

Foreword

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It is our pleasure to introduce *Ecology Law Quarterly's* 2016–17 Annual Review of Environmental and Natural Resource Law. This is the Annual Review's eighteenth year and is a product of collaboration among the ELQ editors and student authors, Berkeley Law's environmental law faculty, and the Center for Law, Energy and the Environment.

Katherine Reynolds, Mae Manupipatpong and Jacob Finkle, all of whom are soon to be members of the bar, served as teaching assistants and advisors to the authors. They dedicated considerable time to helping the authors master developing areas of the law and craft interesting and compelling papers. The now-graduated ELQ Co-Editors-in-Chief, Caitlin Brown and Taylor Ann Whittemore, orchestrated the Annual Review's publication process. The incoming Co-Editors-in-Chief, Emily Renda and William Mumby, completed the final publication stages.

But the most enthusiastic recognition must go to the authors, without whom the Annual Review would not be possible. Researching in an unsettled area of the law, developing a thesis, and drafting a scholarly work over the course of a single academic year is no easy feat. We applaud their hard work.

The Annual Review also features Book Reviews and In Brief comments on recent appellate decisions written by students in the midst of their first year of law school. We are impressed with their willingness to write the comments at a time when they are still acclimating to the study of law.

This Annual Review will inform scholars and students for years to come. We were honored to have the opportunity to work with the authors. Several themes arise from their Notes.

THE ROLE OF LOCAL GOVERNMENT

The potential for conflicting objectives between local governments, on one hand, and state or federal governments, on the other, creates an obstacle to municipalities' ability to act to ensure their communities' environmental integrity. This obstacle expands as local governments push the envelope to enhance environmental and public health goals.

The Annual Review begins with Giulia Gualco-Nelson's Note addressing the tension between California's need to expand the housing stock and public

health objectives.¹ The California Supreme Court held that the California Environmental Quality Act (CEQA) only requires an agency to evaluate a project's impact on the environment, but not the environment's impact on the project. The author explores the key tension in *California Building Industry Association v. Bay Area Air Quality Management District*² (*CBIA*)—the need to balance environmental objectives with the severe housing shortage in California. Focusing on indoor air pollution—the reverse effect at issue in *CBIA*—Ms. Gualco-Nelson compares the environmental outcomes of several affordable housing infill projects studied under CEQA's indoor air quality thresholds with projects analyzed under San Francisco's novel command-and-control approach. She concludes that San Francisco's command-and-control approach provides more consistent health outcomes for future residents, as well as more transparency for developers, than a “reverse CEQA” approach. Moreover, San Francisco's command-and-control regulations apply to all projects, not just discretionary projects triggering CEQA. Ms. Gualco-Nelson argues that *CBIA* could encourage local jurisdictions to part with CEQA as a catch-all for environmental ills, and to instead embrace long-term planning solutions to mitigate reverse environmental impacts like indoor air pollution and sea level rise.

William Mumby's Note explores municipalities' ability to push back against state regulations allowing hydraulic fracturing (“fracking”) in their communities.³ Since the proliferation of fracking in the U.S. in the early 2000s, local governments have passed outright bans and moratoria to shield their communities from environmental and public health threats. However, the local efforts have prompted both states and oil and gas interests to file legal challenges on the grounds that they are inconsistent with state law. The assertion of preemption was recently successful in Colorado. The Colorado Supreme Court struck down the City of Longmont's fracking ban⁴ and Fort Collins' five-year moratorium.⁵ The Colorado court contrasted these efforts with a similar effort by Robinson Township, Pennsylvania. Robinson Township successfully argued that a codification of the public trust doctrine in the Pennsylvania Constitution—obligating the Commonwealth to protect natural resources for the benefit of the public—precluded the Commonwealth of Pennsylvania from prohibiting local bans on fracking.⁶ Mr. Mumby argues that while Colorado does not recognize the public trust doctrine, the doctrine could

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1. Giulia Gualco-Nelson, *Reversing Course in California: Moving CEQA Forward*, 44 *ECOLOGY L.Q.* 147, 155 (2017).

2. 362 P.3d 792 (Cal. 2015).

