maximal beneficial use of such groundwater.”²²¹ In 2020, the court denied Foster Farms’ demurrer to the complaint.²²² The case is currently pending.²²³

At least one lawsuit challenged a decommissioning plan for a nuclear power plant based in part on a plan to store canisters of spent nuclear fuel close to the ocean, making them vulnerable to inundation in the event of sea-level rise. In *Public Watchdogs v. Southern California Edison Co.*, a nonprofit organization sued a group of utilities, the U.S. Nuclear Regulatory Commission (NRC), and one other private entity in connection with a plan to decommission

the San Onofre Nuclear Generating Station (SONGS), a nuclear power plant located in southern California.²²⁴ The complaint, which was filed in 2019, alleged:

Defendants are risking the lives of millions of California residents and the prospect of irreparable harm to the environment by removing spent nuclear fuel from a storage location specifically designed and used for that purpose for decades, transporting it into canisters that are damaged, defective, and not properly designed to serve their intended purpose, and dropping it into holes a mere 108 feet from one of California’s most populated public beaches, within a tsunami zone, surrounded by active fault lines.²²⁵

The SONGS decommissioning plan called for spent nuclear fuel to be buried on-site 20 feet underground in a containment system known as the independent spent fuel storage installation (ISFSI). The ISFSI was to be located 108 feet from the Pacific Ocean. According to the complaint, “Climate-change experts predict that the bottom of each silo located in the ISFSI will be inundated with salt water as early as 2035, due to continuously rising sea levels. . . . If sea levels rise at the rates predicted, the results could be catastrophic.”²²⁶

The complaint alleged three causes of action: (1) violation of the APA; (2) public nuisance; and (3) strict products liability against the defendant who manufactured the canisters to be used in the decommissioning process.²²⁷ It sought declaratory and injunctive relief, as well as an accounting and appointment of an independent monitor at SONGS.²²⁸ The district court dismissed all causes of action with prejudice, concluding that it lacked subject matter jurisdiction over the action because the claims challenged decisions of NRC, which, under the Hobbs Act, had to be challenged before the Ninth Circuit.²²⁹ The court also denied the plaintiff’s motion for a preliminary injunction.²³⁰ In 2020, the Ninth Circuit affirmed the district court’s dismissal of the action.²³¹

Given the small number of cases in this category overall, and the fact that more than half of the identified cases are still unresolved, it is too early to say whether and to what extent failure-to-adapt litigation against private entities has succeeded. However, the favorable settlement CLF obtained in its Massachusetts action against ExxonMobil certainly provides some basis for optimism that such actions have at least a chance of being successful.

214. Cal. Const. art. X, §2.

215. Complaint for Declaratory and Injunctive Relief at 4, *Animal Legal Defense Fund*, No. 20-cv-02493 (citing *United States v. State Water Res. Control Bd.*, 182 Cal. App. 3d 82, 105 (Cal. Ct. App. 1986)).

216. *Id.* at 1.

217. *Id.* at 13-15. The complaint also alleges that the electric immobilization system is a uniquely cruel way of slaughtering chickens, with the less water-intensive “controlled atmosphere” method also being more humane. *See id.*

218. *Id.* at 8-10.

219. *Id.* at 16.

220. *Id.*

221. *Id.* at 18.

222. *See* Animal Legal Defense Fund, *Challenging Foster Farms Slaughterhouse’s Illegal Water Use*, <https://aldf.org/case/challenging-foster-farms-slaughterhouses-illegal-water-use/> (last visited Sept. 9, 2024).

223. *See id.* (noting hearing on plaintiff’s summary judgment motion is scheduled for October 18, 2024).

224. *See* 984 F.3d 744 (9th Cir. 2020); *Public Watchdogs v. Southern Cal. Edison Co.*, No. 19-cv-1635 JLS (MSB), 2019 WL 6497886, at *1 (S.D. Cal. Dec. 3, 2019).

225. Complaint at 2, *Public Watchdogs*, 2019 WL 6497886.

226. *Id.* at 23.

227. *See id.* at 39-48. *Public Watchdogs* subsequently filed a first amended complaint that asserted a fourth cause of action: violation of the Price-Anderson Act. *See Public Watchdogs*, 984 F.3d at 753.

228. *See* Complaint at 48, *Public Watchdogs*, 2019 WL 6497886.

229. *See Public Watchdogs*, 2019 WL 6497886, at *1.

230. *See id.*

231. *See Public Watchdogs*, 984 F.3d at 748.

IV. Conclusion

As J.B. Ruhl and Robin Kundis Craig have argued, adapting to climate change is going to require nothing less than a transformational redesign of many aspects of American society, including population distribution, infrastructure, housing, agriculture, food and water production, land use, and natural resource management.²³² While many adaptation initiatives are likely to spring from legislative or regulatory sources, the courts will almost certainly have an important role to play in bringing much-needed adaptation measures to pass.

This Article has shown that, even though they usually do not succeed, failure-to-adapt lawsuits are already having an impact on public and private actors in certain instances. Because a significant minority of such lawsuits have been resolved favorably to climate adaptation

concerns, failure-to-adapt litigation holds the promise of continuing to influence decisions by government agencies, private corporations, and other types of entities, at least some of the time.

It remains to be seen whether U.S. courts will see the sort of broad, national-scale failure-to-adapt suits that have been filed in other countries. There does not yet appear to be a U.S. case like *Tsama v. Attorney General of Uganda*,²³³ in which, among other types of relief, the plaintiffs sought a court order requiring the Ugandan national government to take adaptive measures to address a particular climate change threat posing a danger to the country as a whole.²³⁴ But even if failure-to-adapt suits in the United States remain predominantly incremental and small scale, in the aggregate they have the potential to play an important role in catalyzing adaptation to climate change in this country.²³⁵

232. See Ruhl & Craig, *supra* note 46, at 201.

233. Miscellaneous Case No. 024 of 2020 (High Court of Uganda at Mbale 2021).

234. See Applicants' Written Submissions at 54, *Tsama v. Attorney Gen. of Uganda*, Miscellaneous Case No. 024 of 2020 (High Court of Uganda at Mbale 2021) ("We pray that this honourable court directs the respondents to institute an effective machinery to dealing with landslides in the country as required by *Directive No. XXIII of the National Objectives and Directive Principles of State Policy* by undertaking the following measures"); see also *Leghari v. Federation of Pak.*, (2015) W.P. No. 25501/201 (successful suit against Pakistani national government for its failure to implement the National Climate Change Policy of 2012 and the Framework for Implementation of Climate Change Policy (2014-2030), which included a number of adaptation targets).

