



TRENDS IN
CLIMATE CHANGE
LITIGATION

ENVIRONMENTAL
JUSTICE LITIGATION
STRATEGIES

PLASTICS, PFAS,
AND WATER
LITIGATION

VOL 36, NO 1
SUMMER 2021

natural resources & environment

A PUBLICATION OF THE AMERICAN BAR ASSOCIATION | SECTION OF ENVIRONMENT, ENERGY, AND RESOURCES



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Natural Resources & Environment (ISSN: 0882-3812) is published quarterly as a service to its members by the Section of Environment, Energy, and Resources of the American Bar Association, 321 North Clark Street, Chicago, Illinois 60654-7598. Periodicals postage paid at Chicago, Illinois, and additional mailing offices. Any member of the ABA may join the Section by paying its annual dues of \$75. Subscriptions are available to nonlawyers for \$100 a year. Back issues published two years ago and earlier may be purchased from William S. Hein & Co., Inc., <https://www.wshein.com/contact>. More current issues may be available from the ABA Service Center, 800/285-2221. Requests to reprint articles should be sent to ABA Publishing at copyright@americanbar.org; all other correspondence and manuscripts should be sent to the *NR&E* Managing Editor, Lori Lyons, at lori.lyons@americanbar.org. For more information, visit www.ShopABA.org and ambar.org/nre. The opinions in *Natural Resources & Environment* are those of the authors and shall not be construed to represent the policies of the American Bar Association; the Section of Environment, Energy, and Resources; or the employers of the authors. POSTMASTER: Send all changes of address to *Natural Resources & Environment*, 321 North Clark Street, Chicago, Illinois 60654-7598. Copyright © 2021 American Bar Association.

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natural resources & environment

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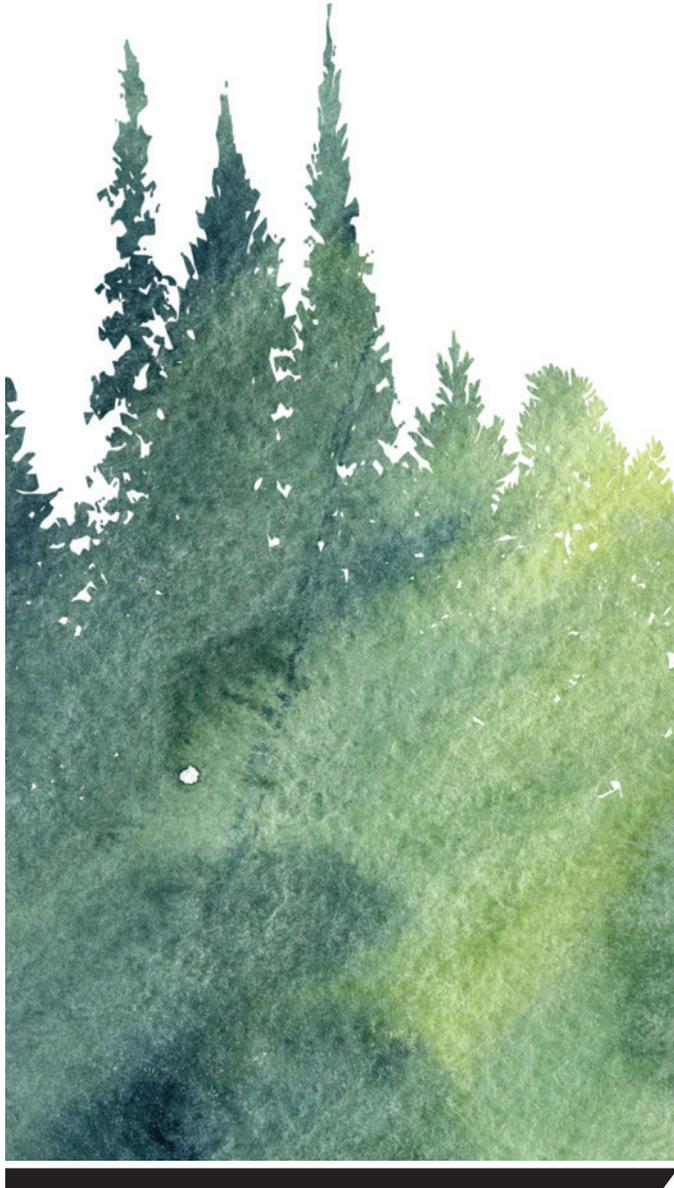
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vantage point

Scott B. Grover, *Issue Editor*

Litigation. A word that, for the non combatively inclined, typically sucks air out of the room. Not to throw shade on that strong segment of our membership, who carry the solemn responsibility of prosecuting and defending their clients' interests in courtrooms and before commissions and agencies (including the brave Texas fellow unable to remove the cat filter from his Zoom feed, but nonetheless prepared to go forward), but if things happen the way lawmakers and regulators and dealmakers intend, most

of the time we do not get to verified pleadings in the matter of *A v. B*. How often do things happen to plan? Exactly.

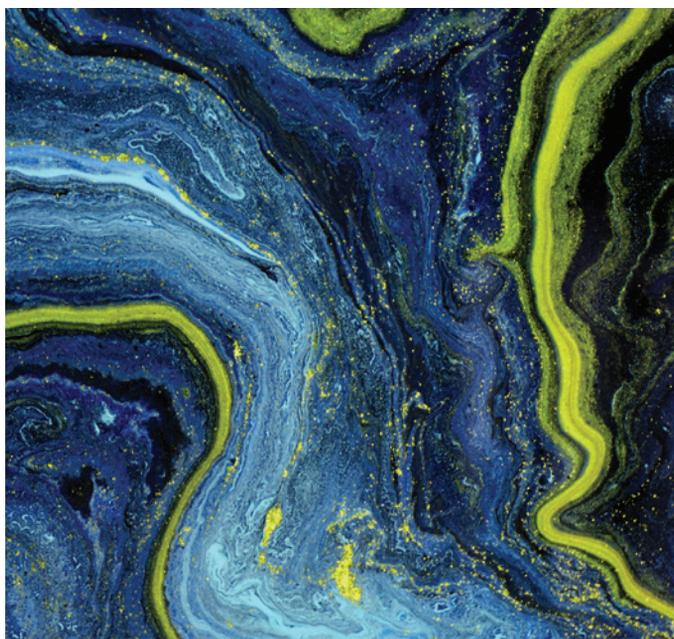
In 2013, I wrote an Insights piece for *Natural Resources & Environment* about an unprecedented federal lawsuit brought by the Federal Energy Regulatory Commission (FERC) against the Idaho Public Utilities Commission for alleged failure to comply with requirements of the Public Utility Regulatory Policies Act of 1978 (PURPA). See *FERC Sues State Commission for PURPA Failings*, 28 Nat. Resources & Env't 48 (Summer 2013). I raise this because, in a fit of serendipity, I found in my inbox one afternoon this past spring—in the midst of the editorial process for this issue—a petition at FERC against a client's public utility commission requesting the same sort of action that FERC had taken in 2013. Always nice to be able to pull guidance instantly from your shelf for those interested in a better understanding of recent developments. (Bonus if it is your own work.)

Will this issue hold true for you as well and provide insight and guidance into areas where you find yourself, now or in the future, battling over a proper application of law, regulation, policy, or contract term? The contributors, and the editors of *Natural Resources & Environment*, certainly hope so, and together we present a wide-ranging selection of topics that speak to issues both familiar and emerging. On the former front, you will find an assessment of trends in climate change litigation during the last five years, as well as a thorough review of the influence that litigation is having on the relationship between the rulemaking process and judicial review of Clean Air Act regulations. This issue also features an in-depth look at open meetings laws, and how compliance with the applicable standards can be an effective means of involving oneself in the public process and ensuring that the participatory rights are being protected.

Also before you is a report on recent advancements in litigation strategies in the area of environmental justice, with state laws now proving to offer an alternative, and perhaps more effective, strategy for aggrieved parties. This issue explores plastics litigation as a substitute for the dearth of comprehensive legislative attention, along with developments in the field of per- and polyfluoroalkyl substance litigation. Finally, there is trio of articles focused on various aspects of water-related litigation: deficiencies in NPDES permitting program under the Clean Water Act; the problem of municipal sewer overflows and the ways in which it might be mitigated; and the plight faced by freshwater fish in California and what can be done to protect them.

Before launching straight into things, however, we invite you to explore a fascinating study by several environmental litigators exploring the extent to which women have achieved equality in the environmental appellate advocacy bar. The title gives you some sense of what to find, but I assure you, the depth of the analysis and the challenges offered keep it well out of spoiler territory and make the piece a must-read for any practitioner.

As always, we hope there is something for everyone in this issue. Be it enjoyment, a spark, or given the spirit of the theme, a competitive edge against your opposition. Thanks for reading. 🍷



perspectives

Sometimes We Need to Look Back to See What's Needed Going Forward

Lee DeHihns

As the title of this “Perspectives” column—which comes from the introduction to *Natural Resources & Environment’s* (NR&E’s) 1995 interview with Gaylord Nelson—suggests, history can teach us not just where we’ve been but where we need to go. Let’s allow you, the reader, to decide how far we have progressed.

I began my environmental legal career in mid-1974 when after law school I was employed at the U.S. Environmental Protection Agency (EPA) headquarters in Washington, D.C., serving on the staff of Administrator Russell Train and Deputy Administrator John Quarles. In 1974 the phrase climate change was not in use. National standards for managing hazardous and solid waste hadn’t been enacted, Superfund was not being discussed. The Federal Water Pollution Control Act (FWPCA) Amendments of 1972 were enacted over the veto of President Nixon, who believed that the authorization of \$18 billion for construction of publicly owned treatment works (POTW) would result in a federal budget deficit.

While tremendous strides have been made in protecting our country’s environment and public health since EPA was

formed in 1970, are we where we need to be? Conduct an evaluation of Section 101 of the Clean Water Act, 33 U.S.C 1251, to determine if the goals of the Act have been met. A hint, EPA reported to Congress in 2017 that 46% of all U.S. rivers were in poor biological condition.

In the 1995 Gaylord Nelson interview (reprinted in NR&E’s Winter 2021 issue), Mr. Nelson stated: “For many years it concerned me that the political establishment was not paying serious attention to the most important responsibility that our species has on the planet—that is, the responsibility to protect the integrity of the life-sustaining ecosystem. We have demonstrated the capacity, as no other creature has, to significantly degrade the ecosystems that sustain *all* life.”

Mr. Nelson’s views perhaps mirror the words of President Theodore Roosevelt’s Seventh Annual Message to Congress in 1907 in which he said, “The conservation of our natural resources and their proper use constitute the fundamental problem which underlies almost every other problem of our National life. But there must be a look ahead, there must be a realization of the fact that to waste, to destroy, our natural resources, to skin and exhaust the land instead of using it so as to increase its usefulness, *will result in undermining in the days of our children the very prosperity which we ought by right to hand down to them amplified and developed.*” (emphasis added)

After serving as chair of SEER in 2007–2008, I had the honor of chairing the ABA’s Presidential Task Force on Sustainable Development, in 2013–2015. The ABA House of Delegates in 2013 adopted a Sustainable Development Resolution that reaffirmed the ABA’s commitments to sustainable development to foster “the promotion of an economically, socially, and environmentally sustainable future for our planet and for present and future generations.”

We are called to action by that Resolution. If we are to follow President Roosevelt’s and Mr. Nelson’s warnings, we have much work to do. The ABA has the practical expertise to ensure that sustainability is a part of everything we do. We must educate both our profession and our society about sustainability. Finally, we have the passion for justice that is indispensable in making the sustainability movement successful.

Lawyers can contribute significantly by ensuring that their clients and collaborating entities, whether courts, government agencies, businesses, civil society organizations, or private individuals, are aware of sustainability concerns and conduct their activities consistent with relevant laws and regulations.

As Pope Francis said in his 2015 encyclical *Laudato Si*, “Once we start to think about the kind of world we are leaving to future generations, we look at things differently; we realize that the world is a gift which we have freely received and must share with others. Intergenerational solidarity is not optional, but rather a basic question of justice, since the world we have received also belongs to those who will follow us.” 

Mr. DeHihns, chair of the ABA Section of Environment, Energy and Resources (2007–2008), is a retired partner from Alston & Bird LLP in Atlanta, Georgia. He served on the ABA Board of Governors (2017–2020) and is on the board of the ABA Center for Human Rights (2020–2021). He may be reached at lee.dehahns1821@gmail.com.

features

You've Come a Long Way, Baby! Or Have You?

Shannon S. Broome, Lauren A. Bachtel, Jennifer B. MikoLevine,
and Richard M. Pavlak

Much has been made of challenges the legal profession has encountered in its efforts to advance women, notwithstanding that women and men have graduated from law schools (including top law schools) in equal numbers for over two decades. To be sure, achieving law school gender parity was a significant accomplishment, given that numerous publications have reported that women represented under 10% of law students in 1970. By 2016, the women enrolled in law school moved past 50% for the first time, according to law school ranking services, meaning that more women were enrolled in law school than men. In terms of practicing lawyers, in 2019, the National Association of Women Lawyers Survey on Retention and Promotion of Women in Law Firms reported that women made up 47% of associates. Good news! The problem is that the same report shows most women are not advancing to partnership ranks, and the ones that do are not being rewarded in terms of equity partnership (i.e., they are made “nonequity” or “salaried” partners). Even when women “make it” into law firm equity partner ranks, their compensation significantly lags that of the majority of male counterparts.

Various articles and reports have explored the disparities among men and women in oral advocacy. For example, one showed that men overwhelmingly dominate U.S. Supreme Court advocacy in both the public and private sectors, notwithstanding the availability of female advocates. The number of female oral advocates at the Supreme Court has remained relatively flat in terms of absolute numbers and percentages, hovering around 20%. Of this already small percentage, most

female advocates come from the federal government. The number of female advocates from the private sector is astonishingly low, with several firms putting forward *no* female oral advocates at the Supreme Court in the past five years according to the legal news service Law360.

When the authors of this article entered law school, we had no real conception of biases or discrimination in the profession. And, of course, we'd all studied the reliable sources of what practicing law would be like—*L.A. Law* and *Ally McBeal!* Joking aside, we thought environmental law would be at least as egalitarian as other areas of the law because the environmental bar is composed of a large number of female lawyers, many of whom are partners or hold senior-level government positions.

In environmental law, many cases are argued at the appellate level, and they often encompass highly technical issues that require the expertise of environmental, rather than appellate, lawyer specialists to advocate clearly with the court. Thus, we assumed, given the successful careers of so many female environmental lawyers, and the generally egalitarian ideals of the environmental bar, our numbers would be better than other fields of law, and we could show the rest of the bar how to achieve equality in practice. This article presents the results of our test of the hypothesis that women are experiencing equality in the environmental bar.

Methodology and Analytical Goal

We selected the number of women arguing appellate environmental cases as a good point of comparison for how the

general appellate bar reports on gender disparity. Why is argument important? Because it is a clear indicator of who is “lead” and how the external audience attributes a “win” in a given case. Examining only Supreme Court arguments provided an insufficient dataset, as the Supreme Court hears so few environmental cases. Therefore, we selected the U.S. Court of Appeals for the D.C. Circuit, believing it might provide a larger dataset for the analysis. The D.C. Circuit has concurrent or exclusive jurisdiction in many cases involving review of federal agency actions.

A great number of federal statutes give the D.C. Circuit jurisdiction to review the actions of a wide variety of administrative agencies. We further focused our analysis on Clean Air Act (CAA) cases from 1994 to the present. We had already assembled data on these cases to examine how the D.C. Circuit applies deference when agency actions are challenged, and the major amendments to the CAA in 1990 resulted in a major uptick of litigation starting in about 1994. This yielded a dataset of 192 cases with 652 attorneys identified who had presented oral argument. We included all parties who argued in a given case—petitioners, respondents, petitioner-intervenors, and respondent-intervenors. For simplicity, we counted arguers equally, though the primary parties in a case (petitioner and respondent) typically are allotted more argument time than intervenors. To identify the names of the attorneys who presented oral arguments, we used the federal court electronic record system, PACER, to download required forms that contain this information. In analyzing the data, and based on our own experiences in these cases, we assumed that the attorneys who presented oral argument took a primary litigation role in the case, i.e., “led” the litigation.

We assigned gender to attorneys based on gender most commonly associated with each attorney’s first name, and double-checked those associations using LinkedIn, online photos, and our personal knowledge of the advocates. (Due to the limited ability to gather such data, gender assignments only include the gender binary of male and female, without inclusion of other gender or sex identities.) In addition to tracking gender data, we assigned each attorney to an employer type, e.g., federal or state government and the private sector (which we subdivided into law firms and environmental nongovernmental organizations, such as the Sierra Club, EarthJustice, and Natural Resources Defense Council).

As a check on the trends we observed in the D.C. Circuit, we also conducted preliminary data collection and analyses in the U.S. Court of Appeals for the Fifth Circuit and the Supreme Court. We selected the Fifth Circuit because of the concentration of industrial operations in the states that comprise that circuit, which we assumed would offer a more significant dataset of environmental cases than we might find in other circuit courts. For the Fifth Circuit, we analyzed the attorneys that argued CAA cases from 2002–2020. We also analyzed the arguers for all environmental cases from 2011–2020 at the Supreme Court. The data obtained from the Fifth Circuit and Supreme Court indicated similar results to the D.C. Circuit results, though the datasets were much smaller, and we considered them to validate and support the conclusions outlined below.

Findings

Figure 1 presents an overview of the results, showing the total number of women (the green line) and the total number of men (the orange line) arguing CAA cases from 1994 through 2020.

The results indicate a long-standing and continuing disparity between male and female arguers from 1994 to the present when looking at the total number of arguers from all sectors (private, governmental, and environmental non governmental organizations (ENGOS)), notwithstanding increasing numbers of female attorneys in the field. On average, from 1994 through 2020 (a 27-year period), only 25 percent of the attorneys arguing at the D.C. Circuit in CAA cases were women. From 2018–2020, we observe a slight narrowing of the gap, with the data showing 36 percent of arguing attorneys being female during that period. The line of best fit to reveal the trends indicates that overall gap narrowing only slightly. Absent data for the coming years, it is unclear if the 2018–2020 data showing improvement indicate a permanent trend and meaningful narrowing of the gender gap.

On average, from 1994 through 2020 (a 27-year period), only 25 percent of the attorneys arguing at the D.C. Circuit in CAA cases were women.

To further test whether the trends are improving, we evaluated the data based on two time periods of about the same length—from 1994 to 2005 and from 2006 to 2020. Looking at these large blocks of time, we see that 81 percent of arguers were male in the first time period, and 72 percent of arguers were male in the second, about a 10 percent improvement.



FIGURE 1: NUMBER OF WOMEN AND MEN ARGUING D.C. CIRCUIT CAA CASES (1994–2020)

The gross numbers paint a rather discouraging picture overall, so we thought it would be illuminating to analyze the data in more detail, looking at the traditional participants in

environmental cases: the federal government, the regulated industry, and the nonprofit sector. While the federal government has made meaningful progress, the other two sectors lag significantly.

While anecdotally it is clear that there are a large number of women lawyers working for ENGOs, the data indicate they are not being selected by their employers to lead cases.

Figure 2 focuses solely on attorneys representing the federal government in D.C. Circuit CAA cases from 1994 through 2020. The federal government has traditionally served as a “training ground” for appellate advocates and in substantive environmental law because the Department of Justice (DOJ) represents the EPA in litigation. Specifically, the Environment and Natural Resources Division (ENRD) provides opportunities for more junior lawyers to gain experience in trial and in appellate advocacy, and in many cases, these attorneys eventually leave the government and bring that advocacy experience to the private sector, where, the theory goes, they are able to continue their advocacy in leading roles. If this were the case, then we would expect to see greater numbers of female advocates in the government sector than in the private sector initially and then would expect both groups to show progress.

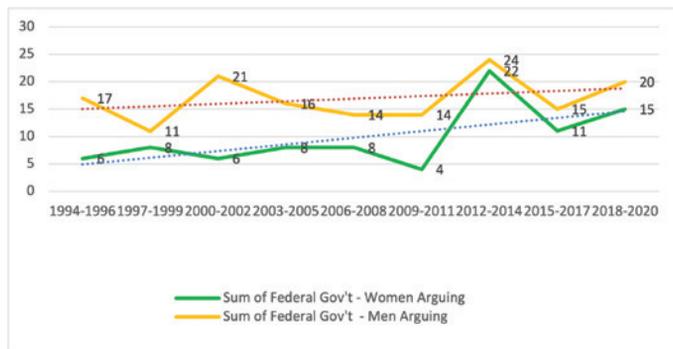


FIGURE 2: NUMBER OF FEDERAL GOVERNMENT WOMEN AND MEN ARGUING D.C. CIRCUIT CAA CASES (1994–2020)

The DOJ’s results reveal less gender disparity initially and over time than is observed in the overall trend. While a disparity between male and female arguers remains, the trendlines on Figure 2 indicate a meaningful and consistent narrowing of the gap between men and women, a hopeful sign that this training

ground is providing the private and ENGO sectors experienced advocates to improve the trendline.

Figure 3 focuses solely on attorneys representing ENGOs, which is a part of the private sector but includes, generally, nonprofit entities. We assumed initially that the generally “liberal” positions on the environmental policy front promoted by ENGOs would translate to gender equity among ENGO practitioners. But the data did not bear out that assumption. ENGOs show sharp disparities between the opportunities they are affording men and women to lead environmental cases as evidenced by D.C. Circuit CAA arguments. This is surprising in that these organizations have a presence in virtually every case and argument before the D.C. Circuit. What is even more surprising is that the gap is *widening* in the ENGO sector. While anecdotally it is clear that there are a large number of women lawyers working for ENGOs, the data indicate they are not being selected by their employers to lead cases. What is unique about ENGOs is that the ENGO itself is typically the client, in contrast to the situation in law firms. In other words, ENGOs cannot claim that “client preference” drove their selection of leadership in a given case.

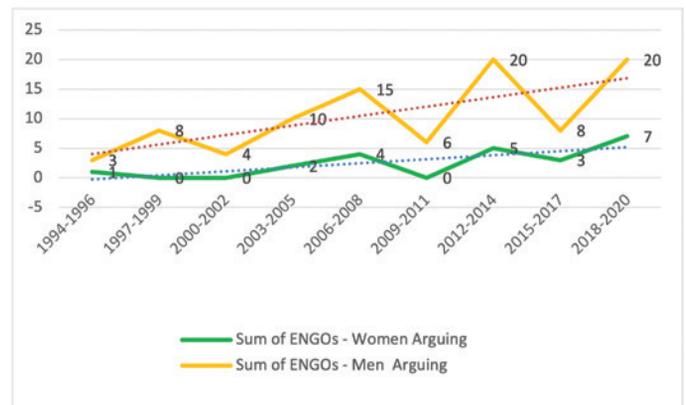


FIGURE 3: NUMBER OF ENGO WOMEN AND MEN ARGUING D.C. CIRCUIT CAA CASES (1994–2020)

Finally, Figure 4 focuses solely on attorneys representing the private sector (i.e., law firms typically retained by private clients). Like ENGOs, the figure depicts a relatively steady gap in representation by women and men, particularly when one focuses on the trendline. Since 2017, there has been a steady narrowing of the gap. Prior to 2017, however, the numbers reveal a consistent and sharp disparity, with men being favored over women for arguments and leading roles in environmental cases. We observe a narrowing of the gap that occurred in 2006–2008, only to have the gap widen dramatically between 2009 and 2016. This period aligns with the Obama administration, during which several new regulatory programs were launched under the CAA, providing an opportunity for the private sector to put forth females to lead cases. Remarkably, for the period 2012–2014, there were 32 male private firm arguers compared with only five females. With respect to ENGOs, which were also present in these same cases, typically on the opposing side from the regulated entities, like the law firm private sector, they similarly showed a sharp and expanded disparity between men and women in this time frame. The ENGO

data actually reveal a *worse* overall trend of representation for women than that of the law firm private sector, and combined Figures 3 and 4 indicate that much work remains to achieve equality in the private sector of the environmental advocacy bar.

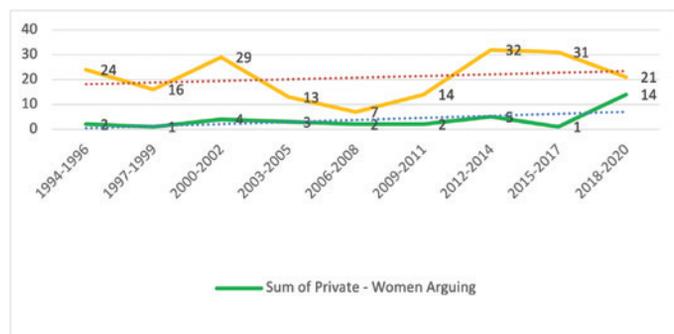


FIGURE 4: NUMBER OF PRIVATE SECTOR WOMEN AND MEN ARGUING D.C. CIRCUIT CAA CASES (1994–2020)

How Can the Results Be Explained?

For the writers, the most obvious, and troubling, explanation for the gender disparity revealed by our analysis is that environmental attorneys, their employers, and their clients are not immune from the implicit biases that permeate our society, biases that must be understood to play a significant role in the gender gap. As outlined below, these unintentional preferences take many forms, including affinity bias, which is a bias in favor of those who are similar to you in identity, interests, and background. The implicit bias of the “likeability trap” that plagues women surely plays a role in the gender gap as well: Women must be likable (i.e., meet unconscious social expectations of being nurturing, supportive, and deferential) to succeed, yet likeable women may be perceived as less competent (and thereby not qualified to lead a matter). This is also consistent with the widely reported “prove it” bias that women face, but their male colleagues do not, whereby they must demonstrate prior success. In short, these biases may further explain the gender disparity observed in our analysis and why women often must fight harder than men to obtain leadership roles in cases. We explain further below how these unconscious biases, and other factors, may have played into the results of our analysis.

One possible explanation that has been proffered regarding the gender disparity relates to the legal profession’s historical overall failure to advance women and provide opportunities to them, which some have concluded leads inexorably to the “unavailability” of women with the “requisite experience.” In 1991, women comprised only 21 percent of practicing lawyers. That number had increased to only 37 percent by 2020, and the ABA’s Commission on Women in the Profession found in 2015 that men were three times more likely than women to appear as lead trial counsel in civil cases. Indeed, there are simply fewer women lawyers in senior positions, particularly in private law firms, where only an estimated 20% of all equity partners are women. To the extent being lead counsel or making oral argument is an opportunity reserved for those with experience, arguably fewer women have been available historically—and

more are opting out (or being passed over) before they have acquired the necessary experience. Yet even if that is true, women have graduated from law school at rates equal to (or, recently, greater than) men for the past two decades. And anecdotally, there are numerous women attorneys practicing environmental law who now have enough substantive experience to dispel the myth that persistent gender disparity is merely the result of a “lack of available qualified women.”

Second and relatedly, some observers have identified an “experience Catch-22” or “chicken and egg” situation as a contributing factor to gender disparity. The more arguments an attorney has under his or her belt, the better an advocate he or she is perceived to be, and the more likely the attorney is to receive opportunities for future arguments. Because it is more difficult for an attorney to be tapped to be lead counsel or oral advocate in a significant case if she has never played that role before, a self-defeating feedback loop is created whereby the experienced continue to gain more experience, while those seeking to break in are passed over based on their lack of experience. This makes it appear that the decisions are based on “merit” or objective criteria, but, in reality, the women advocates are being deprived of opportunity.

Third, the “prove it” unconscious bias factor can compound the problem, in which women must go “above and beyond” to achieve the same opportunities and respect as their majority male colleagues. This “prove it” bias can manifest itself in that men who have worked extensively on a case or in the subject area may be presumed to be the ones who would argue for the client in court, whereas a woman in the exact same position would be asked to show that she has not only argued before, but also won. While analytical data on this point are not available, discussions with female attorneys during preparation of this article supported the notion that women are asked by private sector clients to prove their record to obtain the opportunity to lead and argue a case, whereas they observed that male colleagues are presumed capable. Getting that first argument gives credibility for future cases, so the harder it is to attain the first opportunity, the more difficult it is to become a repeat advocate and build one’s reputation in leading cases. And a woman whose client is unsuccessful may be penalized for the “loss” far more severely than her male counterpart.

A fourth potential explanation for the gender gap, at least in the private sector, is the entrenched tradition of business relationship ownership (the “relationship partner,” historically dominated by men) as the basis for selecting the litigating team, who leads it, and who argues the case. In the traditional law firm model, the partner in charge of a client relationship and/or who brings in the business gets to argue the case—or decide who does. Articles have highlighted how this institutional construct often advantages older male practice heads with decades of court experience. This also brings into play the unconscious “affinity bias” mentioned above—the natural tendency of people to prefer those who look and sound like them for such roles. If the decisionmaker in the law firm (or ENGO) is a white male, affinity bias would account for the tendency to gravitate toward white men. Because the government does not have “rainmakers” and operates differently, it often allows more junior lawyers

opportunities to gain experience, including through mechanisms like neutral rotational assignment systems that can remove institutional bias. This may explain why the gender gap is markedly more narrow in the government sector group.

A final possible factor to consider is the double bind women face on likeability. An oral advocate in court is someone who is assertive, clever, and sometimes oppositional to the other side's position. Women may face the unconscious bias of not being viewed as assertive enough to take on this role based on stereotypes of women in the workplace. Relatedly, women who are deemed "likeable" are also more likely to defer to their male counterparts (either to avoid conflict or because they feel heightened pressure to do so) if the men express a strong desire to take the lead in oral argument. Yet women who are assertive or "fight" for the opportunity to argue may not be "well-liked" because they do not fit societal expectations of female behavior. The paradox is that the more successful and competent a woman becomes, the less she is perceived as likeable, receiving an unconscious "minus factor" when leadership (and oral argument) decisions are made. Men, conversely, may be rewarded for displaying the same traits that are viewed as unfavorable in women, as seen in a 2018 study where experiment participants used the positive aspects of anger (conviction, power) to justify hiring an angry male attorney, and the negative aspects of anger (shrill, obnoxious) to justify *not* hiring an angry female attorney. As a practical matter, to be selected for oral argument as a woman, you probably need to be liked.

So, Where Do We Go from Here?

When I'm sometimes asked "When will there be enough [women on the Supreme Court]?" and I say "When there are nine," people are shocked. But there'd been nine men, and nobody's ever raised a question about that.

—Ruth Bader Ginsburg

Justice Ginsburg hardly expected that we would encounter an exclusively female Supreme Court, and it is similarly

unlikely that we will encounter an overwhelming presence of female advocates leading cases in the environmental bar, soon or ever, notwithstanding their excellent qualifications.

But the implicit challenge posed by Justice Ginsburg's observation remains: How can women achieve, at a minimum, parity in this profession? To make progress addressing this problem, it is important to acknowledge the gender gap and then make efforts to close it. While legal employers and female attorneys have made great strides over the past several years, much work remains to be done. A first step in improving the situation is to raise awareness of the issue and explore root causes. The next step is to establish an organized and concerted effort to further discuss and expand opportunities for female lawyers to take the lead on environmental matters and be recognized appropriately for their achievements. Myriad efforts from various actors will help: from disrupting the traditional private practice model of having the relationship partner select the team; to clients insisting on having women as their oral advocates; to the bar, its publications, and CLEs seeking out women contributors who can develop expertise and name recognition to help eliminate the "prove it" bias, to name just a few.

Not all of us are in a position to put these changes into effect. As individuals, however, we can continue our own journeys of working to overcome the unconscious biases that continue to permeate our society and play a distorting role in shaping our profession. Particularly in the environmental field, where attorneys traditionally strive to achieve for the public good, we must advocate for our female colleagues, confront our own biases, and name implicit biases when we observe them. ♻️

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PFAS Litigation

Emerging Trends for the Latest Emerging Contaminant

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Per- and polyfluoroalkyl substances (PFAS) are the latest set of contaminants to have captured the attention of scientists, regulators, and the public at large. As federal and state governments grapple with how best to regulate these chemicals, litigants are not waiting for answers, but forging ahead. This article will review current PFAS litigation; compare it with litigation over other contaminants, methyl *tert*-butyl ether (MTBE) and perchlorate; and predict how past lessons learned may influence PFAS litigation.

PFAS are a class of thousands of man-made chemicals that have been manufactured and used by a variety of industries since the 1940s. Prized for their strength and heat-resistant properties, PFAS became ubiquitous. Today, they are present in a myriad of household items, like food packaging, stain- and water-repellent fabrics, nonstick cookware, polishes, waxes, paints, and cleaning products. Outside the home, PFAS contamination in the environment can be traced to numerous sources, including releases of PFAS-containing firefighting foams at airports and military installations, and from manufacturing operations, refineries, landfills, and wastewater treatment systems. PFAS are highly mobile in the environment, persistent, and bio-accumulative, earning the moniker “forever chemicals.”

