

## INTRODUCTION: ENVIRONMENTAL LAW WITHOUT CONGRESS

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Often, scholarly legal articles are written with some trepidation that by the time they are finally printed, their titles or subjects will have become mooted or superseded by intervening events. This is not the case with the articles in this symposium issue, *Environmental Law Without Congress*. It has been twenty-five years since Congress last passed any meaningful environmental legislation—the Clean Air Act Amendments of 1990.<sup>1</sup> With no signs of change on the horizon, the Florida State University College of Law convened a conference on February 28, 2014, to begin a conversation about what to do about environmental law in a world without a functional U.S. Congress.

Since then, numerous compelling problems have presented themselves, including climate change, the proliferation of toxic chemicals, and a burdensome and an ineffective Endangered Species Act. With the long, dark shadow of partisan and special interest politics looming over it, Congress has ducked them all. In fact, Congress seems to have withdrawn from passing any meaningful legislation at all, other than stopgap measures absolutely necessary to keep the United States government running and to avoid defaulting on its sovereign debt, and even then with some noisy complaints.<sup>2</sup>

Congress's dysfunction is extremely costly. The Congressional budget stalemate that shut down the U.S. government for sixteen days in 2013 was estimated to have shaved 0.6% off of GDP growth, about \$24 billion in lost output.<sup>3</sup> The National Park Service lost about \$76 million of foregone visitor spending for every day that the shutdown forced its units to remain closed.<sup>4</sup> In 2011, as part of a resolution to an ongoing partisan dispute over the

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1. Clean Air Act Amendments of 1990, Publ. L. No. 101-549, 104 Stat. 2468.

2. See, e.g., Ezra Klein & Evan Soltas, *Wonkbook: Three Terrifying Quotes on the Debt Ceiling*, THE WASH. POST WONKBLOG (Oct. 7, 2013), <http://www.washingtonpost.com/blogs/wonkblog/wp/2013/10/07/wonkbook-three-terrifying-quotes-on-the-debt-ceiling/>.

3. See, e.g., Eliana Dockterman, *Here's How Much the Government Shutdown Cost the Economy*, TIME (Oct. 17, 2013), <http://swampland.time.com/2013/10/17/heres-what-the-government-shutdown-cost-the-economy/>.

4. Josh Hicks, *National Parks Losing Revenue Under Shutdown*, THE WASH. POST (Oct. 14, 2013), <http://www.washingtonpost.com/blogs/federal-eye/wp/2013/10/14/national-parks-losing-revenue-under-shutdown/>.

raising of the U.S. federal government debt ceiling, President Obama signed into law the Budget Control Act of 2011,<sup>5</sup> which would, in future debt limit political showdowns, automatically trigger across-the-board spending cuts unless Congress could agree to a new spending plan. There is no controversy over the inefficiency of these blunt, pro rata spending cuts, known as the "Sequestrations." The Sequestration cuts were purposely made to be so clumsily ignorant of any prioritization and so pointlessly painful, that surely Congress would come to its senses and override the Sequestrations by passing sensible budgets in the future. We know how that turned out.

There is an unfortunately common temptation to think that all Congress does is pass regulatory laws which get in the way of the smooth functioning of an economy.<sup>6</sup> But this facile view forgets that among other things, Congress is charged with appropriating money and authorizing some military and some emergency measures. The federal gasoline tax, used to fund the Federal Highway Trust Fund, stands at 18.4 cents per gallon, unchanged since 1993. Because Congress has rejected every call over the last 22 years to increase the tax, funding has not kept pace with inflation and with growing infrastructure needs, including a national road and bridge network that is in severe disrepair. Repair is obviously much more costly than maintenance, so this is not belt-tightening at all, but the opposite. And were Congress more interested in genuinely constructive oversight of federal agencies rather than grandstanding harassment, they might even improve agency performance. But perhaps most importantly, the Congress-can-do-nothing-right view wishfully assumes away the laws already on the books that require agencies to do things to facilitate the transaction of business, like issuing permits. It is spectacularly foolish to celebrate a do-nothing Congress on the grounds that the less Congress does to hamstring an economy, the better.