235. See Peel & Osofsky, *supra* note 20, at 2247:

Once enough of these cases change individual planning decisions, planners and developers may begin to make different assumptions from the outset that are more adaptive without the necessity of stakeholders using litigation to push them. This possibility reiterates the value of continuing to bring these small-scale planning suits in the U.S. context even if their direct, individual impact is very local.

APPENDIX: CASE CHART

Sabin Center Database Adaptation Subcategory		Year Filed & Jurisdiction	Citation(s)	Defendant Type	Plaintiff Type	Climate Change Threat	Legal Basis	Result (as of July 2024)
Name	Category							
Golden Gate Vill. Resident Council v. County of Marin	1 (NEPA-based challenge)	2023, N.D. Cal.	Complaint, Golden Gate Vill. Resident Council v. County of Marin, No. 3:23-cv-04624 (N.D. Cal. Sept. 8, 2023); Motion for Summary Judgment, 2024 WL 2867258 (N.D. Cal. Feb. 7, 2024)	County government, private corporations	Advocacy group	Wildfires, flooding, mudslides	Federal statutes (NEPA, APA, Federal Housing Act)	Unresolved
Comite Dialogo Ambiental v. Federal Emergency Mgmt. Agency	1 (NEPA-based challenge)	2023, D.D.C.	Complaint, Comite Dialogo Ambiental v. Federal Emergency Mgmt. Agency, No. 1:23-cv-00984 (D.D.C. Apr. 11, 2023)	Federal government agencies	Advocacy groups	Wind, flooding, saltwater corrosion	Federal statutes (NEPA, APA)	Unresolved
Association of Vill. Council Presidents v. National Marine Fisheries Serv.	1 (NEPA-based challenge)	2023, D. Alaska	Complaint, Association of Vill. Council Presidents v. National Marine Fisheries Serv., No. 3:23-cv-00074-SLG (D. Alaska Apr. 7, 2023)	Federal government agencies	Tribal consortia	Unclear	Federal statutes (NEPA, APA)	Unresolved
South Carolina Coastal Conservation League v. U.S. Army Corps of Eng'rs	1 (NEPA-based challenge)	2022, D.S.C.	Complaint, South Carolina Coastal Conservation League v. U.S. Army Corps of Eng'rs, No. 2:22-cv-02727-RMG (D.S.C. Aug. 17, 2022)	Federal government agencies	Advocacy groups	Sea-level rise, flooding, storm surge	Federal statutes (ESA, NEPA, CWA, APA)	Unresolved (motion to dismiss granted in part and denied in part on March 7, 2023)
Texans Against High Speed Rail v. U.S. Dep't of Transp.	1 (NEPA-based challenge)	2021, W.D. Tex.	Complaint, Texans Against High-Speed Rail v. U.S. Dep't of Transp., No. 6:21-cv-365 (W.D. Tex. Apr. 14, 2021)	Federal government agencies	Advocacy group, private individuals, counties	Increased precipitation	Federal statutes (NEPA, APA)	Unclear (voluntary dismissal by plaintiffs)
Protect Our Parks v. Buttigieg	1 (NEPA-based challenge)	2021, N.D. Ill.	Protect Our Parks v. Buttigieg, 97 F.4th 1077 (7th Cir. 2024) (affirming order granting defendant's motion for summary judgment)	Federal government agencies	Advocacy groups, private individuals	Unclear	Federal statutes (NEPA, CWA, and others)	Win for D
Friends of Cedar Mesa v. Department of Interior	1 (NEPA-based challenge)	2021, D.D.C.	Joint Motion for Voluntary Dismissal Without Prejudice, Friends of Cedar Mesa v. Department of Interior, No. 1:21-cv-00971-RC (D.D.C. Jan. 25, 2023)	Federal government agencies	Advocacy group	Erosion, flooding, dust deposition, wildfire, thermal stress	Federal statutes (ESA, NEPA, NHPA, APA)	Win for P
Friends of the Clearwater v. Probert	1 (NEPA-based challenge)	2021, D. Idaho	Friends of the Clearwater v. Probert, 2023 WL 10366333 (9th Cir. Oct. 18, 2023) (voluntary dismissal of appeal by joint stipulation of the parties)	Federal government agency	Advocacy group	Unclear	Federal statutes (NEPA, ESA, NFMA, APA)	Win for P
Safe Skies Clean Water v. National Guard Bureau	1 (NEPA-based challenge)	2020, W.D. Wis.	Safe Skies Clean Water, Wis. v. National Guard Bureau, 578 F. Supp. 3d 998 (W.D. Wis. 2022) (granting defendant's motion for summary judgment)	Federal government agency	Advocacy Group	Unclear	Federal statutes (NEPA)	Win for D
NAACP Erie Unit 662 v. Federal Hwy Admin.	1 (NEPA-based challenge)	2020, W.D. Pa.	Memorandum Opinion, NAACP Erie Unit 662 v. Federal Highway Admin., No. 1:20-cv-00362-SPB (W.D. Pa. Dec. 29, 2022) (granting defendant's motion for summary judgment)	Federal government agency, state government agency	Advocacy groups	Flooding	Federal statutes (NEPA, APA, Federal Aid Highway Act)	Win for D
Sierra Club v. Federal Energy Regul. Comm'n	1 (NEPA-based challenge)	2020, D.C. Cir.	On Petition for Review of Orders of the Federal Energy Regulatory Commission, Sierra Club v. Federal Energy Regul. Comm'n, No. 20-1427 (D.C. Cir. June 28, 2022) (denying petition for review)	Federal government agency	Advocacy group	Increase in severe storms	Federal statutes (NEPA, APA, Natural Gas Act)	Win for D

