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TREADING WATER WHILE CONGRESS IGNORES THE NATION'S ENVIRONMENT

*Sandra Zellmer**

INTRODUCTION

During the late 1960s, the nation's attention was riveted on graphic images of contaminated resources, such as smoldering rivers and oil-soaked seagulls,¹ as well as Rachel Carson's haunting prose about the "strange blight"² of chemical pesticides afflicting land, water, and wildlife. Policymakers recognized the need for strong legal protections for public health and the environment, and Congress responded with sweeping legislation governing the pollution of water, air, and soil, and the demise of threatened and endangered species.³

The Clean Water Act of 1972 (CWA), which regulates discharges of pollutants into waters of the United States, is one of the most significant statutes among this body of legislation.⁴ Under the CWA and related federal environmental legislation, the nation has made tremendous strides in improving our water quality along with the waste management practices that affect

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1 See RICHARD J. LAZARUS, *THE MAKING OF ENVIRONMENTAL LAW* 59 (2004) (describing "visually unsettling events" of the 1960s).

2 RACHEL CARSON, *SILENT SPRING* 13 (1962).

3 Sandra Zellmer & Robert Glicksman, *Improving Water Quality Antidegradation Policies*, 3 *GEO. WASH. J. ENERGY & ENVTL. L.* 1, 1 (2013).

4 Pub. L. No. 92-500, 86 Stat. 816 (codified as amended at 33 U.S.C. §§ 1251 et seq. (2006) in scattered sections of 12, 15, and 33 U.S.C.) (originally titled Federal Water Pollution Control Act).

water, air, and soil.⁵ However, since the basic statutory framework was adopted in the 1970s, there have been many ecological, technological, social, and political changes in the United States, but Congress has adopted very few significant amendments, causing some to question whether federal environmental laws have passed their prime.⁶

In fact, since 1990, Congress has failed to take any meaningful action to reform our nation's pollution control laws. One might understandably think that the policymaking vacuum in our legislative branch has rendered our bedrock environmental provisions far less effective than they could be. Even when environmental catastrophes have occurred, such as the 2010 blowout of BP's Deepwater Horizon in the Gulf of Mexico, Congress has failed to respond. The federal agencies have frequently stepped in to fill the regulatory gaps. In reviewing the agencies' decisions, the federal courts have issued a variety of proclamations that shape the statutory playing field, sometimes in ways that Congress may have never anticipated when it adopted the lofty, environmentally protective statutory goals.

The CWA, in particular, has been a favorite environmental subject of the Supreme Court. Since the CWA's enactment, the Court has issued thirty-four CWA decisions, which constitutes thirty-four percent of the one hundred environmental opinions issued from 1972–2012.⁷ The Clean Air Act is a distant second, with only twenty-two opinions issued during the same period.⁸ The Court has reviewed nearly half of the CWA disputes since 1990, including cases challenging the jurisdictional scope of the Act as well as the Environmental Protection Agency's (EPA) enforcement powers and the division of authority between the EPA and the Corps of Engineers.⁹

5 See William L. Andreen, *Water Quality Today—Has the Clean Water Act Been a Success?*, 55 ALA. L. REV. 537, 569–73 (describing overwhelming evidence of environmental successes achieved since the CWA was enacted).

6 See *infra* Part III.

7 A Westlaw search in the Supreme Court database on Nov. 1, 2012, yielded a total of one hundred environmental cases issued between 1972–2012 (thirty-four CWA cases; twenty-two Clean Air Act cases; nineteen National Environmental Policy Act cases; ten waste management cases; eight Superfund cases; four pesticide cases; and three mining reclamation cases). If natural resource and federal public lands cases are included, the total rises to 123 cases (ten Mining or Mineral Leasing Act cases; eight Endangered Species Act cases; three Federal Land Policy and Management Act cases; and two National Forest Management Act cases). CWA cases constitute twenty-eight percent of the combined total. For an assessment of the Court's treatment of environmental cases through 1999, see Richard J. Lazarus, *Restoring What's Environmental About Environmental Law in the Supreme Court*, 47 UCLA L. REV. 703 (2000) (concluding that the Court's apathy towards environmental law during its first three decades resulted from its failure to appreciate environmental law as a distinct area of law).

8 See results of Westlaw search, *supra* note 7.

9 See *infra* Part III. The D.C. Circuit and other federal courts of appeals have also issued several blockbuster CWA opinions. See *id.* In 2013, two additional Supreme Court cases were handed down: *L.A. Flood Control Dist. v. Nat'l Res. Def. Council, Inc.*, No. 11-460, 2012 WL 406006, and *Decker v. Northwest Env. Def. Center*, No. 11-338, 11-347, 2013 WL 1131708. They are discussed *infra* Part II.A; Part III.A.

Congress has failed to respond in a meaningful way to any of the post-1990 CWA judicial opinions. In contrast, throughout the 1970s and 1980s, a syncopated yet rhythmic dance took place between the agencies, the federal courts, and Congress. Federal agencies, including EPA, would issue regulations to implement the CWA and other keystone environmental statutes, the courts would resolve challenges to those regulations, in many cases based on ambiguous statutory language,¹⁰ and Congress would subsequently either validate or repudiate the results. Examples include point source pollution exemptions, variances for discharges of toxic pollutants, and discharges from dredge and fill activities.¹¹

Much has changed since the 1970s, and even since 1990. The bitterly partisan nature of environmental issues in Congress today suggests that comprehensive, thoughtful reforms tailored to the problems faced by modern society are unlikely. It is not clear, however, that congressional reticence or even gridlock is necessarily a bad thing when it comes to environmental law. Certainly, the physical environment and the tools available for addressing environmental problems have changed since most of our key statutes, including the CWA, were passed, making some existing provisions seem outdated and inadequate.¹² On the other hand, the objectives of the CWA and other bedrock environmental laws have *not* changed; if anything, these goals have become all the more compelling in the twenty-first century. As a society, we still expect clean and reliable water resources—an expectation that cannot be met unless we attain the CWA's goals of maintaining and restoring the chemical, physical, and biological integrity of the nation's waterways.¹³ Yet if today's Congress were to take up the call to reform existing statutes, it may be more likely to dismantle provisions disliked by powerful, regulated entities than to pass comprehensive, forward-thinking legislation designed to solve contemporary environmental problems.¹⁴

Perhaps it is not necessary or wise, then, to push for a more responsive legislature. While Congress has been neglectful, the federal agencies have taken up the slack in some instances, crafting more innovative and, in some cases, more progressive solutions than might be expected in Congress.

10 The standard of review for agency interpretations of ambiguous statutes administered by them was articulated in 1984 by the Supreme Court in *Chevron U.S.A. Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984).

11 See *infra* Part II.

12 See Carol A. Casazza Herman et al., *Breaking the Logjam: Environmental Reform for the New Congress and Administration*, 17 N.Y.U. ENVTL. L.J. 1, 1 (2008) (“[P]olitical polarization and a lack of leadership have left environmental protection in the United States burdened with obsolescent statutes and regulatory strategies.”).

13 See 33 U.S.C. § 1251(a) (2006) (expressing this interest and codifying the nation's interest in improving navigable water ways).

14 See, e.g., Felicity Barringer, *Endangered Species Act Faces Broad New Challenges*, N.Y. TIMES, June 26, 2005, available at http://www.nytimes.com/2005/06/26/politics/26species.html?pagewanted=print&_r=0 (noting the current “alignment of the planets of people against the Endangered Species Act in Congress, in the White House and in the agencies” (quoting Jamie Rappaport Clark)).

Although it has often taken a citizens' suit to push the agencies forward, the agencies have generally been more willing than congressional members to consider evolving scientific findings and conclusions and to adapt their strategies to the science.

This Article begins in the 1970s, when the nation's environmental framework was expressed in statutes governing a wide variety of topics, including water, air, environmental analysis, and endangered species. Part I explores the intricate interplay between the agencies charged with implementing these statutes, the federal courts, and Congress, and demonstrates how Congress routinely amended the statutes as needed to ensure that the agencies and the courts were staying true to its purposes and implementation strategies.

Part II moves forward in time and looks at the dramatically different legislative landscape since 1990. Very little by way of significant environmental legislation has been enacted in the past two decades. This is so despite the fact that the Supreme Court has reviewed a surprising number of Clean Water Act cases during this era, including cases challenging the jurisdictional scope of the Act,¹⁵ EPA's enforcement powers,¹⁶ and the division of power between the EPA and the Corps of Engineers.¹⁷ Meanwhile, significant changes in the physical environment and in our understanding of the environment have occurred, without any meaningful response from Congress.

Part III explores a variety of reasons for congressional failures since 1990. Congress has produced relatively little by way of comprehensive legislation across the board—not just on environmental issues. The lack of controls on campaign financing and the corruptive influence of money from special interest groups is one reason. A dramatic increase in the number of filibusters is another. However, there have been moments of “civic republicanism” where Congress has managed to pass broad-reaching statutes to address health care, national security, banking, and several other topics.¹⁸ Part III explains how environmental law is different than other types of legislation, and why gridlock is so much more palpable in the environmental arena. Despite high profile catastrophes such as the BP Deepwater Horizon blowout and the failure of the levee system in New Orleans in the wake of Hurricane Katrina, Congress has done virtually nothing on the environmental front. The chronic problems posed by hyper-partisanship and campaign funding are present here, too, but there is something more afoot. Heated rhetoric, conveyed in inflammatory sound-bites—“job killing” regulatory measures and private property rights “abuse” among them—is even more evident when it comes to environmental law than in other areas. Equally troubling is congressional mistrust—even disdain—for science.

15 See, e.g., *Rapanos v. United States*, 547 U.S. 715 (2006); *Solid Waste Agency v. U.S. Army Corps of Eng'rs*, 531 U.S. 159 (2001).

16 See, e.g., *Sackett v. EPA*, 132 S. Ct. 1367 (2012).

17 See, e.g., *Coeur Alaska, Inc. v. Se. Alaska Conservation Council*, 557 U.S. 261 (2009).

18 See Amy Sinden, *In Defense of Absolutes: Combating the Politics of Power in Environmental Law*, 90 IOWA L. REV. 1405, 1447 (2005).

Part IV considers the implications of Congress's failure to act, and explores the ways in which the federal agencies either have stepped into the vacuum or could fill the vacuum left by congressional inaction. It posits that environmental gridlock may not be such a bad thing after all. True, from the standpoint of democratic legitimacy, Congress ought to be doing its job. But from the standpoint of environmental protection, perhaps Congress *should* leave well enough alone (or at least we will be no worse off if it does remain silent). Neither congressional members nor their staffs have sufficient time, inclination, or expertise to craft adequate responses to modern environmental problems, many of which are far more complex than the issues faced in the 1970s. When it comes to water quality, at least, the low-hanging fruit has already been picked and the remaining issues, such as nonpoint source pollution and the protection of isolated wetlands and ephemeral streams, call for solutions that are both more nuanced and more politically charged than the basic mandates issued in the 1970s were. Congress has always been better able to deal with "macro"-level issues and pose broad-brush policy-oriented solutions, but complex problems tend to be over-simplified, for example, one is either "for or against" wetlands protection or "for or against" hamstringing the economy by regulating industrial discharges. Moreover, given that the environmental laws of the 1970s, with their lofty objectives, are the high water mark, and also that the value of safe, clean water for drinking, fisheries, and recreation remains intact, it is possible we have nowhere to go but down if Congress were to start tinkering.

The Article concludes in Part V with an assessment of several "portaging strategies" that offer an opportunity to work around the congressional logjam and move the environmental ball forward through non-legislative means.¹⁹ Although comprehensive legislative reform may be the "first best" option for addressing wicked problems like climate change and even nonpoint source pollution, empowering agencies to engage in more progressive environmental action presents a viable "second best" alternative.²⁰ This alternative turns in part on empowering citizens to motivate agency action through petitions for rulemaking and citizens' suits, and in part on clearing away impediments to agency action while minimizing agency capture by anti-regulatory interests. A coordinated strategy of regulation, Executive Orders, and enforcement might take us beyond merely "treading water" while Congress ignores the environment.

19 The phrase "portaging strategies" is adapted from E. Donald Elliott, *Portage Strategies for Adapting Environmental Law and Policy During a Logjam Era*, 17 N.Y.U. ENVTL. L.J. 24 (2008).

20 See Daniel H. Cole, *Clearing the Air: Four Propositions About Property Rights and Environmental Protection*, 10 DUKE ENVTL. L. & POL'Y F. 103, 117 (1999) (observing that we live in a "second-best world," with many institutional and technological complexities).

I. A (MOSTLY) HAPPY TRIO: THE AGENCIES, THE COURTS,
AND CONGRESS FROM 1970 TO 1990

Beginning in 1970, Congress passed an extended family of federal environmental statutes, which together became the cornerstone of a new environmental era. The first of these was the National Environmental Policy Act (NEPA),²¹ known as the granddaddy of modern environmental law.²² NEPA was soon followed by the Clean Air Act of 1970,²³ which controls air emissions from stationary and mobile sources, the CWA of 1972,²⁴ which regulates water pollutants, and the Endangered Species Act (ESA) of 1973,²⁵ which protects endangered species and their habitat. The year 1970 also marked the creation of the U.S. Environmental Protection Agency (EPA) to implement provisions of the pollution control statutes.²⁶

The Clean Air Act, the CWA, and the ESA add substantive layers to NEPA's procedural "look before you leap" mandate. As Judge Skelly Wright noted in an early NEPA case, these statutes demonstrate Congress's commitment "to control . . . the destructive engine of material 'progress'" by prioritizing environmental protection.²⁷

From the advent of the modern environmental era in 1970 through the 1990 CWA and Clean Air Act Amendments,²⁸ Congress was relatively vigilant about ensuring that its statutes were construed in a fashion that represented congressional intent. Major amendments to the CWA were adopted in 1977 and 1987, to the Clean Air Act in 1977 and 1990, and to the ESA in 1978.²⁹ Throughout this period, Congress was responsive to Supreme Court rulings

21 Pub. L. No. 91-190, 83 Stat. 852 (codified as amended at 42 U.S.C. §§ 4321 et seq. (2006)). The NEPA was adopted by Congress in late December 1969 and signed into law on Jan. 1, 1970.

22 See *Calvert Cliffs' Coordinating Comm., Inc. v. U.S. Atomic Energy Comm'n*, 449 F.2d 1109, 1111-12 (D.C. Cir. 1971) ("NEPA . . . takes the major step of requiring all federal agencies to consider values of environmental preservation in their spheres of activity, and it prescribes certain procedural measures to ensure that those values are in fact fully respected. . . NEPA . . . makes environmental protection a part of the mandate of every federal agency and department.")

23 Pub. L. No. 91-604, 84 Stat. 1676 (codified as amended in 42 U.S.C. §§ 7401-7671q (2006)). The Clean Air Act was enacted on Dec. 31, 1970.

24 Pub. L. No. 92-500, 65 Stat. 816 (codified as amended at 33 U.S.C. §§ 1251 et seq. (2006)).

25 Pub. L. No. 93-205, 87 Stat. 884 (codified as amended in scattered sections of 7 and 16 U.S.C.).

26 Reorganization Plan No. 3 of 1970, 3 C.F.R. 199 (1970), *reprinted in* 5 U.S.C. app. at 202 (2006), *and in* 84 Stat. 2086.

27 *Calvert Cliffs' Coordinating Comm., Inc.*, 449 F.2d at 1111 (footnote omitted).

28 Water-related amendments include the Oil Pollution Act of 1990. See *infra* notes 106-110 and accompanying text. The 1990 Clean Air Act amendments, Public Law 101-549, adopted an acid rain (sulfur dioxide) trading program and phased out ozone-depleting chemicals. See *infra* notes 115-118 and accompanying text.

29 See *infra* notes 97-99 and accompanying text.

as well as decisions of the D.C. District Court and Circuit Court of Appeals.³⁰ An examination of the CWA, in particular, provides a good sense of the dynamics that were in play between Congress, the courts, and the agencies.

The 1972 CWA was preceded by the Federal Water Pollution Control Act of 1948,³¹ but the 1972 Act bears little resemblance to the 1948 Act. The 1948 Act placed the federal government in a supporting role in relation to the states by authorizing federal money for water pollution research, sewage treatment facilities, and state pollution control programs.³² Although the 1948 Act authorized federal enforcement action, the authorization was exceedingly narrow and ineffective. The federal government could file a public nuisance action for endangerment from interstate pollution but only with the approval of state officials in the state where the discharge originated.³³ By the mid-twentieth century, rivers were smoldering, waterfowl were dying, and fisheries were closed due to contamination in many regions of the country.³⁴ It was clear that the 1948 Act was not working and that the nation's water quality problems required more aggressive federal involvement.³⁵

The CWA of 1972 embraces the simple yet profound goal of eliminating the discharge of pollutants to ensure the chemical, physical, and biological integrity of the nation's waters.³⁶ To accomplish this goal, § 301 prohibits the "discharge of any pollutant by any person" unless a National Pollution Discharge Elimination System (NPDES) permit or a dredge and fill permit is obtained.³⁷ This key phrase, "discharge of a pollutant," is defined, in relevant part, as "any addition of any pollutant to navigable waters from any point source."³⁸ Navigable waters include surface waters of the United States, including lakes, rivers, streams, adjacent wetlands, and the territorial seas.³⁹ A "point source" is "any discernible, confined and discrete conveyance,

30 For the role of courts in prodding remedial action by the legislative and executive branches, see Benjamin Ewing & Douglas A. Kysar, *Prods And Pleas: Limited Government in an Era of Unlimited Harm*, 121 YALE L.J. 350, 410–23 (2011).

31 Pub. L. No. 80-845, 62 Stat. 1155. This statute was preceded by the Rivers and Harbors Appropriation Act of 1899, ch. 425, 30 Stat. 1121 (codified at 33 U.S.C. §§ 401–418 (2000)), which prohibits obstructions to navigation but does not address other forms of pollution.

32 See N. William Hines, *Nor Any Drop to Drink: Public Regulation of Water Quality Part III: The Federal Effort*, 52 IOWA L. REV. 799, 810 (1967).

33 See Kenneth M. Murchison, *Learning From More Than Five-and-a-Half Decades of Federal Water Pollution Control Legislation: Twenty Lessons for the Future*, 32 B.C. ENVTL. AFF. L. REV. 527, 531 (2005).

34 See Zellmer & Glicksman, *supra* note 3, at 1.

35 See William L. Andreen, *The Evolution of Water Pollution Control in the United States—State, Local, and Federal Efforts, 1789–1972: Part I*, 22 STAN. ENVTL. L.J. 145, 157 (2003).

36 33 U.S.C. § 1251(a)(1) (2006).

37 *Id.* § 1311(a).

38 *Id.* § 1362(12).

39 See *id.* § 1362(7)–(8); 40 C.F.R. § 122.2 (2006) (defining "Waters of the United States").

including but not limited to any pipe . . . from which pollutants are or may be discharged.”⁴⁰

One of the first cases to provoke a statutory amendment was *Natural Resources Defense Council v. Callaway*,⁴¹ which challenged the Corps’s overly restrictive definition of “navigable waters” as “those waters of the United States which are subject to the ebb and flow of the tide, and/or are presently, or have been in the past, or may be in the future susceptible for use for purposes of interstate or foreign commerce.”⁴² The court invalidated this definition and forced the Corps to exercise regulatory responsibility over dredge and fill activities in non-navigable waterways and adjacent wetlands under CWA § 404.⁴³ Congress responded to the decision in the 1977 CWA amendments by exempting fills resulting from normal farming and logging activities.⁴⁴ Although it placed parameters on the Corps’s authority by excluding these activities, it left the basic jurisdictional scope of the CWA over navigable as well as certain non-navigable waters and wetlands intact.⁴⁵

Just two years after the *Callaway* decision, but before the 1977 amendments, environmental groups challenged the EPA’s attempt to exempt agricultural activities from regulation as point sources under the NPDES program of CWA § 402. In *Natural Resources Defense Council v. Costle*,⁴⁶ the court invalidated the EPA’s interpretation, finding that the wording of the statute was “clear” that the EPA did not have authority to exempt entire categories of point sources from the § 402 permit requirements.⁴⁷ However, just as it had with regard to § 404, Congress was persuaded by EPA’s analysis of the policy reasons to exempt some agricultural activities from the § 402 program, and it responded in the 1977 amendments by exempting irrigation return flows and agricultural stormwater discharges.⁴⁸ The provision serves as a counterpart to the farming exemption of the Corps’s dredge and fill program.⁴⁹

Around the same time, the Supreme Court had occasion to address the enforcement structure of the CWA, and in particular the relationship between the EPA and state permitting agencies, in *EPA v. California. ex rel.*

40 33 U.S.C. § 1362(14) (2006); see Sandra B. Zellmer, *The Virtues of “Command and Control” Regulation: Barring Exotic Species from Aquatic Ecosystems*, 2000 U. ILL. L. REV. 1233, 1235 (2000) (describing “point source” pollution).

41 392 F. Supp. 685 (D.D.C. 1975).

42 39 Fed. Reg. 12,115, 12,119 (Apr. 3, 1974); see 33 U.S.C. § 1344 (2006).

43 *Callaway*, 392 F. Supp. at 686.

44 See Pub. L. No. 95-217, § 67(a)-(b), 91 Stat. 1600 (1977) (codified at 33 U.S.C. § 1344(f) (2006)).

45 *Id.*; see *Ohio Valley Envtl. Coal. v. Bulen*, 410 F. Supp. 2d 450 (S.D. W. Va. 2004) (describing legislative history of section 404’s dredge and fill program).

46 568 F.2d 1369 (D.C. Cir. 1977).

47 *Id.* at 1377 (citing 33 U.S.C. § 1342 (2006)).

48 Pub. L. No. 95-217, § 33(b), 91 Stat. 1577 (1977) (codified at 33 U.S.C. § 1362(14) (2006)).

49 See *supra* notes 42–45 and accompanying text (describing passage of 33 U.S.C. § 1344(f) (2006)).

State Water Resources Control Board.⁵⁰ There, it held that CWA § 313 required federal facilities to comply with state requirements respecting the control and abatement of pollution, but that obtaining a permit from a state with a federally approved program was *not* among such requirements.⁵¹ In the 1977 amendments, however, Congress overturned the decision and strengthened the enforcement capabilities of the states by expanding the CWA's waiver of federal sovereign immunity to "administrative authority, and process and sanctions," including state-issued permits.⁵²

In one of its first significant rulings on the jurisdictional scope of the CWA, the Supreme Court reviewed a citizen suit to compel the EPA to regulate discharges of radioactive materials.⁵³ The CWA forbids the discharge of pollutants absent a permit,⁵⁴ and defines pollutants to include "radioactive materials."⁵⁵ The lower courts agreed with the petitioners and found that, by referring to "radioactive materials," Congress plainly meant to include "all radioactive materials."⁵⁶ The Court reversed in *Train v. Colorado Public Interest Research Group, Inc.*, holding that the legislative history of the CWA demonstrated that Congress had not in fact intended to alter the pre-existing, exclusive control of the Atomic Energy Commission (AEC) over nuclear materials.⁵⁷ According to the Court, even if the text appeared to be "clear" upon "superficial examination," the House committee report explicitly exempted radioactive materials regulated by the AEC,⁵⁸ and the debates on the floors of both chambers clarified that only those radioactive sub-

50 426 U.S. 200 (1976).

51 *Id.* at 209–12.

52 See Clean Water Act of 1977, §§ 60, 61(a), 313(a)–(b), 91 Stat. 1597 (codified as amended at 33 U.S.C. § 1323(a)–(b) (2006)). That Act states:

[E]ach officer, agent, or employee thereof in the performance of his official duties, shall be subject to, and comply with, all Federal, State, interstate, and local requirements, administrative authority, and process and sanctions respecting the control and abatement of water pollution in the same manner, and to the same extent as any nongovernmental entity The preceding sentence shall apply . . . to any requirement whether substantive or procedural (including any record-keeping or reporting requirement, any requirement respecting *permits* and any other requirement, whatsoever)

Id. (emphasis added).

53 See *Train v. Colo. Pub. Interest Research Grp., Inc.*, 426 U.S. 1 (1976).

54 33 U.S.C. §§ 1311(a), 1342 (2006).

55 *Id.* § 1362(6).

56 *Colo. Pub. Interest Research Grp., Inc. v. Train*, 507 F.2d 743, 747 (10th Cir. 1974).

57 *Train*, 426 U.S. at 11–12.

58 *Id.* at 11 ("The term 'pollutant' as defined in the bill includes 'radioactive materials.' *These materials are those not encompassed in the definition of source, byproduct, or special nuclear materials as defined by the Atomic Energy Act of 1954, as amended, and regulated pursuant to that Act.*" (citing H. R. Rep. No. 92-911, at 131 (1972), *reprinted in* 1 S. COMM. ON PUB. WORKS, 93D CONG., LEGISLATIVE HISTORY OF THE WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972 818 (Comm. Print 1973))).

stances *not* subject to the AEC's jurisdiction could be regulated by the EPA.⁵⁹ The Court observed, "To have included these materials under the [CWA] would have marked a significant alteration of the pervasive regulatory scheme embodied in the AEA;" thus, Congress needed to include far more explicit language in the CWA if it intended to effectuate such a dramatic change.⁶⁰ Although Congress revisited the statute and amended it in 1977, just a year after the Court's decision, it left the relevant provision alone, indicating tacit approval of the Court's interpretation.⁶¹

A few years later, in 1980, environmental groups challenged the EPA's failure to identify and regulate toxic pollutants as required by CWA § 307.⁶² In *Environmental Defense Fund v. Costle*, the D.C. Circuit affirmed EPA's settlement agreement (known as the "Flannery Decree") with the environmental groups, which compelled the EPA to list sixty-five toxic chemicals and to develop strict technology-based effluent limitations for toxic discharges.⁶³ Congress followed up in 1987 by adopting the court's categorical approach.⁶⁴ The significance of the Flannery Decree and Congress's approval of that decree cannot be understated. The structure for implementing require-

59 *Id.* at 14–16. In support of its conclusion, the Court also cited 33 U.S.C. § 1311(f) (1970 ed., Supp. IV), which provides that "[n]otwithstanding any other provisions of [the CWA] it shall be unlawful to discharge any *radiological . . . warfare agent or high-level radioactive waste* into the navigable waters." *Id.* at 10 (emphasis added). The Court further explained, "[t]hat Congress has chosen to ban completely the discharge of certain high-level radioactive material regulated under the AEA does not, by itself, indicate whether Congress wanted the discharge of other radioactive material regulated under the AEA to be subject to the FWPCA's permit program." *Id.* at 10–11.

60 *Id.* at 24. By the same token, the Court has held that the Nuclear Regulatory Commission (the successor to the AEC) lacks discretion to authorize discharges of high-level radioactive waste into navigable waters, given the language of 33 U.S.C. § 1311(f). *See supra* note 59; *Susquehanna Valley Alliance v. Three Mile Island Nuclear Reactor*, 619 F.2d 231 (3d Cir. 1980), *cert. denied*, 449 U.S. 1096 (1980).

61 *See* Bradford C. Mank, *Is a Textualist Approach to Statutory Interpretation Pro-Environmentalist?: Why Pragmatic Agency Decisionmaking is Better Than Judicial Literalism*, 53 WASH. & LEE L. REV. 1231, 1277–78 (1996) ("Congress's decision to give the AEC and its successors control over these radioactive materials may have been an unsound policy choice. . . , the *Train* Court's conclusion that the AEC and its successors retained exclusive control over the discharge of certain radioactive materials was probably the most accurate reading of Congress's intent in enacting the Clean Water Act."). Mank criticizes the policy underpinnings of the result on the grounds that the EPA "is less vulnerable to 'capture' or disproportionate influence by industry than the AEC and its successors, whose very bureaucratic existence depends on the continuing viability of the nuclear power industry." *Id.* at 1278.

62 *Env'tl. Def. Fund, Inc. v. Costle*, 636 F.2d 1229, 1234 n.6–7 (D.C. Cir. 1980) (citing *Env'tl. Def. Fund, Inc. v. Train*, Civil Action No. 75-172 (D.D.C. 1976); *Natural Res. Def. Council, Inc. v. Train*, Civil Action No. 2153-73 (D.D.C. 1976)); and 33 U.S.C. § 1317(a)).

63 *Id.* at 1236.

64 Pub. L. No. 100-4, Title III, § 313(d), 101 Stat. 45 (1987).

ments to control toxic discharges remains in place today, and it has achieved a great deal of progress in preventing toxic water pollution.⁶⁵

The Supreme Court issued a landmark CWA opinion in 1980 as well. *EPA v. National Crushed Stone Association*⁶⁶ involved a challenge by representatives of mining and crushed stone industries who claimed that the EPA's effluent discharge standards were too stringent. The CWA requires EPA to impose increasingly advanced technology-based effluent limitations on dischargers in order to advance the statutory goal of eliminating the discharge of all pollutants. Existing dischargers were granted some time to retrofit with the best technology available for their industry while new dischargers were required to incorporate the best technology immediately.⁶⁷ The lowest tier of technology standards applied to existing plants—facilities for which retrofitting would be most expensive. Congress required these plants to adopt “[e]ffluent limitations . . . which shall require the application of the best practicable control technology currently available.”⁶⁸ This standard, known as the “best practicable” or “BPT” standard, was intended to facilitate industry's transition to the new technology-based regime. In setting BPT requirements, EPA was directed to consider “the total cost of application of technology in relation to the effluent reduction benefits to be achieved”⁶⁹ BPT was a temporary measure, remaining in effect only until July 1, 1983, when it was to be replaced by the next tier of technology-based standards, which required existing dischargers to adopt the “best available technology economically achievable” (BAT).⁷⁰ In setting the BAT standard, EPA was directed to consider “the cost of achieving such effluent reduction,” but not to balance costs with the environmental benefits of more stringent regulations.⁷¹

The challenge in *Crushed Stone* related to the BPT standard. The industries argued that EPA must consider granting variances to the BPT standard based on the capability of an individual discharger to afford the costs of BPT.⁷² The Court rejected their argument, reasoning that, while economic capability is listed as an explicit statutory ground for a variance from the BAT

65 Jeffrey M. Gaba, *Informal Rulemaking By Settlement Agreement*, 73 Geo. L.J. 1241, 1245 (1985).

66 449 U.S. 64 (1980).