This über-minimalist view is more tempting in the environmental arena, where it seems more intuitive that Congress can do nothing good for business. But this view is wrong in environmental law as well. Congressional inaction has created uncertainties that have been extremely costly to American

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5. Budget Control Act of 2011, Pub. L. No. 112-25, 125 Stat. 240.

6. See, e.g., Barton Hinkle, *Please Congress, Do Much Less*, REAL CLEAR POLITICS (Jan. 2, 2014), [http://www.realclearpolitics.com/articles/2014/01/02/please\\_congress\\_do\\_much\\_less\\_121109.html](http://www.realclearpolitics.com/articles/2014/01/02/please_congress_do_much_less_121109.html); Stephen Moore, Commentary, *What's So Bad About a Do-Nothing Congress?*, CATO INSTITUTE (Oct. 27, 2000), <http://www.cato.org/publications/commentary/whats-so-bad-about-donothing-congress>.

businesses. For example, the failure to clarify whether greenhouse gases could be regulated under the Clean Air Act necessitated extensive EPA rulemakings and a U.S. Supreme Court decision, all of which could have been avoided with a relatively simple amendment. And if the political atmosphere was more susceptible to compromise (which seems like such a remote scenario now that it seems quaint), Congress could take our environmental laws, the vast majority of which were enacted in the 1970s and 1980s, and improve upon them. The last time that Congress and the White House worked to produce a bipartisan compromise was the last time a significant federal environmental law was enacted—the Clean Air Act Amendments of 1990,<sup>7</sup> which ushered in (among other things) an emissions trading program for sulfur dioxide emissions from power plants.

There is plenty of room for bipartisan improvement. The fact that environmental advocates and the chemical industry agree that reform of the Toxic Substances Control Act (TOSCA)<sup>8</sup> is badly needed suggests that a great deal of wasteful compliance is taking place, to say nothing of the problematic ignorance about the millions of chemical compounds, about which we know very little, that are placed in the stream of commerce in large quantities. TOSCA compromise was tantalizingly close, with one tentatively forged by Senators Vitter and Lautenberg, a Republican representing a state with a large chemical industry, and a Democrat long known as a champion of environmental causes. But then Senator Lautenberg died, and seemed to take with him the prospect of compromise.

In the biodiversity arena, nobody thinks that the Endangered Species Act (ESA) works just fine. Environmental advocacy organizations and most wildlife biologists believe that by the time that the ESA "jeopardy" provisions trigger private and federal duties, it is too often too late to save a species.<sup>9</sup> Industries affected by ESA restrictions believe that the ESA is too blunt of an instrument, protecting species with little or no ecological value.<sup>10</sup> Wildlife biologists, along with a smattering of industry advocates, believe that the ESA is misdirected at saving species rather than

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7. Clean Air Act Amendments of 1990, Publ. L. No. 101-549, 104 Stat. 2468.

8. Toxic Substances Control Act, Pub. L. No. 91-469, 90 Stat. 2003 (1976).

9. See, e.g. Timothy H. Tear, J. Michael Scott, Patricia H. Hayward & Brad Griffith, *Status and Prospects for Success of the Endangered Species Act: A Look at Recovery Plans*, 262 SCIENCE 976, 977 (1993).

10. Taylor Smith, Policy Document, *Research & Commentary: Endangered Species Act Repeal and Replace*, THE HEARTLAND INSTITUTE (Sept. 17, 2014), <http://heartland.org/policy-documents/research-commentary-endangered-species-act-repeal-and-replace>.

protecting habitats.<sup>11</sup> And yet, in the forty-two years since its passage, there has never been a serious attempt to reform the ESA. A cluster of amateur-hour attempts by Congressional Republicans in the mid-1990s to gut the ESA never reached the House floor.<sup>12</sup>

At times, Congress seems to have been able to navigate hyper-partisanship. Congress seemed to be on the verge of passing climate legislation when, in 2009, the House of Representatives passed by a 219-212 vote the American Clean Energy and Security Act, more widely known as Waxman-Markey by the names of its sponsors, Congressmen Henry Waxman and Ed Markey.<sup>13</sup> But the Senate did not pass a version of the bill.<sup>14</sup> A seemingly compelling argument in favor of passage was that the alternative was so much worse: regulation under the Clean Air Act. In an argument reminiscent of the Sequestration cuts, Clean Air Act regulation would be so inefficient and clumsy, so ill-fitted to the modern problem of greenhouse gas emissions, that surely Congress would come to its senses and pass a more efficient alternative. We know how that turned out.<sup>15</sup>

