Foreword

Holly Doremus and Robert Infelise

We are honored to introduce Ecology Law Quarterly’s 2013–2014 Annual Review of Environmental and Natural Resource Law. Now in its fifteenth year, the Annual Review is a collaborative endeavor. It is founded on Berkeley Law’s renowned environmental law program, which itself is built upon some of the leading scholars in the field. Their research and teaching depends upon the resources, financial and otherwise, of Berkeley Law and the Center for Law, Energy and the Environment. More directly, the Annual Review is the product of the hard and selfless work of the Ecology Law Quarterly editorial board and members. ELQ is the leading journal in the field because of their passion and commitment.

Three students deserve special recognition. Liz Long, Katie Schaefer, and Heather Welles devoted a large portion of their final year of law school to assisting and advising the student authors. This Annual Review is infused with their talent and insights. As ELQ’s Editor in Chief, Heather Welles played another key role. She worked with us to compile the list of noteworthy cases, and has seen the issue through to publication even as she prepared for the bar exam and her clerkship.

Finally, the Annual Review would not be possible without the extraordinary group of student authors. Their aptitude and zeal for the law is evident in the papers they have produced. The work they do is extraordinary. Often starting with little background, they each must take a recent case or development, understand its context and import, develop a thesis about it, and write and polish their paper within the space of an academic year. We are awed by the hard work they have put in, very impressed with the products, and grateful to have had the opportunity to teach this special group of future lawyers.

This year we want to especially recognize the work of Lisa Houlihan, an LLM student and Coast Guard officer who tragically passed away in the course of the year. You won’t find Lisa’s paper in this issue, but that’s not for any lack of talent or commitment on her part. Lisa was a remarkable woman and a remarkable student. Throughout the year she was under treatment for cancer, but the disease did not affect her desire to learn. She was fully engaged with her courses, her classmates, and her writing project, inspiring us all with her courage and persistence. Our hearts go out to Lisa’s family. The ELQ and entire Berkeley
Law communities miss her. We dedicate this Annual Review issue to Lisa's memory.

Law professors, students, legal historians, and countless other scholars seeking insight into the major developments in environmental, natural resource, and land use law during the past year will benefit from this Annual Review. In this foreword, we provide a brief preview of the papers that follow.

The year covered by this issue featured a remarkable diversity of developments, issuing from the U.S. Supreme Court and eight federal circuits, and covering a range of topics. We do believe, however, that a handful of themes emerge as described below.

WATER

The dominant subject-matter theme this year is water. Both the law of water allocation and the law of water quality sparked important decisions that are analyzed in this volume.

The U.S. Supreme Court waded into the depths of interstate water conflicts in Tarrant Regional Water District v. Herrmann. The dispute centered on interpretation of the Red River Compact. Tarrant, a water utility serving rapidly growing North Texas, sought to divert water in Oklahoma for use in Texas. The primary holding in the Supreme Court was that the Compact did not give Tarrant a right to access water within the boundaries of Oklahoma. At the end of its opinion, the Court almost casually rejected Tarrant's claim that Oklahoma's prohibition on water export violated the Dormant Commerce Clause. Maxime Michon-Rollens takes issue with that holding, which he views as ill-considered and problematic in ways that the Court does not anticipate. He argues that it will unnecessarily constrain markets in water, which could provide a much-needed avenue for adapting to changes in water supply and demand. Mr. Michon-Rollens makes the case that water markets could facilitate reallocation in ways that water compacts cannot. He calls for the Court to clarify its holding in Sporhase v. Nebraska that ordinary Dormant Commerce Clause analysis governs water and other natural resources. Interstate water compacts, he argues, should not alter that analysis absent an explicit statement to that effect. He contends that his preferred interpretation would protect state sovereignty while also preserving a needed national water market.