Evidence indicates PFAS can accumulate and stay in the human body for long periods of time and that exposure to certain PFAS, even at low levels, can lead to adverse health outcomes. Specifically, studies indicate that perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), two of the most used and studied PFAS, may cause reproductive, development, liver, kidney, and immunological effects. Findings to date link PFAS to low infant birth weights, immunological impacts, cancer, and thyroid disruptions.

Efforts to study PFAS are complicated by the fact that PFAS generally occur in the environment and in living organisms at extremely low levels (in the parts per trillion, or ppt), and

accurate testing and analytical technologies are still evolving. Testing is expensive, and there are few labs that can reliably test media like soil and groundwater at those levels. Further, while more testing has been done for widely used PFAS like PFOA and PFOS, there are thousands of PFAS chemicals for which little or no testing has occurred. PFOA and PFOS have been voluntarily phased out by most industrial users but persist in the environment, and their use is still mandated in certain public safety products for which acceptable substitutes are not yet available.

Federal regulatory efforts are nascent but picking up steam and are likely to accelerate during the Biden administration. In 2016, the Environmental Protection Agency (EPA) established a nonbinding health advisory level of 70 ppt in drinking water for PFOA and PFOS combined. In 2019, EPA announced its PFAS Action Plan—a blueprint approach to further study and eventually regulate PFAS. Under the Safe Drinking Water Act, EPA has for years studied PFAS levels nationwide in drinking water systems using the Unregulated Contaminant Monitoring Rule. On February 22, 2021, EPA announced it will sample for and study 29 PFAS chemicals in drinking water between 2023 and 2025 as part of the fifth iteration of that rule. EPA also affirmed its intent to move forward with setting a binding Maximum Contaminant Limit for public drinking water systems nationwide for PFOA and PFOS. Finally, while PFAS are not currently regulated as “hazardous substances” under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), there are strong indications they will be soon. In 2019, EPA issued interim guidance on addressing groundwater contaminated by PFOA and PFOS. President Biden promised during the 2020 presidential campaign to instruct EPA to regulate PFAS chemicals as “hazardous substances” under CERCLA, and all indications are that he will follow through on that pledge.

While federal efforts are still developing, states have enacted a variety of regulations. About half the states have taken action to regulate PFAS in drinking water, with approximately 16 setting binding regulatory standards and the rest nonbinding guidance. Many states, such as Michigan and Massachusetts, have set regulatory levels far below EPA's 70 ppt health advisory level. Some, like California, are taking targeted action to study entities likely to have released PFAS and to inventory public water supplies. Others are regulating not just drinking water or groundwater, but also PFAS in surface water and soil.

Water districts and utilities, which face potential PFAS liability for contaminated water supplies, are active litigants in suits against entities allegedly responsible for PFAS releases.

Airports deserve special attention as they are in a unique regulatory bind. Airports with commercial air service are required by the Federal Aviation Administration (FAA) to maintain certain levels and types of fire extinguishing agents (known as aqueous film-forming foam, or AFFF) for aircraft rescue and firefighting vehicles and operations. FAA requires that AFFF meet military specifications for performance, which generally means that it contains PFOA and PFOS. In order to ensure that an operator follows these requirements, FAA further mandates that aircraft rescue and firefighting vehicles be tested at least once per year by discharging AFFF fire-extinguishing agents. Thus, for decades airports have released PFAS-containing AFFF as part of routine testing, as well as in response to fuel fires, and FAA *still* requires airports to use AFFF despite what is now known about the risks of PFAS. FAA issued guidance in 2019 suggesting airports could use other testing methods. However, FAA has not yet identified an adequate, non-PFAS substitute for AFFF or proposed any changes to regulatory requirements, so airports remain constrained and face outsized legal vulnerabilities related to their (mandated) historical and ongoing use of PFAS.

Current (and Expected Future) PFAS Litigation

As the effects and wide use of PFAS have become more apparent, litigation has exploded. The "first wave" of PFAS litigation has generally involved suits against primary manufacturers of PFAS, a relatively small group that includes chemical giants like

DuPont and 3M. Plaintiffs (including individuals, water districts, and municipalities) have asserted personal injury and products liability claims, and a number of states (including New York, Michigan, and Minnesota) have alleged environmental damage to state natural resources, including groundwater.

Several such cases resulted in large settlements. The multidistrict litigation (MDL) in the Southern District of Ohio consolidated approximately 3,500 personal injury cases against DuPont for exposure to PFAS from its Washington Works Plant in West Virginia, where PFAS was manufactured for decades. Plaintiffs alleged that their diseases were caused by PFAS exposure from the plant and brought claims of personal injury, wrongful death, fraud, conspiracy, trespass, battery, and others. A settlement agreement was reached in 2017 for \$671 million, though post-settlement cases remain before the court. *See In re E. I. du Pont de Nemours & Co. C-8 Pers. Inj. Litig.*, No. 2:13-md-2433 (S.D. Ohio consolidated Apr. 9, 2013). In another case, Minnesota sued 3M for natural resource damages to groundwater due to releases of PFOA from 3M's Scotch Guard Plant. The parties settled for \$850 million in 2018. *See Minnesota v. 3M Co.*, No. 27-CV-10-28862 (Minn. Dist. Ct. agreement entered Feb. 20, 2018).

Water districts and utilities, which face potential PFAS liability for contaminated water supplies, are active litigants in suits against entities allegedly responsible for PFAS releases. For example, in December 2020, a group of local water districts in Orange County, California, filed a lawsuit against PFAS manufacturers and a consumer product manufacturer alleging defective design, failure to warn, trespass, nuisance, negligence, fraud, and violations of the Orange County Water District Act. The water districts seek compensatory, exemplary, and punitive damages, and an order declaring the defendants financially responsible for abating PFAS contamination of groundwater, including the aquifer within Orange County Water District's service area and contaminated wells. *See Orange Cnty. Water Dist. v. 3M Co.*, No. 30-2020-01172419-CU-PL-CXC (Cal. Super. Ct., Orange Cnty., filed Dec. 1, 2020). In Pennsylvania, a water utility sued 3M, several DuPont-affiliated entities, and a dozen other prominent PFAS manufacturers seeking reimbursement for abatement and cleanup costs and punitive damages under theories of public nuisance, strict liability, and various products liabilities claims under Pennsylvania law. *Pa.-Am. Water Co. v. 3M Co.*, No. 1:21-cv-00258-JPW (M.D. Pa. removed Feb. 11, 2021). Notably, the water utility also alleged that DuPont knew of the dangers of PFAS and intentionally and deceptively reorganized its corporate structure by transferring all potential PFAS liabilities to Chemours, an insolvent spin-off company that existed primarily to house DuPont's debts and environmental liabilities.

Another MDL is ongoing in the District of South Carolina against eight manufacturers of PFAS. This case consolidated approximately 500 products liability cases brought by states, cities, airports, and others regarding releases from AFFF. The most common claims are failure to warn of the dangers of PFOA and PFOS in AFFF and defective design. Water authorities assert defendants knew or reasonably should have known that their PFAS-laden products would result in the spill,

discharge, or release of PFOA and PFOS onto land or into water such that it would seep into their wells. The MDL is in discovery, and decisions to come will likely impact litigation over AFFF and other PFAS products going forward. *See In re AFFF Prods. Liab. Litig. MDL*, No. 2:18-mn-2873-RMG (D.S.C. consolidated Dec. 7, 2018).

“Second wave” cases against secondary manufacturers of products that contain PFAS have also seen success. For example, Michigan and two townships sued Wolverine Worldwide, a footwear company, for PFAS-related groundwater claims, settling in early 2020 for \$70 million. *Mich. Dep’t of Env’t Quality v. Wolverine World Wide, Inc.*, Case 1:18-cv-00039 (W.D. Mich. filed Jan. 10, 2018). More such suits against secondary manufacturers are expected.

A “third wave” of cases under CERCLA is lurking on the horizon if PFAS are designated as CERCLA hazardous substances. Under CERCLA, liability is strict, joint, several, and retroactive, meaning CERCLA liability may soon apply to all current and former owners and operators of facilities from which there were PFAS releases, generators of PFAS, parties that arranged for the disposal or transport of PFAS, and transporters of PFAS that selected PFAS disposal sites. Designation under CERCLA will result in an explosion of lawsuits asserting CERCLA liability against a wide variety of entities and will trigger suits among those entities for allocation of PFAS-related response costs. It is not clear that any of CERCLA’s exceptions or exemptions to liability would apply, even to entities like FAA-regulated airports that have been required to release AFFF. *See, e.g., United States v. Freter*, 31 F.3d 783, 788 (9th Cir. 1994) (construing CERCLA’s “federally permitted release” exemption narrowly and to require a release subject to a permit issued under one of 10 enumerated statutory provisions).

Lessons Learned from Other Emerging Contaminants

Litigation involving two other contaminants, methyl tertiary butyl ether (MTBE) and perchlorate, may provide insight for PFAS litigation.

MTBE and PFAS share several common attributes but also have key distinctions. MTBE was widely used as an oxygenate additive to replace lead in gasoline. Much like PFAS, MTBE is soluble in water and dissolves quickly, meaning it is conveyed in groundwater and can threaten drinking water sources in ways that make cleanup and tracing difficult. However, unlike PFAS, which are widely used in many different forms and products, MTBE was a largely uniform additive used by a limited scope of entities: gasoline producers and oil refiners. Additionally, there is no clear consensus regarding the health impacts of MTBE, while there is greater evidence of adverse health impacts associated with at least some PFAS.

Despite the uncertainty around health effects, a wide variety of plaintiffs, including individuals, water suppliers, and government entities, brought MTBE lawsuits in state and federal courts over the past few decades, mainly against manufacturers of MTBE and gasoline. Like the first wave of PFAS litigation, MTBE plaintiffs asserted claims under many theories, including natural resource damages, defective design, failure to warn,

and nuisance. While many individual claims failed for lack of standing, counties, municipalities, and water utilities were successful with claims based on a defective product theory similar to those raised in the first wave of PFAS litigation. *See S. Tahoe Pub. Util. Dist. v. Atl. Richfield Co.*, No. 999128 (Cal. Super. Ct. Aug. 5, 2002).

Much like the current PFAS MDL, the MTBE MDL *In re MTBE Products Liability Litigation*, Case No. 1:00-cv-01898, which is still ongoing in the Southern District of New York, initially involved multiple types of plaintiffs. Defendants were primarily manufacturers and industrial users of MTBE, including gasoline and energy companies. The court allowed plaintiffs to rely on a “commingled product” theory of liability, developed by the court to address the particular facts of the case, and under which suppliers of products that had mixed together could be held liable for a single indivisible injury to a contaminated water supply. Individual defendants could exculpate themselves by showing that their product could not have been among the commingled products. Following this ruling, most defendants settled, but a few remain involved in litigation. This is a tempting precedent for plaintiffs to try to employ in PFAS litigation because, if successful, the commingled product theory could lessen plaintiffs’ evidentiary burden by helping to mitigate the fact that PFAS are ubiquitous and difficult to trace back to a specific source.

One open question is how increased regulation of PFAS, including regulatory approval of substitutes where PFAS use is mandated, could impact ongoing litigation.

One open question is how increased regulation of PFAS, including regulatory approval of substitutes where PFAS use is mandated, could impact ongoing litigation. For example, MTBE is no longer used in significant quantities after the 2005 Energy Policy Act caused refiners to make a wholesale switch to ethanol. Most MTBE litigation has been resolved or is winding down, but there are a few newer cases. *See, e.g., Maryland v. Exxon Mobil Corp.*, No. 1:18-cv-00459 (D. Md. removed Feb. 14, 2018).

Perchlorate is another emerging contaminant that offers lessons for PFAS. Similar to PFAS, there is ongoing debate about what levels of perchlorate can harm human health. Like PFAS, public health concerns over perchlorate (by and large, disruptions to the thyroid gland) have increased over time, yet perchlorate is not regulated at the federal level. While PFAS

will likely be federally regulated under both the SDWA and CERCLA, EPA determined in June 2020 that it would not develop drinking water standards for perchlorate and has not indicated it will designate perchlorate as a listed hazardous substance (though this could, of course, change under the Biden administration). As with PFAS, states have enacted perchlorate standards, which vary widely. Like PFAS, considerable uncertainty exists for perchlorate regarding applicable regulatory standards, proper cleanup approaches, and costs. This uncertainty, in turn, leads to litigation risks, such as questions about what legal theories are viable for cost recovery or damages, how to tackle evidentiary problems, and long-term liability.

Practitioners evaluating litigation related to PFAS should take away this key lesson from earlier litigation regarding other emerging contaminants: Scientific uncertainty translates to litigation uncertainty.

In the absence of clear standards, public officials may act quickly to respond to perceived public health threats, but unwise action can create problems for future litigation to recover costs or damages. The Rialto-Colton basin perchlorate litigation offers a cautionary tale. When the City of Colton, California, found detectable levels of perchlorate in its drinking water, it took swift action to install treatment systems in response to public health concerns. However, the City made this decision in closed-door sessions without written analysis, inconsistent with procedures required for cost recovery under CERCLA, which ultimately prevented the City from recovering response costs from those allegedly responsible for the contamination. See *City of Colton v. Am. Promotional Events, Inc.*, No. CV 05-1479-JFW, 2006 WL 5939684 (C.D. Cal. Oct. 31, 2006).

The use of novel chemical analyses warrants additional attention when litigating over emerging contaminants like PFAS and perchlorate. In the case of perchlorate, chemical fingerprinting can be used to distinguish the source, particularly whether it was industrial, agricultural, or naturally occurring. Similarly, chemical fingerprinting could serve as a useful tool for PFAS attribution, and many environmental consultants are creating and refining methods for PFAS forensics. However, as discussed in more detail below, because this is an emerging area of science, care must be taken to ensure the evidence meets the required federal or state scientific standards for admissibility.

How Past Lessons Might Apply to PFAS Litigation

Practitioners evaluating litigation related to PFAS should take away this key lesson from earlier litigation regarding other emerging contaminants: Scientific uncertainty translates to litigation uncertainty.

Take, for example, a city with PFAS contamination in its groundwater. The city hires an expert to determine the source of that contamination. However, without a clearly established and widely accepted PFAS fingerprinting procedure, there is substantial risk that the expert's testimony and analysis will be subject to evidentiary challenges. The City of Pomona, California, experienced this when attempting to hold a particular corporation liable for perchlorate contamination in its groundwater supply. Pomona's expert witness traced the perchlorate to the corporation using a methodology the corporation later challenged as insufficiently reliable. The district court agreed. While the Ninth Circuit ultimately reversed, concluding the methodology *was* sufficiently reliable, the case nevertheless provides important lessons for prospective litigants using a developing methodology to fingerprint PFAS. See *City of Pomona v. SQM N. Am. Corp.*, 750 F.3d 1036 (9th Cir. 2014).

As another example, consider a party that discharged PFAS before the harms of PFAS contamination were fully understood, or after those harms were understood to some degree, but the contaminants were not yet subject to regulation. The lag time between discharge and regulation can lead to uncertainty in demonstrating contribution to harm, and in determining and assessing compliance with the appropriate standard of care. Previous emerging contaminant litigation is instructive on this issue as well. In actions seeking contribution for cleanup costs under CERCLA, courts have considered whether contaminants were recognized as environmental issues of national interest and whether they were regulated by EPA in determining whether a potentially responsible party's release of the contaminant violated the then-applicable standard of care. See *Lockheed Martin Corp. v. United States*, 35 F. Supp. 3d 92 (D.D.C. 2014).

Experience with previous emerging contaminants also offers lessons for mitigating PFAS litigation risks. For instance, the ability to detect perchlorate at ever lower concentrations is leading to its discovery at more and more places. Thus, a property owner might only discover perchlorate contamination years after purchase or at the time of subsequent sale. PFAS testing similarly continues to improve, with property owners finding they may have a PFAS concern now even if earlier testing did not reveal it. PFAS are even more complicated because the compounds are a broad family of chemicals, not a single compound. With the very low detection limits now available for PFAS, many entities may be reluctant to test for fear PFAS will be found everywhere. Yet, how entities look for, manage, and respond to such information can affect allocation of liability and costs in profound ways, with respect to both liability (onsite and offsite) and the costs of remediation. As one example, knowing that soil is contaminated can be key to proper management and containment. Promptly taking steps to address a groundwater plume might prevent the plume from commingling with other plumes and could drastically reduce liability and response costs.

Taking reasonable steps to manage PFAS now, even before binding federal regulation, is therefore prudent. Exercising the proper degree of care and cooperating fully with regulators can be two key components for allocation in a CERCLA cost-recovery case (two of the factors courts use to evaluate and assign cost shares). See *Env't Transp. Sys., Inc. v. ENSCO, Inc.*, 969 F.2d 503, 508 (7th Cir. 1992) (enumerating “Gore factors”). Entities that may not have a persuasive case when it comes to other factors (like amount of historical PFAS releases) may still be able to persuade a reviewing court to reduce their share of costs by showing they took prompt and appropriate steps to mitigate PFAS contamination, even in the absence of binding requirements.

Of course, PFAS litigation is also likely to differ from litigation regarding past emerging contaminants. PFAS are present in multiple media—groundwater, surface water, soil, and even air—and may ultimately be subject to multiple overlapping, if not conflicting, regulatory schemes. PFAS are also present in multiple products. This means that unlike with MTBE—where the MDL involved a handful of defendant companies—a PFAS MDL or CERCLA cost-recovery action could include hundreds of entities. Multiple pathways for exposure and multiple potential defendants will likely make it harder to show causation and link harms to a particular defendant. Litigation may also be complicated by the fact that PFAS are linked to adverse health outcomes at such low concentrations, making it difficult to establish a level of contamination that would be too low for liability.

Advice for PFAS Litigants

With this context in mind, potential PFAS defendants should proactively assess possible liability and develop policies and procedures to mitigate their exposure and safeguard their ability to recover costs in the future. This work will involve the assistance of qualified legal counsel as well as environmental consultants. While the particular strategies for each organization will necessarily vary, in general, entities should consider (1) documenting historic PFAS uses, sources, and time frames;

(2) acting to minimize future releases by using best management practices, staying up to date on government guidance and regulatory developments, and properly accounting for any contaminated water, soil, or other media; and (3) cooperating with government authorities and regulators to minimize potential liability under CERCLA and tort, including consideration of the Gore factors and the appropriate standard of care in evaluating options. Entities that envision potential CERCLA cost-recovery litigation in their future should maximize their ability to recover remediation costs by complying with the CERCLA regulations for cost recovery (the National Contingency Plan or NCP) and evaluating insurance recovery options (i.e., policies pre-1986) that may provide additional funding. They should accurately and intentionally manage public communications and be sure to appropriately disclose potential PFAS liability risk in official statements and bond documents.

The large payouts some PFAS plaintiffs have earned are attractive, and in the right circumstances, lawsuits against manufacturers of PFAS (and against manufacturers of PFAS-containing products) are certainly viable. But in some situations, liability and causation may be hard to prove. When federal regulations are in place and applied, and PFAS forensic tools and methodologies are developed and vetted in bellwether litigation, potential PFAS litigants will have much more information to apply to their legal theories and use to craft their claims. For now, would-be PFAS plaintiffs will need to weigh not only the facts of their case, but also the reality that delaying litigation may have both benefits, such as greater scientific and legal certainty, and risks, such as potential statute of limitations issues and defendant financial difficulties. 🍷

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Open Meetings Laws

A Tool for Gaining Public Participation in Environmental Decisions

Elizabeth Livingston de Calderon, Lauren Godshall, and Devin Lowell

While it's a well-established principle that public participation makes for better quality decisions in state and federal environmental permitting matters, projects with potential for negative environmental impacts often need a local go-ahead, in addition to state or federal permits. Open Meetings Law (OML) requirements typically apply to such local decisions, providing an avenue for public participation. These requirements, however, are frequently overlooked by public officials. Often inadvertently, local governments fail to provide for the full notice or participation that their state's laws require. And many stakeholders simply do not know the extent of notice and participation they are entitled to in local decision-making on projects with potentially adverse environmental impacts. The upshot is that OML enforcement actions can provide a useful tool for environmental lawyers to serve their clients and the public by challenging local decisions, reversing decisions that fail to provide an opportunity for full public engagement, and educating public bodies about their obligations so they can improve public participation going forward.

This article considers OMLs generally, highlighting the consistent aspects, as well as the range of variation, among state laws. It also considers enforcement of OMLs from a practical perspective, providing insight on what to look for, where to find it, and other key considerations when deciding whether to bring suit.

Every state has its own set of OMLs, and although they vary in scope, they all embrace the concept that public participation in governance is an accepted good. Many such laws begin with beautiful, broad language that evokes principles of democracy and equity, evoking Justice Louis Brandeis's famous quotation, "Publicity is justly commended as a remedy for social and industrial diseases. Sunlight is said to be the best of disinfectants; electric light the most efficient policeman." Louis D.

Brandeis, "What Publicity Can Do," in *Other People's Money—and How the Bankers Use It* (1914).

Generally speaking, OMLs require both public notice and public access whenever governmental bodies conduct "public business." These rules often apply at every level of government, to individual town councils, commissions, boards, public school boards and universities, and, in most states, the state legislature. These rules are, by law, intended to be broadly and liberally applied in favor of public participation. For example, California accepts that the system of "reserving a seat at the table for the public" necessarily means that "some efficiency is sacrificed for the benefits of greater public participation in government." Cal. Off. of the Att'y Gen., *A Handy Guide to The Bagley-Keene Open Meeting Act 2004*. Failure to provide an "open" meeting may be grounds for numerous remedies, including injunctive relief and voiding a decision made in violation of the law.

Open Meetings Laws in an Environmental Practice Context

Various industrial and infrastructure projects that may significantly impact the environment often require the approval of one or more public bodies at the state and local levels. These approvals may be for construction permits, land use permissions, or environmental permitting requirements. Some state governments also convene entities like pollution control boards to create and enforce environmental rules, as well as adjudicate individual violations of or exceptions to those rules. OMLs typically apply in this context too.

In Louisiana, for example, local governmental bodies exert power and discretion over a variety of permissions needed to construct an industrial facility. A parish (i.e., county) public body can approve a land use plan that allows for (or excludes) industrial activity in certain locations—as the Parish of St.

James in 2014 did for a stretch alongside the Mississippi River between New Orleans and Baton Rouge (part of an area often called “Cancer Alley”), re-designating residential zones to “Residential/Future Industrial.” Parish council and subcommittee approval may also be necessary for a proposed project to obtain a building permit, as is the case, for example, for oil and gas storage facilities in St. James Parish, which saw an increase in such project proposals after the above-noted zoning change. And parish councils also vote on contracts, including for their own environmental consultants and reports on environmental issues. Some local elected public bodies also approve or reject permits to construct and operate local hazardous waste storage or disposal facilities, as well as landfills and other waste collection or treatment operations. Other public bodies play a significant role in decisions with less obvious environmental impacts. For example, Louisiana school boards weigh in on industrial expansions when deciding whether to grant a tax subsidy under the Industrial Tax Exemption Program and forgo the property tax that facility would otherwise pay. The meetings at which these and other types of decisions are made, whether by the council, subcommittee, or other public body, are undoubtedly subject to Louisiana’s OML and present an opportunity for the public to weigh in on or challenge the actions at issue when left out of the conversation due to inadequate notice.

An exhaustive survey of the requirements of all 50 states’ OMLs is beyond the scope of this article. But cases and authority, as well as experience, can highlight consistent themes in OML compliance, including (1) what meetings trigger OMLs, (2) what are the common OML requirements and exceptions, and (3) other key considerations for enforcing OML violations. While specific rules vary from state to state, the overall idea embraced nationally is that public bodies must conduct business in the public view. This often translates to mean that elected or appointed officials must make meetings open to the public, particularly when a majority (or quorum) of the public body meets on a topic that falls under their jurisdiction. Disputes arise, however, in how the terms “public body,” “public business,” “open,” and “meeting” are defined.

In some states, for a “meeting” to occur, some sort of action or deliberation is required; merely “receiving” information does not trigger application of the rules. Under Iowa’s law, for example, “Meeting” means a gathering in person or by electronic means, formal or informal, of a majority of the members of a governmental body where there is deliberation or action upon any matter within the scope of the governmental body’s policy-making duties.” Iowa Code Ann. § 21.2. Such requirements risk loopholes, as recently seen in Alabama, where a quorum of the Public Service Commission silently attended a hearing on a matter it would later act on. *See Casey v. Beeker*, 2020 WL 5268491 (Ala. Sept. 4, 2020). The Alabama Supreme Court found no “deliberations.” In response, however, the state’s legislature has proposed amending the definition of “meeting” to include a quorum “hear[ing] deliberation” and the definition of “deliberation” to include the “presence of” a quorum rather than requiring any participation. *See Ala. HB-203* (2021).

But in other states, like Louisiana, it is enough for a public

body to “receive information” on a topic to trigger the OML. There is no need to take a vote or even hold deliberation. *See La. Rev. Stat. Ann. § 42:13* (“A meeting is also a convening of a quorum of a public body by the public body or a public official to receive information regarding a matter that the public body has supervision, control, jurisdiction, or advisory power over.”). This is not always well-understood by the very public bodies subject to these rules. In a recent example, a Louisiana parish council defended a nonpublic meeting by telling a newspaper reporter, “They were informational meetings. They weren’t deliberative meetings. I think that’s a huge difference.”—this, despite Louisiana’s plain statutory language that puts informational meetings squarely within the OML “meeting.” David J. Mitchell, *St. James Parish Officials Accused of Secret Sessions on Wanhua Chemical Plant Before Key Vote*, *The Advocate* (July 17, 2019).

What constitutes a public body can also be misunderstood. Whether a “working group” or “task force” subgroup of a committee must also comply with OMLs is a recurring question put to Louisiana’s attorney general for guidance. And courts regularly find the OML applies even when the gathering body asserts it does not. In a recent Louisiana decision, for example, a court of appeals affirmed that months’ worth of determinations by a public university’s Grievance Committee were null and void because they had been made without meeting the OML requirements. *Lewnau v. Bd. of Supervisors of S. State Univ.*, 295 So. 3d 419, 427 (La. App. 1 Cir. 2020) (“Grievance Committee is a committee or subcommittee of the Southern Board of Supervisors,” despite its members being appointed by the university president, “and therefore is a public body under the definition in La. R.S. 42:13(A)(3).”).

Meetings are also generally defined by the presence of a quorum—which is often a bare majority of the public body. What constitutes the presence of a quorum is also often misunderstood, as the setting need not be formal to trigger the law’s formal requirements. The Texas Supreme Court found that the Texas Water Commission violated that state’s OML when two of the three members continued their discussion of a wastewater treatment permit in the restroom during the recess of a public hearing. *Acker v. Tex. Water Comm’n*, 790 S.W.2d 299 (Tex. 1990). Similarly, a “walking” quorum (also called “rolling” quorum or “serial” meeting) occurs when members of a public body meet successively in numbers smaller than a full quorum to discuss public business in private. *See La. Op. Att’y Gen. No. 19–0128* (July 20, 2020). Such deliberate evasions of the law’s public purpose are, at least in some states like Texas, a basis for criminal liability. *See Tex. Gov’t Code Ann. § 551.143*. Intentional efforts to skirt OMLs may also give rise to personal liability on civil penalties, as well as other relief. *See, e.g., La. Rev. Stat. Ann. § 42:28*.

Common Open Meetings Rules: Notice, Agenda, Timing

To be “open,” as well as in fact allowing the presence of the public, a meeting of a quorum must comply with procedural rules requiring public notice—usually the posting of an agenda with the time, place, and items to be considered,

together with a specific timeframe and manner for publication. Public notice rules should be simple to follow, but they are also easy to overlook. Importantly, there is typically no “intent” requirement in these rules—the public body does not need to intend to fall short of requirements to be liable for the failure and any decision subject to reversal. Nor are specific kinds of injuries usually required. These are content-neutral procedural rules.

When reviewing alleged violations of the OMLs, courts nonetheless may be tempted to seek information about whether the public body intentionally excluded the public, or whether the exclusion particularly injured the public beyond the inherent injury to the democratic process. Such analysis is not required by law, however, and should not affect outcomes. Instead, a question of whether an OML was violated should be a factual question: Was there a meeting? If so, was the public informed and able to attend? If the answer to either point is “no,” then the harm exists. It is enough that the law was violated. The relevant OML will provide for remedies for the violation, including injunctive relief, declaratory relief, and, in some cases, civil penalties—although the bar to collecting penalties can be much higher and may require the finding of “intent” to violate that is not typically necessary. Relief can include reversing or abrogating decisions made outside the public eye or remanding an issue back for complete discussion and a new vote in a properly conducted meeting. It may also include declaratory relief or injunctive relief detailing minimum notice requirements for similar situations going forward.

Exceptions are also a common part of OMLs and so a key compliance consideration. States allow public bodies to enter closed meetings for various reasons, including for defined “executive” sessions or, for bodies that may act in a quasi-judicial capacity, the taking of evidence or testimony. But these exceptions are generally applied narrowly, consistent with overarching policy that the people’s business be conducted openly to inform the public. For example, an Illinois court found that the state Pollution Control Board could not lawfully close its hearing on an oil refinery’s tax exemptions application under the quasi-judicial evidentiary exception because the Open Meetings Act protected the public’s interest. *Roxana Cmty. Unit Sch. Dist. No. 1 v. EPA*, 998 N.E.2d 961 (Ill. App. Ct. 4th Dist. 2013).

Attorney-client privilege may also provide another exception to state OMLs and allow public bodies to enter into executive session closed to the public. But again, these exceptions typically are narrowly construed. For example, the Minnesota Supreme Court found that the Prior Lake City Council violated the state OML when it closed a meeting regarding a conditional use permit for a gravel mining operation, citing a need to discuss with its counsel a threat of litigation from the mine owner. That court found that “[i]f a public body closes its deliberations to obtain confidential advice of counsel during the course of its work on a public issue, review of its ultimate decision for arbitrariness and capriciousness is nearly impossible and the attorney-client exception could swallow the rule of public access.” *Prior Lake Am. v. Mader*, 642 N.W.2d 729, 742 (Minn. 2002).

Common Considerations for Enforcing Open Meetings Laws

Timing. If you believe that a public body has voted—for example, to allow the construction of a controversial facility (be it a prison, hazardous waste facility, or hog farm)—without adhering to the pertinent OML rules, you must act quickly. There are extremely short timelines built into the rules—in Louisiana, for example, you only get 60 days from the date of the allegedly improper meeting to file suit to void the action. La. Rev. Stat. Ann. § 42:24. In Massachusetts, where the attorney general has jurisdiction over OMLs, you have 30 days to file a complaint with the attorney general. Mass. Gen. Laws ch. 30A, § 23. Alabama, complicating things, has three different deadlines: An action under the Alabama Open Meetings Act must be brought within 60 days of the date the plaintiff knew or should have known of the alleged violation *and* must be brought within two years of the alleged violation. Ala. Code § 36-25A-10. Further, to seek invalidation of the actions taken during the meeting allegedly held in violation of the Alabama Open Meetings Act, a complaint must be filed within 21 days of the date when the actions are made public. Ala. Code § 36-25A-9(f).

Standing: You must establish standing to sue, which is typically established simply by being a member of the public excluded from a meeting that should have been open to the public, or adversely affected by another violation of the OML requirements. *See, e.g., McCrory v. Vill. of Mamaroneck Bd. of Trs.*, 181 A.D.3d 67, 73–74 (N.Y. App. Div. 2d Dep’t 2020). However, as always, check your state’s rules—Massachusetts requires “3 or more registered voters” to unite to file a civil lawsuit and bypass the state’s procedures for using the attorney general for a suspected open meetings violation. Mass. Gen. Laws ch. 30A, § 23.

Notice of meeting/agenda descriptions. Consider the timing of the notice to the public for the meeting and determine whether it adheres to the OML. Don’t be afraid to question local practices, which may have developed through benign ignorance of or indifference to the actual requirements. Typical requirements include posting advance notice of an open meeting at a specific physical (and sometimes online) location for a certain amount of time before the meeting; Texas, for example, requires that notice be posted on a bulletin board at least 72 hours before the meeting occurred. Tex. Gov’t Code Ann. §§ 551.043(a), 551.050.

An agenda’s completeness is another matter to carefully review if you have concerns about potential OML violations. While most, if not all, states require an agenda to include time, place, location, and a list of items to be considered at the meeting, states vary considerably as to what that list of items must include. Courts in both Texas and Nebraska have pointed out that discussion by the public body that exceeds the topics listed in the agenda is improper. *Sandoval v. Bd. of Regents of Univ.*, 67 P.3d 902, 905 (Neb. 2003); *Salazar v. Gallardo*, 57 S.W.3d 629, 633–34 (Tex. App. 2001). Some states require the agenda list all items on which a vote might be taken, but others do not. *See Town of Marble v. Darien*, 181 P.3d 1148, 1154 (Colo. 2008) (contrasting Colorado with Nevada open meeting law to stress that, for the former, agendas did not need to specify whether formal action would be taken).