With Congress gridlocked, environmental law must "portage" around the lawmaking "logjam."<sup>16</sup> In thinking about Congress's vacation from environmental law, Don Elliott's analogy to a canoeist picking up her boat and clumsily but necessarily carrying it downstream is apt. Not just EPA, but environmental law generally has adopted at least some portaging strategies, such as greater reliance on state and local law to achieve environmental objectives.

To Elliott's suggested portage strategies, Todd Aagaard adds a new one: carrying out environmental or quasi-environmental mandates in non-environmental statutes. In his contribution to this volume, *Using Non-Environmental Law to Accomplish Environmental Objectives*, Aagaard sees not only potential but

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11. DAVID S. WILCOVE, MICHAEL J. BEAN, ROBERT BONNIE & M. MCMILLAN, *REBUILDING THE ARK: TOWARD A MORE EFFECTIVE ENDANGERED SPECIES ACT FOR PRIVATE LAND* (Environmental Defense Fund, 1996).

12. For a discussion on several House proposals to weaken the ESA, see Michael J. Bean, *The Gingrich That Saved the ESA*, ENVTL. F., Jan./Feb. 1999, at 26.

13. American Clean Energy and Security Act, H.R. 2454, 111th Cong. (2009).

14. Carl Hulse & David M. Herszenhorn, *Democrats Call Off Climate Bill Effort*, N.Y. TIMES, July 23, 2010, at A15, available at [http://www.nytimes.com/2010/07/23/us/politics/23cong.html?\\_r=0](http://www.nytimes.com/2010/07/23/us/politics/23cong.html?_r=0).

15. David Leonhardt, *Saving Energy, and Its Cost*, N.Y. TIMES, June 16, 2010, at B1, available at, [http://www.nytimes.com/2010/06/16/business/economy/16leonhardt.html?\\_r=0](http://www.nytimes.com/2010/06/16/business/economy/16leonhardt.html?_r=0).

16. E. Donald Elliott, *Portage Strategies for Adapting Environmental Law and Policy During A Logjam Era*, 17 N.Y.U. ENVTL. L.J. 24, 27 (2008) (quoting BRUCE ACKERMAN & DAVID GOLOVE, *IS NAFTA CONSTITUTIONAL?* (Harvard Univ. Press, 1995)).

actual environmental advocacy in such diverse laws as the Plant Protection Act, Securities and Exchange Commission disclosure requirements, Federal Energy Regulatory Demand Response Order, and Federal Trade Commission "Green Guides," that govern marketing claims made by producers that pertain to environmental or health benefits.<sup>17</sup> Under the Plant Protection Act,<sup>18</sup> the Animal and Plant Health Inspection Service has regulated the interstate movement of potentially invasive species, something which Congress has never addressed head-on as a purely environmental matter. The Securities and Exchange Commission (SEC), in carrying out the Securities Act of 1933<sup>19</sup> and the Securities Exchange Act of 1934,<sup>20</sup> mandate the disclosure of "material facts," which is defined as information for which there is "a substantial likelihood that a reasonable investor would attach importance in determining whether to purchase the security."<sup>21</sup> With a series of regulations, the SEC has gradually begun to require an increasingly greater amount of information pertaining to a publicly traded firm's environmental practices and its potential liability. This has extended into the area of climate change, as material facts include consideration of the risks of climate policy and climate change, including:

- i. the impact of legislation and regulation;
- ii. the impact of international accords;
- iii. the indirect consequences of regulation or business trends;
- iv. the physical impacts of climate change.<sup>22</sup>

The Federal Trade Commission, in carrying out the Federal Trade Commission Act,<sup>23</sup> polices "unfair or deceptive acts or practices in or affecting commerce."<sup>24</sup> In debunking false claims about the environmental impacts or benefits of products, the FTC has issued a series of "Green Guides"<sup>25</sup> that set out its view of what constitutes unfair or deceptive marketing. Apart from serving a consumer protection function, the FTC has made it its business to

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17. Todd S. Aagaard, *Using Non-Environmental Law to Accomplish Environmental Objectives*, 30 J. LAND USE & ENVTL. L. 36 (Fall 2014).