3. William C. Mumby, *Trust in Local Government: How States' Legal Obligations to Protect Water Resources Can Support Local Efforts to Restrict Fracking*, 44 *ECOLOGY L.Q.* 147, 195 (2017).

4. *City of Longmont v. Colo. Oil & Gas Ass'n*, 369 P.3d 573, 577 (Colo. 2016).

5. *City of Fort Collins v. Colo. Oil & Gas Ass'n*, 369 P.3d 586, 589 (Colo. 2016).

6. *Robinson Twp. v. Commonwealth*, 83 A.3d 901, 977–78 (Pa. 2013).

and should be used in other western states to defend local fracking restrictions. He notes, however, that the availability of the public trust doctrine requires a rigorous case-by-case analysis of each state's fracking regulatory scheme, manifestation of public trust doctrine and water rights system, and degree of autonomy afforded to its local governments. Mr. Mumby acknowledges that the public trust doctrine approach is not a silver bullet, but argues that in the right context, the doctrine can lend support to efforts to restrict fracking, or at least to pressure state governments to impose stricter regulation of fracking.

PROTECTING WILDLIFE

This Annual Review also explores recent developments impacting the well-being of wildlife and commercially-used animals. Some species provide ecological and economic services crucial to healthy ecosystems and human prosperity. These and other species are often aesthetically appealing as well. Nonetheless, countless threats in a modern society endanger these creatures, so we look to the law for protection.

Emma Hamilton discusses the Migratory Bird Treaty Act of 1918 (MBTA), one of our nation's oldest environmental statutes, as an example of a criminal statute protecting biodiversity by pairing broad liability with prosecutorial discretion.⁷ The MBTA protects over one thousand native bird species in North America, regardless of listed status.⁸ Thus, the MBTA is a critically important tool for bird conservation by protecting millions of individual migratory birds foraging, nesting, and migrating in an increasingly developed landscape altered by climate change and other human impacts. However, the MBTA draws many critics because its scope potentially criminalizes *any* human activity that causes the death of a migratory bird. Federal Courts of Appeals have split on the question of whether an incidental take is a criminal violation of the MBTA. The Eighth⁹ and Ninth Circuits,¹⁰ and most recently the Fifth Circuit in *United States v. CITGO Petroleum Corp.*,¹¹ have held that the MBTA does not prohibit the incidental take of migratory birds. The Second¹² and Tenth Circuits,¹³ on the other hand, have held that the incidental take of protected migratory birds in the course of otherwise lawful industrial activity violates the MBTA. Ms. Hamilton argues that courts can and should transform the MBTA into the effective conservation measure it was intended to be, by applying a consistent proximate cause

7. Emma Hamilton, *A Relic of the Past or the Future of Environmental Criminal Law? An Argument for a Broad Interpretation of Liability under the Migratory Bird Treaty Act*, 44 *ECOLOGY L.Q.* 147, 237 (2017).

8. Migratory Bird Treaty Act of 1918, 16 U.S.C. §§ 703–12 (2012).

9. *Newton Cty. Wildlife Ass'n v. U.S. Forest Serv.*, 113 F.3d 110, 115 (8th Cir. 1997).

10. *Seattle Audubon Soc'y v. Evans*, 952 F.2d 297, 302 (9th Cir. 1991).

11. 801 F.3d 477, 488–89 (5th Cir. 2015).

12. *United States v. FMC Corp.*, 572 F.2d 902, 904 (2d Cir. 1978).

13. *United States v. Apollo Energies*, 611 F.3d 679, 686 (10th Cir. 2010).

analysis when analyzing alleged violations. She makes the case that a criminal statute imposing broad liability, but constrained by prosecutorial discretion, may be the best model for addressing diffuse environmental harms in a rapidly changing world. Ms. Hamilton argues that infusing MBTA with a consistent legal standard would make the act more fair, predictable, and effective in protecting migratory birds in the United States.