Subsequent ratification. If you believe that a public body may have violated local OMLs, consider checking the agendas and minutes of subsequent meetings to determine whether that body ratified the decision or cured the violation at a later public meeting that did *not* violate the law. OMLs may allow for such a subsequent cure or ratification. *See, e.g., In re Acorn Energy Solar 2, LLC*, No. 2019-398, 2021 WL 139140, at 22–23 (Vt. Jan. 15, 2021). In some states, the ability of a body to ratify a decision and the procedure to do so appear in the text of the law. *See, e.g., Ariz. Rev. Stat. § 38-431.05*. In addition, an illegal action taken by a lower body or subcommittee can end up essentially “ratified” when the larger governing body acts properly on the same issue. *Deep S. Ctr. for Env’t Just. v. Council of City of New Orleans*, 292 So. 3d 973, 984 (La. App. 4 Cir. 2020) (although committee took improper vote in violation of OML, later city council vote could properly consider and vote on same issue).

Remedies. Whether you represent a citizen group looking to challenge a decision made by a public body in violation of an OML or a city council that finds itself defending an OML lawsuit, consider the available statutory remedies should the court find a violation. Declaratory judgment that the public body’s actions violated the OML provides a guide for the public and the body to prevent future violations, while injunctive relief enjoining those actions provides teeth to forcibly deter the body from violating again. Moreover, a high-profile case may even spark legislative action, as *Casey v. Beeker* has in Alabama. Depending on the jurisdiction, voiding or invalidating the action taken by the public body may also be available. In Louisiana, the only additional requirement to void an action is that the plaintiff filed a petition within 60 days of that action. La. Rev. Stat. Ann. § 42:24. Contrast that with New York, where “[a]n unintentional failure to fully comply with the notice provisions required by the OML shall not alone be grounds for invalidating any action taken at a meeting of a public body. . . .” *Fichera v. N.Y. State Dep’t of Env’t Conservation*, 159 A.D.3d 1493, 1498 (N.Y. App. Div. 2018). Attorney fees may also be available for a prevailing plaintiff.

Investigating Potential Open Meetings Laws Violations

If you suspect that a public body has violated an OML requirement, you can quickly investigate by reviewing posted meeting minutes (another common requirement of the laws) or requesting a recording of the meeting if such meetings are recorded (not a common requirement of the law, but sometimes a local practice) and comparing meeting contents to the posted notice and agenda. Also, if you are concerned that members of a public body are meeting secretly, it is important to quickly submit public records requests seeking information about any potential gathering as well as communications over email. (Opinions vary as to whether discussion on email can constitute a “meeting” and are highly dependent on the factual situation as well as local authority, but emails can provide evidence of arranged

gatherings outside of the public eye.) Look also for evidence of “walking” or “rolling” quorums (or a “serial” meeting), which involve individual members coming, going, or communicating at staggered times so that a physical quorum is never present but effectively meets by “rolling” in and out of the same gathering. Intentional participation in a rolling quorum is punishable as a misdemeanor in Texas. *See Tex. Gov’t Code § 551.143*.

If you are a member of a body subject to OMLs—or advise someone who is—take the time to independently review your state’s rules. “This is just how we do things” is never an adequate defense. Instead, ensure compliance with notice, timing, location and content rules, many of which may have changed recently in light of both the ubiquity of email and the Internet, and the COVID-19 pandemic. Many states have helpful guides available. *See, e.g., Texas Open Meetings Law Made Easy* (2017); Mass. Off. of the Att’y Gen., *Open Meeting Law Guide and Educational Materials* (2018).

COVID-19 has proven a mixed bag for compliance with OMLs. Obviously, the pandemic impacts the safety of in-person public meetings. (Judge Brandeis’s famous “disinfectant” of sunshine cannot disinfect an actual disease.) Consequently, most states have altered their public meetings law requirements, including to hold meetings by online video or telephone conference and to record meetings for later display to the public. *See N.Y. Exec. Order No. 202.1* (Mar. 2020). Sometimes, these changes heighten public access, as members of the public who were previously unable to regularly attend physical meetings can now monitor their elected officials from their home. But they may also hamper public access, including by making it easier to not take comments, as well as excluding the many people who do not have Internet access. Further, in some places, in-person “open” meetings are still happening such that people must risk their health to participate in the public process. Already, lawsuits are pending that allege that public bodies are using the pandemic to exclude the public from meetings. *See, e.g., Aubrey Wieber, Judge Hears Arguments in Lawsuit Accusing Anchorage Assembly of Violating Open Meetings Law During August COVID-19 Shutdown*, Anchorage Daily News (Dec. 5, 2020); Stephanie Bechara, *Osceola County Emergency Declaration Lawsuit in Limbo*, Spectrum News (May 30, 2020). Regardless of the pandemic, government business is constantly occurring and the “seat reserved for the public” must stay available.

In conclusion, OMLs provide an often-overlooked route to increased public participation and better decision-making. State laws vary, including on what counts as a meeting and what relief is available, but the public policy of protecting our democracy is consistent across the board. Take the time to review your state’s statute and be prepared to act quickly. ♪

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State Laws Provide New Pathways for Environmental Justice Claims

Andrea Wortzel and Viktoriia De Las Casas

Environmental justice moved to the forefront of socio-political discussions in the country in 2020, receiving increased attention from politicians, community groups, and environmental agencies. Although this concept is not new, for decades plaintiffs have struggled to find an effective means of asserting environmental justice claims. This is largely due to the lack of a stand-alone, federal environmental justice statute. Instead, plaintiffs have attempted to incorporate the environmental justice concept into claims brought under other federal environmental statutes, such as the National Environmental Policy Act (NEPA) and the Clean Air Act (CAA). But these claims have been largely unsuccessful. Plaintiffs have also attempted to rely on another, nonenvironmental federal statute—the Civil Rights Act. But given that the statute requires a showing of discriminatory intent, environmental justice claims were ineffective. A shift occurred in 2020, with plaintiffs focusing on state laws as avenues to bring environmental justice claims. This article discusses three recent cases and the changes they have created in the litigation approach for environmental justice claims.

Environmental Justice Origins

Environmental justice was born out of the civil rights movement in the 1980s. Concerns that waste and industrial facilities were consistently being sited near low-income neighborhoods and communities of color ultimately led the federal government to issue Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. 59 Fed. Reg. 7,629 (Feb.16, 1994). Although the Executive Order provided neither a definition for environmental justice nor a clear enforcement mechanism, it directed federal agencies to identify and address whether their actions would result in disproportionately high and adverse human health and environmental effects to minority and

low-income populations. That language served as the groundwork for guidance documents developed by federal agencies in subsequent years. For example, in its 1998 guidance, the Environmental Protection Agency (EPA) defined environmental justice as “[t]he fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.” EPA, *Final Guidance for Incorporating Environmental Justice Concerns in EPA’s NEPA Compliance Analyses*, § 1.1.1 (1998). The Council on Environmental Quality (CEQ) established similar guidance. See CEQ, *Environmental Justice: Guidance Under the National Environmental Policy Act* (1997).

But neither Executive Order 12898 nor the guidance documents created—nor could they create—a cause of action aimed specifically at addressing environmental justice concerns. In fact, the Executive Order acknowledged a lack of mechanisms to address such claims. 59 Fed. Reg. at 7,632. A separate memorandum accompanying the Executive Order highlighted existing statutory authorities that could be used to address environmental racism. Mem. for the Heads of All Departments and Agencies (Feb. 11, 1994) (1994 Memorandum). Those authorities included the Civil Rights Act, NEPA, and, to a lesser extent, the CAA. Following the issuance of the Executive Order, federal agencies established policies addressing environmental justice, but only CEQ enacted regulatory provisions relating to environmental justice. As a result, up until now, plaintiffs’ environmental justice claims relied upon the other federal statutes referenced in the 1994 Memorandum.

Historical Approach to Environmental Justice Litigation

Initially, plaintiffs brought environmental justice claims under Title VI of the Civil Rights Act. Under that Act, “no person . . . shall,

on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.” 42 U.S.C. § 2000d. Not only federal, but also state agencies that receive federal funding must comply with this prohibition. At first, plaintiffs attempted to rely on Title VI to rectify alleged intentional acts of environmental injustice by agencies, for example, by challenging permitting decisions that allow industrial facilities to locate and emit pollutants in minority or low-income areas, often compounding the emissions from other existing facilities. But due to an incredibly high burden of proof in Title VI cases, their claims were largely fruitless. Plaintiffs then tried bringing Title VI claims alleging acts of unintentional discrimination that led to disparate impacts, hoping for a less strict evidentiary threshold. In 2001, however, the U.S. Supreme Court ruled that a private right of action for unintentional discrimination was not available under the statute. *Alexander v. Sandoval*, 532 U.S. 275, 293 (2001). This holding meant that plaintiffs could file complaints regarding agency actions with the agency granting federal funds, such as EPA, but could not bring lawsuits against these agencies.

Environmental justice plaintiffs’ focus then shifted to bringing claims under another statute identified in the 1994 Memorandum: NEPA. In general, NEPA requires federal agencies to consider the impacts of their major actions on the human and natural environment. 42 U.S.C. § 4332(2)(C). The NEPA process obliges federal agencies to perform a detailed analysis of the project’s environmental impacts and document results in a detailed statement. 40 C.F.R. § 1500.1. Additionally, federal agencies must provide meaningful opportunities for public participation under NEPA, including an opportunity to comment on the proposed project and its environmental impacts. *Id.* The 1994 Memorandum mandated that during the NEPA process, each federal agency must make achieving environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations. But while NEPA requires a robust public participation process and a “hard look” at issues raised, it does not require any particular action or outcome on the basis of that assessment. As one court noted, NEPA only prohibits “uninformed, not unwise, agency action.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 351 (1989). For this reason, environmental justice claims asserted under NEPA have been largely unsuccessful.

Traditionally, claimants have centered NEPA challenges around a project’s impacts on water, air, or wildlife resources. Relying on NEPA, plaintiffs started augmenting their lawsuits challenging agency analysis by claiming their failure to consider the project’s impacts on low-income, minority, and other environmental justice communities. But as a statute that primarily focuses on process and not substance, these claims by themselves have only rarely resulted in the courts remanding the NEPA analysis back to the agency for further consideration. Moreover, given that environmental justice claims have often been paired with more traditional NEPA claims focusing on

impacts to natural resources, the courts have tended to remand the analysis based on those other, more familiar claims unrelated to environmental justice. *See, e.g., Standing Rock Sioux Tribe v. U.S. Army Corps of Eng’rs*, 440 F. Supp. 3d 1, 26–27 (D.D.C. 2020). Thus, in practice, NEPA has not proven an effective avenue for bringing environmental justice claims. This is not to mention the fact that NEPA requirements only apply to federal projects or federal permitting actions.

Without an enforceable environmental justice standard under federal law, states have started enacting their own laws to address the issue.

In addition to Title VI of the Civil Rights Act and NEPA, the 1994 Memorandum also pointed to the CAA as another tool to address environmental justice concerns. Under that statute, EPA has a duty to review and comment on the environmental impacts of federal agency actions. 42 U.S.C. § 7609. While EPA has taken that opportunity to raise concerns regarding project impacts on disadvantaged communities, it has done so by pointing back to the NEPA analysis for the project rather than suggesting changes to the air permit under review. Similarly, private parties have filed complaints with EPA under Title VI of the Civil Rights Act asserting that an air permit creates a disproportionate impact on environmental justice communities. Those complaints have largely languished at EPA, in part because EPA previously determined that permits that satisfy the federal air emission standards cannot be found to cause a disproportionate impact. Letter from A. Goode to Fr. P. Schmitter re EPA File No. 5R-98-R5 (Select Steel Complaint) (Oct. 30, 1998).

State Laws Present New Environmental Justice Opportunities

Without an enforceable environmental justice standard under federal law, states have started enacting their own laws to address the issue. A few states, for instance, adopted explicit environmental justice laws, while others have read environmental justice into existing provisions relating to site suitability or public health protection. Another group of states passed comprehensive energy policies that strive to address disproportionate impacts of pollution and climate change on low-income and minority communities. But even before states started enacting targeted environmental justice legislation, plaintiffs began recognizing opportunities to address their concerns through state regulatory programs. In this section we discuss three recent environmental justice cases brought by plaintiff groups under state laws.

In *Friends of Buckingham v. State Air Pollution Control Board*, a case that is now considered a groundbreaking moment in environmental justice litigation, local citizen and environmental advocacy groups challenged a minor source air permit for a compressor station associated with a natural gas pipeline. 947 F.3d 68 (4th Cir. 2020). The project proponent planned to locate the compressor station in the historic and predominantly African American community of Union Hill in Buckingham County, Virginia. As part of their challenge to the air permit, petitioners included environmental justice claims, alleging that the Virginia Air Pollution Control Board (Board) (1) failed to assess the compressor station's potential for disproportionate health impacts on the Union Hill community and (2) failed to independently evaluate the suitability of the site for the compressor station. *Id.* at 71. Petitioners based their claims on language in the Virginia air permitting rules requiring the Board to consider the suitability of the proposed activity to the area in which it is located and the character and degree of injury to health when issuing air permits. Va. Code Ann. § 10.1-1307(E).

In *Friends of Buckingham v. State Air Pollution Control Board*, local citizen and environmental advocacy groups challenged a minor source air permit for a compressor station associated with a natural gas pipeline.

In addition, petitioners relied on broad language in the Commonwealth Energy Policy, adopted into law in 2006. That Policy ensures “that development of new, or expansion of existing, energy resources or facilities does not have a disproportionate adverse impact on economically disadvantaged or minority communities.” *Id.* § 67-102(A)(8). Furthermore, one of the Policy's energy objectives is to develop energy resources and facilities “in a manner that does not impose a disproportionate adverse impact on economically disadvantaged or minority communities.” *Id.* § 67-101(10). Petitioners argued this broad language required the Board to consider the project's impacts on environmental justice communities like that of Union Hill. The Board's position was that the community would not experience significant adverse impact because the air pollutants in the community would remain below the National Ambient Air Quality Standards (NAAQS). NAAQS,

by definition, the Board argued, would protect the community within an adequate margin of safety. *Friends of Buckingham*, 947 F.3d at 72, 92. Note that this position is consistent with that previously articulated by EPA in Select Steel Complaint.

The court unanimously agreed with petitioners and vacated the permit. It concluded that Virginia law, including the Commonwealth Energy Policy and factors outlined in Virginia's air permitting rules, “require[s] the Board to consider the potential for disproportionate impacts to minority and low income communities.” *Friends of Buckingham*, 947 F.3d at 87. As a result, the court held that the Board's analysis of the project was insufficient. *Id.* What is more, the court found that the Board failed to make a formal finding regarding whether Union Hill was an environmental justice community. *Id.* at 88. The court also concluded that the Board's reliance on NAAQS, without individually considering the risk that the specific emissions from the compressor station would present to the Union Hill community, independent of the NAAQS and state emission standards, led to a flawed analysis. *Id.* at 86, 90–91. As the court put it, “environmental justice is not merely a box to be checked.” *Id.* at 92. In light of these flaws, the court took the unprecedented remedy of vacating and remanding the permit back to the Board for a more comprehensive environmental justice analysis.

Around the same time, the town of Weymouth, Massachusetts; various other municipalities; and citizen groups brought a similar challenge against the Massachusetts Department of Environmental Protection (MA DEP) for issuing a minor source air permit for a compressor station planned to be built in Weymouth, Massachusetts. *Town of Weymouth v. Mass. Dep't of Env't Prot.*, 961 F.3d 34, 38 (1st Cir. 2020). Although the environmental justice claims mirrored those in *Friends of Buckingham*, the outcome was quite different. This dissimilarity is attributable to the project's layout, the MA DEP's thorough environmental justice analysis, and the specific language of state guidance governing that analysis.

Petitioners in the *Town of Weymouth* case based their environmental justice claims on broad language in the state Environmental Justice Policy (EJ Policy), first adopted in 2002 and most recently updated in 2017. *Environmental Justice Policy of the Executive Office of Energy and Environmental Affairs* (2017). The EJ Policy, as the court explained, states that “all people have a right to be protected from environmental pollution and to live in and enjoy a clean and healthful environment,” regardless of “race, ethnicity, class, gender, or handicap.” *Town of Weymouth*, 961 F.3d at 54. The EJ Policy imposes several requirements on state agencies charged with approving environmental permits. First, agencies are required to engage in an enhanced public participation process for projects that meet certain criteria. These criteria include the project's location within five miles (for air pollutants) of an environmental justice population and the project's exceedance of certain emission thresholds under the Massachusetts Environmental Protection Act (MEPA). Second, agencies are required to engage in an enhanced analysis and review of impacts and mitigation for projects that meet the first of these criteria (located within five miles of an environmental justice population) and where emissions will exceed another threshold under MEPA.

Although both parties in the case agreed that the proposed compressor station was located within five miles of an environmental justice community—a question the Board in *Friends of Buckingham* never formally answered—the court agreed that the emissions did not exceed either of the MEPA thresholds. *Id.* Thus, the First Circuit concluded that the project did not trigger the EJ Policy’s requirements. Still, due to the controversial nature of the project, MA DEP, on its own initiative, followed the EJ Policy by providing enhanced public participation opportunities and developing an in-depth, scientific analysis of the project’s impacts on the health of environmental justice communities. *Id.* at 39, 55.

Despite these enhanced efforts, petitioners still faulted the agency for not doing more. Relying on dicta from a 2014 Massachusetts court case, petitioners argued that the EJ Policy required state agencies to develop strategies “to proactively promote environmental justice.” *Id.* at 54–55 (citing *City of Brockton v. Energy Facilities Siting Bd.*, 469 Mass. 196, 174 n.17 (2014)). Because MA DEP had not developed any such strategies, they maintained that the agency violated the EJ Policy and thus requested that the court invalidate the air permit for the compressor station. But unlike in *Friends of Buckingham*, the court rejected their challenge, concluding that MA DEP did what it was required to do, and even more. While the agency could have voluntarily gone even further to address the issue, the court reasoned, the EJ Policy did not require it to do so. Naturally, petitioners cited *Friends of Buckingham* as an important precedent for the court to consider, but the court distinguished the Massachusetts EJ Policy from the Virginia state requirements. The court explained that a violation of one state’s policy, even on similar facts, would not necessarily be a violation of another state’s policy. And while the Virginia law may have required an environmental justice review, based on the facts of the Massachusetts case, the Massachusetts EJ Policy did not require it. As a result, the court did not remand or vacate the permit on environmental justice grounds (although it did ultimately remand it without vacatur on another ground unrelated to environmental justice). *Town of Weymouth v. Mass. Dep’t of Env’t Prot.*, 973 F.3d 143 (1st Cir. 2020).

In addition to review of state law–based environmental justice claims by federal courts, state courts have also considered the issue. In early 2020, community groups and environmental organizations challenged one Prevention of Significant Deterioration and 14 Title V air operating permits issued by the Louisiana Department of Environmental Quality (LDEQ) for a proposed chemical manufacturing complex. Cmpl. at 1, *Rise St. James v. La. Dep’t of Env’t Quality*, No. C-694029 (La. Feb. 14, 2020). The project’s site is adjacent to the historic African American community of Welcome and lies near another African American community of Union; the area of concern is a part of Louisiana’s so-called Cancer Alley, an 85-mile corridor full of petrochemical and other industrial facilities.

In this case, petitioners based their environmental justice claims on language in the Louisiana Constitution. *Id.* at 12. Under that provision, LDEQ has a duty as a public trustee to

protect the environment “insofar as possible and consistent with the health, safety, and welfare of the people.” La. Const. art. 9, sec. 1. According to petitioners, the Louisiana Supreme Court has interpreted that language as requiring LDEQ “to determine that adverse environmental impacts have been minimized or avoided as much as possible consistently with the public welfare.” *Save Ourselves v. La. Env’t Control Comm’n*, 452 So. 2d 1152, 1157 (La. 1984). LDEQ must make this determination, they added, “before granting approval of proposed action affecting the environment.” Cmpl. at 12, *Rise St. James* (La. Feb. 14, 2020). Petitioners also alleged that LDEQ failed to determine whether the harmful effects of air emissions “have been minimized to the maximum extent possible.” *Id.* at 38. Additionally, they claimed that the agency’s cost-benefit analysis failed to account for any costs that would be borne by the surrounding community. *Id.* at 37.

The project’s site is adjacent to the historic African American community of Welcome and lies near . . . Louisiana’s so-called Cancer Alley, an 85-mile corridor full of petrochemical and other industrial facilities.

After a November 2020 hearing, the Louisiana district court remanded the issue of pollution and health risk to LDEQ to conduct a more thorough environmental justice analysis. Judgment, *Rise St. James v. La. Dep’t of Env’t Quality*, No. C-694029 (La. Dec. 14, 2020); see also Minutes of Oral Hearing, *Rise St. James v. La. Dep’t of Env’t Quality*, No. C-694029 (La. Nov. 18, 2020). The court specifically directed the agency to reconsider its analysis by soliciting additional public comment, evaluating the facts and information received during public comment, and supplementing its administrative record and the basis for its decision. The court encouraged the parties to reach a consensus judgment but did not vacate or stay the permits in the meantime. *Id.* Following an appeal, on March 15, 2021, the state Court of Appeals concluded that the district court abused its discretion in remanding the matter to LDEQ, pointing to the broad nature of the district court’s mandate. *Rise St. James v. La. Dep’t of Env’t Quality*, No. 2021 CW 0032, 2021 CW 0037 (consolidated) (La. Mar. 15, 2021). While the instructions to LDEQ on remand exceeded the district court’s statutory authority, the Court of Appeals explained, it still left the district court with a possibility of remanding the matter to LDEQ to consider evidence when certain conditions are met.

Roughly around the same time as commencement of the *Rise St. James* case, the same petitioners mounted another challenge against the project in federal court. Cmpl., *Ctr. for Biological Diversity v. U.S. Army Corps of Eng'rs*, No. 1:20-cv-00103 (D.D.C. Jan. 15, 2020), ECF No. 1. There, plaintiffs argued that the Corps' issuance of a section 404 Clean Water Act (CWA) permit was unlawful. Alongside alleged violations of the CWA and several other environmental statutes, plaintiffs also asserted a NEPA-based environmental justice claim. In an interesting development days before the Louisiana court remanded the environmental justice analysis back to LDEQ in the state case, the Corps, on its own initiative, suspended the CWA section 404 permit and agreed to reevaluate its NEPA review in the federal case. Federal Def's Mot. for Voluntary Remand without Vacatur, *Ctr. for Biological Diversity v. U.S. Army Corps of Eng'rs*, No. 1:20-cv-00103-RDM (D.D.C. Dec. 2, 2020), ECF No. 71. And while we may not see how the NEPA-based environmental justice claim plays out here, as is often the case, further resolution of the state environmental justice claim in court is likely.

Common Themes and Trends

Without a stand-alone cause of action and clear environmental justice requirements and standards, plaintiffs have struggled to identify federal mechanisms that would effectively address environmental justice concerns. More recently, plaintiffs have turned to state laws as a basis for addressing environmental injustice. Even in states without specific environmental justice statutes—still the majority of states—the judiciary has begun to interpret language in existing state laws as requiring an environmental justice analysis, as evidenced by the three cases discussed above. For example, the Fourth Circuit interpreted Virginia law to assess environmental justice as a part of the site suitability evaluation required under Virginia's air rules. The First Circuit evaluated when and how environmental justice requirements are triggered under Massachusetts's EJ Policy. Finally, the preliminary rulings in the Louisiana state court case

indicate that general language in a state constitution regarding protection of public health and welfare can be used to require an environmental justice analysis and serve as a basis for bringing environmental justice claims.

Where states have affirmatively enacted their own environmental justice statutes, plaintiffs' burden will likely be even easier. Many such state laws aim to provide greater clarity by defining core environmental justice terms, outlining how environmental justice must be addressed in permitting decisions, and establishing standards to enforce such claims. As a result of this activity at the state level, as well as the cases described above, plaintiffs' reliance on state law provisions to bring environmental justice claims will likely be a trend going forward. The outcomes of such cases will largely depend on the projects' parameters, robustness of the environmental justice analysis conducted by state agencies, and specific wording in state law provisions.

A potential for a new federal litigation opportunity is also on the horizon. The Biden administration has indicated it plans to address concerns of communities disproportionately harmed by pollution by creating a private right of action to sue in court under Title VI of the Civil Rights Act, which was previously precluded by the 2001 Supreme Court decision in *Sandoval*. See The Biden Plan to Secure Environmental Justice and Equitable Economic Opportunity, joebiden.com/environmental-justice-plan. And while this change could return the focus to bringing environmental justice claims under federal law, without clearer definitions and standards for addressing environmental justice concerns, such a change would still have only limited impact. Thus, state laws will continue to provide a more direct means for plaintiffs to effectively address environmental justice concerns. 🌱

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Climate Change Impact on Sewer Overflow Litigation

A Spark for Sustainability and Justice

Arthur Smith

Climate change–induced weather patterns are increasingly causing flooding and water pollution in communities across the country as sewer systems become overwhelmed during heavy rainfalls. Many municipalities, especially in the Midwest and Northeast, have sewer systems that carry both sanitary wastewater from buildings and pollutant-laden stormwater runoff from the streets. When it rains heavily, these combined sewer systems (CSS) cannot handle the volume and directly send or leak untreated wastewater into local waterways. In addition, stormwater runoff that would normally flow into sewer drains contributes to flooding and waterway pollution. Thus, these combined sewer overflow (CSO) discharges result in flooding and water pollution.

Fortunately, new technologies—along with the motivation of financial and environmental costs of not addressing these impacts—are creating opportunities for cost-effective solutions. Existing Clean Water Act (CWA) requirements offer immediate authority for the Environmental Protection Agency (EPA) and members of the public to advance solutions to the serious problem of sewer system overflows and urban flooding. With the Biden administration in place, EPA has the opportunity to set new priorities for clean water and use the agency’s enforcement authority to help communities effectively manage their stormwater. This “wet” future provides a backdrop for the Biden EPA to tackle climate-induced threats with a better understanding of community-based solutions, financial considerations for urban economies, and data-driven distributed technologies, and, when necessary, through litigation, to compel wastewater utilities to engage with local communities.

There are approximately 10 times as many domestic separate systems as CSS. Separate systems also have CWA discharge permits, including plans to control separate stormwater flow. Some communities, like Chicago and Philadelphia, have both

separate and CSS permits. While separate systems are less affected by excessive rainwater, they can discharge untreated wastewater when groundwater infiltration overwhelms defective collection infrastructure. Nonetheless, CSO remains the larger unresolved environmental challenge. EPA has developed unique requirements for CSS that serve about 40 million people nationwide, mostly in the Northeast and the Great Lakes region. As of September 2015, EPA had issued 859 CSO discharge permits in 30 states, with 162 permits located in the Great Lakes Basin watershed. EPA, *2016 Report to Congress: Combined Sewer Overflows into the Great Lakes Basin*, EPA-833-R-16-006 (Apr. 2016). In 2014 there were 1,480 untreated CSO discharges in the Great Lakes Basin. See EPA-HQ-OW-2016-0376-0043.

EPA has long sought to eliminate CSO. In 1994 EPA issued the still-relevant national CSO control policy as a cost-effective approach for wet weather. *Combined Sewer Overflow Control Policy*, 59 Fed. Reg. 18,688 (Apr. 19, 1994). EPA requires all CSO permittees to have specific technology (nine minimum control categories) and a long-term plan to meet CWA requirements, including monitoring to ensure compliance with water quality standards. Permit authorities (EPA or state) are required to issue/reissue or modify permits to meet these objectives, including compliance with the technology requirement within two years of permit issuance or modification.

Early EPA administrations took an extremely flexible litigation enforcement posture. In deference to state and local authorities, EPA negotiated long-term compliance plans for overflows—premised on the past understanding that sewer utilities were unable to quickly make adequate and expensive system upgrades. EPA’s flexible enforcement posture considered the utility’s financial capability to pay for a CSO long-term plan. EPA, *Combined Sewer Overflow’s Guidance for Financial Capability Assessment and Schedule Development*, EPA

832-B-97-004 (Feb. 1997). Even with historical “normal” rainfall, this approach failed to reach the expected January 1, 1997, compliance deadline. As a check on future developments, EPA developed technical guidance to monitor CSO discharges and their impact on water quality standards. EPA, *Combined Sewer Overflows: Guidance for Monitoring and Modeling* (Jan. 1999).

Several cities, including Chicago, have inventoried natural areas potentially useful for strategically locating future green infrastructure to enhance water absorption.

With many wastewater permittees inadequately controlling CSO, Congress amended the CWA by adding section 402(q) to require that each CWA permit and decree conform to the 1994 CSO policy. Wet Weather Water Quality Act of 2000, Pub. L. No. 106-554, 114 Stat. 2763A-224. EPA issued guidance describing a continuous process to assess whether permittees are meeting required controls and water quality standards and requiring additional controls as financial conditions change or as new control technologies emerge. EPA, *Combined Sewer Overflows: Post Construction Compliance Monitoring Guidance* at 5 (May 25, 2012). The CSO policy required all CWA permits to contain a clause authorizing EPA to modify the permit upon a determination that CSO controls failed to meet water quality standards.

CSO Management Evolves

Between approximately 2008 and 2014, the EPA increasingly included community-based green infrastructure into CSO long-term plans, especially if it resulted in other economic and community benefits. These strategies included pilot projects, studies, and cost-effective alternative green infrastructure solutions. During this timeframe, outside research substantiated the effectiveness of green infrastructure as part of a wastewater utility strategy. Studies showed that reducing community stormwater flow could effectively mitigate overflows and prevent damage to wastewater treatment plants. Likewise, combining community-based green infrastructure features with utility-built (grey) infrastructure had a mutually beneficial effect in enhancing urban drainage systems.

With this growing evidence, Congress amended the CWA to encourage *voluntary* integrated community planning and require that EPA promote integrated planning and green infrastructure. Water Infrastructure Improvement Act (WIIA), Pub. L. No. 115-436, 132 Stat. 5558 (2019). Congress at least

endorsed the opportunity for wastewater utilities to engage with state and municipal partners to utilize integrated plans and green infrastructure in future CWA permit and enforcement actions. Unfortunately, during the Trump administration, EPA increased the insertion of more flexible terms in CSO consent decrees. Christopher Flavelle, *EPA Is Letting Cities Dump More Raw Sewage into Rivers for Years to Come*, N.Y. Times, Jan. 28, 2020.

EPA recognizes that new technologies can monitor and reduce wet weather overflows by maximizing existing collection/treatment capacity and reducing community stormwater. These technologies relate to the existing nine minimum CSO controls and include distributed sensors, remote controls, and wireless communications. Office of Wastewater Mgmt., EPA, *Smart Data Infrastructure for Wet Weather Control and Decision Support* (Aug. 2018). New data-driven distributed technologies have the potential to expand and accelerate EPA’s trend for requiring large-scale greener infrastructure to reduce overflows. They can reconnect waterways with millions of gallons of storage available in existing lakes, ponds, and underground detention water systems to mimic the historic natural watersheds that minimize flooding and help slow/reduce community flows to wastewater collection pipes.

Several cities, including Chicago, have inventoried natural areas potentially useful for strategically locating future green infrastructure to enhance water absorption. Other cities have gone beyond inventorying natural areas by integrating technologies and weather forecasting to convert these somewhat passive assets into smarter resilient systems by making automated and predictive control decisions to actively manage stormwater flooding and CSO. The Philadelphia Water Department installed continuous monitoring and adaptive controls on existing passive retention ponds to reduce CSO. After six months, this upgrade kept 98% of the total water runoff out of the sewer system. J. Wright & D. Marchese, *Briefing: Continuous Monitoring and Adaptive Control: The “Smart” Stormwater Management Solution*, Proc. of the Inst. of Civ. Eng’rs—Smart Infrastructure and Construction (2018). A recent study confirmed that network modeling, accurate flow/level information, and weather forecasting can mitigate flooding and sewer overflows. Global Water Intel. & Global Water Leaders Grp., *Accelerating the Digital Water Utility* (2019).

New Drivers Creating a Tipping Point for Urban Resiliency

In spite of progress in mitigative processes such as green infrastructure, CSO and urban floods are increasing. Climate change is causing increased rainfall in much of the United States. The largest increase in heavy precipitation occurs in the Midwest and Northeast, and such events are projected to increase in those areas by 40 percent by 2100. Nat’l Acad. of Sci., *Framing the Challenge of Urban Flooding in the United States* (Mar. 2019). In Cook County, including Chicago, May 2020 was the wettest month in the past hundred years for the third year in a row. The area experienced untreated sewage flowing into public waterways on 20 separate occasions despite a deep tunnel built to capture stormwater. More stormwater is increasing CSO

in other locations. Utilizing climate change modeling for the period 2071 to 2100 in Oslo, Norway, scientists linked urban drainage models for an area served by a CSS and concluded a likely 33% increase in annual CSO discharges, as well as an 83% increase in annual CSO discharges when comparing years of maximum annual precipitation. V. Nilsen et al., *Analysing Urban Floods and Combined Sewer Overflows in a Changing Climate*, 2 J. Water & Climate Change 260 (2011).