Sabin Center Database Adaptation Subcategory			Year Filed & Jurisdiction		Citation(s)		Defendant Type	Plaintiff Type	Climate Change Threat	Legal Basis	Result (as of July 2024)
Name	Category	Subcategory	Year Filed	Jurisdiction	Citation(s)	Defendant Type	Plaintiff Type	Climate Change Threat	Legal Basis	Result (as of July 2024)	
Indigenous Env't Network v. U.S. Bureau of Land Mgmt.	1 (NEPA-based challenge)	Reverse Impact Assessment	2020	D. Mont.	Complaint, Indigenous Env't Network v. U.S. Bureau of Land Mgmt., No. 4:20-cv-00115-BMM (D. Mont. Dec. 4, 2020)	Federal government agencies	Advocacy groups	Severe weather	Federal statutes (NEPA and various federal statutes)	Unclear (voluntary dismissal on grounds of mootness)	
Watson v. U.S. Army Corps of Eng'rs	1 (NEPA-based challenge)	Actions seeking adaptation measures	2019	S.D. Miss.	Memorandum Opinion and Order Granting Defendants' Motion to Dismiss, Watson v. U.S. Army Corps of Eng'rs, No. 1:19-cv-989-LG-RPM (S.D. Miss. Sept. 14, 2021)	Federal government agencies	State official	Flooding	Federal statutes (NEPA, APA)	Win for D	
Harrison Cnty. v. Mississippi River Comm'n	1 (NEPA-based challenge)	Actions seeking adaptation measures	2019	S.D. Miss.	Memorandum Opinion and Order Granting Defendants' Motion to Dismiss and Denying Plaintiffs' Motion for Leave to File Second Amended Complaint, Harrison Cnty. v. Mississippi River Comm'n, No. 1:19cv986-LG-RPM (S.D. Miss. Sept. 13, 2021)	Federal government agency	Three cities, two counties, two organizations	Flooding	Federal statutes (NEPA, Magnuson-Stevens Act)	Win for D	
U.S. Sugar Corp. v. Semonite	1 (NEPA-based challenge)	Reverse Impact Assessment	2019	S.D. Fla.	U.S. Sugar Corp. v. Semonite, 2019 WL 10966205 (S.D. Fla. Dec. 19, 2019) (granting motion to dismiss)	Federal government agency	Private corporation	Unclear (changes from climate change)	Federal statutes (NEPA, APA)	Win for D	
No Mid-Currituck Bridge Concerned Citizens v. North Carolina Dep't of Transp.	1 (NEPA-based challenge)	Reverse Impact Assessment	2019	E.D.N.C.	No Mid-Currituck Bridge Concerned Citizens v. North Carolina Dep't of Transp., 60 F.4th 794 (4th Cir. 2023) (affirming grant of summary judgment in defendants' favor)	State government agency, federal government agency	Advocacy groups	Sea-level rise	Federal statutes (NEPA)	Win for D	
Save the Colorado v. U.S. Dep't of Interior	1 (NEPA-based challenge)	Reverse Impact Assessment	2019	D. Ariz.	Save the Colorado v. U.S. Dep't of Interior, 2024 WL 1756103 (9th Cir. Apr. 24, 2024) (affirming grant of summary judgment in defendant's favor)	Federal government agency	Advocacy groups	Unclear	Federal statutes (NEPA, APA)	Win for D	
Norwalk Harbor Keeper v. U.S. Dep't of Transp.	1 (NEPA-based challenge)	Reverse Impact Assessment; Actions seeking adaptation measures	2018	D. Conn.	Order on Cross Motions for Summary Judgment, Norwalk Harbor Keeper v. United States Dep't of Transp., No. 3:18-cv-0091 (D. Conn. July 8, 2019) (granting defendant's motion for summary judgment)	Federal government agency, state government agency	Advocacy group, private individuals, counties	Severe weather events	Federal statutes (NEPA)	Win for D	
Resource Renewal Inst. v. National Park Serv.	1 (NEPA-based challenge)	Actions seeking adaptation measures	2016	N.D. Cal.	Stipulated Settlement Agreement and Order, Resource Renewal Inst. v. National Park Serv., No. 4:16-cv-00688-SBA (N.D. Cal. July 14, 2017)	Federal government agency	Advocacy groups	Sea-level rise	Federal statutes (NEPA, APA, other federal laws)	Win for P (settlement)	
AquAlliance v. U.S. Bureau of Reclamation	1 (NEPA-based challenge)	Reverse Impact Assessment	2015	E.D. Cal.	AquAlliance v. U.S. Bureau of Reclamation, 287 F. Supp. 3d 969 (E.D. Cal. Feb. 15, 2018) (granting in part and denying in part respective motions for summary judgment filed by parties); 2019 WL 4199912 (dismissing appeal)	Federal government agencies	Advocacy groups	Decrease in snowpack and streamflows	Federal statutes (NEPA), state statutes (CEQA)	Win for P (notice of appeal filed but no further docs on Westlaw)	
Idaho Rivers United v. U.S. Army Corps of Eng'rs	1 (NEPA-based challenge)	Reverse Impact Assessment	2014	W.D. Wash.	Idaho Rivers United v. U.S. Army Corps of Eng'rs, 2016 WL 498911 (W.D. Wash. Feb. 9, 2016) (granting defendants' motion for summary judgment)	Federal government agency	Advocacy groups, tribe	Unclear	Federal statutes (NEPA, CWA)	Win for D	
Center for Biological Diversity v. U.S. Bureau of Land Mgmt.	1 (NEPA-based challenge)	Reverse Impact Assessment	2014	D. Nev.	Center for Biological Diversity v. U.S. Bureau of Land Mgmt., 2017 WL 3667700 (D. Nev. Aug. 23, 2017) (granting in part and denying in part parties' respective motions for summary judgment); 2017 WL 7036679 (dismissing appeal)	Federal government agency	Advocacy group	Drought	Federal statutes (NEPA)	Win for D (for the most part)	