67 For a detailed description of the phased-in effluent standards, see James R. May, Brief of Environmental Law Professors as Amicus Curiae in Support of Respondents, *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208 (2009) (No. 07-588, 07-589 & 07-597), SP041 ALI-ABA 263.

68 33 U.S.C. § 1311(b)(1)(A)(i) (2006).

69 *Id.* § 1314(b)(1)(B).

70 *Id.* § 1311(b)(2)(A).

71 *Id.* § 1314(b)(2)(B).

72 *EPA v. Nat'l Crushed Stone Ass'n*, 449 U.S. 64, 72 (1980). The Court had previously held that, with respect to the EPA's practice of categorically setting BPT limits, some allowance is necessary for variation in individual plants. *E. I. du Pont de Nemours Co. v. Train*, 430 U.S. 112, 128 (1977). In *Am. Textile Mfrs. Inst., Inc. v. Donovan*, 452 U.S. 490, 510 n.30 (1981), the Court clarified that, in contrast to the BPT determination, in making

standard,⁷³ economic capability is *not* listed as grounds for a variance from the BPT standard. Moreover, the Court found that the statutory language failed to support the industries' position that affordability must be considered in BPT variance decisions. It explained:

[T]he Administrator is directed to consider the benefits of effluent reductions as compared to the costs of pollution control in determining BPT limitations. Thus, every BPT limitation represents a conclusion by the Administrator that the costs imposed on the industry are worth the benefits in pollution reduction that will be gained by meeting those limits. To grant a variance because a particular owner or operator cannot meet the normal costs of the technological requirements imposed on him, and not because there has been a recalculation of the benefits compared to the costs, would be inconsistent with this legislative scheme and would allow a level of pollution inconsistent with the judgment of the Administrator.⁷⁴

The Court reasoned that Congress must have realized that the BPT limitations would cause economic hardship, including closing of some plants,⁷⁵ and although Congress took certain steps to alleviate such hardships, those steps did not include allowing a BPT variance based on economic capability.⁷⁶ In the end, the Court upheld EPA's interpretation of the CWA as allowing economic capability variances from the BAT standard but *not* the BPT standard.⁷⁷

Congress apparently agreed with *Crushed Stone*, or at least chose to leave the ruling intact in its 1987 amendments. However, it amended the statute in 1987 to limit the application of the BAT standard to toxic and nonconventional pollutants, and established a more lenient requirement of "best conventional pollutant control technology" (BCT) for other types of pollutants.⁷⁸ With *Crushed Stone*, the industry's hopes of making individualized variances widely available were dashed, but Congress did ease up on the statutory demands for ever more stringent technology controls over time.⁷⁹

a BAT determination "the Administrator is directed to consider total cost, but not in comparison with effluent reduction benefits."

⁷³ See *Crushed Stone*, 449 U.S. at 71–72 ("A [BAT] variance under § 301(c) may be obtained upon a showing 'that such modified requirements (1) will represent the maximum use of technology within the economic capability of the owner or operator; and (2) will result in reasonable further progress toward the elimination of the discharge of pollutants.'" (quoting CWA § 301(c))).

⁷⁴ *Id.* at 76–77. For a more recent case holding that the EPA could rely on cost-benefit analysis in promulgating BAT regulations for cooling-water intake structures at existing power plants under 33 U.S.C. § 1326(b), see *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208 (2009), described *infra* note 164.

⁷⁵ *Crushed Stone*, 449 U.S. at 79.

⁷⁶ C. Peter Goplerud III, *Water Pollution Law: Milestones From the Past and Anticipation of the Future*, 10 NAT. RESOURCES & ENV'T 7, 10 (1995).

⁷⁷ *Crushed Stone*, 449 U.S. at 79.

⁷⁸ 33 U.S.C. § 1311(b)(2)(E) (2006). For detailed history, see Oliver A. Houck, *The Regulation of Toxic Pollutants Under the Clean Water Act*, 21 ENVTL. L. REP. 10, 528 (1991).

⁷⁹ See William Funk, *The Exception that Approves the Rule: FDF Variances Under the Clean Water Act*, 13 B.C. ENVTL. AFF. L. REV. 1, 58 (1985) ("[B]efore *Crushed Stone*,] industry had

The 1987 amendments also responded to the Supreme Court's opinion in *Chemical Manufacturers Ass'n v. Natural Resources Defense Council, Inc.*⁸⁰ There, the Court upheld EPA's regulatory variances for "fundamentally different" industrial discharges of toxic pollutants. The Court reasoned that a CWA provision prohibiting the EPA from modifying effluent limitations for toxics did not foreclose the use of fundamentally different factor (FDF) variances with respect to dischargers for which the discharge categories had not been accurately drawn in the first place because information was either not available at the time or was not considered by the EPA.⁸¹ Congress subsequently agreed and authorized FDF variances in its 1987 amendments.⁸²

The 1987 amendments were also notable for what they did *not* do. In a blockbuster opinion issued in 1985, *United States v. Riverside Bayview Homes*,⁸³ the Supreme Court upheld an expansive agency interpretation of the term "navigable waters," which, in turn, gave an expansive reach to the jurisdictional scope of the CWA.⁸⁴ The agency's regulation covered wetlands adjacent to navigable waters.⁸⁵ The Court unanimously held that the word "navigable" in the CWA was of "limited import," and went on to conclude that the statute extended to non-navigable wetlands adjacent to Lake St. Clair.⁸⁶ It deferred to the agency's regulation, finding it "reasonable, in light of the language, policies, and legislative history of the Act"⁸⁷

Although Congress revisited the statute just two years after the *Riverside Bayview Homes* opinion, it was content to let the ruling stand.⁸⁸ Perhaps this was in part because the Court had been careful to load its opinion with references to the legislative purposes and history of the statute, making it somewhat difficult for Congress to retreat from its earlier expression of intent to reach far and wide in protecting the nation's waters. According to the Court:

The [CWA of 1972] . . . constituted a comprehensive legislative attempt "to restore and maintain the chemical, physical, and biological integrity of the

hopes that the variance would be available in more circumstances than only when fundamentally different factors were present. If it had been, then industry's goal of individualized effluent limitations might have been realized.")

80 470 U.S. 116 (1985).

81 *Id.* at 130 (citing 40 CFR § 403.13(b) (1984)). The Court explained: "the FDF variance is a laudable corrective mechanism, 'an acknowledgement that the uniform . . . limitation was set without reference to the full range of current practices, to which the Administrator was to refer.'" *Id.* (alteration in original) (quoting *Crushed Stone*, 449 U.S. at 77-78).

82 Pub. L. No. 100-4, Title III, § 306, 101 Stat. 45, (1987) (codified at 33 U.S.C. § 1311(n) (2006)). The current FDF variance of 301(n) mirrors the variance developed by EPA for BPT.

83 474 U.S. 121 (1985).

84 *Id.* at 131.

85 33 C.F.R. § 320.4(b)(2) (1985).

86 *Riverside Bayview Homes*, 474 U.S. at 133.

87 *Id.* at 131 (citing *Chem. Mfr. Ass'n v. Natural Res. Def. Council*, 470 U.S. 116, 125 (1985); *Chevron U.S.A. Inc. v. Natural Res. Def. Council*, 467 U.S. 837, 842-45 (1984)).

88 See *supra* notes 81-82 and accompanying text (describing the 1987 amendments).

Nation's waters." This objective incorporated a broad, systemic view of the goal of maintaining and improving water quality: as the House Report on the legislation put it, "the word 'integrity' . . . refers to a condition in which the natural structure and function of ecosystems [are] maintained." Protection of aquatic ecosystems, Congress recognized, demanded broad federal authority to control pollution, for "[water] moves in hydrologic cycles and it is essential that discharge of pollutants be controlled at the source."⁸⁹

The most well known example of a swift congressional response to a Supreme Court ruling was not a CWA case but rather an Endangered Species Act (ESA) case involving a water development project known as the Tellico Dam. In *Tennessee Valley Authority v. Hill*,⁹⁰ (*TVA*) the Court held that ESA § 7 requires courts to enjoin federal actions (including permits, licenses, funding, and federally executed actions) that would jeopardize the existence of a listed species,⁹¹ even if the multi-million dollar project in question had been authorized prior to enactment and was nearly completed. According to the Court, the statute was intended "to halt and reverse the trend toward species extinction, whatever the cost."⁹² Accordingly, the Court concluded that the ESA gives "endangered species priority over the primary missions of Federal agencies."⁹³

Proposed bills to amend the ESA followed close on the heels of the *TVA* opinion. Some would have repealed § 7 altogether.⁹⁴ Others attempted to resurrect the "practicability" limitation to § 7 that had been proposed previously but deliberately omitted from the ESA as passed in 1973.⁹⁵ Others were narrower, and would have simply exempted Tellico Dam from the ESA.⁹⁶

The amendments adopted in 1978—the same year as the Court's opinion was handed down—did none of the above. First and foremost, Congress

89 474 U.S. at 131–32 (alterations in original) (citing H. R. Rep. No. 92–911 (1972) and S. Rep. No. 92–414 (1972)). For another important holding that Congress did not disturb, see *Gwaltney v. Chesapeake Bay Found.*, 484 U.S. 49, 66–67 & n.6 (1987) (holding that CWA §505, which allows citizens' suits to be filed against persons "alleged to be in violation," allows plaintiffs to bring citizens' suits for "good-faith allegations" of ongoing violations, and that a plaintiff may be able to recover litigation costs against a "suddenly repentant defendant," that is, a defendant who ceased violations upon the filing of a citizens' suit).

90 437 U.S. 153 (1978).

91 16 U.S.C. § 1536(a) (2006).

92 *Hill*, 437 U.S. at 184.

93 *Id.* at 185 (internal quotation marks and citations omitted).

94 Jason C. Wells, *National Security and the Endangered Species Act: A Fresh Look at the Exemption Process and the Evolution of Army Environmental Policy*, 31 WM. & MARY ENVTL. L. & POL'Y REV. 255, 261 (2006).

95 *Id.* Earlier statutes had conditioned the obligation to avoid adverse impacts on endangered species on consideration of what was "practicable" and "consistent with the primary purpose" of the agencies. See Endangered Species Preservation Act of 1966, 16 U.S.C. §§ 1531–1543; Endangered Species Conservation Act of 1969, Pub. L. No. 91-135, 83 Stat. 275.

96 Wells, *supra* note 94, at 257–60.

did not repudiate the *TVA* opinion, and it left § 7 largely intact. However, it did adopt the so-called “God Squad” exemption, which allows projects to go forward despite a jeopardy determination if a “super committee” of officials votes in favor of the project.⁹⁷ Subsequently, when the newly formed God Squad refused to grant an exemption for the Tellico Dam, dam proponents pushed through an appropriations rider that expressly authorized completion of the dam notwithstanding the ESA.⁹⁸ But the objectives and overarching framework of the statute itself stood firm. In fact, Congress reaffirmed its stance on the conservation-oriented mission of the statute in the subsequent 1982 amendments to the ESA by removing economic impacts as a potential factor for consideration when listing a species as endangered or threatened, thereby strengthening the emphasis on science, *not* economics.⁹⁹

Congress passed its last significant pieces of federal environmental legislation in 1990.¹⁰⁰ As described below, the Oil Pollution Act of 1990 was adopted in response to a maritime disaster,¹⁰¹ while the Clean Air Act Amendments of 1990 were passed in the face of international consensus on the devastating effects of acid rain and ozone-depleting substances.¹⁰²

97 16 U.S.C. § 1536(e)–(h) (2006).

98 125 CONG. REC. H1503 (daily ed. June 18, 1979); *see* Energy and Water Development Appropriation Act of 1980, Pub. L. No. 96-69, 93 Stat. 437, 449–50. The God Squad characterized the dam as an “uneconomic boondoggle.” George Cameron Coggins & Robert L. Glicksman, *Power, Procedure, and Policy in Public Lands and Resources Law*, 10 NAT. RESOURCES & ENV'T 3, 81 (1995). Subsequently, Senators Robert Dole (R-Kan.), Howard Baker (R-Tenn.), and other “pork-barrel proponents” snuck a rider into an appropriations bill exempting the dam from the ESA. *Id.* “Because no one even read the rider on the floor, only a few legislators knew what had happened.” *Id.* For details, see Zygmunt J. B. Plater, *In the Wake of the Snail Darter: An Environmental Law Paradigm and Its Consequences*, 19 U. MICH. J.L. REFORM 805, 813–14 (1986); Sinden, *supra* note 18, 1404.

99 *See* Amy Sinden, *The Economics of Endangered Species: Why Less is More in the Economic Analysis of Critical Habitat Designations*, 28 HARV. ENVTL. L. REV. 129, 150–51 (2004) (describing how Congress chose to limit the role of economics in the listing process; “when in the early years of the Reagan administration FWS implemented a practice of applying cost-benefit analysis to listing decisions pursuant to Executive Order 12,291, Congress wasted no time in correcting the agency’s overreaching . . . add[ing] the word ‘solely’ to the clause directing the Secretary to base listing determinations ‘on the basis of the best scientific and commercial data available’ in order to make clear that the listing standard remained absolute and that ‘economic considerations have no relevance to [listing] determinations.’” (alteration in original) (footnotes omitted)).

100 There is one notable exception of significant reform legislation in the 1990s in the public lands context: The National Wildlife Refuge System Improvement Act of 1997, Pub. L. No. 105-57, 111 Stat. 1252 (codified as amended at 16 U.S.C. § 668dd (2006)). *See* Robert L. Fischman, *The National Wildlife Refuge System and the Hallmarks of Modern Organic Legislation*, 29 ECOLOGY L.Q. 457, 514 (2002) (describing the Act as “a manifestation of the unusual circumstances and compromises that can result in passage of a sweeping new public land law in an era of divided government”).

101 33 U.S.C. §§ 2701–61 (2006).

102 42 U.S.C. §§ 7651–7651o, 7671–71q (2006). Another notable water-related provision passed in 1990 was the Coastal Zone Reauthorization Amendments of 1990 (CZARA), which amended the Coastal Zone Management Act of 1972 (CZMA). 16 U.S.C. § 6217

On March 24, 1989, the oil tanker Exxon Valdez hit a reef and ran aground in Prince William Sound, Alaska.¹⁰³ Eleven million gallons of crude poured out of the punctured hull, causing one of the largest and most damaging tanker spills in history.¹⁰⁴ The accident killed more birds and marine mammals than any previous U.S. oil spill. The ensuing investigation revealed that the captain of the ship was a relapsed alcoholic. Although Exxon knew about his drinking, it left him in command, letting him pilot its massive tanker and its dangerous cargo through the sensitive waters of the Sound.¹⁰⁵

The wreck and the resulting public outcry prompted Congress to pass the Oil Pollution Act of 1990 (OPA),¹⁰⁶ which integrated and amended a mélange of existing provisions governing tanker vessels and spills, including the CWA.¹⁰⁷ The OPA requires large tanker ships plying U.S. waters to have double-hulls. Although several bills related to oil spills had been considered prior to passage of the OPA, preemption of state law had been a major sticking point.¹⁰⁸ In the end, Congress preserved the states' ability to respond to oil spills through two savings clauses, one of which concerned state cleanup authorities¹⁰⁹ while the other preserved state law liabilities and penalties.¹¹⁰

As for Exxon, a jury awarded billions of dollars in compensatory and punitive damages under Alaska law to fishermen and landowners injured by

(2006). CZARA aimed to “strengthen the links between Federal and State coastal zone management and water quality programs and to enhance State and local efforts to manage land use activities which degrade coastal waters and coastal habitats.” 136 CONG. REC. 37,191 (1990). Accordingly, each state with a coastal program was to develop a plan for coastal nonpoint source pollution control measures. States that failed to do so would lose a portion of their federal coastal management funds under the CZMA and their nonpoint source pollution control assistance funds under section 319 of the CWA. “Despite high expectations for the program, implementation of section 6217 has been very slow.” Andrew Solomon, Note, *Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990: Is There Any Point?*, 31 ENVTL. L. 151, 153 (2001).

103 *Exxon Shipping Co. v. Baker*, 554 U.S. 471, 471 (2008).

104 As immense as this spill was, the blowout of the Deepwater Horizon-Macondo well in 2010 was sixteen times larger. U.S. COAST GUARD NAT'L INCIDENT COMMAND, NATIONAL INCIDENT COMMANDER'S REPORT: MC252 DEEPWATER HORIZON (2010).

105 *Exxon Shipping Co.*, 554 U.S. at 471.

106 33 U.S.C. 2701–2761 (2006). For a detailed history of the OPA, see Craig H. Allen, *Federalism in the Era of International Standards: Federal and State Government Regulation of Merchant Vessels in the United States (Part II)*, 29 J. MAR. L. & COM. 565, 607–08 (1998); Benjamin H. Grumbles & Joan M. Manley, *The Oil Pollution Act Of 1990: Legislation In The Wake of a Crisis*, 10 NAT. RESOURCES & ENV'T 35 (1995); Russell V. Randle, *The Oil Pollution Act of 1990: Its Provisions, Intent, and Effects*, 21 ENVTL. L. REP. 10,119, 10,133 (1991).

107 The 1990 Amendments, Pub. L. No. 101-596 and Pub. L. No. 101-380 (codified at 33 U.S.C. §§ 1268, 1312, 2701–2761 (2006)). In particular, the OPA amended the Comprehensive Emergency Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9607 (2006), and the Clean Water Act, 33 U.S.C. § 1321 (2006).

108 Randle, *supra* note 106, at 10,133; see also Walter B. Jones, *Oil Spill Compensation and Liability Legislation: When Good Things Don't Happen to Good Bills*, 19 ENVTL. L. REP. 10,333 (1989) (noting that various House versions would have preempted state law entirely).

109 33 U.S.C. § 2718(a) (2006).

110 *Id.* § 2718(c).

the oil spill.¹¹¹ Because the OPA does not apply retroactively to pre-1990 spills, Exxon invoked the CWA and general admiralty law in an attempt to preempt common law damages awards.¹¹² In rejecting these contentions, the Ninth Circuit Court of Appeals gave weight to the CWA's savings clause and reasoned that the absence of a federal private right of action could more reasonably be construed as leaving private tort claims intact than as implicitly destroying them.¹¹³ After two decades of litigation, the Supreme Court affirmed the award, but reduced the amount of punitive damages.¹¹⁴

The second important piece of environmental legislation in 1990 amended the Clean Air Act. Title IV of the 1990 Clean Air Act Amendments (CAAA) established the first large-scale program to employ tradable permits to control pollution.¹¹⁵ The 1990 CAAA targeted power plants' emissions of sulfur dioxide (SO₂), the precursor of acid rain.¹¹⁶ Over the years, this program has dramatically reduced SO₂ emissions.¹¹⁷

The 1990 CAA Amendments also required the phase-out of ozone-depleting substances like freon and chlorofluorocarbons (CFCs).¹¹⁸ These amendments were motivated by the discovery of the ozone hole in 1985 and the negotiation of the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer.¹¹⁹ The implementation of the Protocol by the United States and 190 other countries is "perhaps the single most successful international environmental agreement to date," according to former U.N. Secretary Kofi Anan.¹²⁰

111 *In re Exxon Valdez*, 270 F.3d 1215, 1225 (9th Cir. 2001), *vacated*, *Exxon Shipping Co. v. Baker*, 554 U.S. 471 (2008). For arguments that the large amount of punitive damages awarded against Exxon and upheld by the circuit court but reduced by the Supreme Court was appropriate and necessary, see Alexandra Klass & Sandra Zellmer, *Exxon Should Just Pay Its Penance*, STAR TRIB. (Feb. 29, 2008), http://www.startribune.com/templates/Print_This_Story?sid=16131362; Alexandra Klass & Sandra Zellmer, *Fishermen are Entitled to Punitive Damages from Exxon*, AM. CONST. SOC'Y BLOG (Feb. 27, 2008), <http://www.acslaw.org/acsblog/node/12177>.

112 *In re Exxon Valdez*, 270 F.3d at 1226, 1228.

113 *Id.* at 1231.

114 *Exxon Shipping Co.*, 554 U.S. at 512–16.

115 Pub. L. No. 101-549 (codified as 42 U.S.C. §§ 7651–7651o (2006)).

116 Joseph Goffman, *Title IV of the Clean Air Act: Lessons For Success Of The Acid Rain Emissions Trading Program*, 14 PENN ST. ENVTL. L. REV. 177 (2006).

117 *Id.* at 178; see CHOOSING ENVIRONMENTAL POLICY (Winston Harrington et al. eds., 2004) (describing the successful "cap and trade" program as a "living legend"). Yet there is still work to be done. "Despite the evident emissions reduction success of the 1990 SO₂ program, acid rain continues to plague sensitive ecosystems from the Rockies to the East, and visibility-marring haze blights our national parks and monuments. Tens of millions of Americans breathe air made unhealthful by ozone smog and particulate matter" Goffman, *supra* note 116, at 177–78.

118 42 U.S.C. §§ 7671–7671q (2006).

119 Agreed to on 16 September 1987 and entered into force on 1 January 1989, S. TREATY DOC. NO. 100-10 (1987).

120 U.N. ENV'T PROGRAMME, A SUCCESS IN THE MAKING: THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEplete THE OZONE LAYER 11 (2008), *available at* http://ozone.unep.org/Publications/MP_A_Success_in_the_making-E.pdf. "[D]eveloped countries have

As progressive as the laws produced between 1970 and 1990 were, they have not been immune to criticism. For one thing, the CWA “set wildly unrealistic goals for overcoming industrial pollution.”¹²¹ Setting unattainable standards may have given rise to an impression of triviality, and such standards may not have been particularly helpful in sorting out the complexities of implementation.¹²² But Jedediah Purdy explains that this was not necessarily an unintended consequence:

The regulatory devices of the antipollution statutes were rigid: deadlines, emission limits, uniform permits. The drafters and sponsors of the statutes, however, seem to have imagined this rigidity as a way of pressing forward a fluid process: the country’s adoption, definition, and pursuit of new commitments. . . . Legislators rejected more flexible instruments because they understood those as tending, ironically, to fix values that were in flux and as neglecting the novelty and importance of the commitments the country was undertaking.¹²³

The legislative drafters of the CWA, the CAA, and other deadline-driven, technology-based statutes probably saw their approach as “uniquely consistent with, even required by, the task of adopting environmental protection as a defining national purpose.”¹²⁴ In doing so, they were simply invoking the overarching environmental concerns of the era: “ecological consciousness as a key to understanding and solving complex problems; public-health crises and apocalyptic danger; and a need for a change in national values.”¹²⁵ This type of bold, aspirational legislative action has not been seen since.

II. A BROKEN MINUET: THE AGENCIES, THE COURTS, AND CONGRESS SINCE 1990

Since 1990, the federal agencies and the Supreme Court have eclipsed Congress in terms of environmental policy-making. When it comes to water quality, Congress has had multiple opportunities to resolve fundamental issues regarding the jurisdictional scope of the CWA, the EPA’s basic enforcement powers, and the division of labor between the EPA and the Corps of Engineers, but has produced no significant legislation on any of these fronts. Meanwhile, our understanding of the physical environment has grown, and several cataclysmic events affecting the environment have occurred. But the agencies and the Court have been left to muddle through, while pressure mounts from both the regulated community and the environmental interest groups.

phased out the production and consumption of over 99 per cent of all the chemicals controlled by the Montreal Protocol.” *Id.*

121 Jedediah Purdy, *The Politics of Nature: Climate Change, Environmental Law, and Democracy*, 119 *YALE L.J.* 1122, 1181 (2010).

122 *Id.*

123 *Id.* at 1189.

124 *Id.* at 1182.

125 *Id.*

A. *Agencies and the Court Assume the Dominant Role
in Environmental Lawmaking*

The Supreme Court has issued broad-sweeping rulings in a surprising number of CWA cases since 1990, including cases challenging the jurisdictional scope of the Act (*Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (SWANCC)¹²⁶ and *Rapanos v. United States*¹²⁷) as well as fundamental enforcement powers (*Sackett v. EPA*¹²⁸ and *Coeur Alaska, Inc. v. Southeast Alaska Conservation Council*).¹²⁹ Each of these decisions were brought before the Court in the form of challenges to agency action under the Administrative Procedure Act¹³⁰ and CWA provisions authorizing citizens' suits and judicial review.¹³¹

One of the most significant issues addressed by the Court during this era involves the jurisdictional scope of the CWA over wetlands and modest or seasonal streams. The first of two landmark opinions on this issue came down in 2001. In SWANCC, developers challenged the Corps's "Migratory Bird Rule" as a basis for asserting statutory jurisdiction over isolated wetlands with no discernible connection to navigable waterways.¹³² The Court set aside the rule, and refused to broaden its earlier decision in *Riverside Bayview Homes*¹³³ regarding the CWA's coverage of wetlands:

We . . . decline . . . to take . . . the next ineluctable step after *Riverside Bayview Homes*: holding that isolated ponds, some only seasonal, wholly located within two Illinois counties, fall under § 404(a)'s definition of "navigable waters" because they serve as habitat for migratory birds. . . . We said in *Riverside Bayview Homes* that the word "navigable" in the statute was of "limited import" and went on to hold that § 404(a) extended to nonnavigable wetlands adjacent to open waters. But it is one thing to give a word limited effect and quite another to give it no effect whatever.¹³⁴

The Court refused to give deference to the Corps's interpretation of the CWA's phrase "waters of the United States," expressing its concern over "significant constitutional questions" raised by the interpretation.¹³⁵ It observed that there was "nothing approaching a clear statement from Congress" regarding regulation of isolated ponds and mudflats used by migratory birds,

126 531 U.S. 159 (2001).

127 547 U.S. 715 (2006).

128 132 S. Ct. 1367 (2012); see Richard Stoll, *EPA Suffers Two Big Court Losses in Three Days: Congress Gets Part of the Blame*, BNA DAILY ENV'T REP. 1, 1 (Mar. 30, 2012) ("The Court strongly indicated its displeasure . . . over the fact that the entire dispute could have been avoided if Congress had provided more clarity" regarding the CWA's jurisdictional scope over waters that aren't necessarily navigable.).

129 557 U.S. 261 (2009).

130 5 U.S.C. § 706 (2006).

131 33 U.S.C. §§ 1365, 1369 (2006).

132 531 U.S. 159, 159 (2001).

133 *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121, 131 (1985); see also *supra* notes 83-89.

134 SWANCC, 531 U.S. at 171-72 (citations omitted).

135 *Id.* at 173.

and that allowing the Corps to claim jurisdiction over such areas “would result in a significant impingement of the States’ traditional and primary power over land and water use.”¹³⁶ The Court refused to take on the role of “readjust[ing] the federal-state balance in this manner”¹³⁷

The Corps’s Migratory Bird Rule was included in a preamble to a federal register notice,¹³⁸ but it was not expressed in the final, codified regulation itself.¹³⁹ In the aftermath of the *SWANCC* decision, the Corps and the EPA issued a notice of proposed rulemaking to address the jurisdictional reach of the CWA with respect to isolated wetlands, but the agencies ultimately failed to amend the regulations.¹⁴⁰ Instead, it notified its field officers that they “should continue to assert jurisdiction over traditional navigable waters . . . and, generally speaking, their tributary systems (and adjacent wetlands).”¹⁴¹

Five years later, in another challenge brought by developers, the Court had occasion to consider whether the CWA reached modest tributaries and wetlands in *Rapanos v. United States*.¹⁴² In a plurality opinion that did little to resolve the issue, Justice Scalia, joined by Justices Thomas and Alito, stood with the developers, concluding that the definitional term “waters of the United States” refers only to “relatively permanent, standing or flowing bodies of water,” not “occasional[],” “intermittent[],” or “ephemeral” flows.¹⁴³ As for wetlands, the plurality would have limited the statutory reach to only those wetlands with a “continuous surface connection” to a traditional (navigable) “water[] of the United States.”¹⁴⁴

A concurring opinion by Justice Kennedy in *Rapanos* advocated a case-by-case approach that would allow regulation of wetlands and tributaries with a “significant nexus” to navigable waters.¹⁴⁵ In the years following *Rapanos*,

136 *Id.* at 174.

137 *Id.* (citing 33 U.S.C. § 1251(b) as an indication that Congress chose to “recognize, preserve, and protect the primary responsibilities and rights of States . . . to plan the development and use . . . of land and water resources”).

138 *Id.* at 184 n.12 (Stevens, J., dissenting). The “Migratory Bird Rule” first appeared in the preamble to a 1986 version of the Corps’ definition of “navigable waters.” 51 Fed. Reg. 41,217 (Nov. 13, 1986). The preamble stated that the 1986 version was not intended to alter the Corps’ jurisdiction, but was simply to “clarif[y]” the scope of existing regulations. *Id.*

139 Definition of Waters of the United States, 33 C.F.R. § 328.3(a)(3) (1998).

140 68 Fed. Reg. 1991 (Jan. 15, 2003).

141 *Id.* at 1998.

142 547 U.S. 715 (2006).

143 *Id.* at 732–33.

144 *Id.* at 742.

145 *Id.* at 759 (Kennedy, J., concurring). The “significant nexus” test was foreshadowed in *SWANCC* and in *Riverside Bayview Homes*:

It was the significant nexus between the wetlands and “navigable waters” that informed our reading of the CWA in *Riverside Bayview Homes*. . . . [W]e did not “express any opinion” on the “question of the authority of the Corps to regulate . . . wetlands that are not adjacent to bodies of open water”

Justice Kennedy's test has become the rule implemented by the lower courts as well as the EPA and the Corps.¹⁴⁶

Chief Justice Roberts, in his concurrence, lamented the agencies' failure to resolve the issue through notice-and-comment rulemaking.

Agencies . . . are afforded generous leeway by the courts in interpreting the statute they are entrusted to administer. Given the broad, somewhat ambiguous, but nonetheless clearly limiting terms Congress employed in the Clean Water Act, the Corps and the EPA would have enjoyed plenty of room to operate in developing *some* notion of an outer bound to the reach of their authority.