Because overflow sites are often in downstream urban locations, there is an environmental justice concern. In New York City and Philadelphia, neighborhoods within a half-mile radius of CSO sites tend to have higher percentages of poor residents. In these two cities, 71.88% and 80.18% of such residents are in environmental justice zones, respectively. Rebekah Breitzer, *Institutional Roadblocks to Achieving Environmental Justice Through Public Participation: The Case of CSO Control in US Cities*, *Metropolitics* (Jan. 24, 2018). In Cook County, the wastewater utility Metropolitan Water Reclamation District (MWRD) owns 36 CSO outfalls, and 51 satellite communities own an additional 334 CSO outfalls. The affected service area is approximately 350 square miles with 55% of the resident population comprising minorities, 15% of whom live in poverty. See *Metropolitan Water Reclamation District of Greater Chicago Settlement*, EPA.gov (Dec. 14, 2011). Likewise, urban flooding has a disproportionate impact on minorities and low-income residents in areas like Chicago. Thomas Frank, *Flooding Disproportionately Harms Black Neighborhoods*, E&E News Analysis (June 2, 2020).

These urban communities are increasingly exposed to untreated wastewater fecal coliform and various pathogens, including coronaviruses. Anne Bogler et al., *Rethinking Wastewater Risks and Monitoring in Light of the COVID-19 Pandemic*, 3 *Nature Sustainability* 981 (2020). Wastewater utility CSO and associated flooding is becoming a larger percentage of total water pollution released in urban communities. The Biden EPA intends to reverse this trend. On April 7, 2021, new EPA Administrator Regan called on all EPA offices to strengthen permit decisions and enforcement of violations of cornerstone environmental statutes, such as the CWA, in communities overburdened by pollution. See Press Release, EPA, EPA Administrator Announces Agency Actions to Advance Environmental Justice (Apr. 7, 2021).

Potential climate change damage is changing access to capital. Because wastewater utilities primarily rely on debt funding, largely through municipal bonds, lenders are scrutinizing asset risk, performance outcomes, and community creditworthiness to support future utility revenue. Well-planned large-scale projects that enhance property values, reduce flood insurance premiums, and enhance urban sustainability provide factors that flip the past perspective of CSO projects from “too expensive” to “urban economic opportunity.” Arthur Smith, *Surging Interest in Protecting Infrastructure Investments from Climate Change*, 51 *ABA Trends*, no. 6, July/Aug. 2020.

Community-wide support for resiliency activity that reduces flooding and improves water quality opens the door for other private, federal, state, and local funding for community co-benefits, such as economic development, recreational

opportunities, environmental improvements, environmental justice, pre-disaster relief, and reduced flood insurance rates. Philadelphia, New York City, Portland, Kansas City, and Milwaukee used cost-saving alternative community-based green infrastructure and demonstrated other co-benefits, including increased property values. The Biden administration’s whole-of-government approach can engage multiple federal departments to fund complementary infrastructure related to water management, especially roadways and other transportation infrastructure.

The cost-effectiveness of large-scale watershed projects improves with community and private party involvement. Frequently, wastewater utilities have state statutory authority to enter community agreements. In addition, states, local governments, and wastewater utilities have various authorities to contract with each other and private entities to perform project objectives, including providing upfront capital and transferring performance risk. Prince George’s County in Maryland used its authority to enter into public/private agreements for a multicommunity stormwater reduction project with specific water metrics, economic development, and local jobs. See Prince George’s County/Corvias Clean Water Partnership.

Prince George’s County in Maryland used its authority to enter into public/private agreements for a multicommunity stormwater reduction project with specific water metrics, economic development, and local jobs.

EPA is open to changing how the agency considers financial burdens for implementing utility CSO plans and schedules. EPA intends to allow communities to submit information, including financial models or studies, that may provide a more accurate picture of the capability of entire communities to fund CWA projects and programs. See Proposed 2020 Financial Capability Assessment for Clean Water Act Obligations, 85 Fed. Reg. 58,352, 58,352 (Sept. 18, 2020). The proposal broadens previous 1997 and 2014 assessments from immediate residential and utility financial burden to a more holistic assessment of each community’s economic health. In considering broader metrics on future urban sustainability, the EPA can avoid the self-fulfilling downward economic spiral of some cities.

The Role of Enforcement

Environmental enforcement can be a significant regulatory driver that accelerates integrating community-based watershed strategies. The environmental compliance atmosphere is different than the often resource-intensive and contentious enforcement during the 1970s and '80s. During that period, some recalcitrant industries resisted integrating new environmental obligations into their business. Today most companies and utilities have an appreciation for environmental compliance. Nonetheless, some legacy wastewater utilities narrowly focus on their collection infrastructure and further downstream storage to reduce CSO. Increased community flooding and EPA's nudging can push wastewater utilities to take advantage of new technology and engage with communities for mutual benefit.

Increased community flooding and EPA's nudging can push wastewater utilities to take advantage of new technology and engage with communities for mutual benefit.

All CWA enforcement begins with EPA understanding the circumstances associated with potential violations. In the Great Lakes Basin, EPA requires CSS utilities to provide notice of CSO discharges and disclosure of the utility's plan to prevent future overflows. See Public Notification Requirements for a Combined Sewer Overflows to the Great Lakes Basin, 83 Fed. Reg. 712 (Jan. 8, 2018). Required public signage and other discharge notifications are designed to minimize public pathogen exposure. These notices and corrective plans allow for meaningful community input into the public's ongoing investment in reducing overflows as well as the impact on local flooding. The EPA continues to have its existing administrative authority (such as CWA section 308) inspect and require additional details on overflow circumstances, including the utility's actions to comply with permit terms for maintaining assets and planning.

After the initial investigation, EPA can take a number of administrative actions to better understand the situation under section 309 of the CWA. EPA can issue a notice of violation to encourage dialogue about the violation before issuing an administrative order or initiating litigation. An EPA investigation alone sometimes prompts a utility to reassess its compliance efforts. The most common wastewater CWA enforcement action involves permit violations resulting from the utility's failure to properly maintain and operate its system, including monitoring. Wastewater utilities with separate

or combined sewer systems must adequately operate and maintain collection systems to prevent excessive water infiltration and maintain system capacity to prevent untreated wastewater discharges to surface or groundwater. With increasing CSO, the EPA is more likely to review whether the utility is using new technologies to maximize collection system integrity and capacity, and potentially the treatment plant capacity.

Wastewater CSS utilities must use cost-effective technologies from the 1994 nine minimum CSO categories. New cost-effective technologies that can be installed relatively quickly for pollution prevention, monitoring, and detaining surface water flows make the technology requirement more relevant and immediate. EPA guidance specifically includes steps to retard water inflows and "localized upstream detention for short-term storage." EPA, *Combined Sewer Overflows: Guidance for Nine Minimum Controls*, EPA 832-B-95-003, at 3-2 (May 1995). EPA can assess whether a utility is using available technologies and require it to include such technology through an appropriate enforcement mechanism, such as an administrative order, or through litigation.

Without modern wireless and remote systems, EPA has historically focused on the additional CSO long-term compliance requirement. EPA can still consider longer-term plans to allow the utility time to use its legal and financial authorities to work with relevant watershed communities or offer it as an alternative solution to system upgrades. The DC Circuit recently reviewed EPA's authority to regulate "best controls" outside power plant fence lines and ruled that EPA has broad legal authority to resolve congressionally mandated environmental missions. *Am. Lung Ass'n v. EPA*, 985 F.3d 914 (D.C. Cir. 2021). The court's reasoning is analogous to wastewater utilities, as the CWA provides broad authorities to protect water quality. While wastewater utilities do not control communities, utilities generally have substantial legal authorities and financial persuasion to work with communities. EPA can investigate steps utilities are taking to engage with communities on using distributed technologies in the watershed to reduce surface and groundwater flows contributing to sewer overflows.

Additionally, EPA can modify existing permits based on new information, especially when the permit does not prevent unacceptable environmental results. 40 C.F.R. § 122.62. If the nine minimum requirements are inadequate to prevent CSO, the permit must contain a long-term compliance plan. EPA has the ability to update long-term compliance plans without waiting on business-as-usual permit renewal cycles.

Beside environmental compliance, the EPA can seek equitable relief to address past environmental harms related to permit violations. See, e.g., *United States v. Oakland Cannabis Buyers' Co-op.*, 532 US 483, 496 (2001). The agency has guidance for enforcement teams on seeking mitigation in civil settlements, including cases raising environmental justice concerns. EPA, *Securing Mitigation as Injunctive Relief in Certain Civil Enforcement Settlements* (Nov. 14, 2012). The Department of Justice (DOJ) also announced its support for broader EPA enforcement discretion for settlement terms to remedy past and future environment damage, especially in disadvantaged communities. See Jean E. Williams, DOJ Memorandum: *Withdrawal of*

Memoranda and Policy Documents (Feb. 4, 2021). This DOJ action provides the Biden EPA more traditional opportunities to advance justice in settlements by including mitigation and supplemental projects. Sara A. Colangelo, *Environmental Enforcement 2021: The Likely Resurgence of Tools Targeting Environmental Justice*, 54 ABA Trends, no. 4, Mar./Apr. 2021.

Many CSS wastewater utilities are already subject to existing consent decrees to prevent future overflow discharges. Nonetheless, when the decree is inadequate to prevent new violations, EPA can take additional enforcement action. EPA always includes standard settlement terms in decrees to provide that the decree only resolves claims alleged in the complaint through the date the settlement document is sent to the court. See, e.g., *United States v. Metro. Water Reclamation Dist. of Greater Chi.*, Consent Decree, sec. XVII (N.D. Ill. Jan. 6, 2014). In addition, changed circumstances, such as climate change-induced weather patterns, may make decree requirements inadequate to prevent additional violations. Courts recognize that decrees are only required to be reasonable at the time of settlement. *United States v. Metro. Water Reclamation Dist. of Greater Chi.*, 792 F.3d 821 (7th Cir. 2015).

When EPA fails to enforce CWA violations, the public can initiate enforcement. To exercise this authority, citizens must provide notice to the state and EPA of their intent to sue, and a consent decree cannot go into effect until the public parties notify the state and EPA before the settlement is submitted to the court. 33 U.S.C. § 1365(b)(c). Besides prodding state or federal governments to initiate enforcement, it has been argued that members of the public have broader ability to seek settlement terms to address the needs of communities impacted by the violations. Louise Dyble, *The Future of SEPs in Citizen Suits*, 35 ABA Nat. Res. & Env't, no. 3, Winter 2021.

Citizen petitions and EPA enforcement action prompted the New Jersey Department of Environmental Protection (NJDEP) to modify the general permits of nine wastewater utilities in densely populated northern New Jersey to more aggressively pursue mandatory technologies and long-term plans to address CSO. Daniel J. Van Abs, *Water Infrastructure in New Jersey's*

CSO Cities: Elevating the Importance of Upgrading New Jersey's Urban Water Systems, N.J. Future (June 2014). The NJDEP subsequently issued guidance for strategically locating green infrastructure and integrating such with grey sewer infrastructure in densely populated areas. N.J. Dept of Env't Prot., *Evaluating Green Infrastructure: A Combined Sewer Overflow Control Alternative for Long Term Control Plans* (Jan. 2018).

Citizen suits have been effective in improving sewer collection performance and furthering CWA's goals in California. While California overflows were from separate sewer systems, the analysis is relevant to CSO. Neil Nylen et al., *Citizen Enforcement and Sanitary Sewer Overflows in California*, Ctr. for Law, Energy & the Env't, UC Berkeley Sch. of Law (Apr. 2016). Individuals may be more motivated to pursue citizen suits in states where CSS utilities also have flood reduction obligations, such as Illinois, which provides the MWRD with stormwater supervision authority. Illinois Public Act 093-1049, 55 Ill. Comp. Stat. 5/5-1062. Increasing public experience with flooding and wastewater exposure could be another catalyst for EPA, other agencies, and wastewater utilities to effectively advance urban resiliency solutions.

Most CSS wastewater utilities are familiar with the potential cost-effectiveness of community-based technologies to reduce urban flooding and overflows. This understanding includes the possibility that tax revenues may decline if urban areas become unsustainable, and the importance of rectifying conditions that have resulted in environmental injustice. Nonetheless, many utilities retain a legacy tradition of operating within their own property and infrastructure. Moreover, there may be complacency with their existing permit and consent decree terms. The potential for environmental enforcement may provide the necessary spark for utilities to use their legal and financial authorities to accelerate coordinating activities within the communities they serve to reduce local flooding, prevent polluting local waterways, and protect public health. 🌱

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Permit Writing in Litigation

Drew Silton and Mackenzie Schoonmaker

The National Pollutant Discharge Elimination System (NPDES) permitting program—the key component of the Clean Water Act (CWA) for regulating point source pollution—is broken. NPDES permits are supposed to protect the receiving water quality by providing specific directives to dischargers in the form of water quality-based effluent limitations (WQBELs). These WQBELs provide dischargers, regulators, and the public with clear notice of what a discharger must do (or may not do) in order to protect water quality in receiving waters: They must either set numeric limits or prescribe best management practices (BMPs). Writing concrete, discharger-specific WQBELs into permits has the further benefit of keeping courts out of the business of making after-the-fact, ad hoc judgments about whether a discharge adversely impacts water quality to a degree that violates the CWA.

WQBELs are a critical feature of the NPDES program and reflect Congress's broader objectives when it passed the CWA in 1972. Congress created the NPDES program specifically so dischargers' compliance obligations would be clearly defined. EPA has structured the permit writing process, including its implementing regulations and the *Permit Writers' Manual*, consistent with this objective. As anyone attending an EPA permit writing class will learn, the regulations and the *Manual* direct permit writers to create discharger-specific limits derived from the applicable water quality standards, as well as effluent and receiving water quality.

Yet across the country, permit writers routinely stray from this prescribed approach by writing into permits generic narrative requirements not to violate or cause or contribute to violations of water quality standards (referred to in the remainder of this article as Generic Prohibitions). These Generic Prohibitions provide dischargers (and enforcers) with no guidance on how to comply with water quality standards, a key defect identified in the 2013 Vessel General Permit that led the

Second Circuit, in its 2015 *NRDC v. EPA* decision, to invalidate and remand the permit to EPA. 808 F.3d 556 (2d Cir. 2015). EPA and state permitting agencies have, however, failed to heed the Second Circuit's rejection of Generic Prohibitions and continue to include them in NPDES permits nationwide.

The enforcement of Generic Prohibitions in litigation illustrates how they undermine the NPDES program's central goal: to provide dischargers with clear compliance standards. These cases reveal how Generic Prohibitions shift permit writing functions, like the assessment of effluent and receiving water quality, away from expert agencies and into courts' hands. This shift results in *post hoc* judicial determinations of permittees' water quality-based obligations, depriving permittees of opportunities to change their operations to protect receiving waters and stave off enforcement. This outcome also makes courts responsible for addressing technical issues that fall outside their core expertise.

This article discusses Generic Prohibitions' inconsistency with the CWA, its policies, and the process for writing WQBELs. It then addresses *NRDC v. EPA* and how the Second Circuit found Generic Prohibitions to be inconsistent with the CWA and its regulations. Finally, it shows how the Second Circuit was correct to be concerned about the lack of guidance that Generic Prohibitions provide to permittees and enforcers alike. Experience shows that enforcing these provisions requires courts to engage in after-the-fact permit writing, to the detriment of dischargers, the public, and water quality.

Permit writers' inclusion of Generic Prohibitions in permits effectively revives aspects of the flawed regulatory system the Congress intended the NPDES program to replace. Congress passed the CWA to address a number of specific deficiencies in the Water Quality Act of 1965. That statute relied solely on states setting "ambient water quality standards specifying the acceptable levels of pollution in a State's waters" and generally

prohibiting dischargers from causing impairment of these standards. *EPA v. California ex rel. State Water Res. Control Bd.*, 426 U.S. 200, 202 (1976). Defining compliance by reference to receiving water quality proved to be unworkable because the statute provided no “standards to govern the conduct of individual polluters.” *Id.*

Congress, by passing the CWA in 1972, replaced this framework—dependent on a generic requirement not to violate water quality standards—with the NPDES program. Congress intended this permitting scheme to provide dischargers end-of-pipe effluent limits to provide “clear and identifiable discharge standards.” *Int’l Paper Co. v. Ouellette*, 479 U.S. 481, 496 (1987) (internal quote and citation omitted). The CWA’s drafters, moreover, intended these effluent limits to apply at the point of discharge, rather than to define compliance by reference to receiving water quality. See H. Rep. No. 92-911, at 102 (1972). By envisioning the use of end-of-pipe, discharger-specific limits, Congress sought to avoid subjecting dischargers to disparate “court-developed definition[s] of water quality” that would be developed after the fact in enforcement proceedings. S. Rep. No. 92-414, at 79 (1971).

The Act prescribes two types of effluent limits to define dischargers’ obligations. The first, technology-based effluent limitations (TBELs), set a floor for a facility’s discharge quality. See 33 U.S.C. § 1311(b). These TBELs are based on levels of effluent quality that can be achieved by certain treatment technologies. Permit writers set these limits either by reference to effluent limitations guidelines or, when no applicable guideline exists, using best professional judgment.

The second type of limit, WQBELs, are included in permits when permit writers have reason to believe that a TBEL alone will not be sufficient to protect water quality. EPA’s regulations for developing WQBELs require permit writers to use water quality standards “as the basis for specific effluent limitations in NPDES permits.” *Am. Paper Inst., Inc. v. EPA*, 996 F.2d 346, 350 (D.C. Cir. 1993). Permit writers first determine if a WQBEL is even necessary by assessing whether a discharge “will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard. . . .” 40 C.F.R. § 122.44(d)(1)(i). At the outset of this first phase of developing WQBELs, a permit writer must identify applicable water quality standards and then characterize effluent and receiving water quality.

This initial characterization phase involves (1) identifying pollutants of concern in the effluent (i.e., pollutants for which further analysis is needed); (2) determining whether applicable water quality standards allow consideration of a dilution allowance or mixing zone; (3) selecting an approach to model effluent and receiving water interactions; (4) identifying effluent and receiving water critical conditions, such as effluent flow and pollutant concentrations, and receiving water flow and background pollutant concentrations; and (5) establishing appropriate dilution allowances or mixing zones. See EPA, *NPDES Permit Writers’ Manual* §§ 6.1–6.2 (Sept. 2010).

Upon completing these characterization steps, “a permit writer determines whether WQBELs are needed” by assessing “whether a discharge, alone or in combination with other

sources of pollutants . . . could lead to an excursion above an applicable water quality standard.” *Id.* § 6.3, at 6-22 to 6-23.

When a permit writer finds that such an excursion could occur because of a particular pollutant, they then develop a WQBEL for that pollutant. The NPDES regulations demand that each WQBEL be developed so that it is “derived from, and complies with all applicable water quality standards.” 40 C.F.R. § 122.44(d)(1)(vii)(A). EPA understands deriving these limits to require substantial analysis based on the relevant water quality standards, and the Agency’s guidance demands that permit writers provide both the “applicant and the public a transparent, reproducible, and defensible description of how the permit writer” derived a permit’s WQBELs. *NPDES Permit Writers’ Manual* § 6.4.1.5.

Although WQBELs ordinarily are expressed in numeric discharge requirements, the regulations allow limited exceptions to set BMPs. For instance, a permit writer may impose BMPs for controlling storm water discharges, and when it is infeasible to set a numeric limit. 40 C.F.R. § 122.44(k). Although many practitioners refer to this exemption as an authorization to set a broad range of “narrative” permit terms, the regulations only allow the prescription of BMPs—specific activities or procedures that a discharger must implement.

These terms—contemplated by neither Congress nor the NPDES regulations—have long created enforcement challenges for facilities in multiple sectors, particularly municipal dischargers.

Despite Congress’s best intentions and the foregoing regulatory directives to set discharger- and pollutant-specific limits to define compliance with water quality standards, permit writers routinely jettison this process. They instead incorporate Generic Prohibitions in permits issued across the country. These terms—contemplated by neither Congress nor the NPDES regulations—have long created enforcement challenges for facilities in multiple sectors, particularly municipal dischargers. *E.g.*, *NRDC v. Metro. Water Reclamation Dist. of Greater Chi.*, 175 F. Supp. 3d 1041 (N.D. Ill. 2016) (permit prohibited discharges that “cause a violation of any applicable water quality standards”); *Nw. Env’t Advocs. v. City of Portland*, 56 F.3d 979 (9th Cir. 1995) (permit prohibited discharges “which will violate Water Quality Standards”).

Despite these terms’ ubiquity, they have not held up well when challenged. In *NRDC v. EPA*, the Second Circuit invalidated a provision in the 2013 Vessel General Permit that

provided, “Your discharge must be controlled as necessary to meet applicable water quality standards in the receiving water body or another water body impacted by your discharges.” 808 F.3d at 578. The Second Circuit found that this broad, narrative requirement does not actually achieve EPA’s mandate to ensure compliance with water quality standards. *Id.* at 578, 580. The court observed that a generic requirement to comply with water quality standards was patently insufficient to “give a shipowner guidance as to what is expected or to allow any permitting authority to determine whether a shipowner is violating water quality standards.” *Id.* at 578. The court further recognized that, “[b]y requiring shipowners to control discharges as necessary to meet applicable water quality standards without giving specific guidance on the discharge limits,” EPA failed to fulfill its duty to regulate in fact. *Id.* (internal citations omitted).

In engaging in these analyses, the courts performed the functions that should be part of the permit writing process, not judicial enforcement.

Citing *American Paper Institute, Inc. v. EPA*, the court rejected EPA’s argument that difficulty in writing WQBELs did not allow permit writers to “just thr[o]w up their hands and, contrary to the Act, simply ignore[] water quality standards including narrative criteria altogether when deciding upon permit limitations.” *Id.* (internal citations omitted). The court also rejected EPA’s argument that Generic Prohibitions provided sufficient protection for water quality because they allowed for after-the-fact corrective actions in enforcement actions, observing that “[t]he point of a permit is to prevent discharges that violate water quality standards *before* they happen.” *Id.* at 579. In short, the Second Circuit struck down the Vessel General Permit’s generic compliance requirement because it was not fit for its purpose—ensuring actual compliance with water quality standards. *Id.* at 580.

The Second Circuit, moreover, rejected EPA’s argument that Generic Prohibitions are authorized by the NPDES regulations’ allowance of BMPs when numeric limits are infeasible. The court observed that both EPA’s regulations and experience implementing the NPDES program contemplate that BMPs entail specific activities, procedures, or plans. A general requirement not to impair water quality standards, according to the court, lacked this specificity needed to be considered proper BMPs.

Experience shows that the Second Circuit was right. Generic Prohibitions fail to provide guidance to dischargers and result only in findings of violations and definition of water

quality-based obligations after a discharge has already commenced. Two cases—*Ohio Valley Environmental Coalition, Inc. v. Fola Coal Co.*, 82 F. Supp. 3d 673 (S.D. W. Va. 2015), and *Ohio Valley Environmental Coalition, Inc. v. Elk Run Coal Co., Inc.*, 24 F. Supp. 3d 532 (S.D. W. Va. 2015)—illustrate how Generic Prohibitions fail to provide guidance to dischargers and force courts to conduct water quality assessments that should be conducted by permit writing agencies before a permit even gets issued.

In both of these cases, West Virginia federal courts applied permit provisions—found in all West Virginia NPDES permits for coal mines at the time—incorporating by reference a regulation requiring discharges “to be of such quality so as not to cause violation of applicable water quality standards. . . .” In each instance, plaintiff environmental organizations brought actions alleging that the mine discharged excessive ionic pollution, which caused or materially contributed to the biological impairment of the mine’s receiving waters. After trials on liability issues, the court found in both cases that the mine’s ionic discharges caused a violation of the narrative water quality standard, as the plaintiffs’ alleged.

In *Fola Coal*, the court reached this conclusion based on expert testimony, which relied on an EPA scientific benchmark, among other scientific studies, indicating high conductivity in streams could cause biological impairment. 82 F. Supp. 3d at 686–96. The court also considered the quality of the mine’s discharges, as demonstrated by the permitting agency’s sampling. *Id.* at 696–98. In *Elk Run*, the court likewise based its findings on expert testimony relying upon scientific studies, including the EPA scientific benchmark, peer-reviewed articles on the benchmark, and West Virginia Department of Environmental Protection (WVDEP) guidance on stream condition index scores. 24 F. Supp.3d at 556–79.

In engaging in these analyses, the courts performed the functions that should be part of the permit writing process, not judicial enforcement. The courts assessed the applicable water quality standards, identified the pollutant of concern, and determined whether the discharge of the pollutant led to a violation of the standard. These processes mirror what the *NPDES Permit Writers’ Manual* demands of EPA and other permit-issuing authorities. *See, e.g.*, § 6.3 at 6-22 to 6-23.

This analysis could—and should—have been done by WVDEP when it was writing the mines’ permits. As the Second Circuit held in *Waterkeeper Alliance, Inc. v. EPA*, NPDES permits should be issued where such permits “ensure that every discharge of pollutants will comply with all applicable effluent limitations and standards.” 399 F.3d 489, 498 (2d Cir. 2005). By imposing Generic Prohibitions instead of engaging in the analysis required by the statute, regulations, and the *NPDES Permit Writers’ Manual*, permit writers abdicate their responsibility under the CWA. This leaves questions that expert agencies are better suited and better positioned to answer than courts, which do not have the same scientific or technical expertise.

Transferring permit writing functions into enforcement benefits no one. Dischargers operating under permits that contain Generic Prohibitions have minimal guidance on what

their water quality-based compliance obligations are. They are forced to invest in pollution controls without any assurance—contrary to the CWA's goals—that doing so will actually result in compliance.

These stakes are particularly high for municipal dischargers operating combined sewer systems. For them, water quality-based controls often entail the development and construction of capital projects costing into the hundreds of millions of dollars. Generic Prohibitions create the risk that these public entities will have to spend yet more ratepayer money on capital-intensive controls imposed in litigation. In a lawsuit, Generic Prohibitions would empower a judge—rather than an expert agency that must receive and consider public comments during the permitting process—to define how municipalities spend their public money on water quality compliance for decades to come.

Dischargers, however, are not the only ones adversely affected. Generic Prohibitions force the public and regulators to fly blind. These permit provisions provide no clear benchmarks against which to grade dischargers' performance.

This shift of permit writing functions to courts also harms water quality. Courts can only address water quality questions and compliance with Generic Prohibitions in enforcement cases—after pollution has already started to impact receiving waters. Protecting water quality demands that permit writers do what the Act and EPA's regulations demand of them: writing discharger-specific limits to protect water quality standards. 

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Rewatering Napa's Rivers

Karrigan Bork and Amber Manfree

Long-standing California laws offer fish populations strong protection. These laws prohibit many migration barriers, require dam owners to release flows to protect downstream aquatic life, bar unpermitted streambed alterations, obligate fish screens on water diversions, mandate consideration of fisheries in water rights decisions, and even provide constitutional protection for fishing access. In nearly every decade since the state was founded, California's legislature has passed strong and unambiguous laws to protect fisheries, ultimately proclaiming "[t]he protection and conservation of the fish and wildlife resources of this State . . . to be of utmost public interest." 1961 Cal. Stat. 2532. Reading these laws in the abstract, one might think that Californians had found a way to have their cake and eat it, too—a robust water storage and delivery system that supports both a booming agricultural economy and healthy freshwater ecosystems. But no.

Instead, 80 percent of California's native freshwater fish are likely to go extinct in the next 100 years, largely due to the very problems these laws sought to address. Rebecca M. Quiñones & Peter B. Moyle, *California's Freshwater Fishes: Status and Management*, 2015 FISHMED Fishes in Mediterranean Env't 1 (2015). We focus in this article on California's iconic salmonids, mostly salmon and steelhead, which have been particularly impacted by water infrastructure. In the next 50 years, 45% will likely go extinct, and 74% will likely disappear in the next 100 years. Peter B. Moyle et al., *State of the Salmonids: Status of California's Emblematic Fishes 2017*, U.C. Davis Ctr. for Watershed Scis. at 4 (2017).

Past legislative efforts to protect fishes were well-informed, but these laws were seldom enforced and now read as a series of broken legislative promises. Time and again, private interests overwhelmed efforts to protect the public good. This is the structural failure that Professor Joseph Sax sought to address through the modern public trust doctrine. Yet there is hope.

Private litigation built on public trust standing is reinvigorating old laws. By suing to enforce these laws as the legislative expression of the public trust, private attorneys general can require the state to fulfill its promises of healthy fisheries in California. Private litigation by Water Audit California (Water Audit) has breathed new life into California Fish and Game (CF&G) Code § 5937, a statute requiring dam owners to release enough water to keep downstream fish in good condition, and improved environmental conditions in the Napa River watershed. Water Audit is just one player in a broader litigation ecosystem, but its story shows that sound science and focused litigation can reopen historic habitats and increase fish populations.

Collapse of California's Anadromous Fish Populations

California hosts 21 distinct forms of anadromous salmonids, including trout and salmon that are born in freshwater, emigrate to saltwater to mature, and then return to freshwater to breed. Examples range from legendary Chinook (King) salmon to lesser-known species like pink salmon. These fish are exquisitely adapted to life in California's sometimes harsh freshwater environments, with flexible life-history strategies that allow them to reproduce in great numbers in good times and scrape by during bad. When populations are healthy, anadromous salmonids support thriving food webs by bringing huge influxes of needed nutrients to inland ecosystems during their annual breeding migrations. These nutrients even show up in California's wines. Joseph E. Merz & Peter B. Moyle, *Salmon, Wildlife, and Wine: Marine-Derived Nutrients in Human-Dominated Ecosystems of Central California*, 16 Ecological Applications 999 (2006). California's salmon and steelhead are also culturally significant for Californians and of foundational importance to indigenous groups.

Migratory salmonids in California have declined precipitously. A variety of anthropogenic changes explain this decline, but the biggest culprits are impassable dams and their effects, including loss of habitat upstream and downstream of dams, changes in stream flows, and hatcheries established to mitigate dam impacts.

As in most states, there is no exhaustive list of California dams. Federal and state officials track larger dams and dams creating serious risk of catastrophic loss; California has 1,580 larger and/or high-risk dams. No one tracks smaller dams, but extrapolating proportionately from available data, California likely has around 42,000 additional small dams. Peter K. Brewitt & Chelsea L.M. Colwyn, *Little Dams, Big Problems: The Legal and Policy Issues of Non-jurisdictional Dams*, 7 Wiley Interdisc. Revs. Water e1393 (2020). Both categories of dams have significant impacts on salmonid populations.

Nearly all dams lack functional fish passage and block access to upstream habitat. Because salmonids require cold water to survive, the little remaining habitat is generally located immediately below dams where colder reservoir outflows support salmonid populations. This habitat must be maintained in near-perfect condition, requiring optimal human decision-making, which makes salmon survival tenuous. Temperature management failures in 2014 and 2015 at Shasta Dam resulted in near total loss of two seasons' worth of juvenile winter-run Chinook. J.R. Durand et al., *Drought and the Sacramento–San Joaquin Delta, 2012–2016: Environmental Review and Lessons*, 18 S.F. Estuary & Watershed Scis., no. 2, June 2020, art. 2. Historical habitat loss presents serious challenges to salmonid recovery.

Dams also change downstream flow characteristics. L. R. Brown & M. L. Bauer, *Effects of Hydrologic Infrastructure on Flow Regimes of California's Central Valley Rivers: Implications for Fish Populations*, 26 River Rsch. & Applications 751 (2010). Total flows are generally much lower, and changes in flow volumes come with changes in water temperatures. At worst, low, warm flows and reduced flow variability kill salmonids, and even minor changes can increase colonization by nonnative species, which negatively impacts salmonids. Dams and flow changes also alter physical characteristics of downstream rivers and streams, and the reduced flows prevent baby salmon from accessing floodplain habitat they need to grow enough to survive their seaward migration. Flow changes caused by dams make salmon survival difficult.

Central Valley Chinook salmon exemplify these challenges. Dams block about 95% of Central Valley salmonid spawning habitat and 80% of their total habitat. F.L. Reynolds et al., *Restoring Central Valley Streams: A Plan for Action*, Cal. Dep't of Fish & Game (1993); Steve T. Lindley et al., *Population Structure of Threatened and Endangered Chinook Salmon ESUs in California's Central Valley Basin*, NOAA Tech. Memorandum NOAA-TM-NMFS-SWFSC-360 (2004). Remaining below-dam habitat is marginal due to high water temperatures, poor habitat structure, pollution, water diversions, and passage barriers. Historical runs of one to two million wild fish are nearly gone, largely replaced with a few hundred thousand hatchery-produced fish. These hatchery-dependent populations are prone to collapse in the wild and have significant negative impacts on

genetic diversity in remaining wild populations. Paul S. Kibel, *Of Hatcheries and Habitat: Old and New Conservation Assumptions in the Pacific Salmon Treaty*, 10 Wash. J. Env't L. & Pol'y 90 (2020). In recent years, California's salmon season has been intermittently closed largely due to collapse of these stocks. The predicament of Central Valley Chinook typifies California's salmon and steelhead populations. Across the state, many local populations have disappeared, and federal and state regulators currently list 90 percent of salmonids in danger of extinction.