Sabin Center Database Adaptation Subcategory							Sabin Center Database Adaptation Subcategory			Sabin Center Database Adaptation Subcategory		
Name	Category	Year Filed & Jurisdiction	Citation(s)	Defendant Type	Plaintiff Type	Climate Change Threat	Legal Basis	Result (as of July 2024)				
National Wildlife Fed'n v. U.S. Army Corps of Eng'rs	1 (NEPA-based challenge)	2014, D.D.C.	National Wildlife Fed'n v. U.S. Army Corps of Eng'rs, 170 F. Supp. 3d 6 (D.D.C. 2016) (granting defendant's motion for summary judgment)	Federal government agency	Advocacy group	Sea-level rise	Federal statutes (NEPA, CWA, ESA, Rivers and Harbors Act)	Win for D				
Central Or. Landwatch v. Connaughton	1 (NEPA-based challenge)	2013, D. Or.	Central Or. Landwatch v. Connaughton, 696 Fed. Appx. 816 (9th Cir. Aug. 23, 2017) (affirming summary judgment for defendant)	Federal government agency, municipality	Advocacy groups	Decreased water flow	Federal statutes (NEPA)	Win for D				
Kunakrana v. U.S. Army Corps of Eng'rs	1 (NEPA-based challenge)	2013, D. Alaska	Kunakrana v. U.S. Army Corps of Eng'rs, 2015 WL 3397150 (D. Alaska May 26, 2015) (granting defendants' motion for summary judgment)	Federal government agency, private corporation	Private individual	Unclear	Federal statutes (NEPA, CWA)	Win for D				
Sierra Club v. California Dep't of Water Res.	1.1 (State law NEPA equivalent-based challenge)	2024, Cal. Super. Ct.	Verified Petition for Writ of Mandate and Complaint for Declaratory and Injunctive Relief, Sierra Club v. California Dep't of Water Res., No. 24WV000008 (Cal. Super. Ct. Jan. 19, 2024)	State government agency	Advocacy groups	Sea level rise, changes in storm patterns	State statutes (CEQA and other California statutes)	Unresolved				
San Francisco Boykeeper v. California Dep't of Water Res.	1.1 (State law NEPA equivalent-based challenge)	2024, Cal. Super. Ct.	Verified Petition for Writ of Mandate, San Francisco Boykeeper v. California Dep't of Water Res., No. 24WV000017 (Cal. Super. Ct. Jan. 22, 2024)	State government agency	Advocacy groups, tribe, tribal organization	Unclear	Public trust doctrine, state statutes (CEQA)	Unresolved				
Friends of Grays Harbor and Futurewise v. Washington Dep't of Ecology	1.1 (State law NEPA equivalent-based challenge)	2021, Wash.	Friends of Grays Harbor and Futurewise v. Washington Dep't of Ecology, 24 Wash. App. 2d 1044, 2022 WL 17581802 (2022) (affirming order approving Grays Harbor County Shoreline Master Program update)	State government agency	Advocacy group	Sea-level rise	State statutes (Washington APA, Washington Shoreline Management Act)	Win for D				
Community Members for Env't Just. v. City of Minneapolis	1.1 (State law NEPA equivalent-based challenge)	2021, Minn.	Complaint, Community Members for Env't Just. v. City of Minneapolis, No. 27-CV-21-13100 (Minn. Dist. Ct. Oct. 28, 2021)	Municipality	Advocacy groups	Unclear (impacts of climate change)	State statutes (Minnesota Statute)	Win for D				
Mothers Against Toxic Hous. v. California Dep't of Toxic Substances Control	1.1 (State law NEPA equivalent-based challenge)	2021, Cal. Super. Ct.	Mothers Against Toxic Hous. v. California Dep't of Toxic Substances Control, 2024 WL 2203293 (Cal. Ct. App. May 16, 2024) (affirming judgment for defendant)	State government agency	Advocacy groups	Sea-level rise	State statutes (CEQA)	Win for D				
Claremont Canyon Conservancy v. Regents of Univ. of Cal.	1.1 (State law NEPA equivalent-based challenge)	2021, Cal. Ct. App.	Claremont Canyon Conservancy v. Regents of Univ. of Cal., 309 Cal. Rptr. 3d 580 (Cal. Ct. App. 2023) (reversing grant of peremptory writ of mandate)	State government agency	Advocacy groups	Wildfires	State statutes (CEQA)	Win for D				
Save Our Sherwoods v. U.S. Dep't of Interior	1.1 (State law NEPA equivalent-based challenge)	2019, D. Haw.	Plaintiffs' Notice of Voluntary Dismissal of Action, Save Our Sherwoods v. U.S. Dep't of Interior, No. 1:19-cv-00519 LEK-WRP (D. Haw. Apr. 13, 2020)	Federal government agency, municipality, municipal agencies	Advocacy group, private individuals	Unclear (climate change impacts)	Federal statutes (NHPA, Land and Water Conservation Fund Act), state statutes (Hawaii EPA), common law (contract law)	Unclear (voluntary dismissal by plaintiffs)				

Name		Category	Sabin Center Database Adaptation Subcategory	Year Filed & Jurisdiction	Citation(s)	Defendant Type	Plaintiff Type	Climate Change Threat	Legal Basis	Result (as of July 2024)
Citizens Comm. to Complete the Refuge v. City of Newark	1.1 (State law NEPA equivalent-based challenge)	Reverse Impact Assessment: Actions seeking adaptation measures	2019, Cal. Super. Ct.	Citizens Comm. to Complete the Refuge v. City of Newark, 289 Cal. Rptr. 3d 223 (Ct. App. 2021) (affirming denial of petition for writ of mandate)	Municipality, municipal officials	Advocacy groups	Sea-level rise	State statutes (CEQA)	Win for D	
Friends of the River v. Delta Stewardship Council	1.1 (State law NEPA equivalent-based challenge)	Reverse Impact Assessment	2018, Cal.	Verified Petition for Writ of Mandate and Complaint for Declaratory and Injunctive Relief, Friends of the River v. Delta Stewardship Council, No. 34-2018-80002901 (Cal. Super. Ct. May 25, 2018)	State government agency	Advocacy groups	Unclear (climate change effects)	State statutes (CEQA), Sacramento-San Joaquin Delta Reform Act of 2009	Unclear (no further results on WestLaw)	
Friends of Santa Clara River v. County of Los Angeles	1.1 (State law NEPA equivalent-based challenge)	Reverse Impact Assessment	2017, Cal.	Friends of the Santa Clara River v. County of Los Angeles, 2020 WL 1649191 (Cal. Ct. App. Apr. 3, 2020)	County government, county officials	Advocacy group	Drought, heat	State statutes (CEQA)	Win for D	
Sierra Club v. City of Oxnard	1.1 (State law NEPA equivalent-based challenge)	Reverse Impact Assessment	2011, Cal.	Sierra Club v. City of Oxnard, 2012 WL 7659201 (Cal. Super. Ct. Oct. 15, 2012) (granting petition for writ of mandate).	Municipality	Advocacy groups	Sea-level rise	State statutes (CEQA)	Win for P	
Ballona Wetlands Land Tr. v. City of Los Angeles	1.1 (State law NEPA equivalent-based challenge)	Reverse Impact Assessment	2010, Cal.	Ballona Wetlands Land Tr. v. City of Los Angeles, 134 Cal. Rptr. 3d 194 (Cal. Ct. App. 2011)	Municipality	Advocacy group	Sea-level rise	State statutes (CEQA)	Win for D	
Citywide Council on High Schools v. Franchise and Concession Rev. Comm. of the City of New York	1.1 (State law NEPA equivalent-based challenge)	Reverse Impact Assessment	2009, N.Y.	Citywide Council on High Schs. v. Franchise and Concession Rev. Comm. of the City of New York, 2009 NY Slip Op. 33472(U); 2009 WL 10739080 (N.Y. Sup. Ct. Dec. 21, 2009)	Municipal government agency	Advocacy groups	Unclear	State statutes (New York SEQRA)	Win for P	
No Wetlands Landfill Expansion v. County of Marin	1.1 (State law NEPA equivalent-based challenge)	Reverse Impact Assessment	2009, Cal.	No Wetlands Landfill Expansion v. County of Marin, 2014 WL 7036032 (Cal. Ct. App. Dec. 12, 2014) (reversing order granting petition for writ of mandate)	County government	Advocacy groups	Sea-level rise	State statutes (CEQA)	Win for D	
County of Butte v. Department of Water Res.	1.1 (State law NEPA equivalent-based challenge)	Reverse Impact Assessment	2008, Cal.	County of Butte v. Department of Water Res., 306 Cal. Rptr. 3d 860 (Cal. Ct. App. 2023) (affirming judgment for defendant)	State government agency	Counties	Sea-level rise	State statutes (CEQA), federal statutes (CWA, Federal Power Act), U.S. Constitution (Supremacy Clause)	Win for D	
Mountain Area Pres. Found. v. Tahoe Reg'l. Plan. Agency	2 (Other challenge to government determination)	Reverse Impact Assessment	2024, E.D. Cal.	Complaint, Mountain Area Pres. Found. v. Tahoe Reg'l Plan. Agency, No. 2:24-cv-00441 (E.D. Cal. Feb. 9, 2024)	Local government agency	Advocacy group	Unclear	State law (California & Nevada Tahoe Regional Planning Compact)	Unresolved	
Center for Biological Diversity v. Criswell	2 (Other challenge to government determination)	Actions seeking adaptation measures	2024, D.D.C.	Complaint, Center for Biological Diversity v. Criswell, No. 1:24-cv-01285 (D.D.C. May 2, 2024)	Federal government agencies	Advocacy groups	Unclear	APA and other federal statutes	Unresolved	

