Foreword

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We are honored to introduce the *Ecology Law Quarterly*'s (ELQ) 2021–22 Annual Review of Environmental and Natural Resource Law. Now in its twenty-third year, the Annual Review is a collaborative endeavor of students and faculty. Of course, much of the credit must go to ELQ's editorial board and members. ELQ continues to be the leading journal in the field because of their passion and commitment.

Three former students, all of whom are now members of the bar, deserve special recognition: Natasha Geiling, Robert Newell, and Naomi Wheeler devoted a substantial 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.

Of course, the Annual Review would not be possible without the extraordinary group of student authors whose work is profiled in this Foreword. Their aptitude and zeal for the law is evident in the papers they have produced. Often starting with little background, each dove into a recent judicial decision and worked tirelessly to understand its context and import. They then used the decision as a springboard to analyze a broader set of issues, developed a thesis, and wrote and polished their paper, all within one academic year. We are awed by their commitment, impressed with their papers, and grateful for the opportunity to work with them.

Environmental law covers a lot of territory, intersecting with energy law and land use law. The range of topics in the Annual Review is a tribute to the diversity of the field. The contributions to this issue demonstrate that innovative legal analysis can not only advance legal doctrine, but can also identify pathways for improving policy. All of those who contributed to the issue deserve credit for continuing ELQ's tradition of excellence over the past half-century. Law professors, students, legal historians, and countless other scholars seeking insight into the major developments in environmental, natural resource, and land use law, as well as developments overseas, will benefit from this Annual Review.

BUILDING RENEWABLE ENERGY INFRASTRUCTURE

In 2018, the Federal Energy Regulatory Commission (FERC) enacted Order No. 841[1] in an effort to open up the energy grid to batteries, an essential technology for supporting renewables. It directed Regional Transmission Organizations (RTOs) to revise their operating procedures to better accommodate batteries. In response, several utilities challenged FERC for overstepping its jurisdiction. Although the D.C. Circuit ruled in favor of FERC in *NARUC v. FERC*,[2] RTOs have not fully accommodated batteries. In *Governing the Grid: Reforming Regional Transmission Organizations on the Heels of Order No. 841*, Oleg Kozel attempts to figure out the reasons for the holdup. The author walks through the different technical challenges each RTO has cited for its delay. He also breaks down the governance structures of the six RTOs in FERC's jurisdiction. Comparing these two variables, Kozel finds a correlation: generally, the more vulnerable an RTO's structure is to capture by traditional generators, the less efficiently it has implemented Order No. 841. The author provides several suggestions for how RTOs' governance structures should be reformed to better embrace renewables. Kozel argues that it may be prime time for FERC to mandate such a change.

CONSTRAINING THE USE OF CLEAN WATER ACT GENERAL PERMITS

The Army Corps of Engineers is the largest dredge and fill operator in the United States, but it is also the federal agency responsible for permitting such activities. For large projects, the Corps reviews permit applications on a case-by case basis. But for broad classes of dredge and fill activities, the Corps relies on nationwide permits, which receive no individual environmental review. Over the last 30 years, the use of nationwide permits has far surpassed individual permits. In *The Case for Vetoing General Permits under Section 404(c) of the Clean Water Act*, Jacob Gerrish argues that the growth of nationwide permits is creating unexpected environmental harms. He proposes that the U.S. Environmental Protection Agency (EPA) can and should veto nationwide permits. The author engages in a detailed statutory analysis, interpreting the text of the veto provision, drawing on history of the Clean Water Act, and suggesting a place-based interpretation of veto as a unique form of environmental protection. Gerrish also offers a roadmap for how implementation could work in practice. He concludes that vetoing nationwide permits would reduce the environmental impacts from dredge and fill activity by improving accountability in the permitting process.

1. Elec. Storage Participation in Markets Operated by Reg'l Transmission Organizations & Indep. Sys. Operators, 84 Fed. Reg. 23,902 (2018).