. . . Rather than refining its view of its authority in light of our decision in *SWANCC*, and providing guidance meriting deference under our generous standards, the Corps chose to adhere to its essentially boundless view of the scope of its power. The upshot today is another defeat for the agency. . . . [This] situation could have been [readily] avoided.¹⁴⁷

Despite Justice Roberts's admonishment, the agencies have yet to issue a rule on the jurisdictional scope of the CWA. In 2011, they released "draft guidance" on identifying waters and wetlands protected under the CWA, and then in 2012, they submitted their final guidance to the White House Office of Management and Budget for review.¹⁴⁸ But "guidance" does not carry the same weight as a regulation issued through notice-and-comment rulemaking processes.¹⁴⁹

Solid Waste Agency v. U.S. Army Corps of Eng'rs, 531 U.S. 159, 167 (2001) (alterations in original) (quoting *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121, 131 n.8 (1985)).

146 See *United States v. Robison*, 505 F.3d 1208 (11th Cir. 2007); *No. Cal. River Watch v. City of Healdsburg*, 496 F.3d 993 (9th Cir. 2007); *United States v. Gerke Excavating, Inc.*, 464 F.3d 723 (7th Cir. 2006). At least one court would uphold CWA jurisdiction if either the Scalia or Kennedy tests were met. *United States v. Johnson*, 467 F.3d 56 (1st Cir. 2006). Meanwhile, the agencies have issued Draft Guidance on Identifying Waters Protected by the Clean Water Act, which includes all waters with a "significant nexus" as "described by Justice Kennedy." EPA & U.S. ARMY CORPS OF ENG'RS, DRAFT GUIDANCE ON IDENTIFYING WATERS PROTECTED BY THE CLEAN WATER ACT 4, 7–10 (2011), http://water.epa.gov/lawsregs/guidance/wetlands/upload/wous_guidance_4-2011.pdf; see *infra* notes 502-06 and accompanying text (describing enforcement implications of *Rapanos*).

147 *Rapanos*, 547 U.S. at 757–58 (Roberts, C.J., concurring) (citation omitted). Chief Justice Roberts added: "The agencies can decide for themselves whether . . . it was wise for them to take no action in response to *SWANCC*." *Id.* at 758–59 n.*.

148 See DRAFT GUIDANCE, *supra* note 146; EPA, CLEAN WATER ACT DEFINITION OF WATERS OF THE UNITED STATES, <http://water.epa.gov/lawsregs/guidance/wetlands/CWA-waters.cfm> (last visited Mar. 9, 2013).

149 See *United States v. Mead Corp.*, 533 U.S. 218, 229–30 (2001) (observing that *Chevron* deference does not apply to agency pronouncements that do not carry the force of law, such as guidance documents); Linda Jellum, *Chevron's Demise: A Survey of Chevron from Infancy to Senescence*, 59 ADMIN. L. REV. 725, 772–73 (2007) (observing a trend away from granting *Chevron* deference to anything other than regulations issued through notice-and-comment rulemaking and formal adjudications); Christopher M. Pietruszkiewicz, *Discarded Deference: Judicial Independence in Informal Agency Guidance*, 74 TENN. L. REV. 1, 33 (2006)

Likewise, Congress has failed to resolve the jurisdictional issues posed by the ambiguous language of the CWA and the agency's construction of that language. As Don Elliott, former General Counsel of the EPA under President George H. W. Bush, observed, "In an earlier era, without a logjam, one might have anticipated that an issue of this nature could have been the subject of a compromise statutory solution somewhere along the way, balancing the interests of developers and environmentalists in some sort of accommodation."¹⁵⁰ But such is not the case.

In 2011, after the agencies issued their Draft Guidance on Identifying Waters Protected by the Clean Water Act, the Senate took up a proposal "to permanently block efforts to make sure that the most fragile waters are protected by the Clean Water Act."¹⁵¹ Senators John Barrasso and Dean Heller proposed a rider to the Energy and Water Appropriations bill "to prevent the Corps from clarifying the extent to which wetlands and intermittent streams are protected under the Clean Water Act."¹⁵² If the bill's authors had succeeded, it would have excluded around twenty percent of the wetlands in the contiguous United States from protection.¹⁵³ It did not, however, attain passage.

The division of power between the Corps and the EPA came before the Court in 2009 in *Coeur Alaska, Inc. v. Southeast Alaska Conservation Council*.¹⁵⁴ The Court issued a proclamation that effectively rewrites the definitions of "pollutant" and "fill," further narrowing the scope of EPA's power. The *Coeur Alaska* decision allowed a mine to turn a lake into a waste tailings pond by calling its waste "fill" rather than a pollutant. However, the statutory definition of "pollutant" includes the term "solid waste" and other terms that would cover most types of mine tailings, including rock, sand, and industrial

(arguing that informal guidance gets more deference than the agency's post-hoc litigation position but less than formal rules).

150 Elliott, *supra* note 19, at 42. Elliott notes that there have been several failed attempts to reach a compromise, "including sending the issue to the National Academy of Sciences, and drafting legislative language, which President Clinton threatened to veto." *Id.*

151 Steve Fleischli, *Clean Water Under Attack—Again*, HUFFINGTON POST BLOG (Nov. 11, 2011, 4:32 PM), http://www.huffingtonpost.com/steve-fleischli/clean-water-under-attack-b_1086775.html (citing H.R. Res. 2354, 112th Cong. (2011)).

152 *Id.* (citing H. R. 2354).

153 *Id.* There have been other recent efforts in Congress to dismantle the CWA's protection for wetlands. These included a House Transportation Committee bill, H.R. 4965, 112th Cong. (2d Sess. 2012), barring the Corps and EPA from issuing guidance or revising their regulations based on such guidance regarding coverage of wetlands. Also, Senator Rand Paul's Defense of Environment and Property Act of 2012, S. 2122, 112th Cong. (2d Sess. 2012), would have limited the CWA only to waters that are navigable by boat or that are permanent, continuously flowing, and connected to navigable waters. Both the Senate bill and its companion in the House, H.R. 4304, died in committee. See GOVTRACK, S. 2122 (112th): *Defense of Environment and Property Act of 2012*, <http://www.govtrack.us/congress/bills/112/s2122> (last visited Feb. 16, 2013).

154 557 U.S. 261 (2009).

waste.¹⁵⁵ The issue was whether the mining company needed a dredge and fill permit from the Corps, which would be relatively lenient, or a strict, technology-based § 402 pollutant discharge permit from the EPA. The citizens' suit argued that an EPA permit was required, but the agencies disagreed and filed a brief in support of the mining company.¹⁵⁶

According to the Court, because § 402 allows the EPA to issue permits “[e]xcept as provided in . . . [§ 404],”¹⁵⁷ if the mining company were eligible for a 404 permit it would not need a 402 permit. Eligibility for a 404 permit depended on whether the tailings could come within the definition of “fill materials” under § 404. The agencies’ regulation defined “fill material” as any “‘material [that] has the effect of . . . [c]hanging the bottom elevation’ of water.”¹⁵⁸ The mining company’s slurry met the regulatory definition of “fill” because it would have the effect of raising the lake’s bottom elevation.¹⁵⁹

The plaintiffs raised two significant points based on the plain language and the statutory objectives of the CWA. First, the plaintiffs argued that using a lake to dispose of mine tailings was the same as using the lake for “solid waste” disposal. Solid waste is listed in the statute as a pollutant,¹⁶⁰ and, in turn, the agencies’ regulation treated “trash or garbage” as pollutants rather than “fill.”¹⁶¹ In addition, CWA § 306(e) specifies “it shall be unlawful for any owner or operator of *any new source* to operate such a source in any standard of performance applicable to such source.”¹⁶² The EPA had adopted new source performance standards for the particular mining process proposed by Coeur Alaska, so the EPA’s new source standard should apply to the mine. The majority opinion gave these arguments short shrift. In doing so, it reached a result utterly at odds with the statutory purposes of restoring and maintaining “the chemical, physical, and biological integrity of the Nation’s waters.”¹⁶³ But Congress has remained silent.¹⁶⁴

155 33 U.S.C. § 1362(6) (2006).

156 *Coeur Alaska*, 557 U.S. at 264.

157 *Id.* at 266 (quoting 33 U.S.C. § 1342(a)(1)) (emphasis omitted).

158 *Id.* at 268 (quoting 40 C.F.R. § 232.2 (2011)). For regulatory history, see notes 283-85 *infra*.

159 *Coeur Alaska*, 557 U.S. at 289.

160 33 U.S.C. § 1362(6) (2006).

161 *Coeur Alaska*, 557 U.S. at 275 (quoting 40 C.F.R. § 232.2 (2011)).

162 33 U.S.C. § 1316(e) (emphasis added) (quoted in part in *Coeur Alaska*, 557 U.S. at 299 (Ginsburg, J., dissenting)).

163 See Mark Squillace, *The Judicial Assault on the Clean Water Act*, 59 FED. LAW. 33, 33-34 (2012) (“These judicial efforts to scale back regulations pertaining to water pollution are utterly at odds with Congress’ plain intent when it adopted the basic scheme of the CWA in 1972.”); notes 288-92, *infra* (describing application of the same provision, § 232.2, to coal mining).

164 The Supreme Court issued another significant, but somewhat less controversial, decision in 2009 in *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208 (2009). The issue involved the appropriate standard for thermal discharges from power plants. CWA section 316(b) requires point source standards for cooling intakes to reflect the “best technology available [BTA] for minimizing adverse environmental impact.” 33 U.S.C. § 1326(b) (2006). In

Some members of Congress have attempted to correct the *Coeur Alaska* opinion, but to no avail. In 2009, the Clean Water Protection Act was introduced in the 111th Congress by Representatives Frank Pallone and Dave Reichert.¹⁶⁵ This Act would have changed the definition of “fill material” to exclude mine waste and any other pollutant discharged into water primarily to dispose of waste.¹⁶⁶ The bill had 172 cosponsors, but died in committee. It was re-introduced with 131 cosponsors in the 112th Congress, but it was not passed.¹⁶⁷ As of this writing, the bill has not been revived.¹⁶⁸

In its 2012 opinion in *Sackett v. EPA*, the Court considered whether the EPA’s issuance of an administrative compliance order to developers who had not obtained a CWA § 404 permit was judicially reviewable.¹⁶⁹ In unambiguously rejecting the EPA’s position that it was not, the Court noted that an administrative order was a “final agency action” that was therefore subject to review under an APA provision authorizing review of “final agency action for which there is no other adequate remedy in a court”¹⁷⁰ The decision “overruled two decades worth of unanimous precedent from the federal courts of appeals”¹⁷¹ Since the *Sackett* opinion was issued, there has been a reduction in administrative compliance orders by twenty-six percent.¹⁷² Although the long-term effects of *Sackett* have yet to be fully realized, some scholars believe that the EPA could easily fix the problem identified by the Court if it were to add modest procedural steps to its enforcement processes.¹⁷³ The broader significance of *Sackett* turns on

establishing the BTA standards, the EPA used a cost-benefit analysis, which opponents argued was impermissible under the statute and the Court’s holding in *EPA v. Nat’l Crushed Stone Ass’n*, 449 U.S. 64 (1980). See *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208 (2009) (No. 07-588, 07-589 & 07-597), SP041 ALI-ABA 263; May, *supra* note 67, at 4. The Court affirmed the EPA’s decision to allow existing power plants to avoid using a closed-cycle system due to the high costs of such systems relative to the water quality benefits, and rejected arguments based on the legislative history, which suggested that, although EPA could consider costs in choosing “available” technologies for purposes of the BTA standard, it should not engage in a balancing of those costs relative to the benefits achieved. *Entergy Corp.*, 556 U.S. at 241–42 (Stevens, J., dissenting).

165 H.R. 1310, 111th Cong. (1st Sess. 2009).

166 See Jennifer Koons, *Supreme Court Backs Army Corps, Mining Company in Alaska Water Case*, N.Y. TIMES, June 22, 2009, available at <http://www.nytimes.com/gwire/2009/06/22/22greenwire-supreme-court-backs-army-corps-mining-company-62747.html>.

167 GOVTRACK, *H.R. 1375 (112th): Clean Water Protection Act*, <http://www.govtrack.us/congress/bills/112/hr1375#overview> (last visited Mar. 9, 2013).

168 *Id.*

169 132 S. Ct. 1367, 1369 (2012) (citing CWA §§ 309(a)(1), 404).

170 5 U.S.C. § 704 (2006).

171 Craig N. Johnston, *Sackett: The Road Forward*, 42 ENVTL. L. 993, 993 (2012).

172 See Amena H. Saiyid & Jessica Coomes, *EPA Issues Fewer Compliance Orders for CWA Violations in FY 2012*, 43 ENV’T REP. 3277, 3277 (2012) (reporting that the EPA issued 355 CWA compliance orders in FY 2012, compared to 479 in FY 2011, and that only 46 of those orders in 2012 were for § 404 violations, down from 97 such orders in 2011).

173 See Albert Ferlo & Tom Lindley, *Practical Impacts of the Sackett Decision*, 42 ENVTL. L. 1009, 1020 (2012) (noting that the “extra” fieldwork and factual basis compelled by *Sackett* will make enforcement “a slower and more arduous process for EPA,” but “if EPA does take

whether its holding will be applied outside of the § 404 context.¹⁷⁴ As the Congressional Research Service reported to Congress: “[T]he legacy of *Sackett* will be greater if the decision is viewed by lower courts as applying elsewhere in the CWA outside § 404, and outside the CWA entirely. No glib prediction can be made as to this extra-section-404 application, since every statute varies.”¹⁷⁵

The Supreme Court took up two more potentially significant CWA cases in its 2012–2013 term. The first of them, however, turned out to be rather unremarkable. In *Natural Resources Defense Council, Inc. v. County of Los Angeles*, the Ninth Circuit held that a county flood control district must comply with NPDES permits for urban runoff that collects in channelized systems (known as municipal separate storm sewer systems or MS4s) that it had maintained and “improved” with concrete.¹⁷⁶ The MS4 was a man-made construction through which water continues flowing to the unlined (naturally occurring) portions of the Los Angeles and San Gabriel Rivers.¹⁷⁷ When the offending pollutants were detected, they had not yet been discharged from the point source—the MS4.¹⁷⁸ The flood control district argued that, absent an “intervening use or event,” the movement of stormwater from one channelized portion of a river to a lower portion of the same river does not constitute a “discharge of any pollutant.”¹⁷⁹

that time and make that investment, then an order’s recipient is less likely to challenge that order, and even less likely to do so successfully”); Johnston, *supra* note 171, at 993.

174 There is at least some evidence that the EPA is experiencing an across-the-board chilling effect from *Sackett*, in that it issued 1088 total administrative compliance orders in FY 2012, compared to 1324 in FY 2011. Then again, FY 2012 saw a downward trend in civil enforcement actions as well. See Jessica Coomes, *EPA Initiating Fewer Civil Enforcement Cases, Prioritizing Larger, More Complex Cases*, 43 ENV’T REP. 3285, 3285 (2012) (EPA initiated 3,027 cases in 2012, compared to 3,283 in 2011 and 3,436 in 2010); notes 507–10, *infra* (describing implications of *Sackett*).

175 ROBERT MELTZ, CONG. RESEARCH SERV., R42450, THE SUPREME COURT ALLOWS PRE-ENFORCEMENT REVIEW OF CLEAN WATER ACT SECTION 404 COMPLIANCE ORDERS: *Sackett v. EPA* 6 (2012), available at <http://www.nationalaglawcenter.org/assets/CRS/R42450.pdf>. The report noted that the “number of Section 404 [compliance orders] issued by EPA during any given year is but a small fraction of the total number issued by the agency (in FY2011, they constituted 97 out of 1,324 [total environmental compliance orders]).” *Id.*

176 673 F.3d 880, 900–01 (9th Cir. 2011).

177 *Id.* at 900. As the Ninth Circuit noted, “[t]his issue does not usually arise in Clean Water Act litigation because it is generally assumed that ms4s ‘discharge’ stormwater.” *Id.* at 900 n.9.

178 *Id.* at 899.

179 Brief for the United States as Amicus Curiae Supporting Neither Party at 20, L.A. Flood Control Dist. v. Nat’l Res. Def. Council, Inc., No. 11-460, 2012 WL 4060063. “[A]n ‘addition’ of pollutants does not occur when water is pumped between ‘two hydrologically indistinguishable parts of a single water body.’” *Id.* (citing S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians, 541 U.S. 95, 109 (2004)). “[T]he mere movement of polluted water within a single water body does not constitute a pollutant ‘discharge’ even when the movement results from human intervention [such as a pump].” *Id.*

The Supreme Court held that the MS4 had made no “addition” of a pollutant to navigable waters within the meaning of the CWA.¹⁸⁰ The Court concluded that it was bound by its previous decision in *South Florida Water Management District v. Miccosukee Tribe of Indians*,¹⁸¹ which held that the transfer of water within a single body of water did not constitute an addition within the meaning of the CWA.¹⁸² Indeed, in the wake of *Miccosukee*, it is hard to argue that a discharge occurs when water—even polluted water—“simply flows down a single river.”¹⁸³ The United States pointed out the absence of any evidence in the record to suggest that there were two separate bodies of water.¹⁸⁴ According to the United States, “No party has contended that the river segments where the monitoring stations are located are ‘meaningfully distinct’ from downstream portions of the rivers.”¹⁸⁵ Even NRDC—the citizen group plaintiff—agreed that there would be no liability for movements of pollutants within the same waterbody under *Miccosukee*.¹⁸⁶ At the end of the day, *Los Angeles County Flood Control* had little effect on the CWA’s overarching objectives and enforcement provisions.¹⁸⁷

Stormwater runoff was also at issue in the second CWA case accepted in the 2012–2013 term. In *Decker v. Northwest Environmental Defense Center*, the

180 *L.A. Cnty. Flood Control Dist. v. Natural Res. Def. Council*, No. 11–460, 2013 WL 68691, *713 (Jan. 8, 2013) (requiring permits for any “discharge of a pollutant,” defined as “any addition of any pollutant to navigable waters from any point source” (citing 33 U.S.C. 1311(a), 1362(12))). Justice Ginsburg wrote the opinion, with seven other Justices joining it. Justice Alito did not join it, but concurred in the judgment. *Id.*

181 *Id.* (citing *S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians*, 541 U.S. 95 (2004)).

182 *Miccosukee Tribe of Indians*, 541 U.S. at 102, 105, 109–110.

183 Brief for the United States as Amicus Curiae Supporting Neither Party, *supra* note 179, at 20.

184 *Id.*

185 *Id.* at 21. The U.S. opposed any holding that would craft “a *per se* rule that lining a pre-existing river segment with concrete inherently transforms a single water body into two.” It explained: “To be sure, pollutant discharges did occur when stormwater flowed into the two rivers from outfalls operated by petitioner and others that are located above the monitoring stations. *The subsequent flow of the rivers past the monitoring stations, however, did not constitute a ‘discharge of any pollutant.’* *Id.* (emphasis added). The Supreme Court agreed. *L.A. Cnty. Flood Control Dist.*, 2013 WL 68691, *713.

186 William Buzbee, *How the Los Angeles County Flood Control District MS4 Case Supreme Court Loss is a Win for the Clean Water Act*, CPR BLOG, Jan. 8, 2013, <http://www.progressiverform.org/CPRBlog.cfm?idBlog=1BF6B21F-B185-5DE8-468CA81DF2806262>. Professor Buzbee played an advisory role for the NRDC in the case. *Id.*

187 *Id.* As Buzbee explains, the outcome of the case could have been far worse from an enforcement standpoint if the Court had reached the permitting issue rather than the jurisdictional issue. “[I]f the Los Angeles County District’s MS4 permit required particular types of pollution control, water quality, and monitoring, and its monitoring revealed violations, then under decades of decisions, the District would be liable. To hold otherwise would undercut the centrally important federalism-linked strict liability, self-reporting permit violation provisions of the CWA.” *Id.*; see 2013 WL 68692, *714 (stating that the permit argument “is not embraced within, or even touched by, the narrow question on which we granted certiorari”).

Ninth Circuit held that runoff from logging roads is a point source discharge when it is channeled through “discernible, confined and discrete conveyances” in a system of ditches, culverts, and channels, thereby subjecting the runoff to NPDES permitting requirements.¹⁸⁸ The Supreme Court reversed,¹⁸⁹ citing both the statutory definition of the term “point source” and the 1987 CWA stormwater amendment.¹⁹⁰ The latter provision brings certain stormwater discharges, including those “associated with industrial activity,” within the scope of the NPDES program but leaves other types of stormwater to EPA’s discretion. Despite the fact that logging roads contribute “up to 90 percent of the total sediment from forestry operations,”¹⁹¹ the Supreme Court deferred to the EPA’s decision to exempt stormwater from roads as non-industrial.¹⁹²

The Ninth Circuit decision in *Decker* was far more consistent with the CWA’s objective of restoring and maintaining the integrity of the nation’s waterways.¹⁹³ It would have brought the logging industry, like other categories of point sources, within the NPDES program, which has been “very effective at controlling . . . stormwater pollution.”¹⁹⁴ To minimize the regulatory burden, the EPA and authorized state agencies could have designed general permits specifically for logging.¹⁹⁵ Meanwhile, Congress has had over a decade to tighten its stormwater provisions or otherwise address discharges from logging as well as the myriad types of nonpoint source pollution, but it has failed to address these fundamental issues.

188 640 F.3d 1063 (9th Cir. 2011), *cert. granted*, 2012 WL 2368685. This was not the Ninth Circuit’s first encounter with logging roads. *See, e.g.*, *Env’t Def. Ctr. v. EPA*, 344 F.3d 832, 862–63 (9th Cir. 2003) (rejecting EPA’s position that its Silvicultural Rule prevented it from regulating forest roads).

189 *Decker v. Northwest Env. Def. Center*, Nos. 11-338, 11-347, 2013 WL 1131708. Recall that the EPA had previously sought to exclude all discharges “from agricultural and silvicultural activities” from the NPDES program, but this argument was flatly rejected in *NRDC v. Costle* because the EPA lacks authority to exempt entire categories of point sources. 568 F.2d 1369 (D.C. Cir. 1977). *See supra* notes 46–49 and accompanying text. However, *Costle* did not attempt to define the line between point and nonpoint sources.

190 33 U.S.C. § 1342(p) (2006).

191 U.S. EPA, *Managing Nonpoint Source Pollution from Forestry*, <http://water.epa.gov/polwaste/nps/outreach/point8.cfm> (last updated Aug. 22, 2012).

192 *Decker*, 2013 WL 1131708 (citing 40 C.F.R. § 122.27(b)(1) (1976)). The EPA revised its rule just a few days before oral arguments to “clarify” that discharges from logging roads are exempt from NPDES requirements. 77 Fed. Reg. 72970 (Dec. 7, 2012). The new rule states that silvicultural discharges may be evaluated under CWA § 402(p)(6), a provision that allows “flexible approaches . . . to address the complexity of forest road ownership, management, and use.” *Id.* at 72,972.

193 *Decker*, 640 F.3d at 1079–80.

194 Paul Kampmeier, *Are Clean Water Act Permits Required for Stormwater Pollution From Industrial Logging Roads?*, 43 ABA TRENDS 6, 7 (2012).

195 *Id.*

B. *Environmental Change and National Disasters
Warranting Congressional Attention*

In addition to the spate of judicial activity since 1990, there have been at least four significant changes and events deserving—but not receiving—congressional attention. All four relate to the nation’s insatiable demand for fossil fuels. First, climate change caused by greenhouse gas emissions, mostly from power production, has given rise to two of the most catastrophic storms the nation has ever seen—Hurricanes Sandy and Katrina. Next, deepwater oil exploration and development has led to the worst oil spill in our history—BP’s Deepwater Horizon. Third, increasing demand for fuel has stimulated a dramatic increase in the use of a dangerous technique known as hydraulic fracturing, or fracking, which has caused extensive environmental harm and has severely depressed property values. Finally, the production of coal and the disposal of coal ash have contaminated or even smothered some of the nation’s waterways and have destroyed many homes. Congress has responded with mere baby steps, at best dancing around the margins of these issues and at worst obstructing regulatory efforts by the EPA.

1. Climate Change and Super Storms

For some if not most areas of the world, a dramatically warming climate is creating a “no analog” future,¹⁹⁶ with unprecedented variability in ecological properties and processes.¹⁹⁷ Over the coming decades, climate change will disrupt the human and natural environments even more, “leading to social and environmental changes of a character and magnitude not experienced in modern history.”¹⁹⁸ Biologists have already begun to observe significant shifts in the historic ranges of plant and animal spe-

196 Sandra Zellmer, *Wilderness, Water, and Climate Change*, 42 ENVTL. L. 313, 325-26 (2012) (examining the effects of climate change on wilderness areas, and noting that “[s]torms, floods, drought, disease, insect infestation, fire, and species invasions are likely to become more severe and widespread”).

197 J.B. Ruhl, *The Political Economy of Climate Change Winners*, 97 MINN. L. REV. 206, 268 n.191 (2012) (describing “nonlinear feedback and feed-forward loops, previously unknown emergent properties, and new thresholds of irreversible change”); see Matthew C. Fitzpatrick & William W. Hargrove, *The Projection of Species Distribution Models and the Problem of Non-Analog Climate*, 18 BIODIVERSITY & CONSERVATION 2255, 2255 (2009) (“By 2100, a quarter or more of the Earth’s land surface may experience climatic conditions that have no modern analog . . .”).

198 J.B. Ruhl & James Salzman, *Gaming the Past: The Theory and Practice of Historic Baselines in the Administrative State*, 64 VAND. L. REV. 1, 9 (2011).

cies.¹⁹⁹ Dramatic changes in the physical environment are also being seen, especially in coastal areas experiencing rising sea levels.²⁰⁰

A warming climate brings disastrous “super storms.”²⁰¹ Scientists at the National Center for Atmospheric Research have observed ocean temperatures along the Atlantic coast at 3 degrees Celsius above normal (about 37 degrees Fahrenheit).²⁰² Warmer water adds moisture to the atmosphere, which in turn provides fuel for more intense storms.²⁰³

In October 2012, Hurricane Sandy worked its way up the Atlantic coast. Hurricane force winds extended up to 175 miles from the eye of the storm and cut a path as much as 820 miles wide.²⁰⁴ Sandy’s “destruction potential” reached a 5.8 on the National Oceanic and Atmospheric Administration’s 0 to 6 scale.²⁰⁵ When it hit the northeast, the storm pushed water levels up 10.5 feet in Asbury Park, New Jersey, 13 feet at Staten Island, New York, and, at its highest, 19 feet in Long Branch, New Jersey.²⁰⁶

199 See Zellmer, *supra* note 196, at 331 (noting that studies of over 1700 species revealed “highly significant, nonrandom patterns of change in accord with observed climate warming in the twentieth century, indicating a very high confidence (>95%) in a global climate change fingerprint”) (quoting Camille Parmesan & Gary Yohe, *A Globally Coherent Fingerprint of Climate Change Impacts Across Natural Systems*, 421 NATURE 37, 41 (2003)).

200 See *Massachusetts v. EPA*, 549 U.S. 497, 521–22 (2007) (recognizing that climate-induced sea-level rise has already begun to engulf coastal areas in the United States).

201 See Kathleen Hart, *Markey, Waxman Release Climate Report, Urge Congress to Act on CO2 Emissions*, SNL POWER DAILY, Sept. 26, 2012 (“[T]he U.S. experienced near ‘apocalyptic’ weather this summer”); WORLD ECONOMIC FORUM, GLOBAL RISKS REPORT (8th ed. 2013), available at <http://www.weforum.org/reports/global-risks-2013-eighth-edition> (“Following a year scarred by extreme weather, from Hurricane Sandy to flooding in China, respondents rated rising greenhouse gas emissions as the third most likely global risk overall.”).

202 Kevin Trenberth, *Hurricane Sandy Mixes Super-Storm Conditions with Climate Change*, THINK PROGRESS, Oct. 29, 2012, <http://thinkprogress.org/climate/2012/10/29/1103711/trenberth-hurricane-sandy-mixes-super-storm-conditions-with-climate-change/?mobile=nc>. Global warming contributes about twenty percent of the increased water temperature. *Id.* The Atlantic coast is a “hot spot for climate-change induced sea level increases . . . with the seas around New York now 2 inches higher than in 1990.” Margaret Newkirk, *Sandy’s Power Dwarfed by Katrina’s Gutting of the Gulf*, BLOOMBERG NEWS, Nov. 5, 2012, available at <http://www.bloomberg.com/news/2012-11-05/sandy-s-power-dwarfed-by-katrina-s-gutting-of-the-gulf.html>.

203 See Trenberth, *supra* note 202 (“With every degree C, the water holding of the atmosphere goes up 7%, and the moisture . . . magnifies the rainfall by double that amount compared with normal conditions.”).

204 See Trenberth, *supra* note 202; Jamila Trindle et al., *Sandy Hits Coast, Floods New York*, WALL ST. J., Oct. 30, 2012, at A1.

205 Associated Press, *Superstorm Sandy Deaths, Damage And Magnitude: What We Know One Month Later*, HUFF. POST, Nov. 29, 2012, available at http://www.huffingtonpost.com/2012/11/29/superstorm-hurricane-sandy-deaths-2012_n_2209217.html [hereinafter *Superstorm Sandy Deaths*] (citing National Hurricane Center data).