Name		Category	Sabin Center Database Adaptation Subcategory	Year Filed & Jurisdiction	Citation(s)	Defendant Type	Plaintiff Type	Climate Change Threat	Legal Basis	Result (as of July 2024)
Northwest Env't Def. Cir. v. Federal Emergency Mgmt. Agency	2 (Other challenge to government determination)	Actions seeking adaptation measures	2023, D. Or.	Complaint, Northwest Env't Def. Cir. v. Federal Emergency Mgmt. Agency, No. 3:23-cv-01335-SI (D. Or. Sept. 14, 2023)	Fed government agencies	Advocacy groups	Biodiversity threat	Federal statutes (NHP, ESA, APA)	Unresolved	
In re Chesapeake Bay Found.	2 (Other challenge to government determination)	Actions seeking adaptation measures	2022, Md. Cir. Ct.	Complaint, In re Chesapeake Bay Found., Nos. C-03-CV-22-005075, C-03-CV-22-005086, C-03-CV-22-005087 (Md. Cir. Ct. Dec. 16, 2022)	State government agency	Advocacy groups	Changes in rainfall patterns	Federal statutes (CWA)	Win for P (settlement)	
Northwestern Env't Advoc. v. Environmental Prot. Agency	2 (Other challenge to government determination)	Actions seeking adaptation measures	2021, W.D. Wash.	Complaint, Northwestern Env't Advoc. v. Environmental Prot. Agency, No. 2:21-cv-01637 (W.D. Wash. Dec. 7, 2021)	Fed government agency	Advocacy group	Ocean water quality degradation	Federal statutes (CWA)	Unresolved (no information available)	
New York v. Raimondo	2 (Other challenge to government determination)	Actions seeking adaptation measures	2021, S.D.N.Y.	New York v. Raimondo, 84 F.4th 102 (2nd Cir. 2023) [affirming summary judgment for defendants]	Federal government agencies	State	Ocean warming	Federal statutes (APA, Magnuson-Stevens Act)	Win for D	
In re Blue Water Baltimore, Inc.	2 (Other challenge to government determination)	Actions seeking adaptation measures	2021, Md. App. Ct.	In re Blue Water Baltimore, Inc., 260 Md.App. 246 (Md. Ct. App. Jan. 31, 2024)	State government agency	Advocacy groups	Increased precipitation	Federal statutes (CWA)	Win for D	
City of Quincy v. Massachusetts Dep't of Env't Prot.	2 (Other challenge to government determination)	Reverse Impact Assessment	2021, Mass. Super. Ct.	Memorandum of Decisions and Order on Cross-Motion for Judgment on the Pleadings, City of Quincy v. Massachusetts Dep't of Env't Prot., No. 2184CV00991, (Mass. Super. Ct. Dec. 30, 2021)	State government agency, municipal government agency	Municipality, advocacy group	Sea-level rise	State statutes (Massachusetts Wetlands Protection Act)	Win for D	
GreenRoots v. Energy Facilities Siting Bd.	2 (Other challenge to government determination)	Actions seeking adaptation measures	2021, Mass.	GreenRoots v. Energy Facilities Siting Bd., 197 N.E.3d 382 (Mass. 2022)	State government agency, private corporation	Advocacy group	Sea-level rise	State statutes (Massachusetts state utility laws)	Win for D	
Houatonic River Initiative v. Environmental Prot. Agency	2 (Other challenge to government determination)	Actions seeking adaptation measures	2021, EAB, 1st Cir.	Houatonic River Initiative v. Environmental Prot. Agency, 75 F.4th 248 (1st Cir. 2023).	Federal government agency	Advocacy group	Unclear, but likely, storms and flooding	Federal statutes (TCSA, RCRA, CERCLA)	Win for D	
Chesapeake Bay Found. v. County of Henrico	2 (Other challenge to government determination)	Actions seeking adaptation measures	2021, E.D. Va.	Notice of Settlement and Joint Motion to Stay Litigation, Chesapeake Bay Found. v. County of Henrico, No. 3:21-cv-00752 (E.D. Va. Sept. 16, 2022), 597 F. Supp. 3d 864 (E.D. Va. 2022) (granting in part and denying in part motion to dismiss)	County government	Advocacy group	Increased precipitation, severe weather events	Federal statutes (CWA)	Win for P (settlement)	
Clark v. Haaland	2 (Other challenge to government determination)	Actions seeking adaptation measures	2021, D.N.M.	Clark v. Haaland, 2022 WL 4536239 (D.N.M. Sept. 28, 2022) (granting motions to dismiss)	Federal government agencies	Private individual, advocacy group	Drought	U.S. Constitution, federal statutes (various federal laws)	Win for D	
New York v. Ross	2 (Other challenge to government determination)	Actions seeking adaptation measures	2019, S.D.N.Y.	Complaint, New York v. Ross, No. 1:19-cv-09380 (S.D.N.Y. Oct. 10, 2019); New York v. Raimondo, 2021 WL 1339397 (S.D.N.Y. Apr. 9, 2021) (ordering dismissal of action)	Federal government agencies	State	Ocean warming	Federal statutes (APA, Magnuson-Stevens Act)	Win for D	