2. 964 F 3d 1177, 1182 (D.C. Cir. 2020).

JUDICIAL DEFERENCE TO AGENCY DECISION MAKING

In *Unconstrained Judicial Aggrandizement: Major Questions Doctrine in ALA v. EPA*, Richard Yates calls on the Court to renounce its major questions doctrine because: (i) it is imprecise and lacks analytical rigor; (ii) it aggrandizes the judiciary at the expense of the executive and legislative branches in contravention of the separation of powers; (iii) existing administrative judicial review mechanisms without the major questions doctrine offer more than adequate oversight to ensure that agency actions are justified; and (iv) it calls into question the integrity of judicial decision making by infusing judicial oversight with a conservative ideology that seeks a weakened administrative state. The author analyzes Judge Walker's separate opinion in *American Lung Association v. Environmental Protection Agency*[3] as well as four petitions seeking certiorari from the D.C. Circuit's decision on Clean Air Act section 111(d). At the time of his writing, the Supreme Court granted certiorari to the case, *West Virginia v. Environmental Protection Agency*.[4] Yates's analysis shows how unelected judges may aggrandize the judiciary's power and undermine its integrity by independently determining the meaning of a statute, overruling both elected branches. The author concludes that the Court's major questions doctrine should be renounced. Although the Court failed to move in that direction, Yates's analysis stands as an important critique of the major question doctrine.

Brock Williams' *Case Critique of a Cat with Crypsis and Call for Court Caution* raises similar doubts about courts' commitment to deference. It focuses on the U.S. Fish and Wildlife Service's (USFWS) designation of protected area for the jaguar under the Endangered Species Act.[5] In *New Mexico Farm & Livestock Bureau v. United States Department of Interior*, the Tenth Circuit disagreed with USFWS's finding that the jaguar "occupied" the proposed area.[6] Williams argues that the court should have given greater deference to USFWS's finding of occupation because the jaguar is a "cryptic species," in the sense of being hidden rather than puzzling. The author argues this deference standard should be based on the "spirit of the precautionary principle, as well as the deference owed to agency decisions on technical matters." Williams goes on to explain that cryptic species are more difficult to find, and so courts should be more cautious when overturning an agency finding of occupation for an imperiled cryptic species. A demonstration of a reasonable likelihood of occupation by the agency would be sufficient to meet this standard. Williams explains that the inverse would also be true: an agency would have to demonstrate that there is not a reasonable likelihood of occupation if it attempted to exclude a particular area.

3. 985 F 3d 914 (D.C. Cir. 2021), *cert. granted sub nom*.
4. (No. 20-1530), 2021 WL 5024616 (U.S. Oct. 29, 2021).
5. Endangered Species Act of 1973 (16 U.S.C. §§ 1531, *et seq*.).
6. 952 F 3d 1216, 1227 (10th Cir. 2020).

CHALLENGES IN COMPLYING WITH THE NATIONAL ENVIRONMENTAL POLICY ACT

In *Barking Up the Wrong Tree*, Waen Vejjajiva explores how budgetary incentives potentially compromise the United States Forest Service's (USFS) environmental reviews. Like all other federal agencies, the USFS is bound to review its major actions under the National Environmental Policy Act (NEPA). The USFS oversees vast forest management efforts, some of which involve timber harvesting projects. The agency frequently conducts NEPA reviews on such projects. But given the influence of timber yields on agency funding, critics question the USFS's ability to fairly conduct these reviews. The appellants in *Bark v. United States*, 958 F.3d 865 (9th Cir. 2020) recently highlighted key tensions between the USFS's financial and environmental interests. In this case, the Ninth Circuit did not extend its analysis beyond NEPA's procedural requirements to address the potential conflict of interest. Details of the project suggested that financial motives had overshadowed ecological goals in driving agency action. To mitigate the effect of undue financial influence, Vejjajiva argues that the USFS should no longer conduct NEPA reviews on timber harvesting projects. Rather, the USFS should assign its NEPA compliance duties under these projects to EPA. The author maintains that while EPA may ultimately reach some of the same decisions that the USFS would have, the key difference would lie in the process of conducting reviews. She hopes that her work will prompt discussion on the tension between financial incentives and ecological goals in federal agencies more generally.