18. 7 U.S.C. §§ 7701-7786 (2000).

19. 15 U.S.C. §§ 77a-77aa.

20. 15 U.S.C. §§ 78a-78pp.

21. See Securities Act Rule 405, 17 C.F.R. § 230.405; Exchange Act Rule 12b-2, 17 C.F.R. § 240.12b-2.

22. Commission Guidance on Disclosures, Securities Act Release No. 33-9106, Exchange Act Release No. 34-61469, 75 Fed. Reg. 6289 (Feb. 2, 2010).

23. 15 U.S.C. §§ 41-58 (1914).

24. 15 U.S.C. § 45(a)(1) (2006).

25. 16 C.F.R. §§ 18-260 (1994).

act as the occasional watchdog for environmental claims. Finally, the Federal Energy Regulatory Commission (FERC), in carrying out the Federal Power Act,<sup>26</sup> and regulating the interstate transmission of electricity, has ordered operators to treat "demand response" savings—reductions in electricity demand—on equal footing with actually generated electricity.<sup>27</sup> Again, while the primary purpose is the administration of electricity transmission, when between two options, one environmentally beneficial and one not, the FERC has found a way to choose the environmentally beneficial regulatory path.

In all of these cases described by Aagaard, the core purpose of these statutes and regulations pertain to some non-environmental goal.<sup>28</sup> But in each case there is a sufficient relation between the core objective and some environmental goal such that environmental quality becomes a side benefit of that statute or regulation. Here then, is one way that environmental law has portaged around the Congressional logjam: by using non-environmental law to achieve environmental goals as an objective ancillary to other substantive goals.

Some more general evolutions of environmental lawmaking have taken place. In fact, some of these evolutions pre-date Congress's vacation from environmental law, suggesting that the evolution of environmental law is a much bigger and more complex process than the dominant Congress-centered model. In the 1970s, the regulatory process was opened up to negotiated rulemakings and policies that formalized regulatory negotiations that were undertaken to introduce flexibility in administrative rulemakings.<sup>29</sup> In the 1980s, President Reagan issued Executive Order 12291, a cost-benefit analysis for all rulemakings with a "significant" economic impact, defined back in 1981 as those with at least \$100 million in economic impacts.<sup>30</sup> To cope with this new institutionalized practice, a new instrument of the executive was formed: the Office of Information and Regulatory Affairs, or

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26. 16 U.S.C. §§ 791a-828c (1920).

27. Wholesale Competition in Regions with Organized Electric Markets, 73 Fed. Reg. 64,100, 64,101 (Oct. 28, 2008) (to be codified at 18 C.F.R. § 35.28); Demand Response Compensation in Organized Wholesale Energy Markets, 76 Fed. Reg. 16,658 (Mar. 24, 2011) (to be codified at 18 C.F.R. § 35.28). A part of this program was vacated by the United States Court of Appeals for the D.C. Circuit, *Electric Power Supply Ass'n v. FERC*, 754 F.3d, and awaits appeal to the U.S. Supreme Court.

28. Todd S. Aagaard, *Using Non-Environmental Law to Accomplish Environmental Objectives*, 30 J. LAND USE & ENVTL. L. 36 (Fall 2014).

29. See, e.g., Philip Harter, *Negotiating Regulations: A Cure for Malaise*, 71 GEO. L.J. 1,39-40 (1982).

30. Exec. Order 12,291, 46 Fed. Reg. 13,193 (1981).

"OIRA."<sup>31</sup> As it turned out, this was not a partisan executive move, as both Presidents Clinton and Obama have kept the requirement (albeit in a different form),<sup>32</sup> making cost-benefit analysis into a less binding, "softer" lawmaking principle.<sup>33</sup> The practice of cost-benefit analysis in federal rulemaking and the expansion of the responsibilities of OIRA have grown significantly under both Democratic and Republican presidential administrations, and have become controversial, though not breaking along political party lines.<sup>34</sup>