The Supreme Court also dealt with water quality issues this year, most notably in Decker v. Northwest Environmental Defense Center. In Decker, the Court ruled that stormwater runoff from logging roads did not require a Clean

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1. 133 S. Ct. 2120 (2013).
2. Id. at 2137.
4. 133 S. Ct. 1326 (2013). The Court also decided another water quality case in 2013, Los Angeles County Flood Control District v. NRDC, 134 S. Ct. 2135 (2013). Because that case broke no new doctrinal ground, it is not included in this Annual Review.
Water Act (CWA) National Pollutant Discharge Elimination System permit. Taking that ruling at face value, Alex Hardee writes that EPA nonetheless can and should apply the CWA to runoff from logging roads. He explains that control of stormwater pollution is essential to achieving the CWA’s goals, and that collective action problems make it unlikely that the states will undertake needed controls on their own initiative. Legally, he notes that there is no barrier to federal regulation even after Decker. While the Court held that EPA was not required to regulate logging road runoff, the CWA grants the agency the authority to regulate stormwater runoff where it chooses to do so. Mr. Hardee shows that runoff from logging roads is an important source of water pollution, and that states such as Oregon are not doing enough to control that pollution. Tackling the states’ and the Court’s concern that regulation would be impractical because of the large number of sources involved, Mr. Hardee points out that EPA has successfully employed general permits in similar contexts, and urges the agency to develop one for logging roads.

Kentucky Riverkeeper v. Rowlette, a Sixth Circuit decision, raises the issue of general permits in a different context, the CWA’s section 404 wetlands-filling provisions. Kentucky Riverkeeper involved a challenge to the validity of a nationwide section 404 permit issued by the Army Corps of Engineers for surface mining activities including mountaintop removal. The key issue before the appellate court was whether the Corps had complied with the National Environmental Procedure Act (NEPA) in issuing the nationwide permit. The CWA limits nationwide section 404 permits to situations in which the cumulative environmental impacts of permitted actions will be minimal. The court rejected the Corps’ unsupported assertion that compensatory mitigation would hold environmental impacts to that level. It ruled that the Corps must provide at least “some documented information” supporting that conclusion. In her paper, Lucy Allen delves into how much of what sort of information should be enough to support an agency finding that cumulative impacts will be adequately mitigated. She concludes that courts can and should employ a form of “hard look” review, requiring that the Corps provide a detailed mitigation plan including specific, scientifically defensible mitigation measures when it approves a nationwide permit.

The final water quality case in this issue is Iowa League of Cities v. EPA, in which the Eighth Circuit concluded that EPA had improperly issued a new legislative rule when it responded to letters from legislators questioning its treatment of sewer system overflows. Allison Clark, in her contribution to this volume, strongly disagrees. Ms. Clark contends that the Eighth Circuit decision is not only wrong as a matter of administrative law, but inconsistent with the

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5. 714 F.3d 402 (6th Cir. 2013).
8. 711 F.3d 844 (8th Cir. 2013).
court's stated rationale. The court emphasized the importance of the Administrative Procedure Act's "notice and comment" requirements for public participation and democratic accountability. Ms. Clark concludes, however, that this decision, ironically, will undermine public input, reasoned decision making, and political accountability.

Returning to water allocation, this volume also includes Elise O'Dea's analysis of Casitas Municipal Water District v. United States, the most recent in a line of Federal Circuit decisions considering how the federal Constitution's Takings Clause applies to regulations affecting the use of water rights. In an earlier installment, the court ruled that the test for physical takings applied, and therefore that the United States must compensate for any intrusion on the water district's property rights. In this decision, the court held that the water district had nonetheless not yet made its case for compensation because it had not yet shown that environmental restrictions had reduced its ability to deliver water to its customers. Ms. O'Dea takes the opportunity to address an issue the court did not yet decide: the extent to which the public trust doctrine provides a defense against takings liability for water use restrictions in California. She urges the State Water Resources Control Board to take a more active role, using its state law authority to revise water rights that threaten public trust resources. Recognizing that the Board has so far proven reluctant to do so, Ms. O'Dea suggests that focusing on situations in which water use threatens species protected under the federal Endangered Species Act (ESA) could help the Board make the best use of its resources while minimizing political pushback.