MANAGING TOXIC EXPOSURES

Today, over forty years after the ban on the residential use of lead paint, 29 million homes in the United States still contain deteriorated lead paint and elevated levels of lead-contaminated house dust. The Ninth Circuit, in *A Community Voice v. EPA*, held that the threshold for identifying risks from lead paint must be strictly based on health-based standards, without consideration of cost.[7] This decision was an important win for environmental justice advocates. However, in *A Community Voice on Lead Paint: Examining the Role of Cost-Benefit Analysis in Environmental Regulation*, Karen Chen argues that "the need for lead paint abatement in American homes remains urgent, and a robust response remains unpromised." Chen describes problems with the federal lead paint regulation scheme, including the entrenched use of cost-benefit analysis in toxics regulation, which can cause the government to inadequately account for disparate health incomes when regulating toxic substances like lead. Chen proposes that policymakers embrace distributional weighting tools to better address equity concerns in cost-benefit analyses.

7. 997 F 3d 983 (9th Cir. 2021).

In August 2021, following a Ninth Circuit mandate in *LULAC v. Regan*, EPA revoked "tolerances" authorizing residues of the neurotoxic pesticide chlorpyrifos on food products.[8] In *"Stranded Pesticides": U.S. Agricultural Worker Vulnerability in the Wake of the 2021 Chlorpyrifos Food Ban*, Christina Libre acknowledges that the new rule is a victory for children's, environmental, and labor advocates who have agitated against chlorpyrifos for decades. Libre notes, however, that the pesticide remains legal for a variety of non-food uses that endanger the health of agricultural workers and their families—a fact that has been lost in much coverage of the new rule. This Note (i) traces the legal advocacy efforts that culminated in the 2021 chlorpyrifos rule, (ii) explores why agricultural workers and their communities remain uniquely vulnerable in its wake, (iii) discusses how federal pesticides law and policy exacerbates both worker vulnerability and the likelihood of future pesticide "strandings," and (iv) contemplates legal and policy adaptations to mitigate these risks to agricultural workers.

REDUCING GREENHOUSE GAS EMISSIONS

It is no surprise this Annual Review addresses climate change. It is already starting to have drastic effects on the global climate. Despite the potential for climate catastrophe, the United States has struggled to implement climate policy throughout all three branches of government. However, European countries, such as France and Germany, have not had the same challenges, and have adopted climate legislation and added environmental protection amendments to their federal constitutions. In the cases *Notre Affaire à Tous v. France* [9] and *Neubauer v. Germany*[10], French and German courts decided that their countries had either violated their carbon emissions reduction commitments or that the commitments were not aggressive enough. However, the United States will likely not have a similarly successful climate case for numerous reasons, including the country's legal structure. In *Protecting Future Generations from Climate Change in the United States*, Andrea White examines how best the United States can reduce greenhouse gas emissions for the benefit of future generations, either through (i) a federal constitutional amendment, (ii) due process claims, (iii) state constitutional provisions and amendments, or (iv) executive orders. White concludes that there is still an opportunity for the United States to enact three of these policies and thereby reduce greenhouse gas emissions.

Congratulations to the ELQ board and members and, of course, to the authors.

8. 996 F 3d 673 (9th Cir. 2021).

9. *Notre Affaire à Tous v. France*, Case No. 1904967, 1904968, 1904972, 1904976/4-1, Administrative Court Decision, 1, (Paris Administrative Court, Feb. 3, 2021).

10. *Neubauer v. Germany*, Case No. BvR 2656/18/1, BvR 78/20/1, BvR 96/20/1, BvR 288/20, Order, 1, (Federal Constitutional Court Mar 24, 2021)