One should not be surprised that a new agency, with its own incentives, has sowed discontent in the federal agency ranks. William Funk's contribution to this volume, *David and Goliath: Taking on OIRA*, describes an agency that has sometimes thrown its weight around in the executive branch.<sup>35</sup> Apart from providing a wonderfully expert and thorough description of the OIRA review process, Funk helps chronicle the institutional development of this new 800-pound gorilla, and shows that what has been prescribed by the executive order does not necessarily comport with OIRA's actual behavior.<sup>36</sup> In fact, as Professor Funk notes, OIRA has a number of ways of breaching its mandated duties to provide a timely review of agency rulemakings.<sup>37</sup> Delays have become chronic at OIRA, so the mandated ninety-day review period is regularly exceeded.<sup>38</sup> The opaqueness of OIRA's analyses and records of its meetings with stakeholders is regarded, even by those friendly to OIRA, as suspicious.<sup>39</sup> Funk unearths some fairly shocking statements on OIRA power, including former OIRA administrator Cass Sunstein's pronouncements that OIRA can "say no to members of the President's Cabinet," and that it can place proposed rules onto a "shit list" and make sure that they "never s[ee] the light of day."<sup>40</sup>

One might be surprised at such chutzpah, even from a Harvard Law professor. What can agencies do in response? As Funk points

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31. See, e.g., Daniel Farber, *Rethinking the Role of Cost-Benefit Analysis*, 76 U. CHI. L. REV. 1355, 1361 (2009).

32. Exec. Order 12,866, 58 Fed. Reg. 13,193 (1993).

33. Farber, *supra* note 31, at 1361-62.

34. Shi-Ling Hsu, *The Accidental Postmodernists: A New Era of Skepticism in Environmental Policy*, 39 VT. L. REV. 27 (2014).

35. William Funk, *David and Goliath – Taking on OIRA*, 30 J. LAND USE & ENVTL. L. 64 (Fall 2014).

36. *Id.*

37. *Id.*

38. See, e.g., Farber, *supra* note 31, at 1356-57.

39. Farber, *supra* note 31, at 1363-64.

40. William Funk, *David and Goliath – Taking on OIRA*, 30 J. LAND USE & ENVTL. L. 64 (Fall 2014).

out, judicial review is precluded, although that is something that could be changed by executive order.<sup>41</sup> Sometimes, agency heads appeal directly to the President, who ultimately decides. Sometimes, they ignore OIRA's instruction to not publish a rule. These successful "push-backs," as Professor Funk documents, occurred under the Republican presidencies of Reagan and George H.W. Bush.<sup>42</sup> Professor Funk thus leaves us with a question: why not try pushing back against OIRA's administrative bullying? It is an important question as governments navigate environmental law without Congress.

Does Congress even exist? Leave it to the playful J.B. Ruhl, in his contribution to this volume, to ask a political question as if it were a theological one.<sup>43</sup> If one lacked access to media coverage of Congress, and could only "experience" Congress by examining environmental lawmaking (as one might examine scripture), one might reasonably conclude that Congress is dead. It has done almost nothing since 1990. Its dalliances into environmental law have been sporadic enough that one could suspect these were orchestrated events, staged "miracles" to sustain your faith in Congress, but not actually accomplish anything meaningful. Certainly the Endangered Species Act (ESA), Professor Ruhl's lens,<sup>44</sup> is a prime example. Despite a crying need, Congress has not substantially amended the ESA since its passage in 1973. In the meantime, we have found a way to make do with a number of administrative innovations, like Habitat Conservation Planning under section 10 of the ESA.<sup>45</sup> Courts have portaged, also, stepping in to make the ESA, as Professor Ruhl put it, "no less than a national land use and resources management program."<sup>46</sup> Storms have brewed from time to time, like a wave of threatened ESA amendments in the mid-1990s, which the faithful have taken as a sign that Congress does exist and might, should it become displeased, descend and show its wrath by really changing environmental law to the detriment of all us pagan practitioners. In 2004, Congress also excluded U.S. Defense Department lands from critical habitat designation, provided that certain land management provisions were followed.<sup>47</sup> Alas, Congress does exist, and comes forth to provide in the Pentagon's greatest hour of need!