206 Newkirk, *supra* note 202.

Sandy killed over 100 people in the United States and 71 people in the Caribbean.²⁰⁷ The elderly were especially hard hit; nearly half of the people who died were 65 or older.²⁰⁸ Over five million people in the northeast were left without electricity for days or even weeks.²⁰⁹ Several months after the storm, some 3500 families in New York and New Jersey were still displaced, living week-to-week in motels funded in part by the Federal Emergency Management Agency.²¹⁰ Early estimates of the economic impacts of Hurricane Sandy ranged up to \$50 billion.²¹¹ Thousands of businesses were shuttered, and New York State lost over 29,000 private jobs.²¹²

As devastating as Sandy has been, in comparison, Hurricane Katrina, which hit the Gulf Coast in 2005, was by far the costliest U.S. storm on record.²¹³ Katrina caused over \$100 billion in economic losses (around \$128 billion in current dollars).²¹⁴ As for humanitarian costs, “Katrina was an order of magnitude greater, in terms of loss of life [1,833 deaths], suffering and the destruction of basic public infrastructure”²¹⁵

Katrina’s storm surge was much higher than Sandy’s.²¹⁶ On the coast of Mississippi, the surge reached 27 feet and rushed as far as ten miles inland.²¹⁷ In New Orleans, the surge was somewhat more modest, reaching 15-19 feet.²¹⁸ But because most of New Orleans is situated below sea level, Katrina flooded eighty percent of the city.²¹⁹ The movement of water from the Gulf was facilitated by a network of canals that had been dredged to accommodate oil and gas pipelines, as well as a navigational canal known as the Mississippi River Gulf Outlet, which served as a “hurricane highway” for

207 *Superstorm Sandy Deaths*, *supra* note 205.

208 *Mapping Hurricane Sandy’s Deadly Toll*, N.Y. TIMES, Nov. 17, 2012, <http://www.nytimes.com/interactive/2012/11/17/nyregion/hurricane-sandy-map.html>.

209 Trindle et al., *supra* note 204.

210 Katie Zezima & Meghan Barr, *Displaced Hurricane Sandy Victims Get Temporary Shelter at Hotels*, HUFF. POST IMPACT, Jan. 25, 2013, http://www.huffingtonpost.com/2013/01/25/sandy-victims-hotels_n_2551005.html.

211 Erik Holm & Leslie Scism, *Sandy’s Insured-Loss Tab: Up to \$20 Billion*, WALL ST. J., Nov. 2, 2012, 9:41 AM, <http://online.wsj.com/article/SB10001424052970204712904578092663774022062.html>. Subsequent tallies have risen to \$62 billion in damage and other losses in the U.S., and at least \$315 million in damage in the Caribbean. *Superstorm Sandy Deaths*, *supra* note 205.

212 Julie Turkewitz, *Unemployment Deepens Storm’s Loss as Businesses Stay Closed*, N.Y. TIMES Dec. 27, 2012, available at <http://www.nytimes.com/2012/12/28/nyregion/unemployment-deepens-the-loss-from-hurricane-sandy.html>. New Jersey lost 8100 jobs. *Id.*

213 For a detailed description of Hurricane Katrina and its impacts, see Christine A. Klein and Sandra B. Zellmer, *Mississippi River Stories: Lessons from a Century of Unnatural Disasters*, 60 S.M.U. L. REV. 1471, 1499–503 (2007).

214 Newkirk, *supra* note 202; *Superstorm Sandy Deaths*, *supra* note 205.

215 Newkirk, *supra* note 202 (quoting Michael Kistler, Director of Risk Modeling, Risk Management Solutions).

216 *Id.* (describing Sandy’s storm surge).

217 *Id.*

218 *Id.*

219 *Id.*

the storm surge.²²⁰ The loss of coastal marshes to dredging activities along the Gulf and to rising sea levels also contributed to the increased storm surge.²²¹

It took six days to evacuate the city.²²² As a 2006 congressional report put it, “thousands languished in heat and squalor on islands of concrete highway, in darkened stadiums, in nursing homes, or on rooftops, waiting for rescue, sometimes dying before help arrived.”²²³ Once they were able to leave, many never came back. As of the 2010 census, New Orleans had almost 100,000 fewer people than it did before Katrina hit.²²⁴

In the weeks after Hurricane Katrina, Congress appropriated billions in disaster relief,²²⁵ but since then it has made only modest changes in the law governing federal flood insurance.²²⁶ It has also failed to adopt any significant remedial legislation to enhance federal accountability for such disasters

220 See *In re Katrina Canal Breaches* Consol. Litig., 577 F. Supp. 2d 802, 807–11 (E.D. La. 2008) (finding a consensus “concerning the funnel effect” of MRGO and other canals and the levee systems built along their banks).

221 See *St. Bernard Parish v. United States*, 88 Fed. Cl. 528, 535–36 (Fed. Cl. 2009) (“By 1990, estimated wetland loss from . . . the Coastal Louisiana Hydrologic Basin Area . . . was reported to be 74,800 acres, or an average of 1,290 acres per year between 1932 and 1990. . . . ‘Between 1956 and 1990, 68,600 acres of wetlands [about 67%] were lost in the study area [as a result of] subsidence, navigational channels, oil and gas exploration and production, development and storms[.]’” (citation omitted) (alterations in original)); Klein & Zellmer, *supra* note 213, at 1510 (“Although difficult to predict with precision, as a general rule of thumb, every two to four linear miles of coastal wetlands may reduce storm surge by a height of one foot.”). In response to concerns about the causal link between wetlands and storm surge, Congress enacted the Coastal Wetlands Planning, Protection, and Restoration Act, Pub. L. No. 101-646, 104 Stat. 4778 (1990) (codified at 16 U.S.C. §§ 3951–3954 (2006)), a modest provision, in 1990.

222 Newkirk, *supra* note 202.

223 COMM. ON HOMELAND SEC. & GOVERNMENTAL AFFAIRS, HURRICANE KATRINA: A NATION STILL UNPREPARED, S. Rep. No. 109-322, at iii (2006). The Report places the blame squarely on federal, state, and local governments. *Id.* As for the federal response, it found that “Homeland Security Secretary Michael Chertoff was ‘detached’ and that then-Federal Emergency Management Agency Director Michael Brown was ‘clueless’” *Report: Katrina Response a Failure of Leadership*, CNN (Feb. 14, 2006), <http://www.cnn.com/2006/POLITICS/02/13/katrina.congress/index.html>.

224 Newkirk, *supra* note 202.

225 See Elizabeth Dwoskin, *What You Need to Know About the Fight Over Hurricane Sandy Relief*, BLOOMBERG BUSINESSWEEK, Jan. 15, 2013, available at <http://www.businessweek.com/articles/2013-01-15/what-you-need-to-know-about-the-fight-over-hurricane-sandy-relief>

(“On Sept. 8, 2005, President Bush signed off on \$51.8 billion in emergency aid for the victims of Hurricane Katrina . . . follow[ing] one for \$10.5 billion that had been approved on Sept. 2, only one week after Katrina hit the Gulf Coast.”).

226 Post-Katrina Emergency Management Reform Act of 2006, Pub. L. No. 109-295, 120 Stat. 1355, 1394 (2006) (codified at 6 U.S.C. § 701 (2006)). Congress refused to return FEMA to its former independent status, but it elevated it within the DHS and gave its administrator direct access to the President during disasters. See KEITH BEA ET AL., CONG. RESEARCH SERV., RL 33729, FEDERAL EMERGENCY MANAGEMENT POLICY CHANGES AFTER HURRICANE KATRINA 6 (2006). Congress also appropriated funds for post hoc disaster relief. *Id.*

or to clarify the Corps's responsibility for flood control.²²⁷ And it has utterly failed to grapple with human-induced climate change, leaving the ever-increasing emission of greenhouse gases to ad hoc, piecemeal initiatives, many of which are happening at the state and local levels.²²⁸ To the extent that the EPA has attempted to curb greenhouse gas emissions from power plants and other industries,²²⁹ Congress has done its best to stand in the way,

227 Efforts to reform the Corps were raised in both chambers, in the form of revisions to the Water Resources Development Act (WRDA), but Congress failed to act. See Daniel A. Farber et al., *Reinventing Flood Control*, 81 TUL. L. REV. 1085, 1116–18 (2007). Back in 1994, Congress adopted insurance reforms that strengthened requirements for insuring structures within floodplains. National Flood Insurance Reform Act of 1994, Pub. L. No. 103-325, 108 Stat. 2255 (1994) (codified at 42 U.S.C. § 5145a (2006)). More comprehensive legislation was introduced but tabled that year. See Janet Neuman, *Are We There Yet? Weary Travelers on the Long Road to Water Policy Reform*, 50 NAT. RESOURCES J. 139, 146 (2010).

228 See John S. Gray, 'A Glorious Mess': Congress' Creation If Its Inaction Forces EPA to Regulate Climate Change Under Existing Laws, 46-DEC HOUS. LAW. 30 (2008) (describing "little or no momentum" to adopt climate legislation until the Supreme Court's decision that EPA must regulate CO₂ if it poses an endangerment to health or welfare (citing *Massachusetts v. EPA*, 549 U.S. 497 (2007))); Andrew Wheeler, *Clean Air and Climate Change: 111th Congress—Prospects* (ALI-ABA Course of Study Dec. 3–5, 2008), available at SP028 ALI-ABA 83 (2008) (describing congressional resistance to "a vast reordering of the American economy in the name of solving a speculative problem"); Amy Harder, *Perfect Storm Stifles Congress on Energy*, NAT. J. DAILY, Apr. 18, 2012 ("The gridlock in Congress has emboldened the Obama administration to act unilaterally on issues traditionally dealt with on Capitol Hill, such as oil and gas-drilling policies, fuel-economy standards, and clean-energy incentives.").

229 For EPA's climate-related regulatory efforts after the *Massachusetts* decision, see Endangerment and Cause or Contribute Findings for Greenhouse Gases, 74 Fed. Reg. 66,496 (Dec. 15, 2009) (to be codified at 40 C.F.R. ch. 1); Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, 75 Fed. Reg. 31,514 (June 3, 2010) (to be codified at 40 C.F.R. pts. 51, 52, 70, 71); Final Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals (also known as the Cross-State Air Pollution Rule), 76 Fed. Reg. 48,208 (Aug. 8, 2011), *vacated*, *EME Homer City Generation, L.P. v. EPA*, 696 F.3d 7, 11 (D.C. Cir. 2012).

both by obstructing new air pollution regulations²³⁰ and by encouraging ever greater reliance on fossil fuels.²³¹

2. The Deepwater Horizon Blowout

Our reliance on fossil fuels has also contributed to the largest oil spill in world history. The BP Deepwater Horizon spill began on April 20, 2010, when the Macondo well exploded.²³² Eleven workers were killed in the explosion.²³³ Oil erupted out of the well. Efforts to stem the flow failed when a safety device, the “blowout preventer,” could not be activated.²³⁴ Everything that could go wrong did. After a number of failed attempts, BP capped the well eighty-six days later.²³⁵ Nearly 5,000,000 barrels of oil had been released.²³⁶

Nearly three years later, no new substantive legislation has been adopted.²³⁷ But the executive branch has been hard at work.²³⁸

230 See, e.g., Associated Press, *House GOP Readies Ban on EPA Greenhouse Gas Regulations*, FOXNEWS (Feb. 2, 2011), <http://www.foxnews.com/us/2011/02/02/house-gop-readies-ban-epa-greenhouse-gas-regulations/>; see also Suzanne Goldberg, *US Environmentalists Challenged to Get Climate Change Laws Through Congress*, GUARDIAN (Jan. 17, 2013), <http://www.guardian.co.uk/world/2013/jan/17/us-environmental-groups-climate-change-legislation> (reporting that America’s environmentalists “grossly under-estim[ed] the resistance to any environmental measures from Republicans in Congress and the conservative Tea [P]arty movement” (citing Harvard Professor Theda Skocpol)); Hart, *supra* note 201 (summarizing a report released by Reps. Markey, D-Mass., and Waxman, D-Calif., that explains how the Republican congressional response to climate change “is to deny the science and block action”); Carol Shea-Porter, *Fix Congress to Fix Climate Change*, DAILY KOS (Aug. 2, 2012, 11:19 AM), <http://www.dailykos.com/story/2012/08/02/1116101/-Fix-Congress-to-Fix-Climate-Change> (reporting that Congress took twenty-seven votes to block climate change-related action in 2011); Richard W. Stevenson & John M. Broder, *Speech Gives Climate Goals Center Stage*, N.Y. TIMES (Jan. 21, 2013), <http://www.nytimes.com/2013/01/22/us/politics/climate-change-prominent-in-obamas-inaugural-address.html> (describing how the Administration has learned its “lessons from [its] first term, when [it] failed to win passage of comprehensive legislation . . . [and] plans to . . . focus on what it can do administratively to reduce emissions from power plants, increase the efficiency of home appliances and have the federal government itself produce less carbon pollution.”).

231 Brian Scheid, *Energy Issues Likely to Play Role as Congress Tackles Tax Reform in 2013*, INSIDE ENERGY-FEDERAL LANDS 3, Jan. 7, 2013 (reporting that Democrats in the 113th Congress hope to end billions of dollars in subsidies historically granted to the oil and gas industry and to foster more support for renewable energy).

232 Sandra Zellmer, Joel A. Mintz & Robert Glicksman, *Throwing Precaution to the Wind: NEPA and the Deepwater Horizon Blowout*, 2 GEO. WASH. J. ENERGY & ENVTL. L. 62, 62 (2011).

233 *Id.*

234 *Id.*

235 *Id.*

236 Campbell Robertson & Clifford Krauss, *Gulf Spill Is the Largest of Its Kind, Scientists Say*, N.Y. TIMES, Aug. 3, 2010, at A14, available at <http://www.nytimes.com/2010/08/03/us/03spill.html>.

237 See Sidney A. Shapiro, *The Complexity of Regulatory Capture: Diagnosis, Causality, and Remediation*, 17 ROGER WILLIAMS U. L. REV. 221, 249 (2012) (“[D]espite the largest oil spill

Immediately after the spill, President Obama created the National Commission on the BP Deepwater Horizon Spill and Offshore Drilling to investigate and advise on initiatives to prevent future oil spills.²³⁹ The report included a variety of recommendations, most of which involve regulatory changes by federal agencies.²⁴⁰ One of its suggestions had already been implemented by Department of Interior Secretary Salazar, who had reorganized the agency in charge of offshore drilling, the Minerals Management Service (MMS), into three distinct agencies: The Bureau of Ocean Energy Management, the Bureau of Safety and Environmental Enforcement, and Office of Natural Resources Revenue.²⁴¹ The division of labor between these new agencies is designed to ensure greater accountability and oversight by separating the conflicting missions formerly housed in MMS—resource evaluation and leasing, safety and environmental protection, and revenue collection and distribution.²⁴²

Meanwhile, the U.S. Department of Justice engaged in its most aggressive prosecution for an environmental disaster in Department history.²⁴³ BP ultimately plead guilty to fourteen criminal charges related to the explosion and agreed to pay \$4.5 billion in fines and other penalties.²⁴⁴ The potential

in American history, legislative efforts to address deepwater drilling died in the Senate, indicating that not every crisis is sufficient to generate reform legislation.”).

238 Juliet Eilperin, *Troubled Waters: Federal Oversight of Offshore Oil Drilling*, 17 ROGER WILLIAMS U. L. REV. 89, 95–96 (2012) (describing administrative responses to Deepwater Horizon).

239 Exec. Order No. 13,543, 75 Fed. Reg. 29,397 (May 26, 2010).

240 NATIONAL COMM’N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, DEEP WATER: THE GULF OIL DISASTER AND THE FUTURE OF OFFSHORE DRILLING 215–306 (2011), available at <http://www.gpo.gov/fdsys/pkg/GPO-OILCOMMISSION/pdf/GPO-OILCOMMISSION.pdf> [hereinafter DEEPWATER].

241 Secretarial Ord. No. 3299, 75 Fed. Reg. 61,051 (Oct. 4, 2010); see Eilperin, *supra* note 238, at 95–96 (“The Office of Natural Resources Revenue . . . would oversee revenue collection. The remaining agency would be split between the Bureau of Ocean Energy Management (BOEM), charged with managing U.S. offshore resources, and the Bureau of Safety and Environmental Enforcement (BSEE), charged with enforcing safety and environmental regulations.” (footnote omitted)).

242 See *id.* at 95–96; Noelle Straub, *Interior Unveils Plan to Split MMS into 3 Agencies*, N.Y. TIMES (May 20, 2010), <http://www.nytimes.com/gwire/2010/05/20/20greenwire-interior-unveils-plan-to-split-mms-into-3-agen-72654.html>.

243 See Clifford Krauss & John Schwartz, *BP Will Plead Guilty and Pay Over \$4 Billion*, N.Y. TIMES, Nov. 16, 2012, at A1, available at <http://www.nytimes.com/2012/11/16/business/global/16iht-bp16.html?pagewanted=all>.

244 *Id.* This includes eleven felony counts of misconduct or neglect for the deaths of the workers killed in the explosion, one felony count of obstruction of Congress over BP’s misstatements on the rate that oil was gushing from the well, and two misdemeanor counts for violation of the Migratory Bird Treaty Act and the Clean Water Act. *Id.* By comparison, Exxon paid only \$25 million in federal criminal fines for the Exxon Valdez spill. *Costs of Spills*, INT’L TANKER OWNERS POLLUTION FED’N LTD. (2010), <http://www.itopf.com/spill-compensation/cost-of-spills/>. In total, Exxon paid \$3.8 billion in fines, clean-up costs, and victim compensation. Byron Pitts, *Exxon Valdez Oil Spill: 20 Years Later*, CBS NEWS (Feb. 11, 2009, 1:39 PM), http://www.cbsnews.com/8301-18563_162-4769329.html.

for an even larger penalty related to the incident still looms: BP could face \$21 billion in civil fines under the CWA if it is found to have been grossly negligent.²⁴⁵

The National Commission further recommended that Congress enact legislation requiring oil companies to pay fees that would be used to fund research and agency review, and also called on Congress to provide funding for spill response.²⁴⁶ Although there have been countless hearings and several proposed bills, nothing significant has been enacted to date.²⁴⁷

After the blowout, Senate and House committees in the 111th Congress held over sixty hearings on a variety of issues related to deepwater oil development, and members introduced over 150 proposals related to oil spills.²⁴⁸ Three of these proposals were enacted into law, but they concerned “short-term matters that will not have a lasting impact on oil spill governance.”²⁴⁹ Two more broad-sweeping measures have passed the House but have failed to gain support in the Senate: the Consolidated Land, Energy and Aquatic Resources Act (CLEAR),²⁵⁰ which would establish new leasing standards and provide funding to protect and maintain the coast, and the Protecting Investment in Oil Shale the Next Generation of Environmental, Energy, and Resource Security Act (PIONEERS) Act.²⁵¹ The main thrust of the PIONEERS Act is to remove regulatory barriers for the production of oil shale,²⁵² but an amendment was added that would establish a trust fund to restore the economy and resources of the Gulf Coast, to be financed by penalties arising

245 See Krauss & Schwartz, *supra* note 243 (“Under the Clean Water Act, fines could range from \$1,100 for every barrel spilled through simple negligence to as much as \$4,300 a barrel if the company were found to have been grossly negligent. With an estimated 4.9 million barrels of oil spilled in the accident, the company faces liabilities of as much as \$5.4 billion to \$21 billion.”). BP also faces federal and state claims for damages to natural resources. *Id.*

246 DEEPWATER, *supra* note 240.

247 However, Congress did enact, and the President signed into law, the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011, Pub. L. No. 112-90, 125 Stat. 1904 (codified at 49 U.S.C.A. §§ 60138–60140 (2012)). But it is directed toward pipeline safety and is not a response to the *Deepwater Horizon* disaster.

248 See Andrew Hartsig, *Shortcomings and Solutions: Reforming the Outer Continental Shelf Oil and Gas Framework in the Wake of the Deepwater Horizon Disaster*, 16 OCEAN & COASTAL L.J. 269, 288–99 (2011).

249 JONATHAN L. RAMSEUR, CONG. RESEARCH SERV., R42371, *Deepwater Horizon Oil Spill: Highlighted Activities 5* (2012), available at <http://www.fas.org/sgp/crs/misc/R42371.pdf> (citing Pub. L. No. 111-191, Pub. L. No. 111-212, and Pub. L. No. 111-281). One appropriations bill that was signed into law in 2010 requires the Coast Guard to issue regulations to reduce the risks of oil spills involving the transfer of oil from or to a tank vessel, to report to Congress on human errors that could cause oil spills, and to pursue stronger enforcement of international agreements on oil spills, among other things primarily related to tanker vessels. Coast Guard Authorization Act of 2010, Pub. L. No. 111-281, 124 Stat. 2905 (2010) (codified as amended in scattered sections of 33 and 46 U.S.C. (2006)).

250 H.R. 3534, 112th Cong. (2012).

251 H.R. 3408, 112th Cong. (2012).

252 *Lamborn Introduces PIONEERS Act*, CONGRESSMAN DOUG LAMBORN (Nov. 14, 2011), <http://lamborn.house.gov/index.cfm?sectionid=150&itemid=942>.

from the Deepwater Horizon spill.²⁵³ The Senate failed to pass reciprocal legislation.²⁵⁴

The 112th Congress exhibited even less appetite for reforming deep-water exploration and oil drilling. A few committees held hearings on spill-related issues, several of which considered the National Commission's recommendations.²⁵⁵ Some thirty proposals were introduced that would address various spill-related issues, but none passed.²⁵⁶ Perversely, proposals that would encourage offshore development have seen somewhat more legislative interest.²⁵⁷

3. Hydraulic Fracturing

Hydraulic fracturing, or "fracking," is a method of recovering oil and natural gas from low permeability rock formations such as shale.²⁵⁸ High pressure is used to pump fluids and "propping" materials, such as sand, into the rock formations to crack them open, which releases oil and gas into the well.²⁵⁹ Although fracking has been used since the 1940s, its use has escalated dramatically in the past two decades in order to develop unconventional oil and gas fields across the country, often in places where

253 For analysis, see RAMSEUR, *supra* note 249, at 5–6; JONATHAN L. RAMSEUR, CONG. RESEARCH SERV., R41684, OIL SPILL LEGISLATION IN THE 112TH CONGRESS (2012), available at <http://www.fas.org/sgp/crs/misc/R41684.pdf>.

254 S. 3663, the Clean Energy Jobs and Oil Spill Accountability Act of 2010, would have been similar to the House's CLEAR Act. S. 3663, 111th Cong. (2010). The bill got hung up over the repeal of liability limits for oil spills. *A Look over the Horizon: Oil Spill Legislation*, BLANK ROME LLP (Dec. 2010), <http://www.blankrome.com/index.cfm?contentID=37&itemID=2362>.

255 RAMSEUR, *supra* note 249, at 5.

256 *Id.* Congress did pass one piece of legislation related to pipeline spills, H.R. 2845. The Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011, Pub. L. No. 112-90, 125 Stat. 1904.

257 For example, a provision of the Consolidated Appropriations Act of 2012 transfers authority over air emissions off Alaska's north coast from the U.S. EPA to the Department of the Interior to minimize impediments to offshore energy development. Pub. L. No. 112-74, § 432, 125 Stat. 786, 1049 (2011) (codified at 42 U.S.C. § 7627 (2006)).

258 See BRANDON J. MURRILL, CONG. RESEARCH SERV., R42502, HYDRAULIC FRACTURING AND THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA): SELECTED ISSUES 1 (2012), available at <http://www.fas.org/sgp/crs/misc/R42502.pdf>.

259 See *Fiorentino v. Cabot Oil & Gas Corp.*, 750 F. Supp. 2d 506, 509 n.1 (M.D. Pa. 2010) ("[P]ressurized fluids are used to dislodge and release natural gas from deep underground formations."). The chemical makeup of these fluids varies by producer and by region, and their quantities and proportions "are generally unknown." *Marcellus Shale*, N.Y. STATE DEPT. OF ENVTL. CONSERVATION (2013), <http://www.dec.ny.gov/energy/46288.html>. See Krishna Ramanujan, *Study Suggests Hydrofracking Is Killing Farm Animals, Pets*, CORNELL UNIV. CHRONICLE ONLINE (Mar. 7, 2012), <http://www.news.cornell.edu/stories/March12/FrackingAnimals.html> (noting that legislation, secrecy, and non-disclosure agreements have allowed fracking companies to keep the proprietary chemicals used in their propping fluids secret).

development had not been economically feasible in the past.²⁶⁰ This growth has been stimulated both by technological advances and by sharp increases in gas prices.²⁶¹

The dramatic growth of fracking has raised concerns about ground-water contamination.²⁶² In 2008, a quarter of water wells near the gas fields in Wyoming's Sublette County were found unsafe for drinking due to contamination by benzene, sulfates, chloride, and other pollutants.²⁶³ In addition, the fracking process requires significant amounts of water so it is often conducted in close proximity to rivers, streams, and lakes, making surface water contamination a distinct possibility.²⁶⁴

Reports about the adverse effects of fracking have failed to prompt federal legislation governing unconventional oil and gas operations.²⁶⁵ To the contrary, in the 2005 Energy Bill, Congress exempted onshore oil and gas facilities from both the Safe Drinking Water Act²⁶⁶ and from stormwater per-

260 Norimitsu Onishi, *Vast Oil Reserve May Now Be Within Reach, and Battle Heats Up*, N.Y. TIMES, Feb. 4, 2013, at A9, available at <http://www.nytimes.com/2013/02/04/us/vast-oil-reserve-may-now-be-within-reach-and-battle-heats-up.html?pagewanted=all> (reporting that developers are eyeing the "largely untouched" crude oil reserves of the Monterey Shale in California).

261 See U.S. DEPT. OF ENERGY, MODERN SHALE GAS DEVELOPMENT IN THE UNITED STATES: A PRIMER ES-1 (2009), available at http://www.netl.doe.gov/technologies/oil-gas/publications/epreports/shale_gas_primer_2009.pdf [hereinafter MODERN SHALE GAS] ("Technically recoverable unconventional gas (shale gas, tight sands, and coalbed methane) accounts for 60% of the onshore recoverable resource [in the U.S.]").

262 MURRILL, *supra* note 258, at 1; see Carolyn F. Burr et al., *Water: The Fuel for Colorado Energy*, 15 U. DENV. WATER L. REV. 275, 294–96 (2012) (describing how contamination from fracking could occur).

263 Susan Phillips, *EPA Blames Fracking for Wyoming Groundwater Contamination*, STATEIMPACT: PENNSYLVANIA (Dec. 8, 2011, 1:34 PM), <http://stateimpact.npr.org/pennsylvania/2011/12/08/epa-blames-fracking-for-wyoming-groundwater-contamination/>.

264 MODERN SHALE GAS, *supra* note 261, at Forward; see *Marcellus Shale*, *supra* note 259 (noting that fracking often requires over one million gallons of water per well).

265 The EPA and the Department of Interior have taken some steps to increase informational transparency through studies and regulations governing fracking on federal public lands, Lena Groeger, *40 Acres and a Rule: Draft Federal Fracking Regs Cover Only A Sliver of Land*, PROPUBLICA (May 8, 2012, 10:04 AM), <http://www.propublica.org/article/40-acres-and-a-rule-draft-federal-fracking-regs-cover-only-a-sliver-of-land>, but Congress has threatened to block even those modest efforts. For example, in 2012, Republican Senator James Inhofe introduced the Fracturing Regulations Are Effective in State Hands Act, described as: A bill "[t]o clarify that a State has the sole authority to regulate hydraulic fracturing on Federal land within the boundaries of the State." S. 2248, 112th Cong. (2012).

266 42 U.S.C. § 300h(d)(1) (2006). The Safe Drinking Water Act of 1974, 42 U.S.C. § 300f (2006), requires permits for the underground injection of hazardous substances in order to protect drinking water supplies. The Energy Policy Act of 2005 exempted the underground injection of fluids or propping agents, other than diesel, that are used in fracking. Pub. L. No. 109-58, § 322, 119 Stat. 594, 694 (2005) (codified at 42 U.S.C. § 300h(d) (2006)).

mitting requirements under the CWA.²⁶⁷ The latter exemption was foreshadowed by the CWA amendments of 1987, when Congress required EPA to develop a permitting program for stormwater runoff from industries and large municipalities but exempted oil and gas exploration, production, and processing operations from the permitting requirements.²⁶⁸ EPA had construed the 1987 provision as requiring stormwater permits for oil and gas construction facilities larger than five acres,²⁶⁹ but Congress disagreed.²⁷⁰

A few corrective bills have been proposed, but none has passed.²⁷¹ Instead, Congress merely directed the EPA to “examine the relationship between hydraulic fracturing and drinking water resources.”²⁷²

In the absence of a satisfactory federal response, several states have taken matters into their own hands. In 2010, New York’s House Assembly voted to prohibit hydraulic fracturing statewide for eleven months due to concerns about drinking water contamination.²⁷³ In 2011, Maryland passed the Maryland Shale Safe Drilling Act, which bans hydraulic fracturing on the western side of the state until 2013.²⁷⁴ Other states have undertaken more modest, case-by-case approaches.²⁷⁵

267 See 33 U.S.C. § 1362(24) (2006) (“The term ‘oil and gas exploration, production, processing, or treatment operations or transmission facilities’ means all field activities or operations . . . including activities necessary to prepare a site for drilling and for the movement and placement of drilling equipment, whether or not such field activities or operations may be considered to be construction activities.”).

268 *Id.* at § 1342(1)(2).

269 55 Fed. Reg. 47,990 (Nov. 16, 1990) (codified at 40 C.F.R. § 122.26(c)(1)(iii)).

270 33 U.S.C. § 1362(24) (2006). The EPA subsequently revised its regulations to exempt oil and gas construction activities from its stormwater permitting requirements, 71 Fed. Reg. 33,628 (June 12, 2006) (codified at 40 C.F.R. § 122.26(a)(2)(ii)), but the revision was invalidated. See *Natural Res. Def. Council v. EPA*, 526 F.3d 591, 607–08 (9th Cir. 2008) (“[W]e conclude that EPA’s inconsistent and conflicting position regarding the discharge of sediment-laden storm water from oil and gas construction sites causes its . . . rule, 40 C.F.R. § 122.26, to be an arbitrary and capricious one.”). For the EPA’s regulatory response, see CHARLES G. GROAT & THOMAS W. GRIMSHAW, *FACT-BASED REGULATION FOR ENVIRONMENTAL PROTECTION IN SHALE GAS DEVELOPMENT*, 41 (2012) (“[O]il and gas operators must obtain a stormwater permit . . . for the construction of a well pad and access road that is one acre or greater, but they need not obtain such a permit for any uncontaminated stormwater from the drilling and fracturing operation.”).