We can protect and revitalize anadromous fish populations by removing barriers or helping fish bypass them, restoring fish-friendly flows that more closely mimic natural conditions (called environmental flows), improving access to good stream habitat, and changing how hatcheries operate. In many cases, adding fish passage and making small changes in dam operations can go a long way toward recovering fish populations.

History of California Fish Protection Laws

To a remarkable extent, long-standing California state laws already address many causes of salmonid population collapse. As noted, state laws prohibit barriers to fish migration, require fish passage around dams, mandate minimum flows, and otherwise seek to protect freshwater ecosystems. Although some dams may have been specifically exempted, and some federal dams may avoid some state laws through preemption, most of the state's thousands of dams violated state laws when built and remain in violation today. Better historical enforcement of these laws would have protected fisheries, and improved enforcement could now move salmonids toward recovery.

This article focuses on CF&G Code § 5937 and its flow requirements. In 1914, the CF&G Commission called on the state legislature to pass a law protecting minimum flows below dams, noting despairingly that many rivers had begun to run dry in summer and early fall. The legislature responded with section 5937, which required dam owners to release enough water "to keep in good condition any fish that may be planted or exist below said dam or obstruction." 1915 Cal. Stat. 820. "Fish" includes wild fish, mollusks, crustaceans, invertebrates, and amphibians. CF&G Code § 45.

Like many state laws protecting fisheries, section 5937 rapidly sank into obscurity. Karrigan Bork et al., *The Rebirth of Cal. Fish & Game Code 5937: Water for Fish*, 45 U.C. Davis L. Rev. 809 (2012). Reasons build, in large part, from "the tendency of the legislature and of administrative agencies to subordinate diffuse public advantages to pressing private interests." Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 Mich. L. Rev. 471 (1970). This tendency played out in several ways: No single agency was charged with implementation; the CF&G Commission had little power and few resources, especially compared to the nascent California State Water Resources Control Board (Water Board), an entity that summarily approved most water rights applications; and disorganized and poorly funded advocacy for fisheries simply could not stand against powerful private interests seeking more and more water.

It is tempting to think that this kind of regulatory failure is an isolated, historical example, but such failures continue

and are the norm, not the exception. For example, since 1982, the California Department of Fish and Wildlife (CDFW) has been required to set minimum stream flow requirements for fish and wildlife protection. As of 2019, CDFW had begun developing flow recommendations for 12 streams, drafted recommendations for two streams, and completed only one final recommendation. CDFW Water Branch, *CDFW Instream Flow Studies*, CDFW (2021). Similarly, in 2005, the California legislature required CDFW and the California Director of Transportation to address barriers to fish passage caused by new or existing transportation projects. Caltrans, *2019 Fish Passage Annual Legislative Report* 38 (2020). Remediation of barriers is proceeding at a pace of roughly 3.5 barriers per year; well over 7,000 barriers remain on state highways alone. At this rate, remediation of existing barriers on state highways would be complete in 1,750 years. Even doubling or tripling this rate would be far too slow to save California's migratory fish.

At a state level, broad citizen suit powers born of the public trust doctrine are high among the reasons for hope of increased enforcement.

The modern environmental era offers possibilities for increased enforcement. At a state level, broad citizen suit powers born of the public trust doctrine are high among the reasons for hope of increased enforcement. Since the 1971 California Supreme Court's decision in *Marks v. Whitney*, 491 P.2d 374, 380 (Cal. 1971), private citizens have standing to protect public environmental interests in the state. Courts have recognized section 5937 as a legislative expression of the public trust, thus creating private standing for lawsuits seeking to enforce California's environmental laws. Karrigan Bork, *Targeting Public Trust Suits*, 29 *Env't L. News* 3 (2020). This state standing is broader and more reliable than federal standing for environmental enforcement, and, in California, private suits built on it have begun to rehabilitate state laws like section 5937. Similar approaches may be available in other states as well.

Building a Science-Driven Litigation Campaign

Like many states, California law supports private attorney general suits by allowing award of attorney fees to successful litigants "in any action which has resulted in the enforcement of an important right affecting the public interest." Cal. Civ. Proc. Code § 1021.5. California courts can also award attorney fees to unsuccessful litigants who catalyze change in the public interest. In both cases, plaintiffs must reasonably endeavor

to enforce the public right at issue without litigation, but public interest plaintiffs complying with this requirement are generally able to recover some or all of their fees. *Id.* Fee recovery and broad public trust standing together create significant opportunities for lawyers representing private litigants to improve California's aquatic ecosystem conditions.

In 2009, *pro per* litigant Grant Reynolds filed a section 5937 suit against the City of Calistoga for its management of Kimball Dam. Calistoga had not historically released environmental flows despite miles of potential salmonid habitat immediately downstream. The superior court initially dismissed the case on standing grounds. Reynolds sought counsel. Attorney William McKinnon represented him and moved for reconsideration, convincing the Water Board and CDFW to file joint amicus briefs. The court granted reconsideration. Ruling on Submitted Mot. for Recons. at 4, *Reynolds v. City of Calistoga*, No. 26-46826 (Cal. Super. Ct. Mar. 25, 2010). Parties then negotiated and litigated bypass flows and, subsequently, legal fees. Calistoga developed an interim bypass plan, concluding that any reduction in its Kimball reservoir water supplies could be offset through other available supplies. Enforcement of the plan remains a challenge.

Thereafter, in 2016, Reynolds formed Water Audit, a public-benefit corporation that has since pursued a litigation campaign focused on restoring below-dam flows. Water Audit benefited from a burgeoning interest in section 5937. In particular, earlier research and litigation concerning Putah Creek water flows brought U.C. Davis Professor Peter Moyle into the fray, who established the science needed to implement environmental flows in compliance with section 5937. His peer-reviewed research on the good condition requirement of section 5937 has informed both judicial and Water Board interpretations of the statute. *See, e.g.,* Peter B. Moyle et al., *Fish Health and Diversity: Justifying Flows for a California Stream*, 23 *Fisheries*, no. 7, July 1998, at 6. Professor Moyle and scientist Theodore Grantham also developed a systematic approach to evaluating dam compliance with the statute. T.E. Grantham & P.B. Moyle, *Assessing Flows for Fish Below Dams: A Systematic Approach to Evaluate Compliance of California's Dams with Fish and Game Code Section 5937*, *Ctr. for Watershed Scis. Tech. Rep. CWS-2014-01*, U.C. Davis (2014). The Calistoga case showed that sound science must underpin section 5937 litigation, and Water Audit capitalized on existing expertise by creating a technical advisory committee that included both Moyle and Grantham.

Both negotiations and litigation often focus on the section 5937 "sufficient" and "good condition" requirements; this is technical litigation. The advisory committee provides expertise (and expert witnesses) to assess whether required conditions are being met and to review remedial flow plans prior to litigation settlement. The technical advisory committee also informs Water Audit's choice of where to file public trust suits in California's target-rich litigation environment.

Choosing litigation targets depends on several considerations, beginning with the probability of winning environmental water flows and the potential benefits of those additional flows. Just as easy wins in places that won't make a difference for fish populations accomplish little, river systems ripe for improvement suffer greatly from a lost suit. Water

Audit weighs state and federal venues, precedential value, dam ownership (with a preference for publicly owned dams), potential rehabilitation benefits, potential for release of waters while minimizing impacts to human uses, local political conditions, potential for success in trial court or on appeal, and potential for dam owners' actions to redress flow issues.

Working with the technical advisory committee, Water Audit followed up its initial success with ongoing efforts to improve the Napa River watershed. In 2016, Water Audit asked the City of St. Helena to begin releasing environmental flows from Bell Canyon Dam into Bell Canyon Creek, a Napa River tributary located on the east side of Napa Valley. City representatives were aware of Calistoga's recent court loss and so quickly signed a settlement agreement to increase flows and assess hydrologic, geomorphic, and habitat quality concerns. Before adoption, the plan was reviewed and approved by Water Audit technical advisors. As with the Kimball Dam litigation, the City found it could bypass flows with minimal to no impacts on municipal water supply, as most of the water was already spilling, albeit at the wrong time to benefit fish. Environmental flows have improved Bell Canyon Creek habitat and augmented the mainstem Napa River.

Other successes have followed. A 2016 lawsuit against the California Department of Veterans Affairs (DVA) over its Rector Dam persuaded DVA to begin bypass flows; conduct remedial planning, monitoring, and reporting; and adaptively manage flows. As a consequence, potential fish habitats downstream of Rector Dam have received environmental flows for the first time since the dam was built. A 2021 settlement agreement over Lake Marie Dam, on tiny Cayetano Creek in the southeastern Napa River watershed, will rewater a short four-mile stream section but have an outsized benefit. A habitat assessment completed as part of the settlement agreement estimates that planned early summer environmental flows will boost nursery conditions and increase adolescent fish survival, yielding 600 to 1,200 adult steelhead.

These cases demonstrate that insufficient monitoring, minimal or absent flows, and clear violations of long-standing state law can be overcome by coupling sound science with aggressive protection of the public trust. Water Audit litigation has resulted in significant changes to dam operations throughout the Napa River watershed, improving conditions for fish and resulting in no adverse impacts to municipal water supplies.

Insights

Since the public trust doctrine granted standing, several organizations have pursued almost a dozen actions to enforce section 5937, in the courts and before the Water Board. *See, e.g., Natural Res. Def. Council v. Patterson*, 791 F. Supp. 1425 (E.D. Cal. 1992). The state seems content to let private parties pursue this litigation, although, as noted, it sometimes files amicus briefs in support and provides other informal support through consultation. A focus on rewatering rivers and its string of successful suits dedicated to the Napa River watershed's complete rehabilitation set Water Audit apart in this litigation arena. Its efforts offer four key insights into creating successful litigation campaigns elsewhere.

First, focusing work in one watershed has resulted in more comprehensive environmental restoration and stronger community relationships. These lawsuits established Water Audit as a well-known, technically proficient organization willing to enforce the public trust, resulting in faster resolutions in subsequent suits. Their place-based campaign also engaged community members who provided invaluable insights into local conditions and helped Water Audit build momentum for restoration in the region.

A focus on rewatering rivers
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arena.

Second, private litigation increases motivation and enables cooperation. To break the pattern of conflict-based litigation, Water Audit partnered with local organizations to host a science-based forum on water management. Interest was overwhelming, attracting a standing-room-only crowd of over 150 people. Shifting away from the familiar rhetoric of competing interests, the forum emphasized monitoring and science-driven approaches to restoration. The forum spawned the Refugia Project, a field research effort that evaluated fish passage barriers in Napa streams and prioritized them for further action. This information and collaboration should, in time, significantly improve reconciliation of the needs of fish and people, but it is only possible due to the litigation that preceded it.

Third, restoring fish populations is a multifaceted problem, requiring multifaceted solutions. Below-dam flows provide major benefits, but barriers to fish passage, water diversions, toxic discharges, and groundwater withdrawals counteract those benefits, so Water Audit has begun to address these issues as well. For example, an earthen dam built across York Creek in the 1870s, unused since 1930, blocked fish passage and released hazardous mud flows. Regulatory agencies advocated for its removal for almost 30 years, experts long ago developed a dam removal plan, and funding has been available since 2012. But in spite of a \$70 daily fine accruing for over eight years, the dam stood until Water Audit threatened suit, which spurred dam removal in summer 2020. Other efforts include addressing groundwater withdrawals where those withdrawals impact public trust resources. For instance, a February 2021 settlement agreement with St. Helena requires monitoring of surface and groundwater use and consideration of the public trust in groundwater permitting. The settlement agreement also shows

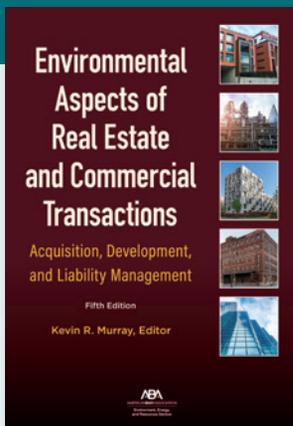
that private lawsuits can sometimes convince permitting entities to start fulfilling their own public trust obligations.

Fourth, and finally, this work demonstrates the vital importance of private litigation in public trust protection. Litigation is a language that government speaks. It can drive funding and action in a way otherwise difficult to achieve. Litigation can also clarify dam owners' and other actors' roles, allocating clear rights and responsibilities that create fertile ground for collaboration. Public enforcement offers advantages over private litigation, and private litigation cannot replace robust public enforcement. Nevertheless, diffuse responsibility, ever-shifting politics, and inconsistent funding streams tend to destabilize even legislatively mandated efforts to protect public trust resources. Private litigation has a crucial role in bringing attention, funding, and judicial enforcement to public trust problems.

Through careful, scientifically sound litigation, Water Audit and other organizations are fulfilling California's longstanding legislative promises of sound ecosystems reconciled with human needs. This story demonstrates Professor Sax's public trust thesis in action: Litigation can correct the inherent failures of the administrative state. Private litigation thus remains vital to successful environmental protection. ♻️

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Are We There Yet? The Challenges of Litigating Clean Air Act Rules

Melissa Horne and Mack McGuffey

The Clean Air Act (CAA) depends heavily on regulations adopted by the Environmental Protection Agency (EPA) to implement its broad and often ambiguous terms. However, proposed regulations extending EPA's authority to new pollutants or source types, or increasing the stringency of existing requirements, are almost always controversial and often immediately challenged in federal court—sometimes by targets of the regulation, sometimes by parties who believe the regulations did not go far enough, and often by both.

In recent years, hot-button regulations proposed by one administration have remained tied up in the courts when the next presidential transition occurs, allowing the new administration to reverse a challenged policy before the courts have even had a chance to decide the legality of the previous administration's policy. This pendulum swing from one administration to the next can leave states and regulated entities trying to decide whether to gear up to comply with a new rule or wait and see if it dies on the vine once a new administration changes course, starting the cycle anew.

While litigation over CAA regulations is not a new phenomenon, the politics surrounding key policy issues, such as climate change, have become increasingly polarized over the years. As a result, the possibility of litigation is a threat that must be considered at all stages of the rulemaking process if a rule is to have any hope of survival. Complicating matters further are unique rulemaking and judicial review procedures in the CAA that differ from Administrative Procedure Act (APA) requirements. These differences not only can influence how litigation over CAA rules will play out; they can be outcome-determinative.

Most of these CAA-specific procedural requirements have been on the books for decades. Some provisions though have only recently been interpreted and applied by the courts. This article explores the interplay between the rulemaking process

and judicial review of CAA regulations, and the way litigation has come to claim its own starring role in an increasingly complicated and contentious regulatory process.

Rulemaking and Judicial Review, CAA Style

Provisions governing EPA development and federal court review of air regulations are contained in section 307 of the CAA. Together, they dictate how a rule must be written, including what information becomes part of the rulemaking record, when and where a rule can be challenged in court, what issues can be raised in a challenge, what happens to a rule during that challenge, and what actions can and cannot be challenged.

When section 307 was adopted in 1970, the CAA was unclear regarding the availability of judicial review of administratively promulgated regulations. Section 307(b) resolved that problem by dictating when and where a lawsuit challenging a CAA final regulation may be brought. Under section 307(b), litigants have 60 days to petition for review of a rule following its publication in the *Federal Register*, unless the petition is based on grounds arising after the rule's publication, in which case it must be brought within 60 days after such grounds arise. Section 307(b) also establishes the venue for a challenge to each specific type of air regulation EPA is required to issue. 42 U.S.C. § 7607(b).

Recognizing that some administrative actions are national in scope and require “even and consistent national application,” Congress provided that suits challenging nationally applicable regulations (such as New Source Performance Standards or National Emission Standards for Hazardous Air Pollutants), can only be brought in the D.C. Circuit Court of Appeals. S. Rep. No. 91-4358, at 441 (1970). In contrast, suits challenging EPA's approval or promulgation of a state implementation plan (under the regional haze program or a section 111(d) program

like the Clean Power Plan (CPP) or the Affordable Clean Energy rule, for example) must be brought in federal appeals court for the appropriate local circuit. Section 307(b) provides one exception—actions that appear local must still go to the D.C. Circuit if they are “based on a determination of nationwide scope or effect” and EPA expressly characterizes them as such. 42 U.S.C. § 7607(b)(1).

Section 307 of the CAA goes beyond identifying when and where a rule challenge may be brought—it also details what issues may be raised in that challenge.

The determination of whether a rule is “of nationwide scope and effect” can have significant implications for the success of a rule challenge. While this may seem a simple matter, whether a rule involving a single state nevertheless involves application of a nationwide policy is often unclear. A case in point is the challenge brought to a 2015 EPA rulemaking determining that dozens of state implementation plans (SIPs) were deficient because they allowed sources to exceed emission limits during periods of startup, shutdown, and malfunction (SSM). The so-called SSM SIP Call required states to revise their SIPs to eliminate enforcement discretion or affirmative defenses during periods of SSM. The SSM SIP Call was challenged in the D.C. Circuit due to the nationwide scope and effect of the rule, even though it targeted individual state regulations. *Env’t Comm. of the Fla. Elec. Power Coordinating Grp. v. EPA*, No.15-1239 (D.C. Cir. filed July 27, 2015). Before oral argument could be heard, the Trump administration took office and asked for the case to be held in abeyance.

EPA then withdrew the SSM SIP Call for three individual states—Texas, North Carolina, and Iowa—based on a different interpretation of the CAA than the one underlying the SIP Call itself. These state-specific withdrawals were challenged in the D.C. Circuit, based on a claim that the rules were nationwide in scope and effect because they reinterpreted EPA’s national SSM policy. Based on the similarity in the relevant legal issues, the litigants also asked for the challenges to be consolidated with the 2015 SSM SIP Call case. EPA and industry intervenors opposed consolidation, arguing that the challenges must be heard in local circuits, based on state-specific factual and legal issues.

In a brief order, the D.C. Circuit denied consolidation but ordered all four cases to be argued on the same day to the same panel of judges assigned to the broader SSM SIP Call case, with the question of venue to be briefed and argued along with the

merits—the court evidently saw it as a close enough question to hear argument on the point. While Congress likely intended section 307 to establish a bright line for determining venue, the SSM SIP Call case shows how, in practice, the question of venue can remain unclear.

The Give and Take Between Rulemaking and Judicial Review Under the CAA

Section 307 of the CAA goes beyond identifying when and where a rule challenge may be brought—it also details what issues may be raised in that challenge. These provisions governing the scope of judicial review are embedded in the same part of section 307 that governs certain aspects of the rulemaking process, underscoring how elements of that process can have direct implications for judicial review.

Under section 307(d), proposed rules must provide for a comment period and include a statement of basis and purpose. The final rulemaking must identify and explain major changes from the proposal and respond to significant comments raised during the comment period. The statement and purpose, reasons for changes to the proposal, public comments, and EPA’s response to significant comments, taken together, establish the exclusive rulemaking record for judicial review. These requirements reflect more general APA requirements but add emphasis to the need to follow those procedures in developing and promulgating air regulations.

For potential challengers of a CAA rule, the public comment period is critical—it is the only way to preserve key issues for judicial review. Section 307(d) provides that only objections raised with “reasonable specificity” during the comment period can form the basis for judicial review of that rule. In short: no comment, no review. 42 U.S.C. § 7607(d).

There are only two exceptions—a challenger may preserve an issue if (1) the objection was impracticable to raise within the comment period or (2) the grounds for objection arose after the comment period and are “of central relevance to the outcome of the rule.” 42 U.S.C. § 7607(d)(4)(B)(i). However, even issues that meet these criteria cannot go straight to court—they must first be submitted to EPA in a petition for reconsideration. These section 307(d) requirements establish two different paths for review of an issue. If a prospective challenger can raise an issue during the comment period, it must do so to preserve the possibility of judicial review on that point. If the issue was not available for comment, due to a surprise change from proposed to final rule or previously unavailable information, the only path to review is via a petition to EPA for reconsideration.

The bottom line is that challengers to air rules must choose whether to go to court or to EPA, not both. If a challenger goes to court with an issue, it must be based on a comment submitted, which confirms reconsideration is not warranted (or at least not mandatory). If a challenger seeks reconsideration, it must be based on the claim that no comment was submitted due to impracticability or after-arising grounds, which confirms judicial review is unavailable. Any attempt to take the same issue in both directions could force the challenger to make inconsistent arguments, harming the likelihood of success on either path.

A recent decision by the D.C. Circuit demonstrates how these constraints work in practice. In 2019, the court tossed claims by several states against EPA's Cross-State Air Pollution Rule related to emission budget calculation methods introduced by EPA for the first time in the final rule. *Wisconsin v. EPA*, 938 F.3d 303 (D.C. Cir. 2019). The court recognized that the states had no opportunity to raise the issue during public comments on the proposed rule but explained that section 307 requires a party challenging agency action to petition EPA for administrative reconsideration before raising the issue with the court. The court acknowledged that while this might be a "roundabout way" of doing things, "we cannot fairly review how the agency responded to an argument that was never presented it." *Id.* at 332.

Pressing Pause with a Stay

Many of the requirements in section 307 suggest a keen focus by Congress on finality, with a strong preference for allowing rules to become effective even as any challenges to them proceed. Section 307(b) expressly provides that filing a petition for administrative reconsideration does not affect the finality of a rule for purposes of pursuing judicial review or postpone the effectiveness of a rule. Section 307(d) does allow the effectiveness of a rule to be stayed during reconsideration or judicial review, but only for a period of three months.

Despite this statutory limitation, EPA has often sought to stay a rule indefinitely during reconsideration to avoid requiring compliance with a rule that is likely to change. Challenges to final rules often occur when opponents of a signature regulatory action passed near the end of a presidential term seek administrative review of that rule after a new president takes office. While it seems logical that EPA would require significantly more than three months to propose an alternative to a rule that the prior administration likely spent years to craft, section 307(d) definitively limits the stay of an effective date to this tight time frame. Only in recent years, however, have the courts confirmed that limits on stays in section 307 have teeth.

For example, in a 2018 decision, the D.C. Circuit struck down EPA's attempt to extend the compliance date for a chemical release regulation passed in the final week of the Obama administration. *Air Alliance Houston v. EPA*, 906 F.3d 1049 (D.C. Cir. 2018). Several weeks into the new administration, industry petitioners sought administrative reconsideration of the rule. EPA granted the petition, administratively staying the rule for 90 days, as allowed under section 307(b). EPA then passed a separate regulation, referred to by the court as the Delay Rule, which extended the original compliance deadline by 20 months. EPA claimed the delay was issued under the same authority used to establish the rule in the first place, which directs the Agency to impose chemical disaster regulations with effective dates that assure compliance "as expeditiously as practicable."

The court rejected EPA's attempt to rely on a substantive provision of the CAA to skirt the 90-day limit in section 307(b), noting that Congress "saw fit to place a three-month statutory limit" on the reconsideration, regardless of whether that seemed sufficient for the Agency to complete

the reconsideration process. *Id.* at 1061. However, the court also explained that its holding was narrow and that the Delay Rule was vacated because it neither amended nor proposed to amend the rule under reconsideration, but only sought a delay while EPA decided what it wanted to do. *Id.* at 1066. This distinction may leave an opening for EPA to delay the effectiveness of a rule if better justified on a substantive basis, rather than solely on the need for more time to rewrite the rule.

Staying Out of Court Altogether

Recognizing the potential risks associated with judicial review of controversial air policies, EPA often acts in ways that are not reviewable in court. Over the last decade or so, as the threat of rule challenges has grown, EPA has increasingly sought to strengthen or ease existing air quality regulations via "guidance." While by definition not binding on the regulated community, guidance often offers interpretations of existing regulations that represent significant changes to prior agency policies. However, guidance is not reviewable under the CAA—section 307(b) only allows for judicial review of final rules or other final agency actions.

Challenges to recent controversial guidance documents in the air context have been denied as the D.C. Circuit has consistently held that guidance documents do not constitute "final action" of the agency. In 2019, the court rejected challenges to EPA guidance defining "significant impact levels" (SILs) under the Clean Air Act's Prevention of Significant Deterioration program, *Sierra Club v. EPA*, 955 F.3d 36 (D.C. Cir. 2019), as well as guidance indicating that major sources of hazardous air pollutants could be reclassified as "area sources" under section 112 of the Act. *Cal. Cmty. Against Toxics v. EPA*, 934 F.3d 627 (D.C. Cir. 2019).

In each of these cases, the D.C. Circuit determined that the challenged guidance did not constitute "final agency action" subject to judicial review under section 307(b), applying the two-pronged test set out by the Supreme Court in *Bennett v. Spear*, 520 U.S. 154 (1997): (1) whether the action "marks the consummation of the agency's decisionmaking process" and (2) whether the action is "one by which rights and obligations have been determined or from which legal obligations will flow." Central to the decision in each case was a determination that sources would not face any potential liability or enforcement action as a result of the guidance, even though it might forecast the agency's approach to interpreting the rule.

While section 307 does not confer jurisdiction over challenges to significant agency guidance, once an agency relies on that guidance to impose a requirement, it becomes ripe for review. Accordingly, any state or regulated entity that attempts to rely on guidance for the first time may unwittingly become a guinea pig for determining whether that guidance and the action it allows are legal under the CAA, so caution is warranted.

Thanks to new rules finalized by EPA in the final months of the Trump administration, future administrations may not be able to rescind and reissue CAA guidance as freely as in the past. 40 C.F.R. pt. 2, subpt. D. These procedural regulations establish new requirements for the promulgation of agency

guidance, including public notice and comment for “significant” guidance as well as procedures for the public to seek modification or rescission of that guidance. While these procedural rules may be on the chopping block for the new Biden administration, they will at least serve as an initial impediment to any effort to quickly alter current air policies via guidance.

The Litigation Life Cycle of Significant Air Regulations

As highlighted in the examples above, the CAA’s procedures for rulemaking and judicial review may appear straightforward but can prove nettlesome in their application. However, navigating the process for and potential minefields associated with judicial review under the CAA has taken on more importance than ever, as litigation against controversial rules has become a given. Despite the preference for finality that Congress embedded in section 307, litigation over air rules can drag out for multiple years and over multiple presidential administrations, resulting in substantial uncertainty for regulated entities.

EPA’s now decade-long attempt to regulate greenhouse gas emissions (GHGs) from new and existing coal-fired power plants highlights the dramatic swings that can attend a single CAA regulatory action and the role that litigation can play in whether that rulemaking will remain good law. In October 2015, during President Obama’s second term, EPA finalized the CPP and the Carbon Pollution Standards (CPS), a sweeping set of regulations under section 111 of the CAA. The rules aimed to reduce GHGs from new coal-fired power plants through limits based on partial carbon capture and sequestration (something only done at one now-mothballed U.S. facility), as well as to reduce GHGs from existing coal-fired units by requiring a shift in electricity generation from coal to natural gas and renewable energy sources. Both rules were immediately challenged in the D.C. Circuit by numerous states and a host of industry petitioners. Almost as many states, the District of Columbia, local governments, other utilities, and nonprofit groups intervened in the litigation in support of the rules.

Although the CPS went into effect, the CPP was stayed in an unprecedented order by the Supreme Court, pending disposition of the challenge to the rule in the D.C. Circuit and any subsequent petition for writ of certiorari to the Supreme Court. During the final months of the Obama administration, over seven hours of oral arguments were heard before an *en banc* panel of 10 D.C. Circuit judges, but no decision was issued prior to the end of Obama’s term.

Shortly after taking office, President Donald Trump signed an executive order calling for EPA to review the CPP and the CPS. Based on that order, the D.C. Circuit placed both cases in abeyance while EPA conducted its review of the two rules. The Trump administration ultimately failed to revise the CPS—although it issued a December 2018 proposal, EPA did not finalize it before President Biden took office. Briefing was completed in the CPS

challenge, but the case was held in abeyance before oral argument could be held. That litigation may now resume, depending on what EPA does with the proposal and whether the challengers to the rule continue to press their case.

In contrast, the Trump administration repealed the CPP and replaced it with the Affordable Clean Energy (ACE) rule, rendering the challenges to the CPP moot. However, EPA’s issuance of its replacement rule initiated another revolution of the litigation merry-go-round with the inevitable filing of a petition for review of the ACE rule in the D.C. Circuit. In essence, all parties switched sides, and briefed many of the same issues that had already been briefed and argued in the CPP case. Unlike the CPP, the ACE rule was not stayed, and states began to implement the rule while the litigation ensued.

Oral argument in the ACE challenge was held before a three-judge panel of the D.C. Circuit in October 2020. Just a month later, President Trump lost his bid for a second term. As a result, the ACE rule litigation appeared likely to meet the same fate as the CPP litigation—the court appeared unlikely to issue a decision before the Biden administration would take office and ask the court to hold the case in abeyance. But on the last full day of the Trump administration, the D.C. Circuit handed down its ruling, vacating the ACE rulemaking.

At the time of this writing, some petitioners in the ACE litigation have filed petitions for a writ of certiorari to the Supreme Court, which, if granted, could resolve years of uncertainty regarding the scope of EPA’s authority to regulate GHGs from existing power plants under section 111 of the CAA. Even a decision from the Supreme Court, however, would likely leave many questions unanswered until EPA promulgates yet another regulation to fill the void left by the CPP and ACE, setting the stage for another rule challenge. Despite the apparent goal of certainty and finality in section 307 of the CAA, those aims remain out of reach almost 10 years after President Obama first announced a plan for addressing GHGs from power plants.

EPA’s climate change rules for power plants demonstrate how complex and protracted the rulemaking and judicial review process under the CAA can be. However, the long and winding path these rules have taken through EPA and the courts is not reserved for headline-making regulations; any air rule that presents the potential for disagreement (which these days is most of them) must clear the same hurdles. Although the text of section 307 may seem impenetrable in places, and the cases interpreting it equally so, it provides the only roadmap for both EPA and the regulated community as they attempt to chart a course towards certainty and finality—a destination that still seems far off in the constantly shifting landscape of CAA policy. ♡

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Plastic Pollution Litigation

Sarah J. Morath, Samantha Hamilton, and Amanda Thompson

Plastic pollution is a growing problem without an easy solution. Given that legislative action on plastic pollution has stalled, advocates are using the judicial system to hold polluters accountable. This article evaluates recent litigation involving plastic pollution. Like climate change litigation, the claims involving plastic pollution are novel and the defendants diverse. Some plastic pollution claims are brought under well-established laws, like the Clean Water Act (CWA), while others include claims of first impression (e.g., public nuisance as applied to bottle manufacturers). The defendants—plastic producers, plastic pellet transporters, government agencies, and major bottling companies—are as varied as the claims. But unlike climate change litigation, the results so far tip ever so slightly in favor of the plaintiff-advocates. Advocates have secured large settlements, claims have been allowed to proceed against polluters, and permits have been suspended. These tangible results suggest that plastic pollution litigation, which is in its infancy, might offer a promising avenue for addressing our plastic problem.

Although petroleum-based plastics have been around for more than 100 years, the concept of single-use plastics did not develop until the mid-1970s when grocery stores started providing plastic bags to customers. Single-use plastic bottles, food containers, and straws quickly followed. While these larger plastic objects can break down into microplastics—plastic particles smaller than 5 mm—plastic never completely degrades and can persist in the environment for hundreds of years.

Plastic pollution's ubiquity and harm are extensively documented. Plastic has been found at the summit of Mount Everest and the depths of the Mariana Trench. Microplastics have been detected in rainwater, bottled water, table salt, soil, seafood, and recently placenta. Damian Carrington, *Microplastics Revealed in the Placentas of Unborn Babies*, *The Guardian* (Dec. 20, 2020). While plastic's impact on humans is not fully understood, its

harm to marine animals, sea turtles, sea birds, and wildlife is evident. These creatures often ingest, get tangled in, or are impaled by discarded plastic. But marine creatures are not the only vulnerable beings. Plastic also makes its way into fields and deserts, where it is consumed by unsuspecting cows and camels. The aesthetic impact of plastic on beaches, the countryside, and our neighborhoods is apparent.

While the sight of plastic on beaches and the images of entangled birds are unsettling, plastic's harm extends beyond what we can see with the naked eye. Air and water quality are impacted across the plastic supply chain, from production to disposal. Research shows that persistent organic pollutants can sorb to microplastics, causing great risk to those creatures that ingest the plastic. And plastic that is not recycled properly is often incinerated, causing harmful chemicals to be released into the air. Accidental spills and improper disposal only compound the issue. These conditions have led scientists to declare plastic a chemical hazard that is turning the oceans into a toxic soup.