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41. *Id.*

42. *Id.*

43. J.B. Ruhl, *Does Congress Exist?*, 30 J. LAND USE & ENVTL. L. 80 (Fall 2014).

44. *Id.*

45. Endangered Species Act of 1973, 16 U.S.C. § 1539 (2006).

46. J.B. Ruhl, *Does Congress Exist?*, 30 J. LAND USE & ENVTL. L. 80 (Fall 2014).

47. *Id.*



Lest we despair too much, the conference keynote speaker, Richard Lazarus, reminds us that Congress has survived past crises far more emotive than the ones it currently faces.<sup>48</sup> After Massachusetts Senator Charles Sumner delivered a stinging anti-slavery speech on the Senate floor, he was beaten, nearly fatally, by South Carolina Congressman Preston Brooks.<sup>49</sup> Partisan politics runs high in Congress these days, but has not quite risen to the level of physical violence among its members.

Professor Lazarus puts his finger on an inherent problem with environmental politics that is at the heart of the Congressional absence from federal environmental lawmaking: championing environmental quality does not provide political payoffs worth the political costs.<sup>50</sup> Even President Nixon, the penultimate political calculator, retreated from his courtship of environmental voters, eventually learning that the political payoffs never quite justify the political costs. Professor Lazarus cites William Ophuls's *Ecology and the Politics of Scarcity*,<sup>51</sup> which expresses doubt that a democracy can *ever* cope with environmental problems. Scientific uncertainty, inherent in most environmental problems, is too convenient for those resisting regulation. And the distribution of environmental benefits and compliance costs – the latter being a much more concrete political interest – all but guarantees a thumb on the scale of environmental regulation. Finally, as a psychological matter, the costs of environmental regulation are imposed on *identifiable* individuals, groups, and industries, but the environmental benefits redound to the benefit of a much larger, but inchoate and less identifiable mass of people, again guaranteeing that the environmental interest will be relatively under-represented.<sup>52</sup>

What is to be done? Professor Lazarus suggests that political incentives facing Congress somehow have to be aligned with the long-term and disparate interests represented by environmental advocacy.<sup>53</sup> That seems like a tall order requiring a Constitutional amendment. If that were the way to go, then one modest first step might be to address the *Citizens United v. Federal Election*

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48. Richard Lazarus, *Environmental Law Without Congress*, 30 J. LAND USE & ENVTL. L. 16 (Fall 2014).

49. *Id.*

50. *Id.*

51. *Id.* (citing WILLIAM OPHULS, *ECOLOGY AND THE POLITICS OF SCARCITY* (W.H. Freeman & Co. 1977)).

52. Shi-Ling Hsu, *The Identifiability Bias in Environmental Law*, 35 FL. ST. U. L. REV. 433 (2008).

53. Richard Lazarus, *Environmental Law Without Congress*, 30 J. LAND USE & ENVTL. L. 16 (Fall 2014).

*Commission*<sup>54</sup> case, which unleashed a torrent of private money into political campaigns, federal and state, executive, legislative, and even judicial. Even that appears to be a heavy lift.

Absent a fundamental structural change, the more familiar pathway for environmental advocacy is to change public opinion. Congress responds to public opinion, and on the most pressing matter of climate change, public opinion has been puzzlingly inert. Although public opinion has trended towards greater acceptance of climate change,<sup>55</sup> the amount of skepticism resident in the American population has remained much higher than that among climate scientists.<sup>56</sup> As this public opinion anomaly has persisted, the study of the psychology of climate change has become a mainstream academic endeavor, spawning significant bodies of research at a number of psychology departments and elsewhere in universities. Work that began with a mostly descriptive bent has become highly theoretical and has expanded the boundaries of psychological research,<sup>57</sup> even weaving in sociological concepts<sup>58</sup> in attempting to understand why people believe what they believe about climate change.