Thomas Schumann's Note¹⁴ uses the 2016 U.S. Supreme Court decision in *Sturgeon v. Frost*¹⁵ as a springboard to explore the history of, and litigation over the management of subsistence hunting under, the Alaska National Interest Lands Conservation Act (ANILCA).¹⁶ In *Sturgeon*, the Court vacated the Ninth Circuit's interpretation of federal regulatory authority on nonfederal lands within Alaska's federal preservation system.¹⁷ The author traces the litigation leading to *Sturgeon* to an Alaska Supreme Court decision holding that the state constitution established a public trust right of broad access to all natural resources, including wildlife.¹⁸ As a result, the Alaska Supreme Court voided a state statute granting rural Alaskans preference in subsistence hunting, which was necessary for state management of hunting on federal lands under ANILCA's cooperative framework.¹⁹ The author observes that Alaska is one of the few states to recognize enforceable public trust obligations in wildlife, and that the state supreme court's recognition demonstrated a strong commitment to that trust in the face of losing control over hunting on federal lands. Mr. Schumann then turns to an examination of whether the traditional public trust doctrine should extend to the protection of wildlife. He concludes that the trust's emphasis on access is incompatible with the need to conserve wildlife, a lesson painfully learned from this country's history of unrestricted hunting. The author also analyzes whether the doctrine provides the public with a necessary means to challenge unaccountable agency decision making.

Maria Vanegas considers the crisis of honey bee die-offs from pesticide exposure.²⁰ Beginning in 2006, U.S. bee keepers began reporting massive losses in their honey bee colonies. In response, the U.S. Department of Agriculture launched a research campaign to determine the cause. Pesticides, particularly neonicotinoids, arose as a likely culprit. In response, the U.S. Environmental Protection Agency (EPA), as the administrator of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA),²¹ developed a new tiered

14. Thomas Schumann, *Pushing the Boundaries of the Public Trust on the Last Frontier: A Study in Why the Doctrine Should Not Apply to Wildlife*, 44 *ECOLOGY L.Q.* 147, 269 (2017).

15. 136 S. Ct. 1061 (2016).

16. 16 U.S.C. § 3101 (2012).

17. 136 S. Ct. at 1070–72.

18. *McDowell v. State*, 785 P.2d 1, 8, 11 (Alaska 1989).

19. *Id.* at 9–11.

20. Maria Vanegas, *The Silent Beehive: How the Decline of Honey Bee Populations Shifted the Environmental Protection Agency's Pesticide Policy towards Pollinators*, 44 *ECOLOGY L.Q.* 147, 311 (2017).

21. 7 U.S.C. § 136 (2012).

risk assessment for pesticides targeted at protecting pollinator species such as honey bees. The framework shifted EPA's pollinator risk assessment from a qualitative to a quantitative analysis, abandoning a discretionary approach in favor of one incorporating standards for risk. When the EPA applied the guidelines to the approval of a new neonicotinoid, sulfoxaflor, the risk assessment concluded that sulfoxaflor posed a high risk to bees. The assessment called for more analysis of sulfoxaflor. EPA nevertheless unconditionally registered the pesticide before additional analysis could be completed. Pollinator advocates challenged EPA's approval in *Pollinator Stewardship Council v. EPA*.²² In a surprise win for pollinator advocates, the Ninth Circuit concluded that EPA did not have substantial evidence to support its approval.²³ The court rejected EPA's attempts to alter standards to favor a pesticide during the registration process.²⁴ Ms. Vanegas argues that the honey bees' critical importance in the agricultural industry was a major factor in EPA's creation of the pollinator risk assessment guidelines. However, the author concludes that even though the guidelines have prompted greater scrutiny of neonicotinoids, they will not significantly impact broader pesticide policy.

CHALLENGES IN ENERGY LAW

Another theme in this Annual Review relates to the complex challenges in the field of energy law. Regulating the electric grid is no easy task. The energy industry has been forced to tackle the increasingly tangible impacts of climate change. Clean energy advocates must grapple with the technical aspects of energy production and distribution, as well as constitutional and jurisdictional boundaries. Finally, lawyers frequently face difficulties in communicating complex issues of law and science to judges that are not always well-versed in the mechanics of the electrical grid.

Elissa Walter's Note explores a troubling trend in the manner in which lawyers and judges talk about the distribution of electricity.²⁵ In *North Dakota v. Heydinger*, two Eighth Circuit judges disagreed about the constitutionality of a Minnesota statute regulating electricity imported into the state.²⁶ Their disagreement stemmed from conflicting understandings of the behavior of electrons. While one judge described electrons as "flow[ing] freely"²⁷ through the grid's transmission lines, another contended that electrons do not "flow,"

22. 806 F.3d 520 (9th Cir. 2015).