**NEW WINE IN OLD BOTTLES**

The second theme that emerges this year is the challenges posed by the need to address new environmental problems using old statutes developed in a very different context. Environmental lawyers are keenly aware that changes in circumstances, societal values, and scientific understanding often call for changes in law. But legislatures can be slow to respond, with the current legislative paralysis in the U.S. Congress providing an extreme example. When legislative changes fail to keep up with conditions, environmental advocates find themselves forced to address modern problems with laws not designed for those problems. The resulting difficulties are most familiar in connection with application of the Clean Air Act (CAA) to greenhouse gas emissions. This volume takes up that issue, but also shows that there are many other contexts in which the disconnect between new problems and old statutes complicates environmental conflicts.

Whether the CAA applies to greenhouse gases was definitively resolved in 2007, when the Supreme Court ruled in *Massachusetts v. EPA* that greenhouse

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9. 708 F.3d 1340 (Fed. Cir. 2013).
10. *Id.* at 1360.
gases fall within the Act's capacious definition of "air pollutants." Since then, however, both EPA and the courts have struggled to determine how the CAA applies. Alison Koppe uses a trio of recent D.C. Circuit opinions—Coalition for Responsible Regulation v. EPA,12 Texas v. EPA,13 and Center for Biological Diversity v. EPA14—as a springboard for evaluating EPA's proposed rules limiting greenhouse gas emissions from new15 and existing16 power plants. She concludes that the New Stationary Source Rule will survive judicial review, and that EPA should set aggressive, technology-based limits on emissions from existing power plants, leaving more creative approaches such as emissions marketing or taxes to the states. Stay tuned. This discussion will no doubt continue in next year's issue in light of the Supreme Court's decision in Utility Air Regulatory Group v. EPA.17

Also in the category of attempts to put old statutes to new uses is Kiobel v. Royal Dutch Petroleum.18 The case originated with protests in Nigeria by the Ogoni people against pollution from Royal Dutch Petroleum's oil operations. The protests escalated until the oil company sought the help of government officials, who allegedly responded with a vicious two-year war against the Ogoni, supported financially and otherwise by the oil company. Years later, the wife of a victim of that war brought suit against Royal Dutch Petroleum in the United States under the Alien Tort Statute, an eighteenth-century statute that authorizes federal courts to hear tort actions based on violations of "the law of nations" or treaties to which the United States is a party. The Court rejected her suit, ruling that the Alien Tort Statute does not apply absent a sufficient connection to the U.S. to overcome the presumption against extraterritorial application of domestic legislation. Jordan Clark criticizes the Kiobel decision on several grounds, including that it will push these claims into state courts ill-prepared to deal with them. While that's not in his view the best forum for these claims, he suggests that the shift to state courts may offer new possibilities to environmental litigators, who have been uniformly unsuccessful in federal court Alien Tort Statute claims. Mr. Clark urges those litigators to follow in the wake of what he predicts will be a wave of foreign human rights claims in state courts.

Striking another note on this theme, Christopher Heckman takes up the Ninth Circuit's decision in Center for Food Safety v. Vilsack.19 The issue was the U.S. Department of Agriculture's regulation, or lack thereof, of genetically modified crops. The Ninth Circuit upheld the agency's conclusion that the Plant

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12. 684 F.3d 102, 114 (D.C. Cir. 2012).
19. 718 F.3d 829, 834 (9th Cir. 2013).
Protection Act did not apply to genetically modified crops. The United States has never had a federal statute expressly aimed at genetically modified organisms. Nearly thirty years ago the executive branch opined that existing laws adequately covered the anticipated impacts of those organisms.\(^\text{20}\) The explosive increase in planting of genetically modified crops, however, may call for reconsideration of that conclusion. Mr. Heckman argues that the agency can and should assert authority to regulate genetically modified crops under the Plant Protection Act. To the extent that the old decision not to regulate is standing in the way of agency action, he contends that it should be withdrawn. Absent federal regulation, he suggests that state tort liability might provide incentives for biotechnology companies to proceed with caution.