271 See *Fracturing Responsibility and Awareness of Chemicals Act*, H.R. 1084, 112th Cong. (2011); S. 587, 112th Cong. (2011) (repealing the Safe Drinking Water Act exemption for fracking and requiring disclosure of chemicals used). For details, see Bruce M. Kramer, *Federal Legislative and Administrative Regulation of Hydraulic Fracturing Operations*, 44 *TEX. TECH L. REV.* 837, 855–57 (2012).

272 U.S. ENVTL. PROT. AGENCY, *DRAFT PLAN TO STUDY THE POTENTIAL IMPACTS OF HYDRAULIC FRACTURING ON DRINKING WATER RESOURCES* vii (2011).

273 Cameron Jefferies, *Unconventional Bridges over Troubled Water—Lessons to Be Learned from the Canadian Oil Sands as the United States Moves to Develop the Natural Gas of the Marcellus Shale Play*, 33 *ENERGY L.J.* 75, 105–06 (2012).

274 *Id.*

275 See, e.g., Andrew Maykuth, *Pa. Orders Company to Halt Drilling After Well Blowout*, *PHIL. INQ.* (June 8, 2010), http://articles.philly.com/2010-06-08/news/24961451_1_eog-resour

4. Coal Mining and Ash

Twenty percent of America's total energy demand, and forty-two percent of its electricity demand, is met by burning coal.²⁷⁶ Mining and burning coal is one of the oldest forms of fossil fuel energy production, but it comes at a high price to human health and the environment, when it is mined, when it is burned, and when the residual ash is put to rest.

A technique widely used in the Southeast known as mountaintop removal is especially problematic. Appalachian coal mining has been the driving force of that region's economy since the 1880s.²⁷⁷ In 2000 alone, mines in this area produced over 1 billion tons of coal—more than half of the United States' total production. The coal generally occurs in narrow seams separated by dirt and rock called "overburden." In the past miners removed the coal by drilling passageways, or shafts, into the mountainsides. In the mid-1990s, a more efficient method of surface mining—mountaintop removal—became prevalent throughout Appalachia. It involves placing explosives at various points around a mountaintop and blasting off the overburden, which is then removed using draglines—gigantic machines that can scoop 100 tons of loose overburden at a time—allowing access to the exposed coal seams.²⁷⁸

Mountaintop removal exacts a heavy toll in both environmental and social costs. It results in severe environmental degradation by literally flattening mountains and transforming densely forested mountaintops to treeless terraces and plateaus. The displaced overburden becomes "valley fill," which is pushed into valleys that typically contain headwater streams.²⁷⁹ This has permanently filled thousands of stream miles, destroying water quality and causing more severe and more frequent flooding in the region.²⁸⁰ Residents are exposed to flash floods, polluted drinking water, thick dust, and the never-ending noise created by explosions at the mining operations, many of which operate twenty-four hours a day, seven days a week.²⁸¹

ces-blowout-drilling-operations ("Pennsylvania environmental officials on Monday suspended drilling operations of a Marcellus Shale natural-gas operator whose Clearfield County well erupted last week into an uncontrolled geyser of gas and wastewater.").

276 *Coal*, INST. FOR ENERGY RESEARCH, <http://www.instituteforenergyresearch.org/energy-overview/coal/> (last visited Mar. 9, 2013).

277 This background is derived from Sandra Zellmer, *Mountaintop Removal*, CTR. FOR PROGRESSIVE REFORM (2009), http://www.progressivereform.org/perspMt_top.cfm.

278 *Id.*

279 *Id.*

280 See CLAUDIA COPELAND, CONG. RESEARCH SERV., RS21421, MOUNTAINTOP MINING: BACKGROUND ON CURRENT CONTROVERSIES I (2012) ("[A] single fill may be over 1,000 feet wide and over a mile long. . . . EPA estimates that since 1992 almost 1,200 miles of Appalachian streams were buried by surface coal mining practices As a result, streams are eliminated, stream chemistry is harmed by pollutants in the mining overburden, and downstream aquatic life is impaired.").

281 *Id.*; see Paul A. Duffy, *How Filled Was My Valley: Continuing the Debate on Disposal Impacts*, 17 NAT. RESOURCES & ENV'T 143 (2003) (discussing recent legal developments related to surface mining); Patrick C. McGinley, *From Pick and Shovel to Mountaintop*

A federal district court enjoined the Corps from issuing § 404 permits for mountaintop removal overburden valley fill, and held that § 404 does not allow the filling of streams and other waters solely for the purpose of waste disposal.²⁸² The ruling was consistent with the long-standing 1977 version of the Corps's regulations, which defined the term "fill material" as material used for the primary purpose of replacing aquatic area with dry land or of changing the bottom elevation of a water body, thereby precluding activities that were intended as a means of waste disposal.²⁸³ As a result, permits for disposal of mining overburden and other pollutants must be issued by the EPA or a delegated state under § 402, which requires the imposition of strict technology-based requirements, including, where feasible, zero discharge.²⁸⁴

That regulatory definition stood for twenty-five years, when in 2002 the Corps and the EPA revised their regulations to an effects-based test, which defined "fill material" as any materials that had the effect of changing the bottom elevation of a water body.²⁸⁵ The Corps's permitting process under § 404 is far more lenient than the EPA's § 402 program and even allows the Corps to issue nationwide permits (NWP) for activities that "cause only minimal adverse environmental effects when performed separately, and will have only minimal cumulative adverse effect on the environment."²⁸⁶ NWP circumvent the in-depth analysis and public participation that would otherwise be triggered by individual permit applications.²⁸⁷ From 2002 to 2010, hundreds of mountaintop mining operations were authorized by the Corps under NWP-21, adversely affecting thousands of stream miles and the communities that relied on them.²⁸⁸

Removal: Environmental Injustice in the Appalachian Coalfields, 34 ENVTL. L. 21 (2004) (describing the history and adverse effects of mining techniques).

282 *Kentuckians for the Commonwealth, Inc. v. Rivenburgh*, 204 F. Supp. 2d 927, 931, 945 (S.D. W. Va. 2002) ("[T]he final rule [is] fundamentally inconsistent with the CWA, its history, predecessor statutes, longstanding regulations, and companion statutes."), *vacated*, 317 F.3d 425 (4th Cir. 2003).

283 *Permits for Discharges of Dredged or Fill Materials into Waters of the United States*, 33 C.F.R. § 323.2(e)(2) (1977).

284 33 U.S.C. § 1342 (2006).

285 67 Fed. Reg. 31,129, 31,131 (2002). The agencies reasoned that "[s]imply because a material is disposed of for purposes of waste disposal does not . . . justify excluding it categorically from the definition of fill. Some waste (e.g., mine overburden) consists of material such as soil, rock and earth, that is similar to 'traditional' fill material used for purposes of creating fast land for development." *Id.*

286 33 U.S.C. § 1344(e) (2006).

287 See COPELAND, *supra* note 280, at 3 ("Nationwide permits cover approximately 74,000 activities annually (about 90% of total Corps permits) and involve less regulatory burden and time than authorization by individual permits.").

288 ROYAL C. GARDNER, *LAWYERS, SWAMPS, AND MONEY* 68 (2011). The Corps, under the direction of the Obama Administration, suspended NWP-21 in 2010. 75 Fed. Reg. 34,711 (June 18, 2010). It reinstated NWP-21 in 2012 but limited its application to valley fills of 300 linear feet or less. 77 Fed. Reg. 10,184, 10,274 (Feb. 21, 2012). However, the new NWP-21 allows district engineers to waive that limit "for the loss of ephemeral or intermittent stream bed if they make a case-specific determination that the proposed activity will

Moreover, since 2002, the Corps has also issued § 404 permits for many other types of activities that discharge waste into the nation's waterways. For example, a gold mining company received a permit to discharge 4.5 million tons of chemically processed tailings through a three-mile long pipeline from its gold mine into Lower Slate Lake in Alaska. The Supreme Court upheld this permit in its *Coeur Alaska* decision.²⁸⁹

However, an intrepid district court in West Virginia enjoined the Corps from issuing § 404 permits for valley fills²⁹⁰ and found the 2002 regulation “fundamentally inconsistent with the CWA, its history, predecessor statutes, longstanding regulations, and companion statutes.”²⁹¹ The Fourth Circuit reversed, concluding that the Corps's interpretation of “fill” was entitled to deference.²⁹² As a result, the Corps remains in charge of fill from mountaintop removal, but the EPA has occasionally exercised its statutory veto authority under the CWA to prevent the most environmentally destructive mines.²⁹³

The end of the power production process is equally problematic. Burning coal to generate electricity creates nearly 140 million tons of scrubber sludge and ash every year, over sixty percent of which is dumped into unlined, earthen embankments and ponds.²⁹⁴ The embankments occasionally burst, and wastewater and leachates are sometimes intentionally pumped

result in minimal individual and cumulative adverse effects on the aquatic environment.” *Id.* at 10,203.

289 See *supra* notes 154–163 and accompanying text.

290 *Kentuckians for the Commonwealth, Inc. v. Rivenburgh*, 204 F. Supp. 2d 927, 946 (S.D. W. Va. 2002).

291 *Id.* at 945. It stated that the 2002 regulation “was designed simply for the benefit of the mining industry and its employees,” and that it turned the CWA on its head by authorizing “polluting and destroying the nation's waters for no reason but cheap waste disposal.” *Id.* at 946. For a detailed description, see George Cameron Coggins & Robert L. Glicksman, *Scope of the Dredge and Fill Permit Program—Relationship to NPDES Permit Program*, 2 PUB. NAT. RESOURCES L. § 19:17 (2012).

292 *Kentuckians for Commonwealth, Inc. v. Rivenburgh*, 317 F.3d 425, 448 (4th Cir. 2003). The Fourth Circuit subsequently reversed another district court decision that had invalidated mountaintop removal for violating the CWA and NEPA. See *Ohio Valley Envtl. Coal. v. Aracoma Coal Co.*, 556 F.3d 177 (4th Cir. 2009), *reh'g en banc denied*, 567 F.3d 130 (4th Cir. 2009).

293 33 U.S.C. § 1344(c) (2006); see Juliet Eilperin, *Obama Administration Cracks Down on Mountaintop Mining*, WASH. POST (Jan. 13, 2011, 10:46 PM), <http://www.washingtonpost.com/wp-dyn/content/article/2011/01/13/AR2011011307095.html> (reporting that EPA had vetoed a permit for the nation's largest surface mine that “would use destructive and unsustainable mining practices that jeopardize the health of Appalachian communities and clean water on which they depend”). A federal district court struck down the veto, however, holding that the EPA lacked authority to revoke a permit two years after it had been issued by the Corps. *Mingo Logan Coal Co. v. U.S. Envtl. Prot. Agency*, 850 F. Supp. 2d 133 (D.D.C. 2012). The EPA has appealed. Rose Ellen O'Connor, *EPA Fights to Stop Large Mountaintop Coal Mine*, DC Bureau Blog, 2013 WLNR 6512161 (Mar. 15, 2013).

294 AMERICAN COAL ASH ASS'N, *2008 Coal Combustion Product (CCP) Production & Use Survey Report* (2008), available at www.recyclingfirst.org/pdfs/46.pdf; see Eric Schaeffer, *Coal and the U.S. Economy*, 13 VT. J. ENVTL. L. 131, 133–34, 137–38 (2011); Shaila Dewan, *Coal*

out of ash and sludge impoundments and released into rivers to make room for more waste, making power plants the second largest source of heavy metal discharges in the United States.²⁹⁵

The nation's attention became focused on the coalfields in 1972, when a huge waste impoundment at Buffalo Creek, West Virginia collapsed. Its floodwaters destroyed 500 homes, killed 125 people, and left 4,000 homeless.²⁹⁶ It became impossible for Congress to ignore the enormous costs that the mining industry had externalized onto coalfield communities, and in 1977 Congress passed the Surface Mining Control and Reclamation Act (SMCRA) to counter the impacts of unregulated mining. SMCRA was intended to promote social and environmental justice in coalfield communities through a strict regulatory program that would hold coal companies accountable for their actions. Congress gave the Office of Surface Mining Reclamation and Enforcement (OSM) in the Department of the Interior authority to issue regulations, approve or disapprove state permit programs, oversee state administration, and provide federal programs for states that do not take over administration.²⁹⁷ SMCRA recognized mountaintop removal as a legitimate mining technique, albeit one that requires stringent regulation and reclamation.

Under the 1980 Solid Waste Disposal Act Amendments, the EPA was to determine how to regulate the massive quantities of coal ash waste within two years of enactment.²⁹⁸ Although the EPA promised to develop disposal standards, it has failed to do so.²⁹⁹

In 2008, a huge coal ash pond at the Kingston power plant burst, dumping 300 million gallons of sludge into the adjacent river and the surrounding lands.³⁰⁰ Officials at the Tennessee Valley Authority, which operates the plant, initially said that 1.7 million cubic yards of wet ash spilled when the retaining wall of the pond gave way.³⁰¹ The TVA subsequently obtained an aerial survey that showed the actual amount of ash was 5.4 million cubic yards, or enough to cover 3,000 acres one foot deep.³⁰² River water tested

Ash Spill Revives Issue of Its Hazards, N.Y. TIMES, Dec. 25, 2008, at A1, available at <http://www.nytimes.com/2008/12/25/us/25sludge.html>.

295 See *Toxics Release Inventory (TRI) Program*, ENVTL. PROT. AGENCY, <http://www.epa.gov/tri/> (last visited Mar. 9, 2012) (listing electric utility industry as second to the paper industry in terms of toxic releases).

296 Zellmer, *Mountaintop Removal*, *supra* note 277, at 2.

297 30 U.S.C. § 1211 (2006).

298 42 U.S.C. § 6982(n) (2006).

299 Notice of Regulatory Determination on Wastes from the Combustion of Fossil Fuels, 65 Fed. Reg. 32,214 (May 22, 2000) (codified at 40 C.F.R. pt. 261); Schaeffer, *supra* note 294, at 133–34.

300 Dewan, *supra* note 294.

301 *Id.*

302 Shaila Dewan, *Tennessee Ash Flood Larger Than Initial Estimate*, N.Y. TIMES, Dec. 27, 2008, at A10.

near the spill showed elevated levels of lead and thallium, which can cause birth defects and other serious health disorders.³⁰³

The Kingston coal ash pond is just one of over 1,300 similar impoundments in the United States.³⁰⁴ Many of these dumps contain arsenic, lead, mercury, selenium, and other harmful heavy metals. Yet they are not subject to federal regulation.³⁰⁵ “Water contaminated by coal ash violated federal drinking water or health standards at [sic] at least 197 sites in 37 states,” according to the environmental group Earthjustice.³⁰⁶ The EPA gave forty-five ponds a “high hazard potential rating,” meaning that if the ponds break, lives would be lost.³⁰⁷ In the two years following the Kingston spill, power plants deposited over 200 million tons of ash or sludge into ponds and landfills.³⁰⁸

If coal ash were categorized as a hazardous waste, the EPA would have direct authority over it, rather than leaving it to the states, and new, more protective handling procedures would be imposed on utilities.³⁰⁹ In the wake of the Kingston disaster, the EPA proposed hazardous waste-coal ash regulation, but opposition from Congress brought the rulemaking to a standstill.³¹⁰

303 Shaila Dewan, *Huge Coal Ash Spills Contaminating U.S. Water*, N.Y. TIMES (last visited Mar. 9, 2013), <http://www.nytimes.com/2009/01/07/world/americas/07iht-sludge.4.19164565.html?pagewanted=all>; see LINDA LUTHER, CONG. RESEARCH SERV., R41341, REGULATING COAL COMBUSTION WASTE DISPOSAL: ISSUES FOR CONGRESS 6–7 (2012) (listing antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, nickel, selenium, silver, and thallium as contaminants present in coal ash and noting that “[t]he disposal of CCW [coal combustion waste] is essentially exempt from federal regulation”).

304 *Id.*

305 *Id.*; see LINDA LUTHER, CONG. RESEARCH SERV., R42847, H.R. 2273 AND S. 3512: ANALYSIS OF PROPOSALS TO CREATE A COAL COMBUSTION RESIDUALS PERMIT PROGRAM UNDER RCRA (2012), available at http://earthjustice.org/sites/default/files/CRS_Rpt_R42847.pdf.

306 Juliet Eilperin, *Coal Ash Decision Stymied in Election Year*, WASH. POST (Oct. 14, 2012), available at http://articles.washingtonpost.com/2012-10-14/national/35499874_1_coal-ash-ash-ponds-hazardous-waste.

307 *Id.*

308 *News Advisory*, ENVIRONMENTAL INTEGRITY PROJECT (Dec. 21, 2012), available at http://www.environmentalintegrity.org/news_reports/documents/122112EIP TVA Anniversary ReportnewsadvisoryFINAL1.pdf.

309 Eilperin, *supra* note 306.

310 Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals from Electric Utilities, 75 Fed. Reg. 35,128 (June 21, 2010), (codified at 40 C.F.R. pt. 257, 261, 264, 265, 268, 271, 302); see Lisa Evans, *Groups Across U.S. United Against Coal Ash Bill*, EARTHJUSTICE (Sept. 14, 2012, 11:27 AM), <http://earthjustice.org/blog/2012-september/groups-across-u-s-unite-against-coal-ash-bill> (describing opposition to S. 3512, the Coal Ash Recycling and Oversight Act of 2012, which would prevent the EPA from issuing regulations for coal ash sludge or wastewater); Ken Ward Jr., *Years After Tenn. Disaster, Coal-Ash Rules Still Stalled*, CHARLESTON GAZETTE-MAIL (Dec. 22, 2012), <http://wvgazette.com/News/201212220034> (describing companion House bill); see also Eilperin, *supra* note 306 (“Despite ongoing controversy—in the last week and a half alone environment groups have sued 14 power plants in North

In addition, national effluent standards for toxic wastewater discharges from ash ponds should have been established under the CWA several decades ago, but they too have yet to be issued.³¹¹ As a result of a threatened lawsuit by Defenders of Wildlife and other environmental groups, EPA agreed to a consent decree with a 2014 deadline for issuing the effluent standards.³¹² EPA plans to coordinate its rules for both wastewater discharges under the CWA and coal ash disposal under RCRA.³¹³ However, the wastewater rulemaking has been delayed once again, and the timing of both rules remains uncertain.³¹⁴

III. CONGRESS IS BROKEN

There's something unique afoot in Congress in recent decades. From the heightened influence of campaign financing to a dramatic increase in the use of filibusters, significant institutional forces are working against substantive legislative initiatives. No doubt, when it comes to legal reforms, “[courts]—and indeed the law itself—have a cultural conservative bias. Grounded in rules, orderliness, and stability, they inevitably tilt toward the

Carolina and four in Illinois over coal ash contamination—no one expects anything more to happen before the election.”); Robert B. Semple Jr., *Last Lap for Transportation Bill*, N.Y. TIMES, June 24, 2012, at SR-12, available at <http://www.nytimes.com/2012/06/24/opinion/sunday/last-lap-for-transportation-bill.html> (“[T]he House has tied itself in knots . . . with extraneous amendments . . . requiring President Obama to approve the risky Keystone XL pipeline, shortchanging environmental reviews and preventing the Environmental Protection Agency from regulating toxic coal ash.”). For the likely effects of the pending bills, see LUTHER, *supra* note 305.

311 33 U.S.C. § 1311 (2006).

312 *Groups Applaud EPA Action to Reduce Water Pollution From Power Plants*, PR NEWSWIRE (Nov. 9, 2010), <http://www.prnewswire.com/news-releases/groups-applaud-epa-action-to-reduce-water-pollution-from-power-plants-106957693.html>.

313 See *id.* (explaining that EPA officials have tried to coordinate efforts to revise the power plant effluent limitation guideline under the CWA and the coal combustion residuals disposal rule under RCRA).

314 *Id.*; see *EIP and Allies Agree to Short-Term Extension for Release of EPA Toxic Wastewater Guidelines*, ENVIRONMENTAL INTEGRITY PROJECT (Dec. 11, 2012), http://www.environmentalintegrity.org/news_reports/12_11_2012.php; *OMB's Role in Regulation: Helping or Hurting?*, CTR. FOR PROGRESSIVE REFORM, <http://www.progressivereform.org/OMBrole.cfm> (arguing that the White House Office of Information and Regulatory Affairs (OIRA) “saddled EPA’s original proposal with a cost-benefit analysis that would make it all but impossible for EPA to describe plainly hazardous coal ash as a hazard”); Ben Somberg, *Coal Ash Comments Submitted: Get Serious, Please*, CPRBLOG (Nov. 19, 2010), <http://www.progressivereform.org/CPRBlog.cfm?idBlog=6526AB97-F7B7-5041-07C82CA8D677CDB3> (arguing that EPA must retake control of a process “hijacked by OIRA,” and that President Obama must force OIRA “to stop serving as a conduit for industry, and to leave the scientific judgments in the hands of the agencies designated by Congress”); *Steinzor Comments on EPA’s Coal Ash Proposal*, CTR. FOR PROGRESSIVE REFORM (Nov. 19, 2010), http://www.progressivereform.org/articles/Coal_Ash_Comments_NR_111910.pdf (placing the blame for the failed rulemaking efforts primarily on OIRA, which imposed a watered-down, regulation on EPA).

status quo.”³¹⁵ Yet legislative reforms do occasionally pass, and people expect their elected representatives to make improvements in the laws that govern our daily lives and well-being. Although Congress has managed to break the gridlock and pass remedial packages in certain areas, such as health care and banking, since 1990, it has been virtually useless when it comes to environmental law.

A. *Partisanship and Money*

In recent years, institutional impediments to legislative action have gained force. Among the most troubling of these changes include exemptions from campaign financing limits, the growth of powerful and uncompromising single-issue interest groups, and the increasing frequency of filibusters in the U.S. Senate.³¹⁶ While other scholars have addressed these issues more extensively,³¹⁷ a brief assessment is warranted here.

The Senate has become “the highest hurdle” for legislation to clear.³¹⁸ The difficulty of passing laws in the Senate is by design, to some extent.³¹⁹ The *Federalist Papers* and the Records of the 1787 Convention are peppered with statements about how the Senate should restrain the “excess of law-making,” which Madison and others described as a “disease[] to which our governments are most liable,”³²⁰ and, in particular, to “check the precipitation, changeableness, and excesses” of the rabble-rousers in the House.³²¹ In recent decades, however, the Senate has operated as a super-majoritarian body due to the routine use of the filibuster and related devices.³²² Accord-

315 John D. Leshy, *Reflections on Social Change and Law Reform*, 84 COLO. L. REV. 217, 219 (2013).

316 LAWRENCE LESSIG, *REPUBLIC, LOST* (2011); Elliott, *supra* note 19, at 39; Leshy, *supra* note 315, at 220–21.

317 For examples of this discussion from this Symposium, see Gerard N. Magliocca, *Don't Be So Impatient*, 88 NOTRE DAME L. REV. 2157 (2013); John C. Roberts, *Gridlock and Senate Rules*, 88 NOTRE DAME L. REV. 2189 (2013).

318 Aaron-Andrew P. Bruhl, *The Senate: Out of Order?*, 43 CONN. L. REV. 1041, 1046 (2011); see Barbara Sinclair, *The New World of U.S. Senators*, in CONGRESS RECONSIDERED 1, 17–18 (Lawrence Dodd & Bruce Oppenheimer eds., 9th ed. 2009) (detailing the increase in the number of bills passed in the House but not the Senate).

319 See Leshy, *supra* note 315, at 219 (describing the law’s inherent bias toward stability).

320 Bruhl, *supra* note 318, at 1048 n.28 (citing THE FEDERALIST NO. 62, at 378 (James Madison) (Clinton Rossiter ed., 1961)); see Ewing & Kysar, *supra* note 30, at 353–54 (2011) (“Our ‘preference for passivity,’ built out of ‘the idea that we are more endangered by government action than inaction,’ has become a dangerously double-edged sword . . . [E]ffective public action may be thwarted by Madison’s all-too-familiar nightmare, in which ‘heterogeneity of interests . . . prevent[s] the majority coalition from doing anything at all . . . while simultaneously facilitating the ability of self-interested minorities to loot the federal fisc.” (alteration in original) (footnote omitted)).

321 I THE RECORDS OF THE FEDERAL CONVENTION OF 1787, at 512 (Max Farrand ed., 1966).

322 See Bruhl, *supra* note 318, at 1043–44. Some types of legislation are not subject to filibusters, including certain trade agreements and some aspects of the federal budget.

ing to Senator Tom Udall, there have been more filibusters since 2006 than the total that were in play between 1920 and 1980.³²³ The Senate Republicans of the 111th Congress broke the record for the number of filibusters in a session, passing 100 cloture votes in the first eleven months.³²⁴

By any of the standard measurements of legislative productivity—the total number of bills passed, the number of floor votes taken in each chamber, or the number of bills signed into law—Congress had its least-productive year in modern history in 2011³²⁵ and was well on its way to the least productive session in modern history.³²⁶ It passed only eighty bills in 2011, which is far fewer than any other session since the infamous “do nothing” 80th Congress of 1947-1948, and only half as many as the next worse Congress (the 104th Congress of 1995-1996).³²⁷

There was little improvement when the 111th Congress gave way to the 112th, which is being billed as the “most polarized [session] since the end of Reconstruction.”³²⁸ This is saying quite a lot, considering that all five of the

SARAH A. BINDER & STEVEN S. SMITH, *POLITICS OR PRINCIPLE? 185-94* (1997); Bruhl, *supra* note 318, at 1047 n.26.

323 Tom Udall, *Senate Rules: Common Sense Reform*, TOM UDALL: SENATOR FOR NEW MEXICO (Dec. 6, 2012), <http://www.tomudall.senate.gov/?p=blog&id=1151>.

324 Steven R. Hurst, *GOP Filibuster Record: Republicans Using Obstruction Tool with Astonishing Frequency*, HUFF. POST POLITICS (Mar. 1, 2010, 2:03 PM), http://www.huffingtonpost.com/2010/03/01/gop-filibuster-record-rep_n_480722.html; see Julian Zelizer, *Gridlock in Congress? Blame the GOP*, CNN OPINION (May 21, 2012, 8:55 AM), <http://www.cnn.com/2012/05/21/opinion/zelizer-congress-polarization> (“Since 2007, the Senate Historical Office has shown, Democrats have had to end Republican filibusters more than 360 times, a historic record.”). The only way to stop a filibuster is by invoking cloture under Senate Rule XXII. *Filibuster and Cloture*, U. S. SENATE http://www.senate.gov/artandhistory/history/common/briefing/Filibuster_Clature.htm (last visited Mar. 9, 2013).

325 Stephen Dinan, *Congress Logs Most Futile Legislative Year on Record*, WASH. TIMES, (Jan. 15, 2012), available at <http://www.washingtontimes.com/news/2012/jan/15/congress-logs-most-futile-legislative-year-on-reco/?page=all>.

326 Ezra Klein, *14 Reasons Why This Is the Worst Congress Ever*, WASH. POST: WONKBLOG, (July 13, 2012, 8:00 AM), <http://www.washingtonpost.com/blogs/wonkblog/wp/2012/07/13/13-reasons-why-this-is-the-worst-congress-ever/>.

327 *Id.* Although it passed few bills, the 111th Congress passed at least one very significant piece of legislation signed by the President: the Health Care Law, which was enacted in 2010. See, e.g., NPR Staff and Wires, *Obama Signs Historic Health Care Legislation*, NPR (Mar. 23, 2010, 10:57 AM), <http://www.npr.org/templates/story/story.php?storyId=125058400>. It also appropriated over \$1 trillion to revive the economy. Brad Plumer, *The Stimulus Bill, Three Years Later*, WASH. POST: WONKBLOG (Feb. 17, 2012, 4:30 PM), http://www.washingtonpost.com/blogs/wonkblog/post/the-stimulus-bill-three-years-later/2012/02/17/gIQAdS2LKR_blog.html.

328 *Id.* One way to determine the level of polarization in Congress is the Congressional Quarterly’s Party Unity score, which measures how many times a majority of one party opposed a majority of the other. “In 2011 . . . the House set a new record on that measure, with 75.8 percent of its roll call votes pitting Democrats and Republicans against each other.” *Id.* The DW-Nominate system, which measures coalitions in Congress—who votes together and how often—places the 112th Congress at the top of the polarization scale since Reconstruction, too. *Id.*

worst performances on record were in the past decade, according to an analysis by *The Washington Times*.³²⁹ Four of those sessions were when Democrats were in control and Republicans were in the minority.³³⁰ In many ways, however, the fifth one—the 112th Congress’s Republican-controlled House—has been worse. Instead of passing any of the requisite appropriations bills that keep the government running,³³¹ and instead of raising the debt ceiling to ensure against a government default on international loans and a global financial crisis, the House devoted immense amounts of time attempting to repeal the 2008 Affordable Care Act—the Democrats’ “signature legislative achievement.”³³² In fact, as of September 2012, the House had voted *thirty-three times* to repeal the Act, despite the absolute certainty that the Senate and the President would never authorize repeal.³³³

Perhaps the inability to get things done is a reflection of divided government.³³⁴ After all, when there is a member of one party in the White House and a different party in either the House or the Senate (or both), it is not easy to set aside partisan differences and hammer out compromise agreements that can be enacted as law. However, there have been many instances of divided government during periods of immense legislative activity. Even the 104th Congress somehow managed to pass 333 laws, despite concerted efforts of Republican Speaker of the House Newt Gingrich to stonewall President Clinton and the Democrats in Congress at every turn.³³⁵

Then why are we seeing so much grandstanding in recent sessions? And why is so little attention being paid to the public interest? Professor Lessig explains the etiology and consequences of today’s campaign-finance-driven, self-aggrandizing Congress:

[C]orruption does indeed wreck our democracy. . . . [It is fostered by a congressional] system that has evolved the most elaborate and costly bending of democratic government in our history. . . .