Legislation or Litigation?

When modern environmental law first took shape during the 1970s, the harms associated with plastic in the environment were relatively unknown. A Google Scholar search reveals that the word "microplastics" appears in just 56 articles published between 1970 and 1980. Records show, however, that in the early 1990s, the Environmental Protection Agency (EPA) was concerned with tiny microplastic pellets, or nurdles, that are melted to make plastic products. Env't Prot. Agency, *Plastic Pellets in the Aquatic Environment: Sources and Recommendations: Final Report* (1992). Plastic producers, however, were able to avoid additional regulation by proposing a self-monitored program called Operation Clean Sweep, which continues today. *Id.* There are also reports that in the 1990s, plastic manufacturers including bottling companies, promoted recycling, which

has largely been unsuccessful, to continue the unfettered use of plastic. Laura Sullivan, *Plastic Wars: Industry Spent Millions Selling Recycling—To Sell More Plastic*, NPR (Mar. 31, 2020).

Apart from the Microbead-Free Waters Act of 2016, which banned microbeads in cosmetic products, as of 2020 no legislation specifically targets the problem of plastic pollution. 21 U.S.C. § 331(d)(2)(A) (2018). In 2020, Representatives Tom Udall and Alan Lowenthal introduced the Break Free from Plastic Pollution Act. H.R. 5845. This comprehensive law is full of creative methods for addressing plastic pollution including bans, taxes, and extended producer responsibility provisions. But this legislation has not moved forward. Given that there has been no new legislative action on plastic pollution, and that industry has done an inadequate job at keeping plastic out of the environment, advocates are turning to litigation to hold a variety of defendants—producers, transporters, manufacturers, and government officials—accountable for the harms associated with plastic.

This comprehensive law is full of creative methods for addressing plastic pollution including bans, taxes, and extended producer responsibility provisions.

Existing Litigation

San Antonio Bay Estuarine Waterkeeper v. Formosa Plastics Corp. Perhaps the most encouraging, and at the same time troubling, case involves the citizen suit provision of the CWA. 33 U.S.C. § 1365 (2018). In *San Antonio Bay Estuarine Waterkeeper v. Formosa Plastics Corp.*, Waterkeeper, a nonprofit organization that monitors the water quality of the bay, along with local environmental activists including Diane Wilson, brought an action against Formosa Plastics Corp. (Formosa), a plastic pellet manufacturer. No. 6:17-CV-0047, 2019 WL 2716544 (S.D. Tex. June 27, 2019). Waterkeeper argued that Formosa was violating its Texas Pollutant Discharge Elimination System (TPDES) permit, and, therefore, violating the CWA because it was exceeding its discharge limits for nurdles. *Id.* at *2. At a bench trial, Waterkeeper presented data showing compliance violations from January 2016 through March 2019. *Id.* at *3–5. Relying on the extensive evidence gathered by Ms. Wilson and other citizen-plaintiffs, U.S. District Court Judge Hoyt found that Formosa’s source controls, remediation techniques, manual removal efforts, and reliance on contractors to clean up plastic pellets were all ineffective and inadequate. *Id.* at *14. So egregious was Formosa’s conduct (Formosa had violated its permit for more than 1,000 days) that Judge Hoyt called Formosa a “serial offender” of the CWA. *Id.* at *8. In October

2019, Formosa agreed to a \$50 million settlement agreement, the largest citizen suit settlement under the Clean Water Act to date. *Formosa Plastics Agrees to Pay \$50 Million Settlement for Polluting Texas Waterways*, Plastic Pollution Coal. (Oct. 15, 2019).

Although Formosa was a member of Operation Clean Sweep—an industry-led effort to address plastic pellet pollution—internal emails showed that Formosa knew about the unlawful discharges for at least two years. In 2020, NPR reported that Formosa employees were given advance notice of state and federal inspections so that the plant could clean its discharge outfalls to meet permit standards and alter its record-keeping to remain in compliance. Laura Sullivan, *Big Oil Evaded Regulation and Plastic Pellets Kept Spilling*, NPR (Dec. 22, 2020). This kind of cooperative relationship allowed Formosa to avoid fines for its CWA violations for decades. *Id.*

While this case illustrates an industry’s inability to self-monitor for plastic pellet pollution, it also highlights the importance of everyday citizens in the fight against plastic pollution. Only when Diane Wilson and a group of concerned individuals sued was Formosa held accountable for its conduct. As Josh Kratka, senior attorney at the National Law Center, stated, “This case is a shining example of the crucial role that citizen enforcement suits play in seeing that our cornerstone environmental laws, like the Clean Water Act, actually fulfill their purpose of protecting our environment and public health.” *Formosa Plastics Agrees to Pay \$50 Million*, *supra*.

Charleston Waterkeeper v. Frontier Logistics L.P. Shortly after the Formosa settlement, Charleston Waterkeeper—an environmental nonprofit located in South Carolina—and The Southern Environmental Law Center (SELC) filed a lawsuit against the plastic resin packaging company Frontier Logistics, L.P. Using the citizen suit enforcement provisions of the Resources Conservation and Recovery Act (RCRA), and the CWA, plaintiffs claimed Frontier violated the law by releasing plastic pellets into the Cooper River, Charleston Harbor, and other Charleston waterways. Complaint for Injunctive & Declaratory Relief, *Charleston Waterkeeper v. Frontier Logistics, L.P.*, No. 20-cv-01089-DCN (D.S.C. Mar. 18, 2020). Since July 2019, Waterkeeper had collected more than 14,000 nurdles. *Id.* § 2. In September 2020, Judge David C. Norton ruled in the plaintiffs’ favor and denied Frontier’s motions for judgment on the pleadings and to strike and denied the South Carolina State Ports Authority’s third-party motion to quash plaintiffs’ subpoena. *Charleston Waterkeeper v. Frontier Logistics*, No. 2:20-cv-1089-DCN, 2020 WL 5629717 (D.S.C. Sept. 21, 2020). In denying the judgment on the pleadings, the court concluded that the plaintiffs could maintain simultaneous claims under both RCRA and CWA. While a single pellet may not constitute “solid waste” for purposes of RCRA and a “point source discharge” for purposes of CWA, the court recognized that the pellet packaging company could be both spilling pellets on land, making it subject to RCRA, and discharging pellets into water systems, making it subject to the CWA. *Id.* at *13.

Plaintiffs believed the nurdle spills and discharges were routine and collected samples and kept detailed records of plastics in the local Charleston waters. Andrew Wunderly, a member of

the Charleston Waterkeeper, remarked: “We find pellets everywhere we look . . . [a]nd at the sites we sample week after week, we continue to find consistently high numbers of pellets.” Steve Toloken, *Conservationists Plan Pellet Pollution Lawsuit in South Carolina, on Heels of Texas Case*, Plastic News (Nov. 1, 2019). Frontier, like Formosa, is a member of Operation Clean Sweep and denied responsibility for the pellets found in Charleston Harbor.

In March 2021, Frontier agreed to settle the lawsuit for \$1.2 million. The court is likely to approve the settlement. Advocates see the citizen suit litigation involving Formosa and Frontier as a way to not only stop plastic pellet pollution and provide compensation for the harm caused but as also serving as a precautionary tale for the rest of the industry.

Center for Biological Diversity v. U.S. Army Corps of Engineers. Another success, although a potentially temporary one, occurred when the U.S. Army Corps of Engineers (Corps) suspended a petrochemical permit issued to the Formosa Plastics plant in Louisiana. Once completed, the Formosa project, estimated at \$9.4 billion, would include 10 chemical plants and four other facilities in St. James Parish, Louisiana—an area commonly referred to as Cancer Alley because of the high occurrence of cancer in residents. Antonia Juhasz, *Louisiana’s “Cancer Alle” Is Getting Even More Toxic—But Residents Are Fighting Back*, Rolling Stone (Oct. 30, 2019). On January 15, 2020, the Center for Biological Diversity (CBD), a national nonprofit committed to the conservation of biodiversity, native species, and ecosystems, and local organizations including Healthy Gulf, Louisiana Bucket Brigade, and Rise St. James filed suit in the U.S. District Court for the District of Columbia against the Corps arguing that Formosa’s permit violates the CWA, the National Environmental Protection Act, the Rivers and Harbors Act, and the National Historic Preservation Act. Complaint at 4–5, *Ctr. for Biological Diversity v. U.S. Army Corps of Engineers*, No. 20-103, 2021 WL 14929 (D.D.C. 2021). Before the court could rule on the merits of the case or any motion, the Corps suspended the permit.

Although the specific reasons for the Corps decision are unknown, there was significant opposition to this project from the local community of St. James Parish. While the governor of Louisiana promoted the project as one of economic development and job creation, the plaintiffs raised environmental justice concerns. The complex would be in a community that is 90 percent Black, according to Julie Teels Simmonds from the CBD. Sabrina Canfield, *Feds Reconsidering Permit for Massive Plastics Plant in Louisiana*, Courthouse News Serv. (Nov. 5, 2020). In response to the Corps actions, Simmonds stated, “There is no way to defend the damage Formosa Plastics would do to St. James Parish and our oceans. We hope [the permit suspension] is the beginning of the end for this terrible project.” *Id.*

In addition to the concerns raised by CBD, the state court in Louisiana recognized the very real impacts this project would have on the air quality of St. James Parish. In a hearing for the project’s state air pollution permits, Nineteenth Judicial District Judge Trudy White informed the parties that environmental racism is real and prevalent, and ordered the Corps to perform

an environmental justice analysis of the impacts on the community from the air pollution from the plant. David Mitchell, *Judge Delays Crucial Permit for Formosa Plastic Plant; Requires Deeper Analysis of Racial Impacts*, The Advocate (Nov. 18, 2020). While the outcome of Formosa’s project is unknown, this case highlights a court’s recognition of environmental racism and the disproportionate impact of the petrochemical plant on the residents of St. James Parish.

Center for Biological Diversity v. EPA. Plastic producers are not the only actors drawing the public’s ire. EPA too has been subject to criticism for its actions. Across the Pacific Ocean, litigation brought by environmental groups in Hawaii resulted in the EPA withdrawing its prior approval of Hawaii’s impaired water list and adding two of Hawaii’s waters that were impacted by plastic pollution. In this citizen suit, the CBD sued the EPA under section 303(d) of the CWA, which requires states to identify water bodies that fail to meet the state’s water quality standards and list those bodies as “impaired” waters. According to CBD’s complaint, EPA violated section 303(d) of the CWA when in 2018 it approved Hawaii’s “deficient” list of impaired waters and ignored evidence of plastic pollution in Hawaii’s water bodies. Complaint at 21, *Ctr. for Biological Diversity v. U.S. EPA*, No. 1:20-cv-00056 (D. Haw. Feb. 2, 2020). Under the CWA, Hawaii was only required to develop total maximum daily load (TMDL) plans to improve water quality standards for those waters listed as “impaired.” 40 C.F.R. § 130.7(d)(2). TMDL plans ensure that impaired waters will attain applicable water quality standards, which are incorporated into water quality management plans. *Id.* Because waters impacted by plastic pollution were absent from the EPA-approved list, the waters were not designated as impaired and no plans for improving the water quality for those waters were required.

CBD challenged EPA’s approval of Hawaii’s listed waters, alleging that both the EPA and Hawaii failed to account for widespread plastic pollution, which posed significant threats to marine organisms and coastal communities. CBD’s complaint alleged that high concentrations of microplastics were contaminating and polluting Hawaii’s waters and that the EPA and the state of Hawaii did not adequately evaluate all available data on plastic pollution, including data directly submitted by the CBD. CBD asked the court for an order to compel the EPA to disapprove Hawaii’s impaired water list, or, in the alternative, an order to vacate and remand the EPA’s approvals, sending them back to the agency for a new determination that complies with the CWA and Administrative Procedure Act.

As a result of CBD’s action, EPA voluntarily withdrew its prior approval of Hawaii’s list of 2018 impaired waters and ordered Hawaii’s Department of Health to reexamine the evidence of plastic pollution and submit a new list. Notice Regarding Timing of Forthcoming EPA Action, *Ctr. for Biological Diversity*, No. 1:20-cv-00056 (D. Haw. June 25, 2020). In July 2020, after reviewing Hawaii’s new submission, EPA concluded that waters around two of Hawaii’s beaches were impaired due to plastic pollution: Hawaii’s Kamilo Beach and Tern Island. Joint Status Rep. at 2, *Ctr. for Biological Diversity*, No. 1:20-cv-00056, (D. Haw. July 17, 2020). These waters were added to

Hawaii's impaired waters list and incorporated into the state's water quality management plans. This listing will help restore the water quality of the area and support the overall goal of the CWA. 33 U.S.C. § 1251(a).

Although environmental groups are “encouraged that the EPA is taking steps to address plastic pollution in the ocean and on our beaches, as a major cause of water quality impairment” (Press Release, Ctr. for Biological Diversity, EPA: Waters Around Two Hawaii Beaches Impaired by Plastic Pollution (July 16, 2020)), only two of the 17 waters that CBD submitted as contaminated by plastic pollution were found to be impaired. Furthermore, Hawaii is required to submit its impaired waters list for EPA approval every two years, so designating waters polluted with plastics as impaired will likely be an ongoing battle for environmental advocates. 40 C.F.R. § 130.7(d)(1). Rafael Bergstrom, executive director of Sustainable Coastlines Hawaii, acknowledged this reality, expressing that “while we appreciate this monumental step with the listing of these two sites as impaired, there is immense work still to be done.” Press Release, Ctr. for Biological Diversity, *Feds Overrule State Officials, Order Hawaii to Protect Kamilo Beach, Tern Island* (July 16, 2020). That said, this suit illustrates another way to use the Act to address plastic pollution—classifying waters as impaired to establish TMDL plans.

Earth Island Institute v. Crystal Geysir Water Company.

While the individual and localized “wins” described above are worth celebrating, *Earth Island Institute v. Crystal Geysir Water Company* is poised to have the greatest impact, as this case could potentially hold large bottling companies liable for the damages caused by the plastic holding their products. On February 26, 2020, in the Superior Court of California, County of San Mateo, Earth Island Institute sued multiple corporate defendants including Crystal Geysir Water Company, the Clorox Company, Coca-Cola Company, Pepsi Co. Inc., and The Procter & Gamble Company, alleging, among other things, violations of the California Consumers Legal Remedies Act, public nuisance, negligence, and failure to warn of the harms caused by their plastic. Complaint at 50–60, *Earth Island Inst.*, No. 20-CIV-01213 (Cal. Super. San Mateo Cnty. Feb. 26, 2020). In the complaint, Earth Island Institute contended that the defendants' use of plastic packaging for their products was polluting California's waters and that these companies have spread misinformation through a “decades-long campaign to deflect blame for the plastic pollution crisis to consumers.” *Id.* at 5. Earth Island Institute sought to hold corporations responsible for the plastic they push out into the marketplace. In its prayer for relief, Earth Island Institute requested an order from the court requiring the defendants to disburse funds and resources necessary to remediate the harm they have caused to the environment. *Id.* at 60. In addition, it asked that the defendants refrain from marketing their materials as recyclable and implement corrective advertising “to inform consumers that the products do not have the characteristics, uses, benefits, and quality that defendants claim.” *Id.* at 60–61.

In a strategic move, the corporate defendants filed a notice to remove the case to federal court. As of February 2021, the court had not yet rendered a decision on venue. Sumona Majumdar, general counsel for Earth Island Institute, criticized defendants' procedural tactic, claiming that this was another attempt by multinational corporations to “deprive litigants of their state law claims and to delay consideration of the merits.” The defendants have not commented publicly on the pending litigation. Press Release, Earth Island Inst., *Earth Island Institute Argues for Keeping Plastic Pollution Case in California State Court* (May 6, 2020).

Earth Island shows that plaintiffs are becoming more creative and ambitious in their approach. Plastic packaging, which includes plastic bottles, accounts for around 40 percent of plastic pollution, and this effort to hold large companies responsible for the products they put in the marketplace could have a significant impact. Unlike public nuisance claims involving climate change, which are commonly dismissed for failure to demonstrate causation, the persistent and visible nature of plastic may make it easier for plaintiffs to trace the harm back to manufacturers.

A success for Earth Island Institute may inspire other plaintiffs to look beyond existing environmental laws and rely on a variety of tort claims. Fraud, product liability, toxic torts, and property damage claims against plastic producers and manufacturers are no doubt on the horizon. In December 2020, Greenpeace sued Walmart for “unlawful, unfair, and deceptive” practices regarding claims of recyclability on its private-label plastic products. Complaint at 1–4, *Greenpeace, Inc. v. Walmart, Inc.*, No. RG20082964 (Cal. Super. Dec. 16, 2020), 2020 WL 8642276. Insurance companies have suggested that microplastics could be the next “toxic tort,” and *New York Law Journal* has speculated about the coming wave of insurance, product liability, and property damage claims involving plastic. Mikaela Whitman, *The Coming Wave of Plastic Liabilities and Insurance Coverage*, N.Y. L.J. (May 29, 2020).

Looking Ahead

With no plastic-specific legislation on which to rely, aggrieved parties have brought claims under existing environmental laws as a way to hold agencies like the Corps and EPA and plastic manufacturers and transporters, such as Formosa and Frontier, responsible for their actions. This type of litigation has produced some favorable outcomes: Settlements have been reached, claims have been allowed, permits have been suspended, and waters have been reclassified. The most recent litigation, however, sounds in public nuisance, and commentaries from industry professionals suggest that the future of plastic pollution litigation will extend beyond environmental statutory law. ♻️

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Climate Change Litigation Trends 2015–2020

Ben Clapp and Casey J. Snyder

According to the National Oceanic and Atmospheric Administration (NOAA), the 10-year period from 2009 to 2019 marked the warmest decade on record, with five of the hottest years over the 1880 to 2019 period occurring since 2015. NOAA Nat'l Ctrs. for Env't Info., *State of the Climate: Global Climate Report—Annual 2019* (Jan. 2020). The average global temperature was not the only thing increasing: In addition to the record-breaking temperatures and storm events widely covered by the media, the last decade also saw a sharp increase in litigation related to climate change, especially between 2015 and 2020.

As of February 16, 2021, the Sabin Center for Climate Change's database of U.S. litigation (the Database) identifies 1,337 climate change-related lawsuits filed since 1986. Sabin Ctr. for Climate Change, *Climate Change Litigation Databases* (2021). The United States leads globally by volume with approximately three-quarters of all climate change cases filed here since 1986. Furthermore, of approximately 40 ongoing climate change lawsuits against carbon-intensive companies worldwide, 33 are in U.S. courts. Joana Setzer & Rebecca Byrnes, *Global Trends in Climate Change Litigation: 2020 Snapshot* 19 (July 2020). From 2015 to 2020, plaintiffs filed 736 climate change cases, accounting for over half of all such cases filed in the United States since 1986. The last two years, 2019 and 2020, saw the most such cases filed in back-to-back years (138 and 136 cases, respectively).

The recent influx of climate change cases has seen a shift in the legal strategies employed by plaintiffs. Before 2015, most climate change lawsuits focused on administrative law challenges claiming statutes require an agency to act, or not act, on climate issues, or challenges seeking to force state and federal governments to regulate greenhouse gas emissions to protect the atmosphere as a public resource. *Global Climate Change and U.S. Law* 58 (Michael B. Gerard & Jody Freeman eds.,

2d ed. 2014). While some cases filed after 2015 are consistent with this approach, many involve innovative new legal arguments and issues of first impression. This article discusses these important new trends in climate change litigation over the 2015 to 2020 time period.

A brief overview of precedent-setting climate change cases decided prior to 2015 provides useful context for evaluating these new trends. In *Massachusetts v. EPA*, 549 U.S. 497 (2007), the Supreme Court held that the U.S. Environmental Protection Agency (EPA) had the authority to regulate greenhouse gas emissions (mainly carbon dioxide) from motor vehicles as an air pollutant under the Clean Air Act (CAA), and affirmed Massachusetts' standing based on its climate change-related claims. Four years later, in *American Electric Power Company v. Connecticut*, 564 U.S. 410 (2011), the Supreme Court held that because the CAA delegated management of carbon dioxide to the EPA, public nuisance actions seeking injunctive relief under federal common law were barred because federal common law was displaced by the CAA. In a related case, *Native Village of Kivalina v. ExxonMobil Corp.*, 696 F.3d 849 (9th Cir. 2012), *cert. denied*, 569 U.S. 1000 (2013), the Ninth Circuit applied *American Electric Power* to plaintiffs' claims for monetary damages (as opposed to injunctive relief), finding that federal common law was displaced in climate change tort claims regardless of the relief sought. With these key cases in mind, the next sections address the litigation trends from 2015 to 2020, some of which involve the precedent set forth by these older decisions.

Public Trust Cases and a Constitutional Right to a Stable Climate

State courts have adjudicated climate change public trust cases seeking to require state action on greenhouse gases since 2011. These cases typically sought declaratory relief that the atmosphere is a public trust resource, requiring the state to

protect it for present and future citizens. This case type continued through 2015–2020 with subtle nuances from the largely unsuccessful 2011 wave.

Juliana et al. v. United States, 947 F.3d 1159 (9th Cir. 2020), is a public trust–styled case filed by 21 young people and minors that is unlike its predecessors. Not only is it the first public trust climate lawsuit filed in *federal* court, it argues that the plaintiffs have a fundamental constitutional right to a “stable climate” under the Due Process Clause of the Fifth Amendment, protecting life, liberty, and property. It also seeks an order requiring the federal government to prepare and implement an enforceable remedial plan to phase out fossil fuels and reduce atmospheric carbon dioxide. An Oregon district court declined to dismiss the lawsuit in 2016, holding the public trust and Fifth Amendment claims could advance, but on appeal, a split Ninth Circuit held that plaintiffs lacked standing because the requested relief—a national remedial program—involved a “political question,” that is, it required complex policy and technological decision-making entrusted solely to the executive and legislative branches. Plaintiffs petitioned the Ninth Circuit for a rehearing, which was denied on February 10, 2021, and now plan to appeal the case to the Supreme Court.

Following *Juliana*, a new wave of lawsuits was filed in state courts with an increasing reliance on allegations of violations of state constitutional provisions, beginning with *Funk v. Wolf*, 144 A.3d 228 (Pa. Commw. 2016), *affirmed*, 158 A.3d 642 (Pa. 2017). In *Funk*, plaintiffs sought a declaration that the atmosphere is a public resource under Article I § 27 of the Pennsylvania Constitution (the Environmental Rights Amendment (ERA)) and to compel the executive branch to regulate greenhouse gases and achieve safe levels as, they argued, the ERA required. While the state court held that the plaintiffs had standing, it dismissed the lawsuit because the ERA does not authorize the executive branch to disturb the state’s legislative scheme for regulating carbon dioxide emissions, and the executive government had no mandatory duty to conduct studies, promulgate regulations, or issue executive orders regarding greenhouse gases. Conversely, a recent decision by the Supreme Court of Hawaii held that the state Public Utility Commission’s approval of a ratepayer increase to pay for two liquid natural gas projects failed to consider out-of-state impacts from the projects in violation of plaintiff’s “protected property interest in a clean and healthful environment.” Haw. Const. art. XI, § 9; *In re Gas Co., LLC*, 465 P.3d 633, 651 (Haw. 2020). Elsewhere, in 2018 the Circuit Court for the Second Judicial Circuit of Florida dismissed a case seeking to require the state to devise and implement a plan to reduce greenhouse gas emissions, rejecting the plaintiff’s argument that the Florida Constitution guaranteed the right to a stable climate. *Reynolds v. Florida*, No. 2018-CA-819 (Fla. Cir. Ct. June 6, 2020). Alaska, Washington, and Minnesota are litigating similar lawsuits with state constitutional issues brought by private plaintiffs in 2017, 2018, and 2020, respectively.

These new cases signify a renewed effort to seek greenhouse gas emissions reductions in state courts. Plaintiffs are increasingly attempting to base this effort on state constitutional provisions. The traction and success of these lawsuits will

ultimately depend on the relevant state’s constitutional provisions and body of interpretive case law, meaning cases in some states could see different results than others, despite the similarity among legal claims.

Climate Torts: Nuisance and Adaptation Cases

Perhaps the most significant climate litigation trend from 2015 to 2020 is the effort by states and municipalities seeking compensation from large energy companies for damages caused by climate change or for costs to adapt to a changing climate. While earlier cases like *Kivalina* and *American Electric Power* raised similar climate tort claims, the displacement of federal common law by the CAA tempered any chance of success in these cases. In contrast to these earlier cases, all but one of the new wave of climate tort cases were filed in state court to avoid this outcome. As could be expected, the case filed in federal court under federal common law was dismissed. *City of New York v. Chevron et al.*, 993 F.3d 81 (2d Cir. 2021). There are over a dozen cases in this category pending across the United States. The current major battle in the courts is one of jurisdiction. Defendant companies seek to remove these cases to federal court and avail themselves of the displacement precedent. So far, however, federal appellate courts have returned the cases to state court.

This trend began with several California municipalities suing large energy companies in 2017. Defendants removed these cases to federal court, but the Ninth Circuit returned the cases to state court, finding either that the complaint did not present a federal question under 28 U.S.C. § 1331 or that the defendants did not meet the criteria for federal-officer removal under 28 U.S.C. § 1442(a)(1). *See Cnty. of San Mateo v. Chevron Corp.*, 960 F.3d 586 (9th Cir. 2020); *City of Oakland v. BP PLC*, 960 F.3d 570 (9th Cir. 2020). The City of Baltimore joined this trend less than a year later in 2018 by suing 26 large energy companies alleging eight causes of action including, among others, public and private nuisance, trespass, design defects, failure to warn, and an action under state consumer protection law. *Mayor & City Council of Baltimore v. BP P.L.C.*, 952 F.3d 452 (4th Cir. 2020). In March 2020, the Fourth Circuit became the first circuit court to rule on this wave of cases, finding that grounds for removal to federal court were lacking in the Baltimore case because the defendants did not satisfy grounds for federal officer removal based on certain contractual relationships between the companies and the federal government. *Id.* Defendants appealed this case to the Supreme Court, which held oral arguments on January 19, 2021. The Ninth Circuit opinions were also appealed to the Supreme Court, but the petitions were requested to be held pending the outcome of the Baltimore case. An opinion from the Supreme Court could come prior to its summer recess beginning in late June.

In July 2020, the Tenth and First Circuits issued rulings in line with the Fourth and Ninth Circuits, affirming remand of similar suits by the County of Boulder, Colorado, and the state of Rhode Island, the first state to file this type of lawsuit. *See Bd. of Cnty. Comm’rs of Boulder Cnty. v. Suncor Energy (U.S.A.) Inc.*, 965 F.3d 792 (10th Cir. 2020); *Rhode Island v. Shell Oil Prods.*

Co., L.L.C., 979 F.3d 50 (1st Cir. 2020). Yet more cases were brought in 2020 by municipal plaintiffs, motivated, perhaps, by the success on the jurisdictional question at the federal appellate level, with the Counties of Maui and Honolulu; the Cities of Charleston, South Carolina, and Hoboken, New Jersey; and the states of Connecticut and Delaware all filing similar complaints in state court alleging combinations of climate change–related torts.

No decisions on the merits have been reached yet in any of these state cases, and the results are far from certain. Each state court will rely on its state-specific case law when addressing the merits of these tort claims. Furthermore, not all of these cases seek the same remedies. For example, the City of Oakland’s complaint seeks an order funding the costs of climate adaptation. Other cases, like the one brought by the City of Charleston, seek more traditional remedies, like compensatory damages, punitive damages, and disgorgement of profits, as well as injunctive relief to abate nuisances. In contrast, Boulder County’s complaint seeks only monetary relief, and explicitly states that it does not seek to enjoin any oil and gas operations in Colorado or anywhere else, or to enforce emissions controls. Another issue to watch is the extent to which nongovernmental entities file similar suits against energy companies. At least one such case was filed in 2018, where a fishing association alleged several torts related to energy companies’ alleged impacts to Dungeness crab fisheries off the coast of California and Oregon. *Pac. Coast Fed’n of Fishermen’s Ass’n, Inc. v. Chevron Corp. et al.*, No. CGC-18-571285 (Cal. Super. Ct. filed Nov. 11, 2018). The parties agreed to a joint resolution staying the proceedings until the final resolution of the *City of Oakland v. BP* and *County of San Mateo v. Chevron* cases.

Fraud and Consumer Protection Cases

Beginning in 2018, several states filed cases against energy companies alleging violations of state consumer protection laws. Generally, these lawsuits allege that energy companies fraudulently misrepresented or failed to disclose to consumers and investors the effects their products have on the climate or the companies’ assets. At least four states and the District of Columbia (D.C.) have filed such lawsuits: New York (2018); Massachusetts (2019); D.C., Minnesota, and Connecticut (2020). Beyond Pesticides, a nonprofit organization, also filed a suit under D.C.’s consumer protection law.

In contrast to most of the climate litigation filed from 2015–2020, the New York case has been decided on the merits, with the defendant, Exxon Mobil (Exxon), prevailing. The case began in 2018, when New York’s attorney general filed a complaint alleging that Exxon violated the state’s securities act by making materially false and misleading statements to the public and investors about how the company manages risks of climate change and the cost of carbon in assessing demand for its products. New York presented financial disclosures, risk assessments, reports and modeling to shareholders on demand for its products, testimony, and other evidence in support of its claims. The court held that New York failed to demonstrate by a preponderance of the evidence that Exxon made any material misrepresentations to investors. The state had dropped its

common law claims of fraud and equitable fraud after the presentation of the evidence. *People by James v. Exxon Mobil Corp.*, 119 N.Y.S.3d 829 (Table) (N.Y. Sup. Ct. 2019) (slip op.).

Precisely one year after New York filed its complaint, Massachusetts filed a similar complaint in state court against Exxon after a multiyear investigation. The complaint alleged Exxon committed deceptive practices by misrepresenting its business practices related to the use of proxy costs of carbon, creating misleading advertisements of its products, failing to disclose the effect of its products on climate change, and engaging in a “greenwashing” campaign. The Massachusetts lawsuit is further reaching than New York’s in that it alleges a consumer protection cause of action, claiming that the company materially misrepresented its products’ effects on the climate and engaged in a “greenwashing” campaign that deceived consumers regarding Exxon’s role in solving climate change issues, thereby influencing consumers’ decisions whether to purchase Exxon’s products. Much like the climate change tort cases discussed in the second section, this litigation has focused on jurisdictional issues, with Exxon’s attempts to remove the case to federal court being unsuccessful thus far. *Massachusetts v. Exxon Mobil Corp.*, 462 F. Supp. 3d 31 (D. Mass. 2020).

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In the two D.C. lawsuits, the central claims allege that Exxon’s media campaign violated D.C.’s consumer protection law by deceiving the public by allegedly understating the role its products play in climate change. While the *Beyond Pesticides* case seeks only injunctive relief, the D.C. lawsuit seeks restitution and damages in addition to injunctive relief for damages allegedly caused by extreme weather events, including disproportionate damage on low-income communities and communities of color. The lawsuits filed by Connecticut and Minnesota allege similar violations of state consumer protection and trade laws, but also request an order that Exxon publish all climate-related research and fund a corrective education campaign regarding greenhouse gas emissions and climate change.

Administrative and Regulatory Challenges and Enforcement Actions

The argument that governmental entities have failed to properly consider the impacts of their activities on the climate has

proven to be a reliable weapon for opponents of various types of projects that require public comment and environmental review, especially energy and infrastructure projects. For example, the Database reports 179 suits filed between 2015 and 2020 alleging that federal agencies violated the National Environmental Policy Act (NEPA) by failing to adequately analyze climate change impacts. Hundreds of additional cases have been filed under other federal and state environmental laws.

In 2016, for example, in a challenge to the environmental review of a pipeline from Florida to Alabama, the D.C. Circuit remanded the Federal Energy Regulatory Commission's environmental impact statement for the pipeline on the grounds that its analysis of the greenhouse gas emissions that will result from burning the gas that the pipeline will carry (i.e., downstream emissions) was insufficient. *Sierra Club v. Fed. Energy Regul. Comm'n*, 867 F.3d 1357 (D.C. Cir. 2017). Similarly, a federal district for the District of Columbia found a NEPA analysis for an oil and gas lease sale on public land inadequate because it failed to reasonably quantify drilling-related greenhouse gas emissions and needed to strengthen its discussion of downstream emissions, including whether quantifying such emissions was reasonably possible. *WildEarth Guardians v. Zinke*, 368 F. Supp. 3d 41 (D.D.C. 2019).