Sabin Center Database Adaptation Subcategory			Year Filed & Jurisdiction			Citation(s)			Climate Change Threat			Legal Basis		Result (as of July 2024)
Name	Category	Actions seeking adaptation measures	Year Filed & Jurisdiction	Citation(s)	Defendant Type	Plaintiff Type	Climate Change Threat	Legal Basis	Result (as of July 2024)					
San Francisco Boykeeper v. Environmental Prot. Agency	2 (Other challenge to government determination)	Actions seeking adaptation measures	2019, N.D. Cal.	San Francisco Boykeeper v. Environmental Prot. Agency, 492 F. Supp. 3d 1030 (N.D. Cal. 2020) (vacating EPA determination finding no jurisdictional waters under CWA)	Federal government agency	Four organizations, one state	Sea-level rise	Federal statutes (CWA, APA)	Win for P (but not on climate adaptation grounds)					
New York v. Ross	2 (Other challenge to government determination)	Actions seeking adaptation measures	2019, E.D.N.Y.	Complaint, New York v. Ross, No. 2:19-cv-00259 (E.D.N.Y. Jan. 14, 2019); Order Dismissing Case, New York v. Ross, No. 2:19-cv-00259-SJF-ARL (E.D.N.Y. Jan. 14, 2019)	Federal government agencies	State government, state government agencies	Ocean warming	Federal statutes (APA, Magnuson-Stevens Act)	Win for D					
Casa Mira Homeowners Ass'n v. California Coastal Comm'n	2 (Other challenge to government determination)	Actions seeking adaptation measures; Challenges to adaptation measures	2019, Cal. Super. Ct.; 2021, Cal. Super. Ct.	Tentative Decision After Court Trial/Hearing on Petition for Writ at 10, Casa Mira Homeowners Ass'n v. California Coastal Comm'n, No. 19-CIV-04677 (Super. Ct. Cal. 2023)	State government agency	Private organization	Sea-level rise, coastal erosion	State statutes (California Coastal Act), U.S. Constitution (Takings Clause)	Unresolved, but tentative win for P at trial level (seems to be on appeal)					
Sound Action v. U.S. Army Corps of Eng'rs	2 (Other challenge to government determination)	Actions seeking adaptation measures	2018, W.D. Wash.	Sound Action v. U.S. Army Corps of Eng'rs, 2019 WL 446614 (W.D. Wash. Feb. 5, 2019) (denying defendant's motion to dismiss); 2019 WL 5617571 (W.D. Wash. Oct. 30, 2019) (granting defendant's motion for voluntary remand)	Federal government agency	Advocacy group	Sea-level rise	Federal statutes (CWA, APA)	Win for P (via voluntary remand by defendant) (but not counted as plaintiff-favorable outcome because gravamen of action is challenge to adaptation measure of shoreline armoring)					
United States v. Hercules	2 (Other challenge to government determination)	Actions seeking adaptation measures	2018, S.D. Ga.	United States v. Hercules, 2019 WL 6403416 (S.D. Ga. Nov. 27, 2019) (ordering entry of consent decree)	Private corporation (BUT: challenge was to EPA's decision to enter into consent decree)	Federal government	Flooding	Federal statutes (CERCLA)	Win for D (consent decree approved)					
Conservation L. Found. v. Massachusetts Dep't of Env't Prot.	2 (Other challenge to government determination)	Actions seeking adaptation measures	2018, Mass. Super. Ct.	Complaint, Conservation L. Found. v. Massachusetts Dep't of Env't Prot., No. 1884CV01431 (Mass. Super. Ct. May 9, 2018)	State government agency	Advocacy group	Sea-level rise, storm surge	State statutes (Massachusetts solid waste laws)	Win for D					
Center for Env't L. and Poly v. Washington Dep't of Ecology	2 (Other challenge to government determination)	Actions seeking adaptation measures	2016, Wash. Super. Ct.	Center for Env't L. and Poly v. Washington Dep't of Ecology, 468 P.3d 1064 (Wash. 2020) (holding Department did not exceed its authority or act arbitrarily or capriciously in promulgating minimum instream flow rule)	State	Advocacy group	Low flow conditions in river	Public trust doctrine, state statutes (various Washington laws)	Win for D					
Turek v. Zoning Bd. of Appeals for City of Milford	2 (Other challenge to government determination)	Actions seeking adaptation measures	2015, Conn. Super. Ct.	Turek v. Zoning Bd. of Appeals for City of Milford, 229 A.3d 737 (Conn. App. Ct. 2020) (holding zoning board properly denied variance to homeowners)	Municipal government agency	Private individuals	Sea-level rise	Local statutes (local zoning codes)	Win for D					
Aquifer Sci. v. Verhines	2 (Other challenge to government determination)	Reverse Impact Assessment	2014, N.M.	Aquifer Sci. v. Verhines, 527 P.3d 667 (N.M. Ct. App. 2022) (affirming trial court's denial of application to appropriate water from underground basin for a multi-use development)	State government agency, private individuals	Private corporation	Reduced surface water availability	State statutes (New Mexico Water Code)	Win for D (denial of plaintiff's application was driven by conservation and climate change adaptation concerns)					
Florida v. Georgia	2 (Other challenge to government determination)	Actions seeking adaptation measures	2013, U.S.	Florida v. Georgia, 592 U.S. 433 (2021) (dismissing case on grounds that Florida failed to prove by clear and convincing evidence that Georgia's alleged overconsumption of water caused collapse of Florida's oyster fisheries and seriously harmed Florida's river wildlife and plant life)	State government	State government	Drought, change in rainfall patterns	Apalachicola-Chatahoochee-Flint River Basin Compact	Win for D (but not really a failure to adapt allegation)					