329 Dinan, *supra* note 325.

330 *Id.* (“Using the Resume of Congressional Activity, printed in the Congressional Record at the end of each year since 1947, The Times ranked each session on all six of the measures, then compiled the rankings into a ‘legislative futility’ index. In 2011, the Senate ranked poorly on all measures relating to bills. . . . [Although] [t]he House record was more mixed[,] . . . it passed the fewest number of bills in its history and had fewer bills signed by the president than any other Congress. . . .”).

331 Klein, *supra* note 326. The 112th Congress is not the first Congress to fail to pass the thirteen appropriations bills that fund the federal government, but most have passed at least three of them. The 112th Congress has passed *none*. *Id.*

332 *Id.*

333 *Id.* See Democratic Leader’s Press Office, *Polling Memo: The GOP’s blemished brand - “Still Dog Food,”* Cong. Docs., Oct. 3, 2012, 2012 WLNR 21031645 (“The GOP can’t find time to work on jobs, a Farm Bill, or the Violence Against Women Act, but they found enough to vote more than 30 times to repeal the Affordable Care Act.”).

334 See DANIEL PATRICK MOYNIHAN, *MILES TO GO* (1996) (“[I]n the Senate a party can win a majority, organize the body, and need minority votes the very next week.”).

335 See Klein, *supra* note 326.

... [W]hen democracy seems a charade, we lose faith in its process. ... [T]o more rational souls, the charade is a signal: spend your time elsewhere, because this game is not for real. Participation thus declines, especially among the sensible middle.³³⁶

According to Lessig, when “rational souls” drop out, public policy “gets driven by the extremists at both ends.”³³⁷ Thomas E. Mann and Norman J. Ornstein agree that we are experiencing the most dysfunctional Congress of the past forty years, but they place the blame squarely on the Republicans in both houses of Congress.

[W]e have no choice but to acknowledge that the core of the problem lies with the Republican Party.

The GOP has become an insurgent outlier in American politics. It is ideologically extreme; scornful of compromise; unmoved by conventional understanding of facts, evidence and science; and dismissive of the legitimacy of its political opposition.³³⁸

Mann and Ornstein conclude, “When one party moves this far from the mainstream, it makes it nearly impossible for the political system to deal constructively with the country’s challenges.”³³⁹

Yet despite these impediments, in the past decade, reform legislation has been adopted in national security,³⁴⁰ banking and bankruptcy,³⁴¹ whistleblowing,³⁴² patent law,³⁴³ wages,³⁴⁴ and health care.³⁴⁵ Part of it is

336 LESSIG, *supra* note 316, at 8–9.

337 *Id.* at 9.

338 Thomas E. Mann & Norman J. Ornstein, *Let’s Just Say It: The Republicans are the Problem*, WASH. POST: OPINIONS (Apr. 27, 2012), http://articles.washingtonpost.com/2012-04-27/opinions/35453898_1_republican-party-party-moves-democratic-party. Mann and Ornstein expanded on this riff in their recent book. THOMAS E. MANN & NORMAN J. ORNSTEIN, *It’s Even Worse Than It Looks* (2012). The authors make an extraordinarily credible partnership—Mann is a fellow at the Brookings Institution, often billed as a liberal or centrist think tank, and Ornstein is a scholar at the American Enterprise Institute, which has a conservative reputation.

339 Mann & Ornstein, *supra* note 338.

340 After September 11, 2001, Congress passed eight major statutes addressing terrorism and national security. Peter Baker & Jonathan Weisman, *Deal Spotlights Rarity of Bipartisan Action*, WASH. POST, Jan. 25, 2008, at A10, available at <http://www.washingtonpost.com/wp-dyn/content/article/2008/01/24/AR2008012402993.html>. One of these, the Homeland Security Act of 2002, created the Department of Homeland Security—the first new cabinet department since 1989. 6 U.S.C. § 316 (2006).

341 The Bankruptcy Abuse Prevention and Consumer Protection Act of 2005, S. 256, has been billed as the most substantial revision of bankruptcy law since the 1978 Bankruptcy Code. Eugene R. Wedoff, *Major Consumer Bankruptcy Effects of the 2005 Reform Legislation*, SL068 ALI-ABA 1 (Apr. 13, 2005), available at http://www.ilnb.uscourts.gov/opinions/JudgeWedoff/s256_main_points6.pdf.

342 In 2010, in response to a series of corporate scandals that defrauded countless investors, Congress enacted the Dodd-Frank Wall Street Reform and Consumer Protection Act, one of the most significant financial reform efforts since the Great Depression. Section 922 amended the Securities Exchange Act of 1934 by adding § 78-u6, entitled “Securities Whistleblower Incentives and Protections.” 15 U.S.C. § 78u-6 (Supp. 2011).

crisis driven—from the September 11 attacks to the mortgage meltdown to the Enron scandal. But even when facing dire circumstances, several of these bills “barely survived despite the Democrats’ numerical strength, and they did so only in a highly compromised (some might say disfigured) form.”³⁴⁶

It is no stretch to conclude that Congress is broken, and many credible scholars and political analysts have done just that.³⁴⁷ While it may be possible to reform some of the problems that plague Congress, including the excessive use of the filibuster in the Senate, it would be exceedingly difficult, particularly when it comes to environmental law, and it may not be worth the candle.³⁴⁸

B. Congressional Apathy Toward the Environment

If national security breaches, banking scandals, and other crises have acted—albeit rarely—to break up the logjam in Congress, why haven’t environmental crises stimulated some kind of response? Most tellingly, there has been no comprehensive substantive response to the BP Deepwater Horizon blowout, despite its environmental devastation and long-lasting societal and economic impacts.³⁴⁹ Similarly, Hurricanes Katrina and Sandy prompted

This new Section required the SEC to enact a whistleblower program to pay rewards to individuals who provide information about possible securities violations. Dodd-Frank significantly improved existing whistleblower-protection laws, most notably the relevant provisions of the Sarbanes-Oxley Act of 2002. See Richard E. Moberly, *Sarbanes-Oxley’s Structural Model to Encourage Corporate Whistleblowers*, 2006 B.Y.U. L. REV. 1107, 1108, 1138–41 (2006) (analyzing ability of Sarbanes-Oxley to motivate and protect employee whistleblowers who attempt to expose wrongdoing).

343 Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (codified in various sections of 35 U.S.C.); see Nicholas W. Stephens, *From Forest Group to the America Invents Act: False Patent Marking Comes Full Circle*, 97 IOWA. L. REV. 1003, 1006 (2012) (assessing the new patent law).

344 Ledbetter Fair Pay Act of 2009, 42 U.S.C. § 2000e-5(e) (Supp. III 2009) (superseding *Ledbetter v. Goodyear Tire & Rubber Co.*, 550 U.S. 618 (2007)).

345 See *Nat’l Fed’n of Indep. Bus. v. Sebelius*, 132 S.Ct. 2566 (2012) (reviewing the Patient Protection and Affordable Care Act., 26 U.S.C. § 5000A). Going back even further, when the Court struck down a portion of the Religious Freedom Restoration Act of 1993 (RFRA), 42 U.S.C. §§ 2000bb–2000bb-4 (1994), in *City of Boerne v. Flores*, 521 U.S. 507 (1997), Congress took corrective action by passing the Religious Land Use and Institutionalized Persons Act of 2000 (RLUIPA), 42 U.S.C. §§ 2000cc–2000cc-5 (2000).

346 Bruhl, *supra* note 318, at 1045. “The healthcare law was profoundly influenced by the need to secure sixty votes. The stimulus bill took the shape it did based largely on the need to satisfy Susan Collins, a minority-party Senator What made her critical was her ability to deliver the pivotal sixtieth vote.” *Id.* at 1045–46 (footnotes omitted).

347 See *supra* notes 316, 317, 336–38, and accompanying text.

348 See Bruhl, *supra* note 318, at 1053–54 (explaining that the difficulty of reforming the Senate stems from the Senate’s own rules for changing the rules).

349 See *supra* Part III.B.2.

only modest changes in federal law,³⁵⁰ and other deeply troubling environmental issues have received no remedial action from Congress.³⁵¹

It is fair to surmise, then, that there is something unique about environmental law that exacerbates tendencies to gridlock. In 2008, the New York University School of Law devoted a two-volume symposium issue of its environmental journal to the environmental “logjam” in Congress.³⁵² The issue included over thirty articles from scholars, government officials, representatives of non-profit organizations and think tanks, and students. The vast majority of these articles grappled with the reasons for, and the consequences of, the past twenty years of environmental gridlock. According to the symposium organizers, there are four primary reasons for the logjam: (1) people want greater environmental protection but aren’t willing to pay for it; (2) current regulatory approaches foster turf wars between federal and state regulators, wasting resources and good will; (3) existing statutory provisions make it difficult to openly weigh environmental and economic trade-offs; and (4) regulatory approaches are too compartmentalized by media-specific and agency-specific (and even agency division-specific) tasks and objectives operating independently of each other.³⁵³ These reasons may explain some of the resistance to congressional reform, but there are other compelling reasons as well. In particular, many of the most pressing problems of the 1970s have already been addressed, with a reasonable degree of success,³⁵⁴ and the remaining environmental issues are more complex, more difficult, more transboundary in nature, and more controversial:

[E]nvironmental law has been a victim of its own success. Our area is no longer in a crisis (or perceived crisis) that causes it to take priority over other more pressing national problems such as terrorism and the financial crisis—as it once was when the Cuyahoga River caught fire, Kepone poisoned the James River, children in the inner city suffered retardation from lead in gasoline, and we believed that PCBs and other chlorinated organics were causing wide-spread sterility in the animal kingdom and otherwise destroying nature.³⁵⁵

In addition, there was a greater degree of respect for science in the 1970s and 1980s. By contrast, the modern Congress has exhibited a remarkable degree of disdain for science in just about every area,³⁵⁶ but especially

350 See *supra* Part III.B.1.

351 See *supra* Part III.B.2–4.

352 17 N.Y.U. ENVTL. L. J. 1, 1–1046 (2008). Three of the organizers subsequently published a book on the subject: DAVID SCHOENBROD ET. AL., *BREAKING THE LOGJAM* (2010).

353 SCHOENBROD, *supra* note 352, at 4–7. The authors propose four corresponding principles to guide environmental reform efforts. Two of them would rely more heavily on market-based approaches and more (quantity and quality) cost-benefit analyses. The third would devolve more responsibility to state and local governments. The fourth, which is the only one I support, would make regulatory approaches less compartmentalized and more holistic and polycentric. *Id.* at xii.

354 See Zellmer, *supra* note 40, at 1233.

355 Elliott, *supra* note 19, at 37.

356 See *supra* note 338 and accompanying text (quoting Mann and Ornstein).

when it comes to the environment.³⁵⁷ Its scorn has been especially evident in debates about climate change.³⁵⁸ Professor Angelo describes this new “anti-science” movement:

[T]he public and our political systems [are] becoming more skeptical of science and less open to incorporating new scientific developments into the law. . . . [S]cience frequently is used to justify predetermined results. If the scientific information does not support the predetermined result, it is ignored or discredited as being “junk science.”³⁵⁹

The problems of the 1970s were both more tangible and more personal, which made seemingly hyper-technical scientific debates less necessary. By 1970, both Congress and the White House had taken notice of “a rising surge of deeply-felt moral, cultural, and communitarian public expectations and demands.”³⁶⁰ Smoldering and foamy rivers, beach closings, fish kills, species extinctions, and publicity about carcinogenic chemicals and radiation from nuclear power plants fueled the public’s concern. According to John Whitaker, who served as President Nixon’s Domestic Council Associate Director for Environmental Policy, “there is still only one word, *hysteria*, to describe the Washington mood on the environment issue in the fall of 1969.”³⁶¹ Thousands of demonstrations took place across the nation, including on the first Earth Day on April 22, 1970, showing an intense level of public engagement.³⁶²

In addition to fear, Americans felt shame, too, particularly when the first astronauts came back from the moon with stunning—and humbling—images of the continent “covered with clouds of pollution.”³⁶³ Senator Edmund Muskie gave voice to these sentiments:

We are confronted with the terrible prospect that the American dream of the good life may turn out to be a nightmare. Our efforts to improve our

357 See Mary Jane Angelo, *Harnessing the Power of Science in Environmental Law: Why We Should, Why We Don't, and How We Can*, 86 *TEX. L. REV.* 1527, 1530–34 (2008).

358 See JAMES LAWRENCE POWELL, *THE INQUISITION OF CLIMATE SCIENCE* 187 (2011) (“The clock is ticking. Our leaders do not have the luxury of waiting decades to find out if scientists are right about global warming.”).

359 Angelo, *supra* note 357, at 1564 (footnote omitted); see Holly Doremus, *Scientific and Political Integrity in Environmental Policy*, 86 *TEX. L. REV.* 1601, 1611–17 (2008) (describing the recent trend of politicizing science either by government officials pressuring agency scientists to alter results to support their political agenda or by criticizing scientists’ work as junk science whenever it cuts against the political agenda).

360 Mark Sagoff, *The Principles of Federal Pollution Control Law*, 71 *MINN. L. REV.* 19, 23 (1986).

361 JOHN C. WHITAKER, *STRIKING A BALANCE* 27 (1976). Whitaker was also the Undersecretary of Interior. *John C. Whitaker*, NIXON PRESIDENTIAL LIBRARY & MUSEUM, <http://www.nixonlibrary.gov/forresearchers/find/textual/central/smaf/whitaker.php> (last visited Mar. 9, 2013).

362 Sagoff, *supra* note 360, at 27. Sagoff draws parallels with the Civil Rights Movement, which also demonstrated a high degree of public engagement in politics, and the public’s demands for human rights, protection, and compensation. *Id.* at 24.

363 *Id.* at 26.

lives may have created hazards from which there is no escape. From this time forward we must devote as much energy and ingenuity to the elimination of man-made hazards to man as we have to the expansion of his ability to harness energy and materials to his desires.³⁶⁴

Both political parties rushed, opportunistically, to respond to public sentiment.³⁶⁵ Beginning with the 1968 election, both touted environmental protection as their clarion cry, and both the Nixon White House and Congress, which was controlled by Democrats, competed for the environmental torch.³⁶⁶ The result was “a process of ambitious, aspirational environmental legislation.”³⁶⁷ The CWA, the Clean Air Act, the ESA, and NEPA are among these statutes.³⁶⁸

By the 1980s, most Americans still supported the “grand vision” of the 1970s environmental legislation—a vision that former EPA Administrator William Ruckelshaus described as “the essential unity of nature and of the need for bringing industrial society into harmony”³⁶⁹ But the public’s belief that the nation could achieve the ambitious environmental aspirations of the 1970s through stringent technology-forcing legislation had been shaken.³⁷⁰ Statutory deadlines were missed, horror stories of expensive but ineffective regulations abounded, and people lost faith in the government’s

364 Edmund Muskie, . . . and from Senator Muskie, in *THE ENVIRONMENT* 15, 16 (Fotune ed., 1970).

365 Elliott, *supra* note 19, at 40; see Sagoff, *supra* note 360, at 21–22 (describing how environmental law grew up in the 1970s, when “[e]ditorial opinion, political rhetoric, and expert testimony” came together with public sentiment to “condemn[] pollution as a symbol of national irresponsibility for which the country would pay dearly”)

366 See Lazarus, *supra* note 1, at 53–54 (2004); see E. Donald Elliott et al., *Toward a Theory of Statutory Evolution: The Federalization of Environmental Law*, 1 *J.L. ECON. & ORG.* 313, 324, 335–37 (1985) (describing the competition between Senator Muskie and President Nixon as a “politicians’ dilemma,” which resulted in a version of the Clean Air Act that was “more stringent than either of them would have preferred” due to their “policy escalation”); David Vogel, *A Big Agenda*, 11 *WILSON Q.* 50, 57–58 (1987) (describing the “bidding war” between Muskie and Nixon leading to the Clean Air Act of 1970).

367 Elliott, *supra* note 19, at 40.

368 Other major pieces of legislation passed in the 1970s—and still intact today—include the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. §§ 136–136y (Supp. II 1972); the Toxic Substances Control Act, 15 U.S.C. §§ 2601–2629 (1982 & Supp. III 1985); the Safe Drinking Water Act, 42 U.S.C. §§ 300f–300j-10; and the Resource Conservation and Recovery Act of 1976, 42 U.S.C. §§ 6901–6987 (1976). Keystone public land conservation statutes were enacted as well, including the National Forest Management Act of 1976, 16 U.S.C. §§ 1600–1614 (1976), and the Federal Lands Policy and Management Act of 1976, 43 U.S.C. §§ 1701–1784 (1976).

369 Sagoff, *supra* note 360, at 19 (citing William D. Ruckelshaus, *Risk, Science, and Democracy*, 1 *ISSUES SCI. & TECH.* 19, 30 (1985)).

370 *Id.* at 19–20. According to Sagoff:

[T]he sharp dichotomy between moral ends and prudential or expedient means allows a distance to develop between legislated goals and the policies promulgated to implement them. . . . [I]nadequate implementation plans are approved, deadlines are allowed to slip, violations are left unmonitored, compromising consent decrees are signed, harmful pollutants are not listed, standards are set partly

ability to identify the most serious environmental problems, to set appropriate priorities, and to develop and enforce “technologically workable and politically viable” regulatory solutions.³⁷¹ At the same time, the Reagan administration’s deregulatory agenda was fostering a major change in institutional direction.³⁷² Government regulation became the enemy, as it was perceived as causing “higher prices, higher unemployment, and lower productivity growth.”³⁷³ The Reagan administration was especially adept at placing its anti-regulatory message at the heart of the public debate, “from lobbying and campaign contributions to litigation and think tanks.”³⁷⁴

In 1981, President Reagan issued his regulation-curbing Executive Order 12,291, which requires agencies to employ cost-benefit analyses for all major proposed regulations.³⁷⁵ As a result, EPA and other regulatory agencies increasingly relied on economic methods to craft and constrain their initiatives, even when the statutes being implemented did not require such methods.³⁷⁶

on economic grounds, scientific evidence is scanty and uncertain, and resolutions are delayed indefinitely in litigation

Id. at 82–83. As a result, people feel that the law has lost touch with reality, and they no longer support it, even though they agree with its aspirational goals. *Id.* at 83.

371 See Adam Babich, *Understanding the New Era in Environmental Law*, 41 S.C. L. REV. 733, 736–37 (1990) (“The enormous scope and complexity of environmental problems and resulting scientific and political uncertainties explain much of this failure. . . . A more fundamental cause is rooted in the seemingly inherent inability of large government bureaucracies to accomplish their missions efficiently.”). For critical assessments of the shortcomings of the 1970s-era pollution control laws, see Edmund Muskie, *Reflections on a Quarter Century of Environmental Activism: On Postponing Deadlines, Second-Guessing the Congress, and Ignoring Problems Until It Is Too Late*, 18 ENVTL. L. REP. 10081 (1988), and Barry Commoner, *Failure of the Environmental Effort*, 18 ENVTL. L. REP. 10195 (1988).

372 See Jeffrey Rudd, *The Evolution of the Legal Process School’s “Institutional Competence” Theme: Unintended Consequences for Environmental Law*, 33 ECOLOGY L.Q. 1045, 1048 (2006).

373 William E. Kovacic, *The Reagan Judiciary and Environmental Policy: The Impact of Appointments to the Federal Courts of Appeals*, 18 B.C. ENVTL. AFF. L. REV. 669, 673 (1990) (internal quotation marks omitted).

374 Jedediah Purdy, *Our Place in the World: A New Relationship for Environmental Ethics and Law*, 62 DUKE L. J. 857, 859 (2013). The anti-regulatory movement infiltrated the federal judiciary as well; President Reagan consistently appointed conservative judges to the Supreme Court and the lower federal courts as part of his anti-regulatory agenda. Kovacic, *supra* note 373, at 678–79.

375 Executive Order No. 12,291, 46 Fed. Reg. 13193 (Feb. 19, 1981).

376 See Rudd, *supra* note 372, at 1075–76; see also CASS R. SUNSTEIN, RISK AND REASON, 19–22 (2002); Douglas A. Kysar, *Climate Change, Cultural Transformation, and Comprehensive Rationality*, 31 B.C. ENVTL. AFF. L. REV. 555, 558 (2004) (analyzing cost-benefit analysis in the climate change policymaking). According to Professor Richard Lazarus, the administration’s emphasis on property rights and free market economics sparked a backlash of public resistance to deregulation. Richard J. Lazarus, *The Greening of America and the Gray-ing of United States Environmental Law: Reflections on Environmental Law’s First Three Decades in the United States*, 20 VA. ENVTL. L.J. 75, 85–86 (2001). He argues that environmental law’s normative foundations remained secure until the Republicans gained control of Congress in 1994 and launched their anti-regulatory “Contract with America.” *Id.* at 92–93; Richard

Despite the anti-regulatory rhetoric of the 1980s, Congress was not quite ready to give up on regulatory approaches.³⁷⁷ However, it began to broaden its conception of environmental law. Motivated by highly publicized disasters such as Love Canal and Times Beach, it turned to the common law tort system, which relies on civil liability as a means to control harmful behavior, such as pollution control.³⁷⁸ The preeminent example of this new approach to pollution control is the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA),³⁷⁹ widely known as Superfund, which imposes strict liability on parties responsible for releases of hazardous substances, and the Superfund Amendments and Reauthorization Act of 1986 (SARA), which created the Emergency Planning and Community Right-to-Know Act (EPCRA).³⁸⁰ These statutes shifted the focus from prospective regulation implemented by permit-wielding agencies to retroactive liability. They also placed greater responsibility on the private sector—both businesses, who must analyze and address their potential environmental liabilities or face potentially ruinous monetary judgments, and consumers and neighbors, who were given the informational tools to monitor emissions and seek recovery for contamination.³⁸¹

The imposition of strict, retroactive liability has generated a great deal of controversy,³⁸² yet in terms of pollution control Superfund has been highly successful. When the statute reached its twenty-fifth anniversary in 2005, the EPA reported “1,388 hazardous waste sites have been identified nationally, and cleanup work has been completed on sixty-two percent of those sites.”³⁸³ On average, Superfund responds to over 300 newly discovered releases every year.³⁸⁴ Hundreds of former landfills and other contaminated sites have been transformed into commercial, industrial, and residential developments, recreational areas, and wildlife habitats.³⁸⁵

J. Lazarus, *Congressional Descent: The Demise of Deliberative Democracy in Environmental Law*, 94 GEO. L.J. 619, 678–79 (2006).

377 See, e.g., *supra* notes 78–82 and accompanying text. The Oil Pollution Control Act of 1990 takes a hybrid approach, which utilizes a strict liability scheme to redress oil spills along with design standards (double hulls) for large tankers to prevent or mitigate future spills. See *supra* notes 106–110 and accompanying text.

378 See Babich, *supra* note 371, at 735.

379 42 U.S.C. §§ 6901–6991i (2006).

380 42 U.S.C. §§ 11001–11050 (2006).

381 See Babich, *supra* note 371, at 735.

382 For a discussion, see Steven Ferrey, *Allocation and Uncertainty in the Age of Superfund: A Critique of the Redistribution of CERCLA Liability*, 3 N.Y.U. ENVTL. L.J. 36, 37 (1994) and Elizabeth Rogers, *Cleaning Up Superfund Law: Controversy over Liability Provisions Stalls Reauthorization Drive*, 83 ABA J. 91, 91 (Dec. 1997).

383 Molly J. Walker Wilson & Megan P. Fuchs, *Publicity, Pressure, and Environmental Legislation: The Untold Story of Availability Campaigns*, 30 Cardozo L. Rev. 2147, 2198 (2009) (citing U.S. Env'tl. Prot. Agency, Superfund, Superfund's 25th Anniversary: Capturing the Past, Charting the Future (2006)).

384 See U.S. EPA, *Beneficial Effects of the Superfund Program* 3 (2011), available at www.epa.gov/superfund/accomp/pdfs/SFBenefits-031011-Ver1.pdf.

385 *Id.* at 12.

Despite the success of past environment legislation, the bipartisan support for environmental protection and liability came to an end in 1990.³⁸⁶ Since then, there has been a “poisonous dynamic” where “both political parties have degenerated into a ‘blood feud’ in which they would rather have an environmental issue than a compromise that results in legislation to solve environmental problems.”³⁸⁷

Market failures are part of the problem, but political failures are even more to blame.³⁸⁸ Professor Amy Sinden explains how power disparities distort agency decision making and perpetuate environmental degradation:

The parties to environmental disputes are often vastly mismatched in terms of wealth and power. On one side, those who stand to benefit from environmental regulation are usually large, diffuse groups of individuals, each of whom shares a relatively small, often non-economic stake in the controversy. On the other side, those who stand to lose from regulation tend to be relatively small groups, made up primarily of corporations, each with a large economic stake in the outcome of the dispute. This mismatch produces substantial distortions in the political process and in associated government decision making.³⁸⁹

Sinden describes environmental politics as “a struggle among self-interested groups for scarce public resources,” making the passage of legislation imposing strict standards “unlikely at best.”³⁹⁰

The public also plays a role in congressional priority-setting. One might suspect that the biggest change since the 1970s and 1980s is the relative lack of public support for environmental protection.³⁹¹ If indeed the public is apathetic about the environment, perhaps Congress is fulfilling its responsibilities by doing nothing. The polls do not bear this out, however.

386 See Elliott, *supra* note 19, at 45; David J. Sousa & Christopher McGrory Klyza, *New Directions In Environmental Policy Making: An Emerging Collaborative Regime or Reinventing Interest Group Liberalism?*, 47 NAT. RESOURCES J. 377, 421 (2007) (“In the 1990s, Republican legislators had little interest in giving Clinton a legislative victory on environmental questions, and environmental advocates were terrified of opening up the environmental laws to greater flexibility in the conservative climate of the 104th and 105th congresses.”).

387 Elliott, *supra* note 19, at 24.

388 See Sinden, *supra* note 18, at 1408–09 (describing the Tragedy of the Commons and other market failures).

389 *Id.* at 1409.

390 *Id.* at 1446 (footnote omitted). Sinden suggests that protective environmental legislation gets enacted during moments of “[c]ivic republicanism . . . [when] legislative outcomes can reflect some conception of the ‘public good’ rather than a simple aggregation of private preferences resulting from ‘deals’ among self-interested groups.” *Id.* at 1447. Civic republicanism has a “clearer antagonism to a political process that is captured by powerful groups and [a marked] discomfort with the concept of private preferences as the building blocks of public policy.” *Id.* at 1449.

391 See Jeffrey M. Jones, *Worry About U.S. Water, Air Pollution at Historical Lows*, GALLUP POLITICS (Apr. 13, 2012), <http://www.gallup.com/poll/153875/Worry-Water-Air-Pollution-Historical-Lows.aspx> (reporting that Americans’ concerns about pollution dropped over 20 percentage points from the year 2000).

According to a 2012 Pew survey on regulation, 70 percent of those polled said they believed there was too much regulation, in the abstract, but when regulatory topics were broken down into five distinct categories, the vast majority said we needed more regulations on issues involving environmental protection and food safety.³⁹²

When polled shortly before Earth Day 2011, three in four Americans surveyed by Gallup said they worry a fair amount about contamination of soil and water by toxic waste, pollution of rivers, lakes, and reservoirs, pollution of drinking water, and the maintenance of the nation's supply of fresh water for household needs.³⁹³ Indeed, all four issues referring to "water" in the 2011 poll ranked in the top tier of environmental concern.³⁹⁴

When polled about climate change, however, Americans appear to be less alarmed. The lack of public concern about climate change may reflect the lack of confidence in the science of things unseen, but it is more likely a reflection of the public's anxiety about the economic downturn and unemployment.³⁹⁵ It may also be attributed, at least in part, to a failure in leadership and the elite, partisan schism over the issue. "When elites disagree, polarization occurs, and citizens rely on other indicators, such as political party or source credibility, to make up their minds."³⁹⁶ People use media coverage to gauge the positions of party leadership, and they interpret the news based on ideological affiliation. Scientific messages, in particular, are "often superseded by ideological considerations . . ."³⁹⁷

If elite, partisan polarization is the root cause of the public's relative nonchalance about climate change, bold political leadership and clear mes-

392 *Auto Bailout Now Backed, Stimulus Divisive: Mixed Views of Regulation, Support for Keystone Pipeline*, PEW RESEARCH CTR. FOR THE PEOPLE & THE PRESS (Feb. 23, 2012), <http://www.people-press.org/2012/02/23/section-2-views-of-government-regulation/>. Pew reported that these responses "have changed little from July 1995." *Id.*

393 Lydia Saad, *Water Issues Worry Americans Most, Global Warming Least*, GALLUP POLITICS (Mar. 28, 2011), <http://www.gallup.com/poll/146810/water-issues-worry-americans-global-warming-least.aspx>.

394 *Id.*

395 See generally Robert J. Brulle et al., *Shifting Public Opinion on Climate Change: An Empirical Assessment of Factors Influencing Concern Over Climate Change in the U.S., 2002–2010*, CLIMATIC CHANGE (2012) 1, available at <http://www.pages.drexel.edu/~brullerj/02-12ClimateChangeOpinion.Fulltext.pdf> (analyzing the "factors affecting U.S. public concern about the threat of climate change between January 2002 and December 2010"); Eduardo Porter, *In Energy Taxes, Tools to Help Tackle Climate Change*, N.Y. TIMES, Jan. 30, 2013, at B1, available at http://www.nytimes.com/2013/01/30/business/energy-tax-is-underused-tool-in-climate-change-fight.html?_r=0 ("[E]rratic weather across the country in the last couple of years seems to be softening Americans' skepticism about global warming. Most New Yorkers say they believe big storms like Sandy . . . were the result of a warming climate," but people still have little appetite for increased energy taxes.).

396 Brulle et al., *supra* note 395, at 17 (quoting S. McDonald, *Changing Climate, Changing Minds: Applying the Literature on Media Effects, Public Opinion, and the Issue-Attention Cycle to Increase Public Understanding of Climate Change*, 4 INT'L. J. SUSTAINABILITY COMM. 45, 52 (2009)).