Also during this period, citizen suits were brought under the Clean Water Act (CWA) and the Resource Conservation and Recovery Act (RCRA) against two energy companies over their fossil fuel marine terminals in Rhode Island and Massachusetts. In the Massachusetts case, the lawsuit alleged that the Exxon terminal's past or present handling of hazardous and solid waste could present an imminent or substantial endangerment to public health or the environment because it knew that the terminal could eventually be submerged due to rising sea level but failed to take any action. The lawsuit alleged that Exxon violated the CWA by failing to disclose climate change information in its National Pollutant Discharge Elimination System permit and failing to address climate change impacts in its Stormwater Pollution Prevention Plan. A Massachusetts district court stayed the lawsuit in March 2020, citing the doctrine of primary jurisdiction and EPA's current work on issuing a new permit. *Conservation L. Found., Inc. v. ExxonMobil Corp.*, 448 F. Supp. 3d 7 (D. Mass. 2020). This decision has been appealed to the First Circuit. Similarly, in Rhode Island, the lawsuit alleged that failure to address the vulnerabilities of the terminal to climate change impacts violated the CWA. This trend is likely to continue as climate science develops and agencies increasingly adopt guidance on analyzing climate change effects that incorporate these considerations into their analyses of environmental impacts.

Climate Change Securities and Financial Cases

The 2015–2020 period also saw the initiation of climate change–related securities litigation filed by company shareholders. Unlike lawsuits where the alleged injury is directly related to the alleged climate change issue, climate change litigation in

securities actions allege that climate change harmed the financial interests of a shareholder; the alleged harm to the plaintiff is the loss in value of the shares held by the shareholder as a result of climate change.

Exxon is litigating at least two securities-related lawsuits in federal court in Texas. In *In re Exxon Mobil Corp. Derivative Litigation*, two shareholder derivative complaints alleged claims of breach of fiduciary duty, waste, and unjust enrichment. No. 3:19-cv-01067 (N.D. Tex. filed May 2, 2019). The complaint asserts that Exxon has a history of intentionally misleading the public as to the effects of climate change, and the company's contribution thereto, as well as misrepresenting the effect of climate change on Exxon's reserve values and long-term business. In a related case, an investor filed a securities class action on behalf of purchasers of Exxon's common stock, alleging the stock price was artificially inflated based on positive statements, causing the stock to fall after a quarterly financial report stated that Exxon may have to write down 20 percent of the value of its oil and gas assets. *Ramirez v. Exxon Mobil Corp.*, No. 3:16-cv-3111 (N.D. Tex. filed Nov. 7, 2016). Elsewhere, class actions have been filed by employees over investments in fossil fuel companies by managers of employee pension plans. In *Roe v. Arch Coal, Inc.*, employees alleged the investment of employees' pension assets in the company's stock was a breach of fiduciary duty because of the known effects of climate change. No. 4:15-cv-00910 (E.D. Mo. filed June 9, 2015). A class action against ExxonMobil in 2016 by employees alleged that investment in Exxon's stock breached a fiduciary duty because those fiduciaries knew or should have known the value of Exxon's stock was inflated, but the case was dismissed. *Fentress v. Exxon Mobil Corp.*, No. 4:16-cv-3484, 2019 WL 426147 (S.D. Tex. 2019).

In sum, 2015–2020 saw an unprecedented deluge of climate change litigation filed across state and federal courts. An analysis of these cases reveals a number of trends demonstrating evolving strategies employed by plaintiffs seeking to force action on climate change through the litigation process. However, a significant, precedent-setting body of decisions on the merits in these cases has not yet developed, as jurisdictional and other preliminary issues continue to wind their way through the courts. Updates could develop rapidly based on precedent-setting decisions after the authors have submitted this article for publication. Ultimately, the outcome of these cases will depend on the law of the jurisdiction in which the lawsuit is filed. To be sure, successful approaches will be duplicated. However, plaintiffs are also likely to continue to adopt novel legal strategies, informed by evolving climate science and public awareness, resulting in the development of a new set of trends in climate change litigation. ♻️

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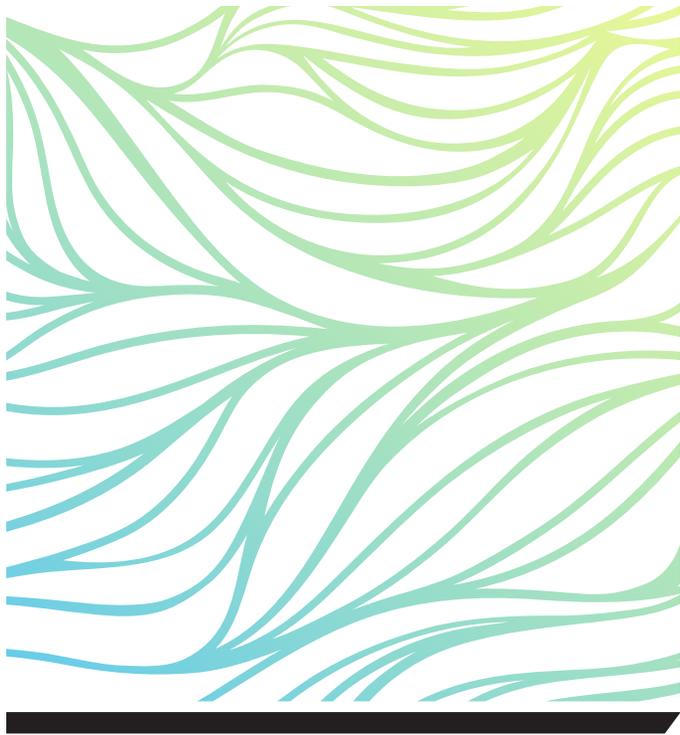
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Clearing the Waters

Jim Murphy

Next year will be the 50th anniversary of the Clean Water Act (Act), one of the nation's most successful environmental laws. The Act was passed in 1972 in the wake of Lake Erie being virtually dead, the Cuyahoga River catching on fire, and the Androscoggin River in Maine being so polluted it peeled paint on nearby buildings. The law was a comprehensive response to this water pollution crisis, and its passage enjoyed bipartisan support unimaginable today. It was passed by such a wide margin that Congress was able to override President Nixon's veto.

The Act's purpose is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" with the lofty goal "that the discharge of pollutants into the navigable waters be eliminated by 1985." 33 U.S.C. § 1251. The Act regulates the point source discharge of pollutants into navigable waters and provides for implementation through a cooperative relationship between the federal government and the states.

As the Act prepares to enter its second half century, it needs repair. Due to factors like agricultural runoff, expanding urban growth in watersheds, and increasingly the various impacts of climate change such as more extreme precipitation events, droughts, and hotter temperatures, about 71% of assessed lakes, reservoirs, and ponds; 80% of assessed bays and estuaries; and 53% of assessed rivers and streams in the United States do not meet water quality standards. *National Summary of State Information*, U.S. Env't Prot. Agency, <https://bit.ly/2T0RfuG>.

Another pivotal challenge involves the decades' long attempt to shrink the Act's jurisdictional scope, capped by a 2020 Trump administration rule that has dramatically reduced the numbers of waters covered by the Act. Restoring these protections is paramount for the Act to have any hope of success in the next 50 years.

Congress defined the Act's scope as "navigable waters," defined as "waters of the United States." The U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps)—the two agencies tasked with implementing the Act—historically defined this term to encompass virtually all ecologically significant surface waters. This broad scope was affirmed when the Supreme Court first entertained the question of the Act's jurisdiction in the 1985 case *United States v. Riverside Bayview Homes*, 474 U.S. 121 (1985), finding that adjacent wetlands are "inseparably bound up" with navigable waters and "serve significant natural biological functions" that are integral to water quality and the aquatic ecosystem.

The Court visited the question of the outer reaches of the Act's jurisdiction 16 years later. In *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers (SWANCC)*, 531 U.S. 159 (2001), a 5-4 majority rejected the Corps' attempt to assert jurisdiction over an "isolated," "abandoned sand and gravel pit" in Northern Illinois solely on the basis that the artificial ponds served as a habitat for migratory birds. The ruling was based largely on the rationale that the term "navigable"

must be given import. In the 2006 case *Rapanos v. United States*, 547 U.S. 715 (2016), the Court again took up the jurisdictional question but failed to arrive at a clear majority. The four-member plurality written by Justice Scalia opined that “waters of the United States” only covers “relatively permanent, standing or continuously flowing bodies of water” and wetlands that have a “continuous surface connection” to other “waters of the United States.” In his concurrence, Justice Kennedy articulated a test based on the Court’s prior decisions embracing a “significant nexus” standard, a test that looked at the ecological relationship between non-navigable and navigable waters. The dissent would have asserted jurisdiction using either test.

Neither SWANCC nor *Rapanos* overturned any specific regulatory provision, but those decisions created enough uncertainty that 2007 and 2008 guidance documents were written that effectively instructed regulatory agencies to make case-by-case determinations of jurisdiction for many waters. This led to inconsistent application of the Act and confusion regarding whether many important waters were protected.

In 2015, the Obama administration promulgated a rule to restore clarity to the definition of “waters of the United States” by creating categories of jurisdictional waters and protecting those waters that satisfied the significant nexus standard. 80 Fed. Reg. 37,054, 37,056 (June 29, 2015). Named the “Clean Water Rule,” it used a science-driven analysis to define the geographic scope of the Act by delineating waters that are jurisdictional by rule, which included navigable waters, their tributaries, and many wetlands; waters that were subject to case-specific analysis to determine whether they have a “significant nexus” to a water that is jurisdictional such as geographically isolated waters like prairie potholes; and waters that were categorically excluded from jurisdiction like some types of ditches and artificial ponds. It also defined several key terms such as “tributary” and “adjacent” and, importantly, elaborated on the Supreme Court’s “significant nexus” test as outlined in *Riverside Bayview*, SWANCC, and Justice Kennedy’s *Rapanos* concurrence.

The clarity provided by the Clean Water Rule was short lived. Almost immediately after taking office, President Trump signed Executive Order 13778 instructing EPA and the Corps to repeal the Clean Water Rule and replace it with a rule modeled after the less-protective, four-vote Scalia test in *Rapanos*. In 2019, the Trump administration repealed the Clean Water Rule. In 2020, it issued a replacement rule, dubbed the “Navigable Waters Protection Rule.” 85 Fed. Reg. 22,250, 22,339 (Apr. 21, 2020).

This rule was the largest rollback of Clean Water Act protections ever. A recent analysis has shown that apparently 70% of waters evaluated under the Navigable Waters Protection Rule were not afforded the Act’s jurisdiction. Hannah Northey, *Exclusive: Trump Rule Imperils More Than 40,000 Waterways*, E&E News (Mar. 19, 2021). The rule restricts coverage of “tributaries” to streams with “perennial” or “intermittent” flow, removing protection for “ephemeral” streams, which flow only after rain or snowfall. Similarly, it defines jurisdictional “adjacent wetlands” in a manner that excludes many neighboring, but not directly abutting, wetlands. It does not include waters

that have a “significant nexus” to downstream jurisdictional waters. It also excludes interstate waters as a category that separately confers jurisdiction.

All three recent rule changes—the 2015 Clean Water Rule, the 2019 repeal rule, and the 2020 Navigable Waters Protection Rule—have faced significant court challenges. Two federal district courts found aspects of the Clean Water Rule unlawful and remanded the rule to the agencies but did not vacate it. *See Georgia v. Wheeler*, 418 F. Supp. 3d 1336, 1343–44 (S.D. Ga. 2019), *dismissed as moot*, No. 2:15-cv-79, Doc. 294 (S.D. Ga. Jan. 7, 2020); *Texas v. EPA*, 389 F. Supp. 3d 497, 506 (S.D. Tex. 2019). A court in Colorado enjoined implementation of the Trump rule in that state, but the ruling was overturned by a federal appeals court on the ground that Colorado did not show irreparable harm. *Colorado v. U.S. E.P.A.*, Nos. 20-1238, 20-1262, & 20-1263, slip. op. (10th Cir. Mar. 2, 2021). The court did not reach the merits of Colorado’s challenge to the Trump rule, but it did acknowledge that “the rule undisputedly represents a significant reduction in the scope of jurisdiction the Agencies have asserted in the past.”

The Biden administration has promised to again revisit this rule. Since the 2015 Clean Water Rule, the composition of the Supreme Court has significantly shifted, with three justices appointed by President Trump tilting the Court to a decidedly 6-3 conservative majority. While it is difficult to foretell how the current justices may rule, the three new justices may have a more sympathetic ear to the Scalia view of jurisdiction than at least two of the justices they replaced (Justices Kennedy and Ginsburg). As such, a new science-based rulemaking needs to show why the Act demands the type of broad protections that have existed since its early days. While it is commonly accepted that aquatic systems are connected and water flows downhill, the future of federal water pollution protection likely depends on that premise not being taken for granted but painstakingly demonstrated to a potentially skeptical Supreme Court. ♪

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Interstate Water Commissions Can Ban Fracking

Alexander Bomstein and Abigail M. Jones

For the past decade, high-volume, hydraulic fracturing of shale gas (fracking) has been a leading technology in the natural gas extraction industry. It has also been a growing threat to our water resources. Recently, the

Delaware River Basin Commission (DRBC) banned fracking through its regulatory authority under its enabling compact. We see this as not only a huge win for the Delaware River Basin but also potentially for other interstate basins across the country that face similar threats.

The waters of the Delaware River serve more than 13 million people from forests to farms to cities such as New York and Philadelphia. A century ago, much of the Delaware River had been treated as a sewer for many decades and had become a festering dead zone. Improving the quality of the river water was of great regional concern. In 1961, President Kennedy and the governors of Delaware, New Jersey, New York, and Pennsylvania signed the Delaware River Basin Compact (Compact), creating the DRBC to better manage the Delaware River with binding power across political boundaries. While many regional commissions are mainly designed to allocate water rights (e.g., the Upper Colorado River Commission) or to advocate for but not regulate water quality (e.g., the Great Lakes Commission), the Compact empowered the DRBC to regulate and enforce the regulation of “pollution in the waters of the basin” as well. Compact §§ 5.2, 5.4. The DRBC’s pioneering water quality efforts have resulted in one of the greatest river cleanup successes in history.

But a new threat to the Delaware River Basin emerged in the mid-2000s, when fracking made extraction of gas from shale economically feasible. The Marcellus and Utica shale formations underlie approximately the northern two-fifths of the Delaware River Basin, in the scenic Pocono Mountains of Pennsylvania and Catskill Mountains of New York. Fracking commonly uses on the order of 10 million gallons of water per gas well and generates large amounts of toxic saline wastewater. Threats to both surface and groundwater come from well drilling, extraction, and storage of wastewater. Many scientific studies have shown how fracking also damages human health. See Concerned Health Pro. of N.Y. & Physicians for Soc. Resp., *Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking (Unconventional Gas and Oil Extraction)* (7th ed. 2020).

Prior to this, the DRBC had not been confronted with the prospect of gas drilling within its jurisdiction, and in 2010 the DRBC moved to establish regulations over it, putting a moratorium on fracking in place while it drafted them. The moratorium was followed by great public pressure on the DRBC both for and against fracking in the basin. In 2017, the DRBC published draft regulations banning fracking within the basin. More than 40,000 individuals and organizations weighed in, most in favor of the ban. DRBC, *Comment and Response Document: Proposed Amendments to the Administrative Manual and Special Regulations Regarding High Volume Hydraulic Fracturing Activities; Additional Clarifying Amendments*, at 5 (Feb. 25, 2021) (*Comment and Response*). After years of deliberation, on February 25, 2021, the DRBC approved the regulation to ban fracking, with no commissioners voting in opposition.

The fracking ban is firmly rooted in the DRBC’s existing framework for protecting water quality and quantity within the basin. Under section 3.8 of the Compact, the DRBC cannot approve “projects having a substantial effect on the water

resources of the basin” that it finds would “substantially impair or conflict with the comprehensive plan.” The comprehensive plan comprises the “immediate and long-range development and use of the water resources of the Basin” and includes, *inter alia*, the policies of the DRBC. These policies contained in the DRBC’s Water Code (codified at 18 C.F.R. pt. 401) include “conservation, development, and utilization of Delaware River water resources” and “water quality standards for the Delaware River Basin.” Compact § 13.1. The DRBC is responsible for maintaining the quality of basin waters “in a safe and satisfactory condition,” and “[n]o quality change will be considered which, in the judgment of the [DRBC], may be injurious to any designated present or future ground or surface water use.” Water Code §§ 3.10.2.B; 3.40.4.A. The DRBC subjected activities, including oil and gas development, to “such regulations and requirements as the [DRBC] may prescribe, as to prevent any of the criteria or requirements of this Section from being violated.” Water Code § 3.40.4.B. Moreover, the portion of the basin underlain by the shale formations also happens to be almost completely in an area that “drain[s] to waters the [DRBC] has designated as ‘Special Protection Waters,’ due to their exceptionally high scenic, recreational, ecological, and/or water supply values.” *Comment and Response* at 2. DRBC’s “water quality management policy objective for Special Protection Waters is ‘that there be no measurable change [in the quality of these waters] except toward natural conditions.’” *Id.* Thus, the DRBC’s powers and responsibility to regulate fracking to ensure the protection of ground and surface waters have been in place for half a century.

The DRBC took seriously the literature reviews, studies, and actions of the New York State Department of Environmental Conservation and the U.S. Environmental Protection Agency on the effects of fracking on water resources, and reviewed numerous other materials in developing its regulations. *Comment and Response* at E-8 to E-9. Based on its review and analysis, the DRBC concluded that “[h]igh-volume hydraulic fracturing and related activities pose significant, immediate and long-term risks to the development, conservation, utilization, management, and preservation of the water resources of the Delaware River Basin and to Special Protection Waters of the Basin.” *Comment and Response* at E-12. It was thus required to ban fracking in order to meet its obligations to protect the watershed. *Id.*

The ban is momentous for several reasons, most important of which is the protection of water quality. Crucially, the ban protects the water quality of Delaware and New Jersey—states that do not overlay shale formations and thus cannot protect themselves from the impacts of fracking. These states must rely on other jurisdictions to regulate fracking in a manner that protects the entire Delaware River Basin. This is why the DRBC was created: to solve the collective action problem of the shared river.

At the state level, only New York has banned fracking. Citing environmental and human health impacts and based on years of analysis and state agency reports, Governor Cuomo banned fracking in New York by executive order in 2015. This ban was finally codified through the 2021 state budget. See N.Y. State Fiscal Year 2021 Enacted Budget.

This is in stark contrast to Pennsylvania, where fracking has become widespread over the last dozen years. Recently, the Pennsylvania Office of the Attorney General released a scathing grand jury report that highlighted the impacts of fracking by shale gas developers in Pennsylvania and detailed the numerous failures of the state environmental and health departments in regulating fracking and protecting public health. Yet state legislators continue to attempt to deregulate and bolster fracking throughout the state. *See, e.g.*, Pa. S.B. 305 (2019); Pa. H.B. 827, 828, 829 (2019); Pa. H.R. 515 (2017). Pennsylvania legislators have also challenged the DRBC's authority to regulate fracking as a "project" under the Compact. *See, e.g., Wayne Land & Mineral Grp., LLC v. Del. River Basin Comm'n*, No. 3:16-CV-00897, 2017 U.S. Dist. LEXIS 1636 (M.D. Pa. Jan. 5, 2017) (intervention); *Yaw v. Del. River Basin Comm'n*, No. 2:21-cv-00119 (E.D. Pa. Jan. 11, 2021). Such litigation by state legislators, industry, and others aimed at the new ban is expected to continue.

Another contrast in regulation among the Delaware River Basin states comes at the municipal level. Most basin states have "home rule" provisions that allow municipalities to adopt ordinances regarding issues of local concern, often allowing local regulation of fracking. But while New York and Pennsylvania are both home rule states, Pennsylvania law generally requires municipalities to allow within their borders each potential land use that is not prohibited at the state level, including the extraction of shale gas. *See Surrick v. Zoning Hearing Bd. of Upper Providence Twp.*, 382 A.2d 105 (Pa. 1977); 53 Pa. Cons. Stat. §§ 10603(i), 10107. This means that while local governments can regulate the "where" of fracking, complete bans on fracking are considered prohibited exclusionary zoning in Pennsylvania.

New York, on the other hand, allows municipalities to ban fracking outright; and hundreds of municipalities have banned or imposed moratoriums on fracking over the years. *See Matter of Wallach v. Town of Dryden*, 16 N.E.3d 1188 (N.Y. App. Ct. 2014). But this, too, leads to boundary problems because municipalities that ban fracking may still be injured from operations in neighboring municipalities that welcome fracking.

It is against the backdrop of this regulatory patchwork that the DRBC enacted its prohibition on fracking within the basin in protection of water quality. And we have seen that protection of water resources is a driving force in the fight against fracking across the country. So, does this mean that interstate water commissions like the DRBC are in the best position to regulate or ban fracking?

Today we know much more about the harms of fracking than when the shale gas boom began over a decade ago. With this evidence in hand, interstate water commissions that have authority to regulate actions or projects that implicate water quality have the leverage they need to support their use of that authority. Those commissions should look to the DRBC's recent ban as instructive.

Commissions that both control water pollution and have jurisdiction over territory overlying shale plays include the Ohio River Valley Water Sanitation Commission, the International Joint Commission, and the Susquehanna River Basin Commission (SRBC). Like the DRBC, these commissions are all built on the concept of keeping water safe, clean, and usable.

The science establishes conclusively that widespread fracking within a watershed is incompatible with maintaining the purity of the water in the basin. *See generally Comment and Response*. These commissions could make that finding, as the DRBC has and other states have, and use their authority to develop regulations banning fracking within their jurisdictions.

The SRBC, for example, has the power to (1) make a comprehensive plan for preservation of basin waters, (2) adopt regulations to protect those waters in conformance with the comprehensive plan, and (3) enforce its so-adopted regulations. *See Susquehanna River Basin Compact* §§ 3.3, 5.2(e), 5.3(b). The SRBC just happens to be working on an update to its comprehensive plan now. Although fracking has been prevalent in this basin for over a decade, the SRBC has not used its authority to regulate fracking impacts on water quality, despite having similar authorizing language in its compact. But we believe that the SRBC is on good footing to begin the process of drafting such regulations and that now is the time to do so.

As the DRBC concluded, state laws have not done enough to protect water quality in the Delaware River Basin. The purpose of interstate compacts is to create a framework to protect trans-border waters where the states have been unable to alone. Now that the DRBC has blazed the trail, the doors are open for others to follow suit. ☞

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Climate Change Disclosures Regain National Attention

Patrick J. Paul

It is said that to the victor go the spoils. Nowhere is that becoming more clear than in the environmental priority pendulum swing of the current Biden administration when compared to its predecessor. Over the last several presidential transitions, it seems to have become almost sport for the election victor to quickly eradicate the actions of the prior administration via presidential fiat, namely executive order.

The Biden administration is certainly holding true to that past protocol. For example, on inauguration day, January 20, 2021, President Biden executed a number of executive orders seeking to undo a bevy of the Trump administration's actions

and policies. Exec. Order No. 13,990, 86 Fed. Reg. 2037 (Jan 20, 2021). Paramount among the coming environmental changes are those related to climate change and its impact, not only to human health, but also to U.S. financial markets. President Biden touted the importance of climate change and the environment during the campaign, and investors and market participants are waiting for action.

The wait will be a short one. In addition to a series of executive orders on inauguration day, President Biden also declared again the acceptance by the United States of the Paris Agreement, and, as of February 19, 2021, the United States is back in the international climate discussion.

Executive Order 13990, entitled “Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis,” ordered the heads of executive agencies to “listen to the science” and to prioritize both environmental justice and the creation of well-paying union jobs en route to reducing greenhouse gas emissions while ensuring access to clean air and water and improving public health and the environment.

Additionally, President Biden declared January 27, 2021, as Climate Day in the White House and issued more executive orders, including Executive Order 14008, entitled “Tackling the Climate Crisis at Home and Abroad,” which squarely puts the climate crisis at the center of U.S. foreign policy and national security. Exec. Order No. 14,008, 86 Fed. Reg. 1619 (Jan. 27, 2021). More councils and task forces were created to study the issue, including the Council of Advisors on Science and Technology and the National Climate Task Force.

President Biden also created a White House Office of Domestic Climate Policy and designated former Obama EPA Administrator Gina McCarthy as the national climate advisor, not to be confused with the climate czar, John Kerry. On February 11, 2021, Advisor McCarthy convened the first-ever National Climate Task Force meeting. The task force includes cabinet-level leaders from 21 federal agencies and senior White House officials to implement the Biden administration’s whole-of-government approach to tackling climate change, creating good-paying union jobs, and achieving environmental justice. During the virtual inaugural task force meeting, representatives from more than 20 federal agencies and offices underscored the shared commitment of every agency in collaborating and coordinating across the federal government to ensure the United States leads the world in a clean energy revolution.

As climate czar, Kerry’s role is expected to be more diplomatic in nature, working across international borders to develop joint solutions to what has been referred to as a planetary crisis. For example, in April 2021, Kerry met with his Chinese counterparts in Shanghai to discuss the climate crisis. Following the meetings, the two largest emitters of greenhouse gases announced that they were firmly committed to work together to strengthen implementation of the Paris Agreement.

On his first Earth Day as president, April 22, 2021, Biden hosted a virtual Leaders Climate Summit at the White House to further demonstrate his administration’s commitment to elevating climate in U.S. foreign policy and to developing a climate finance plan.

Although climate has been a consistent focal point of President Biden’s early days, it is not uncommon for initial presidential proclamations to fade as priorities change and new challenges present. Here, however, all early indications suggest that the Biden administration intends to “walk the walk” as it relates to a renewed emphasis on climate change risks and related disclosures.

For example, in February, then SEC Acting Chair Allison Herren Lee issued a statement directing the SEC Division of Corporation Finance to enhance its focus on climate-related disclosure in public company filings. Noting that the SEC, in 2010, provided guidance to public companies regarding climate change disclosure matters, Acting Chair Lee called for an assessment of compliance with disclosure obligations under the federal securities laws and for the engagement with public companies on these issues. Acting Chair Lee observed that increasingly investors consider climate-related issues when making investment decisions and that the SEC should therefore ensure those investors have access to material information when making those decisions.

The SEC 2010 Climate Change Guidance is an interpretive release designed to provide guidance to public companies regarding the SEC’s existing disclosure requirements as applied to climate change matters. Sec. & Exch. Comm’n, Commission Guidance Regarding Disclosure Related to Climate Change, 17 C.F.R. pts. 211, 231 & 241 (Feb. 8, 2010). That guidance identified several topics as examples of climate change issues that a public company may need to consider as part of its disclosure requirements. These include the impact of legislation and regulation, the role of international agreements, indirect consequences of regulation or business trends, and physical impacts of climate change on a company’s operations. Though still in full force and effect, the 2010 Climate Change Guidance has not been regularly utilized by the SEC in developing comment letters on climate change disclosures. By directing the Division of Corporation Finance to enhance its climate disclosure focus, Acting Chair Lee seeks to enforce compliance with the current rules while updating the 2010 Climate Change Guidance.

On March 3, 2021, the SEC Division of Examinations announced its 2021 examination priorities, including a greater focus on climate and environmental, social, and governance (ESG)-related risks, which it referred to as “emerging risks.” More particularly, the division will enhance its focus on climate and ESG-related risks by reviewing proxy voting policies to ensure that voting aligns with investors’ best interests and expectations and business continuity plans in light of growing physical risks caused by climate change.

On March 4, 2021, the SEC created a Climate and ESG Task Force within its Division of Enforcement. Led by Kelly L. Gibson, acting deputy director of enforcement, the 22-member task force will include representatives from the SEC’s headquarters, regional offices, and specialized units. The Climate and ESG Task Force will develop initiatives to identify ESG-related misconduct. Its initial focus will be the identification of material gaps or misstatements in issuers’ disclosure of climate risks under existing rules. The Climate and ESG Task Force also will evaluate recommendations, referrals, and whistleblower complaints on ESG-related issues.

Not to be outdone, two SEC commissioners simultaneously issued their own public statement in early March noting the “steady flow” of SEC climate statements and press releases. Commissioners Hester M. Peirce and Elad L. Roisman, both Trump appointees, specifically noted that the SEC’s Corporation Finance Division had been reviewing public company disclosures and engaging those public companies on climate change and other ESG issues for decades. These commissioners, while encouraging investors, issuers, and practitioners to engage with SEC staff on climate issues, also thought it premature for the SEC to make major changes to long-standing practices without the benefit of that engagement.

Consistent with some partisan disagreement on climate change disclosure, the Federal Energy Regulatory Commission (FERC) in March approved a pipeline replacement project, but not before determining that the project’s greenhouse gas (GHG) emissions were insignificant as it was simply replacing an existing pipeline. Not all commissioners agreed that this new FERC approach, seeking to treat GHG emissions and their climate change contributions the same as other environmental effects, was consistent with past FERC policy or the Administrative Procedure Act. 174 FERC 61,189, Docket No. CP20-487-000 (Mar. 22, 2021).

Nevertheless, President Biden’s executive and administrative staff continue to prioritize climate-risk disclosure. For example, on March 11, 2021, John Coates, Acting Director of the SEC Division of Corporation Finance, issued a statement emphasizing the importance of the SEC in creating an effective ESG disclosure system in which companies provide investors with needed information in the most cost-effective manner. In developing such a system, Acting Director Coates noted that the SEC must consider, among other things, what disclosures are most useful, the right balance between principles and metrics, verification methods, possible standardization of climate risks across industries, and the continued evolution of such standards.

On March 15, Acting Chair Lee invited public input on climate change disclosure from investors, registrants, and other market participants. On that same day, in a speech before the Center for American Progress, she specifically noted that no single issue was more pressing to her than to ensure the SEC is fully engaged in ascertaining the risks and opportunities that climate and ESG pose for individual investors, the financial system, and the U.S. economy.

In addition to the recent climate focus of the SEC and FERC, Commodity Futures Trading Commission (CFTC) Acting Chair Rostin Benham announced the establishment of a Climate Risk Unit (CRU) designed to support CFTC by focusing on the role of derivatives “in understanding, pricing, and addressing climate-related risk and transitioning to a low-carbon economy.” The CRU is also designed to help the CFTC remain a helpful participant in developing and enforcing globally consistent standards through the transition away from carbon emissions.

Although the actions of the Biden administration in its early days related to climate and ESG disclosures have been swift and sweeping, the actual development of enforceable rules will

require a substantial amount of time, including opportunities for public comment. Still, given the heightened attention on climate change disclosures, public companies should, at a minimum, contemplate conducting an assessment of any prior and forthcoming climate disclosures, including the 2010 climate disclosure guidance, to ensure consistency and compliance with climate change disclosure requirements. Additionally, public companies should consider the possible reporting of non-SEC climate change disclosures such as those to federal and state permitting authorities, those in sustainability reports, and those otherwise disclosed on a company’s website or in its investor presentations.

Public companies also should closely track the evolving regulatory and legislative changes on climate change disclosure requirements and how those changes might require them to disclose ESG-related issues and consider the likelihood of enhanced ESG disclosure requirements.

Legislative proposals in the 117th Congress that could impact climate disclosure requirements include the Climate Risk Disclosure Act of 2021, which would require enhanced SEC filings on climate risks and direct the SEC to adopt additional rules on climate disclosures, and the Paris Climate Agreement Disclosure Act, which would require Paris Climate Agreement disclosures.

Notwithstanding the likely lag time for the effectiveness of new or enhanced climate change disclosure guidance, public companies would be remiss to “wait and see” what happens as the momentum is currently in favor of such change and it would be prudent to weigh in on the development of such new guidance before it becomes effective. 🌱

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Balancing the ESG Equation

C. Nicole Sullivan

After percolating for 50 years, environmental, social, and corporate governance (ESG) seems to have finally reached its boiling point. What Leon Sullivan, a Black board member of GM, began in the 1970s as a response to the apartheid regime in South Africa has evolved into a broad, socially driven investment strategy with far-reaching impacts. Add the COVID-19 pandemic, the Black Lives Matter movement, and the significant pollution and extreme weather events of recent years to the growing concern over climate change and it’s no surprise that we are now seeing an explosion of attention on ESG. But will the renewed focus on ESG issues cause a reaction in the chemical industry?

In his January 2021 letter to CEOs, Larry Fink, CEO of BlackRock, the world's largest asset manager, poignantly highlighted the fact that the COVID-19 pandemic has refocused attention on social issues by stating: "I believe that the pandemic has presented such an existential crisis—such a stark reminder of our fragility—that it has driven us to confront the global threat of climate change more forcefully and to consider how, like the pandemic, it will alter our lives. . . ." See Larry Fink CEO Letter (Black Rock, Jan. 2021).

Not surprisingly, investment in ESG-related funds is at an all-time high. From January through November 2020, investors in mutual funds and exchange-traded funds invested \$288 billion globally in sustainable assets, a 96% increase over the whole of 2019, according to BlackRock. This represents a significant jump from the \$20 billion in 2019, and a massive increase from \$5–6 billion, where investment in sustainable assets typically stood between 2015 and 2018.