23. *Id.* at 532.

24. *Id.* at 532–33.

25. Elissa Walter, *Flow or Oscillate? The Mismatch between the Language Judges and Attorneys Use to Describe Electricity and the Actual Behavior of Electricity on the Grid*, 44 *ECOLOGY L.Q.* 147, 343 (2017).

26. 825 F.3d 912, 921–22, 926–28 (8th Cir. 2016).

27. *Id.* at 921.

but rather “oscillate in place.”²⁸ Ms. Walter contends that the inaccurate and inconsistent terminology used by lawyers and judges to describe the transmission of electricity on the grid likely did not cause problems in energy law cases in the early and mid-1900s. However, due to the highly interconnected structure of today’s electrical grid, these language inaccuracies distort courts’ interpretations of state and federal statutes. Ms. Walter argues that in order to avoid ongoing problems caused by these language discrepancies, lawyers and judges should conceptualize and describe the grid in a manner consistent with the laws of physics and engineering principles.

Kristoffer Jacob’s Note discusses how the modern interconnected electrical grid has complicated the demarcation of energy jurisdiction.²⁹ The tradition has been to draw a bright line between “retail” sales of electricity regulated by the states, and “wholesale” sales of electricity regulated by the federal government. In reality, however, many activities in one sphere affect the other, thus blurring the allocation of state and federal jurisdiction to regulate the twenty-first-century network. Recently, the U.S. Supreme Court decided two cases at the dividing line between state and federal jurisdiction: *Oneok, Inc. v. Learjet, Inc.*,³⁰ and, most recently, *Hughes v. Talen Energy Marketing, LLC*.³¹ In *Oneok*, the Court seemingly recognized the blurring of the line and applied a narrow preemption analysis.³² In *Hughes*, however, the Court pivoted back to a bright-line analysis.³³ Drawing on these decisions, Mr. Jacob discusses the problems raised by the Court’s continued application of a bright-line analysis. He argues that a bright-line test for the jurisdictional divide between the states and the federal government is antiquated. Using so-called “demand response” (changes in electric usage by end-use customers in response to changes in price)—an area the Court decided was within federal jurisdiction³⁴—as a case study, Mr. Jacob argues that in a modern grid, the bright-line test allows the federal government to preempt traditional state jurisdiction. He advocates for the *Oneok* framework as the appropriate alternative to a bright-line test for dividing the jurisdictional boundaries of the states and federal government.

Helen Aki’s Note analyzes “grid edge” developments in the modern power grid and the legal authority of the Federal Energy Regulatory Commission (FERC) to regulate these developments.³⁵ Regulating today’s wholesale power

28. *Id.* at 924.

29. Kristoffer Jacob, *Energy Jurisdiction in the Twenty-First Century*, 44 *ECOLOGY L.Q.* 147, 375 (2017).

30. 135 S. Ct. 1591 (2015).

31. 136 S. Ct. 1288 (2016).

32. 135 S. Ct. at 1603.

33. 136 S. Ct. at 1291–92, 1297, 1299.

34. *Fed. Energy Regulatory Comm’n v. Elec. Power Supply Ass’n*, 136 S. Ct. 760, 774–76 (2016).

35. Helen Aki, *Better Than Net Benefits: Rethinking the FERC v. EPSA Test to Maximize Value in Grid-Edge Electricity Markets*, 44 *ECOLOGY L.Q.* 147, 419 (2017).

markets is increasingly complex. Not only do renewable energy producers compete with traditional power plants, but energy consumers can also sell excess energy, thereby providing incentives to reduce consumption. In *Federal Energy Regulatory Commission v. Electric Power Supply Association (FERC v. EPSA)*, the U.S. Supreme Court held that the Federal Power Act authorizes FERC to regulate demand response as a practice affecting rates.³⁶ This overturned a D.C. Circuit decision and rejected the argument that FERC lacks jurisdiction because demand response is not technically a sale of power. As the nation's grid evolves to incorporate more distributed and dynamic demand resources, better data, and improvements in the supporting infrastructure, the author argues that the *FERC v. EPSA* decision may foreshadow an expansive role for FERC in regulating these "grid edge" developments. However, the author highlights a troubling nuance in the language of the decision. Writing for the majority, Justice Kagan reasoned that demand response affects rates because it *lowers* them.³⁷ Ms. Aki argues that FERC's obligation under the FPA to provide for just and reasonable rates means that it is responsible for ensuring markets operate efficiently, not just that they produce low rates. As an alternative analysis, Ms. Aki suggests applying grid-edge data and technology to differentiate between products that shed or shift energy consumption, and taking steps to address externalities.