397 *Id.* at 8.

saging could go a long way toward bringing public opinion around. It appears that the executive branch may be prepared to lead this charge even if Congress is not, and that could be more advantageous than one might think.³⁹⁸

IV. CONGRESSIONAL GRIDLOCK MAY NOT BE SUCH A BAD THING FOR ENVIRONMENTAL LAW

Putting our faith in Congress to adopt comprehensive environmental reforms may be misplaced. There are at least three reasons why environmentalists might worry less about congressional reform than about other priorities: the strength of the existing statutory framework; congressional capture; and judicial review.

A. *The Beauty of the Existing Statutory Framework*

Calls for a legislative overhaul are premised on the assumption that the existing statutory architecture is utterly defective, or that societal values or physical circumstances have changed so significantly that the existing objectives and approaches are incapable of serving our needs.³⁹⁹ Neither is true when it comes to federal environmental law.⁴⁰⁰ It is not that the existing environmental laws are fundamentally flawed, but that the “‘corrupting and disproportionate influence of polluters’” stymies both on-the-ground implementation of existing requirements and regulatory progress.⁴⁰¹

Yet it is hard to ignore the fact that decades of unyielding gridlock raise significant concerns both for environmental law and, more sweepingly, democracy. Separation of powers, with its checks and balances to ensure against improvident congressional action, is one thing, but congressional obduracy is quite another, particularly in the face of mounting national and global threats like climate change, sea level rises, drought, water-borne disease, and extinctions.⁴⁰²

On the other hand, even if Congress were motivated to adopt reforms, environmentalists may not be happy with them. If the ESA were to be revised

398 Juliet Eilperin, *In Inaugural Address, Obama Makes a Moral Case for Action on Climate Change*, WASH. POST (Jan. 22, 2013), http://articles.washingtonpost.com/2013-01-22/national/36485834_1_climate-change-president-obama-renewable-energy (reporting President Obama’s commitment to galvanize public support for climate change regulation).

399 See Elliott, *supra* note 19, at 37 (“[P]assing environmental legislation requires that a majority of the players abandon their first-best preferences and settle for their second- or third-best. This generally requires an actual or perceived crisis that changes the dynamic of ‘politics as usual’ by focusing public attention on the issue and temporarily forcing members of Congress to put aside their usual political motivations.”).

400 See *supra* note 13 and accompanying text.

401 Herman et al., *supra* note 12, at 10 (quoting Peter Lehner, Executive Director of NRDC, Address at N.Y.U. Envtl L.J. Symposium, *The Logjam: Are Our Environmental Laws Failing Us or Are We Failing Them?* (Mar. 28–29, 2008)). For detailed discussion of these factors and ways to portage around them, see *infra* Part VI.

402 See Ewing & Kysar, *supra* note 30, at 411–12.

by Congress today, for example, it might be rescinded altogether or altered beyond recognition, and *not* in a way that would protect species and their habitats. In response to the BP Deepwater Horizon Blowout, the House would have lifted Obama's moratorium on deepwater offshore drilling in the Gulf and cleared away any semblance of environmental review for future projects like BP's, but the Senate stood in the way. In the 112th Congress, the top priorities of the House Energy and Commerce Committee included rolling back the EPA's "regulatory choke hold," increasing domestic oil protection, and opposing renewable electricity standards, all in the name of limiting government and promoting industry.⁴⁰³ One of the proposed bills would have gutted the CWA's ability to protect streams, lakes, and wetlands from pollution from mining and other industrial activities.⁴⁰⁴

B. Capture

"Capture" describes the power relationships between government officials and the regulated industry. As Lawrence Baxter explains, capture occurs "whenever a particular sector of the industry, subject to the regulatory regime, has acquired persistent influence disproportionate to the balance of interests envisaged when the regulatory system was established."⁴⁰⁵

The typical story of capture involves rent-seeking action before regulatory agencies by the regulated entities. Regulated entities have an advantage over members of the general public when it comes to influencing agency policies. There are several reasons for this. First, regulated entities can control the flow of information, "producing information asymmetries that make it more likely agencies will adopt industry-favored policies."⁴⁰⁶ In addition, it is far easier for concentrated regulated interests to become politically organized than for individuals to do so.⁴⁰⁷ As a result of these and other phenom-

403 See *Congress: EPA Rollback, Renewable Spending Oversight Among House Energy Committee's Priorities*, 42 ENVTL. REP. 101 (2011) (internal quotation marks omitted).

404 See Clean Water Cooperative Federalism Act, H.R. 2018 (2012). For additional examples, see CLEAN WATER ACTION, *Congress Goes After the Environment*, <http://www.cleawateraction.org/page/12-key-us-house-votes-fight-protect-our-environment-112th-congress> (visited Mar. 1, 2013).

405 Lawrence G. Baxter, "Capture" in *Financial Regulation: Can We Channel It Toward the Common Good?*, 21 CORNELL J.L. & PUB. POL'Y 175, 176 (2011) (emphasis removed).

406 Shapiro, *supra* note 237, at 222. Shapiro cautions, "The public choice accounts assume regulators are self-interested, but there is considerable evidence that public officials also have other-regarding motives." *Id.* He concludes that agency capture is not "automatically produced" by public interest dynamics. *Id.* at 227.

407 MANCUR OLSON, *THE LOGIC OF COLLECTIVE ACTION* 141-45 (1965). Officials' predilection toward fulfilling their own self-interest, including employment with the regulated entity after they complete their government service, is an additional reason for agency capture. See Steven Croley, *Interest Groups and Public Choice*, in *RESEARCH HANDBOOK ON PUBLIC CHOICE AND PUBLIC LAW* ***, 39 (Daniel A. Farber & Anne Joseph O'Connell eds., 2010).

ena, regulated entities dominate the rulemaking process,⁴⁰⁸ and regulatory results tend to be skewed in favor of them, typically in ways that diminish the stringency of regulation or avoid regulation altogether.

The Mineral Mining Service (MMS) is a case in point, vividly illustrated by the BP Deepwater Horizon Oil Spill. From that case, “[w]e now know that the oil industry largely drove policy decisions in the agency. At the same time, there can be little doubt that the result did not serve the public interest, having resulted in the death of eleven workers and the worst environmental disaster in the United States.”⁴⁰⁹ As noted above, the Obama Administration engaged in a full-scale recalibration of MMS to break the industry’s hold over the agency.⁴¹⁰

There are a number of additional reforms that could make agencies more resistant to capture. Some would have to come from Congress,⁴¹¹ but others could be adopted by the executive branch. One of the most important would be to increase transparency in the regulatory process, thereby making industry domination of the process more obvious and placing the public on alert that industry is attempting to subvert the regulatory process.⁴¹² Other executive branch reforms suggested by Professor Sid Shapiro and other administrative law experts include

[P]ermitting agencies to submit their own budgets to Congress (making them less susceptible to White House political pressure on behalf of business interests); establishing qualifications for administrators (limiting the President’s ability to appoint administrators based solely on their anti-regulatory ideology); . . . and making wider use of public advocates (who represent otherwise unrepresented citizens in regulatory proceedings).⁴¹³

As it is, there is at least some evidence that EPA is less subject to capture than was MMS, even absent institutional reforms. The EPA has a much broader array of statutory responsibilities and it interacts with far more

408 Shapiro, *supra* note 237, at 236 (explaining that business interests dominate the rulemaking processes both in terms of the number business interests involved in rulemakings and in terms of the total number of comments filed); Wendy Wagner et al., *Rulemaking in the Shade: An Empirical Study of EPA’s Air Toxic Emission Standards*, 63 ADMIN. L. REV. 99, 128 (2011).

409 Shapiro, *supra* note 237, at 223.

410 See *supra* notes 241–242 and accompanying text.

411 For example, Congress could “establish[] agencies with broad jurisdictions (making them more likely to resist political pressure from any one set of interests); eliminat[e] statutory conflicts of interest (which require agencies to promote and regulate an industry); [and] limit[] preemption (allowing state regulators to fill regulatory gaps)” Shapiro, *supra* note 237, at 250. Congress could also establish a more “strong and vibrant civil service as a bulwark against capture.” *Id.* at 223; see Leshy, *supra* note 315, at 225 (“Rebuilding faith in government and in the value of public service is one of the biggest challenges before us.”).

412 See Shapiro, *supra* note 237, at 223.

413 *Id.* at 249–50 (footnotes omitted).

diverse interest groups.⁴¹⁴ Agencies that regulate multiple industries on a variety of issues tend to be less vulnerable to capture than agencies that regulate a single industry on a narrow set of issues.⁴¹⁵

Moreover, in terms of capture, Congress itself is not immune. Regulated entities can and often do use their superior political and financial influence to capture members of Congress and their staff. First and foremost, they can do so by urging Congress to adopt substantive legislation that favors their economic interests. “The United States Code is chock full of tax breaks, subsidies, and regulatory loopholes that are questionable from a public policy perspective.”⁴¹⁶

Perhaps less obvious but no less effective in achieving their de-regulatory goals, regulated entities can also persuade Congress to impose obstacles that make it more difficult to regulate.⁴¹⁷ In addition, they have sought and achieved the defunding of agencies, thereby crippling regulatory and enforcement efforts.⁴¹⁸

Congressional capture is aided and abetted by lobbyists. Around eighty percent of the lobbyists who appear before congressional members in hopes of influencing environmental outcomes represent businesses or trade associations.⁴¹⁹ In the past few decades, conservative interests have changed the public discourse by spending billions of dollars to sway public opinion; they have outspent progressive interests by orders of magnitude.⁴²⁰ The anti-government, anti-regulatory message has taken root. The rise of the Tea Party is one expression of the public’s perception that excessive government regulation reduces both individual freedoms and economic growth.⁴²¹

Conservative interests have been able to displace the policy frame that progressives used in the 1960s to obtain public support for government regulation, and replace it with one that delegitimizes government and deters support for additional regulation. In this manner, the national agenda has

414 See Mank, *supra* note 61, at 1277–78; see also John P. Dwyer, *The Pathology of Symbolic Legislation*, 17 *ECOLOGY. L.Q.* 233, 236, 309–10 (1990) (suggesting that EPA is not a captured agency because so many different interest groups monitor its actions).

415 See Jonathan R. Macey, *Organizational Design and Political Control of Administrative Agencies*, 8 *J.L. ECON. & ORG.* 93, 93–94 (1992); Bradford C. Mank, *Superfund Contractors and Agency Capture*, 2 *N.Y.U. ENVTL. L.J.* 34, 49–52 (1993) (arguing that EPA is less vulnerable to agency capture because it regulates multiple industries); Shapiro, *supra* note 237, at 250.

416 Shapiro, *supra* note 237, at 228. See Robert D. Tollison, *Public Choice and Legislation*, 74 *VA. L. REV.* 339, 361 (1988).

417 See Shapiro, *supra* note 237, at 222.

418 *Id.* at 240.

419 Scott R. Furlong, *Exploring Interest Group Participation in Executive Branch Policymaking*, in *THE INTEREST GROUP CONNECTION* 290–91 (Paul S. Herrnson et al. eds., 2d ed. 2005).

420 KEN SILVERSTEIN, *WASHINGTON ON \$10 MILLION A DAY* (2002). For a counterargument that “our government cannot be bought” by lobbyists, see Nicholas W. Allard, *Lobbying is an Honorable Profession: The Right to Petition and the Competition to Be Right*, 19 *STAN. L. & POL’Y REV.* 23, 29 (2008).

421 See Shapiro, *supra* note 237, at 245–46.

been shifted from its focus on the undesirable conduct of corporations to the undesirable conduct of the government.⁴²²

As a result, constituents are less likely to reward members who sponsor or otherwise support progressive environmental legislation with re-election. Conversely, legislators who adopt policies favored by regulated entities are more likely to be rewarded because those entities are in a better position to assist officials in achieving their own personal agendas than the myriad, diverse array of regulatory beneficiaries.⁴²³

C. *Judicial Review*

The courts serve as a counterweight to agency capture in two ways: by invalidating agency actions that are contrary to law or arbitrary and capricious, and by stimulating institutional reform when all else has failed. Judicial oversight can help to ensure that agencies act consistently with their statutory missions and the public interest.

First, to the extent that improper considerations or pressures influence the outcome of an agency's rulemaking process, judicial review can serve as a bulwark against arbitrary or biased decisions and decisions that run contrary to statutory directives.⁴²⁴ But judicial review is by no means foolproof. An empirical study by Professor Wendy Wagner found that courts encounter significant obstacles in protecting the public interest against industry capture in rulemaking processes, not the least of which is that courts oversee only a tiny fraction of agencies' rules, in large part due to the limited resources available to public interest groups for litigation.⁴²⁵

Second, judicial decisions can result in much needed institutional reform when other branches of the government fail to act, or act inadequately.⁴²⁶ It is a fair point to note that courts may not be optimally suited, as institutions, for crafting comprehensive reforms in scientific and technologically complex areas like environmental law.⁴²⁷ Yet courts have accomplished remarkable things, both in response to citizens' suits brought under environmental statutes and tort claims for environmental harms. When either type of claim is brought before them, the courts' rulings—regardless of whether they are pro-industry, pro-environment, or pro-government, can

422 *Id.* at 246 (footnote omitted).

423 *See id.* at 226.

424 *See* Thomas O. Sargentich, *The Critique of Active Judicial Review of Administrative Agencies: A Reevaluation*, 49 ADMIN. L. REV. 599, 641 (1997) ("Having to conform to the authorizing statute, requisite procedures, and reasoned elaboration requirements can temper tendencies toward arbitrariness, special interest deals, or other behaviors in tension with an agency's overt statutory mission."); *see also id.* at 634 ("[J]udicial review can help to deter the worst abuses of power . . .").

425 *See* Wendy Wagner, *Revisiting the Impact of Judicial Review on Agency Rulemakings: An Empirical Investigation*, 53 WM. & MARY L. REV. 1717, 1739 (2012).

426 *See* Abram Chayes, *The Role of the Judge in Public Law Litigation*, 89 HARV. L. REV. 1281, 1305 (1976).

427 *See* Leshy, *supra* note 315, at 219.

serve as “prods” to the other branches of government to engage in a more comprehensive way.⁴²⁸

Placing too much reliance on the courts to advance an environmental mission can be risky, however. Federal courts today—especially the Supreme Court and the D.C. Circuit—are more sympathetic to conservative, anti-regulatory arguments than progressive ones.⁴²⁹ So if the democratically elected body (Congress) fails to take corrective action when the courts gut its existing laws or when agencies misconstrue or misapply them, environmental protection and, arguably, democratic processes will suffer.⁴³⁰

V. PORTAGING STRATEGIES

In the environmental arena, non-legislative measures may address many of our concerns, and some of these could make effective “portaging” strategies around—instead of through—the congressional logjam.⁴³¹ When Congress is dysfunctional, the other branches of government tend to fill the vacuum.⁴³²

The political system is like a hydraulic system: shut off a valve here and the pressure will exert itself through other channels. The policy choices will be made, just not through our elected legislators acting through the constitutionally envisioned channels. A broken legislative process means a greater role for executive, administrative, and judicial lawmaking.⁴³³

Although comprehensive legislative reform may be the “first best” option for addressing wicked environmental problems, empowering the executive branch to engage in more progressive action presents a viable “second best” alternative.⁴³⁴ Three pathways are considered in this Part: invigorating petitions for rulemaking; placing greater reliance on executive orders; and stepping up enforcement efforts.

428 See Ewing & Kysar, *supra* note 30, at 356–58 (describing how “boundary-pushing” tort litigation fulfills a “crucial institutional role” by clarifying “baseline norms of responsibility,” revealing gaps in the common law, and forcing other branches of government to recognize social needs).

429 Leshy, *supra* note 315, at 219; see *supra* note 99 (describing the Reagan Administration’s lasting effects on the federal judiciary).

430 See *infra* notes 463–472 and accompanying text (analyzing judicial review of the denial of rulemaking petitions).

431 Elliott, *supra* note 19, at 41.

432 *Id.* at 44.

433 Bruhl, *supra* note 320, at 1052 (footnote omitted).

434 See Cole, *supra* note 20, at 129 (“It is difficult to imagine that any single social institution . . . could constitute a first-best solution for all environmental problems in this second-best world, with its wide variety of institutional and technological contexts and complexities.”); Ewing & Kysar, *supra* note 30, at 353 (describing how climate change and related “threats of unlimited harm” are “[r]apidly evolving, globally interconnected, and wickedly complex” so as to resist “familiar lawmaking forms”).

A. *Invigorate Petitions for Rulemaking*

Facilitating petitions for rulemaking would empower citizens to push public interest oriented agency action forward. This option would turn in part on heightening the agencies' appreciation for the role of rulemaking petitions and in part on clearing away the procedural impediments both to petitioning agency action and to obtaining judicial review of petition denials.

Under the APA, "[e]ach agency shall give an interested person the right to petition for the issuance, amendment, or repeal of a rule."⁴³⁵ In addition, the APA requires agencies to "conclude" matters presented to them "within a reasonable time."⁴³⁶

The majority of petitions for rulemaking are submitted by environmental interest groups or states.⁴³⁷ From 1999-2011, EPA received thirty-eight general rulemaking petitions, most of which were filed pursuant to the CWA, the Clean Air Act, or the Toxic Substance Control Act.⁴³⁸ As of September 2012, EPA had granted nineteen (50%), denied twelve (32%), and had not yet taken any public action on seven.⁴³⁹

Agencies should take note of the empirical data. Rulemaking petitions that are accompanied by credible legal and scientific analysis are often meritorious.⁴⁴⁰ Petitions have stimulated several major regulatory actions, such as the endangerment finding on greenhouse gases.⁴⁴¹

A study of rulemaking petitions by Professors Biber and Brosi found that, by collecting and sharing myriad, widely dispersed, and diffuse information with the agencies, public participation may improve the agency's per-

435 5 U.S.C. § 553(e) (2006).

436 *Id.* § 555(b); see *In re Am. Rivers & Idaho Rivers United*, 372 F.3d 413, 418 (D.C. Cir. 2004) (federal agencies must respond to petitions for rulemaking under the APA); 1 RICHARD J. PIERCE, JR., *ADMINISTRATIVE LAW TREATISE* § 6.10, at 517 (5th ed. 2010) ("At a minimum, the right to petition for rulemaking entitles a petitioning party to a response to the merits of the petition.").

437 See Michael A. Livermore & Richard L. Revesz, *Regulatory Review, Capture, and Agency Inaction*, GEO. L.J. (forthcoming 2013) 1, 57, available at <http://ssrn.com/abstract=1986928>.

438 *Id.* at 58.

439 *Id.* at 59.

440 See *id.* at 59–60. This is not to say that frivolous petitions are never filed. Just as you can sue a ham sandwich (as the old adage goes), you can petition an agency for any (or no) reason. Presumably, those that are slapped together and devoid of any support or merit can be winnowed out without a great deal of time and effort.

441 *Id.* at 59 (citing *Mass. v. EPA*, 549 U.S. 497, 527 (2007)). For an analysis of *Massachusetts v. EPA*, see *infra* notes 466–469 and accompanying text.

formance.⁴⁴² In addition, agencies that take citizen petitions seriously may see increased public acceptance of their decisions.⁴⁴³

Biber and Brosi's work analyzed data on petitions to the U.S. Fish and Wildlife (FWS) under the ESA. They demonstrated how citizen petitions resulted in the listing of species "at least as deserving of protection under the Act as species identified by the agency on its own."⁴⁴⁴ Far from causing "uninformed decisionmaking, interfering with agency priority-setting, undermining agency expertise, or leading to over-enforcement against low-value targets," rulemaking petitions and citizen suits resulted in better decisions without destroying the agency's ability to set its own agenda.⁴⁴⁵ Biber and Brosi noted that this is especially true for agencies that have a statutory mandate to rely on specified technical factors "that do not require complicated resource trade-offs."⁴⁴⁶

But what of the argument that overzealous federal agencies systematically overregulate already, even absent rulemaking petitions?⁴⁴⁷ In short, this theory does not hold much water.⁴⁴⁸ There is little evidence that today's agency officials wield their regulatory powers in an overly aggressive fashion to increase their agency's budgets and their own salary, job perks, power, and reputation.⁴⁴⁹ Agency officials sometimes—perhaps often—act out of moti-

442 See Eric Biber & Berry Brosi, *Officious Intermeddlers or Citizen Experts? Petitions and Public Production of Information in Environmental Law*, 58 UCLA L. REV. 321, 323–24 (2010). "[E]conomists, engineers, biologists, and other technical experts might welcome public participation, not just because it might increase public acceptance of final agency decisions, but also because the public might help the agency reach better decisions in the first place." *Id.* at 378.

443 *Id.* at 378.

444 *Id.* at 321. See *id.* at 377–78 ("[T]here is no evidence of any substantial difference between the ability of FWS . . . and outside groups to identify species that warrant listing under the Act.").

445 *Id.* at 378.

446 *Id.* at 379. Biber and Brosi acknowledge that the ESA is unique in that it requires the agency to consider scientific factors but *not* economic factors.

[W]e can say much less about whether petitions would work sensibly in a regulatory program where either (a) cost was a significant and legal consideration for the agency to take into account . . . ; or (b) the decisionmaking process requires trade-offs among a range of amorphous and unspecified public values . . . (such as Federal Communications Commission regulation in the "public interest").

Id.

447 See WILLIAM A. NISKANEN, JR., *BUREAUCRACY AND REPRESENTATIVE GOVERNMENT* 38 (1971); Nicholas Bagley & Richard L. Revesz, *Centralized Oversight of the Regulatory State*, 106 COLUM. L. REV. 1260, 1304 (2006).

448 See Bagley & Revesz, *supra* note 447, at 1304.

449 See Livermore & Revesz, *supra* note 437, at 16–17 ("[A]t best, the self-aggrandizement hypothesis is overstated . . ."); Arthur Pugsley, *The Myth of EPA Overregulation*, 39 ECOLOGY L.Q. 475, 475 (2012) ("[S]ince 2008, all but one successful challenge to EPA regulations resulted in a decision that the regulation *did not go far enough* relative to the directive of Congress"). Thus, EPA typically *underregulates*, so the perception of aggressive EPA over-regulation is "largely a counterfactual narrative." *Id.* at 475; see also Shapiro, *supra* note 237, at 222 (describing how public officials are motivated by many things

vations other than patronage or rent-seeking, for example, a strong commitment to their agency's mission, a desire to employ their own expertise on a particular subject, like the environment, or even to promote the long-term public interest in health and wellbeing.⁴⁵⁰

This holds true with regard to the EPA. Although the EPA has a reputation for being "inclined toward over-activity,"⁴⁵¹ it has moved slowly, or not at all, on issues ranging from toxic water pollutants to hazardous air pollutants to greenhouse gas emissions. In most cases, it has taken years for the EPA to issue environmentally protective regulations, and then often only after citizens' petitions and lawsuits were lodged against the agency.⁴⁵² EPA inaction can be at least as detrimental to achieving statutory objectives as arbitrary action.⁴⁵³

Rulemaking by the EPA, whether it is self-initiated or initiated by petition, is often slowed or stopped by the Office of Information and Regulatory Affairs (OIRA), "an obscure but powerful office within the White House's Office of Management and Budget"⁴⁵⁴ OIRA was established by Congress in the 1980 Paperwork Reduction Act.⁴⁵⁵ EPA's proposed regulations constitute a substantial portion of the rules scrutinized by OIRA,⁴⁵⁶ in part

besides self-aggrandizement). The "relationship between a larger agency budget and higher salaries or cushier working conditions" is especially weak. Livermore & Revesz, *supra* note 437, at 17 (quoting Daryl J. Levinson, *Empire-Building in Constitutional Law*, 118 HARV. L. REV. 915, 922–23 (2005)).

450 See David Dana & Susan P. Koniak, *Bargaining in the Shadow of Democracy*, 148 U. PA. L. REV. 473, 498 (1999); Shapiro, *supra* note 237, at 251.

451 Livermore & Revesz, *supra* note 437, at 48.

452 See *id.* at 49; Pugsley, *supra* note 449, at 478; Wagner et al., *supra* note 408, at 128; see also Biber & Brosi, *supra* note 442, at 323 (describing how EPA's rulemaking on greenhouse gas emissions was motivated by citizen petitions).

453 See Livermore & Revesz, *supra* note 437, at 50 ("The goals of many statutes cannot be achieved without administrative action to implement and enforce their provisions. Especially in areas where Congress has delegated broad authority to administrative agencies to promote public health and safety or to protect the environment, regulatory inaction can have potentially significant consequences" (footnotes omitted)). Livermore and Revesz point to the Deepwater Horizon blowout as a prime example of a catastrophe that could have been avoided "if agencies had exercised their existing legal authority in a more proactive fashion." *Id.* at 51 (internal quotation marks omitted).

454 CENTER FOR PROGRESSIVE REFORM (CPR), PROTECTING PUBLIC HEALTH BY THE STROKE OF A PEN 25 (2008), http://www.progressivereform.org/CPR_ExecOrders_Stroke_of_a_Pen.pdf. [hereinafter CPR]. OIRA has been conducting regulatory oversight since the beginning of the Reagan administration, but its power has grown significantly since then. See *infra* notes 489–491.

455 44 U.S.C. § 3503 (2006).

456 See OIRA, AGENCIES WITH THE MOST REGULATORY ACTIONS CURRENTLY UNDER REVIEW, <http://www.reginfo.gov/public/> (reporting that 28 of 143 actions pending before OIRA in Feb. 2013 were from the EPA) (last visited Mar. 9, 2013); OIRA, EO REVIEW COUNTS – RESULTS (1/1/12 TO 12/31/12), <http://www.reginfo.gov/public/do/eoCountSearchInit?action=init> (reporting that 53 of 424 actions reviewed by OIRA during 2012 were from EPA, which was second only to Health and Human Services with 81 actions reviewed).

because many EPA rulemakings have a large economic impact,⁴⁵⁷ and also because most of them involve high levels of public participation.⁴⁵⁸ OIRA review acts as an internal checking mechanism, causing agency ossification and “paralysis by analysis.”⁴⁵⁹

When an agency like the EPA fails to act due to OIRA obstruction or other factors, the public health and welfare suffers. One solution may be to dismantle OIRA altogether, but another is to require OIRA to review the *denial* of petitions for rulemaking. Such a requirement could “prod” agencies to move forward on serious environmental problems while ensuring that such petitions do not “overly intrude on agency agenda-setting prerogatives.”⁴⁶⁰

Courts also have an important role in reviewing an agency’s denial of rulemaking petitions. Although certain highly discretionary actions, such as prosecutorial decisions, and failures to act may be unreviewable,⁴⁶¹ reviewing courts are authorized to “compel agency action unlawfully withheld or unreasonably delayed.”⁴⁶² Judicial review is available for an agency’s denial of petition for rulemaking,⁴⁶³ although review is “extremely limited and highly deferential.”⁴⁶⁴ Because courts are loath to reshuffle an agency’s prioritization of resources and personnel, they rarely overturn the denial of a petition for rulemaking, but patently arbitrary denials will be reversed and remanded.⁴⁶⁵ One of the most notable examples of judicial reversal of such a denial is *Massachusetts v. EPA*, where the Supreme Court found that EPA

457 See Lisa Schultz Bressman & Michael P. Vandenbergh, *Inside the Administrative State: A Critical Look at the Practice of Presidential Control*, 105 MICH. L. REV. 47, 49 (2006).

458 Livermore & Revesz, *supra* note 437, at 56; see also Sally Katzen, *A Reality Check on an Empirical Study: Comments on “Inside the Administrative State”*, 105 MICH. L. REV. 1497, 1499 (2007) (describing the EPA as “an atypical agency in almost every relevant respect,” including its opportunities for proposing new regulations).

459 See Thomas O. McGarity, *A Cost-Benefit State*, 50 ADMIN. L. REV. 7, 50 (1998); Richard B. Stewart, *Administrative Law in the Twenty-First Century*, 78 N.Y.U. L. REV. 437, 447 (2003); see also Livermore & Revesz, *supra* note 437, at 20 (“Instead of being justified by fears of overzealous regulation, OIRA review is seen as helping to generate moribund agencies that fail to address important social problems in a timely fashion.”); *id.* at 21 (“Multiple layers of review . . . make rulemaking a costly, time-consuming, and risky proposition.”).

460 Livermore & Revesz, *supra* note 437, at 50; see also Ewing & Kysar, *supra* note 30, at 350 (discussing the need for “prods and pleas” from multiple actors to move regulatory agendas forward).

461 See *Norton v. S. Utah Wilderness Alliance*, 542 U.S. 55, 66–67 (2004) (holding that BLM’s failure to prevent impacts from off road vehicle use was not a reviewable “agency action”); *Heckler v. Chaney*, 470 U.S. 821, 832 (1985) (“[A]n agency’s decision not to take enforcement action should be presumed immune from judicial review”); see also Glen Staszewski, *The Federal Inaction Commission*, 59 EMORY L.J. 369, 372 (2009) (“Non-enforcement decisions and other forms of regulatory inaction remain a serious problem”).

462 5 U.S.C. § 706(1) (2006).

463 *Id.* § 555(e).

464 *Massachusetts v. EPA*, 549 U.S. 497, 527–28 (2007) (internal quotation marks omitted).

465 See *id.* at 527; Livermore & Revesz, *supra* note 437, at 54.

had not justified its refusal to regulate greenhouse gas emissions as “air pollutants” under the Clean Air Act.⁴⁶⁶ It recognized the petitioners’ “undoubted procedural right” not only to file a petition for rulemaking in the first place but also to challenge EPA’s rejection of their petition in court.⁴⁶⁷ It also recognized that, unlike non-enforcement decisions, “agency refusals to initiate rulemaking ‘are less frequent, more apt to involve legal as opposed to factual analysis, and subject to special formalities, including a public explanation.’”⁴⁶⁸ Citing the voluminous evidence of the adverse effects of greenhouse gases, and the statutory directive to list air pollutants that endanger health or welfare, the Court held that EPA’s denial of the petition was arbitrary, capricious, and contrary to law.⁴⁶⁹

Few post-*Massachusetts* decisions have followed suit,⁴⁷⁰ and most courts continue to scrutinize denials of petitions lightly or not at all. Recent circuit court cases dismissing citizens’ petitions include one upholding the Nuclear Regulatory Commission’s determination that risks of terrorism posed by keeping nuclear fuel on-site in pools was low and did not warrant a change in risk level requested by states,⁴⁷¹ and another upholding EPA’s denial of a petition to regulate light pollution under the Clean Air Act.⁴⁷²

This brings us back to the proposal for OIRA to review denials of rulemaking petitions.⁴⁷³ Even if the courts fail to engage in meaningful review, OIRA can perform an important role in prodding agency action by scrutinizing socio-economic and environmental impacts of an agency’s refusal to grant meritorious petitions. One way to achieve OIRA review of

466 *Massachusetts*, 549 U.S. at 534 (citing 42 U.S.C. § 7607(d)(9)(A) (2006)).