Completing this category is *Illinois Commerce Commission v. Federal Energy Regulatory Commission* (FERC),\(^\text{21}\) in which the Seventh Circuit reviewed FERC’s approach to allocating the costs of transmission projects serving renewable energy developments. FERC has been responsible for allocating energy facility costs for decades, but renewable energy poses new challenges. Renewable resources such as sun, wind, and water are not evenly distributed across the map. Renewable generation facilities can only be located in certain places, and may require new or expanded transmission capacity. Those transmission projects offer regional, rather than local, benefits in the form of increased grid reliability and compliance with renewable portfolio requirements. In *Illinois Commerce Commission*, the court approved FERC’s allocation of project costs on the basis of electricity demand from the regional grid, rather than geographic proximity. Jay Reidy agrees with that holding, but notes that it leaves several important questions unanswered. He suggests that ideally Congress, or more realistically FERC, should clarify that environmental benefits can factor into cost allocation, that systemwide data can be used when individual cost-benefit data is not reasonably available, and that cost allocations will be tailored over time as the distribution of their benefits and costs becomes more certain.

ENVIRONMENTAL ASSESSMENT AND PUBLIC LANDS MANAGEMENT

The third theme in this year’s papers is the functions of environmental evaluation in guiding public lands management. Two of the papers in this volume focus on this theme, one in connection with management of the national forests, the other with management of the national parks. Both consider the functions of environmental NEPA-based environmental analyses in the overall context of land management planning.

Kimberly Wells takes up the relationship of NEPA to national forest management. Her foil is the curious case of *Pacific Rivers v. U.S. Forest Service*,\(^\text{22}\) in which plaintiffs persuaded the Ninth Circuit that the Forest Service


\(^{21}\) 721 F.3d 764 (7th Cir. 2013).

\(^{22}\) 689 F.3d 1012 (9th Cir. 2012).
had not adequately considered the environmental impacts of a new forest plan, but then requested that the decision in their favor be vacated after the Supreme Court granted certiorari. Ms. Wells notes that the failure to resolve this case leaves unsettled the issue of the extent of environmental analysis required to support forest plan revisions. She explains that environmental groups and the Forest Service take very different views of the usefulness of NEPA analysis at the planning stage, because they have very different views of the effects of planning on subsequent activities. The Forest Service views plans as outside boundaries on the extent of activity such as logging, while environmental groups view plans as setting targets that the Service then feels compelled to meet. She finds that there is a surprising lack of data on this issue, and contends that better data could provide a better answer to the question of how much environmental analysis should be required at the planning stage.

Louis Russell also considers the role of NEPA in broad, policy-level decision making on the public lands. His topic is inspired by WildEarth Guardians v. National Park Service, in which environmental plaintiffs sought to use NEPA to compel the Park Service to consider reintroducing wolves to Rocky Mountain National Park. The Tenth Circuit rejected plaintiffs’ claim that wolf reintroduction must be included among the alternatives in an environmental impact statement supporting adoption of an elk management plan in the park. Mr. Russell concedes that the decision is correct as a matter of current NEPA law, but argues that it highlights the need for a different pathway for communication between agency and public on the fundamental values underlying individual management decisions. He contends that the NEPA process as currently implemented tends to hide agency value choices beneath a veil of science. He proposes that the Park Service, which openly acknowledges the importance of values to its mission, explain in each environmental impact statement both where it gets the authority to make the decision it proposes and why that decision best serves its underlying mission.

OTHER PERSISTENT CHALLENGES

The remaining papers in this volume are united primarily by the fact that all of them illustrate that some environmental law problems are never satisfactorily resolved. Covering the gamut from takings to technology forcing to judicial review of agency use of scientific information, each of these pieces deals with an unusually persistent problem of legal framing or interpretation.

Perhaps the most infamous such problem is the interpretation of the federal constitution’s Takings Clause, which analysts and even the Court itself have for decades regarded as an incoherent muddle. According to Nina Gupta, the Court’s latest foray into that muddle, Koontz v. St. Johns River Water