In 2011, the American Psychological Association commissioned a report<sup>59</sup> that was a sweepingly comprehensive review of the many ways in which psychologists might have something to say about climate change. This "everything climate change and psychology" report not only explored the psychological determinants of public opinion on climate change, but also the psychological impacts of a climate-changed world.<sup>60</sup> The lead author of that report, Pennsylvania State University Psychology Professor Janet Swim, brings a psychological perspective to this volume. Along with co-authors John Fraser and Nathaniel Geiger, Professor Swim's contribution, *Teaching the Public to Sing: Use of Social Science Information to Promote Public Discourse on Climate*

54. 558 U.S. 310 (2008).

55. See, e.g., ANTHONY LEISEROWITZ, EDWARD MAIBACH, CONNIE ROSER-RENOUF, GEOFF FEINBERG & PETER HOWE, CLIMATE CHANGE IN THE AMERICAN MIND: AMERICANS' GLOBAL WARMING BELIEFS AND ATTITUDES IN SEPTEMBER 2012 4 (Yale Project on Climate Change Communication, 2012).

56. *Id.* at 7.

57. See, e.g., Dan M. Kahan, *Making Climate-Science Communications Evidence-based – All the Way Down*, in CULTURE, POLITICS AND CLIMATE CHANGE (M. Boykoff & D. Crow eds., Routledge Press 2014), available at <http://ssrn.com/abstract=2216469>.

58. LEISEROWITZ, *supra* note 55 (Classifying climate belief systems into six demographic groups).

59. JANET K. SWIM, PAUL C. STERN, THOMAS J. DOHERTY, SUSAN CLAYTON, JOSEPH P. RESER, ELKE U. WEBER, GIFFORD & GEORGE S. HOWARD, PSYCHOLOGY AND GLOBAL CLIMATE CHANGE: ADDRESSING A MULTIFACETED PHENOMENON AND SET OF CHALLENGES (American Psychological Association, 2009).

60. *Id.* at 42-50.

*Change*,<sup>61</sup> discusses a key impediment to changing opinions on climate change: the reluctance of people to even discuss climate change in social situations. It would appear that climate change has become so politically loaded that, like religion and politics, it has become a social taboo to bring it up in casual conversation. Taking on such a delicate matter is further hindered by the generally low "self-efficacy" (not knowing enough to discuss climate change intelligently) and "response efficacy" (the perception that talking about climate change is unlikely to be effectual in changing minds) of discussing climate change. Keeping up with the complexity and constantly changing state of climate science is a daunting prospect even for policy experts; for the layperson, it is enough to drive them completely underground. Professor Swim observes that climate change can be and is actually efficaciously discussed in certain arenas such as aquariums and zoos, where the impacts of climate change on species can be naturally discussed without violating a social taboo, and in which climate messages can be delivered with scientific credibility.<sup>62</sup> The larger job, however, of teaching the general public to *sing* requires that those willing to discuss climate change be given the tools and the contexts in which a discussion of climate change can be carried out without fear of violating some social norm.

It is worth taking a step back and seeing how other areas of law have transformed themselves in the face of Congressional inaction. What we commonly find is that second-best solutions emerge, often utilizing new information technologies. Consider the law around social media and electricity transmission lines. The explosion of first, the internet, and subsequently, social media, has taken a technologically overmatched Congress by surprise. Privacy concerns have leapt to the forefront of the policy debate, and yet seem to be incrementally and partially addressed by technology firms themselves. Privacy concerns have been addressed by a variety of half-measures (by some accounts unsatisfactorily), but consumers have not voted with their feet and exited the social media world en masse.

Now consider the need for an upgraded electricity transmission system. Grid reliability in the United States no longer compares favorably with technologically sophisticated countries such as

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61. Janet Swim et al., *Teaching the Public to Sing: Use of Social Science Information to Promote Public Discourse on Climate Change*, 30 J. LAND USE & ENVTL. L. 90 (Fall 2014).