Sabin Center Database Adaptation Subcategory		Year Filed & Jurisdiction	Citation(s)	Defendant Type	Plaintiff Type	Climate Change Threat	Legal Basis	Result (as of July 2024)	
Name	Category	Subcategory	Year Filed & Jurisdiction	Citation(s)	Defendant Type	Plaintiff Type	Climate Change Threat	Legal Basis	Result (as of July 2024)
Conservation L. Found. v. Environmental Prot. Agency	2 (Other challenge to government determination)	Actions seeking adaptation measures	2013, D. Mass.	Complaint, Conservation L. Found. v. Environmental Prot. Agency, No. 1:13-cv-12704-MLW (D. Mass. Oct. 24, 2013); Settlement Agreement, Conservation L. Found. v. Jackson, No. 1:11-cv-11657-MLW (D. Mass. Nov. 17, 2014)	Federal government agency	Advocacy group	Impact on ocean water quality	Federal statutes (CWA)	Settlement that amounted to win for P (three entries for this matter on Climate Case Chart); initial win for D (on summary judgment); case refilled in 2013, then settled with some apparent wins for P
Residents for Sane Trash Sol., Inc. v. U.S. Army Corps of Eng'rs	2 (Other challenge to government determination)	Reverse Impact Assessment; Actions seeking adaptation measures	2012, S.D.N.Y.	Residents for Sane Trash Sol., Inc. v. U.S. Army Corps of Eng'rs, 31 F. Supp. 3d 571 (S.D.N.Y. 2014) (granting summary judgments for defendants)	Federal government agency, municipal government agency	Advocacy group, state government official	Flooding	Federal statutes (CWA)	Win for D
United States v. Miami Dade Cnty., Fla. (Intervenor: Biscayne Bay Waterkeeper)	2 (Other challenge to government determination)	Actions seeking adaptation measures	2012, S.D. Fla.	United States v. Miami-Dade Cnty. Fla., 2014 WL 7534027 (S.D. Fla. Apr. 10, 2014) (granting motion to enter consent decree)	Federal state government, and county government	Advocacy group (Intervenor)	Sea-level rise	Federal statutes (CWA), state statutes (Florida Air and Water Pollution Act)	Win for D (because consent decree not revised to address climate impacts)
WaterWatch of Or. v. Water Res. Dep't	2 (Other challenge to government determination)	Actions seeking adaptation measures	2011, Or.	WaterWatch of Or. v. Water Res. Dep't, 527 P.3d 1 (Or. Ct. App. 2023) (affirming Department's order allowing extensions of time to perfect water rights)	State government, municipal government agencies	Advocacy group	Low river flows	State statutes (Oregon statutes)	Win for D
United States v. Metropolitan Water Reclamation Dist. of Greater Chicago	2 (Other challenge to government determination)	Actions seeking adaptation measures	2011, N.D. Ill.	United States v. Metropolitan Water Reclamation Dist. of Greater Chicago, 792 F.3d 821 (7th Cir. 2015) (affirming approval of consent decree)	Municipal water agency	Advocacy group (Intervenor)	Severe and more frequent storms	Federal statutes (CWA)	Win for D
Conservation L. Found. v. Environmental Prot. Agency	2 (Other challenge to government determination)	Actions seeking adaptation measures	2011, D. Mass.	Complaint, Conservation L. Found. v. Jackson, No. 1:11-cv-11657 (D. Mass. Sept. 19, 2011); Settlement Agreement, Conservation L. Found. v. McCarthy, No. 1:11-cv-11657-MLW (D. Mass. Nov. 17, 2014)	Federal government agency	Advocacy group	Impact on ocean water quality	Federal statutes (CWA)	Settlement that amounted to win for P (three entries for this matter on Climate Case Chart); initial win for D (on summary judgment); case refilled in 2013, then settled with some apparent wins for P
Conservation L. Found. v. Environmental Prot. Agency	2 (Other challenge to government determination)	Actions seeking adaptation measures	2010, D. Mass.	Complaint, Conservation L. Found. v. Environmental Prot. Agency, No. 1:10-cv-11455-MLW (D. Mass. Aug. 24, 2010); Settlement Agreement, Conservation L. Found. v. McCarthy, No. 1:11-cv-11657-MLW (D. Mass. Nov. 17, 2014)	Federal government agency	Advocacy group	Impact on ocean water quality	Federal statutes (CWA)	Settlement that amounted to win for P (three entries for this matter on Climate Case Chart); initial win for D (on summary judgment); case refilled in 2013, then settled with some apparent wins for P

Sabin Center Database Adaptation Subcategory		Year Filed & Jurisdiction		Citation(s)		Defendant Type		Plaintiff Type		Climate Change Threat		Legal Basis		Result (as of July 2024)	
Name	Category	Year Filed & Jurisdiction	Subcategory	Citation(s)	Defendant Type	Plaintiff Type	Climate Change Threat	Legal Basis	Result (as of July 2024)						
Tiede v. Collier	3 (Government failure to take adaptive measure)	2023, W.D. Tex.	Actions seeking adaptation measures	First Amended Complaint, Tiede v. Collier, No. 1:23-cv-01004 (W.D. Tex. May 7, 2024)	State official	Private individual, advocacy groups	Excessive heat	U.S. Constitution (8th Amendment)	Unresolved						
Shafer v. Sanchez	3 (Government failure to take adaptive measure)	2022, S.D. Tex.	Actions seeking adaptation measures	Shafer v. Sanchez, 2024 WL 1434441 (S.D. Tex. Apr. 3, 2024) (dismissing most claims on grounds of mootness or sovereign immunity)	State official	Private individual	Excessive heat	U.S. Constitution (8th Amendment)	Win for D						
Cole v. Collier	3 (Government failure to take adaptive measure)	2014, S.D. Tex.	Actions seeking adaptation measures	Cole v. Collier, 2018 WL 2766028 (S.D. Tex. June 8, 2018) (approving class settlement)	State officials	Private individuals	Excessive heat	U.S. Constitution (8th Amendment)	Win for P (settlement reached)						
Illinois Farmers Ins. Co. v. Metropolitan Water Reclamation Dist. of Greater Chicago	3 (Government failure to take adaptive measure)	2014, Ill. Cir. Ct.	Insurance cases	Complaint, Ill. Farmers Ins. Co. v. Metropolitan Water Reclamation Dist. of Greater Chicago, No. 2014CH06608 (Ill. Cir. Ct. Apr. 16, 2014)	Various municipalities	Insurance company	Increased precipitation, flooding	U.S. Constitution (Takings Clause); state constitution (Illinois Constitution); state statutes (Illinois statutes)	Unclear (voluntary dismissal by plaintiffs on June 3, 2014)						
Wohl v. City of New York	3 (Government failure to take adaptive measure)	2012, N.Y. Sup. Ct.	Actions seeking money damages for losses	Wohl v. City of New York, 3 N.Y.S.3d 287 (N.Y. Sup. Ct. 2014) (granting defendant's motion for summary judgment)	Municipality, municipal government agency	Private individuals	Increased precipitation	Common law (negligence)	Win for D						
Cangemi v. Town of E. Hampton	3 (Government failure to take adaptive measure)	2012, E.D.N.Y.	Actions seeking money damages for losses	Cangemi v. Town of E. Hampton, 374 F. Supp. 3d 227 (E.D.N.Y. 2019) (granting defendant's motion for judgment as a matter of law), affirmed in Cangemi v. United States, 13 F.4th 115 (2nd Cir. 2021)	Municipality, federal government	Private individuals	Sea-level rise	Common law (nuisance and trespass)	Win for D						
Tzakis v. Berger Excavating Contractors	3 (Government failure to take adaptive measure)	2009, Ill. Cir. Ct.	Actions seeking money damages for losses	Order Re PDR Decision as to LPES and Other Issues, Tzakis v. Berger Excavating Contractors, No. 2009CH6159 (Ill. Cir. Ct. Apr. 3, 2015) (dismissing claims against municipal defendants)	Municipalities, private corporations	Private individuals	Increased precipitation, flooding	U.S. Constitution (Takings Clause); common law; state constitution; state statutes	Win for D						
St. Bernard Par. Gov't v. United States	3 (Government failure to take adaptive measure)	2005, Fed. Ct. of Claims	Actions seeking money damages for losses	St. Bernard Par. Gov't v. United States, 887 F.3d 1354 (Fed. Cir. 2018) (reversing Court of Federal Claims ruling that Fifth Amendment taking occurred)	Federal government	Louisiana parish, private individuals	Severe storms	U.S. Constitution (Takings Clause)	Win for D						
In re Katrina Canal Breaches	3 (Government failure to take adaptive measure)	2005, E.D. La.	Actions seeking money damages for losses	In re Katrina Canal Breaches, 616 Fed. Appx. 659 (5th Cir. May 28, 2015) (affirming dismissal of action)	Federal government	Private individuals	Severe storms	Federal statutes (admiralty law, federal statutes)	Win for D						
Stewart v. Energy Corp.	4 (Private entity failure to take adaptive measure)	2021, La.	Actions seeking money damages for losses	Stewart v. Energy Corp., 35 F.4th 930 (5th Cir. 2022) (per curiam) (affirming district court's decision to remand to state court)	Private corporations	Private individuals, private corporations	Severe storm	Common law (negligence, strict liability, contract law)	Unresolved						
Conservation L. Found. v. Shell Oil Co.	4 (Private entity failure to take adaptive measure)	2021, D. Conn.	Actions seeking adaptation measures	Conservation L. Found. v. Shell Oil Co., 628 F. Supp. 3d 416 (D. Conn. 2022) (granting in part and denying in part defendant's motion to dismiss)	Private corporation	Advocacy group	Severe storms	Federal statutes (CWA, RCRA)	Unresolved						