24. 703 F.3d 1178 (10th Cir. 2013).
25. U.S. CONST. amend. V.
Management District.\textsuperscript{26} muddies the doctrinal waters still further, raising more questions than it answers. Koontz considered the validity of a monetary exaction imposed as a condition of development. In Nollan v. California Coastal Commission\textsuperscript{27} and Dolan v. City of Tigard,\textsuperscript{28} the Court established a general rule for exactions of rights in land, such as easements: those exactions must have a substantial nexus to some impact threatened by the development, and must be roughly proportional to that impact. In Koontz the Court took up a question left open in those earlier cases: whether those limits apply to requirements that a developer pay money, rather than dedicate land, to the public. It answered that question in the affirmative. Ms. Gupta agrees with that holding, which she regards as necessary to prevent local government extortion. But she argues that the Court failed to provide local governments or developers with sufficient guidance on the distinction between exactions, which are subject to heightened scrutiny, and taxes, which are not. She urges the Court to follow California’s approach to this issue, deferring to conditions imposed generally on a broad class of developers while focusing greater scrutiny on individualized conditions. That approach, she contends, allows for efficient and necessary negotiation between local governments and developers while removing the distorting shadow of undue government coercion.

A persistent challenge for legislators is how to accomplish effective technology forcing. That challenge has been implicit in environmental law since its inception, but it becomes ever more prominent as climate change gains greater attention because keeping anthropogenic climate change within tolerable limits will require a rapid shift away from fossil fuels. Meredith Pressfield focuses on the CAA’s Renewable Fuel Standard as an example of the need for more careful legislative framing of technology-forcing mandates. The Renewable Fuel Standard was enacted to encourage development of transportation biofuels. Its mandates have become increasingly demanding and increasingly specific, so that it now mandates production of specified amounts of four different categories of renewable fuels. But the real world has not kept up, especially with respect to cellulose-based advanced biofuels. Despite a mandate for production of 250 million gallons of cellulosic biofuels in 2011, industry produced none. American Petroleum Institute v. EPA\textsuperscript{29} arose out of that disconnect. The statute allows EPA to waive the mandates if necessary. Refiners challenged EPA’s refusal to do so, contending that they were being forced to pay fines for not incorporating in their fuels materials that simply did not exist. The D.C. Circuit agreed, ruling that EPA had improperly used optimistic projections of the availability of cellulosic biofuels in an attempt to spur innovation. Ms. Pressfield argues that effective

\begin{itemize}
\item \textsuperscript{26} 133 S. Ct. 2586, 2596 (2013).
\item \textsuperscript{27} 483 U.S. 825 (1987).
\item \textsuperscript{28} 512 U.S. 374 (1994).
\item \textsuperscript{29} 706 F.3d 474 (D.C. Cir. 2013).
\end{itemize}
technology forcing requires not only creation of a market but a credible and sustained penalty for not supplying that market.

Finally, a perennial challenge for agencies and reviewing courts is identifying and applying the best available scientific information in regulatory decisions. The ESA has perhaps spawned more conflict over that issue than any other environmental statute. In this volume, Alex Kuljis takes up the vexing question of how much science is enough to support a determination that a proposed action is inconsistent with the ESA’s mandate that federal actions not jeopardize the continued existence of listed species. His starting point is *Dow AgroSciences LLC v. National Marine Fisheries Service* (NMFS),30 the latest decision in a long-standing dispute over application of the ESA to pesticide approvals. EPA initially took the position that it was not required to consult under the ESA before reregistering pesticides. After courts rejected that position, EPA entered into consultation with NMFS about the effects of reregistration of several pesticides on salmonids. Projecting those effects was a daunting task, because it required forecasting exposure across a wide variety of habitats. NMFS concluded that unless EPA imposed additional conditions, the reregistration would impermissibly threaten listed fish. Pesticide manufacturers sought judicial review, and the Fourth Circuit rejected NMFS’ conclusion. Mr. Kuljis argues that the agency’s determination was well-reasoned and supported, but inadequately explained. He urges agencies to frankly acknowledge the limits of available scientific evidence and explain policy choices made to fill scientific gaps, and courts to defer to decisions supported by such transparent choices.

Whether you ultimately agree with the authors or not, we are confident that you will find this collection of papers interesting, insightful, and informative. Congratulations to the authors and editors of this year’s Annual Review issue! Once again, they have produced a fine volume that will prove useful for legal analysts and researchers for years to come.

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30. 707 F.3d 462 (4th Cir. 2013).