Investors aren't just investing in ESG-related funds; they are also taking other actions to drive change. Take Climate Action 100+, an investor-led initiative that launched in 2017, as an example. In its short, four-year lifespan, the organization has grown to 575 investors with over \$54 trillion in assets under management. Climate Action 100+ is known for targeting the world's largest greenhouse gas emitters to help limit average global temperature rise to 1.5°C. Investors select (or "engage") certain companies and then seek commitments to implement a strong governance framework that addresses climate risks, reduces emissions across the supply chain, and increases climate-related financial disclosures. To date, 167 companies have been selected, accounting for over 80% of corporate industrial greenhouse gas emissions. Of those, eight companies (including BASF SE) are within the chemicals sector.

Chemical companies are not often seen as leading the sustainability charge. Many chemical facilities are energy intensive and emit greenhouse gases. According to EPA's Greenhouse Gas Reporting Program (GHGRP), the chemicals (non-fluorinated) sector is the fourth-largest greenhouse gas emitter. Power plants, the oil and gas industry, and refineries hold the first, second, and third largest spots, respectively. See *GHGRP Industrial Profile: Chemicals Sector (Non-Fluorinated)*, U.S. Env't Prot. Agency (Sept. 2019).

In 2019, 7,624 direct emitters across a variety of sectors reported a total of 2.85 billion metric tons of carbon dioxide equivalent (bmt CO₂e). Power plants reported emitting 1.7 bmt CO₂e of that total. The chemicals sector (fluorinated and non-fluorinated combined) reported emitting 191 million metric tons (mmt) CO₂e, a notable difference of 1.51 bmt CO₂e. Power plants have shown a steady decrease in emissions, however. Power plants reported 1,668.7 mmt CO₂e in 2019, a decrease from 1,815.0 mmt CO₂e in 2018 and 2,221.7 mmt CO₂e in 2011. In contrast, total greenhouse gas emissions reported to the GHGRP by 449 chemical companies amounted to 185.6 mmt CO₂e in 2019, a decrease from 191.3 mmt CO₂e in 2018 but an increase from 180.4 mmt CO₂e in 2011. Emissions from the chemical sector trended downward from 2011 to 2016 but rose in 2017 and 2018 and then declined to nearly 2017 levels

in 2019. See *2019 GHGRP Overview Report*, U.S. Env't Prot. Agency, <https://www.epa.gov/ghgreporting>.

Industry's overall downward trend in greenhouse gas emissions indicates that it is moving in the right direction to achieve net zero. But is it enough?

A recent report by Climate Action 100+ suggests industry must do more. In late March 2021, Climate Action 100+ released its Net-Zero Company Benchmark (Benchmark) for the world's highest carbon-emitting companies. The Benchmark evaluates a company's performance in three primary areas: emission reductions, strong corporate governance, and disclosure. According to ESG Today, "the Benchmark revealed that despite the increasing momentum in companies' launching ambitious climate commitments, significant work remains to put the companies on the pathway to a net-zero, Paris Agreement-aligned future, with none of the focus companies performing at a high-level across all of the nine metrics." See Mark Segal, *Climate Action 100+ Releases Net Zero Benchmark, Reveals Significant Work Ahead for Major Emitters*, ESG Today (Mar. 22, 2021).

Chemical companies with high ESG rankings outperformed companies with low rankings by 4.8% per year, according to an October 2020 report by Jefferies, an investment firm. The potential for increased performance can incentivize companies to make changes. See Vanessa Zainzinger, *Is Green Investing Influencing the Value of Chemical Companies?* 98 Chem. & Eng'g News, no. 44, Nov. 16, 2020, at 20.

Pointing again to Fink's letter to CEOs, he stated:

There is no company whose business model won't be profoundly affected by the transition to a net zero economy—one that emits no more carbon dioxide than it removes from the atmosphere by 2050, the scientifically-established threshold necessary to keep global warming well below 2° C. . . . As the transition [to net-zero] accelerates, companies with a well-articulated long-term strategy, and a clear plan to address the transition to net zero, will distinguish themselves with their stakeholders—with customers, policymakers, employees and shareholders—by inspiring confidence that they can navigate this global transformation.

Chemical companies like BASF SE recognize that the transition toward a climate-friendly society remains a fundamental challenge of the twenty-first century. As an energy-intensive company, BASF set an ambitious goal of climate neutrality (net zero emissions) by 2050, as well as raising its medium-term 2030 target for reductions in greenhouse gas emissions by 25% compared to 2018 (a reduction of approximately 60% compared to 1990 levels, which exceeds the European Union's target of minus 55%). BASF set these goals because the company is convinced of the long-term strategic necessity and the technical feasibility, despite targeted growth and the construction of a large site in South China.

Similarly, the Dow Chemical Company (Dow), a U.S.-based company and within the top four largest chemical companies worldwide, committed to reducing its net annual carbon

emissions by 5 million metric tons compared to its 2020 baseline (a 15% reduction) and intends to be carbon neutral by 2050. Dow's approach to addressing climate change includes plans to optimize the efficiency of its operations, invest in renewable energy sources, and innovate new low-emission production processes. *See 2025 Sustainability Goals*, Dow (2020).

Smaller chemical companies are also making commitments to lessen their impact. For example, Solvay, a Belgian-based chemical company, "began participating in the Task Force for Climate-related Financial Disclosures in 2017—becoming one of the first chemical companies to do so—because it provides a framework that goes beyond metrics and brings climate into corporate strategy, governance, and risk scenario planning," according to Solvay's chief sustainability officer. In addition, Solvay set absolute emission reduction targets, rather than reducing the carbon intensity of its products. *Path to Net Zero: ESG Accelerates Industry's Push to Cut Emissions*, Chem. Week, Feb. 1, 2021.

Will it work? Will a net-zero economy be reached by 2050? I don't know, but as an optimist, I'd like to think so. Time will tell. ☞

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Can Sage-Grouse Save the West?

Laird J. Lucas and Sarah Stellberg

The greater sage-grouse (*Centrocercus urophasianus*) is North America's largest grouse, best known for spectacular courtship displays where males gather in spring and strut with their chests puffed out and spiky tails spread, hoping to attract females.

As their name implies, sage-grouse evolved in the vast sagebrush expanses that once covered 250 million acres or more of the American West and Canada. But sagebrush habitats are dwindling from agriculture, energy development, mining, roads and powerlines, and other human impacts, as well as from weed invasions and wildfires accelerated by a changing climate. Indeed, the sagebrush ecosystem is now recognized as one of the most imperiled in North America. *See, e.g., USGS, New Report Highlights Declining Sagebrush Ecosystem, Provides Foundation for Next Generation of Conservation and Management* (Mar. 17, 2021).

As sagebrush habitats are lost, so are sage-grouse populations. Greater sage-grouse were said to blacken the sky when Lewis and Clark first came west, and may have numbered 11 million or more when Teddy Roosevelt enjoyed hunting them in the Dakota badlands. *See Theodore Roosevelt, Hunting Trips of a Ranchman*, ch. 3 (1885). But sage-grouse populations have declined by 95% or more in the last century, and now are thought to number no more than 150,000 birds in total.

Some population strongholds remain in several western states—particularly Wyoming, Montana, Idaho, Nevada, and Oregon—where native sagebrush habitats remain intact, unfragmented by roads, powerlines, energy development, or other human intrusions. Protecting these remaining populations is critical to the species' survival, and because about two-thirds of remaining grouse habitats are on federal lands managed by the Bureau of Land Management (BLM) and U.S. Forest Service, the future of the species is inextricably linked to how western public lands are managed.

Simply put, conserving the sage-grouse requires preserving and protecting the best remaining habitats on the western public lands—and keeping those lands intact will benefit not only sage-grouse, but over 350 other species that use the same habitats. So, can sage-grouse save the West?

Hoping so, conservationists since 2003 have pushed to list the greater sage-grouse under the Endangered Species Act (ESA) and advocated for stronger habitat protections, sparking several rounds of legal proceedings in Idaho, the heart of sagebrush country. *See, e.g., W. Watersheds Project v. U.S. Fish & Wildlife Serv.*, 535 F. Supp. 2d 1173 (D. Idaho 2007) (reversing 2004 "not warranted" ESA listing determination); *W. Watersheds Project v. Salazar*, No. 08-cv-516-BLW, 2011 WL 4526746 (D. Idaho Sept. 28, 2011) (holding that 2008 BLM land management plans in Idaho and Wyoming failed to address sage-grouse conservation needs).

In 2010, the U.S. Fish and Wildlife Service (FWS) reviewed the growing science on sage-grouse losses and concluded that ESA listing was "warranted," citing in particular threats from fossil fuel extraction and the lack of adequate regulatory protections in BLM and Forest Service land management plans. *See* 75 Fed. Reg. 13,910 (Mar. 5, 2010).

The prospect of ESA listing spurred those agencies to adopt a suite of 2015 Sage-Grouse Plans under the Obama administration (2015 Plans) that designated priority sage-grouse habitats for protection and imposed new management restrictions (including on oil and gas and other industrial development) across 67 million acres of public lands in 10 western states. *See* 80 Fed. Reg. 59,858 (Oct. 2, 2015).

To reduce harm from oil and gas development, the 2015 Plans required that "priority . . . be given to leasing and development of fluid mineral resources . . . outside of sage-grouse habitat." *Id.* at 59,876. The 2015 Plans also called for withdrawing 10 million acres of the highest priority sage-grouse habitats—called Sagebrush Focal Areas (SFAs)—from future mining claims. Citing these and other provisions of the 2015 Plans, FWS determined in October 2015 that ESA listing of sage-grouse was no longer warranted. *Id.* at 59,933–36.

The 2015 Plans were an important step toward conserving the species—but were riddled with loopholes allowing continued oil and gas development and other human impacts. Conservationists thus sued, seeking to improve the plans, while states and industries challenged them as being too strict. See, e.g., *W. Watersheds Project v. Salazar*, No. 1:16-cv-083-BLW (D. Idaho) (conservationist challenge to 2015 Plans); *Herbert v. Salazar*, No. 2:16-cv-101-DAK (D. Utah) (state/industry challenges to Utah plans).

Before these challenges could be litigated, however, President Trump took office and announced his “energy dominance” agenda for public lands management, declaring a “national priority” to remove “regulatory burdens that unnecessarily encumber energy production.” 82 Fed. Reg. 16,093 (Mar. 28, 2017). In so doing, the Trump administration had the full-throated support of the oil and gas and mining industries, and many western states with core sage-grouse populations.

In response, BLM revised its policies to expand and expedite oil and gas lease sales across public lands, including priority sage-grouse habitats that were supposed to be protected under the 2015 Plans. BLM also abruptly canceled the proposed SFA mineral withdrawal on 10 million acres of priority sage-grouse habitats and moved to roll back land use plan protections.

But the Trump administration’s zeal to elevate fossil fuel development over other public land values quickly ran into head-on conflict with bedrock environmental statutes—including the National Environmental Policy Act (NEPA), the Federal Land Policy and Management Act (FLPMA), and the Administrative Procedure Act (APA). Several rounds of federal court litigation—mostly in Idaho, but also Montana—succeeded in blunting some of the Trump administration’s actions in the sage-grouse range, and the Biden administration now has the opportunity to reinstate and expand sage-grouse habitat protections that the Obama administration started.

One of the first federal court victories was in September 2018, when U.S. Magistrate Judge Ronald Bush preliminarily enjoined BLM from implementing policy changes that curtailed public involvement and environmental reviews of federal oil and gas leasing within sage-grouse habitats. See *W. Watersheds Project v. Zinke*, 336 F. Supp. 3d 1204 (D. Idaho 2018). Somewhat surprisingly, that preliminary injunction was not appealed, and it forced BLM to delay a substantial number of proposed oil and gas lease sales.

In February 2020, upon partial summary judgment, Magistrate Judge Bush confirmed that the leasing policy changes violated NEPA, FLPMA, and the APA, and ordered BLM to revert back to policies adopted in 2010 by the Obama administration. See *W. Watersheds Project v. Zinke*, 441 F. Supp. 3d 1042, 1083 (D. Idaho 2020). Although BLM has appealed reinstatement of the Obama policies to the Ninth Circuit, the Biden administration has already signaled that it is reviewing the Trump policy changes and, we believe, is likely to disavow them moving forward.

That February 2020 ruling also held unlawful and vacated several 2018 BLM oil and gas lease sales that applied the Trump policy changes to improperly exclude public involvement and avoid meaningful environmental reviews in sage-grouse habitats.

Id. As a result, 677 individual leases—about one-quarter of the oil and gas leases issued by the Trump BLM in the lower 48 at that time—have now been set aside, protecting a million acres of priority sage-grouse habitats in Wyoming, Utah, and Nevada.

Similarly, the District of Montana recently found additional oil and gas leases in Montana and Wyoming to be unlawful and vacated them. See *Mont. Wildlife Fed’n v. Bernhardt*, No. 18-cv-69-BMM, 2020 WL 2615631 (D. Mont. May 22, 2020) (holding that BLM violated NEPA and FLPMA in issuing oil and gas leases in sage-grouse priority habitats). Both the Idaho and Montana vacatur rulings are on appeal to the Ninth Circuit, where again it remains to be seen whether the Biden administration will defend the Trump BLM’s actions.

Our Idaho litigation is now challenging many more Trump BLM oil and gas lease sales in sage-grouse habitats under NEPA and FLPMA. See *W. Watersheds Project v. Bernhardt*, No. 1:18-cv-00187-REB (D. Idaho), ECF No. 247,253 (challenging seven BLM lease sales conducted in 2017 and 2019). The challenged leases represent another 25% of all BLM oil and gas leases issued in the lower 48 under the Trump administration, affecting another million acres of sage-grouse habitats.

Also, in separate litigation in Idaho, Judge B. Lynn Winmill issued a preliminary injunction in October 2019 against then-Interior Secretary Bernhardt’s effort to roll back protections of the 2015 Plans on 51 million acres of sage-grouse habitats in six states, based on likely NEPA, FLPMA, and APA violations. See *W. Watersheds Project v. Schneider*, 417 F. Supp. 3d 1319 (D. Idaho 2019). Because federal defendants and state/industry intervenors dropped their 2020 appeals of that injunction order, the 2015 Plans remain in effect across the sage-grouse range.

In a further blow to the Trump sage-grouse plan rollbacks, Judge Winmill issued a partial summary judgment ruling in February 2021, holding that BLM unlawfully revoked the proposed SFA mineral withdrawal on 10 million acres of highest-priority sage-grouse habitats. See *W. Watersheds Project v. Bernhardt*, No. 1:16-cv-083-BLW, 2021 WL 517035 (D. Idaho Feb. 11, 2021). It remains unclear whether federal defendants or intervenors will appeal that ruling.

What is clear is that these judicial rulings and litigation have put sage-grouse on the front burner for the Biden administration—and conserving sage-grouse populations and habitats can promote the Biden administration’s policy goals of reducing and eliminating climate change impacts from fossil fuel development on public lands. See, e.g., Executive Order No. 14008, Tackling the Climate Crisis at Home and Abroad, 86 Fed. Reg. 7,619 (Jan. 27, 2021) (ordering “a comprehensive review and reconsideration of Federal oil and gas permitting and leasing practices in light of the Secretary of the Interior’s broad stewardship responsibilities over the public lands”).

The Biden administration must now evaluate how to address the future protection of sage-grouse and other native habitats on western public lands—including whether to use existing litigation to help sweep away prior harmful Trump policies and decisions, and proactively work to protect public lands moving forward, in support of Biden’s policy goals.

As Rachel Carson observed in her ground-breaking book *Silent Spring*: “The sage and the grouse seem made for each

other. The original range of the bird coincided with the range of the sage, and as the sage-lands have been reduced, so the populations of grouse have dwindled.” Rachel Carson, *Silent Spring* 65 (First Mariner Books 2002) (1962).

We are now at a critical juncture for the future of the greater sage-grouse and the millions of acres of western public lands where its fate and that of many other species hinge on retaining and protecting their native habitats. Hopefully, we can now

stop the declining trends and keep intact the habitats that sage-grouse and other species need to survive. ♻️

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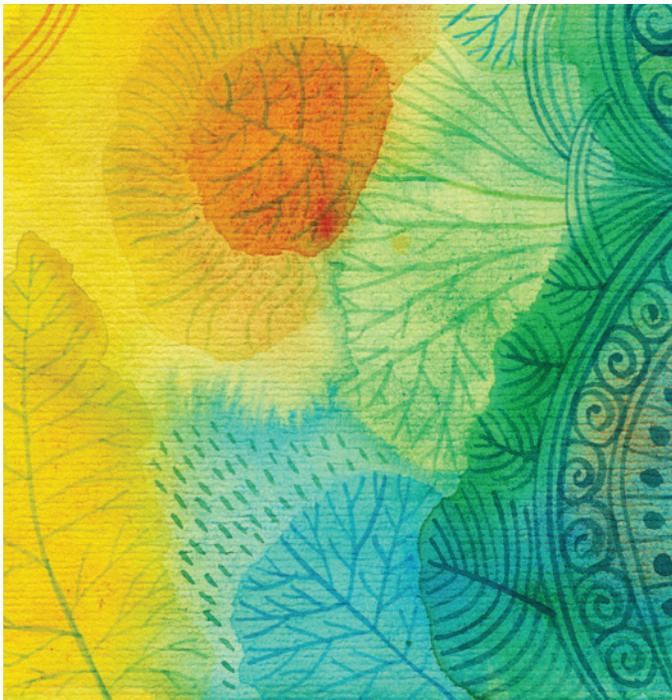
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Reviewed by Frederick H. Turner

BOOKS

The Conservation Constitution: The Conservation Movement and Constitutional Change, 1870–1930

Kimberly K. Smith

UNIVERSITY PRESS OF KANSAS, 2019

Kimberly K. Smith's *The Conservation Constitution* caught my eye while I was walking through the book exhibit at the last in-person meeting of the American Society of Legal History. Monographs related to the history of environmental law are not common in such exhibits, yet Smith's book reveals that there is a rich history to be

explored. And readers, researchers, and practitioners interested in the topic will find this book to be a valuable resource.

Histories of environmental law often begin in the late 1960s and early 1970s when the modern environmental law regime was established. Smith does not set out to challenge that timeline; instead, she seeks to demonstrate how the “constitutional foundations” of that environmental regime were laid during the Progressive Era conservation movement.” Her excavation of these foundations focuses on the changes in legal doctrine, or the “constitution of judges,” rather than political discourse or the distribution of power across institutions. Smith's overarching argument is that conservation measures implemented at the turn of the last century garnered more support from courts than other social policies of the period. This phenomenon resulted for three broad reasons:

First, government authority over natural resources had a broader legal foundation and longer history than its authority over labor and business. Second, conservation policy benefited from the authority of environmental science, backed by the growing scientific reputation of the U.S. Department of Agriculture. Third, the conservation movement had a great deal of help from the creative lawyering of a handful of well-placed lawyers.

Smith's reference to “government authority” captures state and federal law and regulation, and one of the key transformations that occurs in her narrative is the shift from state-level efforts at conservation to fights at the federal level. Smith's story focuses on this change over time in the context of wildlife conservation and pollution control.

Beavers and birds are central to the chapters that cover wildlife conservation. Smith shows that at the state level, the late nineteenth century was marked by a steady acceptance that the government could regulate fish and game, with courts frequently accepting the state's police power and the public trust doctrine as rationales for such regulation. The case of *Barrett v. State of New York*, 220 N.Y. 423 (1917) is emblematic. In *Barrett*, the plaintiff challenged a law protecting beavers, which were the subject of a reintroduction program in the early twentieth century. The plaintiff was one of a set of landowners in the Adirondack Mountains of northern New York—they challenged the law as an unreasonable exercise of the state's police power and sought damages based on the impact of beaver dams on streams and timber. The court rejected the challenge, finding that the police power covers more than material interests: “Observation of the animals at work or play is a source of never-failing interest and instruction.”

In “The Road to *Missouri v. Holland*,” Smith effectively describes the path to federal protection for birds, which was at times bumpy. The implementation of the 1900 Lacey Act experienced smooth passage because it focused on prohibiting the interstate shipment of game. But the 1913 Weeks-McLean Act, which authorized the secretary of agriculture to set closed seasons on migratory birds, faced a rougher road. In defending the Weeks-McLean Act, the government focused primarily on the Property Clause in Section IV of the Constitution, but in 1914 and 1915, federal district courts rejected the argument because of the precedent establishing that ownership of wildlife rests with states and is not altered by the migration of birds. The

Supreme Court never squarely addressed the statute because it shifted its focus to the 1918 Migratory Bird Treaty Act, which was instead grounded in the treaty power conferred by Article VI and upheld in *Missouri v. Holland*, 252 U.S. 416 (1920).

The other pillar in the foundation of the modern environmental regime is regulation of pollution. Smith's book dives into state and local pollution control with an emphasis on the police power, which was interpreted as giving governments broad authority over issues that could affect public health. A number of ordinances were established to address slaughterhouses, and these regulations were challenged, often under the due process clause or privileges and immunities clause of the Fourteenth Amendment. In fact, one lawsuit led to the *Slaughterhouse Cases*, 83 U.S. 36 (1873), in which the Supreme Court upheld Louisiana's regulation of slaughterhouses along the Mississippi River. Many readers will recognize this decision as part of the well-known history of the Fourteenth Amendment, but Smith has reoriented it around the underlying facts and thus woven it into her broader Conservation Constitution.

As with wildlife, Smith marks the transition from state to federal laws related to nuisances; a federal common law emerged to address interstate nuisances. She sets the doctrinal analysis of cases against the backdrop of the movement to federalize public health, including the expansion of the Marine Hospital Service, which had addressed sailor health since 1799 and quarantines since the 1870s. In 1912, it was renamed the Public Health Service and given authority not only over quarantines, but also to "study and investigate the diseases of man and conditions including the propagation and spread thereof, including sanitation and sewage and the pollution either directly or indirectly of the navigable streams of the United States." This language placed it squarely within the long-standing tradition of the federal navigational servitude.

Another key transformation that appears at various points throughout the book is the shift in how natural resources were viewed: from commodities to part of a larger, interconnected ecosystem. This story is perhaps best captured in Smith's chapters on the history of forest management. For western forest reserves, she explores the "constitutional dimensions" of the effort to establish forest reserves on public land. This campaign was aimed at preserving a sustainable wood supply and protecting streamflow in river systems, and took legal shape in the late 1890s with the passage of the 1891 General Revision Act, which authorized the creation of forest reserves on public land, and the 1897 Organic Administration Act, which established the first federal forest management policy. Controversy ensued when the secretary of agriculture issued regulations under the 1897 Act requiring grazing permits for national forests. In *Light v. United States*, 220 U.S. 523 (1911), the Supreme Court rejected a challenge to that permit program based on the equal footing doctrine, which asserted that Congress cannot constitutionally withdraw bodies of land without consent of the State. The Court also rejected a constrained view of the Property Clause: "All the public lands of the nation are held in trust for the people of the whole country."

Future developments in environmental and natural resource law that touch on the Constitution will be rooted in the issues explored in Smith's deft account.

Owls of the Eastern Ice: A Quest to Find and Save the World's Largest Owl

Jonathan C. Slaght

FARRAR, STRAUS AND GIROUX, 2020

Ten years ago, the U.S. Postal Service first issued a postage stamp featuring a captivating drawing of an Amur tiger cub. The searing eyes of the tiger are set against a green backdrop and bordered by the phrase "Save Vanishing Species." Since its initial circulation, it remains one of the few stamps for which the Postal Service charges more than face value, and the additional money goes to the U.S. Fish and Wildlife Service (FWS) under the Multinational Species Conservation Funds Semipostal Stamp Act of 2010. FWS in turn supports conservation funds for Asian elephants, great apes, rhinoceros, turtles, and the iconic Amur (also called Siberian) tiger. It is no surprise that the stamp bears the image of the charismatic tiger, but the focus on the tiger also glosses over other, lesser-known species, including those that share the same habitat as these megafauna.

One of those lesser-known species is the Blakiston's fish owl, which can be found in the forests of Northeast Asia. But thanks to Jonathan C. Slaght's recent book on these endangered owls, we now have a deeper understanding of the fish owl and its habitat in the Primorye province of eastern Russia. *Owls of the Eastern Ice* is that rare combination of nature books that weaves together details about the biology of the species, conservation policy, adventure, and the history of the region.

Slaght's story is bookended by succinct discussions of the fish owl's precarious status and his appeal to help protect the species. Under Russian law, it was illegal to kill fish owls or destroy their habitat, yet Slaght realized that "without concrete knowledge of what their needs were, it was impossible to develop a workable conservation plan." Thus, Slaght began a multiyear endeavor to study fish owls. His goal was conservation, which would balance protection for the owl with existing uses, rather than preservation, which would focus on eliminating all threats. He draws this distinction to emphasize his understanding that the people of Primorye rely on logging the forests and fishing the rivers that provide habitat and prey for the owls. Following completion of his study, Slaght began to work with logging companies to stop the harvesting of the large trees used by fish owls for nesting and to limit the number of roads left accessible to vehicles after harvesting. Despite this progress, Slaght acknowledges that his interest in fish owls has been "overshadowed by the needs of large mammalian carnivores," including the Amur tiger and Amur leopard that are the focus of the Wildlife Conservation Society, where he now works.

Despite the limits on his current conservation work, the book itself is a testament to engagement with a species. And in fact, the vast majority of the story covers the months he spent

in the Primorye woods searching for and listening to fish owls. Slaght divided his study of fish owls into three phases—(1) learning to track fish owls in the northern part of the province; (2) moving south to locate fish owls; and (3) tagging them first with radio transmitters, and then with GPS data loggers. These serve as the three main sections for the book.

Slaght begins with a bitterly cold trip along the Samarga River in a section is aptly titled “Baptism by Ice.” Two key features of his research make ice important. First, winter is the best season to search for fish owls because they vocalize the most in February and because their prints are most visible in the snow. Second, fish owls are unique because they hunt their prey below the surface of the water, and thus river systems are crucial. Slaght notes that “[t]he line between life and death could be measured in the thickness of river ice,” and this is not an understatement: he mentions that human skeletons have been discovered at the mouth of the river and recounts watching as a deer is chased on to a mostly frozen river, falls into a section of open river, and then disappears under the ice. According to Slaght, “field study in the Russian Far East is a constant negotiation between the research, the local inhabitants, and the elements.” This assessment captures the central themes of the book, which he moves between with alacrity and a knack for narrative.

In the second section, Slaght navigates the rivers that flow out of the Sikhote-Alin Mountains on the eastern edge of Russia into the Sea of Japan. Again, Slaght toggles from research to local color and to the weather. His initial experiences hearing the duets of male and female fish owls represent some of the most memorable moments in the book. Yet Slaght also provides glimpses into the history of the landscape. For example, when he talks about the city of Dalnegorsk, he looks back a hundred years to explorer Vladimir Arsenyev’s journey to the area in 1906. Arsenyev and his men were “spellbound” by the area, but mining and lead smelting since then have “tarnished its luster,”

with “scarring” of the mountains and the people, who have suffered a high rate of cancer.

And then, Slaght’s research transitions from locating fish owls to tagging them. As with the initial work, a lack of information requires him and his colleagues to try different approaches. The through line here is that Slaght will not be deterred, and his commitment is perhaps best reflected in contrast to Anatoliy, a Russian with whom Slaght stays while in the Tunsha River valley. Anatoliy has remained in the valley because of a temple he discovered atop a nearby mountain; he did not know what “the spirit of the mountain wanted him to do” yet he remained, “patiently waiting for his life’s purpose to be revealed.” For his part, Slaght knows his purpose and it guides him through the forests and streams of Russia.

Slaght’s passion for fish owls is evident through this longest part of the book. This is especially true when he and a colleague capture and tag their first fish owl. They are on the Faata River, and Slaght was “taken aback . . . by how enormous it was.” When it is finally in his hands, he tucks the body into his own, “as though holding a swaddled newborn child.” Later, this owl is the last to be released without a GPS data logger, and Slaght was saddened yet “invigorated” because “we had data, information that should help save the species.”

Slaght finished his field study aimed at saving the species around the time the Postal Service issued its Save Vanishing Species stamp. For those interested in venturing into the “sheet edges” that surround colorful stamps, Slaght’s book is an excellent place to start. 🌿

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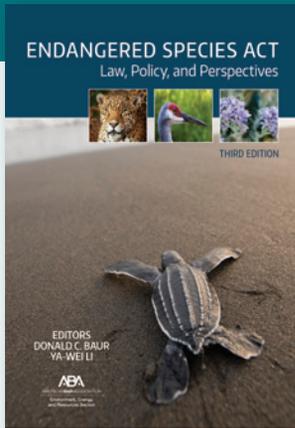
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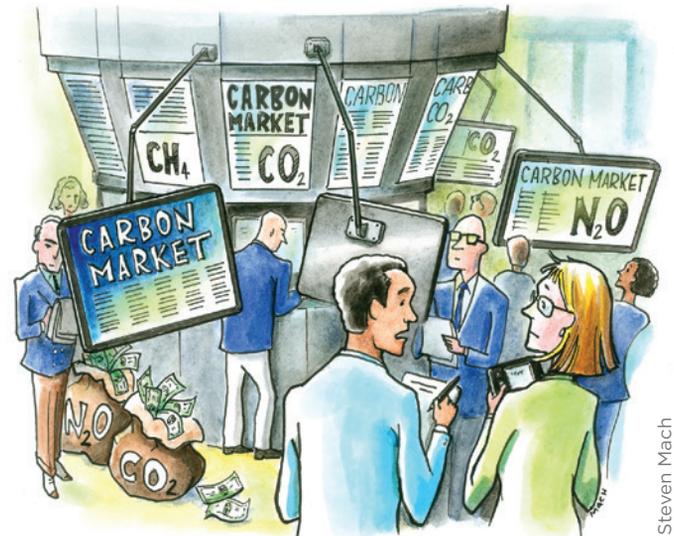
Carbon Markets

Samuel Brown

The world travels to the United Kingdom this fall for COP26—the 26th United Nations Climate Change Conference of the Parties—to chart an updated path to limit global warming to 1.5°C. In preparation for COP26, countries are proposing nationally determined contributions (NDCs), which are new and often more ambitious greenhouse gas (GHG) emission reduction targets required under the Paris Agreement. President Biden, for example, recently announced the United States’s updated NDC, which will aim to cut GHG emissions from 2005 levels by 50% by 2030. A key question is how to meet these ambitious targets.

Carbon markets are viewed as the primary market-based vehicle to drive reduction in emissions. What is a “carbon market”? The term can mean different things depending on various factors. A carbon market, for example, can be mandatory or voluntary. Mandatory carbon markets include emission trading systems (ETS) (i.e., a “cap-and-trade” mechanism) where regulated entities meet their compliance obligations under a declining emissions cap by trading emission allowances with other regulated entities or by purchasing offset credits. Voluntary carbon markets are mechanisms that allow businesses, NGOs, governments, and individuals to voluntarily offset GHG emissions. These markets are often driven by corporate initiatives associated with environmental, social, and corporate governance and risk mitigation.

The carbon market landscape is rapidly changing. Earlier this summer, for example, the state of Washington established an economy-wide GHG cap-and-trade program. There is an expectation of linkage with California’s existing program, which is currently being re-evaluated to determine how best to fit it within California’s overall updated climate strategy. Pennsylvania is expected to join the Regional Greenhouse Gas Initiative, a carbon market focused on the power sector, and North Carolina is exploring membership. The world’s oldest mandatory carbon market, the European Union ETS, is facing changes, including proposals to lower emission caps, phase out free emission allowances, and expand to other industrial sectors. China, the world’s largest emitter of GHGs, launched its own ETS this summer.



Steven Mach

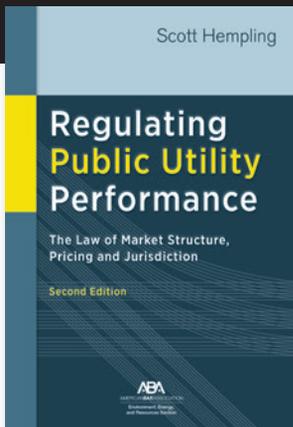
“It’s getting hot in here.”

In Congress, there is bipartisan federal legislation to provide a clear framework for farmers, ranchers, and forest landowners to participate in carbon markets via the preservation of carbon sinks and the generation of GHG offsets. Native American Tribes have been generating forestry-based offsets available via California’s cap-and-trade program and using the associated revenue to purchase and expand historic tribal lands. Voluntary carbon markets are not limited to land-based programs as “blue carbon” credits are emerging globally with a focus on the preservation and restoration of seagrasses, mangrove forests, coastal wetlands, and other marine ecosystems.

While carbon markets are not new, they are growing and changing fast and are likely a necessary tool as part of a holistic approach to address climate change. The Paris Agreement establishes a framework for new international carbon markets, but countries have not been able to agree on the approach to operationalize the global rulebook. Carbon markets will be high on the agenda during COP26 with the hope that a clear, global approach to carbon markets will be established that will lead to further innovation, investment, and reduction in GHG emissions. ♻️

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314 U.S. 63 (1941)

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