ADMINISTRATIVE AGENCY MANAGEMENT OF POLLUTION

The final thread in this Annual Review involves administrative agency management of pollution. Administrative agencies, like the EPA, exist to ensure that we have clean air and water. Given their wealth of expertise, these agencies often receive deference from courts in legal challenges to their decisions. This can create obstacles for advocates seeking more ambitious environmental solutions. Rachel Ryan's Note questions the propriety of courts' deferential approach in the context of citizen suits challenging agency action to enforce anti-pollution laws.³⁸ In 2014, the Group Against Smog and Pollution, a nonprofit environmental organization, filed a complaint in federal court against Shenango, Inc., a coke manufacturer.³⁹ At the time the complaint was filed, Shenango was already subject to a local agency mandate to reduce emissions. Shenango moved to dismiss based on the Clean Air Act's diligent prosecution bar, which prohibits citizen suits when government is already diligently prosecuting a violator.⁴⁰ The District Court granted the motion and

36. 136 S. Ct. 760.

37. *Id.* at 764.

38. Rachel Ryan, *Adequate Agency Action? How Procedural Trends in Environmental Citizen Suit Litigation Prompt a Reconsideration of Deference and Presumptions of Diligence*, 44 *ECOLOGY L.Q.* 147, 445 (2017).

39. *Grp. Against Smog & Pollution v. Shenango Inc.*, No. 14-595, 2015 U.S. Dist. LEXIS 38526 (W.D. Pa. Mar. 26, 2015).

40. 42 U.S.C. § 7604(b)(1)(B) (2012).

the Third Circuit affirmed.⁴¹ Ms. Ryan argues that courts should end the practice of presuming the diligence of agency enforcement at the motion-to-dismiss stage. She reasons that courts should instead engage in a neutral, context-specific review of the adequacy of agency enforcement, perhaps leaving more room for citizen suits. Ms. Ryan also examines the merits of a deferential standard, and how it fits—or does not fit—into procedural trends in citizen suit cases.

Finally, Karli McConnell discusses the administrative challenges that arise when the Clean Water Act is employed to regulate diffuse sources of pollution in interstate waters.⁴² She explains how the regulatory gap created by the Clean Water Act's failure to effectively address non-point source pollution has left many of the nation's most important watersheds inundated with nutrient pollution from agricultural runoff. Through cooperation with state and local governments, the EPA filled the regulatory gap and created a novel, federal pollution reduction scheme to address the problem in the Chesapeake Bay. Ms. McConnell details the Third Circuit's decision in *American Farm Bureau Federation v. EPA* upholding the Chesapeake Bay plan,⁴³ and examines the boundaries of federalism, which the federal government must respect while also fulfilling its statutory mandate to restore and maintain the integrity of the nation's waters. Using the Mississippi River Basin as a case study, the author highlights the limits of the EPA's federal pollution reduction strategy and the constraints on *American Farm Bureau* as precedent to protect other large interstate bodies of water. Ms. McConnell concludes that the success in the Chesapeake Bay is unlikely to be repeated in the Mississippi River Basin, because the states that comprise the Basin pose a much more hostile political environment than the Chesapeake Bay states.

Congratulations to the authors and editors for another fine volume of the Annual Review of Environmental and Natural Resource Law.

41. *Grp. Against Smog & Pollution v. Shenango Inc.*, 810 F.3d 116, 132 (3d Cir. 2016).

42. K.A. McConnell, *Limits of American Farm Bureau Federation v. EPA and the Clean Water Act's TMDL Provision in the Mississippi River Basin*, 44 *ECOLOGY L.Q.* 147, 469 (2017).

43. 792 F.3d 281 (3d Cir. 2015), *cert. denied*, 136 S. Ct. 1246 (2016).