Name		Category	Sabin Center Database Adaptation Subcategory	Year Filed & Jurisdiction	Citation(s)	Defendant Type	Plaintiff Type	Climate Change Threat	Legal Basis	Result (as of July 2024)
Conservation L. Found. v. Gulf Oil Ltd. P'ship	4 (Private entity failure to take adaptive measure)	Actions seeking adaptation measures	2021, D. Conn.	Conservation L. Found. v. Gulf Oil Ltd. P'ship, 2022 WL 4585549 (D. Conn. Sept. 29, 2022) (granting defendant's motion to dismiss for lack of standing without prejudice)	Private corporation	Advocacy group	Severe storms, sea-level rise	Federal statutes (CWA, RCRA)	Unresolved	
Animal Legal Def. Fund v. Foster Poultry Farms	4 (Private entity failure to take adaptive measure)	Actions seeking adaptation measures	2020, Cal.	Complaint, Animal Legal Def. Fund v. Foster Poultry Farms, No. 20-cv-02493 (Cal. Super. Ct. Sept. 2, 2020)	Private corporation	Advocacy group	Drought	State constitution (California Constitution)	Unresolved (in discovery); demurrer denied	
Public Watchdogs v. Southern Cal. Edison Corp.	4 (Private entity failure to take adaptive measure)	Actions seeking adaptation measures	2019, S.D. Cal.	Public Watchdogs v. Southern Cal. Edison Corp., 984 F.3d 744 (9th Cir. 2020) (affirming dismissal of action)	Private corporations, federal government agency	Advocacy group	Sea-level rise	Federal statutes (APA), common law (nuisance and strict liability)	Win for D	
York Cnty. v. Rambo	4 (Private entity failure to take adaptive measure)	Actions seeking adaptation measures	2019, N.D. Cal.	Complaint, York Cnty. v. Rambo, No. 3-19-cv-00994-RS (N.D. Cal. Feb. 22, 2019)	Utility and its directors	Bond investors (private and public)	Wildfires	Federal statutes (federal securities laws)	Unresolved	
Von Oeyen v. Southern Cal. Edison Co.	4 (Private entity failure to take adaptive measure)	Actions seeking money damages for losses	2018, Cal. Super. Ct.	Complaint, Von Oeyen v. Southern Cal. Edison Co., No. 19-st-cv-04409 (Cal. Super. Ct. Feb. 8, 2019)	Utility, private corporation	Private individuals	Wildfires	State statutes; common law (nuisance)	Unresolved	
Barnes v. Edison Int'l	4 (Private entity failure to take adaptive measure)	Actions seeking money damages for losses	2018, C.D. Cal.	Barnes v. Edison Int'l, 2022 WL 822191 (9th Cir. Mar. 18, 2022) (affirming dismissal of action)	Utility	Investors	Wildfires	Federal statutes (federal securities laws)	Win for D	
Conservation L. Found. v. Shell Oil Prod. U.S.	4 (Private entity failure to take adaptive measure)	Actions seeking adaptation measures	2017, D.R.I.	Conservation L. Found. v. Shell Oil Prod. U.S., 2020 WL 5775874 (D.R.I. Sept. 28, 2020) (granting in part and denying in part defendant's motion to dismiss)	Private corporation	Advocacy group	Severe storms, sea-level rise	Federal statutes (CWA, RCRA)	Unresolved	
Conservation L. Found. v. ExxonMobil Corp.	4 (Private entity failure to take adaptive measure)	Actions seeking adaptation measures	2016, D. Mass.	Conservation L. Found. v. ExxonMobil Corp., 3 F.4th 61 (1st Cir. 2021) (vacating district court's stay order)	Private corporation	Advocacy group	Severe storms	Federal statutes (CWA, RCRA)	Mass case settled in win for P	
Pietrangolo v. S & E Customize It Auto Corp.	4 (Private entity failure to take adaptive measure)	Actions seeking money damages for losses; Insurance cases	2013, N.Y. Civ. Ct.	Pietrangolo v. S & E Customize It Auto Corp., 972 N.Y.S.2d 146 (N.Y. Civ. Ct. 2013)	Private corporation	Private individual	Severe storm	Common law (negligence)	Win for D	