62. *Id.*

Germany.<sup>63</sup> While Congress could clearly step in and provide the mandate and the money to upgrade electricity reliability, saving billions of dollars of dampened economic activity, it has not done so. Familiar “Not-in-My-Backyard” concerns have crippled decentralized, non-Congressional efforts to improve electricity transmission. But in this chaos, several alternatives have emerged. Some frustrated towns and even individual homeowners have simply gone off the grid and installed a combination of alternative energy sources.<sup>64</sup> Energy storage has suddenly become a hot technology. And Google, wading into the energy world with its formidable cache of information and money, has invested in a transmission line that will be buried underground in the North Atlantic seabed, circumventing the notoriously difficult approval processes in New Jersey, which badly needs more transmission capacity.<sup>65</sup>

Perhaps that is the more subtle lesson: that like other areas of law, environmental lawmaking is maturing so that it is not so utterly dependent upon Congress. Over the past twenty-five years, a number of lawmaking institutions have evolved to take Congress's place. A great deal of administrative lawmaking has taken place. Under the Clean Air Act, ozone standards have come and gone and fine particulate matter pollution standards are tightening. Administrative lawmaking has, by necessity, evolved under the Endangered Species Act (ESA), as Habitat Conservation Planning (HCP) has provided some relief from the still-pressing need for reform. Some of the perverse incentives, information gaps, and regulatory pathologies of the ESA have at least been alleviated by a less adversarial, more cooperative and more information-sharing relationship made possible by administrative fiat. Could Congress have done what the U.S. Fish and Wildlife Service did? Although imperfect, and sometimes subject to criticism from environmental advocacy groups, the HCP program has clearly served as an amendment to the ESA, attempting to meet many of the objections made by regulated industries, and

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63. *German Grid Reaches Record Reliability in 2011*, RENEWABLES INT'L. (Sept. 5, 2012), <http://www.renewablesinternational.net/german-grid-reaches-record-reliability-in-2011/150/537/56183/>.

64. *See, e.g.*, Craig Leisher, *The Pleasures and Pitfalls of Off-the-Grid Solar*, N.Y. TIMES (Jan. 18, 2012, 2:36 PM), <http://green.blogs.nytimes.com/2012/01/18/the-pleasures-and-pitfalls-of-off-the-grid-solar/>.

65. Ehren Goossens, *Google-Backed Atlantic Offshore Wind Cable Shifts Focus to New Jersey*, RENEWABLEENERGYWORLD.COM (Oct. 29, 2013), <http://www.renewableenergyworld.com/rea/news/article/2013/10/google-backed-atlantic-offshore-wind-cable-shifts-focus-to-new-jersey>.

even some of the ones made by conservation biologists and environmental advocacy groups.

State and local governments have also stepped into the void left by Congress, and in some cases have accomplished some things that Congress simply could not do. It is worth keeping in mind (without unduly celebrating) that there are some benefits of federalism. The practice of hydraulic fracturing has grown up, mostly unsupervised, with no Congressional input at all. Instead, state and local governments have forged ahead, making their own political choices that have led to the patchwork of fracking activity throughout the United States. Moreover, new technologies have made the United States into a new global energy power. What we have collectively learned from these sometimes prudent, sometimes headlong rushes into fracking is substantial, and quite possibly less tainted than it would be if it had been obtained under the shadow of EPA regulation. On the climate change front, California's Global Warming Solutions Act enacted a cap-and-trade program for greenhouse gas emissions that will reduce the California's carbon footprint to 1990 levels by the year 2020.<sup>66</sup>

While creative work-arounds have been developed that could have been, but were not, obviated by congressional action, it is impossible to elide certain areas that desperately need the intervention of Congress. Reform of the Toxic Substances Control Act is long overdue. Without it, chemical manufacturers face a patchwork of non-federal regulations, and most importantly, so little is known about the tens of thousands of chemicals introduced into commerce regularly. Most importantly, climate change needs Congress. President Obama's plan to reduce greenhouse gas emissions using the Clean Air Act is as credible as it could be, but is clearly only a start. Much can be learned by subnational or extra-governmental initiatives to combat climate change, but ultimately, climate change can only engage the governments of China and India if Congress acts.

Congress remains the first best option. But the second-best options have often been drafted into second-best worlds, and stakeholders in environmental law disputes are normally thrilled to achieve even that. Necessity has proven to be the mother of a number of innovations, in a number of different settings.

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66. California Global Warming Solutions Act of 2006, 2006 Cal. Stat. § 1, ch. 488 (codified as CAL. HEALTH & SAFETY CODE §§ 38,500-38,599 (West 2008)).