467 *Id.* at 527.

468 *Id.* (citing *Am. Horse Prot. Ass’n. v. Lyng*, 812 F.2d 1, 4 (D.C. Cir.1987)).

469 *Id.* at 534.

470 For one of the rare post-*Massachusetts* cases reviewing and reversing the denial of a petition for rulemaking, see *Natural Res. Def. Council v. FDA*, 872 F. Supp. 2d 318, 342 (S.D.N.Y. 2012) (remanding the Food and Drug Administration’s denial of petitions seeking withdrawal of approval for uses of certain antibiotics in food-producing animals).

471 *New York v. Nuclear Regulatory Comm’n*, 589 F.3d 551, 555 (2d Cir. 2009).

472 See *Wagner v. EPA*, No. 11-1261, 2011 WL 6934553, at *1 (D.C. Cir. Dec. 27, 2011) (“Act’s definition of ‘air pollutant’ is ambiguous as to whether it includes anthropogenic light, and petitioner has not demonstrated that [EPA’s] interpretation of the statute not to include anthropogenic light was unreasonable” (citation omitted)); see also *Conservancy of Sw. Fla. v. U.S. Fish & Wildlife Serv.*, 677 F.3d 1073, 1085 (11th Cir. 2012) (finding that the APA did not authorize review of the denial of petitions to designate critical habitat for species listed before the 1978 ESA amendments because such designations were committed to agency discretion by law); cf. *Colo. River Cutthroat Trout v. Salazar*, Civ. Action No. 09-2233 (PLF), 2012 WL 4890100, at *11 (D.D.C. Oct. 16, 2012) (affirming FWS’s denial of a petition to list a trout species under the ESA because FWS had adequately considered the explicit statutory factors in deciding not to list the species and FWS was not required to consider global warming, particularly where the record was ambivalent as to global warming’s effects on the species and where there was an absence of comments to FWS regarding global warming).

473 See *supra* note 460 and accompanying text.

agency inaction would be to issue an executive order authorizing OIRA to examine petitions for rulemakings filed with, and rejected by, agencies.⁴⁷⁴

B. *Make More Effective Use of Executive Orders*

Other executive branch portaging strategies include presidential executive orders, such as the one mentioned above and described in more detail below, authorizing OIRA to review denials of rulemaking petitions. By directing federal agencies to work on specified priorities, executive orders have a profound influence on how the government executes its policy initiatives.⁴⁷⁵

Presidents have made extensive use of executive orders since 1789.⁴⁷⁶ The President is empowered to issue orders to federal agencies as necessary for the “faithful execution of laws passed by Congress.”⁴⁷⁷ Such orders typically compel “officers of the executive branch . . . to take an action, stop a certain type of activity, alter policy, change management practices, or accept a delegation of authority under which they will henceforth be responsible for the implementation of law.”⁴⁷⁸

Executive orders are equivalent to laws⁴⁷⁹ and are entitled to a “strong presumption” of validity.⁴⁸⁰ So long as the orders are based on a constitu-

474 See Livermore & Revesz, *supra* note 437, at 3.

475 CPR, *supra* note 454, at 1.

476 See John C. Duncan, Jr., *A Critical Consideration Of Executive Orders: Glimmerings of Autopoiesis in the Executive Role*, 35 VT. L. REV. 333, 338 (2010). Controversial examples include President Jefferson’s Louisiana Territory purchase, President Lincoln’s Emancipation Proclamation, President Franklin Roosevelt’s internment of Japanese-American citizens, and President Lyndon Johnson’s insistence on affirmative action clauses in government contracts. See *The Impact of Executive Orders on the Legislative Process: Executive Lawmaking? Before the H. Committee on Rules*, 106th Cong. 17, 29 (1999) (prepared statements of Neil Kinkopf, Office of Legal Counsel, and Robert Bedell, Administrator, Office of Federal Procurement Policy, Office of Management and Budget). For other perspectives, see KENNETH R. MAYER, WITH THE STROKE OF A PEN 34 (2001); Tara L. Branum, *President or King? The Use and Abuse of Executive Orders in Modern-Day America*, 28 J. LEGIS. 1 (2002); Todd F. Gaziano, *The Use and Abuse of Executive Orders and Other Presidential Directives*, 5 TEX. REV. L. & POL. 267 (2001); John A. Sterling, *Above the Law: Evolution of Executive Orders (Part One)*, 31 UWLA L. REV. 99 (2000).

477 *Id.* at 364; see U.S. CONST. art. II, § 3 (providing powers and responsibilities to “take Care that the Laws be faithfully executed”).

478 PHILLIP J. COOPER, BY ORDER OF THE PRESIDENT 16 (2002).

479 *Jenkins v. Collard*, 145 U.S. 546, 560–61 (1892) (holding that presidential proclamations have “the force of public law”).

480 See *Franklin v. Massachusetts*, 505 U.S. 788, 827 (1992) (Scalia, J., concurring) (expressing doubts that judicial review of the President’s actions is permissible; that the issuance of “a declaratory judgment against the President” and compelling him “personally to defend his executive actions before a court” “is incompatible with his constitutional position”); *Dames & Moore v. Regan*, 453 U.S. 654, 674 (1981) (stating that presidential orders are “supported by the strongest of presumptions and the widest latitude of judicial interpretation, and the burden of persuasion would rest heavily upon any who might attack it” (quoting *Youngstown*, 343 U.S. at 637 (Jackson, J., concurring))); see also Duncan, *supra*

tional or statutory grant of power to the President, the Supreme Court has upheld them.⁴⁸¹ In over 200 years, the courts have overturned only two executive orders.⁴⁸² These two judicial opinions demonstrate that “the President has no authority to act in any way that supplants the will of Congress, unless his actions draw from a power specifically delegated to him by the Constitution.”⁴⁸³ However, the mere fact that Congress considered but failed to adopt a position subsequently taken up by an executive order does not justify invalidating the order.⁴⁸⁴

It appears that President Obama may be willing to utilize his Executive Order power broadly in his second term as a counterweight to congressional inaction, at least with respect to climate change. As the *New York Times* reported:

President Obama made addressing climate change the most prominent policy vow of his second Inaugural Address, setting in motion what Democrats say will be a deliberately paced but aggressive campaign built around the use of his executive powers to sidestep Congressional opposition. . . . Despite the renewed attention to climate change following Hurricane Sandy and record-high temperatures in the continental United States last year, there is little sign that the politics of the issue [in Congress] will get any easier for Mr. Obama.⁴⁸⁵

The Administration acknowledges that executive orders can only go so far.⁴⁸⁶ Regulatory action by EPA to clamp down on emissions from

note 476, at 408 (finding “a strong judicial bias in favor of granting the President ample latitude in carrying out the executive function” through executive orders).

481 Duncan, *supra* note 476, at 364–65 (citing *Jenkins v. Collard*, 145 U.S. 546 (1892)).

482 See *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 588–89 (1952) (invalidating President Truman’s order directing the Secretary of Commerce to take possession the nation’s steel mills as beyond any authorization given by Congress or the Constitution); *Chamber of Commerce v. Reich*, 74 F.3d 1322, 1339 (D.C. Cir. 1996) (finding that an Executive Order barring federal contracts with employers who hire replacements during lawful strikes was preempted by the National Labor Relations Act).

483 Duncan, *supra* note 476, at 410 (citing *Youngstown* and *Reich*). Orders that violate civil rights may be vulnerable to attack as well. E.O. 12,333, which has been used to kill suspected terrorists, appears to be one such order. See Scott Shane, *Debating a Court to Vet Drone Strikes*, *N.Y. TIMES*, Feb. 9, 2013, at A1 (describing complaints about the secret use of counterterrorist strikes); Pete Yost, *Memo Spells Out Drone Protocols*, *CALGARY HERALD*, Feb. 6, 2013, at A9, available at <http://www.pressdisplay.com/pressdisplay/viewer.aspx> (reporting that an unclassified Justice Department memo revealed more lenient rules than previously thought for the use of drones to kill Americans suspected of terrorism).

484 See Duncan, *supra* note 476, at 409.

485 Richard W. Stevenson & John M. Broder, *Obama Offers a Liberal Vision in his Inaugural Address: ‘We Must Act’: Speech Gives Climate Goals Center Stage*, *N.Y. TIMES*, Jan. 22, 2013, at A1, available at <http://www.nytimes.com/2013/01/22/us/politics/climate-change-prominent-in-obamas-inaugural-address.html>. Executive orders to address climate change might be wielded in conjunction with a campaign to build support and stymie political opposition, and with regulatory action by the EPA. The combined “regulatory push will be particularly important . . . with Republicans now in control of the House.” *Id.*

486 See *Youngstown*, 343 U.S. at 588 (concluding that the President’s power to make laws is limited by separation of powers, and rejecting the notion that presidents possess any

existing coal fired power plants will remain the centerpiece of a coordinated strategy to reduce greenhouse gases.⁴⁸⁷

As noted in the previous section of this Part, an executive order to require OIRA review of the agencies' denial of rulemaking petitions would go a long way toward improving the regulatory process. A series of executive orders has directed OIRA to apply a cost-benefit analysis to all major federal agency rules (rules that have a large economic impact) to assure that the monetized net benefits of the rule exceed the monetized costs of implementation and compliance.⁴⁸⁸ While conducting its reviews, OIRA wields the authority to change agency rules or to return them to the agency if it believes that they fail to achieve economic efficiency.⁴⁸⁹ Over the years, OIRA's implementation of these directives has become a "choke point" for regulations.⁴⁹⁰ EPA has been especially vulnerable to stonewalling by OIRA because EPA's rules often have immediate economic costs, as regulated entities must upgrade their pollution control technologies or processes, but less immediate and less easily monetized, long-term benefits to health and the environment.⁴⁹¹ This is the kind of broad policy discretion that Congress

inherent legislative power); *see also* *Utah Ass'n of Cntys. v. Bush*, 316 F. Supp. 2d 1172, 1186 (D. Utah 2004) (noting that "although this Court is without jurisdiction to second-guess" the President's reasons, it "may ensure that a president was in fact exercising the authority conferred by the act at issue," but upholding the executive order in question, which designated a national monument pursuant to the Antiquities Act of 1906), *aff'd on other grounds*, 455 F.3d 1094 (10th Cir. 2006).

487 *Stevenson & Broder*, *supra* note 485. According to the *New York Times*, Democrats are concerned that Republicans may employ "a little-used procedure to block new regulations with a simple majority vote." *Id.* The Congressional Review Act, 5 U.S.C. § 801(a)(1)(A) (2006), directs agencies to submit proposed rules to Congress before the rules may take effect. Congress can prohibit the rule from taking effect by adopting a joint resolution of disapproval within sixty days of submission, which the President may veto. *See* 5 U.S.C. § 802 (2006). Disapproval has only happened once, when Congress overturned the Clinton Administration's ergonomic standards. U.S. GOV'T ACCOUNTABILITY OFFICE, *Congressional Review Act (CRA) FAQs*, http://www.gao.gov/legal/congressact/cra_faq.html#9. Threats of disapproval crop up on occasion, though, including Senator Lisa Murkowski's threatened resolution to disapprove of EPA's finding that greenhouse gases endanger health and the environment. Geof Koss, *2010 Key Senate Vote: Greenhouse Gas Regulation*, CQ WEEKLY, Jan. 3, 2011, at 51.

488 *See* OMB, *Mission and Structure of the Office of Management and Budget*, http://www.whitehouse.gov/omb/organization_mission/.

489 CPR, *supra* note 454, at 25–26.

490 *Id.* at 25.

491 Bagley & Revesz, *supra* note 447, at 1269–70; Daniel A. Farber, *Rethinking the Role Of Cost-Benefit Analysis*, 76 U. CHI. L. REV. 1355, 1360 (2009). In 2003, fourteen EPA rules were "significantly changed" by the OIRA process. Six were changed to delay or to completely eliminate regulations, four were revised in favor of alternatives that imposed fewer costs on regulated entities, while three were sent back for revisions to the cost-benefit calculation. Bagley & Revesz *supra* note 447, at 1269–70 (citing U.S. GEN. ACCOUNTING OFFICE, GAO-03-929, A RULEMAKING: OMB'S ROLE IN REVIEWS OF AGENCIES' DRAFT RULES AND THE TRANSPARENCY OF THOSE REVIEWS 70 (2003), *available at* <http://www.gao.gov/new.items/d03929.pdf>). "None of these rules were made more stringent (i.e., more costly

delegated to federal agencies—not to OIRA—through enactments like the CWA.⁴⁹² An executive order could improve OIRA’s functioning in a variety of ways, not the least of which would be to compel OIRA to give greater weight to long-term human health and environmental benefits, and also to review the denial of rulemaking petitions that relate to improving long-term human health and environmental benefits.⁴⁹³

C. *Engage in Ramped-up Enforcement Efforts*

One of the key distinctions between environmental laws and regulations that actually work to protect the environment and those that do not is the extent to which they are enforced.⁴⁹⁴ In recent years, environmental enforcement efforts have dropped precipitously, so much so that some polluters consider non-enforcement a “vested right.”⁴⁹⁵ Enforcement declines can be attributed to diminished budgets, bad PR, and adverse Supreme Court precedent.

The reduction of the federal enforcement budget has diminished EPA oversight of environmental programs and has allowed violations to go unpunished.⁴⁹⁶ According to *Inside EPA*, “[s]weeping cuts to EPA’s fiscal year 2012 budget could have a dramatic adverse impact on the agency’s enforcement office.”⁴⁹⁷ Not only has the federal budget for EPA enforcement been dimin-

for industry) in an effort to capture greater net benefits.” *Id.* at 1270 (emphasis in original); see David M. Driesen, *Is Cost-Benefit Analysis Neutral?*, 77 U. COLO. L. REV. 335, 380 (2006) (“[OIRA] never . . . encourag[ed] more stringent regulation than the agency would adopt on its own, even when benefits far outweighed costs”); Lisa Heinzerling, *Statutory Interpretation in the Era of OIRA*, 33 FORDHAM URB. L.J. 1097, 1100 (2006) (finding that OIRA review has a “unidirectional nature” in favor of deregulation).

492 See Heinzerling, *supra* note 491, at 1100.

493 For additional recommendations, see CPR *supra* note 454, at 26–27.

494 See Victor B. Flatt & Paul M. Collins, Jr., *Environmental Enforcement in Dire Straits: There is No Protection for Nothing and No Data for Free*, 85 NOTRE DAME L. REV. 55, 57 (2009).

495 Peter Lehner, *The Logjam: Are Our Environmental Laws Failing Us or Are We Failing Them?*, 17 N.Y.U. ENVTL. L.J. 194, 197 (2008).

496 See Margaret Kriz, *Vanishing Act*, NAT’L JOURNAL, Apr. 12, 2008, at 10, available at http://www.nationaljournal.com/magazine/vanishing-act-20080412?mrefid=site_search; Will Reisinger et al., *Environmental Enforcement and the Limits of Cooperative Federalism: Will Courts Allow Citizen Suits to Pick Up the Slack?*, 20 DUKE ENVTL. L. & POL’Y F. 1, 3 (2010).

497 *FY12 Budget Cuts Might Hurt Enforcement More Than Other EPA Programs*, INSIDE EPA.COM, Feb. 11, 2011.

ished,⁴⁹⁸ federal funding for state enforcement of federal environmental laws has been slashed as well.⁴⁹⁹

The reduction in enforcement is due not only to sharply reduced budgets, but also to the media blitz about “unfair,” overly aggressive enforcement against poor, downtrodden landowners, developers, and job-creators.⁵⁰⁰ This type of rhetoric creates a powerful disincentive for enforcement agencies and their politically sensitive bosses.⁵⁰¹

In addition, two recent Supreme Court opinions are inhibiting the EPA’s ability to enforce the CWA. Its 2006 decision in *Rapanos v. United States*⁵⁰² has “resulted in a dramatic decline in the number of Clean Water Act inspections, investigations, and enforcement actions.”⁵⁰³ Because many waters, especially waters in the arid western United States, are not continuously flowing, the agencies are required to go through a labor intensive process of establishing a “significant nexus” to traditional navigable waters, based on Justice Kennedy’s concurring opinion and subsequent guidance issued by the agencies.⁵⁰⁴ Justice Stevens’s dissent in *Rapanos* predicted just this very result: “Justice Kennedy’s approach will have the effect of creating additional

498 In Fiscal Year 2011, the EPA received around \$8.8 billion, which is more than the \$7.5 billion received for 2008 (the final year of the Bush administration), but about \$1.6 below what it received in Fiscal Year 2010. *Facing FY11 Budget Cuts, EPA Moves to Boost Key Air, Water Programs*, INSIDE EPA.COM, July 22, 2011 [hereinafter *Facing FY11 Budget Cuts*]; see EPA, FY 2012 EPA BUDGET IN BRIEF, 1 chart, available at, nepis.epa.gov/Exec/ZyPURL.cgi?Dockey=P100A5RE.txt. “[T]he reduced funding levels led EPA to make serious cuts from a slew of programs.” *Facing FY11 Budget Cuts, supra*. The President requested only \$9 billion for the EPA in 2012, likely because House Republicans vowed to trim the FY12 budget to at least FY08 levels (\$7.5 billion). FY 2012 EPA BUDGET IN BRIEF, *supra*, at 11 chart.

499 Will Reisinger et al., *supra* note 496, at 18 (“In 1986, federal EPA funds accounted for fifty-eight percent of state budgets for the enforcement of federal laws. By 2008, federal appropriations had been reduced to twenty-three percent of state environmental budgets.” (footnotes omitted)).

500 See, e.g., Kathleen Hartnett White, *The EPA’s Overreach Problem*, PRAIRIEPUNDIT (May 2, 2012), <http://prairiepundit.blogspot.com/2012/05/epas-overreach-problem.html> (complaining that “EPA has employed intimidation, threats and punitive action” with the intent of “crucifying” violators in a “pattern of disturbing overreach more resembling that of totalitarian regimes than our representative democracy” (internal quotation marks omitted)).

501 See Kriz, *supra* note 496, at 18, 20–21.

502 *Rapanos* is analyzed at *supra* notes 142–149 and accompanying text.

503 Ben Webster, *Memorandum Re: Decline of Clean Water Act Enforcement Program* in ALI-ABA Course of Study: CLEAN WATER ACT: LAW AND REGULATION, April 2009, at 1. This memo, which was prepared by Majority Staff, Committee on Oversight and Government Reform, and Majority Staff, Committee on Transportation and Infrastructure, summarizes the results of a joint investigation by the Committees into allegations that the CWA enforcement program had deteriorated. It is based on a review of more than 20,000 pages of documents provided to the Committees by the EPA and the Corps of Engineers. *Id.* at 1.

504 EPA & ARMY CORPS OF ENGINEERS, CLEAN WATER ACT JURISDICTION FOLLOWING THE U.S. SUPREME COURT’S DECISION in *Rapanos v. United States* & *Carabell v. United States* (Dec.

work for all concerned parties . . . which will inevitably increase the time and resources spent processing permit applications.”⁵⁰⁵ These increased requirements mean a corresponding decrease in enforcement actions.

Documents produced to the Committees [on Oversight and Government Reform and on Transportation and Infrastructure] indicate that there has been a drastic deterioration of EPA’s Clean Water Act enforcement program [since *Rapanos*]. Hundreds of violations have not been pursued with enforcement actions and dozens of existing enforcement cases . . . have had civil penalties reduced, and have experienced significant delays. Many violations are not being detected because of the reduction in the number of investigations initiated.⁵⁰⁶

The 2012 *Sackett* opinion is likely to have an equally chilling effect.⁵⁰⁷ The Court’s decision that recipients of administrative compliance orders can immediately challenge those orders in court “places a heavier burden on EPA to gather information in support of its jurisdiction prior to issuing compliance orders.”⁵⁰⁸ As a practical matter, the *Sackett* ruling is expected to reduce EPA’s reliance on such orders because the agency is now “forced to expend additional resources to substantiate its authority to issue each compliance order in the first instance.”⁵⁰⁹ As a result, we can expect to see significant changes in the way that the CWA and possibly other federal environmental laws will be enforced.⁵¹⁰

Admittedly, obtaining accurate, objective measurements of enforcement successes and failures is not easy.⁵¹¹ Under the “cooperative federalism”

2, 2008), available at http://water.epa.gov/lawsregs/guidance/wetlands/upload/2008_12_3_wetlands_CWA_Jurisdiction_Following_Rapanos120208.pdf.

505 *Rapanos v. United States*, 547 U.S. 715, 809 (2006) (Stevens, J., dissenting).

506 Webster, *supra* note 503, at 2. An internal EPA memo stated that the *Rapanos* decision and the agency guidance had “negatively affected approximately 500 enforcement cases,” and that “[d]ata collected from the regions shows that a significant portion of the CWA enforcement docket has been adversely affected.” Memorandum from Granta Y. Nakayama, EPA’s Assistant Administrator for Enforcement and Compliance Assurance, to Benjamin Grumbles, EPA’s Assistant Administrator for Water, U.S. ENVTL. PROT. AGENCY (Mar. 4, 2008).

507 For an analysis of the *Sackett* decision, see *supra* notes 169–175 and accompanying text.

508 Julia E. Stein et al., *Preenforcement Judicial Review After Sackett: Implications Beyond the Clean Water Act*, 42 ENV. L. REP. NEWS & ANALYSIS 10818, 10823 (2012).

509 *Id.*

510 See Heather L. Demirjian et al., *Supreme Court Issues Stunning Rebuke to EPA Enforcement Practice*, BLANK ROME, (Mar. 2012), <http://www.blankrome.com/index.cfm?contentID=37&itemID=2761>.

511 For an assessment of EPA’s enforcement priorities and public health implications from 1999–2009, see Robin Kundis Craig, *The Public Health Aspects of Environmental Enforcement*, 4 PITT. J. ENVTL. PUB. HEALTH L. 1 (2010). Craig notes that “EPA’s enforcement rhetoric, moreover, is often at its strongest, most specific and most colorful when the EPA acts to protect the public health, suggesting that the EPA recognizes the public relations value of the public health aspects of environmental enforcement,” but that most of this rhetoric arises in the Clean Air Act context rather than the CWA context. *Id.* at 10.

model of most federal environmental statutes, enforcement “data can derive from a multitude of federal, state, and local sources.”⁵¹² According to John Cruden, former Deputy Assistant Attorney General of the U.S. Department of Justice’s Environment and Natural Resources Division, the greatest number of enforcement actions are undertaken by state and local governments, so the data on declining federal actions fails to convey a complete picture.⁵¹³ Moreover, the mere number of environmental enforcement actions taken, regardless of which governmental unit takes action, does not necessarily reflect the impact of an action.⁵¹⁴ One large, multi-facility case can be far more important than dozens of smaller, routine enforcement actions.⁵¹⁵

Simply adding up the amount of penalties assessed against violators does not tell the entire story, either. The non-penalty aspects of an enforcement order can have significant effects, such as cleaning up spills, restoring damaged natural resources, and investing in technologically sophisticated pollution abatement equipment.⁵¹⁶

That said, under President Obama’s EPA Administrator Lisa Jackson, EPA’s enforcement actions compelled approximately \$152,000,000 in civil penalties (administrative and judicial) in just one year—2011—which is the highest amount of monetary penalties in last five years.⁵¹⁷ Most of the increase comes from Clean Air Act enforcement actions, while CWA penalties, particularly administrative penalties, have been relatively flat.⁵¹⁸ In terms of criminal enforcement, the number of investigations initiated rose slightly between 2007 and 2011, but the number of defendants charged—250—remained roughly the same.⁵¹⁹ By comparison, there were 122 *more*

512 John C. Cruden, *Comment on Environmental Enforcement in Dire Straits*, 41 ENV’T. L. REP. NEWS & ANALYSIS 10686, 10686 (2011); see *EPA Enforcement Priorities and Practices Before the House Energy and Commerce Committee: Subcommittee on Energy and Power*, 112th Cong. (2012) (testimony of Professor Joel A. Mintz), available at <http://energycommerce.house.gov/sites/republicans.energycommerce.house.gov/files/Hearings/EP/20120606/HHRG-112-IF03-WState-MintzJ-20120606.pdf> (explaining the historical context of President Obama’s EPA enforcement).

513 See Cruden, *supra* note 512, at 10686.

514 See Flatt & Collins, *supra* note 494, at 57–58.

515 See Cruden, *supra* note 512, at 10686.

516 *Id.* at 10687. Non-penalty aspects of enforcement efforts include “injunctive relief to repair or mitigate environmental harm, penalties, and/or supplemental environmental projects.” *Id.* For examples, see U.S. EPA, FISCAL YEAR 2011 EPA ENFORCEMENT & COMPLIANCE ANNUAL RESULTS (Dec. 8, 2011), available at <http://www.epa.gov/compliance/resources/reports/endofyear/eoy2011/resultscharts-fy2011.pdf> [hereinafter COMPLIANCE 2011]. For an overview of the 2011 results, see U.S. EPA, *Compliance and Enforcement Annual Results 2011 Fiscal Year* (last updated Dec. 13, 2011), <http://www.epa.gov/compliance/resources/reports/endofyear/eoy2011/index.html>.

517 COMPLIANCE 2011, *supra* note 516, at 8.

518 *Id.*

519 *Id.* at 13. Stephen L. Johnson was the EPA Administrator under President George W. Bush from 2005-09. Christine Todd Whitman preceded Johnson, serving from 2001-2003. *Chronology of EPA Administrators*, EPA, (last updated Feb. 15, 2013), <http://www.epa.gov/aboutepa/history/admin/agency/index.html>.

defendants charged with federal environmental crimes in 2001 (for a total of 372 that year), and the civil penalties assessed in 2001, adjusted for inflation, totaled \$162,000,000.⁵²⁰ By both measures, enforcement results have gone down in the past decade. These statistics are even more startling if we go back just two more years. In 1999, with Carol Browner as the EPA Administrator under President Clinton, EPA enforcement efforts resulted in \$166,700,000 in civil penalties, 60 percent higher than 1998.⁵²¹ This is around \$227,000,000 in inflation adjusted dollars—almost 50 percent more than the total amount of EPA’s civil penalties collected in 2011.⁵²² As the Executive Director of the Natural Resources Defense Council observed, current enforcement budgets, policies, and practices make it “almost economically irrational to comply with the law.”⁵²³

The keystone environmental laws of the 1970s, including the CWA, prioritize public health and environmental integrity over private gains from pollution. Improving our implementation paradigm to ensure that health and the environment are protected through effective enforcement initiatives is not only good public policy, but it is precisely what Congress intended.⁵²⁴ Executive orders and agency regulations and guidance that prioritize environmental enforcement over business as usual can create greater financial incentives for compliance. More strategic enforcement actions and higher penalties go hand in hand with the other proposed executive branch initiatives to portage around the environmental logjam in Congress.⁵²⁵

CONCLUSION

Congress has been completely dysfunctional when it comes to the nation’s most pressing environmental issues, such as climate change, energy policy, enforcement authority, and the protection of critically important but non-navigable waterways. It has failed to pass substantive remedial legislation

520 U.S. EPA, FY 2001 NUMBERS AT A GLANCE (Feb. 18, 2011), *available at* <http://www.epa.gov/compliance/resources/reports/endofyear/eoy2001.pdf#page=3>. Civil penalties from EPA enforcement actions in 2001 totaled about \$125,000,000. *Id.* With inflation, \$125,000,000 in 2001 would be worth \$158,667,423.32 in 2011. *Inflation Calculator* (2001–2011), <http://www.westegg.com/inflation> (last visited Mar. 9, 2013).

521 U.S. EPA, COMPLIANCE AND ENFORCEMENT ANNUAL RESULTS—FY1999 (updated Feb. 18, 2011), <http://www.epa.gov/compliance/resources/reports/endofyear/eoy1999.pdf>.

522 *Inflation Calculator* (1999–2011), <http://www.westegg.com/inflation> (last visited Mar. 9, 2013).

523 Lehner, *supra* note 495, at 198. “Say a company is polluting—and polluting a lot. It’s getting free, or below cost, waste disposal by dumping it for free in our lungs, streams, or soil. Chances are, it won’t get caught and if it does, the penalty is unlikely to be as much as it has saved despite penalty policies that demand recouping the benefit.” *Id.*

524 *See id.* at 199–200. Congress included multiple overlapping enforcement systems to ensure full protection in the CWA. *See, e.g.*, 33 U.S.C. §§ 1319, 1321, 1365 (2006) (codifying said enforcement system mechanisms).

525 A larger enforcement budget is critical, too. Although agencies may be able to shift some of their funding from other programs to enforcement, for the most part, enforcement monies must come from Congress.

despite a surprising amount of activity in the Supreme Court and despite catastrophic events like Hurricanes Sandy and Katrina and the Deepwater Horizon blowout.

Although comprehensive legislative reform may be the “first best” strategy for addressing complex, transboundary environmental problems like climate change, a coordinated package of progressive executive branch actions can serve as a viable “second best” option. Just as there is rarely a single pathway to portage around a logjam in a river, there is no single way to work around Congress in an effort to solve the nation’s environmental problems. This Article has singled out three possible avenues to move the environmental ball forward despite congressional disinterest (or even hostility): invigorating citizens’ petitions for rulemaking; placing greater reliance on executive orders that prioritize public health and environmental protection; and stepping up environmental enforcement efforts. Together, these strategies would help meet the environmental goals of the existing statutory framework—goals that remain relevant and even imperative today—and would enable policymakers in the executive branch and public interest advocates to do more than just tread water while they await comprehensive congressional reforms.